Report
3533-RS (3797)

# Isgar Lands
# Avalon South Stormwater Facility Expansion

Prepared for Minto Communities Inc.
by IBI Group Ottawa

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# 1 Introduction

## 1.1 Study Objectives

The Isgar Lands (subject site) are located within the East Urban Community (EUC) on the southern boundary of the Avalon South (Neighbourhood 4) Development and are adjacent to the east and west sides of the existing Avalon South Stormwater Facility. The location of the Isgar Lands in relation to the Avalon West and South Development areas is illustrated within **Figure 1**.

IBI Group has been retained by Minto Communities Inc. (Minto) to evaluate, the impact of conveying stormwater runoff (minor and major flow) from the Isgar Lands into the existing Avalon South Stormwater Management (SWM) Facility on a conceptual level in support of their Draft Plan application.

## 1.2 Synopsis of Previous Studies

Avalon South (Neighbourhood 4) in the East Urban Community has been included as an approved development area in Master Drainage Studies dating back to 1992. The *Supplementary Report to the Master Drainage Plan and Environmental Study Report*[1] (CCL, May 2001, henceforth referred to as the 2001 MDP[1]) outlined the conceptual development areas of Neighbourhood 4 and 5 (referred to as N4 and N5, respectively).

The Avalon South SWM Facility was constructed in 2007 and designed to provide water quality and quantity control for 160.6 ha of development area. The SWM facility design was presented in the report entitled *Design Brief Avalon South (Neighbourhood 4) Stormwater Facility*[2] (IBI Group, April 2006). This report is henceforth referred to as the 2006 Design Brief[2].

In April 2011, IBI Group submitted the report entitled *Avalon South (Neighbourhood 4) Stormwater Facility – Mattamy Homes – Summerside*[3] (henceforth referred to as the April 2011 Report[3]) in support of the Ontario Ministry of Environment (MOE) amendment to the Certificate of Approval (CofA, currently referred to as an ECA) for the facility. The CofA amendment was required to provide an expanded inlet into the eastern sediment forebay to accommodate major flow from approximately 26 ha of development area and some rural runoff. The amended CofA (8733-8J9RH6, July 28, 2011) is presented in **Appendix A**.

In October of 2013, IBI Group prepared the report entitled *Avalon West (Neighbourhood 5) Stormwater Management Facility Design*[4] (IBI Group, October 2013, henceforth referred to as the October 2013 Avalon West Report[4]). That study outlined the design of the Avalon West SWM facility in support of regulatory approval for the construction of the facility. The Avalon West SWM facility was constructed in 2016.

Finally, in December of 2017, IBI Group completed the *Mer Bleue Urban Expansion Area Master Servicing Study*[5] (IBI Group, December 2017, henceforth referred to as the Mer Bleue MSS[5]). That report outlined the master servicing strategy for the proposed Mer Bleue Urban Expansion Area located west of 10$^{th}$ Line Rd., and south of Avalon West. As part of that study, the hydrological modeling parameters for the previously approved model of the Avalon South and Avalon West development areas were updated. Specifically, the impervious values for Neighbourhoods 4 and 5 were reviewed and updated based on available aerial photography for the area (circa 2014). Also, the subwaterwhed boundaries within the McKinnons Creek overall model were slightly adjusted to correspond to the City of Ottawa watershed boundaries. The updated modeling utilized as part of the analysis for the Mer Bleue MSS has been carried forward and updated as required for the present study.

## 1.3 Stormwater Management Servicing

The Isgar Lands are part of the OPA 76 Expansion Lands brought into the City of Ottawa urban boundary in 2012. The total area of the subject site is 28 ha. These lands were not included as urban development drainage area contributing to the Avalon South SWM Facility. Therefore, the Avalon South SWM facility will be expanded to accommodate the development of the Isgar Lands. Currently, a portion of the subject lands, under rural conditions, are conveyed to the SWM facility as part of the expanded inlet into the eastern sediment forebay. **Appendix B** presents the drainage plan from the April 2011 Report[3] which shows the portion of rural area which currently contributing flow into the Avalon South SWM facility.

The April 2011 Report[3] was completed in order to amend the CofA for the Avalon South SWM facility to allow conveyance of major flow from the Summerside Development to the eastern sediment forebay. The conveyance of these major flows is currently accommodated by rural ditches east of the SWM facility. With the development of the Isgar Lands, the rural ditches will be decommissioned and the major flow will be conveyed to the facility via the Isgar Lands. Major flow from the existing Summerside development could potentially be captured at Portobello Boulevard and conveyed via oversized minor system through the eastern portion of the Isgar Lands to the Avalon South SWM facility. Alternatively, a dry pond could be provided to store and attenuate the major system flows to be slowly released to the proposed minor system of the Isgar Lands. Ultimately, the preferred stormwater solution for the exsiting external major system flows will refined at the detailed design stage with the Summerside development engineering consultant.

## 1.4 Existing Conditions

Under existing conditions, the western portion of Isgar Lands (west of the existing SWM facility) is comprised of a Minto site office with construction activities (i.e., fill movement, soil dumping, etc.). The eastern portion of the Isgar Lands (east of the SWM facility) is former agriculture land use which has been left fallow and has some rural ditches throughout. Immediately to the south of the SWM facility, there are two ditches running east to west which connect to the Lepage-Charbonneau Drain which conveys rural flow south to McKinnons Creek. It should be noted that the outlet for the Avalon South SWM facility is via a pipe to McKinnons Creek along Tenth Line Road and not the Lepage-Charbonneau Drain.

The existing site topography for the western portion of the site is generally sloping in a southeasterly direction where some localized runoff is conveyed to the SWM facility, but the majority of runoff is conveyed toward the southern extends of the Avalon South SWM facility to the Lepage-Charbonneau Drain (see **Figure 2**).

The existing site topography for the eastern portion of the site is generally sloping in a southwesterly direction. There are rural ditches throughout the area which were modified in 2011-2012 to convey major flow from the Summerside Development to the SWM facility. With these modifications, the rural ditches also convey rural flow from east of the SWM facility to the facility (see **Figure 2**).

## 1.5 Objectives

The purpose of this study is to outline the stormwater parameters, assumptions, modeling results, and to present the conceptual servicing of the Isgar Lands within the Avalon South SWM facility in support of regulatory review of the Draft Plan application.

# 2 Design Constraints and Regulatory Requirements

## 2.1 Water Quality Control

Water quality control for the subject lands will be provided in the expanded Avalon South SWM Facility. Water quality control targets were established as part of the April 2006 Design Brief[2]. Based on the *Fish Habitat Assessment for McKinnons Creek and Lepage-Charbonneau Drain*[6] (G.A. Packman and Associates, May 2004) which was prepared for the reaches of McKinnons Creek downstream of Tenth Line Road, the results of the assessment provided guidance for the level of water quality treatment for the Avalon South SWM Facility. It was confirmed with South Nation Conservation that stormwater management facilities tributary to McKinnons Creek are to be designed to provide an Enhanced Level of Protection, or 80% removal of Total Suspended Solids (TSS) in accordance with the Ontario Ministry of the Environment (MOE) *Stormwater Management Planning and Design Manual*[7] (March 2003).

## 2.2 Water Quantity Control

Water quantity control criteria for the Avalon South SWM Facility were outlined in the 2001 MDP[1] and 2006 Design Brief[2]. Outflow from the stormwater facility is limited to pre-development flow at Point C in McKinnons Creek (see **Figure 1**). For the purposes of the current study, the pre-development model of McKinnons Creek watershed from the approved MSS has been utilized and updated as required. It should be noted that the majority of the approximately 100ha Area 1 (west of Mer Bleue Rd.) has been diverted to the Mud Creek watershed with the exception of approximately 12ha. It is antcipated that this area will be fully diverted or become tributary to and attenuated within the Avalon West SWMF, on an interim basis, in advance of the development of the Isgar Lands. Therefore, for the purposes of the current study and evaluating the impacts of the proposed Isgar Lands development and expansion of the Avalon South SWM facility on the overall flows within McKinnons Creek, Area 1 has been omitted from the analysis. The following table summarizes the peak flows rates within McKinnons Creek under pre-and post-development conditions.

**Table 2.1 Pre- Versus Post-Development Flow at Point C in McKinnons Creek**

| LOCATION | PEAK FLOW (CMS) | | | | | |
|---|---|---|---|---|---|---|
| | 2 Year SCS | | 5 Year SCS | | 100 Year SCS | |
| | PRE | POST | PRE | POST | PRE | POST |
| Point B | 2.16 | 2.23 | 2.41 | 2.52 | 4.67 | 4.85 |
| D/S of Point C | 3.24 | 3.26 | 5.22 | 5.23 | 11.18 | 11.23 |

The above results indicate that under post-development conditions, the flow at Point C would be closely comparable with the pre-development levels.

## 2.3 Infiltration

There are no set target infiltration rates for the subject site or the Avalon South Development area.

## 2.4 Setbacks

There are no municipal drains within the subject site. The Lepage-Charbonneau Drain is located south of the SWM facility and subject site. Runoff from the subject site is not intended to be

conveyed to this watercourse. The development of the subject site and the expansion of the SWM facility will not require interference with the watercourse.

# 3 System Concept

The conceptual stormwater management system for the subject site incorporates standard urban drainage design and stomwater management features that can be summarized as follows:

- a dual drainage concept; and
- an end-of-pipe SWM facility.

The stormwater system concept is discussed in the subsequent sections and has been developed based on the MOE Manual[6], *City of Ottawa Sewer Design Guidelines*[7] (November 2004 and henceforth referred to as the OSDG[7]), City of Ottawa Technical Bulletins ISBTB-2012-1[8] (January 2012) and ISDTB-2012-4[9] (June 2012).

## 3.1 Dual Drainage Design

The dual drainage system accommodates both minor and major stormwater runoff. During frequent storm events, the effective runoff of a catchment area is directly released via catchbasin inlets to the network of storm sewers, called the minor system. During less frequent storm events, the balance of the flow (in excess of the minor flow) is accommodated by a system of rear yard swales and street segments, called the major system.

The dual drainage design of the Avalon South Development area generally included full on-site storage with the minor system flow conveyed to the SWM facility via storm sewers. Generally, any major flow generated from the development area, but not contained within the on-site storage, is conveyed overland directly to the facility.

The minor system for the portion of the subject site located west of the SWM facility will be tributary to a proposed new inlet into the western sediment forebay. For the portion of the subject site located east of the SWM facility, the minor system flow will be conveyed to a proposed new inlet into an expanded eastern sediment forebay. The minor system storm sewers will be sized based on the rational method, applying standards of both the City of Ottawa and MOE. Some of the key criteria for this site include the following:

- Design Return Period: 1:2 year
- Sewer Sizing: Rational Method
- Time of Concentration: Inlet time of 10 minutes
- Slope: City Design Guidelines
- Velocity: City Design Guidelines

It should be noted that the minor system servicing the eastern portion of the subject site could require upsizing to accommodate the major flow from the Summerside Development. Alternatively, a dry pond could be provided to store and attenuate the major system flows to be slowly released to the proposed minor system of the Isgar Lands. The major flow from the Summerside Development cannot be accommodated on the surface without exceeding City of Ottawa stormwater criteria. The major system flow would have to be accommodated within the eastern minor system.

Due to the flat topography of the subject site, it is anticipated that on-site storage will be provided. Inlet control devices (ICDs) will be utilized across the site to control the surcharge in the minor system during infrequent storm events and maximize use of available on-site storage. ICDs will be sized at the detailed design stage. The conceptual dual drainage system was evaluated using the SWMHYMO hydrological model (refer to **Section 4.0**).

## 3.2 End-of-Pipe Stormwater Facility

The Avalon South SWM Facility design was originally presented in the 2006 Design Brief[2]. The facility was constructed in 2007 and is located immediately south of the development area, approximately 280 m east of Tenth Line Road (see **Figure 3**). The facility is designed to provide water quality and water quantity control of stormwater runoff for the Avalon South Development Area.

As noted in **Section 1.1**, the subject lands brought into the urban boundary under OPA 76 in 2012 were not included in the original water quality and quantity design of the SWM facility. The facility was designed as a hybrid wetland-wet pond with two minor system inlets and an outlet pipe conveying outflow from the facility to McKinnons Creek at the Tenth Line Road culvert, immediately north of the Wall Road intersection. The location of SWM facility is indicated on **Figures 2 and 3**.

As discussed in **Section 2.1**, above, the stormwater management facility is designed to provide an Enhanced Level of Protection. According to the MOE Manual[6], treatment volume is a function of drainage area, the type of pond, the urban imperviousness ratio, and the Level of Protection. The Enhanced Level of Protection corresponds to end-of-pipe storage volumes required for the long-term average removal of 80% of total suspended solids. The storage requirements suggested by the MOE Manual[6] and those provided based on the above conceptual design are summarized in the following table. Supporting calculations are provided in **Appendix C**.

**Table 3.1 Water Quality Volumes**

| **ENHANCED PROTECTION LEVEL 80% REMOVAL OF TSS** | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Tributary Urban Area (ha)** | **Impervious % Pond Type Unit Storage** | **Storage Volume ($m^3$)** | | | | | |
| | | **Permanent** | | **Extended Detention** | | **Total** | |
| | | Required | Design | Required | Design | Required | Design |
| 176.53 | 57% Hybrid Wetland-Wet Pond 153 cu-m/ha | 20,001 | 42,276 | 7061 | 21,670 | 27,062 | 63,946 |

According to MOE guidelines, the required total storage for the SWM facility is 27,062 $m^3$. The total storage provided is 63,946 $m^3$, which consists of permanent storage of 42,276 $m^3$ and 21,670 $m^3$ of extended detention storage.

During the 25 mm 4 hour Chicago storm simulation, the extended detention drawdown time will be greater than 24 hours. The outflow hydrograph from the facility is presented in **Appendix C**.

# 4 Hydrological Evaluation

## 4.1 Post-Development Conditions

Since 2011 and as part of the Avalon West SWM facility evaluation, the SWMHYMO model for McKinnons Creek has been broken down into three separate models: Avalon South, Avalon West and the McKinnons Creek watershed to Point C. The outflow hydrograph from each SWM facility (Avalon South and Avalon West) is read into the overall McKinnons Creek model.

Additionally, as part of the Mer Bleue MSS, the hydrological modeling parameters for the previously approved model of the Avalon South and Avalon West development areas were updated. Specifically, the impervious values for Neighbourhoods 4 and 5 were reviewed and updated based on available aerial photography for the area (circa 2014). The updated modeling utilized as part of the analysis for the Mer Bleue MSS has been carried forward and updated as required for the present study. Additionally, the subwaterwhed boundaries within the McKinnons Creek overall model were slightly adjusted to correspond to the City of Ottawa watershed boundaries.

It should be noted that the majority of the approximately 100ha Area 1 (west of Mer Bleue Rd.) has been diverted to the Mud Creek watershed with the exception of approximately 12ha. It is antcipated that this area will be fully diverted or become tributary to and attenuated within the Avalon West SWMF, on an interim basis, in advance of the development of the Isgar Lands. Therefore, for the purposes of the current study and evaluating the impacts of the proposed Isgar Lands development and expansion of the Avalon South SWM facility on the overall flows within McKinnons Creek, Area 1 has been omitted from the analysis

The model for the Avalon South development, including the SWM facility has been expanded to include the 28ha of the subject site (see **Figure 5**). The outflow hydrograph from the Avalon South hydrological model has been imported into the overall McKinnons Creek model at the appropriate location.

Land use, selected modeling routines, and input parameters for the model for the subject site are discussed in the following sections. A post-development model schematic and model files are included in **Appendix D**. As previously noted, the design for the Isgar Lands is currently at a conceptual level and will be further refined at the detailed design stage.

**Land Use**

The Isgar Lands will be developed as a mixture of townhouses, semi-detached, single family units and multiple units. There is anticipated to be approximately 598 to 613 units. In addition, there is park space provided within the subject site. The conceptual land use plan from January 2018 for the area is provided in **Appendix D**.

The post-development drainage scheme for all the lands contributing to the Avalon South SWM facility is indicated in **Figure 4**.

**Storms and Drainage Area Parameters**

The main hydrology parameters for the Isgar Lands are summarized below in **Table 4.2**. Supporting calculations are presented in **Appendix D**.

- **Design storms:** The site was evaluated using the following storms:
    - 25 mm 4 hour Chicago 12 minute time step (for water quality simulation);
    - 2, 5 and 100 year, 24 hour SCS Type II storm event with a 12 minute time step (consistent with the 2001 MDP and April 2011 Reports);

- 100 year 24 hour SCS Type II design storm event with a 12 minute time step (103.2 mm total precipitation per City of Ottawa Sewer Design Guidelines);
- 100 year 24 hour SCS Type II design storm event + 20% increase in intensity with a 12 minute time step (using 103.2 mm total precipitation as the base as per the January 2012 Technical Bulletin);
- 100 year 3 hour Chicago storm event with a 10 minute time step (for dual drainage evaluation, specifically major flow conveyance);
- 100 year 3 hour Chicago storm event + 20% increase in intensity with a 10 minute time step (for a stress test on major flow conveyance as per the January 2012 Technical Bulletin); and
- July 1, 1979 historical storm (per City of Ottawa Sewer Design Guidelines).

- **Area**: The Isgar Lands cover approximatley 27.5 ha. The total area of the subject site was divided into semi-lumped drainage areas based on the assumed minor system network of storm sewers and anticipated inlet into the SWM facility. The subject site tributary to the new eastern inlet is 19.66 ha and the lands tributary to the western inlet is 7.81 ha.

- **Imperviousness:** Total and directly connected impervious ratios for residential land use was based on typical impervious values applied to the Avalon West Development Area west of Tenth Line Road and applied to the Isgar Lands. Applicable calculations are included in **Appendix D**.

- **Minor system capture:** The minor system capture for the Isgar Lands is 200 l/s/ha, which is greater than the 5 year rational method flow with a fixed time of concentration of 10 minutes.

- **Surface storage:** Available surface storage for the Isgar Lands has been assumed to be 30% lower than the anticipated storage available within the future Avalon West Development Area south of Brian Coburn Boulevard. Supporting documentation is provided in **Appendix D**. The following table provides a summary of the assumed storage which can be provided in the subject site:

**Table 4.1 On-Site Unit Storage Assumed for Isgar Lands**

| LAND USE | UNIT STORAGE ($M^3$/HA) |
|---|---|
| Single Family Units | 76 |
| Townhouses | 87 |
| Multiples | 118 |

- **Infiltration:** A CN value of 75 was applied for the evaluation using the SCS Type II storm events and the 25 mm Chicago storm event. The CN value of 75 is consistent with the remainder of the Avalon South Development Area. Also, for the Isgar Lands, the Horton infiltration loss was selected for the evaluation using the Chicago storm events and the July 1, 1979 historical storm. The Horton infiltration losses are consistent with the OSDG[8] and are as follows: $f_o$ = 76.2 mm/h, $f_c$ = 13.2 mm/h, k = 0.00115 $s^{-1}$. It should be noted that the infiltration values used for the existing Avalon South Development area are consistent and unmodified from the April 2011 Report[3].

- **Length:** The impervious length applied to the Isgar Lands is based on an average of the measured length of the trunk through the catchment and the calculated length based on the SWMHYMO user's manual. The pervious length is based on an average lot depth. This approach is consistent with the OSDG[7]. Relevant calculations are enclosed in **Appendix D**.

- **Initial Abstraction (Depression Storage):** Depression storage depths of 0.8 mm and 1.5 mm were used for impervious and pervious areas, respectively, for the subject site. These values are consistent with the remainder of the Avalon South Development Area. In addition, these values are more conservative than those in the City of Ottawa Sewer Design Guidelines.

- **Manning's roughness:** Manning's roughness coefficients of 0.013 and 0.25 were used for impervious and pervious areas, respectively.

- **Slope:** A slope of 0.2% was used for impervious surfaces and a slope of 2% was used for pervious areas (lot grading).

The main hydrological parameters used in the SWMHYMO model for the Isgar Lands are summarized in **Table 4.2** The parameters utilized for the remainder of the Avalon South Development Area are from the Mer Bleue MSS and summarized in **Appendix B**. The drainage area plan for the total area tributary to the Avalon South SWM Facility is presented in **Figure 4**. Model output files are enclosed in **Appendix D**.

**Table 4.2 Hydrological Parameters – Isgar Lands**

| NEW POND INLET | DRAINAGE AREA | | IMP. RATIO | | LENGTH LGI (M) | SURFACE STORAGE | | MINOR SYSTEM RESTRICTION | |
|---|---|---|---|---|---|---|---|---|---|
| | ID | Area (ha) | Timp | Ximp | | Unit Rate (cu-m/ha) | Total (cu-m) | Unit Rate (l/s/ha) | Total (cms) |
| West | I1 | 8.35 | 60 | 45 | 357 | 75.6 | 631 | 200 | 1.67 |
| East | I2 | 12.02 | 64 | 51 | 479 | 84.9 | 1021 | 200 | 2.40 |
| East | I3 | 7.64 | 49 | 29 | 292 | 108.6 | 829 | 200 | 1.53 |
| **Total (ha)** | | 27.50 | | | | | | | |

## 4.2 External Summerside Development Major System Flow

As noted in **Section 1.3**, major flow from the Summerside Develoment is currently conveyed through the eastern portion ofthe Isgar Lands (subject site) via rural ditches and discharges into the eastern sediment forebay of the Avalon South SWM facility. The development of the subject site will require determining how this major flow will be conveyed in realtion to the site. Table 4.3 presents a summary of the major flow for each storm event from the Summerside Development:

**Table 4.3 Summary of Summerside Development Major Flow to be conveyed through or around the Isgar Lands**

| STORM EVENT | MAJOR SYSTEM FLOW FROM SUMMERSIDE DEVELOPMENT (CMS) |
|---|---|
| 2 year 24 hour SCS Type II | 0.0 |
| 5 year 24 hour SCS Type II | 0.0 |
| 100 year 24 hour SCS Type II (88.6 mm) | 2.40 |
| July 1, 1979 Historical | 1.51 |
| 100 year 3 hour Chicago | 2.57 |
| 5 year 3 hour Chicago | 0.28 |
| 100 year 24 hour SCS Type II (103.2 mm) | 1.94 |
| 100 year 24 hour SCS Type II (103.2 mm) + 20% | 3.18 |
| 100 year 3 hour Chicago + 20% | 3.86 |

The conveyance of the major flow from the Summerside Development through the Isgar Lands could be via an upsized minor system storm sewer. The amount of major flow from the Summerside Development to be conveyed through the subject site on the surface would not meet the City of Ottawa criteria for major system ponding or cascading. Major flow from the existing Summerside development could potentially be captured at Portobello Boulevard and conveyed via oversized minor system through the eastern portion of the Isgar Lands to the Avalon South SWM facility. Alternatively, a dry pond could be provided to store and attenuate the major system flows to be slowly released to the proposed minor system of the Isgar Lands.

Ultimately, the preferred stormwater solution for the exsiting external major system flows will refined at the detailed design stage with the Summerside development engineering consultant. The pipe size required to convey the major flow of 3.86 cms generated during the 100 year 3 hour Chicago storm increased by 20% would be 1950 mm diameter at 0.1% slope. This size excludes the minor system flow to be captured from the eastern portion of the subject site itself.

## 4.3 Post-Development Conditions Modeling Results

The SWMHYMO model technique offers single storm event flow generation and routing. In the 2011 model, a portion of the subject site was modeled as rural and conveyed to the eastern inlet of the Avalon South SWM facility. The minor system hydrographs generated by SWMHYMO were then exported to the Avalon South XPSWMM hydraulic model. The hydraulic evaluation is discussed in **Section 5.0**.

Water quantity control criteria for the Avalon South SWM Facility were outlined in the 2001 MDP[1] and 2006 Design Brief[2]. Outflow from the stormwater facility is limited to pre-development flow at Point C in McKinnons Creek (see **Figure 1**). For the purposes of the current study, the pre-development model of McKinnons Creek watershed from the approved MSS has been utilized and updated as required. It should be noted that the majority of the approximately 100ha Area 1 (west of Mer Bleue Rd.) has been diverted to the Mud Creek watershed with the exception of approximately 12ha. It is antcipated that this area will be fully diverted or become tributary to and attenuated within the Avalon West SWMF, on an interim basis, in advance of the

development of the Isgar Lands. Therefore, for the purposes of the current study and evaluating the impacts of the proposed Isgar Lands development and expansion of the Avalon South SWM facility on the overall flows within McKinnons Creek, Area 1 has been omitted from the analysis. The following table provides comparison of the pre-and post-development model results.

**Table 4.4 Pre- Versus Post-Development Flow at Point C McKinnons Creek**

| LOCATION | PEAK FLOW (CMS) | | | | | |
|---|---|---|---|---|---|---|
| | 2 Year SCS | | 5 Year SCS | | 100 Year SCS | |
| | PRE | POST | PRE | POST | PRE | POST |
| Point B | 2.16 | 2.23 | 2.41 | 2.52 | 4.67 | 4.85 |
| D/S of Point C | 3.24 | 3.26 | 5.22 | 5.23 | 11.18 | 11.23 |

The above results indicate that under post-development conditions, the flow at Point C would be closely comparable with the pre-development levels.

It is proposed that major flow from the Isgar Lands cascade toward the Avalon South SWM facility via the new eastern and western inlet easements. The below **Table 4.5** provides summary of the major system model results for the 100 year 3 hour Chicago storm and the 100 year 3 hour Chicago storm with 20% increase in intensity. The 100 year 3 hour Chicago storm event is commonly used to evaluate the urban component of dual drainage, specifically on-site detention. The 100 year 3 hour Chicago storm with 20% increase in intensity storm is the most critical of all the storm events simulated with respect to major flow conveyance. Model files are enclosed in **Appendix D**.

**Table 4.5 Maximum cumulative overland flow at downstream locations during the 100 year 3 hour Chicago storm and the 100 year 3 hour Chicago storm + 20% increase in intensity**
*SWMHYMO model files: N42013.dat*

| LOCATION | MAX.CUM. FLOW (L/S) |
|---|---|
| ***100 Year 3 hour Chicago Storm*** | |
| New Eastern Inlet<br>*Street to New Eastern Inlet Easement* | 0 |
| New Western Inlet<br>*Street to New Eastern Inlet Easement* | 0 |
| ***100 Year 3 hour Chicago Storm + 20%*** | |
| New Eastern Inlet<br>*Street to New Eastern Inlet Easement* | 1211 |
| New Western Inlet<br>*Street to New Eastern Inlet Easement* | 1857 |

# 5 Hydraulic Model

The XPSWMM hydraulic model for the Avalon South Development was developed in 2006 and, subsequently updated as part of the April 2011 Report[3]. The model includes the storm network through Avalon South. For this study, the model has been updated to include the new stage-area-curve for the expanded SWM facility and the hydrographs from the Isgar Lands. The hydrographs for the Isgar Lands were generated by SWMHYMO and exported to the XPSWMM model. Simulations were performed for various storms to confirm the performance of the SWM facility and the water level with in the SWM facility. The XPSWMM model schematic is enclosed in **Appendix E**.

## 5.1 Performance of the SWM Facility

The performance of the Avalon South SWM facility is summarized in the below table. A plan view of the SWM facility is provided in **Figure 4**.

**Table 5.1 Summary of Avalon South Village SWM Facility stage, storage and discharge during various storm events**
*Current evaluation XPSWMM model files listed in table*

| | STORAGE (HA-M) | DISCHARGE (CMS) | ELEVATION (M) |
|---|---|---|---|
| **Permanent Storage** | 4.23 | N/A | 83.50 |
| **25 mm 4 hour Chicago** *ISGAR-N4-20180130-25MM4HCH.out* | 2.0* | 0.19 | 83.84 |
| **2 year 24 hour SCS Type II (48mm)** *ISGAR-N4-20180130-24SCS2.out* | 3.8* | 0.55 | 84.13 |
| **5 year 24 hour SCS Type II (62.4mm)** *ISGAR-N4-20180130-24SCS5.out* | 5.1* | 0.83 | 84.33 |
| **100 year 24 hour SCS Type II (103.2 mm)** *ISGAR-N4-20180130-24SCS100.out* | 9.5* | 1.36 | 84.94 |
| **100 year 3 hour Chicago** *ISGAR-N4-20180130-3CHI100.out* | 7.5* | 1.14 | 84.67 |
| **July 1 1979** *ISGAR-N4-20180130-JULY-79.out* | 9.5* | 1.29 | 84.94 |
| **100 year 24 hour SCS Type II (103.2 mm) + 20%** *ISGAR-N4-20180130-24SCS120.out* | 12.1* | 1.51 | 85.28 |
| **100 year 3 hour Chicago + 20%** *ISGAR-N4-20180130-3CHI120.out* | 9.9* | 1.38 | 84.98 |

** Extended storage only*

The water level Avalon South SWM facility during the July 1, 1979 historical storm event would be 84.94 m, closely corresponding to the results from the April 2011 Report[3] (84.95 m.)

## 5.2 Hydraulic Grade Line

As indicated within the above section 5.1, the water level in the Avalon South SWM facility would be 84.94 m during the July 1, 1979 historical storm, consistent with the water level presented in the April 2011 Report[3]. Therefore, the HGL within the existing development should be the same as that reported in 2011. Therefore, the required 0.3 m minimum clearance between the underside of footing and storm obvert or hydraulic grade line would therefore be governed by the storm sewer obvert elevation. The hydraulic grade line throughout the Avalon South Development, including the Isgar Lands, will be confirmed at the detailed design stage.

# 6 Conclusions

The Isgar Lands are located within the East Urban Community (EUC) on the southern boundary of the Avalon South (Neighbourhood 4) Development and are adjacent to the east and west sides of the existing Avalon South Stormwater Facility. The Isgar Lands are part of the OPA 76 Expansion Lands brought into the City of Ottawa urban boundary in 2012. The total area of the subject site is 28 ha. These lands were not included as urban development drainage area contributing to the Avalon South SWM Facility. A portion of the subject lands, under rural conditions, are conveyed to the SWM facility as part of the expanded inlet into the eastern sediment forebay. The existing Avalon South SWM Facility will be enhanced to accommodate the development of the Isgar Lands.

Water quantity control for the subject lands will be provided in the expanded Avalon South SWM Facility. Water quality control targets were established as part of the April 2006 Design Brief[2]. The enhanced Avalon South Facility will be designed to provide an Enhanced Level of Protection, or 80% removal of Total Suspended Solids (TSS) in accordance with the Ontario Ministry of the Environment (MOE) *Stormwater Management Planning and Design Manual*[6] (March 2003).

Water quantity control criteria for the Avalon South SWM Facility were outlined in the 2001 MDP[1] and 2006 Design Brief[2]. Outflow from the stormwater facility is limited to pre-development flow at Point C in McKinnons Creek (see **Figure 1**).

Major flow from the existing Summerside Development east of the Isgar Lands is currently accommodated by rural ditches east of the SWM facility. With the development of the Isgar Lands, the rural ditches will be decommissioned and the major flow will be conveyed to the facility via the Isgar Lands. Major flow from the existing Summerside development could potentially be captured at Portobello Boulevard and conveyed via oversized minor system through the eastern portion of the Isgar Lands to the Avalon South SWM facility. Alternatively, a dry pond could be provided to store and attenuate the major system flows to be slowly released to the proposed minor system of the Isgar Lands. Ultimately, the preferred stormwater solution for the existing external major system flows will refined at the detailed design stage with the Summerside development engineering consultant.

As indicated within the above section 5.1, the water level in the enhanced Avalon South SWM facility would be 84.94 m during the July 1, 1979 historical storm, consistent with the water level presented in the April 2011 Report[3]. Therefore, the HGL within the existing development should be the same as that reported in 2011. Therefore, the required 0.3 m minimum clearance between the underside of footing and storm obvert or hydraulic grade line would therefore be governed by the storm sewer obvert elevation. The hydraulic grade line throughout the Avalon South Development, including the Isgar Lands, will be confirmed at the detailed design stage.

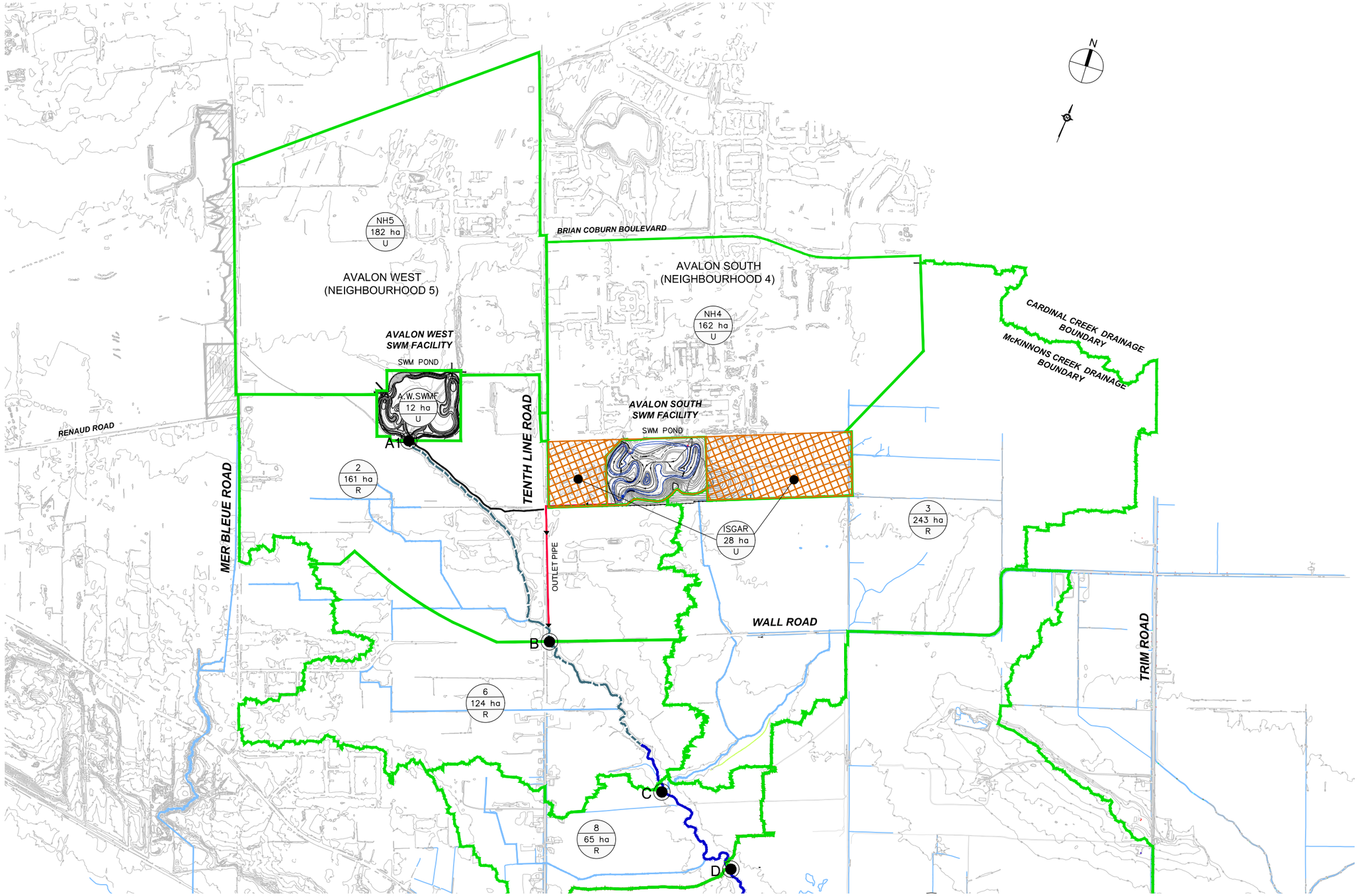



Peter Deir, P.Eng.
Water Resources

Peter Spal, P.Eng.
Associate Director

# 7 REFERENCES

1. *Supplementary Report to the Master Drainage Plan and Environmental Study Report* (CCL, May 2001)
2. *Design Brief Avalon South (Neighbourhood 4) Stormwater Facility* (IBI Group, April 2006)
3. *Avalon South (Neighbourhood 4) Stormwater Facility – Mattamy Homes – Summerside* (IBI Group, April 2011)
4. *Avalon West (Neighbourhood 5) Stormwater Management Facility Design* (IBI Group, October 2013)
5. *Mer Bleue Urban Expansion Area Master Servicing Study* (IBI Group, December 2017)
6. *Fish Habitat Assessment for McKinnons Creek and Lepage-Charbonneau Drain* (G.A. Packman and Associates, May 2004)
7. *Stormwater Management Planning and Design Manual* (Ontario Ministry of the Environment (MOE), March 2003)
8. *City of Ottawa Sewer Design Guidelines* (November 2004)
9. City of Ottawa Technical Bulletin ISDTB-2012-1 (January 31, 2012)
10. City of Ottawa Technical Bulletin ISDTB-2012-4 (June 20, 2012)




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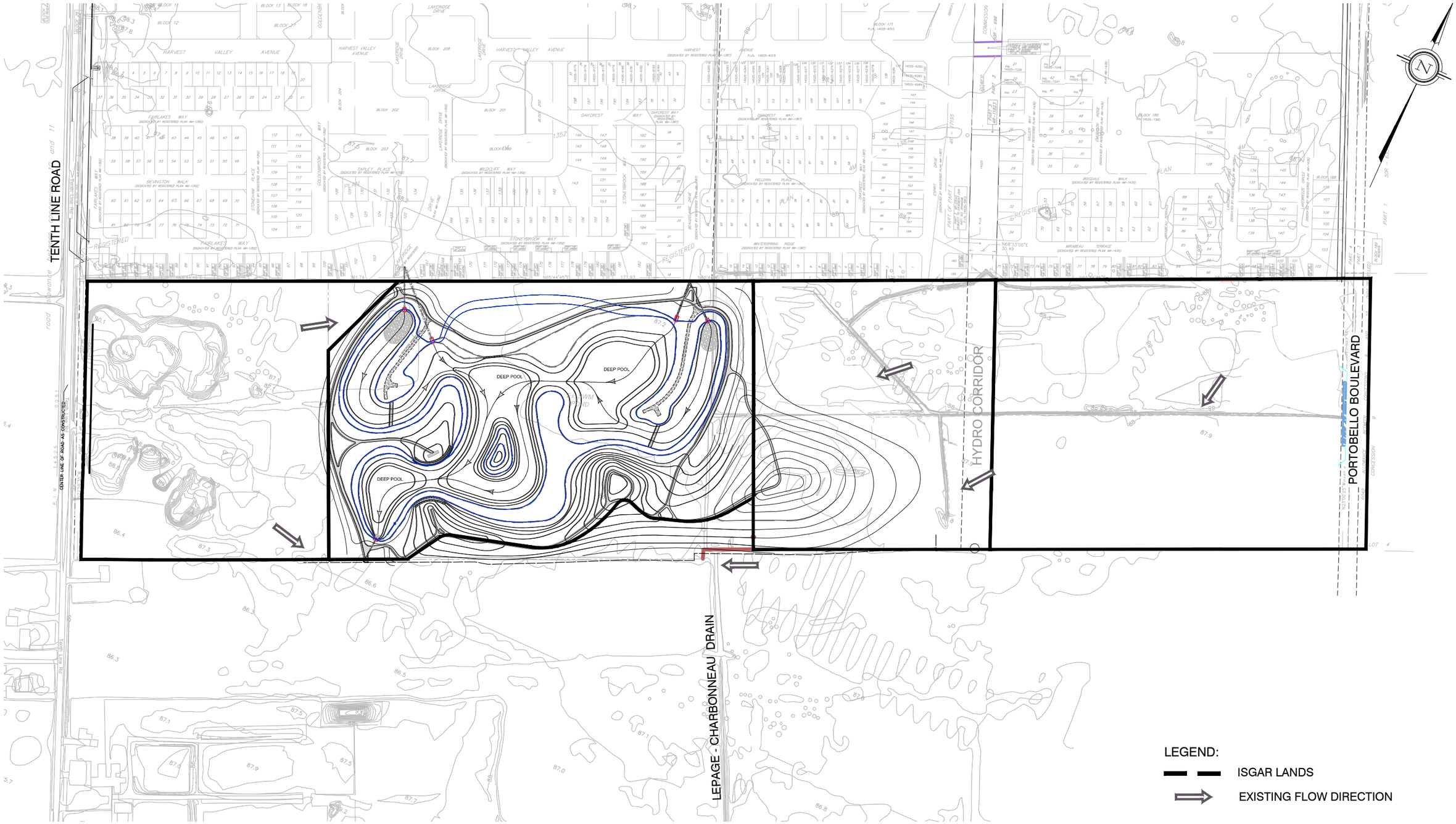
IBI

Scale
N.T.S.

Project Title
ISGAR LANDS
AVALON SOUTH STORMWATER FACILITY EXPANSION

Drawing Title
WATERSHED BOUNDARIES

Sheet No.
FIGURE 1




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IBI GROUP

Scale

1:4000

Project Title

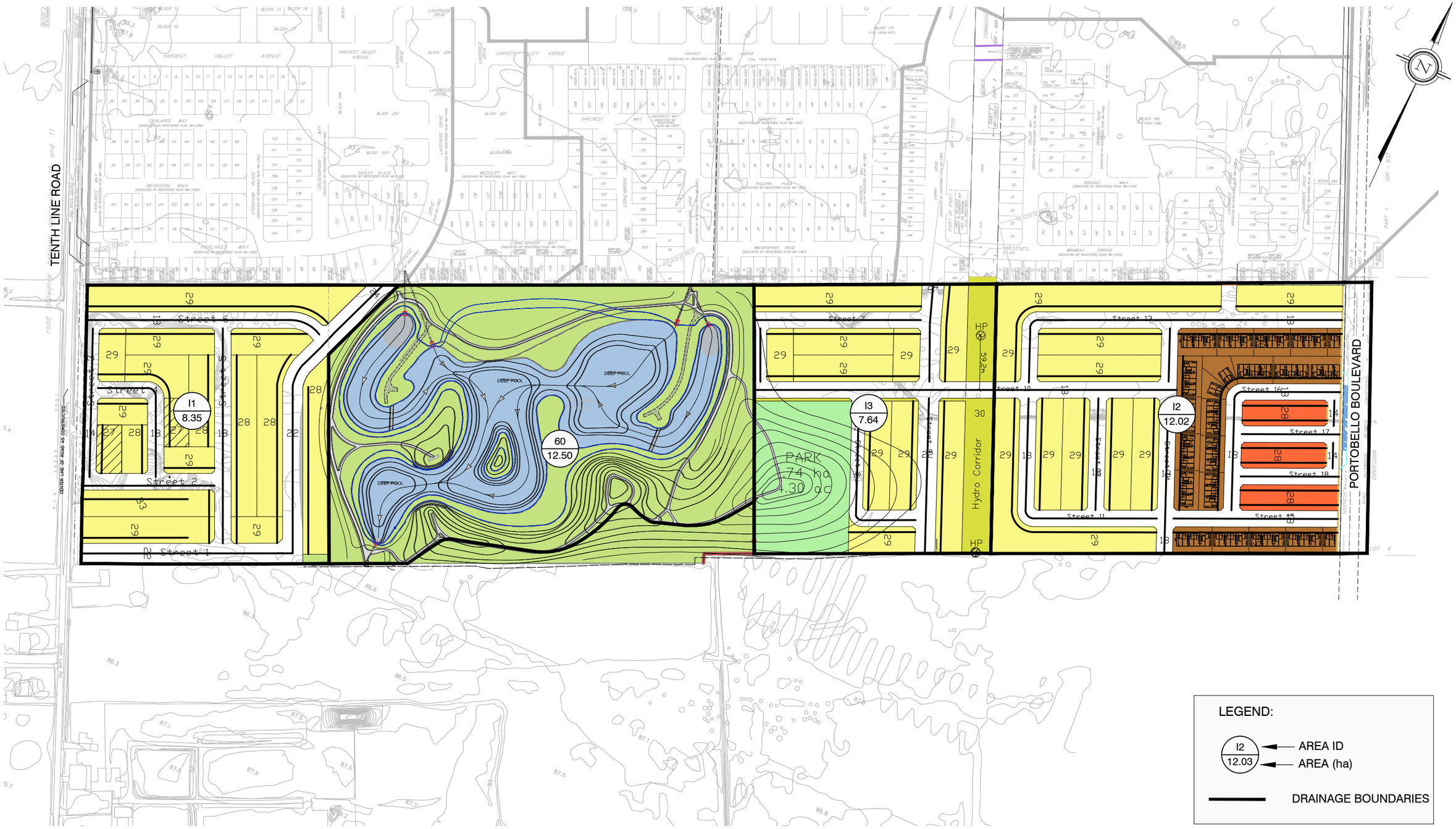
# ISGAR LANDS
# AVALON SOUTH STORMWATER FACILITY EXPANSION

Drawing Title

## EXISTING TOPOGRAPHY

Sheet No.

## FIGURE 2




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Project Title

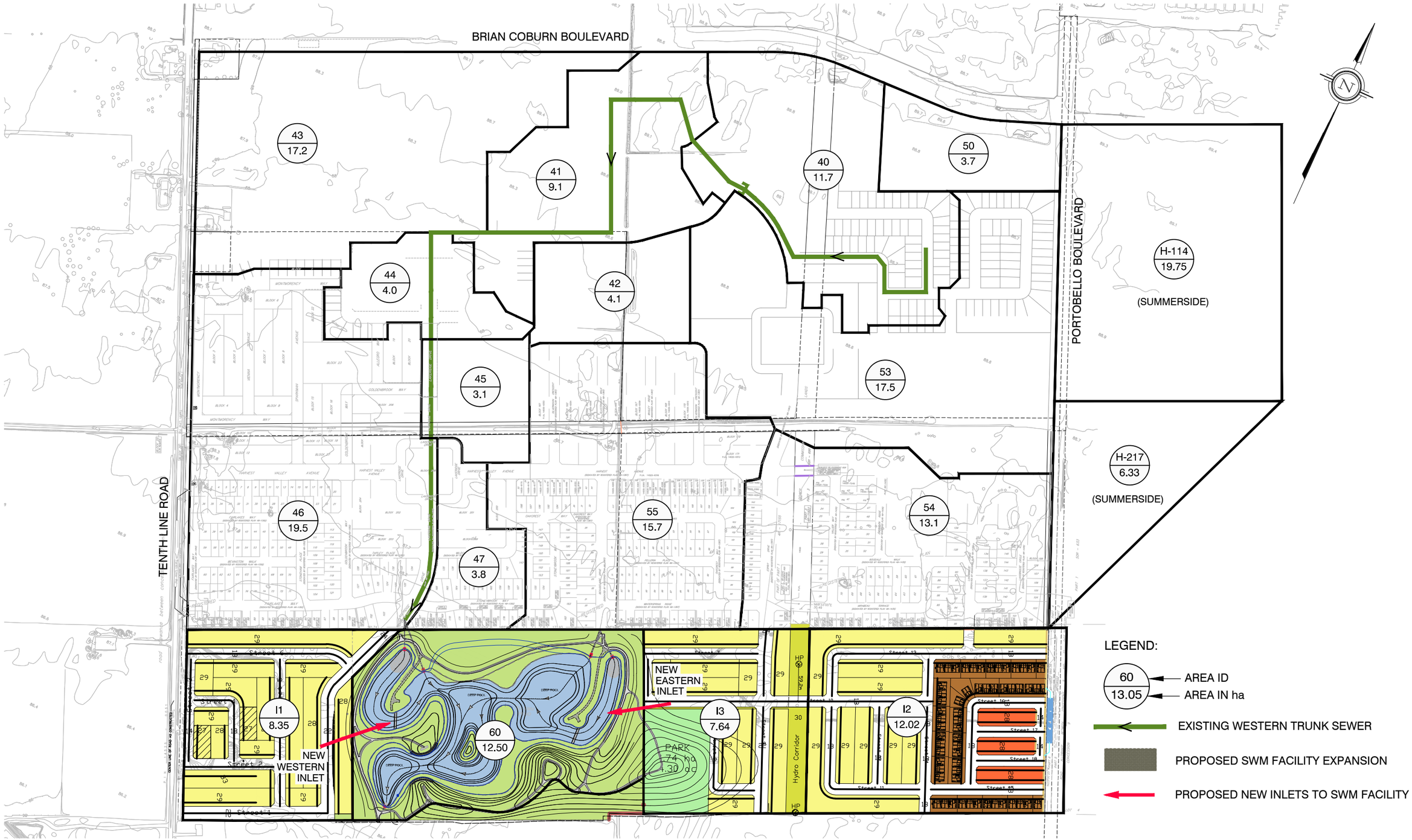
ISGAR LANDS
AVALON SOUTH STORMWATER
FACILITY EXPANSION

Drawing Title

ISGAR LANDS
DRAINAGE AREAS

Sheet No.

FIGURE 3




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IBI GROUP

Scale

N.T.S.

Project Title

# ISGAR LANDS
# AVALON SOUTH STORMWATER FACILITY EXPANSION

Drawing Title

## DRAINAGE AREAS TRIBUTARY TO AVALON SOUTH SWM FACILITY

Sheet No.

## FIGURE 4

# Appendix A

Ontario

Ministry of the Environment
Ministère de l'Environnement

**AMENDED CERTIFICATE OF APPROVAL**
**MUNICIPAL AND PRIVATE SEWAGE WORKS**
NUMBER 8733-8J9RH6
Issue Date: July 28, 2011

Minto Developments Inc.
427 Laurier Ave W, No. Suite 300
Ottawa, Ontario, K1R 7Y2

Site Location: Neighbourhood 4
Lot 4, Concession 10
City of Ottawa.

*You have applied in accordance with Section 53 of the Ontario Water Resources Act for approval of:*

expanding of inlet works of the existing Avalon South (Neighbourhood 4) Stormwater Management Facility servicing the approximately 160ha. residential development for enhanced level of quality and quantity control of 2 to 100-year post development event run-off to pre-development level, comprising of the following:

**Proposed Works** (to provide inlet of overflow from approximately 26ha. residential and institutional service area of East Pool Site into the existing pond):

-provision of a formed overflow inlet channel having approximate depth of 1 to 1.5m, bottom width 4.6m, protected bank slope 1:2 to 1:3 and a top width of 12m to 14m to enter into the existing eastern forebay of the pond via approximately 1.5m deep 1.5m wide bottom by 12m top wide flow breaker / filter channel filled with 200mm to 300mm diameter stone rip rap;

including all works and appurtenances to match the existing embankments, flow regime and to avoid erosion and re-suspension of sediments in the forebay; and erosion /sedimentation control measures to minimize the effects on external lands and to the Creek;

all in accordance with the **Application for Approval of Municipal and Private Sewage Works, Stormwater Management Facility,** Overland Flow Ditch- Mattamy Homes, dated April 14, received on May 4, 2011, City of Ottawa's request and express directives, Design Brief and addendum documents and drawings prepared and submitted by Jennifer Ailey, P.Eng., David Schaeffer Engineering Ltd., Consulting Engineers; together with the following works:

**Approved / Existing Works:**

- a hybrid wet pond with one (1) 900mmX1200mm concrete box pipe inlet into the western forebay, one (1) 1200mm X1800mm overflow concrete box pipe into the main cell, one (1) 900mm X 1200mm concrete box pipe inlet into the eastern forebay and one (1) 1200mm X1800mm overflow concrete box pipe into the main cell of the pond, consisting of approximate permanent pool volume of 64,100cu.m., extended detention volume of 18,254cu.m. and total storage volume of 83,400cu.m., together with:

- one (1) 1.4m by 1.5m grated outlet headwall structure to discharge into a 1200mm diameter outlet sewer to flow into a the McKinnon's Creek approximately 1000m away to the south,

- a 6m wide by 600mm deep overflow spillway weir protected with 150mm diameter rip-rap over filter mat slope protection to discharge into an existing roadside drain to the McKinnon's Creek;

including appurtenances, erosion/sedimentation control measures to minimize the effects on external lands and to the Creek;

all in accordance with the **Application for Approval of Municipal and Private Sewage Works, Stormwater Management Facility,** dated May 16, 2006, Design Brief and addendum documents and drawings prepared and submitted by Peter Spal, P. Eng., IBI Group, Consulting Engineers.

*For the purpose of this Certificate of Approval and the terms and conditions specified below, the following definitions apply:*

*"Certificate"* means this entire Certificate of Approval document, issued in accordance with Section 53 of the Ontario Water Resources Act, and includes any schedules;

*"Director"* means any Ministry employee appointed by the Minister pursuant to Section 5 of the Ontario Water Resources Act;

*"Ministry"* means the Ontario Ministry of the Environment;

*"District Manager"* means the District Manager of the Ottawa District Office of the Ministry;

*"Owner" means* Minto Developments Inc., and included its heirs and assignees.

*"Municipality"* means The City of Ottawa; and,

*"Works"* means the sewage works described in the Owner's application, this Certificate and in the supporting documentation referred to herein, to the extent approved by this Certificate.

*You are hereby notified that this approval is issued to you subject to the terms and conditions outlined below:*

TERMS AND CONDITIONS

1. GENERAL PROVISIONS

(1) Except as otherwise provided by these Conditions, the Owner shall design, build, install, operate and maintain the Works in accordance with the description given in this Certificate, the application for approval of the works and the submitted supporting documents and plans and specifications as listed in this Certificate.

(2) Where there is a conflict between a provision of any submitted document referred to in this Certificate and the Conditions of this Certificate, the Conditions in this Certificate shall take precedence, and where there is a conflict between the listed submitted documents, the document bearing the most recent date shall prevail.

(3) Where there is a conflict between the listed submitted documents, and the application, the application shall take precedence unless it is clear that the purpose of the document was to amend the application.

2. EXPIRY OF APPROVAL

The approval issued by this Certificate will cease to apply to those parts of the Works which have not been constructed within five (5) years of the date of this Certificate.

3. CHANGE OF OWNER

The Owner shall notify the District Manager and the Director, in writing, of any of the following changes within thirty (30) days of the change occurring:

(a) change of Owner;
(b) change of address of the Owner;
(c) change of partners where the Owner is or at any time becomes a partnership, and a copy of the most recent declaration filed under the Business Names Act, R.S.O. 1990, c.B17 shall be included in the notification to the District Manager; and
(d) change of name of the corporation where the Owner is or at any time becomes a corporation, and a copy of the most current information filed under the Corporations Information Act, R.S.O. 1990, c. C39 shall be included in the notification to the District Manager.

4. OPERATION AND MAINTENANCE.

(1) The Owner shall ensure that the design minimum liquid retention volume is maintained in the pond at all times.

(2) The Owner shall inspect the Works at least once a year and, if necessary, clean and maintain the Works to prevent the excessive build-up of sediments and/or vegetation.

(3) The Owner shall maintain a logbook to record the results of these inspections and any cleaning and maintenance operations undertaken, and shall keep the logbook updated and ready at the site for inspection by the Ministry. The logbook shall include the following:

(a) the name of the Works; and

(b) the date and results of each inspection, maintenance and cleaning, including an estimate of the quantity of any materials removed.

5. RECORD KEEPING

The Owner shall retain for a minimum of five (5) years from the date of their creation, all records and information related to or resulting from the operation and maintenance activities required by this Certificate.

6. MONITORING OF THE POND EFFLUENT

The Owner shall carry out the following monitoring program for the performance evaluation of the facility to meet the design projected level of eighty percent (80%) removal of Total Suspended Solids (TSS) in the stormwater ponds prior to discharge to the Creek.

(1) At least thirty (30) days prior to the anticipated commencement date of the monitoring program, the Owner shall submit to the District Manager for review and approval a detailed work plan for the monitoring program outlining the parameters to be monitored, the sampling locations, sampling protocols, techniques and frequencies, as well as the detection limits of laboratory procedures.

(2) The monitoring program shall commence upon connection of the outlet control structure of the facility to the receiving water course and shall continue for three years thereafter.

(3) Samples shall be collected at the following sampling points, at the frequency specified, by means of the specified sample type and analyzed for each parameter listed and all results recorded:

| **Table 1 - Water Quality Monitoring** |
|---|
| **Sampling Location:** pond inlet structures and at the proposed outlet headwall.<br>**Type**- Grab |
| **Frequency**- for the detailed characterization of the water quality treatment performance of the facility during a minimum of three (3) rainfall/run-off events per year, at least one of the events being a spring freshet event.<br>- a minimum of three (3) grab samples at each location per year is necessary. |
| **Parameters:**<br>- CBOD5<br>- Total Suspended Solids<br>- Total Phosphorus<br>- Dissolved Nutrients (including Phosphates, Nitrates, Nitrites and Ammonia)<br>- Metals (including antimony, mercury, arsenic, cadmium, copper, lead, zinc, nickel, iron, vanadium, chromium, tin, and cobalt).<br>- Chloride |

(4) The methods and protocols for sampling, analysis and recording shall conform, in order of precedence, to the methods and protocols specified in the following:

(a) the Ministry's Procedure F-10-1, "Procedures for Sampling and Analysis Requirements for Municipal and Private Sewage Treatment Works (Liquid Waste Streams Only), as amended from time to time by more recently published editions;

(b) the Ministry's publication "Protocol for the Sampling and Analysis of Industrial/Municipal Wastewater" (January 1999), ISBN 0-7778-1880-9, as amended from time to time by more recently published editions;

(c) the publication "Standard Methods for the Examination of Water and Wastewater" (20th edition), as amended from time to time by more recently published editions;

(5) The Owner shall prepare, and submit to the District Manager a performance report, on an annual basis, by April 30th of each year. The first such report shall cover the annual period following the commencement of operation of the Works and subsequent reports shall be submitted to cover successive annual monitoring periods following thereafter. The reports shall contain, but not be limited to, the following information:

(a) a summary and interpretation of all monitoring data and the performance of the facility based on Total Suspended Solids removal and its effect (if any) on the receiving water body, including comparison of the water quality data with applicable criteria such as the Provincial Water Quality Objectives (PWQOs);

(b) an evaluation of the pond's performance and its ability to meet the design performance criteria of 80% Total Suspended Solids removal on a long-term average basis.

(c) a description of any operating problems encountered and corrective actions taken during the reporting period and the need for further investigations in the following reporting period for pond refinements or ways of improving the performance of the facility to meet the performance target;

(d) any need for modifications of the monitoring program and/or the work plan;
and a summary of any complaints received during the reporting period and any steps taken to address the complaints;

(e) any other information that is deemed to have been obtained by the Owner pursuant to the requirements of this certificate that the District Manager requires for inclusion in the reports from time to time.

(6) In the annual report prepared at the end of two years, the Owner shall include recommendations for either continuation of the monitoring program, or the cessation of it, as appropriate from a conclusion based on all previous evaluations of the performance of the facility. A recommendation for the termination of the monitoring program must be accompanied by analytical interpretation of previous monitoring results and performance trends demonstrated to the satisfaction of the Ministry that the facility achieves its design target of 80% removal of Total Suspended Solids and metals on a reasonably continuous basis.

*The reasons for the imposition of these terms and conditions are as follows:*

1. Condition 1 is imposed to ensure that the Works are built and operated in the manner in which they were described for review and upon which approval was granted. This condition is also included to emphasize the precedence of Conditions in the Certificate and the practice that the Approval is based on the most current document, if several conflicting documents are submitted for review.

2. Condition 2 is included to ensure that, when the Works are constructed, the Works will meet the standards that apply at the time of construction to ensure the ongoing protection of the environment..

3. Condition 3 is included to ensure that the Ministry records are kept accurate and current with respect to approved works and to ensure that subsequent owners of the works are made aware of the certificate and continue to operate the works in compliance with it.

4. Condition 4 is included to require that the Works be properly operated and maintained such that the environment is protected .

5. Condition 5 is included to require that all records are retained for a sufficient time period to adequately evaluate the long-term operation and maintenance of the Works.

6. Condition 6 is included to ensure that the effluent quality is monitored and the performance of the works is evaluated, recorded and reported on an annual basis to ensure that the Works are operated in a manner that minimizes any off property impacts from the construction works and stormwater discharged from the site is to the receiver sewer during periods and at rates that minimizes the environmental impact on the receiver.

**This Certificate of Approval revokes and replaces Certificate(s) of Approval No. 1530-6QQL2J issued on July 14, 2006**

*In accordance with Section 100 of the Ontario Water Resources Act, R.S.O. 1990, Chapter 0.40, as amended, you may by written notice served upon me and the Environmental Review Tribunal within 15 days after receipt of this Notice, require a hearing by the Tribunal. Section 101 of the Ontario Water Resources Act, R.S.O. 1990, Chapter 0.40, provides that the Notice requiring the hearing shall state:*

1. The portions of the approval or each term or condition in the approval in respect of which the hearing is required, and;
2. The grounds on which you intend to rely at the hearing in relation to each portion appealed.

*The Notice should also include:*

3. The name of the appellant;
4. The address of the appellant;
5. The Certificate of Approval number;
6. The date of the Certificate of Approval;
7. The name of the Director;
8. The municipality within which the works are located;

*And the Notice should be signed and dated by the appellant.*

*This Notice must be served upon:*

The Secretary*
Environmental Review Tribunal
655 Bay Street, 15th Floor
Toronto, Ontario
M5G 1E5

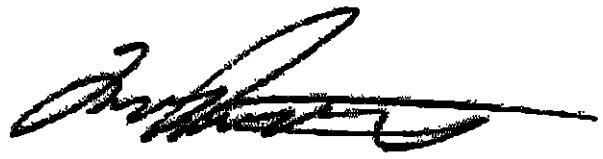
AND

The Director
Section 53, *Ontario Water Resources Act*
Ministry of the Environment
2 St. Clair Avenue West, Floor 12A
Toronto, Ontario
M4V 1L5

*** Further information on the Environmental Review Tribunal's requirements for an appeal can be obtained directly from the Tribunal at: Tel: (416) 314-4600, Fax: (416) 314-4506 or www.ert.gov.on.ca**

*The above noted sewage works are approved under Section 53 of the Ontario Water Resources Act.*

DATED AT TORONTO this 28th day of July, 2011



Ian Parrott, P.Eng.
Director
Section 53, *Ontario Water Resources Act*

MN/

c: District Manager, MOE Ottawa
Jennifer Ailey, P.Eng., David Schaeffer Engineering Ltd.

# Appendix B

BLACKBURN HAMLET BYPASS EXTENSION

TENTH LINE ROAD

PORTOBELLO BOULEVARD

43
17.2

41
9.1

40
11.7

50
3.7

H-114
19.75

44
4.0

42
4.1

45
3.1

53
17.5

H-217
6.33

46
19.5

55
15.7

54
13.1

47
3.8

EX.
RURAL
10.66

60
12.8

LEGEND:

60
12.1
AREA ID
AREA IN ha

WESTERN TRUNK SEWER

EASTERN TRUNK SEWER

IBI GROUP

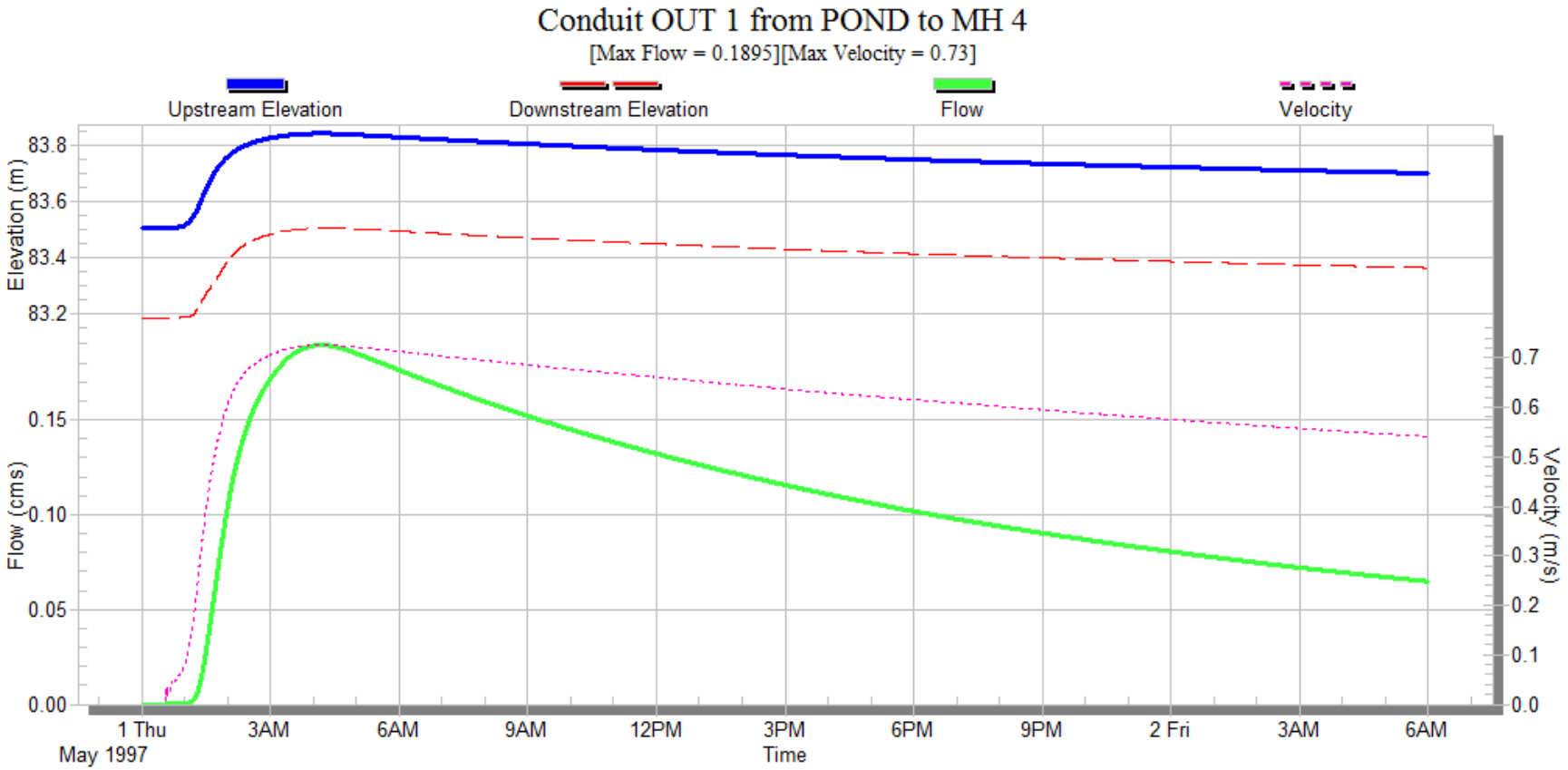
# UPDATE TO DESIGN BRIEF
## AVALON SOUTH STORMWATER FACILITY
## NEIGHBOURHOOD 4 SUBWATERSHED BOUNDARIES

| DATE | SCALE | DWG. NO. |
|---|---|---|
| FEB. 2011 | 1:5000 | FIGURE 2 |

J:\29226-N4SWMupdate\5.9 Drawings\5.9civil\current\FIGURE-2.dwg Layout Name: FIGURE 2 Last Saved By:SVukic Feb 08, 2011 - 3:27pm

# Appendix C

XPSWMM OUTPUT
25mm 4 Hour Chicago Design Storm



# Water Quality Volume Calculations

The stormwater management facility is designed as a hybrid wetland-wet pond at an Enhanced Level of Protection.

Drainage area = 176.53 ha

(148.56 ha (existing development) + 28.01 ha (Isgar Lands) =176.53 ha)

Total imperviousness ratio = 57%

*From MOE Stormwater Management Planning and Design Manual, March 2003. p. 3-10:*

| **Protection Level** | **SWMP Type** | **Storage Volume ($m^3$/ha) for Impervious Level** | |
|---|---|---|---|
| | | **55 %** | **70 %** |
| *Enhanced*<br>80% long-term TSS removal | Hybrid | 150 | 175 |

Total storage volume for wet pond:

$Y_3 = Y_2+(X_3-X_2)[(Y_2-Y_1)/(X_2-X_1)]$

$= 150 + (175 – 150)[(57 – 55)/(70 – 55)]$

$= 153.3$ $m^3$/ha

An imperviousness ratio of 57% corresponds to a total storage volume of 153 $m^3$/ha.

If extended detention = 40 $m^3$/ha

Then permanent storage = (153.3 $m^3$/ha – 40 $m^3$/ha) = 113.3 $m^3$/ha

Therefore:

Permanent storage volume = 113.3 $m^3$/ha x 176.53 ha = 20001 $m^3$ = 2.00 ha-m

Extended detention volume = 40 $m^3$/ha x 176.53 ha = 7061 $m^3$ = 0.706 ha-m

# Appendix D

## SUMMARY OF HYDROLOGICAL PARAMETERS FOR AVALON SOUTH - FUTURE DEVELOPMENT WITH ISGAR LANDS

| Area ID | Manhole | Area (ha) | Avalon South Land Use | | | | | | Summerside Land Use | | Isgar Land Use | | | | | Weighted TIMP (%) | Weighted XIMP (%) | Weighted Runoff Coefficient | Impervious Length Measured ($L_m$,m) | Impervious Length Calculated ($L_c$, m) | Average Impervious Length ($L_{avg}$, m) | Total Minor System Flowrate (l/s) | On-site Storage | | Weighted TIMP | Weighted XIMP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Single Family Units (Updated IMP) | Townhouse (Updated IMP) | Stacked Townhouses (Updated IMP) | Park | School | Commerical/ Mixed Use | H-114 | H-217 | Single Family Homes - Avg b/w MAX and Avg Zoning | Townhouses - Avg b/w MAX and Avg Zoning | Multiples | Parks | Hydro Easement | | | | | | | | Unit rate ($m^3$/ha) | Required ($m^3$) | | |
| **TIMP Value** | | | 58 | 59 | 68 | 10 | 57 | 80 | 53 | 61 | 60 | 66 | 80 | 28 | 28 | | | | | | | | | | | |
| **XIMP Value** | | | 35 | 35 | 52 | 0 | 57 | 80 | 45 | 49 | 45 | 50 | 80 | 0 | 0 | | | | | | | | | | | |
| **Unit Flow Rate (l/s/ha)** | | | 85 | 85 | 85 | 30 | 85 | 85 | 85 | 85 | 200 | 200 | 200 | 200 | 200 | | | | | | | | | | | |
| **Unit Storage Rate (m3/ha)** | | | | | | | | | | | 76 | 87 | 118 | 257 | NONE | | | | | | | | | | | |
| **Equivalent Runoff Coefficient (C) from TIMP** | | | 0.61 | 0.61 | 0.68 | 0.27 | 0.60 | 0.76 | 0.57 | 0.63 | 0.62 | 0.66 | 0.76 | 0.40 | 0.40 | | | | | | | | | | | |
| **Western Trunk to Pond** | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 40 | 505 | 11.73 | 8.51 | 1.89 | 0.31 | 1.02 | | | | | | | | | | 54.25 | 32.41 | 0.58 | 548 | 279.64 | 414 | 940.95 | | | 636.4 | 380.1 |
| 41 | 521 | 9.06 | 8.12 | 0.94 | | | | | | | | | | | | 58.10 | 35.00 | 0.61 | 659 | 245.76 | 452 | 770.10 | | | 526.4 | 317.1 |
| 42 | 529 | 4.10 | Rural Area Tp=0.41 hr | | | | | | | | | | | | | | | | | | | 123.00 | | | 0.0 | 0.0 |
| 43 | 539 | 17.21 | 11.16 | 3.9 | 1.46 | 0.32 | | 0.37 | | | | | | | | 58.66 | 36.76 | 0.61 | 560 | 338.72 | 449 | 1445.25 | | | 1009.5 | 632.6 |
| 44 | 541 | 4.06 | 0.54 | 2.03 | 1.21 | 0.28 | | | | | | | | | | 58.17 | 37.65 | 0.61 | 165 | 164.52 | 165 | 322.90 | | | 236.2 | 152.9 |
| 45 | 542 | 3.13 | | | | | 3.13 | | | | | | | | | 57.00 | 57.00 | 0.60 | 150 | 144.45 | 147 | 266.05 | | | 178.4 | 178.4 |
| 46 | 544 | 19.48 | 1.71 | 11.47 | 1.79 | 0.97 | | 3.54 | | | | | | | | 61.12 | 43.00 | 0.63 | 568 | 360.37 | 464 | 1602.45 | | | 1190.5 | 837.6 |
| 47 | 546 | 3.79 | 2.39 | 0.44 | 0.67 | 0.29 | | | | | | | | | | 56.21 | 35.33 | 0.59 | 300 | 158.95 | 229 | 306.20 | | | 213.0 | 133.9 |
| **Total to Western Trunk (ha)** | | **72.6** | | | | | | | | | | | | | | | | | | | | | | | | |
| **Eastern Trunk to Pond** | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 50 | 111 | 3.65 | | | | | | 3.65 | | | | | | | | 80.00 | 80.00 | 0.76 | 428 | 155.99 | 292 | 310.25 | | | 292.0 | 292.0 |
| H-114 | 114/112 | 19.93 | | | | | | | 19.93 | | | | | | | 52.97 | 44.91 | 0.57 | n/a* | 364.51 | n/a* | n/a* | | | 1055.6 | 895.1 |
| H-217 | 217/107 | 6.13 | | | | | | | | 6.13 | | | | | | 60.96 | 49.34 | 0.63 | n/a* | 202.16 | n/a* | n/a* | | | 373.7 | 302.4 |
| 53 | 110 | 17.48 | 4.86 | 4.01 | 2.12 | 1.06 | 5.43 | | | | | | | | | 56.22 | 41.77 | 0.59 | 552 | 341.37 | 447 | 1427.50 | | | 982.7 | 730.2 |
| 54 | 107 | 13.08 | 8.71 | 2.18 | | 2.19 | | | | | | | | | | 50.13 | 29.14 | 0.55 | 655 | 295.30 | 475 | 991.35 | | | 655.7 | 381.2 |
| 55 | 105 | 15.69 | 9.08 | 5.79 | | | | 0.82 | | | | | | | | 59.52 | 37.35 | 0.62 | 736 | 323.42 | 530 | 1333.65 | | | 933.9 | 586.1 |
| **Total to Eastern Trunk (ha)** | | **75.96** | | | | | | | | | | | | | | | | | | | | | | | | |
| **ISGAR LANDS** | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **New Western Trunk** | | | | | | | | | | | | | | | | | | | | | | | | | | |
| I1 | POND | 8.35 | | | | | | | | | 8.35 | | | | | 60.00 | 45.00 | 0.62 | 478 | 235.94 | 357 | 1670.00 | 75.60 | 631.3 | 501.0 | 375.8 |
| **Total New Western Trunk Drainage Area (ha)** | | **8.35** | | | | | | | | | | | | | | | | | | | | | | | | |
| **New Eastern Trunk** | | | | | | | | | | | | | | | | | | | | | | | | | | |
| I2 | POND | 12.02 | | | | | | | | | 6.44 | 3.98 | 1.60 | | | 64.65 | 51.31 | 0.65 | 674 | 283.08 | 479 | 2404.00 | 84.90 | 1020.5 | 777.1 | 616.8 |
| I3 | POND | 7.64 | | | | | | | | | 5.05 | | | 1.74 | 0.8452 | 49.17 | 29.77 | 0.54 | 359 | 225.68 | 292 | 1528.00 | 108.55 | 829.3 | 375.7 | 227.5 |
| **Total New Eastern Trunk Drainage Area (ha)** | | **19.66** | | | | | | | | | | | | | | | | | | | | | | | | |
| **POND AREA** | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 60 | SWMF | 12.50 | Rural Area Tp=0.25 hr with CN 95 | | | | | | | | | | | | | | | | | | | UNCONTROLLED | | | 0 | 0 |
| **Total Area to Pond (ha)** | | **189.03** | | | | | | | | | | | | | | | | | | | | | | | 9937.7 | 7039.5 |
| | | | | | | | | | | | | | | | | | | | | | | | | **Total Weighted TIMP and XIMP (%)** | **53** | **37** |

***Notes:*** n/a* -- These areas were modeled in detail as part of Mattamy's Summerside Development located east of Portobello Boulevard in 2011

```
00001> ================================================================================
00002>
00003>    SSSSS  W   W  M   M  H   H  Y   Y  M   M   OOO       999    999    =========
00004>    S      W W W  MM MM  H   H   Y Y   MM MM  O   O      9   9  9   9
00005>    SSSSS  W W W  M M M  HHHHH    Y    M M M  O   O  ##  9   9  9   9   Ver  4.05
00006>        S   W W   M   M  H   H    Y    M   M  O   O       9999   9999   Sept 2011
00007>    SSSSS   W W   M   M  H   H    Y    M   M   OOO           9      9   =========
00008>                                                          9   9  9   9   # 3699242
00009>          StormWater Management HYdrologic Model          999    999    =========
00010>
00011>  ********************************************************************************
00012>  ***************************** SWMHYMO Ver/4.05  ********************************
00013>  *********  A single event and continuous hydrologic simulation model  *********
00014>  *********     based on the principles of HYMO and its successors      *********
00015>  *********                OTTHYMO-83 and OTTHYMO-89.                   *********
00016>  ********************************************************************************
00017>  ********* Distributed by:  J.F. Sabourin and Associates Inc.           *********
00018>  *********                  Ottawa,  Ontario: (613) 836-3884           *********
00019>  *********                  Gatineau, Quebec: (819) 243-6858           *********
00020>  *********                  E-Mail: swmhymo@jfsa.Com                   *********
00021>  ********************************************************************************
00022>
00023>  ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
00024>  +++++++++ Licensed user: Cumming Cockburn Limited                      +++++++++
00025>  +++++++++                  Ottawa                SERIAL#:3699242      +++++++++
00026>  ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
00027>
00028>  ********************************************************************************
00029>  *********          ++++++ PROGRAM ARRAY DIMENSIONS ++++++            *********
00030>  *********          Maximum value for ID numbers  :     10            *********
00031>  *********          Max. number of rainfall points: 105408            *********
00032>  *********          Max. number of flow points    : 105408            *********
00033>  ********************************************************************************
00034>
00035>
00036>  **********************   D E T A I L E D   O U T P U T   **********************
00037>  ********************************************************************************
00038>  *         DATE: 2018-01-30     TIME: 11:16:41     RUN COUNTER: 000299          *
00039>  ********************************************************************************
00040>  * Input   filename: C:\SWMHYMO\111083\2018-0~1\ISGAR15.DAT                     *
00041>  * Output  filename: C:\SWMHYMO\111083\2018-0~1\ISGAR15.out                     *
00042>  * Summary filename: C:\SWMHYMO\111083\2018-0~1\ISGAR15.sum                     *
00043>  * User comments:                                                              *
00044>  * 1:_____________________________________________________________________     *
00045>  * 2:_____________________________________________________________________     *
00046>  * 3:_____________________________________________________________________     *
00047>  ********************************************************************************
00048>
00049> --------------------------------------------------------------------------------
00050> 001:0001--------------------------------------------------------------------------
00051> --------------------
00052> | START            |  Project  dir.: C:\SWMHYMO\111083\2018-0~1\
00053> --------------------  Rainfall dir.: C:\SWMHYMO\111083\2018-0~1\
00054>     TZERO =   .00 hrs on        0
00055>     METOUT=   2 (output = METRIC)
00056>     NRUN  = 001
00057>     NSTORM=   0
00058> --------------------------------------------------------------------------------
00059> 001:0002--------------------------------------------------------------------------
00060> *
00061> *
00062> *#============================================================
00063> *#
00064> *#       ====        NEIHGBOURHOOD 4 AND 5                 ====
00065> *#       ====        TOWNSHIP OF CUMBERLAND                ====
00066> *#       ====      FUTURE DEVELOPMENT CONDITIONS           ====
00067> *#       ====          CONTROLLED WITH SWM                 ====
00068> *#============================================================
00069> *#============================================================
00070> *#        ====              IBI GROUP                 ====
00071> *#============================================================
00072> *#              NEIGHBOURHOOD 5 - INCLUDING AREA 1
00073> *#============================================================
00074> *
00075> *
00076> *# ORDER OF STORMS
00077> *# - 2 YEAR 24 HOUR SCS - DT=12 MIN - *.030
00078> *# - 5 YEAR 24 HOUR SCS - DT=12 MIN - *.031
00079> *# - 100 YEAR 24 HOUR SCS - DT=12 MIN - *.035
00080> *# - JULY 1, 1979 HISTORICAL - DT=5 MIN - *.080
00081> *# - 25 MM 4 HOUR CHICAGO - DT=2.5 MIN - *.001
00082> *# - 100 YEAR 3 HOUR CHICAGO - DT=10 MIN - *.045 (HORTON - ISGAR ONLY)
00083> *# - 100 YEAR 3 HOUR CHICAGO + 20% - DT=10 MIN - *.090 (HORTON - ISGAR ONLY)
00084> *# - 100 YEAR 24 HOUR SCS + 20% - DT=12 MIN - *.092
00085> *#
00086> *
00087> *
00088> *
00089> *#============================================================
00090> *# ====    2 YR 24 HOUR SCS TYPE II (48 MM)              ====
00091> *# ====    (12 MIN TIME STEP)                            ====
00092> *#============================================================
00093> *
00094> *
00095> --------------------
00096> | READ STORM       |    Filename: 2 YEAR 24 HOUR SCS TYPE II STORM ( MM) -
00097> | Ptotal=  48.00 mm|    Comments: 2 YEAR 24 HOUR SCS TYPE II STORM ( MM) -
00098> --------------------
00099>              TIME    RAIN |   TIME    RAIN |   TIME    RAIN |   TIME    RAIN
00100>               hrs   mm/hr |    hrs   mm/hr |    hrs   mm/hr |    hrs   mm/hr
00101>               .20    .000 |   6.40    .960 |  12.60   6.000 |  18.80    .960
00102>               .40    .480 |   6.60    .960 |  12.80   4.320 |  19.00    .960
00103>               .60    .480 |   6.80    .960 |  13.00   4.080 |  19.20    .960
00104>               .80    .480 |   7.00    .960 |  13.20   2.880 |  19.40    .720
00105>              1.00    .480 |   7.20    .960 |  13.40   2.400 |  19.60    .720
00106>              1.20    .480 |   7.40    .960 |  13.60   2.400 |  19.80    .720
00107>              1.40    .480 |   7.60    .960 |  13.80   2.400 |  20.00    .720
00108>              1.60    .480 |   7.80    .960 |  14.00   2.400 |  20.20    .720
00109>              1.80    .480 |   8.00    .960 |  14.20   2.400 |  20.40    .720
00110>              2.00    .480 |   8.20    .960 |  14.40   1.440 |  20.60    .720
00111>              2.20    .480 |   8.40   1.440 |  14.60   1.440 |  20.80    .720
00112>              2.40    .480 |   8.60   1.440 |  14.80   1.440 |  21.00    .720
00113>              2.60    .480 |   8.80   1.440 |  15.00   1.440 |  21.20    .720
00114>              2.80    .480 |   9.00   1.440 |  15.20   1.440 |  21.40    .480
00115>              3.00    .480 |   9.20   1.440 |  15.40   1.440 |  21.60    .480
00116>              3.20    .480 |   9.40   1.440 |  15.60   1.440 |  21.80    .480
00117>              3.40    .480 |   9.60   1.440 |  15.80   1.440 |  22.00    .480
00118>              3.60    .480 |   9.80   1.440 |  16.00   1.440 |  22.20    .480
00119>              3.80    .480 |  10.00   1.440 |  16.20   1.440 |  22.40    .480
00120>              4.00    .480 |  10.20   1.440 |  16.40    .960 |  22.60    .480
00121>              4.20    .480 |  10.40   2.640 |  16.60    .960 |  22.80    .480
00122>              4.40    .960 |  10.60   2.640 |  16.80    .960 |  23.00    .480
00123>              4.60    .960 |  10.80   2.640 |  17.00    .960 |  23.20    .480
00124>              4.80    .960 |  11.00   2.640 |  17.20    .960 |  23.40    .480
00125>              5.00    .960 |  11.20   2.640 |  17.40    .960 |  23.60    .480
00126>              5.20    .960 |  11.40   3.600 |  17.60    .960 |  23.80    .168
00127>              5.40    .960 |  11.60   5.280 |  17.80    .960 |  24.00    .168
00128>              5.60    .960 |  11.80  12.000 |  18.00    .960 |  24.20    .144
00129>              5.80    .960 |  12.00  26.400 |  18.20    .960 |
00130>              6.00    .960 |  12.20  55.200 |  18.40    .960 |
00131>              6.20    .960 |  12.40   9.600 |  18.60    .960 |
00132>
00133> --------------------------------------------------------------------------------
00134> 001:0003--------------------------------------------------------------------------
00135> *
00136> *
00137> *#============================================
00138> *#     NEIGHBOURHOOD 4                      ||
00139> *#============================================
00140> *
00141> *#=======================
00142> *#   DRAINAGE AREA 40  ||
00143> *#                     ||
00144> *#=======================
00145> *
00146> ----------------------
00147> | CALIB STANDHYD     |   Area    (ha)=   11.73
00148> | 06:000204 DT=12.00 |   Total Imp(%)=   54.00   Dir. Conn.(%)=   32.00
00149> ----------------------
00150>                              IMPERVIOUS    PERVIOUS (i)
00151>      Surface Area     (ha)=       6.33         5.40
00152>      Dep. Storage     (mm)=        .80         1.50
00153>      Average Slope     (%)=        .20         2.00
00154>      Length            (m)=     414.00        40.00
00155>      Mannings n            =       .013         .250
00156>
00157>      Max.eff.Inten.(mm/hr)=      55.20        28.98
00158>                 over (min)       12.00        24.00
00159>      Storage Coeff.  (min)=      12.32 (ii)   23.90 (ii)
00160>      Unit Hyd. Tpeak (min)=      12.00        24.00
00161>      Unit Hyd. peak  (cms)=        .09          .05
00162>                                                          *TOTALS*
00163>      PEAK FLOW       (cms)=        .44          .29          .645 (iii)
00164>      TIME TO PEAK    (hrs)=      12.20        12.40         12.200
00165>      RUNOFF VOLUME    (mm)=      47.20        21.17         29.502
00166>      TOTAL RAINFALL   (mm)=      48.00        48.00         48.000
00167>      RUNOFF COEFFICIENT   =        .98          .44           .615
00168>
00169>        (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
00170>            CN* =  75.0    Ia = Dep. Storage  (Above)
00171>       (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
00172>            THAN THE STORAGE COEFFICIENT.
00173>      (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
00174>
00175> --------------------------------------------------------------------------------
00176> 001:0004--------------------------------------------------------------------------
00177> *
00178> *
00179> *#==================================
00180> *# OSD 85 L/S/HA PARKS 30 L/S/HA
00181> *#  85*10.71 = 910.4 L/S
00182> *#  30*1.02 = 30.6 L/S
00183> *#  TOTAL = 941 L/S
00184> *#==================================
00185> *
00186> ----------------------
00187> | ROUTE RESERVOIR    |    Requested routing time step = 12.0 min.
00188> |  IN>06:(000204)    |
00189> | OUT<09:(000471)    |    =========  OUTLOW STORAGE TABLE  =========
00190> ----------------------    OUTFLOW     STORAGE   |  OUTFLOW     STORAGE
00191>                             (cms)      (ha.m.)  |    (cms)    (ha.m.)
00192>                              .000  .0000E+00    |     .941  .1368E+00
00193>                              .900  .2000E-02    |     .000  .0000E+00
00194>
00195>      ROUTING RESULTS             AREA     QPEAK     TPEAK       R.V.
00196>      --------------------         (ha)     (cms)     (hrs)       (mm)
00197>      INFLOW >06: (000204)      11.73      .645    12.200     29.502
00198>      OUTFLOW<09: (000471)      11.73      .630    12.200     29.502
00199>
00200>                     PEAK   FLOW   REDUCTION [Qout/Qin](%)=   97.690
00201>                     TIME SHIFT OF PEAK FLOW         (min)=      .00
00202>                     MAXIMUM  STORAGE   USED       (ha.m.)=.1936E-02
00203>
00204> --------------------------------------------------------------------------------
00205> 001:0005--------------------------------------------------------------------------
00206> *
00207> *# MH 505
00208> *
00209> *
00210> *
00211> *#=======================
00212> *#   DRAINAGE AREA 41  ||
00213> *#=======================
00214> *
00215> *
00216> ----------------------
00217> | CALIB STANDHYD     |   Area    (ha)=    9.06
00218> | 05:000204 DT=12.00 |   Total Imp(%)=   58.00   Dir. Conn.(%)=   35.00
00219> ----------------------
00220>                              IMPERVIOUS    PERVIOUS (i)
00221>      Surface Area     (ha)=       5.25         3.81
00222>      Dep. Storage     (mm)=        .80         1.50
00223>      Average Slope     (%)=        .20         2.00
00224>      Length            (m)=     452.00        40.00
00225>      Mannings n            =       .013         .250
00226>
00227>      Max.eff.Inten.(mm/hr)=      55.20        31.20
00228>                 over (min)       12.00        24.00
00229>      Storage Coeff.  (min)=      12.98 (ii)   24.23 (ii)
00230>      Unit Hyd. Tpeak (min)=      12.00        24.00
00231>      Unit Hyd. peak  (cms)=        .09          .05
00232>                                                          *TOTALS*
00233>      PEAK FLOW       (cms)=        .36          .22          .519 (iii)
00234>      TIME TO PEAK    (hrs)=      12.20        12.40         12.200
00235>      RUNOFF VOLUME    (mm)=      47.20        21.74         30.652
00236>      TOTAL RAINFALL   (mm)=      48.00        48.00         48.000
00237>      RUNOFF COEFFICIENT   =        .98          .45           .639
00238>
00239>        (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
00240>            CN* =  75.0    Ia = Dep. Storage  (Above)
00241>       (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
00242>            THAN THE STORAGE COEFFICIENT.
00243>      (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
00244>
00245> --------------------------------------------------------------------------------
00246> 001:0006--------------------------------------------------------------------------
00247> *
00248> *#==========================
00249> *# OSD 85 L/S/HA
00250> *#  85*9.06 = 770.1 L/S
00251> *#==========================
00252> *
00253> ----------------------
00254> | ROUTE RESERVOIR    |    Requested routing time step = 12.0 min.
```

```
00255> |  IN>05:(000204)   |
00256> | OUT<07:(000471)   |    =========  OUTLFOW STORAGE TABLE  =========
00257> ---------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
00258>                            (cms)    (ha.m.)   |    (cms)    (ha.m.)
00259>                             .000  .0000E+00   |     .770  .1072E+00
00260>                             .700  .2000E-02   |     .000  .0000E+00
00261>
00262>      ROUTING RESULTS            AREA     QPEAK     TPEAK       R.V.
00263>      ---------------------       (ha)     (cms)     (hrs)       (mm)
00264>      INFLOW >05: (000204)       9.06      .519    12.200     30.652
00265>      OUTFLOW<07: (000471)       9.06      .503    12.200     30.652
00266>
00267>                     PEAK   FLOW   REDUCTION [Qout/Qin](%)=   97.065
00268>                     TIME SHIFT OF PEAK FLOW         (min)=      .00
00269>                     MAXIMUM  STORAGE   USED       (ha.m.)=.1986E-02
00270>
00271> ------------------------------------------------------------------------------
00272> 001:0007-------------------------------------------------------------------------
00273> *
00274> *# MH 521
00275> *
00276> ------------------------
00277> | ADD HYD (       401) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
00278> ------------------------                   (ha)     (cms)   (hrs)   (mm)   (cms)
00279>                        ID1 09:       471    11.73     .630   12.20  29.50    .000
00280>                       +ID2 07:       471     9.06     .503   12.20  30.65    .000
00281>                        ================================================
00282>                        SUM 06:       401    20.79    1.133   12.20  30.00    .000
00283>
00284>    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
00285>
00286> ------------------------------------------------------------------------------
00287> 001:0008-------------------------------------------------------------------------
00288> *
00289> *#########################
00290> *#    DRAINAGE AREA 42 ||
00291> *#                     ||
00292> *#########################
00293> *
00294> *
00295> ---------------------
00296> | CALIB NASHYD      |   Area    (ha)=    4.10   Curve Number   (CN)=75.00
00297> | 05:000100 DT=12.00 |   Ia      (mm)=   1.500   # of Linear Res.(N)= 3.00
00298> ---------------------   U.H. Tp(hrs)=    .410
00299>
00300>      Unit Hyd Qpeak  (cms)=     .382
00301>
00302>      PEAK FLOW       (cms)=     .103 (i)
00303>      TIME TO PEAK    (hrs)=   12.400
00304>      RUNOFF VOLUME    (mm)=   16.485
00305>      TOTAL RAINFALL   (mm)=   48.000
00306>      RUNOFF COEFFICIENT   =     .343
00307>
00308>      (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
00309>
00310> ------------------------------------------------------------------------------
00311> 001:0009-------------------------------------------------------------------------
00312> *
00313> *#########################
00314> *# OSD 30 L/S/HA
00315> *#  30*4.1 = 123 L/S
00316> *#########################
00317> *
00318> ---------------------
00319> | ROUTE RESERVOIR   |    Requested routing time step = 12.0 min.
00320> |  IN>05:(000100)   |
00321> | OUT<04:(000471)   |    =========  OUTLFOW STORAGE TABLE  =========
00322> ---------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
00323>                            (cms)    (ha.m.)   |    (cms)    (ha.m.)
00324>                             .000  .0000E+00   |     .123  .4859E-01
00325>                             .090  .2000E-02   |     .000  .0000E+00
00326>
00327>      ROUTING RESULTS            AREA     QPEAK     TPEAK       R.V.
00328>      ---------------------       (ha)     (cms)     (hrs)       (mm)
00329>      INFLOW >05: (000100)       4.10      .103    12.400     16.485
00330>      OUTFLOW<04: (000471)       4.10      .091    12.600     16.485
00331>
00332>                     PEAK   FLOW   REDUCTION [Qout/Qin](%)=   88.337
00333>                     TIME SHIFT OF PEAK FLOW         (min)=    12.00
00334>                     MAXIMUM  STORAGE   USED       (ha.m.)=.3063E-02
00335>
00336> ------------------------------------------------------------------------------
00337> 001:0010-------------------------------------------------------------------------
00338> *
00339> *# MH 529
00340> *
00341> *
00342> ------------------------
00343> | ADD HYD (       105) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
00344> ------------------------                   (ha)     (cms)   (hrs)   (mm)   (cms)
00345>                        ID1 06:       401    20.79    1.133   12.20  30.00    .000
00346>                       +ID2 04:       471     4.10     .091   12.60  16.48    .000
00347>                        ================================================
00348>                        SUM 01:       105    24.89    1.195   12.20  27.78    .000
00349>
00350>    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
00351>
00352> ------------------------------------------------------------------------------
00353> 001:0011-------------------------------------------------------------------------
00354> *
00355> *
00356> *
00357> *#########################
00358> *#    DRAINAGE AREA 43 ||
00359> *#                     ||
00360> *#########################
00361> *
00362> *
00363> ---------------------
00364> | CALIB STANDHYD     |   Area    (ha)=   17.21
00365> | 05:000204 DT=12.00 |   Total Imp(%)=   59.00   Dir. Conn.(%)=   37.00
00366> ---------------------
00367>                                IMPERVIOUS    PERVIOUS (i)
00368>      Surface Area     (ha)=      10.15         7.06
00369>      Dep. Storage     (mm)=        .80         1.50
00370>      Average Slope     (%)=        .20         2.00
00371>      Length            (m)=     449.00        40.00
00372>      Mannings n           =       .013         .250
00373>
00374>      Max.eff.Inten.(mm/hr)=      55.20        30.85
00375>                   over (min)      12.00        24.00
00376>      Storage Coeff.  (min)=      12.93 (ii)   24.23 (ii)
00377>      Unit Hyd. Tpeak (min)=      12.00        24.00
00378>      Unit Hyd. peak  (cms)=        .09          .05
00379>                                                          *TOTALS*
00380>      PEAK FLOW       (cms)=        .73          .40         1.015 (iii)
00381>      TIME TO PEAK    (hrs)=      12.20        12.40        12.200
00382>      RUNOFF VOLUME    (mm)=      47.20        21.65        31.105
00383>      TOTAL RAINFALL   (mm)=      48.00        48.00        48.000
00384>      RUNOFF COEFFICIENT   =        .98          .45          .648
00385>
00386>        (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
00387>            CN* =  75.0    Ia = Dep. Storage  (Above)
00388>       (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
00389>            THAN THE STORAGE COEFFICIENT.
00390>      (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
00391>
00392> ------------------------------------------------------------------------------
00393> 001:0012-------------------------------------------------------------------------
00394> *
00395> *
00396> *#########################
00397> *# OSD 85 L/S/HA PARKS 30 L/S/HA
00398> *#  85*16.89 = 1435.7 L/S
00399> *#  30*0.32 =9.6 L/S
00400> *#  TOTAL =1445 L/S
00401> *#########################
00402> *
00403> ---------------------
00404> | ROUTE RESERVOIR   |    Requested routing time step = 12.0 min.
00405> |  IN>05:(000204)   |
00406> | OUT<08:(000471)   |    =========  OUTLFOW STORAGE TABLE  =========
00407> ---------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
00408>                            (cms)    (ha.m.)   |    (cms)    (ha.m.)
00409>                             .000  .0000E+00   |    1.445  .2103E+00
00410>                            1.400  .2000E-02   |     .000  .0000E+00
00411>
00412>      ROUTING RESULTS            AREA     QPEAK     TPEAK       R.V.
00413>      ---------------------       (ha)     (cms)     (hrs)       (mm)
00414>      INFLOW >05: (000204)      17.21     1.015    12.200     31.105
00415>      OUTFLOW<08: (000471)      17.21     1.000    12.200     31.105
00416>
00417>                     PEAK   FLOW   REDUCTION [Qout/Qin](%)=   98.521
00418>                     TIME SHIFT OF PEAK FLOW         (min)=      .00
00419>                     MAXIMUM  STORAGE   USED       (ha.m.)=.1969E-02
00420>
00421> ------------------------------------------------------------------------------
00422> 001:0013-------------------------------------------------------------------------
00423> *
00424> *# MH 539
00425> *
00426> ------------------------
00427> | ADD HYD (       100) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
00428> ------------------------                   (ha)     (cms)   (hrs)   (mm)   (cms)
00429>                        ID1 01:       105    24.89    1.195   12.20  27.78    .000
00430>                       +ID2 08:       471    17.21    1.000   12.20  31.11    .000
00431>                        ================================================
00432>                        SUM 07:       100    42.10    2.194   12.20  29.14    .000
00433>
00434>    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
00435>
00436> ------------------------------------------------------------------------------
00437> 001:0014-------------------------------------------------------------------------
00438> *
00439> *
00440> *#########################
00441> *#    DRAINAGE AREA 44 ||
00442> *#                     ||
00443> *#########################
00444> *
00445> *
00446> ---------------------
00447> | CALIB STANDHYD     |   Area    (ha)=    4.06
00448> | 05:000204 DT=12.00 |   Total Imp(%)=   58.00   Dir. Conn.(%)=   38.00
00449> ---------------------
00450>                                IMPERVIOUS    PERVIOUS (i)
00451>      Surface Area     (ha)=       2.35         1.71
00452>      Dep. Storage     (mm)=        .80         1.50
00453>      Average Slope     (%)=        .20         2.00
00454>      Length            (m)=     165.00        40.00
00455>      Mannings n           =       .013         .250
00456>
00457>      Max.eff.Inten.(mm/hr)=      55.20        42.02
00458>                   over (min)      12.00        12.00
00459>      Storage Coeff.  (min)=       7.09 (ii)   17.08 (ii)
00460>      Unit Hyd. Tpeak (min)=      12.00        12.00
00461>      Unit Hyd. peak  (cms)=        .12          .07
00462>                                                          *TOTALS*
00463>      PEAK FLOW       (cms)=        .21          .12          .335 (iii)
00464>      TIME TO PEAK    (hrs)=      12.20        12.20        12.200
00465>      RUNOFF VOLUME    (mm)=      47.20        21.16        31.053
00466>      TOTAL RAINFALL   (mm)=      48.00        48.00        48.000
00467>      RUNOFF COEFFICIENT   =        .98          .44          .647
00468>       *** WARNING: Storage Coefficient is smaller than DT!
00469>                    Use a smaller DT or a larger area.
00470>
00471>        (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
00472>            CN* =  75.0    Ia = Dep. Storage  (Above)
00473>       (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
00474>            THAN THE STORAGE COEFFICIENT.
00475>      (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
00476>
00477> ------------------------------------------------------------------------------
00478> 001:0015-------------------------------------------------------------------------
00479> *
00480> *
00481> *#########################
00482> *# OSD 85 L/S/HA  PARK 30 L/S/HA
00483> *#  85*3.7 = 314.5 L/S
00484> *#  30*0.28 = 8.4 L/S
00485> *#  TOTAL = 322.9 L/S
00486> *#########################
00487> *
00488> ---------------------
00489> | ROUTE RESERVOIR   |    Requested routing time step = 12.0 min.
00490> |  IN>05:(000204)   |
00491> | OUT<09:(000471)   |    =========  OUTLFOW STORAGE TABLE  =========
00492> ---------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
00493>                            (cms)    (ha.m.)   |    (cms)    (ha.m.)
00494>                             .000  .0000E+00   |     .323  .6847E-01
00495>                             .290  .2000E-02   |     .000  .0000E+00
00496>
00497>      ROUTING RESULTS            AREA     QPEAK     TPEAK       R.V.
00498>      ---------------------       (ha)     (cms)     (hrs)       (mm)
00499>      INFLOW >05: (000204)       4.06      .335    12.200     31.053
00500>      OUTFLOW<09: (000471)       4.06      .290    12.200     31.053
00501>
00502>                     PEAK   FLOW   REDUCTION [Qout/Qin](%)=   86.622
00503>                     TIME SHIFT OF PEAK FLOW         (min)=      .00
00504>                     MAXIMUM  STORAGE   USED       (ha.m.)=.4542E-02
00505>
00506> ------------------------------------------------------------------------------
00507> 001:0016-------------------------------------------------------------------------
00508> *
```

```
00509> *# MH 541
00510> *
00511> ----------------------
00512> | ADD HYD (       100) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
00513> ----------------------                   (ha)     (cms)   (hrs)   (mm)   (cms)
00514>                        ID1 07:       100    42.10    2.194   12.20  29.14    .000
00515>                       +ID2 09:       471     4.06     .290   12.20  31.05    .000
00516>                        ========================================================
00517>                        SUM 03:       100    46.16    2.485   12.20  29.31    .000
00518>
00519>    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
00520>
00521> ------------------------------------------------------------------------------
00522> 001:0017--------------------------------------------------------------------------
00523> *
00524> *
00525> *#########################
00526> *#    DRAINAGE AREA 45 ||
00527> *#                     ||
00528> *#########################
00529> *
00530> ----------------------
00531> | CALIB STANDHYD     |   Area    (ha)=    3.13
00532> | 05:000204 DT=12.00 |   Total Imp(%)=   57.00   Dir. Conn.(%)=   57.00
00533> ----------------------
00534>                              IMPERVIOUS    PERVIOUS (i)
00535>      Surface Area     (ha)=       1.78         1.35
00536>      Dep. Storage     (mm)=        .80         1.50
00537>      Average Slope     (%)=        .20         2.00
00538>      Length            (m)=     147.00        40.00
00539>      Mannings n             =       .013         .250
00540>
00541>      Max.eff.Inten.(mm/hr)=      55.20        15.00
00542>                 over (min)       12.00        24.00
00543>      Storage Coeff.  (min)=       6.62 (ii)   21.69 (ii)
00544>      Unit Hyd. Tpeak (min)=      12.00        24.00
00545>      Unit Hyd. peak  (cms)=        .12          .05
00546>                                                          *TOTALS*
00547>      PEAK FLOW       (cms)=        .25          .04          .276 (iii)
00548>      TIME TO PEAK    (hrs)=      12.20        12.40        12.200
00549>      RUNOFF VOLUME    (mm)=      47.20        16.48        33.992
00550>      TOTAL RAINFALL   (mm)=      48.00        48.00        48.000
00551>      RUNOFF COEFFICIENT   =        .98          .34          .708
00552>       *** WARNING: Storage Coefficient is smaller than DT!
00553>                    Use a smaller DT or a larger area.
00554>
00555>       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
00556>           CN* =  75.0    Ia = Dep. Storage  (Above)
00557>      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
00558>           THAN THE STORAGE COEFFICIENT.
00559>     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
00560>
00561> ------------------------------------------------------------------------------
00562> 001:0018--------------------------------------------------------------------------
00563> *
00564> *
00565> *#########################
00566> *# OSD 85 L/S/HA
00567> *#  85*3.13 = 266.1 L/S
00568> *#########################
00569> *
00570> ----------------------
00571> | ROUTE RESERVOIR   |    Requested routing time step = 12.0 min.
00572> |  IN>05:(000204)   |
00573> | OUT<08:(000471)   |    =========  OUTLFOW STORAGE TABLE  =========
00574> ----------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
00575>                             (cms)    (ha.m.)   |    (cms)    (ha.m.)
00576>                              .000  .0000E+00   |     .266  .5982E-01
00577>                              .200  .2000E-02   |     .000  .0000E+00
00578>
00579>      ROUTING RESULTS            AREA     QPEAK     TPEAK       R.V.
00580>      --------------------       (ha)     (cms)     (hrs)       (mm)
00581>      INFLOW >05: (000204)       3.13      .276    12.200     33.992
00582>      OUTFLOW<08: (000471)       3.13      .203    12.200     33.992
00583>
00584>                     PEAK   FLOW   REDUCTION [Qout/Qin](%)=   73.358
00585>                     TIME SHIFT OF PEAK FLOW         (min)=      .00
00586>                     MAXIMUM  STORAGE   USED       (ha.m.)=.6895E-02
00587>
00588> ------------------------------------------------------------------------------
00589> 001:0019--------------------------------------------------------------------------
00590> *
00591> *# MH 542
00592> *
00593> ----------------------
00594> | ADD HYD (       100) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
00595> ----------------------                   (ha)     (cms)   (hrs)   (mm)   (cms)
00596>                        ID1 03:       100    46.16    2.485   12.20  29.31    .000
00597>                       +ID2 08:       471     3.13     .203   12.20  33.99    .000
00598>                        ========================================================
00599>                        SUM 04:       100    49.29    2.687   12.20  29.60    .000
00600>
00601>    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
00602>
00603> ------------------------------------------------------------------------------
00604> 001:0020--------------------------------------------------------------------------
00605> *
00606> *#########################
00607> *#    DRAINAGE AREA 46 ||
00608> *#                     ||
00609> *#########################
00610> *
00611> *
00612> ----------------------
00613> | CALIB STANDHYD     |   Area    (ha)=   19.48
00614> | 05:000204 DT=12.00 |   Total Imp(%)=   61.00   Dir. Conn.(%)=   43.00
00615> ----------------------
00616>                              IMPERVIOUS    PERVIOUS (i)
00617>      Surface Area     (ha)=      11.88         7.60
00618>      Dep. Storage     (mm)=        .80         1.50
00619>      Average Slope     (%)=        .20         2.00
00620>      Length            (m)=     464.00        40.00
00621>      Mannings n             =       .013         .250
00622>
00623>      Max.eff.Inten.(mm/hr)=      55.20        28.45
00624>                 over (min)       12.00        24.00
00625>      Storage Coeff.  (min)=      13.19 (ii)   24.86 (ii)
00626>      Unit Hyd. Tpeak (min)=      12.00        24.00
00627>      Unit Hyd. peak  (cms)=        .08          .05
00628>                                                          *TOTALS*
00629>      PEAK FLOW       (cms)=        .95          .40         1.230 (iii)
00630>      TIME TO PEAK    (hrs)=      12.20        12.40        12.200
00631>      RUNOFF VOLUME    (mm)=      47.20        21.03        32.285
00632>      TOTAL RAINFALL   (mm)=      48.00        48.00        48.000
00633>      RUNOFF COEFFICIENT   =        .98          .44          .673
00634>
00635>       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
00636>           CN* =  75.0    Ia = Dep. Storage  (Above)
00637>      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
00638>           THAN THE STORAGE COEFFICIENT.
00639>     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
00640>
00641> ------------------------------------------------------------------------------
00642> 001:0021--------------------------------------------------------------------------
00643> *
00644> *
00645> *#########################
00646> *# OSD 85 L/S/HA  PARK 30 L/S/HA
00647> *#  85*18.51 = 1573.4 L/S
00648> *#  30*0.97 = 29.1 L/S
00649> *#  TOTAL = 1602.5 L/S
00650> *#########################
00651> *
00652> ----------------------
00653> | ROUTE RESERVOIR   |    Requested routing time step = 12.0 min.
00654> |  IN>05:(000204)   |
00655> | OUT<08:(000471)   |    =========  OUTLFOW STORAGE TABLE  =========
00656> ----------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
00657>                             (cms)    (ha.m.)   |    (cms)    (ha.m.)
00658>                              .000  .0000E+00   |    1.602  .2804E+00
00659>                             1.550  .2000E-02   |     .000  .0000E+00
00660>
00661>      ROUTING RESULTS            AREA     QPEAK     TPEAK       R.V.
00662>      --------------------       (ha)     (cms)     (hrs)       (mm)
00663>      INFLOW >05: (000204)      19.48     1.230    12.200     32.285
00664>      OUTFLOW<08: (000471)      19.48     1.214    12.200     32.285
00665>
00666>                     PEAK   FLOW   REDUCTION [Qout/Qin](%)=   98.679
00667>                     TIME SHIFT OF PEAK FLOW         (min)=      .00
00668>                     MAXIMUM  STORAGE   USED       (ha.m.)=.2151E-02
00669>
00670> ------------------------------------------------------------------------------
00671> 001:0022--------------------------------------------------------------------------
00672> *
00673> *# MH 544
00674> *
00675> ----------------------
00676> | ADD HYD (       100) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
00677> ----------------------                   (ha)     (cms)   (hrs)   (mm)   (cms)
00678>                        ID1 04:       100    49.29    2.687   12.20  29.60    .000
00679>                       +ID2 08:       471    19.48    1.214   12.20  32.29    .000
00680>                        ========================================================
00681>                        SUM 07:       100    68.77    3.901   12.20  30.36    .000
00682>
00683>    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
00684>
00685> ------------------------------------------------------------------------------
00686> 001:0023--------------------------------------------------------------------------
00687> *
00688> *#########################
00689> *#    DRAINAGE AREA 47 ||
00690> *#                     ||
00691> *#########################
00692> *
00693> *
00694> ----------------------
00695> | CALIB STANDHYD     |   Area    (ha)=    3.79
00696> | 04:000204 DT=12.00 |   Total Imp(%)=   56.00   Dir. Conn.(%)=   35.00
00697> ----------------------
00698>                              IMPERVIOUS    PERVIOUS (i)
00699>      Surface Area     (ha)=       2.12         1.67
00700>      Dep. Storage     (mm)=        .80         1.50
00701>      Average Slope     (%)=        .20         2.00
00702>      Length            (m)=     229.00        40.00
00703>      Mannings n             =       .013         .250
00704>
00705>      Max.eff.Inten.(mm/hr)=      55.20        28.94
00706>                 over (min)       12.00        24.00
00707>      Storage Coeff.  (min)=       8.63 (ii)   20.22 (ii)
00708>      Unit Hyd. Tpeak (min)=      12.00        24.00
00709>      Unit Hyd. peak  (cms)=        .11          .05
00710>                                                          *TOTALS*
00711>      PEAK FLOW       (cms)=        .17          .10          .243 (iii)
00712>      TIME TO PEAK    (hrs)=      12.20        12.40        12.200
00713>      RUNOFF VOLUME    (mm)=      47.20        21.17        30.278
00714>      TOTAL RAINFALL   (mm)=      48.00        48.00        48.000
00715>      RUNOFF COEFFICIENT   =        .98          .44          .631
00716>       *** WARNING: Storage Coefficient is smaller than DT!
00717>                    Use a smaller DT or a larger area.
00718>
00719>       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
00720>           CN* =  75.0    Ia = Dep. Storage  (Above)
00721>      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
00722>           THAN THE STORAGE COEFFICIENT.
00723>     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
00724>
00725> ------------------------------------------------------------------------------
00726> 001:0024--------------------------------------------------------------------------
00727> *
00728> *#########################
00729> *# OSD 85 L/S/HA  PARK 30 L/S/HA
00730> *#  85*3.5 = 297.5 L/S
00731> *#  30*0.29 = 8.7 L/S
00732> *#  TOTAL = 306.2 L/S
00733> *#########################
00734> *
00735> ----------------------
00736> | ROUTE RESERVOIR   |    Requested routing time step = 12.0 min.
00737> |  IN>04:(000204)   |
00738> | OUT<08:(000471)   |    =========  OUTLFOW STORAGE TABLE  =========
00739> ----------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
00740>                             (cms)    (ha.m.)   |    (cms)    (ha.m.)
00741>                              .000  .0000E+00   |     .306  .6031E-01
00742>                              .250  .2000E-02   |     .000  .0000E+00
00743>
00744>      ROUTING RESULTS            AREA     QPEAK     TPEAK       R.V.
00745>      --------------------       (ha)     (cms)     (hrs)       (mm)
00746>      INFLOW >04: (000204)       3.79      .243    12.200     30.278
00747>      OUTFLOW<08: (000471)       3.79      .224    12.200     30.278
00748>
00749>                     PEAK   FLOW   REDUCTION [Qout/Qin](%)=   92.225
00750>                     TIME SHIFT OF PEAK FLOW         (min)=      .00
00751>                     MAXIMUM  STORAGE   USED       (ha.m.)=.2477E-02
00752>
00753> ------------------------------------------------------------------------------
00754> 001:0025--------------------------------------------------------------------------
00755> *
00756> *# MH 546
00757> *
00758> *#########################
00759> *# TRUNK 1
00760> *#########################
00761> *
00762> ------------------------
```

```
| ADD HYD (       450) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
------------------------                  (ha)     (cms)   (hrs)   (mm)   (cms)
                      ID1 08:       471     3.79     .224   12.20  30.28    .000
                     +ID2 07:       100    68.77    3.901   12.20  30.36    .000
                      ==========================================================
                      SUM 06:       450    72.56    4.126   12.20  30.36    .000

   NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

001:0026-------------------------------------------------------------------------
*
--------------------
| SAVE HYD        |   AREA       (ha)=   72.560
| ID=06 (000450)  |   QPEAK     (cms)=    4.126 (i)
| DT=12.00 PCYC=-1 |   TPEAK     (hrs)=   12.200
--------------------   VOLUME     (mm)=   30.359
  Filename: C:\SWMHYMO\111083\2018-0~1\544.030
  Comments: 544-24SCS2

     (i)  PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
-------------------------------------------------------------------------------
001:0027-------------------------------------------------------------------------
*
*#=======================
*# TRUNK 2
*#=======================
*
*#=======================
*#    DRAINAGE AREA 50 ||
*#   COMMERICAL        ||
*#=======================
*
*
----------------------
| CALIB STANDHYD    |   Area    (ha)=    3.65
| 05:000204 DT=12.00 |   Total Imp(%)=   80.00   Dir. Conn.(%)=   80.00
----------------------
                              IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=       2.92         .73
     Dep. Storage     (mm)=        .80        1.50
     Average Slope     (%)=        .20        2.00
     Length            (m)=     292.00       40.00
     Mannings n             =      .013        .250

     Max.eff.Inten.(mm/hr)=      55.20       15.00
                  over (min)      12.00       24.00
     Storage Coeff.  (min)=       9.99 (ii)  25.06 (ii)
     Unit Hyd. Tpeak (min)=      12.00       24.00
     Unit Hyd. peak  (cms)=        .10         .05
                                                        *TOTALS*
     PEAK FLOW       (cms)=        .37         .02          .379 (iii)
     TIME TO PEAK    (hrs)=      12.20       12.40        12.200
     RUNOFF VOLUME    (mm)=      47.20       16.48        41.057
     TOTAL RAINFALL   (mm)=      48.00       48.00        48.000
     RUNOFF COEFFICIENT   =        .98         .34          .855
      *** WARNING: Storage Coefficient is smaller than DT!
                   Use a smaller DT or a larger area.

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN* =  75.0    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

-------------------------------------------------------------------------------
001:0028-------------------------------------------------------------------------
*
*
*#=========================
*# OSD 85 L/S/HA
*#  85*3.65 = 310.3 L/S
*#=========================
*
--------------------
| ROUTE RESERVOIR   |    Requested routing time step = 12.0 min.
|  IN>05:(000204)   |
| OUT<08:(000471)   |    =========  OUTLFOW STORAGE TABLE  =========
--------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
                          (cms)    (ha.m.)   |    (cms)    (ha.m.)
                           .000  .0000E+00   |     .310  .9484E-01
                           .200  .2000E-02   |     .000  .0000E+00

     ROUTING RESULTS            AREA     QPEAK     TPEAK       R.V.
     --------------------       (ha)     (cms)     (hrs)       (mm)
     INFLOW >05: (000204)       3.65      .379    12.200     41.057
     OUTFLOW<08: (000471)       3.65      .214    12.400     41.057

                   PEAK   FLOW   REDUCTION [Qout/Qin](%)=   56.331
                   TIME SHIFT OF PEAK FLOW          (min)=    12.00
                   MAXIMUM  STORAGE   USED       (ha.m.)=.1458E-01

-------------------------------------------------------------------------------
001:0029-------------------------------------------------------------------------
*
--------------------
| SHIFT HYD(      874)|
| IN= 8---> OUT= 7     |
| SHIFT=  10.0 min     |       AREA     QPEAK      TPEAK      R.V.
---------------------------     (ha)     (cms)      (hrs)      (mm)
          ID= 8:       471      3.65      .214     12.400    41.057
     SHIFT ID= 7:      874      3.65      .214     12.600    41.057

*** WARNING: HYDROGRAPH WAS SHIFTED BY  12.0 MIN.

-------------------------------------------------------------------------------
001:0030-------------------------------------------------------------------------
*
*# MH 111
*
*#================================================
*# AREA FORMERLY KNOWN AS 51 (EAST OF PORTOBELLO)
*#================================================
*
*#================================================
*# MATTAMY SUMMERSIDE DRAINAGE AREA 19.93 ha - H-114
*# TO MH 112
*#================================================
*
*
--------------------
| READ HYD        |   AREA       (ha)=   19.924
| ID=05 (114   )  |   QPEAK     (cms)=    1.290
| DT= 1.00 PCYC= 1 |   TPEAK     (hrs)=   12.217
--------------------   VOLUME     (mm)=   30.362
  Filename: C:\SWMHYMO\111083\2018-0~1\H-114.030
  Comments: Minor System Outflow to MH 114
```

| TIME | FLOW | TIME | FLOW | TIME | FLOW | TIME | FLOW | TIME | FLOW |
|---|---|---|---|---|---|---|---|---|---|
| hrs | cms | hrs | cms | hrs | cms | hrs | cms | hrs | cms |
| .00 | .000 | 5.50 | .024 | 11.00 | .076 | 16.50 | .048 | 22.00 | .022 |
| .02 | .000 | 5.52 | .024 | 11.02 | .076 | 16.52 | .048 | 22.02 | .022 |
| .03 | .000 | 5.53 | .024 | 11.03 | .077 | 16.53 | .048 | 22.03 | .022 |
| .05 | .000 | 5.55 | .024 | 11.05 | .077 | 16.55 | .047 | 22.05 | .022 |
| .07 | .000 | 5.57 | .024 | 11.07 | .077 | 16.57 | .047 | 22.07 | .022 |
| .08 | .000 | 5.58 | .024 | 11.08 | .077 | 16.58 | .047 | 22.08 | .022 |
| .10 | .000 | 5.60 | .024 | 11.10 | .077 | 16.60 | .047 | 22.10 | .022 |
| .12 | .000 | 5.62 | .024 | 11.12 | .077 | 16.62 | .047 | 22.12 | .022 |
| .13 | .000 | 5.63 | .024 | 11.13 | .077 | 16.63 | .046 | 22.13 | .022 |
| .15 | .000 | 5.65 | .024 | 11.15 | .077 | 16.65 | .046 | 22.15 | .022 |
| .17 | .000 | 5.67 | .024 | 11.17 | .077 | 16.67 | .046 | 22.17 | .022 |
| .18 | .000 | 5.68 | .024 | 11.18 | .078 | 16.68 | .046 | 22.18 | .022 |
| .20 | .000 | 5.70 | .024 | 11.20 | .078 | 16.70 | .046 | 22.20 | .022 |
| .22 | .000 | 5.72 | .024 | 11.22 | .079 | 16.72 | .045 | 22.22 | .022 |
| .23 | .000 | 5.73 | .024 | 11.23 | .081 | 16.73 | .045 | 22.23 | .022 |
| .25 | .000 | 5.75 | .024 | 11.25 | .085 | 16.75 | .045 | 22.25 | .022 |
| .27 | .000 | 5.77 | .024 | 11.27 | .088 | 16.77 | .045 | 22.27 | .022 |
| .28 | .000 | 5.78 | .024 | 11.28 | .091 | 16.78 | .045 | 22.28 | .022 |
| .30 | .000 | 5.80 | .024 | 11.30 | .093 | 16.80 | .045 | 22.30 | .022 |
| .32 | .000 | 5.82 | .024 | 11.32 | .095 | 16.82 | .045 | 22.32 | .022 |
| .33 | .000 | 5.83 | .024 | 11.33 | .097 | 16.83 | .044 | 22.33 | .022 |
| .35 | .000 | 5.85 | .024 | 11.35 | .098 | 16.85 | .044 | 22.35 | .022 |
| .37 | .000 | 5.87 | .024 | 11.37 | .099 | 16.87 | .044 | 22.37 | .022 |
| .38 | .000 | 5.88 | .024 | 11.38 | .100 | 16.88 | .044 | 22.38 | .021 |
| .40 | .000 | 5.90 | .024 | 11.40 | .100 | 16.90 | .044 | 22.40 | .021 |
| .42 | .000 | 5.92 | .024 | 11.42 | .103 | 16.92 | .044 | 22.42 | .021 |
| .43 | .000 | 5.93 | .024 | 11.43 | .108 | 16.93 | .044 | 22.43 | .021 |
| .45 | .000 | 5.95 | .024 | 11.45 | .115 | 16.95 | .044 | 22.45 | .021 |
| .47 | .000 | 5.97 | .024 | 11.47 | .121 | 16.97 | .044 | 22.47 | .021 |
| .48 | .000 | 5.98 | .024 | 11.48 | .126 | 16.98 | .043 | 22.48 | .021 |
| .50 | .000 | 6.00 | .024 | 11.50 | .130 | 17.00 | .043 | 22.50 | .021 |
| .52 | .000 | 6.02 | .024 | 11.52 | .134 | 17.02 | .043 | 22.52 | .021 |
| .53 | .000 | 6.03 | .024 | 11.53 | .136 | 17.03 | .043 | 22.53 | .021 |
| .55 | .000 | 6.05 | .024 | 11.55 | .139 | 17.05 | .043 | 22.55 | .021 |
| .57 | .000 | 6.07 | .024 | 11.57 | .141 | 17.07 | .043 | 22.57 | .021 |
| .58 | .000 | 6.08 | .024 | 11.58 | .142 | 17.08 | .043 | 22.58 | .021 |
| .60 | .000 | 6.10 | .024 | 11.60 | .144 | 17.10 | .043 | 22.60 | .021 |
| .62 | .000 | 6.12 | .024 | 11.62 | .151 | 17.12 | .043 | 22.62 | .021 |
| .63 | .000 | 6.13 | .024 | 11.63 | .171 | 17.13 | .043 | 22.63 | .021 |
| .65 | .000 | 6.15 | .024 | 11.65 | .197 | 17.15 | .043 | 22.65 | .021 |
| .67 | .000 | 6.17 | .024 | 11.67 | .221 | 17.17 | .043 | 22.67 | .021 |
| .68 | .000 | 6.18 | .024 | 11.68 | .240 | 17.18 | .043 | 22.68 | .021 |
| .70 | .000 | 6.20 | .024 | 11.70 | .256 | 17.20 | .043 | 22.70 | .021 |
| .72 | .000 | 6.22 | .024 | 11.72 | .269 | 17.22 | .043 | 22.72 | .021 |
| .73 | .000 | 6.23 | .024 | 11.73 | .280 | 17.23 | .042 | 22.73 | .021 |
| .75 | .000 | 6.25 | .024 | 11.75 | .289 | 17.25 | .042 | 22.75 | .021 |
| .77 | .000 | 6.27 | .024 | 11.77 | .296 | 17.27 | .042 | 22.77 | .021 |
| .78 | .000 | 6.28 | .024 | 11.78 | .302 | 17.28 | .042 | 22.78 | .021 |
| .80 | .000 | 6.30 | .024 | 11.80 | .308 | 17.30 | .042 | 22.80 | .021 |
| .82 | .000 | 6.32 | .024 | 11.82 | .326 | 17.32 | .042 | 22.82 | .021 |
| .83 | .000 | 6.33 | .024 | 11.83 | .370 | 17.33 | .042 | 22.83 | .021 |
| .85 | .000 | 6.35 | .024 | 11.85 | .428 | 17.35 | .042 | 22.85 | .021 |
| .87 | .000 | 6.37 | .024 | 11.87 | .480 | 17.37 | .042 | 22.87 | .021 |
| .88 | .000 | 6.38 | .024 | 11.88 | .523 | 17.38 | .042 | 22.88 | .021 |
| .90 | .000 | 6.40 | .024 | 11.90 | .558 | 17.40 | .042 | 22.90 | .021 |
| .92 | .000 | 6.42 | .024 | 11.92 | .588 | 17.42 | .042 | 22.92 | .021 |
| .93 | .000 | 6.43 | .024 | 11.93 | .613 | 17.43 | .042 | 22.93 | .021 |
| .95 | .000 | 6.45 | .024 | 11.95 | .633 | 17.45 | .042 | 22.95 | .021 |
| .97 | .000 | 6.47 | .024 | 11.97 | .650 | 17.47 | .042 | 22.97 | .021 |
| .98 | .000 | 6.48 | .024 | 11.98 | .665 | 17.48 | .042 | 22.98 | .021 |
| 1.00 | .000 | 6.50 | .024 | 12.00 | .678 | 17.50 | .042 | 23.00 | .021 |
| 1.02 | .000 | 6.52 | .024 | 12.02 | .714 | 17.52 | .042 | 23.02 | .021 |
| 1.03 | .000 | 6.53 | .024 | 12.03 | .795 | 17.53 | .042 | 23.03 | .021 |
| 1.05 | .000 | 6.55 | .024 | 12.05 | .890 | 17.55 | .042 | 23.05 | .021 |
| 1.07 | .000 | 6.57 | .024 | 12.07 | .964 | 17.57 | .042 | 23.07 | .021 |
| 1.08 | .000 | 6.58 | .024 | 12.08 | 1.023 | 17.58 | .042 | 23.08 | .021 |
| 1.10 | .000 | 6.60 | .024 | 12.10 | 1.072 | 17.60 | .042 | 23.10 | .021 |
| 1.12 | .000 | 6.62 | .024 | 12.12 | 1.118 | 17.62 | .042 | 23.12 | .021 |
| 1.13 | .000 | 6.63 | .024 | 12.13 | 1.158 | 17.63 | .042 | 23.13 | .021 |
| 1.15 | .000 | 6.65 | .024 | 12.15 | 1.191 | 17.65 | .042 | 23.15 | .021 |
| 1.17 | .000 | 6.67 | .024 | 12.17 | 1.222 | 17.67 | .042 | 23.17 | .021 |
| 1.18 | .000 | 6.68 | .024 | 12.18 | 1.251 | 17.68 | .042 | 23.18 | .021 |
| 1.20 | .000 | 6.70 | .024 | 12.20 | 1.277 | 17.70 | .042 | 23.20 | .021 |
| 1.22 | .000 | 6.72 | .024 | 12.22 | 1.290 | 17.72 | .042 | 23.22 | .021 |
| 1.23 | .000 | 6.73 | .024 | 12.23 | 1.282 | 17.73 | .042 | 23.23 | .021 |
| 1.25 | .000 | 6.75 | .024 | 12.25 | 1.246 | 17.75 | .042 | 23.25 | .021 |
| 1.27 | .000 | 6.77 | .024 | 12.27 | 1.177 | 17.77 | .042 | 23.27 | .021 |
| 1.28 | .000 | 6.78 | .024 | 12.28 | 1.087 | 17.78 | .042 | 23.28 | .021 |
| 1.30 | .000 | 6.80 | .024 | 12.30 | .999 | 17.80 | .042 | 23.30 | .021 |
| 1.32 | .000 | 6.82 | .024 | 12.32 | .937 | 17.82 | .042 | 23.32 | .021 |
| 1.33 | .000 | 6.83 | .024 | 12.33 | .871 | 17.83 | .042 | 23.33 | .021 |
| 1.35 | .000 | 6.85 | .025 | 12.35 | .819 | 17.85 | .042 | 23.35 | .021 |
| 1.37 | .000 | 6.87 | .025 | 12.37 | .775 | 17.87 | .042 | 23.37 | .021 |
| 1.38 | .000 | 6.88 | .025 | 12.38 | .744 | 17.88 | .042 | 23.38 | .021 |
| 1.40 | .000 | 6.90 | .025 | 12.40 | .712 | 17.90 | .042 | 23.40 | .021 |
| 1.42 | .000 | 6.92 | .025 | 12.42 | .687 | 17.92 | .042 | 23.42 | .021 |
| 1.43 | .000 | 6.93 | .025 | 12.43 | .652 | 17.93 | .042 | 23.43 | .021 |
| 1.45 | .000 | 6.95 | .025 | 12.45 | .614 | 17.95 | .042 | 23.45 | .021 |
| 1.47 | .000 | 6.97 | .025 | 12.47 | .588 | 17.97 | .041 | 23.47 | .021 |
| 1.48 | .000 | 6.98 | .025 | 12.48 | .568 | 17.98 | .041 | 23.48 | .021 |
| 1.50 | .000 | 7.00 | .025 | 12.50 | .550 | 18.00 | .041 | 23.50 | .021 |
| 1.52 | .000 | 7.02 | .025 | 12.52 | .525 | 18.02 | .041 | 23.52 | .021 |
| 1.53 | .000 | 7.03 | .025 | 12.53 | .500 | 18.03 | .041 | 23.53 | .021 |
| 1.55 | .000 | 7.05 | .025 | 12.55 | .480 | 18.05 | .041 | 23.55 | .021 |
| 1.57 | .000 | 7.07 | .025 | 12.57 | .467 | 18.07 | .041 | 23.57 | .021 |
| 1.58 | .000 | 7.08 | .025 | 12.58 | .451 | 18.08 | .041 | 23.58 | .021 |
| 1.60 | .000 | 7.10 | .025 | 12.60 | .439 | 18.10 | .041 | 23.60 | .021 |
| 1.62 | .000 | 7.12 | .025 | 12.62 | .428 | 18.12 | .041 | 23.62 | .021 |
| 1.63 | .000 | 7.13 | .025 | 12.63 | .416 | 18.13 | .041 | 23.63 | .020 |
| 1.65 | .000 | 7.15 | .025 | 12.65 | .402 | 18.15 | .041 | 23.65 | .019 |
| 1.67 | .000 | 7.17 | .025 | 12.67 | .389 | 18.17 | .041 | 23.67 | .018 |
| 1.68 | .000 | 7.18 | .025 | 12.68 | .377 | 18.18 | .041 | 23.68 | .017 |
| 1.70 | .000 | 7.20 | .025 | 12.70 | .367 | 18.20 | .041 | 23.70 | .016 |
| 1.72 | .000 | 7.22 | .025 | 12.72 | .357 | 18.22 | .041 | 23.72 | .015 |
| 1.73 | .000 | 7.23 | .025 | 12.73 | .348 | 18.23 | .041 | 23.73 | .015 |
| 1.75 | .000 | 7.25 | .025 | 12.75 | .340 | 18.25 | .041 | 23.75 | .015 |
| 1.77 | .000 | 7.27 | .025 | 12.77 | .332 | 18.27 | .041 | 23.77 | .014 |
| 1.78 | .000 | 7.28 | .025 | 12.78 | .325 | 18.28 | .041 | 23.78 | .014 |
| 1.80 | .000 | 7.30 | .025 | 12.80 | .319 | 18.30 | .041 | 23.80 | .014 |
| 1.82 | .000 | 7.32 | .025 | 12.82 | .312 | 18.32 | .041 | 23.82 | .013 |
| 1.83 | .000 | 7.33 | .025 | 12.83 | .306 | 18.33 | .041 | 23.83 | .013 |
| 1.85 | .000 | 7.35 | .025 | 12.85 | .300 | 18.35 | .041 | 23.85 | .013 |
| 1.87 | .000 | 7.37 | .025 | 12.87 | .294 | 18.37 | .041 | 23.87 | .013 |
| 1.88 | .000 | 7.38 | .025 | 12.88 | .288 | 18.38 | .041 | 23.88 | .012 |
| 1.90 | .000 | 7.40 | .025 | 12.90 | .283 | 18.40 | .041 | 23.90 | .012 |
| 1.92 | .000 | 7.42 | .025 | 12.92 | .278 | 18.42 | .041 | 23.92 | .012 |
| 1.93 | .000 | 7.43 | .025 | 12.93 | .273 | 18.43 | .041 | 23.93 | .012 |
| 1.95 | .000 | 7.45 | .025 | 12.95 | .269 | 18.45 | .041 | 23.95 | .012 |
| 1.97 | .000 | 7.47 | .025 | 12.97 | .265 | 18.47 | .041 | 23.97 | .012 |
| 1.98 | .000 | 7.48 | .025 | 12.98 | .261 | 18.48 | .041 | 23.98 | .011 |
| 2.00 | .000 | 7.50 | .025 | 13.00 | .257 | 18.50 | .041 | 24.00 | .011 |
| 2.02 | .000 | 7.52 | .025 | 13.02 | .252 | 18.52 | .041 | 24.02 | .011 |
| 2.03 | .000 | 7.53 | .025 | 13.03 | .246 | 18.53 | .041 | 24.03 | .011 |
| 2.05 | .000 | 7.55 | .025 | 13.05 | .238 | 18.55 | .041 | 24.05 | .011 |

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01017>   2.07   .000|   7.57   .025|  13.07   .231|  18.57   .041|  24.07   .011
01018>   2.08   .000|   7.58   .025|  13.08   .224|  18.58   .041|  24.08   .010
01019>   2.10   .000|   7.60   .025|  13.10   .219|  18.60   .041|  24.10   .010
01020>   2.12   .000|   7.62   .025|  13.12   .214|  18.62   .041|  24.12   .010
01021>   2.13   .000|   7.63   .025|  13.13   .209|  18.63   .041|  24.13   .010
01022>   2.15   .000|   7.65   .025|  13.15   .205|  18.65   .041|  24.15   .010
01023>   2.17   .000|   7.67   .025|  13.17   .202|  18.67   .041|  24.17   .010
01024>   2.18   .000|   7.68   .025|  13.18   .198|  18.68   .041|  24.18   .009
01025>   2.20   .000|   7.70   .025|  13.20   .195|  18.70   .041|  24.20   .009
01026>   2.22   .000|   7.72   .025|  13.22   .191|  18.72   .041|  24.22   .009
01027>   2.23   .000|   7.73   .025|  13.23   .187|  18.73   .041|  24.23   .009
01028>   2.25   .000|   7.75   .025|  13.25   .183|  18.75   .041|  24.25   .008
01029>   2.27   .000|   7.77   .025|  13.27   .179|  18.77   .041|  24.27   .007
01030>   2.28   .000|   7.78   .025|  13.28   .175|  18.78   .041|  24.28   .007
01031>   2.30   .000|   7.80   .025|  13.30   .171|  18.80   .041|  24.30   .006
01032>   2.32   .000|   7.82   .025|  13.32   .168|  18.82   .041|  24.32   .006
01033>   2.33   .000|   7.83   .025|  13.33   .165|  18.83   .041|  24.33   .006
01034>   2.35   .000|   7.85   .025|  13.35   .163|  18.85   .041|  24.35   .005
01035>   2.37   .000|   7.87   .025|  13.37   .160|  18.87   .041|  24.37   .005
01036>   2.38   .000|   7.88   .025|  13.38   .158|  18.88   .041|  24.38   .005
01037>   2.40   .000|   7.90   .025|  13.40   .156|  18.90   .041|  24.40   .005
01038>   2.42   .000|   7.92   .025|  13.42   .153|  18.92   .041|  24.42   .005
01039>   2.43   .000|   7.93   .025|  13.43   .151|  18.93   .041|  24.43   .004
01040>   2.45   .000|   7.95   .025|  13.45   .150|  18.95   .041|  24.45   .004
01041>   2.47   .000|   7.97   .025|  13.47   .148|  18.97   .041|  24.47   .004
01042>   2.48   .000|   7.98   .025|  13.48   .146|  18.98   .041|  24.48   .004
01043>   2.50   .000|   8.00   .025|  13.50   .144|  19.00   .041|  24.50   .004
01044>   2.52   .000|   8.02   .025|  13.52   .143|  19.02   .041|  24.52   .004
01045>   2.53   .000|   8.03   .025|  13.53   .141|  19.03   .041|  24.53   .004
01046>   2.55   .000|   8.05   .025|  13.55   .140|  19.05   .041|  24.55   .003
01047>   2.57   .000|   8.07   .025|  13.57   .138|  19.07   .041|  24.57   .003
01048>   2.58   .000|   8.08   .025|  13.58   .137|  19.08   .041|  24.58   .003
01049>   2.60   .000|   8.10   .025|  13.60   .135|  19.10   .041|  24.60   .003
01050>   2.62   .000|   8.12   .025|  13.62   .134|  19.12   .041|  24.62   .003
01051>   2.63   .000|   8.13   .025|  13.63   .133|  19.13   .041|  24.63   .003
01052>   2.65   .000|   8.15   .025|  13.65   .132|  19.15   .041|  24.65   .003
01053>   2.67   .000|   8.17   .025|  13.67   .131|  19.17   .041|  24.67   .003
01054>   2.68   .000|   8.18   .025|  13.68   .129|  19.18   .041|  24.68   .003
01055>   2.70   .000|   8.20   .025|  13.70   .128|  19.20   .041|  24.70   .002
01056>   2.72   .000|   8.22   .026|  13.72   .127|  19.22   .041|  24.72   .002
01057>   2.73   .000|   8.23   .027|  13.73   .126|  19.23   .041|  24.73   .002
01058>   2.75   .000|   8.25   .029|  13.75   .125|  19.25   .040|  24.75   .002
01059>   2.77   .000|   8.27   .030|  13.77   .124|  19.27   .039|  24.77   .002
01060>   2.78   .000|   8.28   .032|  13.78   .124|  19.28   .038|  24.78   .002
01061>   2.80   .000|   8.30   .033|  13.80   .123|  19.30   .038|  24.80   .002
01062>   2.82   .000|   8.32   .034|  13.82   .122|  19.32   .037|  24.82   .002
01063>   2.83   .000|   8.33   .034|  13.83   .121|  19.33   .037|  24.83   .002
01064>   2.85   .000|   8.35   .035|  13.85   .120|  19.35   .036|  24.85   .002
01065>   2.87   .000|   8.37   .035|  13.87   .120|  19.37   .036|  24.87   .002
01066>   2.88   .000|   8.38   .036|  13.88   .119|  19.38   .036|  24.88   .002
01067>   2.90   .000|   8.40   .036|  13.90   .118|  19.40   .036|  24.90   .002
01068>   2.92   .000|   8.42   .036|  13.92   .118|  19.42   .036|  24.92   .002
01069>   2.93   .000|   8.43   .036|  13.93   .117|  19.43   .035|  24.93   .001
01070>   2.95   .000|   8.45   .037|  13.95   .117|  19.45   .035|  24.95   .001
01071>   2.97   .000|   8.47   .037|  13.97   .116|  19.47   .035|  24.97   .001
01072>   2.98   .000|   8.48   .037|  13.98   .115|  19.48   .035|  24.98   .001
01073>   3.00   .000|   8.50   .037|  14.00   .115|  19.50   .035|  25.00   .001
01074>   3.02   .000|   8.52   .037|  14.02   .114|  19.52   .035|  25.02   .001
01075>   3.03   .000|   8.53   .037|  14.03   .114|  19.53   .035|  25.03   .001
01076>   3.05   .000|   8.55   .037|  14.05   .113|  19.55   .034|  25.05   .001
01077>   3.07   .000|   8.57   .037|  14.07   .113|  19.57   .034|  25.07   .001
01078>   3.08   .000|   8.58   .038|  14.08   .113|  19.58   .034|  25.08   .001
01079>   3.10   .000|   8.60   .038|  14.10   .112|  19.60   .034|  25.10   .001
01080>   3.12   .000|   8.62   .038|  14.12   .112|  19.62   .034|  25.12   .001
01081>   3.13   .000|   8.63   .038|  14.13   .111|  19.63   .034|  25.13   .001
01082>   3.15   .000|   8.65   .038|  14.15   .111|  19.65   .034|  25.15   .001
01083>   3.17   .000|   8.67   .038|  14.17   .111|  19.67   .034|  25.17   .001
01084>   3.18   .000|   8.68   .038|  14.18   .110|  19.68   .034|  25.18   .001
01085>   3.20   .000|   8.70   .038|  14.20   .110|  19.70   .033|  25.20   .001
01086>   3.22   .000|   8.72   .038|  14.22   .109|  19.72   .033|  25.22   .001
01087>   3.23   .000|   8.73   .038|  14.23   .106|  19.73   .033|  25.23   .001
01088>   3.25   .000|   8.75   .038|  14.25   .102|  19.75   .033|  25.25   .001
01089>   3.27   .000|   8.77   .038|  14.27   .098|  19.77   .033|  25.27   .001
01090>   3.28   .000|   8.78   .038|  14.28   .095|  19.78   .033|  25.28   .001
01091>   3.30   .000|   8.80   .038|  14.30   .093|  19.80   .033|  25.30   .001
01092>   3.32   .000|   8.82   .038|  14.32   .091|  19.82   .033|  25.32   .001
01093>   3.33   .000|   8.83   .038|  14.33   .089|  19.83   .033|  25.33   .001
01094>   3.35   .000|   8.85   .038|  14.35   .087|  19.85   .033|  25.35   .001
01095>   3.37   .000|   8.87   .038|  14.37   .086|  19.87   .033|  25.37   .001
01096>   3.38   .000|   8.88   .038|  14.38   .085|  19.88   .033|  25.38   .001
01097>   3.40   .000|   8.90   .038|  14.40   .084|  19.90   .033|  25.40   .001
01098>   3.42   .000|   8.92   .038|  14.42   .083|  19.92   .033|  25.42   .001
01099>   3.43   .000|   8.93   .039|  14.43   .082|  19.93   .033|  25.43   .001
01100>   3.45   .000|   8.95   .039|  14.45   .081|  19.95   .032|  25.45   .001
01101>   3.47   .000|   8.97   .039|  14.47   .081|  19.97   .032|  25.47   .000
01102>   3.48   .000|   8.98   .039|  14.48   .080|  19.98   .032|  25.48   .000
01103>   3.50   .001|   9.00   .039|  14.50   .079|  20.00   .032|  25.50   .000
01104>   3.52   .003|   9.02   .039|  14.52   .078|  20.02   .032|  25.52   .000
01105>   3.53   .005|   9.03   .039|  14.53   .078|  20.03   .032|  25.53   .000
01106>   3.55   .006|   9.05   .039|  14.55   .077|  20.05   .032|  25.55   .000
01107>   3.57   .007|   9.07   .039|  14.57   .077|  20.07   .032|  25.57   .000
01108>   3.58   .008|   9.08   .039|  14.58   .076|  20.08   .032|  25.58   .000
01109>   3.60   .009|   9.10   .039|  14.60   .076|  20.10   .032|  25.60   .000
01110>   3.62   .009|   9.12   .039|  14.62   .075|  20.12   .032|  25.62   .000
01111>   3.63   .010|   9.13   .039|  14.63   .075|  20.13   .032|  25.63   .000
01112>   3.65   .010|   9.15   .039|  14.65   .074|  20.15   .032|  25.65   .000
01113>   3.67   .010|   9.17   .039|  14.67   .074|  20.17   .032|  25.67   .000
01114>   3.68   .011|   9.18   .039|  14.68   .073|  20.18   .032|  25.68   .000
01115>   3.70   .011|   9.20   .039|  14.70   .073|  20.20   .032|  25.70   .000
01116>   3.72   .011|   9.22   .039|  14.72   .072|  20.22   .032|  25.72   .000
01117>   3.73   .011|   9.23   .039|  14.73   .072|  20.23   .032|  25.73   .000
01118>   3.75   .011|   9.25   .039|  14.75   .071|  20.25   .032|  25.75   .000
01119>   3.77   .011|   9.27   .039|  14.77   .071|  20.27   .032|  25.77   .000
01120>   3.78   .011|   9.28   .039|  14.78   .071|  20.28   .032|  25.78   .000
01121>   3.80   .012|   9.30   .039|  14.80   .070|  20.30   .032|  25.80   .000
01122>   3.82   .012|   9.32   .039|  14.82   .070|  20.32   .032|  25.82   .000
01123>   3.83   .012|   9.33   .039|  14.83   .070|  20.33   .032|  25.83   .000
01124>   3.85   .012|   9.35   .039|  14.85   .069|  20.35   .032|  25.85   .000
01125>   3.87   .012|   9.37   .039|  14.87   .069|  20.37   .032|  25.87   .000
01126>   3.88   .012|   9.38   .039|  14.88   .069|  20.38   .032|  25.88   .000
01127>   3.90   .012|   9.40   .039|  14.90   .068|  20.40   .032|  25.90   .000
01128>   3.92   .012|   9.42   .039|  14.92   .068|  20.42   .032|  25.92   .000
01129>   3.93   .012|   9.43   .039|  14.93   .068|  20.43   .032|  25.93   .000
01130>   3.95   .012|   9.45   .039|  14.95   .068|  20.45   .032|  25.95   .000
01131>   3.97   .012|   9.47   .039|  14.97   .067|  20.47   .032|  25.97   .000
01132>   3.98   .012|   9.48   .039|  14.98   .067|  20.48   .032|  25.98   .000
01133>   4.00   .012|   9.50   .040|  15.00   .067|  20.50   .032|  26.00   .000
01134>   4.02   .012|   9.52   .040|  15.02   .067|  20.52   .032|  26.02   .000
01135>   4.03   .012|   9.53   .040|  15.03   .066|  20.53   .032|  26.03   .000
01136>   4.05   .012|   9.55   .040|  15.05   .066|  20.55   .032|  26.05   .000
01137>   4.07   .012|   9.57   .040|  15.07   .066|  20.57   .032|  26.07   .000
01138>   4.08   .012|   9.58   .040|  15.08   .066|  20.58   .032|  26.08   .000
01139>   4.10   .012|   9.60   .040|  15.10   .066|  20.60   .032|  26.10   .000
01140>   4.12   .012|   9.62   .040|  15.12   .066|  20.62   .032|  26.12   .000
01141>   4.13   .012|   9.63   .040|  15.13   .065|  20.63   .032|  26.13   .000
01142>   4.15   .012|   9.65   .040|  15.15   .065|  20.65   .032|  26.15   .000
01143>   4.17   .012|   9.67   .040|  15.17   .065|  20.67   .032|  26.17   .000

01144>   4.18   .012|   9.68   .040|  15.18   .065|  20.68   .032|  26.18   .000
01145>   4.20   .012|   9.70   .040|  15.20   .065|  20.70   .032|  26.20   .000
01146>   4.22   .012|   9.72   .040|  15.22   .065|  20.72   .032|  26.22   .000
01147>   4.23   .014|   9.73   .040|  15.23   .065|  20.73   .032|  26.23   .000
01148>   4.25   .015|   9.75   .040|  15.25   .064|  20.75   .032|  26.25   .000
01149>   4.27   .017|   9.77   .040|  15.27   .064|  20.77   .032|  26.27   .000
01150>   4.28   .018|   9.78   .040|  15.28   .064|  20.78   .031|  26.28   .000
01151>   4.30   .019|   9.80   .040|  15.30   .064|  20.80   .031|  26.30   .000
01152>   4.32   .020|   9.82   .040|  15.32   .064|  20.82   .031|  26.32   .000
01153>   4.33   .021|   9.83   .040|  15.33   .064|  20.83   .031|  26.33   .000
01154>   4.35   .021|   9.85   .040|  15.35   .064|  20.85   .031|  26.35   .000
01155>   4.37   .022|   9.87   .040|  15.37   .064|  20.87   .031|  26.37   .000
01156>   4.38   .022|   9.88   .040|  15.38   .064|  20.88   .031|  26.38   .000
01157>   4.40   .022|   9.90   .040|  15.40   .063|  20.90   .031|  26.40   .000
01158>   4.42   .023|   9.92   .040|  15.42   .063|  20.92   .031|  26.42   .000
01159>   4.43   .023|   9.93   .040|  15.43   .063|  20.93   .031|  26.43   .000
01160>   4.45   .023|   9.95   .040|  15.45   .063|  20.95   .031|  26.45   .000
01161>   4.47   .023|   9.97   .040|  15.47   .063|  20.97   .031|  26.47   .000
01162>   4.48   .023|   9.98   .040|  15.48   .063|  20.98   .031|  26.48   .000
01163>   4.50   .023|  10.00   .040|  15.50   .063|  21.00   .031|  26.50   .000
01164>   4.52   .023|  10.02   .040|  15.52   .063|  21.02   .031|  26.52   .000
01165>   4.53   .023|  10.03   .040|  15.53   .063|  21.03   .031|  26.53   .000
01166>   4.55   .024|  10.05   .040|  15.55   .063|  21.05   .031|  26.55   .000
01167>   4.57   .024|  10.07   .040|  15.57   .063|  21.07   .031|  26.57   .000
01168>   4.58   .024|  10.08   .040|  15.58   .063|  21.08   .031|  26.58   .000
01169>   4.60   .024|  10.10   .040|  15.60   .063|  21.10   .031|  26.60   .000
01170>   4.62   .024|  10.12   .040|  15.62   .063|  21.12   .031|  26.62   .000
01171>   4.63   .024|  10.13   .041|  15.63   .063|  21.13   .031|  26.63   .000
01172>   4.65   .024|  10.15   .041|  15.65   .062|  21.15   .031|  26.65   .000
01173>   4.67   .024|  10.17   .041|  15.67   .062|  21.17   .031|  26.67   .000
01174>   4.68   .024|  10.18   .041|  15.68   .062|  21.18   .031|  26.68   .000
01175>   4.70   .024|  10.20   .041|  15.70   .062|  21.20   .031|  26.70   .000
01176>   4.72   .024|  10.22   .042|  15.72   .062|  21.22   .031|  26.72   .000
01177>   4.73   .024|  10.23   .045|  15.73   .062|  21.23   .031|  26.73   .000
01178>   4.75   .024|  10.25   .050|  15.75   .062|  21.25   .030|  26.75   .000
01179>   4.77   .024|  10.27   .054|  15.77   .062|  21.27   .029|  26.77   .000
01180>   4.78   .024|  10.28   .057|  15.78   .062|  21.28   .028|  26.78   .000
01181>   4.80   .024|  10.30   .060|  15.80   .062|  21.30   .028|  26.80   .000
01182>   4.82   .024|  10.32   .062|  15.82   .062|  21.32   .027|  26.82   .000
01183>   4.83   .024|  10.33   .064|  15.83   .062|  21.33   .027|  26.83   .000
01184>   4.85   .024|  10.35   .065|  15.85   .062|  21.35   .026|  26.85   .000
01185>   4.87   .024|  10.37   .066|  15.87   .062|  21.37   .026|  26.87   .000
01186>   4.88   .024|  10.38   .067|  15.88   .062|  21.38   .026|  26.88   .000
01187>   4.90   .024|  10.40   .068|  15.90   .062|  21.40   .026|  26.90   .000
01188>   4.92   .024|  10.42   .069|  15.92   .062|  21.42   .025|  26.92   .000
01189>   4.93   .024|  10.43   .069|  15.93   .062|  21.43   .025|  26.93   .000
01190>   4.95   .024|  10.45   .070|  15.95   .062|  21.45   .025|  26.95   .000
01191>   4.97   .024|  10.47   .070|  15.97   .062|  21.47   .025|  26.97   .000
01192>   4.98   .024|  10.48   .071|  15.98   .062|  21.48   .025|  26.98   .000
01193>   5.00   .024|  10.50   .071|  16.00   .062|  21.50   .025|  27.00   .000
01194>   5.02   .024|  10.52   .071|  16.02   .062|  21.52   .025|  27.02   .000
01195>   5.03   .024|  10.53   .072|  16.03   .062|  21.53   .024|  27.03   .000
01196>   5.05   .024|  10.55   .072|  16.05   .062|  21.55   .024|  27.05   .000
01197>   5.07   .024|  10.57   .072|  16.07   .062|  21.57   .024|  27.07   .000
01198>   5.08   .024|  10.58   .073|  16.08   .062|  21.58   .024|  27.08   .000
01199>   5.10   .024|  10.60   .073|  16.10   .062|  21.60   .024|  27.10   .000
01200>   5.12   .024|  10.62   .073|  16.12   .062|  21.62   .024|  27.12   .000
01201>   5.13   .024|  10.63   .073|  16.13   .062|  21.63   .024|  27.13   .000
01202>   5.15   .024|  10.65   .073|  16.15   .062|  21.65   .024|  27.15   .000
01203>   5.17   .024|  10.67   .074|  16.17   .062|  21.67   .024|  27.17   .000
01204>   5.18   .024|  10.68   .074|  16.18   .062|  21.68   .023|  27.18   .000
01205>   5.20   .024|  10.70   .074|  16.20   .062|  21.70   .023|  27.20   .000
01206>   5.22   .024|  10.72   .074|  16.22   .061|  21.72   .023|  27.22   .000
01207>   5.23   .024|  10.73   .074|  16.23   .060|  21.73   .023|  27.23   .000
01208>   5.25   .024|  10.75   .074|  16.25   .058|  21.75   .023|  27.25   .000
01209>   5.27   .024|  10.77   .075|  16.27   .056|  21.77   .023|  27.27   .000
01210>   5.28   .024|  10.78   .075|  16.28   .055|  21.78   .023|  27.28   .000
01211>   5.30   .024|  10.80   .075|  16.30   .054|  21.80   .023|  27.30   .000
01212>   5.32   .024|  10.82   .075|  16.32   .053|  21.82   .023|  27.32   .000
01213>   5.33   .024|  10.83   .075|  16.33   .052|  21.83   .023|  27.33   .000
01214>   5.35   .024|  10.85   .075|  16.35   .052|  21.85   .023|  27.35   .000
01215>   5.37   .024|  10.87   .075|  16.37   .051|  21.87   .023|  27.37   .000
01216>   5.38   .024|  10.88   .076|  16.38   .051|  21.88   .023|  27.38   .000
01217>   5.40   .024|  10.90   .076|  16.40   .050|  21.90   .022|  27.40   .000
01218>   5.42   .024|  10.92   .076|  16.42   .050|  21.92   .022|  27.42   .000
01219>   5.43   .024|  10.93   .076|  16.43   .049|  21.93   .022|
01220>   5.45   .024|  10.95   .076|  16.45   .049|  21.95   .022|
01221>   5.47   .024|  10.97   .076|  16.47   .049|  21.97   .022|
01222>   5.48   .024|  10.98   .076|  16.48   .048|  21.98   .022|
01223> ------------------------------------------------------------------------------
01224> 001:0031------------------------------------------------------------------------
01225> *
01226> *
01227> *# MH 112
01228> *
01229> *
01230> *#################
01231> *# ADD TO AREA 50
01232> *
01233> ------------------------
01234> | ADD HYD (       846) | ID: NHYD         AREA     QPEAK    TPEAK    R.V.    DWF
01235> ------------------------                  (ha)     (cms)    (hrs)    (mm)   (cms)
01236>                          ID1 07:       874    3.65     .214   12.60   41.06    .000
01237>                         +ID2 05:114          19.92    1.290   12.22   30.36    .000
01238>                          ==========================================================
01239>                          SUM 04:       846    23.57    1.456   12.22   32.02    .000
01240>
01241>    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
01242>
01243> ------------------------------------------------------------------------------
01244> 001:0032------------------------------------------------------------------------
01245> *#########################
01246> *#    DRAINAGE AREA 53 ||
01247> *#                     ||
01248> *#########################
01249> *
01250> *
01251> ----------------------
01252> | CALIB STANDHYD     |   Area    (ha)=   17.48
01253> | 08:000204 DT=12.00 |   Total Imp(%)=   56.00   Dir. Conn.(%)=   42.00
01254> ----------------------
01255>                                      IMPERVIOUS    PERVIOUS (i)
01256>      Surface Area     (ha)=       9.79          7.69
01257>      Dep. Storage     (mm)=        .80          1.50
01258>      Average Slope     (%)=        .20          2.00
01259>      Length            (m)=     447.00         40.00
01260>      Mannings n             =      .013          .250
01261>
01262>      Max.eff.Inten.(mm/hr)=      55.20         24.01
01263>                  over (min)       12.00         24.00
01264>      Storage Coeff.  (min)=      12.90 (ii)    25.38 (ii)
01265>      Unit Hyd. Tpeak (min)=      12.00         24.00
01266>      Unit Hyd. peak  (cms)=        .09           .04
01267>                                                          *TOTALS*
01268>      PEAK FLOW       (cms)=        .84           .33          1.076 (iii)
01269>      TIME TO PEAK    (hrs)=      12.20         12.40         12.200
01270>      RUNOFF VOLUME    (mm)=      47.20         19.77         31.289
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01271>      TOTAL RAINFALL   (mm)=      48.00       48.00         48.000
01272>      RUNOFF COEFFICIENT   =        .98         .41           .652
01273>
01274>        (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
01275>            CN* =  75.0    Ia = Dep. Storage  (Above)
01276>       (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
01277>            THAN THE STORAGE COEFFICIENT.
01278>      (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
01279>
01280> ---------------------------------------------------------------------------
01281> 001:0033-----------------------------------------------------------------
01282> *
01283> *
01284> *#########################
01285> *# OSD 85 L/S/HA  PARK 30 L/S/HA
01286> *#  85*16.42 = 1395.7 L/S
01287> *#  30*1.06 = 31.8 L/S
01288> *#  TOTAL = 1428 L/S
01289> *#########################
01290> *
01291> ---------------------
01292> | ROUTE RESERVOIR   |    Requested routing time step = 12.0 min.
01293> |  IN>08:(000204)   |
01294> | OUT<05:(000471)   |    =========  OUTLFOW STORAGE TABLE  =========
01295> ---------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
01296>                            (cms)    (ha.m.)   |    (cms)    (ha.m.)
01297>                             .000  .0000E+00   |    1.428  .2308E+00
01298>                            1.400  .2000E-02   |     .000  .0000E+00
01299>
01300>      ROUTING RESULTS            AREA     QPEAK     TPEAK       R.V.
01301>      ---------------            (ha)     (cms)     (hrs)       (mm)
01302>      INFLOW >08: (000204)      17.48     1.076    12.200     31.289
01303>      OUTFLOW<05: (000471)      17.48     1.060    12.200     31.289
01304>
01305>                    PEAK   FLOW   REDUCTION [Qout/Qin](%)=   98.538
01306>                    TIME SHIFT OF PEAK FLOW       (min)=      .00
01307>                    MAXIMUM  STORAGE   USED       (ha.m.)=.2080E-02
01308>
01309> ---------------------------------------------------------------------------
01310> 001:0034-----------------------------------------------------------------
01311> *
01312> *# MH 110
01313> *
01314> ------------------------
01315> | ADD HYD (       584) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
01316> ------------------------                   (ha)     (cms)   (hrs)   (mm)   (cms)
01317>                         ID1 05:       471    17.48    1.060   12.20  31.29    .000
01318>                        +ID2 04:       846    23.57    1.456   12.22  32.02    .000
01319>                         ============================================================
01320>                         SUM 08:       584    41.05    2.499   12.20  31.71    .000
01321>
01322>    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
01323>
01324> ---------------------------------------------------------------------------
01325> 001:0035-----------------------------------------------------------------
01326> *
01327> *################################################
01328> *# AREA FORMERLY KNOWN AS 52 (EAST OF PORTOBELLO)
01329> *################################################
01330> *
01331> *################################################
01332> *# MATTAMY SUMMERSIDE DRAINAGE AREA 6.13 ha - H-217 - MINOR
01333> *################################################
01334> *
01335> *
01336> --------------------
01337> | READ HYD         |   AREA       (ha)=    6.135
01338> | ID=03 (000217)   |   QPEAK     (cms)=     .424
01339> | DT= 1.00 PCYC= 1 |   TPEAK     (hrs)=   12.217
01340> --------------------   VOLUME     (mm)=   32.445
01341>   Filename: C:\SWMHYMO\111083\2018-0~1\H-217.030
01342>   Comments: Minor System Outflow to MH 217
01343>
01344>   TIME    FLOW |  TIME    FLOW |  TIME    FLOW |  TIME    FLOW |  TIME    FLOW
01345>    hrs     cms |   hrs     cms |   hrs     cms |   hrs     cms |   hrs     cms
01346>    .00    .000|   5.28    .008|  10.57    .025|  15.85    .020|  21.13    .010
01347>    .02    .000|   5.30    .008|  10.58    .025|  15.87    .020|  21.15    .010
01348>    .03    .000|   5.32    .008|  10.60    .025|  15.88    .020|  21.17    .010
01349>    .05    .000|   5.33    .008|  10.62    .025|  15.90    .020|  21.18    .010
01350>    .07    .000|   5.35    .008|  10.63    .025|  15.92    .020|  21.20    .010
01351>    .08    .000|   5.37    .008|  10.65    .025|  15.93    .020|  21.22    .010
01352>    .10    .000|   5.38    .008|  10.67    .025|  15.95    .020|  21.23    .010
01353>    .12    .000|   5.40    .008|  10.68    .025|  15.97    .020|  21.25    .009
01354>    .13    .000|   5.42    .008|  10.70    .025|  15.98    .020|  21.27    .009
01355>    .15    .000|   5.43    .008|  10.72    .025|  16.00    .020|  21.28    .009
01356>    .17    .000|   5.45    .008|  10.73    .025|  16.02    .020|  21.30    .008
01357>    .18    .000|   5.47    .008|  10.75    .025|  16.03    .020|  21.32    .008
01358>    .20    .000|   5.48    .008|  10.77    .025|  16.05    .020|  21.33    .008
01359>    .22    .000|   5.50    .008|  10.78    .026|  16.07    .020|  21.35    .008
01360>    .23    .000|   5.52    .008|  10.80    .026|  16.08    .020|  21.37    .008
01361>    .25    .000|   5.53    .008|  10.82    .026|  16.10    .020|  21.38    .008
01362>    .27    .000|   5.55    .008|  10.83    .026|  16.12    .020|  21.40    .008
01363>    .28    .000|   5.57    .008|  10.85    .026|  16.13    .020|  21.42    .008
01364>    .30    .000|   5.58    .008|  10.87    .026|  16.15    .020|  21.43    .008
01365>    .32    .000|   5.60    .008|  10.88    .026|  16.17    .020|  21.45    .008
01366>    .33    .000|   5.62    .008|  10.90    .026|  16.18    .020|  21.47    .008
01367>    .35    .000|   5.63    .008|  10.92    .026|  16.20    .020|  21.48    .008
01368>    .37    .000|   5.65    .008|  10.93    .026|  16.22    .020|  21.50    .008
01369>    .38    .000|   5.67    .008|  10.95    .026|  16.23    .019|  21.52    .008
01370>    .40    .000|   5.68    .008|  10.97    .026|  16.25    .018|  21.53    .008
01371>    .42    .000|   5.70    .008|  10.98    .026|  16.27    .017|  21.55    .008
01372>    .43    .000|   5.72    .008|  11.00    .026|  16.28    .017|  21.57    .008
01373>    .45    .000|   5.73    .008|  11.02    .026|  16.30    .016|  21.58    .007
01374>    .47    .000|   5.75    .008|  11.03    .026|  16.32    .016|  21.60    .007
01375>    .48    .000|   5.77    .008|  11.05    .026|  16.33    .016|  21.62    .007
01376>    .50    .000|   5.78    .008|  11.07    .026|  16.35    .016|  21.63    .007
01377>    .52    .000|   5.80    .008|  11.08    .026|  16.37    .016|  21.65    .007
01378>    .53    .000|   5.82    .008|  11.10    .026|  16.38    .016|  21.67    .007
01379>    .55    .000|   5.83    .008|  11.12    .026|  16.40    .015|  21.68    .007
01380>    .57    .000|   5.85    .008|  11.13    .026|  16.42    .015|  21.70    .007
01381>    .58    .000|   5.87    .008|  11.15    .026|  16.43    .015|  21.72    .007
01382>    .60    .000|   5.88    .008|  11.17    .026|  16.45    .015|  21.73    .007
01383>    .62    .000|   5.90    .008|  11.18    .026|  16.47    .015|  21.75    .007
01384>    .63    .000|   5.92    .008|  11.20    .026|  16.48    .015|  21.77    .007
01385>    .65    .000|   5.93    .008|  11.22    .027|  16.50    .015|  21.78    .007
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01394>    .80    .000|   6.08    .008|  11.37    .035|  16.65    .014|  21.93    .007
01395>    .82    .000|   6.10    .008|  11.38    .035|  16.67    .014|  21.95    .007
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01402>    .93    .000|   6.22    .008|  11.50    .047|  16.78    .014|  22.07    .007
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01404>    .97    .000|   6.25    .008|  11.53    .049|  16.82    .014|  22.10    .007
01405>    .98    .000|   6.27    .008|  11.55    .049|  16.83    .014|  22.12    .007
01406>   1.00    .000|   6.28    .008|  11.57    .050|  16.85    .014|  22.13    .007
01407>   1.02    .000|   6.30    .008|  11.58    .050|  16.87    .014|  22.15    .007
01408>   1.03    .000|   6.32    .008|  11.60    .050|  16.88    .014|  22.17    .007
01409>   1.05    .000|   6.33    .008|  11.62    .053|  16.90    .014|  22.18    .007
01410>   1.07    .000|   6.35    .008|  11.63    .062|  16.92    .014|  22.20    .007
01411>   1.08    .000|   6.37    .008|  11.65    .073|  16.93    .014|  22.22    .007
01412>   1.10    .000|   6.38    .008|  11.67    .084|  16.95    .014|  22.23    .007
01413>   1.12    .000|   6.40    .008|  11.68    .092|  16.97    .014|  22.25    .007
01414>   1.13    .000|   6.42    .008|  11.70    .097|  16.98    .014|  22.27    .007
01415>   1.15    .000|   6.43    .008|  11.72    .102|  17.00    .014|  22.28    .007
01416>   1.17    .000|   6.45    .008|  11.73    .104|  17.02    .014|  22.30    .007
01417>   1.18    .000|   6.47    .008|  11.75    .107|  17.03    .014|  22.32    .007
01418>   1.20    .000|   6.48    .008|  11.77    .108|  17.05    .014|  22.33    .007
01419>   1.22    .000|   6.50    .008|  11.78    .110|  17.07    .014|  22.35    .007
01420>   1.23    .000|   6.52    .008|  11.80    .111|  17.08    .014|  22.37    .007
01421>   1.25    .000|   6.53    .008|  11.82    .117|  17.10    .014|  22.38    .007
01422>   1.27    .000|   6.55    .008|  11.83    .135|  17.12    .014|  22.40    .007
01423>   1.28    .000|   6.57    .008|  11.85    .161|  17.13    .014|  22.42    .007
01424>   1.30    .000|   6.58    .008|  11.87    .184|  17.15    .014|  22.43    .007
01425>   1.32    .000|   6.60    .008|  11.88    .201|  17.17    .014|  22.45    .007
01426>   1.33    .000|   6.62    .008|  11.90    .214|  17.18    .014|  22.47    .007
01427>   1.35    .000|   6.63    .008|  11.92    .223|  17.20    .014|  22.48    .007
01428>   1.37    .000|   6.65    .008|  11.93    .229|  17.22    .014|  22.50    .007
01429>   1.38    .000|   6.67    .008|  11.95    .233|  17.23    .013|  22.52    .007
01430>   1.40    .000|   6.68    .008|  11.97    .237|  17.25    .013|  22.53    .007
01431>   1.42    .000|   6.70    .008|  11.98    .240|  17.27    .013|  22.55    .007
01432>   1.43    .000|   6.72    .008|  12.00    .242|  17.28    .013|  22.57    .007
01433>   1.45    .000|   6.73    .008|  12.02    .255|  17.30    .013|  22.58    .007
01434>   1.47    .000|   6.75    .008|  12.03    .288|  17.32    .013|  22.60    .007
01435>   1.48    .000|   6.77    .008|  12.05    .330|  17.33    .013|  22.62    .007
01436>   1.50    .000|   6.78    .008|  12.07    .362|  17.35    .013|  22.63    .007
01437>   1.52    .000|   6.80    .008|  12.08    .378|  17.37    .013|  22.65    .007
01438>   1.53    .000|   6.82    .008|  12.10    .390|  17.38    .013|  22.67    .007
01439>   1.55    .000|   6.83    .008|  12.12    .400|  17.40    .013|  22.68    .007
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01442>   1.60    .000|   6.88    .008|  12.17    .415|  17.45    .013|  22.73    .007
01443>   1.62    .000|   6.90    .008|  12.18    .419|  17.47    .013|  22.75    .007
01444>   1.63    .000|   6.92    .008|  12.20    .424|  17.48    .013|  22.77    .007
01445>   1.65    .000|   6.93    .008|  12.22    .424|  17.50    .013|  22.78    .007
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01457>   1.85    .000|   7.13    .008|  12.42    .200|  17.70    .013|  22.98    .007
01458>   1.87    .000|   7.15    .008|  12.43    .194|  17.72    .013|  23.00    .007
01459>   1.88    .000|   7.17    .008|  12.45    .186|  17.73    .013|  23.02    .007
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01467>   2.02    .000|   7.30    .008|  12.58    .155|  17.87    .013|  23.15    .007
01468>   2.03    .000|   7.32    .008|  12.60    .152|  17.88    .013|  23.17    .007
01469>   2.05    .000|   7.33    .008|  12.62    .150|  17.90    .013|  23.18    .007
01470>   2.07    .000|   7.35    .008|  12.63    .145|  17.92    .013|  23.20    .007
01471>   2.08    .000|   7.37    .008|  12.65    .141|  17.93    .013|  23.22    .007
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01474>   2.13    .000|   7.42    .008|  12.70    .126|  17.98    .013|  23.27    .007
01475>   2.15    .000|   7.43    .008|  12.72    .113|  18.00    .013|  23.28    .007
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01486>   2.33    .000|   7.62    .008|  12.90    .084|  18.18    .013|  23.47    .007
01487>   2.35    .000|   7.63    .008|  12.92    .083|  18.20    .013|  23.48    .007
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01531>   3.08   .000|  8.37   .013|  13.65   .039|  18.93   .013|  24.22   .003|
01532>   3.10   .000|  8.38   .013|  13.67   .039|  18.95   .013|  24.23   .002|
01533>   3.12   .000|  8.40   .013|  13.68   .038|  18.97   .013|  24.25   .002|
01534>   3.13   .000|  8.42   .013|  13.70   .038|  18.98   .013|  24.27   .002|
01535>   3.15   .000|  8.43   .013|  13.72   .038|  19.00   .013|  24.28   .002|
01536>   3.17   .000|  8.45   .013|  13.73   .038|  19.02   .013|  24.30   .002|
01537>   3.18   .000|  8.47   .013|  13.75   .038|  19.03   .013|  24.32   .001|
01538>   3.20   .000|  8.48   .013|  13.77   .037|  19.05   .013|  24.33   .001|
01539>   3.22   .000|  8.50   .013|  13.78   .037|  19.07   .013|  24.35   .001|
01540>   3.23   .000|  8.52   .013|  13.80   .037|  19.08   .013|  24.37   .001|
01541>   3.25   .000|  8.53   .013|  13.82   .037|  19.10   .013|  24.38   .001|
01542>   3.27   .000|  8.55   .013|  13.83   .037|  19.12   .013|  24.40   .001|
01543>   3.28   .000|  8.57   .013|  13.85   .036|  19.13   .013|  24.42   .001|
01544>   3.30   .000|  8.58   .013|  13.87   .036|  19.15   .013|  24.43   .001|
01545>   3.32   .000|  8.60   .013|  13.88   .036|  19.17   .013|  24.45   .001|
01546>   3.33   .000|  8.62   .013|  13.90   .036|  19.18   .013|  24.47   .001|
01547>   3.35   .000|  8.63   .013|  13.92   .036|  19.20   .013|  24.48   .001|
01548>   3.37   .000|  8.65   .013|  13.93   .036|  19.22   .013|  24.50   .001|
01549>   3.38   .000|  8.67   .013|  13.95   .035|  19.23   .013|  24.52   .001|
01550>   3.40   .000|  8.68   .013|  13.97   .035|  19.25   .013|  24.53   .001|
01551>   3.42   .000|  8.70   .013|  13.98   .035|  19.27   .012|  24.55   .001|
01552>   3.43   .000|  8.72   .013|  14.00   .035|  19.28   .012|  24.57   .001|
01553>   3.45   .000|  8.73   .013|  14.02   .035|  19.30   .012|  24.58   .001|
01554>   3.47   .000|  8.75   .013|  14.03   .035|  19.32   .012|  24.60   .001|
01555>   3.48   .000|  8.77   .013|  14.05   .035|  19.33   .011|  24.62   .001|
01556>   3.50   .001|  8.78   .013|  14.07   .035|  19.35   .011|  24.63   .001|
01557>   3.52   .001|  8.80   .013|  14.08   .035|  19.37   .011|  24.65   .001|
01558>   3.53   .002|  8.82   .013|  14.10   .035|  19.38   .011|  24.67   .001|
01559>   3.55   .003|  8.83   .013|  14.12   .034|  19.40   .011|  24.68   .001|
01560>   3.57   .003|  8.85   .013|  14.13   .034|  19.42   .011|  24.70   .001|
01561>   3.58   .003|  8.87   .013|  14.15   .034|  19.43   .011|  24.72   .001|
01562>   3.60   .004|  8.88   .013|  14.17   .034|  19.45   .011|  24.73   .000|
01563>   3.62   .004|  8.90   .013|  14.18   .034|  19.47   .011|  24.75   .000|
01564>   3.63   .004|  8.92   .013|  14.20   .034|  19.48   .011|  24.77   .000|
01565>   3.65   .004|  8.93   .013|  14.22   .034|  19.50   .011|  24.78   .000|
01566>   3.67   .004|  8.95   .013|  14.23   .032|  19.52   .011|  24.80   .000|
01567>   3.68   .004|  8.97   .013|  14.25   .031|  19.53   .011|  24.82   .000|
01568>   3.70   .004|  8.98   .013|  14.27   .029|  19.55   .011|  24.83   .000|
01569>   3.72   .004|  9.00   .013|  14.28   .028|  19.57   .011|  24.85   .000|
01570>   3.73   .004|  9.02   .013|  14.30   .027|  19.58   .011|  24.87   .000|
01571>   3.75   .004|  9.03   .013|  14.32   .027|  19.60   .011|  24.88   .000|
01572>   3.77   .004|  9.05   .013|  14.33   .026|  19.62   .011|  24.90   .000|
01573>   3.78   .004|  9.07   .013|  14.35   .026|  19.63   .011|  24.92   .000|
01574>   3.80   .004|  9.08   .013|  14.37   .025|  19.65   .011|  24.93   .000|
01575>   3.82   .004|  9.10   .013|  14.38   .025|  19.67   .011|  24.95   .000|
01576>   3.83   .004|  9.12   .013|  14.40   .025|  19.68   .011|  24.97   .000|
01577>   3.85   .004|  9.13   .013|  14.42   .025|  19.70   .011|  24.98   .000|
01578>   3.87   .004|  9.15   .013|  14.43   .024|  19.72   .011|  25.00   .000|
01579>   3.88   .004|  9.17   .013|  14.45   .024|  19.73   .011|  25.02   .000|
01580>   3.90   .004|  9.18   .013|  14.47   .024|  19.75   .011|  25.03   .000|
01581>   3.92   .004|  9.20   .013|  14.48   .024|  19.77   .010|  25.05   .000|
01582>   3.93   .004|  9.22   .013|  14.50   .024|  19.78   .010|  25.07   .000|
01583>   3.95   .004|  9.23   .013|  14.52   .024|  19.80   .010|  25.08   .000|
01584>   3.97   .004|  9.25   .013|  14.53   .023|  19.82   .010|  25.10   .000|
01585>   3.98   .004|  9.27   .013|  14.55   .023|  19.83   .010|  25.12   .000|
01586>   4.00   .004|  9.28   .013|  14.57   .023|  19.85   .010|  25.13   .000|
01587>   4.02   .004|  9.30   .013|  14.58   .023|  19.87   .010|  25.15   .000|
01588>   4.03   .004|  9.32   .013|  14.60   .023|  19.88   .010|  25.17   .000|
01589>   4.05   .004|  9.33   .013|  14.62   .023|  19.90   .010|  25.18   .000|
01590>   4.07   .004|  9.35   .013|  14.63   .023|  19.92   .010|  25.20   .000|
01591>   4.08   .004|  9.37   .013|  14.65   .022|  19.93   .010|  25.22   .000|
01592>   4.10   .004|  9.38   .013|  14.67   .022|  19.95   .010|  25.23   .000|
01593>   4.12   .004|  9.40   .013|  14.68   .022|  19.97   .010|  25.25   .000|
01594>   4.13   .004|  9.42   .013|  14.70   .022|  19.98   .010|  25.27   .000|
01595>   4.15   .004|  9.43   .013|  14.72   .022|  20.00   .010|  25.28   .000|
01596>   4.17   .004|  9.45   .013|  14.73   .022|  20.02   .010|  25.30   .000|
01597>   4.18   .004|  9.47   .013|  14.75   .022|  20.03   .010|  25.32   .000|
01598>   4.20   .004|  9.48   .013|  14.77   .022|  20.05   .010|  25.33   .000|
01599>   4.22   .004|  9.50   .013|  14.78   .022|  20.07   .010|  25.35   .000|
01600>   4.23   .005|  9.52   .013|  14.80   .022|  20.08   .010|  25.37   .000|
01601>   4.25   .006|  9.53   .014|  14.82   .021|  20.10   .010|  25.38   .000|
01602>   4.27   .006|  9.55   .014|  14.83   .021|  20.12   .010|  25.40   .000|
01603>   4.28   .007|  9.57   .014|  14.85   .021|  20.13   .010|  25.42   .000|
01604>   4.30   .007|  9.58   .014|  14.87   .021|  20.15   .010|  25.43   .000|
01605>   4.32   .008|  9.60   .014|  14.88   .021|  20.17   .010|  25.45   .000|
01606>   4.33   .008|  9.62   .014|  14.90   .021|  20.18   .010|  25.47   .000|
01607>   4.35   .008|  9.63   .014|  14.92   .021|  20.20   .010|  25.48   .000|
01608>   4.37   .008|  9.65   .014|  14.93   .021|  20.22   .010|  25.50   .000|
01609>   4.38   .008|  9.67   .014|  14.95   .021|  20.23   .010|  25.52   .000|
01610>   4.40   .008|  9.68   .014|  14.97   .021|  20.25   .010|  25.53   .000|
01611>   4.42   .008|  9.70   .014|  14.98   .021|  20.27   .010|  25.55   .000|
01612>   4.43   .008|  9.72   .014|  15.00   .021|  20.28   .010|  25.57   .000|
01613>   4.45   .008|  9.73   .014|  15.02   .021|  20.30   .010|  25.58   .000|
01614>   4.47   .008|  9.75   .014|  15.03   .021|  20.32   .010|  25.60   .000|
01615>   4.48   .008|  9.77   .014|  15.05   .021|  20.33   .010|  25.62   .000|
01616>   4.50   .008|  9.78   .014|  15.07   .021|  20.35   .010|  25.63   .000|
01617>   4.52   .008|  9.80   .014|  15.08   .021|  20.37   .010|  25.65   .000|
01618>   4.53   .008|  9.82   .014|  15.10   .020|  20.38   .010|  25.67   .000|
01619>   4.55   .008|  9.83   .014|  15.12   .020|  20.40   .010|  25.68   .000|
01620>   4.57   .008|  9.85   .014|  15.13   .020|  20.42   .010|  25.70   .000|
01621>   4.58   .008|  9.87   .014|  15.15   .020|  20.43   .010|  25.72   .000|
01622>   4.60   .008|  9.88   .014|  15.17   .020|  20.45   .010|  25.73   .000|
01623>   4.62   .008|  9.90   .014|  15.18   .020|  20.47   .010|  25.75   .000|
01624>   4.63   .008|  9.92   .014|  15.20   .020|  20.48   .010|  25.77   .000|
01625>   4.65   .008|  9.93   .014|  15.22   .020|  20.50   .010|  25.78   .000|
01626>   4.67   .008|  9.95   .014|  15.23   .020|  20.52   .010|  25.80   .000|
01627>   4.68   .008|  9.97   .014|  15.25   .020|  20.53   .010|  25.82   .000|
01628>   4.70   .008|  9.98   .014|  15.27   .020|  20.55   .010|  25.83   .000|
01629>   4.72   .008| 10.00   .014|  15.28   .020|  20.57   .010|  25.85   .000|
01630>   4.73   .008| 10.02   .014|  15.30   .020|  20.58   .010|  25.87   .000|
01631>   4.75   .008| 10.03   .014|  15.32   .020|  20.60   .010|  25.88   .000|
01632>   4.77   .008| 10.05   .014|  15.33   .020|  20.62   .010|  25.90   .000|
01633>   4.78   .008| 10.07   .014|  15.35   .020|  20.63   .010|  25.92   .000|
01634>   4.80   .008| 10.08   .014|  15.37   .020|  20.65   .010|  25.93   .000|
01635>   4.82   .008| 10.10   .014|  15.38   .020|  20.67   .010|  25.95   .000|
01636>   4.83   .008| 10.12   .014|  15.40   .020|  20.68   .010|  25.97   .000|
01637>   4.85   .008| 10.13   .014|  15.42   .020|  20.70   .010|  25.98   .000|
01638>   4.87   .008| 10.15   .014|  15.43   .020|  20.72   .010|  26.00   .000|
01639>   4.88   .008| 10.17   .014|  15.45   .020|  20.73   .010|  26.02   .000|
01640>   4.90   .008| 10.18   .014|  15.47   .020|  20.75   .010|  26.03   .000|
01641>   4.92   .008| 10.20   .014|  15.48   .020|  20.77   .010|  26.05   .000|
01642>   4.93   .008| 10.22   .014|  15.50   .020|  20.78   .010|  26.07   .000|
01643>   4.95   .008| 10.23   .016|  15.52   .020|  20.80   .010|  26.08   .000|
01644>   4.97   .008| 10.25   .018|  15.53   .020|  20.82   .010|  26.10   .000|
01645>   4.98   .008| 10.27   .020|  15.55   .020|  20.83   .010|  26.12   .000|
01646>   5.00   .008| 10.28   .021|  15.57   .020|  20.85   .010|  26.13   .000|
01647>   5.02   .008| 10.30   .022|  15.58   .020|  20.87   .010|  26.15   .000|
01648>   5.03   .008| 10.32   .023|  15.60   .020|  20.88   .010|  26.17   .000|
01649>   5.05   .008| 10.33   .023|  15.62   .020|  20.90   .010|  26.18   .000|
01650>   5.07   .008| 10.35   .023|  15.63   .020|  20.92   .010|  26.20   .000|
01651>   5.08   .008| 10.37   .024|  15.65   .020|  20.93   .010|  26.22   .000|

01652>   5.10   .008|  10.38   .024|  15.67   .020|  20.95   .010|  26.23   .000
01653>   5.12   .008|  10.40   .024|  15.68   .020|  20.97   .010|  26.25   .000
01654>   5.13   .008|  10.42   .024|  15.70   .020|  20.98   .010|  26.27   .000
01655>   5.15   .008|  10.43   .024|  15.72   .020|  21.00   .010|  26.28   .000
01656>   5.17   .008|  10.45   .024|  15.73   .020|  21.02   .010|  26.30   .000
01657>   5.18   .008|  10.47   .024|  15.75   .020|  21.03   .010|  26.32   .000
01658>   5.20   .008|  10.48   .025|  15.77   .020|  21.05   .010|  26.33   .000
01659>   5.22   .008|  10.50   .025|  15.78   .020|  21.07   .010|
01660>   5.23   .008|  10.52   .025|  15.80   .020|  21.08   .010|
01661>   5.25   .008|  10.53   .025|  15.82   .020|  21.10   .010|
01662>   5.27   .008|  10.55   .025|  15.83   .020|  21.12   .010|
01663> ------------------------------------------------------------------------------
01664> 001:0036------------------------------------------------------------------------
01665> *
01666> *
01667> *
01668> *#########################
01669> *#    DRAINAGE AREA 54 ||
01670> *#                     ||
01671> *#########################
01672> *
01673> *
01674> ----------------------
01675> | CALIB STANDHYD     |   Area    (ha)=   13.08
01676> | 04:000204 DT=12.00 |   Total Imp(%)=   50.00   Dir. Conn.(%)=   29.00
01677> ----------------------
01678>                                IMPERVIOUS    PERVIOUS (i)
01679>      Surface Area     (ha)=       6.54         6.54
01680>      Dep. Storage     (mm)=        .80         1.50
01681>      Average Slope     (%)=        .20         2.00
01682>      Length            (m)=     475.00        40.00
01683>      Mannings n             =       .013         .250
01684>
01685>      Max.eff.Inten.(mm/hr)=      55.20        27.14
01686>                 over (min)       12.00        24.00
01687>      Storage Coeff.  (min)=      13.37 (ii)   25.27 (ii)
01688>      Unit Hyd. Tpeak (min)=      12.00        24.00
01689>      Unit Hyd. peak  (cms)=        .08          .05
01690>                                                          *TOTALS*
01691>      PEAK FLOW       (cms)=        .43          .32          .656 (iii)
01692>      TIME TO PEAK    (hrs)=      12.20        12.40         12.200
01693>      RUNOFF VOLUME    (mm)=      47.20        20.68         28.370
01694>      TOTAL RAINFALL   (mm)=      48.00        48.00         48.000
01695>      RUNOFF COEFFICIENT   =        .98          .43           .591
01696>
01697>        (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
01698>            CN* =  75.0    Ia = Dep. Storage  (Above)
01699>       (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
01700>            THAN THE STORAGE COEFFICIENT.
01701>      (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
01702>
01703> ------------------------------------------------------------------------------
01704> 001:0037------------------------------------------------------------------------
01705> *
01706> *
01707> *#########################
01708> *# OSD 85 L/S/HA 30 L/S/HA
01709> *#  85*10.89 = 925.7 L/S
01710> *#  30*2.19 = 65.7 L/S
01711> *#  TOTAL = 991.4 L/S
01712> *#########################
01713> *
01714> ---------------------
01715> | ROUTE RESERVOIR   |    Requested routing time step = 12.0 min.
01716> |  IN>04:(000204)   |
01717> | OUT<05:(000471)   |    =========  OUTFLOW STORAGE TABLE  =========
01718> ---------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
01719>                            (cms)    (ha.m.)   |    (cms)    (ha.m.)
01720>                             .000  .0000E+00   |     .991  .1455E+00
01721>                             .950  .2000E-02   |     .000  .0000E+00
01722>
01723>      ROUTING RESULTS            AREA     QPEAK     TPEAK       R.V.
01724>      --------------------       (ha)     (cms)     (hrs)       (mm)
01725>      INFLOW >04: (000204)      13.08      .656    12.200     28.370
01726>      OUTFLOW<05: (000471)      13.08      .641    12.200     28.370
01727>
01728>                    PEAK   FLOW   REDUCTION [Qout/Qin](%)=   97.794
01729>                    TIME SHIFT OF PEAK FLOW         (min)=      .00
01730>                    MAXIMUM  STORAGE   USED       (ha.m.)=.1871E-02
01731>
01732> ------------------------------------------------------------------------------
01733> 001:0038------------------------------------------------------------------------
01734> *
01735> *# ADD AREA 52 AND 54
01736> *
01737> ------------------------
01738> | ADD HYD (       463) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
01739> ------------------------                  (ha)     (cms)   (hrs)   (mm)   (cms)
01740>                        ID1 03:       217     6.14     .424    12.22  32.45    .000
01741>                       +ID2 05:       471    13.08     .641    12.20  28.37    .000
01742>                        ========================================================
01743>                        SUM 09:       463    19.22    1.065    12.20  29.67    .000
01744>
01745>    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
01746>
01747> ------------------------------------------------------------------------------
01748> 001:0039------------------------------------------------------------------------
01749> *
01750> *# MH 107
01751> *
01752> *# ADD TO REST
01753> *
01754> ------------------------
01755> | ADD HYD (       463) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
01756> ------------------------                  (ha)     (cms)   (hrs)   (mm)   (cms)
01757>                        ID1 09:       463    19.22    1.065    12.20  29.67    .000
01758>                       +ID2 08:       584    41.05    2.499    12.20  31.71    .000
01759>                        ========================================================
01760>                        SUM 05:       463    60.27    3.564    12.20  31.06    .000
01761>
01762>    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
01763>
01764> ------------------------------------------------------------------------------
01765> 001:0040------------------------------------------------------------------------
01766> *
01767> *
01768> *#########################
01769> *#    DRAINAGE AREA 55 ||
01770> *#                     ||
01771> *#########################
01772> *
01773> *
01774> ----------------------
01775> | CALIB STANDHYD     |   Area    (ha)=   15.69
01776> | 01:000204 DT=12.00 |   Total Imp(%)=   60.00   Dir. Conn.(%)=   37.00
01777> ----------------------
01778>                                IMPERVIOUS    PERVIOUS (i)
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01779>      Surface Area     (ha)=       9.41         6.28
01780>      Dep. Storage     (mm)=        .80         1.50
01781>      Average Slope     (%)=        .20         2.00
01782>      Length            (m)=     530.00        40.00
01783>      Mannings n           =       .013         .250
01784>
01785>      Max.eff.Inten.(mm/hr)=      55.20        32.10
01786>                   over (min)      12.00        24.00
01787>      Storage Coeff.  (min)=      14.28 (ii)   25.40 (ii)
01788>      Unit Hyd. Tpeak (min)=      12.00        24.00
01789>      Unit Hyd. peak  (cms)=        .08          .04
01790>                                                          *TOTALS*
01791>      PEAK FLOW       (cms)=        .64          .36          .896 (iii)
01792>      TIME TO PEAK    (hrs)=      12.20        12.40         12.200
01793>      RUNOFF VOLUME    (mm)=      47.20        21.96         31.298
01794>      TOTAL RAINFALL   (mm)=      48.00        48.00         48.000
01795>      RUNOFF COEFFICIENT   =        .98          .46          .652
01796>
01797>        (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
01798>            CN* =  75.0    Ia = Dep. Storage  (Above)
01799>       (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
01800>            THAN THE STORAGE COEFFICIENT.
01801>      (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
01802>
01803> ------------------------------------------------------------------------------
01804> 001:0041--------------------------------------------------------------------
01805> *
01806> *
01807> *#=========================
01808> *# OSD 85 L/S/HA
01809> *#  85*15.69 = 1334 L/S
01810> *#=========================
01811> *
01812> ---------------------
01813> | ROUTE RESERVOIR   |    Requested routing time step = 12.0 min.
01814> |  IN>01:(000204)   |
01815> | OUT<09:(000471)   |    =========  OUTLFOW STORAGE TABLE  =========
01816> ---------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
01817>                            (cms)    (ha.m.)   |    (cms)    (ha.m.)
01818>                              .000  .0000E+00   |    1.334  .1825E+00
01819>                             1.300  .2000E-02   |     .000  .0000E+00
01820>
01821>      ROUTING RESULTS            AREA     QPEAK     TPEAK       R.V.
01822>      --------------------       (ha)     (cms)     (hrs)       (mm)
01823>      INFLOW >01: (000204)      15.69      .896    12.200     31.298
01824>      OUTFLOW<09: (000471)      15.69      .882    12.200     31.298
01825>
01826>                    PEAK   FLOW   REDUCTION [Qout/Qin](%)=   98.408
01827>                    TIME SHIFT OF PEAK FLOW         (min)=      .00
01828>                    MAXIMUM  STORAGE   USED       (ha.m.)=.1871E-02
01829>
01830> ------------------------------------------------------------------------------
01831> 001:0042--------------------------------------------------------------------
01832> *
01833> *# MH 105
01834> *
01835> *# TRUNK 2
01836> *
01837> ------------------------
01838> | ADD HYD (       874) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
01839> ------------------------                   (ha)     (cms)   (hrs)   (mm)   (cms)
01840>                        ID1 09:       471    15.69     .882   12.20  31.30    .000
01841>                       +ID2 05:       463    60.27    3.564   12.20  31.06    .000
01842>                        ========================================================
01843>                        SUM 04:       874    75.96    4.446   12.20  31.11    .000
01844>
01845>    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
01846>
01847> ------------------------------------------------------------------------------
01848> 001:0043--------------------------------------------------------------------
01849> *
01850> --------------------
01851> | SAVE HYD         |   AREA       (ha)=   75.960
01852> | ID=04 (000874)   |   QPEAK     (cms)=    4.446 (i)
01853> | DT= 1.00 PCYC=-1 |   TPEAK     (hrs)=   12.200
01854> --------------------   VOLUME     (mm)=   31.108
01855>   Filename: C:\SWMHYMO\111083\2018-0~1\104.030
01856>   Comments: 104-24SCS2
01857>
01858>      (i)  PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
01859> ------------------------------------------------------------------------------
01860> 001:0044--------------------------------------------------------------------
01861> *
01862> *#==================================
01863> *#  ADD TWO TRUNKS
01864> *#==================================
01865> *
01866> ------------------------
01867> | ADD HYD (       562) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
01868> ------------------------                   (ha)     (cms)   (hrs)   (mm)   (cms)
01869>                        ID1 04:       874    75.96    4.446   12.20  31.11    .000
01870>                       +ID2 06:       450    72.56    4.126   12.20  30.36    .000
01871>                        ========================================================
01872>                        SUM 09:       562   148.52    8.572   12.20  30.74    .000
01873>
01874>    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
01875>
01876> ------------------------------------------------------------------------------
01877> 001:0045--------------------------------------------------------------------
01878> *
01879> *
01880> *
01881> *#====================================================
01882> *# ISGAR LANDS (EAST AND WEST OF AVALON SOUTH POND)
01883> *#====================================================
01884> *
01885> *# ISGAR LANDS - AREA I1
01886> *# NEW WESTERN INLET
01887> *
01888> ----------------------
01889> | CALIB STANDHYD     |   Area    (ha)=    8.35
01890> | 01:I1     DT=12.00 |   Total Imp(%)=   60.00   Dir. Conn.(%)=   45.00
01891> ----------------------
01892>                              IMPERVIOUS    PERVIOUS (i)
01893>      Surface Area     (ha)=       5.01         3.34
01894>      Dep. Storage     (mm)=        .80         1.50
01895>      Average Slope     (%)=        .20         2.00
01896>      Length            (m)=     357.00        40.00
01897>      Mannings n           =       .013         .250
01898>
01899>      Max.eff.Inten.(mm/hr)=      55.20        25.74
01900>                   over (min)      12.00        24.00
01901>      Storage Coeff.  (min)=      11.27 (ii)   23.41 (ii)
01902>      Unit Hyd. Tpeak (min)=      12.00        24.00
01903>      Unit Hyd. peak  (cms)=        .09          .05
01904>                                                          *TOTALS*
01905>      PEAK FLOW       (cms)=        .45          .16          .567 (iii)
01906>      TIME TO PEAK    (hrs)=      12.20        12.40        12.200
01907>      RUNOFF VOLUME    (mm)=      47.20        20.28        32.396
01908>      TOTAL RAINFALL   (mm)=      48.00        48.00        48.000
01909>      RUNOFF COEFFICIENT   =        .98          .42          .675
01910>       *** WARNING: Storage Coefficient is smaller than DT!
01911>                    Use a smaller DT or a larger area.
01912>
01913>        (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
01914>            CN* =  75.0    Ia = Dep. Storage  (Above)
01915>       (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
01916>            THAN THE STORAGE COEFFICIENT.
01917>      (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
01918>
01919> ------------------------------------------------------------------------------
01920> 001:0046--------------------------------------------------------------------
01921> *
01922> *
01923> *#==========================
01924> *# INFLOW 200 l/s/ha = 8.35 x 200 = 1670 l/s
01925> *# ON-SITE STORAGE (30% LESS THAN AVALON WEST) - 75.60 m3/ha = 631.3 M3
01926> *#==========================
01927> *
01928> ---------------------
01929> | ROUTE RESERVOIR   |    Requested routing time step =  1.0 min.
01930> |  IN>01:(I1    )   |
01931> | OUT<04:(I1    )   |    =========  OUTLFOW STORAGE TABLE  =========
01932> ---------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
01933>                            (cms)    (ha.m.)   |    (cms)    (ha.m.)
01934>                              .000  .0000E+00   |    1.670  .6313E-01
01935>                             1.660  .2000E-02   |     .000  .0000E+00
01936>
01937>      ROUTING RESULTS            AREA     QPEAK     TPEAK       R.V.
01938>      --------------------       (ha)     (cms)     (hrs)       (mm)
01939>      INFLOW >01: (I1    )       8.35      .567    12.200     32.396
01940>      OUTFLOW<04: (I1    )       8.35      .562    12.200     32.396
01941>     OVERFLOW<06: (000487)        .00      .000      .000       .000
01942>
01943>                    TOTAL NUMBER OF SIMULATED OVERFLOWS  =        0
01944>                    CUMULATIVE TIME OF OVERFLOWS  (hours)=      .00
01945>                    PERCENTAGE OF TIME OVERFLOWING    (%)=      .00
01946>
01947>
01948>                    PEAK   FLOW   REDUCTION [Qout/Qin](%)=   99.093
01949>                    TIME SHIFT OF PEAK FLOW         (min)=      .00
01950>                    MAXIMUM  STORAGE   USED       (ha.m.)=.6922E-03
01951>
01952> ------------------------------------------------------------------------------
01953> 001:0047--------------------------------------------------------------------
01954> *
01955> *# TOTAL (MINOR AND MAJOR FLOW) FROM I1 TO POND
01956> *
01957> ------------------------
01958> | ADD HYD (       784) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
01959> ------------------------                   (ha)     (cms)   (hrs)   (mm)   (cms)
01960>                          ID1 04:I1         8.35     .562   12.20  32.40    .000
01961>                         +ID2 06:       487    .00     .000     .00    .00    .000
01962>                          ========================================================
01963>                          SUM 07:       784    8.35     .562   12.20  32.40    .000
01964>
01965>    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
01966>
01967> ------------------------------------------------------------------------------
01968> 001:0048--------------------------------------------------------------------
01969> *
01970> *
01971> *#============================================================
01972> *# MAJOR OVERLAND FLOW FROM AREAS EAST OF PORTOBELLO TO FACILITY
01973> *# FORMERLY AREAS 51 AND 52 (26.06 HA TOTAL AREA)
01974> *# TO BE CAPTURED BY MINOR SYSTEM STORM SEWERS IN EASTERN ISGAR
01975> *#============================================================
01976> *
01977> *
01978>       *** NOTE: The hydrograph which was read is dry.
01979> --------------------
01980> | READ HYD         |   AREA       (ha)=     .000
01981> | ID=05 (005152)   |   QPEAK     (cms)=     .000
01982> | DT= 1.00 PCYC= 1 |   TPEAK     (hrs)=     .000
01983> --------------------   VOLUME     (mm)=     .000
01984>   Filename: C:\SWMHYMO\111083\2018-0~1\H-MAJout.030
01985>   Comments: Major System Outflow from Portobello Blvd
01986>
01987> ------------------------------------------------------------------------------
01988> 001:0049--------------------------------------------------------------------
01989> *
01990> *
01991> *
01992> *# ISGAR LANDS - AREA I2
01993> *# NEW EASTERN INLET
01994> *
01995> ----------------------
01996> | CALIB STANDHYD     |   Area    (ha)=   12.02
01997> | 01:I2     DT=12.00 |   Total Imp(%)=   65.00   Dir. Conn.(%)=   51.00
01998> ----------------------
01999>                              IMPERVIOUS    PERVIOUS (i)
02000>      Surface Area     (ha)=       7.81         4.21
02001>      Dep. Storage     (mm)=        .80         1.50
02002>      Average Slope     (%)=        .20         2.00
02003>      Length            (m)=     479.00        40.00
02004>      Mannings n           =       .013         .250
02005>
02006>      Max.eff.Inten.(mm/hr)=      55.20        26.51
02007>                   over (min)      12.00        24.00
02008>      Storage Coeff.  (min)=      13.44 (ii)   25.44 (ii)
02009>      Unit Hyd. Tpeak (min)=      12.00        24.00
02010>      Unit Hyd. peak  (cms)=        .08          .04
02011>                                                          *TOTALS*
02012>      PEAK FLOW       (cms)=        .69          .20          .832 (iii)
02013>      TIME TO PEAK    (hrs)=      12.20        12.40        12.200
02014>      RUNOFF VOLUME    (mm)=      47.20        20.50        34.119
02015>      TOTAL RAINFALL   (mm)=      48.00        48.00        48.000
02016>      RUNOFF COEFFICIENT   =        .98          .43          .711
02017>
02018>        (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
02019>            CN* =  75.0    Ia = Dep. Storage  (Above)
02020>       (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
02021>            THAN THE STORAGE COEFFICIENT.
02022>      (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
02023>
02024> ------------------------------------------------------------------------------
02025> 001:0050--------------------------------------------------------------------
02026> *
02027> *
02028> *
02029> *#==========================
02030> *# INFLOW 200 L/S/HA - 12.02 X 200 = 2404 L/S
02031> *# ON-SITE STORAGE (30% LESS THAN AVALON WEST) - 84.90 m3/ha = 1020.5 M3
02032> *#==========================
```

```
02033> *
02034> ----------------------
02035> | ROUTE RESERVOIR   |    Requested routing time step =  1.0 min.
02036> |  IN>01:(I2    )   |
02037> | OUT<04:(I2    )   |    =========  OUTLFOW STORAGE TABLE  =========
02038> ----------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
02039>                             (cms)    (ha.m.)   |    (cms)    (ha.m.)
02040>                              .000  .0000E+00   |    2.404  .1020E+00
02041>                             2.390  .2000E-02   |     .000  .0000E+00
02042>
02043>     ROUTING RESULTS            AREA     QPEAK     TPEAK       R.V.
02044>     ----------------------      (ha)     (cms)     (hrs)       (mm)
02045>     INFLOW >01: (I2    )      12.02      .832    12.200     34.119
02046>     OUTFLOW<04: (I2    )      12.02      .827    12.200     34.119
02047>    OVERFLOW<08: (000487)        .00      .000      .000       .000
02048>
02049>                    TOTAL NUMBER OF SIMULATED OVERFLOWS  =        0
02050>                    CUMULATIVE TIME OF OVERFLOWS  (hours)=      .00
02051>                    PERCENTAGE OF TIME OVERFLOWING    (%)=      .00
02052>
02053>
02054>                    PEAK   FLOW   REDUCTION [Qout/Qin](%)=   99.374
02055>                    TIME SHIFT OF PEAK FLOW         (min)=     .00
02056>                    MAXIMUM  STORAGE   USED       (ha.m.)=.7077E-03
02057>
02058> ------------------------------------------------------------------------
02059> 001:0051-------------------------------------------------------------------
02060> *
02061> *# TOTAL MINOR FLOW (MAJOR FLOW PORTOBELLO AND I2)
02062> *
02063> ------------------------
02064> | ADD HYD (       845) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
02065> ------------------------                   (ha)     (cms)   (hrs)   (mm)   (cms)
02066>                      ID1 04:I2            12.02      .827   12.20  34.12    .000
02067>                     +ID2 05:      5152     .00      .000     .00    .00    .000
02068>                      ==========================================================
02069>                      SUM 06:       845    12.02      .827   12.20  34.12    .000
02070>
02071>    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
02072>
02073> ------------------------------------------------------------------------
02074> 001:0052-------------------------------------------------------------------
02075> *
02076> *# ISGAR LANDS - AREA I3
02077> *# NEW EASTERN INLET
02078> *
02079> ----------------------
02080> | CALIB STANDHYD     |   Area    (ha)=    7.64
02081> | 01:I3     DT=12.00 |   Total Imp(%)=   49.00   Dir. Conn.(%)=   30.00
02082> ----------------------
02083>                              IMPERVIOUS    PERVIOUS (i)
02084>      Surface Area     (ha)=       3.74         3.90
02085>      Dep. Storage     (mm)=        .80         1.50
02086>      Average Slope     (%)=        .20         2.00
02087>      Length            (m)=     292.00        40.00
02088>      Mannings n           =       .013         .250
02089>
02090>      Max.eff.Inten.(mm/hr)=      55.20        25.67
02091>                   over (min)      12.00        24.00
02092>      Storage Coeff.  (min)=       9.99 (ii)   22.15 (ii)
02093>      Unit Hyd. Tpeak (min)=      12.00        24.00
02094>      Unit Hyd. peak  (cms)=        .10          .05
02095>                                                        *TOTALS*
02096>      PEAK FLOW       (cms)=        .29          .19         .425 (iii)
02097>      TIME TO PEAK    (hrs)=      12.20        12.40       12.200
02098>      RUNOFF VOLUME    (mm)=      47.20        20.26       28.343
02099>      TOTAL RAINFALL   (mm)=      48.00        48.00       48.000
02100>      RUNOFF COEFFICIENT   =        .98          .42         .590
02101>       *** WARNING: Storage Coefficient is smaller than DT!
02102>                    Use a smaller DT or a larger area.
02103>
02104>       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
02105>           CN* =  75.0    Ia = Dep. Storage  (Above)
02106>      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
02107>           THAN THE STORAGE COEFFICIENT.
02108>     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
02109>
02110> ------------------------------------------------------------------------
02111> 001:0053-------------------------------------------------------------------
02112> *
02113> *
02114> *# MAJOR FLOW FROM I3
02115> *
02116> ------------------------
02117> | ADD HYD (       784) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
02118> ------------------------                   (ha)     (cms)   (hrs)   (mm)   (cms)
02119>                      ID1 01:I3             7.64      .425   12.20  28.34    .000
02120>                     +ID2 08:       487     .00      .000     .00    .00    .000
02121>                      ==========================================================
02122>                      SUM 05:       784     7.64      .425   12.20  28.34    .000
02123>
02124>    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
02125>
02126> ------------------------------------------------------------------------
02127> 001:0054-------------------------------------------------------------------
02128> *
02129> *#########################
02130> *# INFLOW 200 L/S/HA - 7.64 X 200 = 1528 L/S
02131> *# ON-SITE STORAGE (30% LESS THAN AVALON WEST) - 108.55 m3/ha = 829.3 M3
02132> *#########################
02133> *
02134> ----------------------
02135> | ROUTE RESERVOIR   |    Requested routing time step =  1.0 min.
02136> |  IN>05:(000784)   |
02137> | OUT<03:(I3    )   |    =========  OUTLFOW STORAGE TABLE  =========
02138> ----------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
02139>                             (cms)    (ha.m.)   |    (cms)    (ha.m.)
02140>                              .000  .0000E+00   |    1.528  .8293E-01
02141>                             1.510  .2000E-02   |     .000  .0000E+00
02142>
02143>     ROUTING RESULTS            AREA     QPEAK     TPEAK       R.V.
02144>     ----------------------      (ha)     (cms)     (hrs)       (mm)
02145>     INFLOW >05: (000784)       7.64      .425    12.200     28.344
02146>     OUTFLOW<03: (I3    )       7.64      .421    12.217     28.344
02147>    OVERFLOW<01: (000487)        .00      .000      .000       .000
02148>
02149>                    TOTAL NUMBER OF SIMULATED OVERFLOWS  =        0
02150>                    CUMULATIVE TIME OF OVERFLOWS  (hours)=      .00
02151>                    PERCENTAGE OF TIME OVERFLOWING    (%)=      .00
02152>
02153>
02154>                    PEAK   FLOW   REDUCTION [Qout/Qin](%)=   99.003
02155>                    TIME SHIFT OF PEAK FLOW         (min)=    1.00
02156>                    MAXIMUM  STORAGE   USED       (ha.m.)=.5701E-03
02157>
02158> ------------------------------------------------------------------------
02159> 001:0055-------------------------------------------------------------------
02160> *
02161> *# TOTAL MINOR SYSTEM FLOW FROM MAJOR PORTOBELLO, I2 AND I3 (NEW EASTERN INLET)
02162> *
02163> ------------------------
02164> | ADD HYD (       784) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
02165> ------------------------                   (ha)     (cms)   (hrs)   (mm)   (cms)
02166>                      ID1 06:       845    12.02      .827   12.20  34.12    .000
02167>                     +ID2 03:I3            7.64      .421   12.22  28.34    .000
02168>                      ==========================================================
02169>                      SUM 05:       784    19.66    1.248   12.20  31.87    .000
02170>
02171>    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
02172>
02173> ------------------------------------------------------------------------
02174> 001:0056-------------------------------------------------------------------
02175> *
02176> *# TOTAL FLOW FROM I2 AND I3 INTO POND VIA NEW EASTERN INLET TO POND(INCLUDES MA
02177> *
02178> ------------------------
02179> | ADD HYD (       784) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
02180> ------------------------                   (ha)     (cms)   (hrs)   (mm)   (cms)
02181>                      ID1 01:       487      .00      .000     .00    .00    .000
02182>                     +ID2 05:       784    19.66    1.248   12.20  31.87    .000
02183>                      ==========================================================
02184>                      SUM 08:       784    19.66    1.248   12.20  31.87    .000
02185>
02186>    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
02187>
02188> ------------------------------------------------------------------------
02189> 001:0057-------------------------------------------------------------------
02190> *
02191> *
02192> *
02193> *#######################
02194> *#    DRAINAGE AREA 60 ||
02195> *#    SWM AREA         ||
02196> *#######################
02197> *
02198> *
02199> ----------------------
02200> | CALIB NASHYD       |   Area    (ha)=   12.50   Curve Number   (CN)=95.00
02201> | 01:000100 DT= 6.00 |   Ia      (mm)=   1.500   # of Linear Res.(N)= 3.00
02202> ----------------------   U.H. Tp(hrs)=    .250
02203>
02204>      Unit Hyd Qpeak  (cms)=    1.910
02205>
02206>      PEAK FLOW       (cms)=     .987 (i)
02207>      TIME TO PEAK    (hrs)=   12.300
02208>      RUNOFF VOLUME    (mm)=   36.117
02209>      TOTAL RAINFALL   (mm)=   48.000
02210>      RUNOFF COEFFICIENT   =     .752
02211>
02212>      (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
02213>
02214> ------------------------------------------------------------------------
02215> 001:0058-------------------------------------------------------------------
02216> *
02217> *# ADD TOTAL FLOW FROM ISGAR LANDS (I1, I2 AND I3 PLUS MAJOR PORTOBELLO) TO POND
02218> *
02219> ------------------------
02220> | ADD HYD (       784) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
02221> ------------------------                   (ha)     (cms)   (hrs)   (mm)   (cms)
02222>                      ID1 01:       100    12.50      .987   12.30  36.12    .000
02223>                     +ID2 08:       784    19.66    1.248   12.20  31.87    .000
02224>                     +ID3 07:       784     8.35      .562   12.20  32.40    .000
02225>                      ==========================================================
02226>                      SUM 06:       784    40.51    2.700   12.22  33.29    .000
02227>
02228>    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
02229>
02230> ------------------------------------------------------------------------
02231> 001:0059-------------------------------------------------------------------
02232> *
02233> *# MH SWMF
02234> *
02235> --------------------
02236> | SAVE HYD         |   AREA       (ha)=   40.510
02237> | ID=06 (000784)   |   QPEAK     (cms)=    2.700 (i)
02238> | DT= 1.00 PCYC=-1 |   TPEAK     (hrs)=   12.217
02239> --------------------   VOLUME      (mm)=   33.291
02240>   Filename: C:\SWMHYMO\111083\2018-0~1\POND.030
02241>   Comments: POND-24SCS2
02242>
02243>      (i)  PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
02244> ------------------------------------------------------------------------
02245> 001:0060-------------------------------------------------------------------
02246> *
02247> *#################################
02248> *#  ADD POND AREA TO EXISTING EAST AND WEST TRUNKS
02249> *#################################
02250> *
02251> ------------------------
02252> | ADD HYD (       562) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
02253> ------------------------                   (ha)     (cms)   (hrs)   (mm)   (cms)
02254>                      ID1 06:       784    40.51    2.700   12.22  33.29    .000
02255>                     +ID2 09:       562   148.52    8.572   12.20  30.74    .000
02256>                      ==========================================================
02257>                      SUM 04:       562   189.03   11.267   12.20  31.29    .000
02258>
02259>    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
02260>
02261> ------------------------------------------------------------------------
02262> 001:0061-------------------------------------------------------------------
02263> *
02264> *
02265> *#########################################
02266> *#     NEIGHBOURHOOD 4  SWM FACILITY       ||
02267> *#       OUTLET PIPE TO POINT B            ||
02268> *#       OUTLET PIPE  1200 DIA             ||
02269> *#########################################
02270> *
02271> *# NOTE:  XPSWMM USED FOR ROUTING THE SWM FACILITY
02272> *
02273> ----------------------
02274> | ROUTE RESERVOIR   |    Requested routing time step =  1.0 min.
02275> |  IN>04:(000562)   |
02276> | OUT<02:(000471)   |    =========  OUTLFOW STORAGE TABLE  =========
02277> ----------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
02278>                             (cms)    (ha.m.)   |    (cms)    (ha.m.)
02279>                              .000  .0000E+00   |     .930  .4960E+01
02280>                              .350  .2300E+01   |    1.520  .8710E+01
02281>                              .650  .3740E+01   |    1.700  .1129E+02
02282>
02283>      ROUTING RESULTS            AREA     QPEAK     TPEAK       R.V.
02284>      ----------------------      (ha)     (cms)     (hrs)       (mm)
02285>      INFLOW >04: (000562)     189.03   11.267    12.200     31.288
02286>      OUTFLOW<02: (000471)     189.03     .692    14.850     31.287
```

```
                    PEAK   FLOW   REDUCTION [Qout/Qin](%)=    6.146
                    TIME SHIFT OF PEAK FLOW         (min)=   159.00
                    MAXIMUM  STORAGE   USED       (ha.m.)=.3925E+01

------------------------------------------------------------------------------
001:0062--------------------------------------------------------------------------
*
--------------------
| SAVE HYD        |   AREA       (ha)=  189.030
| ID=02 (000471)  |   QPEAK     (cms)=     .692 (i)
| DT= 1.00 PCYC=-1 |   TPEAK     (hrs)=   14.850
--------------------   VOLUME     (mm)=   31.287
  Filename: C:\SWMHYMO\111083\2018-0~1\ISGAR.030
  Comments: ISGAR-24SCS2

     (i)  PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
------------------------------------------------------------------------------
001:0063--------------------------------------------------------------------------
*
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*
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*
*
*#============================================================
*# ====    5 YEAR 24 HOUR SCS TYPE II (62.4 MM)          ====
*# ====    (12 MIN TIME STEP)                            ====
*#============================================================
*
*
--------------------
| READ STORM      |    Filename: 5 YEAR 24 HOUR SCS TYPE II STORM ( MM) -
| Ptotal=  62.40 mm|    Comments: 5 YEAR 24 HOUR SCS TYPE II STORM ( MM) -
--------------------
```

| TIME hrs | RAIN mm/hr | TIME hrs | RAIN mm/hr | TIME hrs | RAIN mm/hr | TIME hrs | RAIN mm/hr |
|---|---|---|---|---|---|---|---|
| .20 | .000 | 6.40 | 1.248 | 12.60 | 7.800 | 18.80 | 1.248 |
| .40 | .624 | 6.60 | 1.248 | 12.80 | 5.616 | 19.00 | 1.248 |
| .60 | .624 | 6.80 | 1.248 | 13.00 | 5.304 | 19.20 | 1.248 |
| .80 | .624 | 7.00 | 1.248 | 13.20 | 3.744 | 19.40 | .936 |
| 1.00 | .624 | 7.20 | 1.248 | 13.40 | 3.120 | 19.60 | .936 |
| 1.20 | .624 | 7.40 | 1.248 | 13.60 | 3.120 | 19.80 | .936 |
| 1.40 | .624 | 7.60 | 1.248 | 13.80 | 3.120 | 20.00 | .936 |
| 1.60 | .624 | 7.80 | 1.248 | 14.00 | 3.120 | 20.20 | .936 |
| 1.80 | .624 | 8.00 | 1.248 | 14.20 | 3.120 | 20.40 | .936 |
| 2.00 | .624 | 8.20 | 1.248 | 14.40 | 1.872 | 20.60 | .936 |
| 2.20 | .624 | 8.40 | 1.872 | 14.60 | 1.872 | 20.80 | .936 |
| 2.40 | .624 | 8.60 | 1.872 | 14.80 | 1.872 | 21.00 | .936 |
| 2.60 | .624 | 8.80 | 1.872 | 15.00 | 1.872 | 21.20 | .936 |
| 2.80 | .624 | 9.00 | 1.872 | 15.20 | 1.872 | 21.40 | .624 |
| 3.00 | .624 | 9.20 | 1.872 | 15.40 | 1.872 | 21.60 | .624 |
| 3.20 | .624 | 9.40 | 1.872 | 15.60 | 1.872 | 21.80 | .624 |
| 3.40 | .624 | 9.60 | 1.872 | 15.80 | 1.872 | 22.00 | .624 |
| 3.60 | .624 | 9.80 | 1.872 | 16.00 | 1.872 | 22.20 | .624 |
| 3.80 | .624 | 10.00 | 1.872 | 16.20 | 1.872 | 22.40 | .624 |
| 4.00 | .624 | 10.20 | 1.872 | 16.40 | 1.248 | 22.60 | .624 |
| 4.20 | .624 | 10.40 | 3.432 | 16.60 | 1.248 | 22.80 | .624 |
| 4.40 | 1.248 | 10.60 | 3.432 | 16.80 | 1.248 | 23.00 | .624 |
| 4.60 | 1.248 | 10.80 | 3.432 | 17.00 | 1.248 | 23.20 | .624 |
| 4.80 | 1.248 | 11.00 | 3.432 | 17.20 | 1.248 | 23.40 | .624 |
| 5.00 | 1.248 | 11.20 | 3.432 | 17.40 | 1.248 | 23.60 | .624 |
| 5.20 | 1.248 | 11.40 | 4.680 | 17.60 | 1.248 | 23.80 | .218 |
| 5.40 | 1.248 | 11.60 | 6.864 | 17.80 | 1.248 | 24.00 | .218 |
| 5.60 | 1.248 | 11.80 | 15.600 | 18.00 | 1.248 | 24.20 | .187 |
| 5.80 | 1.248 | 12.00 | 34.320 | 18.20 | 1.248 | | |
| 6.00 | 1.248 | 12.20 | 71.760 | 18.40 | 1.248 | | |
| 6.20 | 1.248 | 12.40 | 12.480 | 18.60 | 1.248 | | |

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------------------------------------------------------------------------------
001:0064--------------------------------------------------------------------------
*
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*
*
*#============================================
*#     NEIGHBOURHOOD 4                      ||
*#============================================
*
*#========================
*#   DRAINAGE AREA 40  ||
*#                     ||
*#========================
*
----------------------
| CALIB STANDHYD    |   Area    (ha)=   11.73
| 06:000204 DT=12.00 |   Total Imp(%)=   54.00   Dir. Conn.(%)=   32.00
----------------------
                              IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=        6.33         5.40
     Dep. Storage     (mm)=         .80         1.50
     Average Slope     (%)=         .20         2.00
     Length            (m)=      414.00        40.00
     Mannings n         =         .013         .250

     Max.eff.Inten.(mm/hr)=      71.76        43.88
                   over (min)       12.00        24.00
     Storage Coeff.  (min)=      11.09 (ii)   20.90 (ii)
     Unit Hyd. Tpeak (min)=      12.00        24.00
     Unit Hyd. peak  (cms)=        .09          .05
                                                        *TOTALS*
     PEAK FLOW       (cms)=        .59          .47          .931 (iii)
     TIME TO PEAK    (hrs)=      12.20        12.40        12.200
     RUNOFF VOLUME    (mm)=      61.60        31.76        41.306
     TOTAL RAINFALL   (mm)=      62.40        62.40        62.400
     RUNOFF COEFFICIENT   =        .99          .51          .662
      *** WARNING: Storage Coefficient is smaller than DT!
                   Use a smaller DT or a larger area.

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN* =  75.0    Ia = Dep. Storage  (Above)
        (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

------------------------------------------------------------------------------
001:0065--------------------------------------------------------------------------
*
*
*#==============================
*# OSD 85 L/S/HA PARKS 30 L/S/HA
*#  85*10.71 = 910.4 L/S
*#  30*1.02 = 30.6 L/S
*#  TOTAL = 941 L/S
*#==============================
*
----------------------
| ROUTE RESERVOIR   |    Requested routing time step = 12.0 min.
|  IN>06:(000204)   |
| OUT<09:(000471)   |    =========  OUTLFOW STORAGE TABLE  =========
----------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
                            (cms)    (ha.m.)   |    (cms)    (ha.m.)
                             .000  .0000E+00   |     .941  .1368E+00
                             .900  .2000E-02   |     .000  .0000E+00

     ROUTING RESULTS            AREA     QPEAK     TPEAK       R.V.
     ---------------------       (ha)     (cms)     (hrs)       (mm)
     INFLOW >06: (000204)      11.73      .931    12.200     41.306
     OUTFLOW<09: (000471)      11.73      .900    12.200     41.306

                   PEAK   FLOW   REDUCTION [Qout/Qin](%)=   96.673
                   TIME SHIFT OF PEAK FLOW         (min)=     .00
                   MAXIMUM  STORAGE   USED       (ha.m.)=.3477E-02

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001:0066--------------------------------------------------------------------------
*
*# MH 505
*
*#========================
*#   DRAINAGE AREA 41  ||
*#========================
*
*
----------------------
| CALIB STANDHYD     |   Area    (ha)=    9.06
| 05:000204 DT=12.00 |   Total Imp(%)=   58.00   Dir. Conn.(%)=   35.00
----------------------
                              IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=       5.25         3.81
     Dep. Storage     (mm)=        .80         1.50
     Average Slope     (%)=        .20         2.00
     Length            (m)=     452.00        40.00
     Mannings n         =         .013         .250

     Max.eff.Inten.(mm/hr)=      71.76        47.08
                   over (min)       12.00        24.00
     Storage Coeff.  (min)=      11.69 (ii)   21.23 (ii)
     Unit Hyd. Tpeak (min)=      12.00        24.00
     Unit Hyd. peak  (cms)=        .09          .05
                                                        *TOTALS*
     PEAK FLOW       (cms)=        .49          .35          .746 (iii)
     TIME TO PEAK    (hrs)=      12.20        12.40        12.200
     RUNOFF VOLUME    (mm)=      61.60        32.49        42.680
     TOTAL RAINFALL   (mm)=      62.40        62.40        62.400
     RUNOFF COEFFICIENT   =        .99          .52          .684
      *** WARNING: Storage Coefficient is smaller than DT!
                   Use a smaller DT or a larger area.

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN* =  75.0    Ia = Dep. Storage  (Above)
        (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

------------------------------------------------------------------------------
001:0067--------------------------------------------------------------------------
*
*#========================
*# OSD 85 L/S/HA
*#  85*9.06 = 770.1 L/S
*#========================
*
----------------------
| ROUTE RESERVOIR   |    Requested routing time step = 12.0 min.
|  IN>05:(000204)   |
| OUT<07:(000471)   |    =========  OUTLFOW STORAGE TABLE  =========
----------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
                            (cms)    (ha.m.)   |    (cms)    (ha.m.)
                             .000  .0000E+00   |     .770  .1072E+00
                             .700  .2000E-02   |     .000  .0000E+00

     ROUTING RESULTS            AREA     QPEAK     TPEAK       R.V.
     ---------------------       (ha)     (cms)     (hrs)       (mm)
     INFLOW >05: (000204)       9.06      .746    12.200     42.680
     OUTFLOW<07: (000471)       9.06      .701    12.200     42.681

                   PEAK   FLOW   REDUCTION [Qout/Qin](%)=   93.962
                   TIME SHIFT OF PEAK FLOW         (min)=     .00
                   MAXIMUM  STORAGE   USED       (ha.m.)=.4521E-02

------------------------------------------------------------------------------
001:0068--------------------------------------------------------------------------
*
*# MH 521
*
*
----------------------
| ADD HYD (       401) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
----------------------                    (ha)     (cms)   (hrs)   (mm)   (cms)
                     ID1 09:       471    11.73     .900   12.20  41.31    .000
                   +ID2 07:       471     9.06     .701   12.20  42.68    .000
                    ============================================================
                    SUM 06:       401    20.79    1.601   12.20  41.90    .000

   NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

------------------------------------------------------------------------------
001:0069--------------------------------------------------------------------------
*
*
*#========================
*#    DRAINAGE AREA 42 ||
*#                     ||
*#========================
*
*
----------------------
| CALIB NASHYD      |   Area    (ha)=    4.10   Curve Number   (CN)=75.00
| 05:000100 DT=12.00 |   Ia      (mm)=   1.500   # of Linear Res.(N)= 3.00
----------------------   U.H. Tp(hrs)=    .410

     Unit Hyd Qpeak  (cms)=     .382

     PEAK FLOW       (cms)=     .161 (i)
```

```
02541>      TIME TO PEAK    (hrs)=   12.400
02542>      RUNOFF VOLUME    (mm)=   25.478
02543>      TOTAL RAINFALL   (mm)=   62.400
02544>      RUNOFF COEFFICIENT   =     .408
02545>
02546>      (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
02547>
02548> ------------------------------------------------------------------------------
02549> 001:0070--------------------------------------------------------------------
02550> *
02551> *#=========================
02552> *# OSD 30 L/S/HA
02553> *#  30*4.1 = 123 L/S
02554> *#=========================
02555> *
02556> ---------------------
02557> | ROUTE RESERVOIR   |    Requested routing time step = 12.0 min.
02558> |  IN>05:(000100)   |
02559> | OUT<04:(000471)   |    =========  OUTLFOW STORAGE TABLE  =========
02560> ---------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
02561>                            (cms)    (ha.m.)   |    (cms)    (ha.m.)
02562>                             .000  .0000E+00   |     .123  .4859E-01
02563>                             .090  .2000E-02   |     .000  .0000E+00
02564>
02565>      ROUTING RESULTS            AREA     QPEAK     TPEAK       R.V.
02566>      --------------------       (ha)     (cms)     (hrs)       (mm)
02567>      INFLOW >05: (000100)       4.10      .161    12.400     25.478
02568>      OUTFLOW<04: (000471)       4.10      .098    12.800     25.478
02569>
02570>                    PEAK   FLOW   REDUCTION [Qout/Qin](%)=   60.725
02571>                    TIME SHIFT OF PEAK FLOW        (min)=    24.00
02572>                    MAXIMUM  STORAGE   USED       (ha.m.)=.1311E-01
02573>
02574> ------------------------------------------------------------------------------
02575> 001:0071--------------------------------------------------------------------
02576> *
02577> *# MH 529
02578> *
02579> *
02580> ------------------------
02581> | ADD HYD (       105) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
02582> ------------------------                   (ha)     (cms)   (hrs)   (mm)   (cms)
02583>                         ID1 06:       401    20.79    1.601   12.20  41.90    .000
02584>                        +ID2 04:       471     4.10     .098   12.80  25.48    .000
02585>                         ========================================================
02586>                         SUM 01:       105    24.89    1.691   12.20  39.20    .000
02587>
02588>    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
02589>
02590> ------------------------------------------------------------------------------
02591> 001:0072--------------------------------------------------------------------
02592> *
02593> *
02594> *#========================
02595> *#    DRAINAGE AREA 43 ||
02596> *#                    ||
02597> *#========================
02598> *
02599> *
02600> ----------------------
02601> | CALIB STANDHYD    |   Area    (ha)=   17.21
02602> | 05:000204 DT=12.00 |   Total Imp(%)=   59.00   Dir. Conn.(%)=   37.00
02603> ----------------------
02604>                              IMPERVIOUS    PERVIOUS (i)
02605>      Surface Area     (ha)=       10.15         7.06
02606>      Dep. Storage     (mm)=         .80         1.50
02607>      Average Slope     (%)=         .20         2.00
02608>      Length            (m)=     449.00        40.00
02609>      Mannings n             =       .013         .250
02610>
02611>      Max.eff.Inten.(mm/hr)=      71.76        46.56
02612>                    over (min)       12.00        24.00
02613>      Storage Coeff.  (min)=      11.64 (ii)   21.22 (ii)
02614>      Unit Hyd. Tpeak (min)=      12.00        24.00
02615>      Unit Hyd. peak  (cms)=        .09          .05
02616>                                                          *TOTALS*
02617>      PEAK FLOW       (cms)=        .98          .65          1.454 (iii)
02618>      TIME TO PEAK    (hrs)=      12.20        12.40         12.200
02619>      RUNOFF VOLUME    (mm)=      61.60        32.38         43.190
02620>      TOTAL RAINFALL   (mm)=      62.40        62.40         62.400
02621>      RUNOFF COEFFICIENT   =        .99          .52           .692
02622>       *** WARNING: Storage Coefficient is smaller than DT!
02623>                    Use a smaller DT or a larger area.
02624>
02625>        (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
02626>            CN* =  75.0    Ia = Dep. Storage  (Above)
02627>       (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
02628>            THAN THE STORAGE COEFFICIENT.
02629>      (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
02630>
02631> ------------------------------------------------------------------------------
02632> 001:0073--------------------------------------------------------------------
02633> *
02634> *
02635> *#=========================
02636> *# OSD 85 L/S/HA PARKS 30 L/S/HA
02637> *#  85*16.89 = 1435.7 L/S
02638> *#  30*0.32 =9.6 L/S
02639> *#  TOTAL =1445 L/S
02640> *#=========================
02641> *
02642> ---------------------
02643> | ROUTE RESERVOIR   |    Requested routing time step = 12.0 min.
02644> |  IN>05:(000204)   |
02645> | OUT<08:(000471)   |    =========  OUTLFOW STORAGE TABLE  =========
02646> ---------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
02647>                            (cms)    (ha.m.)   |    (cms)    (ha.m.)
02648>                             .000  .0000E+00   |    1.445  .2103E+00
02649>                            1.400  .2000E-02   |     .000  .0000E+00
02650>
02651>      ROUTING RESULTS            AREA     QPEAK     TPEAK       R.V.
02652>      --------------------       (ha)     (cms)     (hrs)       (mm)
02653>      INFLOW >05: (000204)      17.21     1.454    12.200     43.190
02654>      OUTFLOW<08: (000471)      17.21     1.400    12.200     43.191
02655>
02656>                    PEAK   FLOW   REDUCTION [Qout/Qin](%)=   96.306
02657>                    TIME SHIFT OF PEAK FLOW        (min)=      .00
02658>                    MAXIMUM  STORAGE   USED       (ha.m.)=.5139E-02
02659>
02660> ------------------------------------------------------------------------------
02661> 001:0074--------------------------------------------------------------------
02662> *
02663> *# MH 539
02664> *
02665> ------------------------
02666> | ADD HYD (       100) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
02667> ------------------------                   (ha)     (cms)   (hrs)   (mm)   (cms)
02668>                         ID1 01:       105    24.89    1.691   12.20  39.20    .000
02669>                        +ID2 08:       471    17.21    1.400   12.20  43.19    .000
02670>                         ========================================================
02671>                         SUM 07:       100    42.10    3.091   12.20  40.83    .000
02672>
02673>    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
02674>
02675> ------------------------------------------------------------------------------
02676> 001:0075--------------------------------------------------------------------
02677> *
02678> *
02679> *#========================
02680> *#    DRAINAGE AREA 44 ||
02681> *#                    ||
02682> *#========================
02683> *
02684> *
02685> ----------------------
02686> | CALIB STANDHYD     |   Area    (ha)=    4.06
02687> | 05:000204 DT=12.00 |   Total Imp(%)=   58.00   Dir. Conn.(%)=   38.00
02688> ----------------------
02689>                              IMPERVIOUS    PERVIOUS (i)
02690>      Surface Area     (ha)=        2.35         1.71
02691>      Dep. Storage     (mm)=         .80         1.50
02692>      Average Slope     (%)=         .20         2.00
02693>      Length            (m)=     165.00        40.00
02694>      Mannings n             =       .013         .250
02695>
02696>      Max.eff.Inten.(mm/hr)=      71.76        63.09
02697>                    over (min)       12.00        12.00
02698>      Storage Coeff.  (min)=       6.39 (ii)   14.87 (ii)
02699>      Unit Hyd. Tpeak (min)=      12.00        12.00
02700>      Unit Hyd. peak  (cms)=        .12          .08
02701>                                                          *TOTALS*
02702>      PEAK FLOW       (cms)=        .28          .20          .481 (iii)
02703>      TIME TO PEAK    (hrs)=      12.20        12.20         12.200
02704>      RUNOFF VOLUME    (mm)=      61.60        31.73         43.082
02705>      TOTAL RAINFALL   (mm)=      62.40        62.40         62.400
02706>      RUNOFF COEFFICIENT   =        .99          .51           .690
02707>       *** WARNING: Storage Coefficient is smaller than DT!
02708>                    Use a smaller DT or a larger area.
02709>
02710>        (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
02711>            CN* =  75.0    Ia = Dep. Storage  (Above)
02712>       (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
02713>            THAN THE STORAGE COEFFICIENT.
02714>      (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
02715>
02716> ------------------------------------------------------------------------------
02717> 001:0076--------------------------------------------------------------------
02718> *
02719> *
02720> *#========================
02721> *# OSD 85 L/S/HA  PARK 30 L/S/HA
02722> *#  85*3.7 = 314.5 L/S
02723> *#  30*0.28 = 8.4 L/S
02724> *#  TOTAL = 322.9 L/S
02725> *#========================
02726> *
02727> ---------------------
02728> | ROUTE RESERVOIR   |    Requested routing time step = 12.0 min.
02729> |  IN>05:(000204)   |
02730> | OUT<09:(000471)   |    =========  OUTLFOW STORAGE TABLE  =========
02731> ---------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
02732>                            (cms)    (ha.m.)   |    (cms)    (ha.m.)
02733>                             .000  .0000E+00   |     .323  .6847E-01
02734>                             .290  .2000E-02   |     .000  .0000E+00
02735>
02736>      ROUTING RESULTS            AREA     QPEAK     TPEAK       R.V.
02737>      --------------------       (ha)     (cms)     (hrs)       (mm)
02738>      INFLOW >05: (000204)       4.06      .481    12.200     43.082
02739>      OUTFLOW<09: (000471)       4.06      .295    12.400     43.219
02740>
02741>                    PEAK   FLOW   REDUCTION [Qout/Qin](%)=   61.306
02742>                    TIME SHIFT OF PEAK FLOW        (min)=    12.00
02743>                    MAXIMUM  STORAGE   USED       (ha.m.)=.1543E-01
02744>
02745> ------------------------------------------------------------------------------
02746> 001:0077--------------------------------------------------------------------
02747> *
02748> *# MH 541
02749> *
02750> ------------------------
02751> | ADD HYD (       100) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
02752> ------------------------                   (ha)     (cms)   (hrs)   (mm)   (cms)
02753>                         ID1 07:       100    42.10    3.091   12.20  40.83    .000
02754>                        +ID2 09:       471     4.06     .295   12.40  43.22    .000
02755>                         ========================================================
02756>                         SUM 03:       100    46.16    3.385   12.20  41.04    .000
02757>
02758>    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
02759>
02760> ------------------------------------------------------------------------------
02761> 001:0078--------------------------------------------------------------------
02762> *
02763> *
02764> *#========================
02765> *#    DRAINAGE AREA 45 ||
02766> *#                    ||
02767> *#========================
02768> *
02769> ----------------------
02770> | CALIB STANDHYD     |   Area    (ha)=    3.13
02771> | 05:000204 DT=12.00 |   Total Imp(%)=   57.00   Dir. Conn.(%)=   57.00
02772> ----------------------
02773>                              IMPERVIOUS    PERVIOUS (i)
02774>      Surface Area     (ha)=        1.78         1.35
02775>      Dep. Storage     (mm)=         .80         1.50
02776>      Average Slope     (%)=         .20         2.00
02777>      Length            (m)=     147.00        40.00
02778>      Mannings n             =       .013         .250
02779>
02780>      Max.eff.Inten.(mm/hr)=      71.76        34.23
02781>                    over (min)       12.00        12.00
02782>      Storage Coeff.  (min)=       5.96 (ii)   16.79 (ii)
02783>      Unit Hyd. Tpeak (min)=      12.00        12.00
02784>      Unit Hyd. peak  (cms)=        .12          .07
02785>                                                          *TOTALS*
02786>      PEAK FLOW       (cms)=        .33          .08          .409 (iii)
02787>      TIME TO PEAK    (hrs)=      12.20        12.20         12.200
02788>      RUNOFF VOLUME    (mm)=      61.60        25.48         46.067
02789>      TOTAL RAINFALL   (mm)=      62.40        62.40         62.400
02790>      RUNOFF COEFFICIENT   =        .99          .41           .738
02791>       *** WARNING: Storage Coefficient is smaller than DT!
02792>                    Use a smaller DT or a larger area.
02793>
02794>        (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
```

```
02795>           CN* =  75.0    Ia = Dep. Storage  (Above)
02796>       (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
02797>            THAN THE STORAGE COEFFICIENT.
02798>      (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
02799>
02800> ---------------------------------------------------------------------------
02801> 001:0079---------------------------------------------------------------------
02802> *
02803> *
02804> *#=========================
02805> *# OSD 85 L/S/HA
02806> *#  85*3.13 = 266.1 L/S
02807> *#=========================
02808> *
02809> ---------------------
02810> | ROUTE RESERVOIR   |    Requested routing time step = 12.0 min.
02811> |  IN>05:(000204)   |
02812> | OUT<08:(000471)   |    =========  OUTLFOW STORAGE TABLE  =========
02813> ---------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
02814>                            (cms)    (ha.m.)   |    (cms)    (ha.m.)
02815>                             .000  .0000E+00   |     .266  .5982E-01
02816>                             .200  .2000E-02   |     .000  .0000E+00
02817>
02818>      ROUTING RESULTS           AREA     QPEAK     TPEAK       R.V.
02819>      ---------------------      (ha)     (cms)     (hrs)       (mm)
02820>      INFLOW >05: (000204)       3.13      .409    12.200     46.067
02821>      OUTFLOW<08: (000471)       3.13      .214    12.400     46.067
02822>
02823>                     PEAK   FLOW   REDUCTION [Qout/Qin](%)=   58.358
02824>                     TIME SHIFT OF PEAK FLOW         (min)=    12.00
02825>                     MAXIMUM  STORAGE   USED       (ha.m.)=.1676E-01
02826>
02827> ---------------------------------------------------------------------------
02828> 001:0080---------------------------------------------------------------------
02829> *
02830> *# MH 542
02831> *
02832> ------------------------
02833> | ADD HYD (       100) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
02834> ------------------------                   (ha)     (cms)   (hrs)   (mm)   (cms)
02835>                         ID1 03:       100    46.16   3.385   12.20  41.04    .000
02836>                        +ID2 08:       471     3.13    .214   12.40  46.07    .000
02837>                         ============================================================
02838>                         SUM 04:       100    49.29   3.593   12.20  41.36    .000
02839>
02840>    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
02841>
02842> ---------------------------------------------------------------------------
02843> 001:0081---------------------------------------------------------------------
02844> *
02845> *#========================
02846> *#    DRAINAGE AREA 46 ||
02847> *#                     ||
02848> *#========================
02849> *
02850> *
02851> ----------------------
02852> | CALIB STANDHYD     |   Area    (ha)=   19.48
02853> | 05:000204 DT=12.00 |   Total Imp(%)=   61.00   Dir. Conn.(%)=   43.00
02854> ----------------------
02855>                                IMPERVIOUS    PERVIOUS (i)
02856>      Surface Area     (ha)=       11.88         7.60
02857>      Dep. Storage     (mm)=         .80         1.50
02858>      Average Slope     (%)=         .20         2.00
02859>      Length            (m)=      464.00        40.00
02860>      Mannings n            =        .013         .250
02861>
02862>      Max.eff.Inten.(mm/hr)=      71.76        43.12
02863>                 over (min)       12.00        24.00
02864>      Storage Coeff.  (min)=      11.87 (ii)   21.75 (ii)
02865>      Unit Hyd. Tpeak (min)=      12.00        24.00
02866>      Unit Hyd. peak  (cms)=        .09          .05
02867>                                                          *TOTALS*
02868>      PEAK FLOW       (cms)=       1.28          .64          1.747 (iii)
02869>      TIME TO PEAK    (hrs)=      12.20        12.40         12.200
02870>      RUNOFF VOLUME    (mm)=      61.60        31.57         44.484
02871>      TOTAL RAINFALL   (mm)=      62.40        62.40         62.400
02872>      RUNOFF COEFFICIENT   =        .99          .51           .713
02873>       *** WARNING: Storage Coefficient is smaller than DT!
02874>                    Use a smaller DT or a larger area.
02875>
02876>       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
02877>           CN* =  75.0    Ia = Dep. Storage  (Above)
02878>      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
02879>           THAN THE STORAGE COEFFICIENT.
02880>     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
02881>
02882> ---------------------------------------------------------------------------
02883> 001:0082---------------------------------------------------------------------
02884> *
02885> *
02886> *#=========================
02887> *# OSD 85 L/S/HA  PARK 30 L/S/HA
02888> *#  85*18.51 = 1573.4 L/S
02889> *#  30*0.97 = 29.1 L/S
02890> *#  TOTAL = 1602.5 L/S
02891> *#=========================
02892> *
02893> ---------------------
02894> | ROUTE RESERVOIR   |    Requested routing time step = 12.0 min.
02895> |  IN>05:(000204)   |
02896> | OUT<08:(000471)   |    =========  OUTLFOW STORAGE TABLE  =========
02897> ---------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
02898>                            (cms)    (ha.m.)   |    (cms)    (ha.m.)
02899>                             .000  .0000E+00   |    1.602  .2804E+00
02900>                            1.550  .2000E-02   |     .000  .0000E+00
02901>
02902>      ROUTING RESULTS           AREA     QPEAK     TPEAK       R.V.
02903>      ---------------------      (ha)     (cms)     (hrs)       (mm)
02904>      INFLOW >05: (000204)      19.48     1.747    12.200     44.484
02905>      OUTFLOW<08: (000471)      19.48     1.551    12.200     44.486
02906>
02907>                     PEAK   FLOW   REDUCTION [Qout/Qin](%)=   88.812
02908>                     TIME SHIFT OF PEAK FLOW         (min)=      .00
02909>                     MAXIMUM  STORAGE   USED       (ha.m.)=.1546E-01
02910>
02911> ---------------------------------------------------------------------------
02912> 001:0083---------------------------------------------------------------------
02913> *
02914> *# MH 544
02915> *
02916> ------------------------
02917> | ADD HYD (       100) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
02918> ------------------------                   (ha)     (cms)   (hrs)   (mm)   (cms)
02919>                         ID1 04:       100    49.29   3.593   12.20  41.36    .000
02920>                        +ID2 08:       471    19.48   1.551   12.20  44.49    .000
02921>                         ============================================================
02922>                         SUM 07:       100    68.77   5.144   12.20  42.25    .000
02923>
02924>    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
02925>
02926> ---------------------------------------------------------------------------
02927> 001:0084---------------------------------------------------------------------
02928> *
02929> *#========================
02930> *#    DRAINAGE AREA 47 ||
02931> *#                     ||
02932> *#========================
02933> *
02934> *
02935> ----------------------
02936> | CALIB STANDHYD     |   Area    (ha)=    3.79
02937> | 04:000204 DT=12.00 |   Total Imp(%)=   56.00   Dir. Conn.(%)=   35.00
02938> ----------------------
02939>                                IMPERVIOUS    PERVIOUS (i)
02940>      Surface Area     (ha)=        2.12         1.67
02941>      Dep. Storage     (mm)=         .80         1.50
02942>      Average Slope     (%)=         .20         2.00
02943>      Length            (m)=      229.00        40.00
02944>      Mannings n            =        .013         .250
02945>
02946>      Max.eff.Inten.(mm/hr)=      71.76        63.16
02947>                 over (min)       12.00        12.00
02948>      Storage Coeff.  (min)=        7.77 (ii)   16.25 (ii)
02949>      Unit Hyd. Tpeak (min)=       12.00        12.00
02950>      Unit Hyd. peak  (cms)=         .11          .07
02951>                                                          *TOTALS*
02952>      PEAK FLOW       (cms)=         .23          .19          .419 (iii)
02953>      TIME TO PEAK    (hrs)=       12.20        12.20        12.200
02954>      RUNOFF VOLUME    (mm)=       61.60        31.74        42.194
02955>      TOTAL RAINFALL   (mm)=       62.40        62.40        62.400
02956>      RUNOFF COEFFICIENT   =         .99          .51          .676
02957>       *** WARNING: Storage Coefficient is smaller than DT!
02958>                    Use a smaller DT or a larger area.
02959>
02960>       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
02961>           CN* =  75.0    Ia = Dep. Storage  (Above)
02962>      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
02963>           THAN THE STORAGE COEFFICIENT.
02964>     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
02965>
02966> ---------------------------------------------------------------------------
02967> 001:0085---------------------------------------------------------------------
02968> *
02969> *#========================
02970> *# OSD 85 L/S/HA  PARK 30 L/S/HA
02971> *#  85*3.5 = 297.5 L/S
02972> *#  30*0.29 = 8.7 L/S
02973> *#  TOTAL = 306.2 L/S
02974> *#========================
02975> *
02976> ---------------------
02977> | ROUTE RESERVOIR   |    Requested routing time step = 12.0 min.
02978> |  IN>04:(000204)   |
02979> | OUT<08:(000471)   |    =========  OUTLFOW STORAGE TABLE  =========
02980> ---------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
02981>                            (cms)    (ha.m.)   |    (cms)    (ha.m.)
02982>                             .000  .0000E+00   |     .306  .6031E-01
02983>                             .250  .2000E-02   |     .000  .0000E+00
02984>
02985>      ROUTING RESULTS           AREA     QPEAK     TPEAK       R.V.
02986>      ---------------------      (ha)     (cms)     (hrs)       (mm)
02987>      INFLOW >04: (000204)       3.79      .419    12.200     42.194
02988>      OUTFLOW<08: (000471)       3.79      .259    12.400     42.194
02989>
02990>                     PEAK   FLOW   REDUCTION [Qout/Qin](%)=   61.853
02991>                     TIME SHIFT OF PEAK FLOW         (min)=    12.00
02992>                     MAXIMUM  STORAGE   USED       (ha.m.)=.1367E-01
02993>
02994> ---------------------------------------------------------------------------
02995> 001:0086---------------------------------------------------------------------
02996> *
02997> *# MH 546
02998> *
02999> *#========================
03000> *# TRUNK 1
03001> *#========================
03002> *
03003> ------------------------
03004> | ADD HYD (       450) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
03005> ------------------------                   (ha)     (cms)   (hrs)   (mm)   (cms)
03006>                         ID1 08:       471     3.79    .259   12.40  42.19    .000
03007>                        +ID2 07:       100    68.77   5.144   12.20  42.25    .000
03008>                         ============================================================
03009>                         SUM 06:       450    72.56   5.400   12.20  42.24    .000
03010>
03011>    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
03012>
03013> ---------------------------------------------------------------------------
03014> 001:0087---------------------------------------------------------------------
03015> *
03016> --------------------
03017> | SAVE HYD          |   AREA      (ha)=   72.560
03018> | ID=06 (000450)    |   QPEAK     (cms)=    5.400 (i)
03019> | DT=12.00 PCYC=-1  |   TPEAK     (hrs)=   12.200
03020> --------------------  VOLUME    (mm)=   42.243
03021>   Filename: C:\SWMHYMO\111083\2018-0~1\544.031
03022>   Comments: 544-24SCS5
03023>
03024>      (i)  PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
03025> ---------------------------------------------------------------------------
03026> 001:0088---------------------------------------------------------------------
03027> *
03028> *#========================
03029> *# TRUNK 2
03030> *#========================
03031> *
03032> *#========================
03033> *#    DRAINAGE AREA 50 ||
03034> *#    COMMERICAL      ||
03035> *#========================
03036> *
03037> *
03038> ----------------------
03039> | CALIB STANDHYD     |   Area    (ha)=    3.65
03040> | 05:000204 DT=12.00 |   Total Imp(%)=   80.00   Dir. Conn.(%)=   80.00
03041> ----------------------
03042>                                IMPERVIOUS    PERVIOUS (i)
03043>      Surface Area     (ha)=        2.92          .73
03044>      Dep. Storage     (mm)=         .80         1.50
03045>      Average Slope     (%)=         .20         2.00
03046>      Length            (m)=      292.00        40.00
03047>      Mannings n            =        .013         .250
03048>
```

```
      Max.eff.Inten.(mm/hr)=      71.76        23.46
                over (min)       12.00        24.00
      Storage Coeff.  (min)=       8.99 (ii)   21.60 (ii)
      Unit Hyd. Tpeak (min)=      12.00        24.00
      Unit Hyd. peak  (cms)=        .10          .05
                                                        *TOTALS*
      PEAK FLOW       (cms)=        .49          .03          .514 (iii)
      TIME TO PEAK    (hrs)=      12.20        12.40        12.200
      RUNOFF VOLUME    (mm)=      61.60        25.48        54.375
      TOTAL RAINFALL   (mm)=      62.40        62.40        62.400
      RUNOFF COEFFICIENT   =        .99          .41          .871
       *** WARNING: Storage Coefficient is smaller than DT!
                    Use a smaller DT or a larger area.

        (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
            CN* =  75.0    Ia = Dep. Storage  (Above)
       (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
            THAN THE STORAGE COEFFICIENT.
      (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
```

```
001:0089--------------------------------------------------------------------------------
*
*
*#=========================
*# OSD 85 L/S/HA
*#  85*3.65 = 310.3 L/S
*#=========================
*
```

| ROUTE RESERVOIR | Requested routing time step = 12.0 min. |
|---|---|
| IN>05:(000204) | |
| OUT<08:(000471) | |

```
                          =========  OUTLFOW STORAGE TABLE  =========
     --------------------   OUTFLOW    STORAGE   |  OUTFLOW     STORAGE
                              (cms)     (ha.m.)   |     (cms)     (ha.m.)
                             .000  .0000E+00   |      .310  .9484E-01
                             .200  .2000E-02   |      .000  .0000E+00
```

```
      ROUTING RESULTS            AREA     QPEAK     TPEAK       R.V.
      --------------------       (ha)     (cms)     (hrs)       (mm)
      INFLOW >05: (000204)       3.65      .514    12.200     54.375
      OUTFLOW<08: (000471)       3.65      .229    12.400     54.375

                    PEAK   FLOW   REDUCTION [Qout/Qin](%)=   44.473
                    TIME SHIFT OF PEAK FLOW         (min)=    12.00
                    MAXIMUM  STORAGE   USED       (ha.m.)=.2648E-01
```

```
001:0090--------------------------------------------------------------------------------
*
```

| SHIFT HYD( 874) | | | | | |
|---|---|---|---|---|---|
| IN= 8---> OUT= 7 | | | | | |
| SHIFT= 10.0 min | | AREA | QPEAK | TPEAK | R.V. |
| | | (ha) | (cms) | (hrs) | (mm) |
| ID= 8: | 471 | 3.65 | .229 | 12.400 | 54.375 |
| SHIFT ID= 7: | 874 | 3.65 | .229 | 12.600 | 54.375 |

```
*** WARNING: HYDROGRAPH WAS SHIFTED BY  12.0 MIN.

001:0091--------------------------------------------------------------------------------
*
*# MH 111
*
*#================================================
*# AREA FORMERLY KNOWN AS 51 (EAST OF PORTOBELLO)
*#================================================
*
*#================================================
*# MATTAMY SUMMERSIDE DRAINAGE AREA 19.93 ha - H-114
*# TO MH 112
*#================================================
*
*
```

| READ HYD | AREA (ha)= 19.891 |
|---|---|
| ID=05 (114 ) | QPEAK (cms)= 1.593 |
| DT= 1.00 PCYC= 1 | TPEAK (hrs)= 12.233 |
| | VOLUME (mm)= 42.091 |

```
  Filename: C:\SWMHYMO\111083\2018-0~1\H-114.031
  Comments: Minor System Outflow to MH 114
```

| TIME hrs | FLOW cms | TIME hrs | FLOW cms | TIME hrs | FLOW cms | TIME hrs | FLOW cms | TIME hrs | FLOW cms |
|---|---|---|---|---|---|---|---|---|---|
| .00 | .000 | 5.40 | .032 | 10.80 | .104 | 16.20 | .084 | 21.60 | .032 |
| .02 | .000 | 5.42 | .032 | 10.82 | .104 | 16.22 | .084 | 21.62 | .032 |
| .03 | .000 | 5.43 | .032 | 10.83 | .104 | 16.23 | .081 | 21.63 | .032 |
| .05 | .000 | 5.45 | .032 | 10.85 | .105 | 16.25 | .079 | 21.65 | .032 |
| .07 | .000 | 5.47 | .032 | 10.87 | .105 | 16.27 | .077 | 21.67 | .032 |
| .08 | .000 | 5.48 | .032 | 10.88 | .105 | 16.28 | .075 | 21.68 | .031 |
| .10 | .000 | 5.50 | .032 | 10.90 | .105 | 16.30 | .073 | 21.70 | .031 |
| .12 | .000 | 5.52 | .032 | 10.92 | .105 | 16.32 | .072 | 21.72 | .031 |
| .13 | .000 | 5.53 | .032 | 10.93 | .106 | 16.33 | .071 | 21.73 | .031 |
| .15 | .000 | 5.55 | .032 | 10.95 | .106 | 16.35 | .070 | 21.75 | .031 |
| .17 | .000 | 5.57 | .032 | 10.97 | .106 | 16.37 | .070 | 21.77 | .031 |
| .18 | .000 | 5.58 | .032 | 10.98 | .106 | 16.38 | .069 | 21.78 | .031 |
| .20 | .000 | 5.60 | .032 | 11.00 | .106 | 16.40 | .068 | 21.80 | .031 |
| .22 | .000 | 5.62 | .032 | 11.02 | .106 | 16.42 | .068 | 21.82 | .031 |
| .23 | .000 | 5.63 | .032 | 11.03 | .107 | 16.43 | .067 | 21.83 | .031 |
| .25 | .000 | 5.65 | .032 | 11.05 | .107 | 16.45 | .067 | 21.85 | .030 |
| .27 | .000 | 5.67 | .032 | 11.07 | .107 | 16.47 | .066 | 21.87 | .030 |
| .28 | .000 | 5.68 | .032 | 11.08 | .107 | 16.48 | .066 | 21.88 | .030 |
| .30 | .000 | 5.70 | .032 | 11.10 | .107 | 16.50 | .065 | 21.90 | .030 |
| .32 | .000 | 5.72 | .032 | 11.12 | .107 | 16.52 | .065 | 21.92 | .030 |
| .33 | .000 | 5.73 | .032 | 11.13 | .108 | 16.53 | .065 | 21.93 | .030 |
| .35 | .000 | 5.75 | .032 | 11.15 | .108 | 16.55 | .064 | 21.95 | .030 |
| .37 | .000 | 5.77 | .032 | 11.17 | .108 | 16.57 | .064 | 21.97 | .030 |
| .38 | .000 | 5.78 | .032 | 11.18 | .108 | 16.58 | .064 | 21.98 | .030 |
| .40 | .000 | 5.80 | .032 | 11.20 | .108 | 16.60 | .063 | 22.00 | .030 |
| .42 | .000 | 5.82 | .032 | 11.22 | .110 | 16.62 | .063 | 22.02 | .030 |
| .43 | .000 | 5.83 | .032 | 11.23 | .114 | 16.63 | .063 | 22.03 | .030 |
| .45 | .000 | 5.85 | .032 | 11.25 | .120 | 16.65 | .062 | 22.05 | .030 |
| .47 | .000 | 5.87 | .032 | 11.27 | .124 | 16.67 | .062 | 22.07 | .030 |
| .48 | .000 | 5.88 | .032 | 11.28 | .128 | 16.68 | .062 | 22.08 | .030 |
| .50 | .000 | 5.90 | .032 | 11.30 | .131 | 16.70 | .061 | 22.10 | .030 |
| .52 | .000 | 5.92 | .032 | 11.32 | .133 | 16.72 | .061 | 22.12 | .030 |
| .53 | .000 | 5.93 | .032 | 11.33 | .135 | 16.73 | .061 | 22.13 | .030 |
| .55 | .000 | 5.95 | .032 | 11.35 | .136 | 16.75 | .061 | 22.15 | .029 |
| .57 | .000 | 5.97 | .032 | 11.37 | .138 | 16.77 | .061 | 22.17 | .029 |
| .58 | .000 | 5.98 | .032 | 11.38 | .139 | 16.78 | .060 | 22.18 | .029 |
| .60 | .000 | 6.00 | .032 | 11.40 | .140 | 16.80 | .060 | 22.20 | .029 |
| .62 | .000 | 6.02 | .032 | 11.42 | .143 | 16.82 | .060 | 22.22 | .029 |
| .63 | .000 | 6.03 | .032 | 11.43 | .152 | 16.83 | .060 | 22.23 | .029 |
| .65 | .000 | 6.05 | .032 | 11.45 | .161 | 16.85 | .060 | 22.25 | .029 |
| .67 | .000 | 6.07 | .032 | 11.47 | .170 | 16.87 | .060 | 22.27 | .029 |
| .68 | .000 | 6.08 | .032 | 11.48 | .176 | 16.88 | .059 | 22.28 | .029 |
| .70 | .000 | 6.10 | .032 | 11.50 | .182 | 16.90 | .059 | 22.30 | .029 |
| .72 | .000 | 6.12 | .032 | 11.52 | .187 | 16.92 | .059 | 22.32 | .029 |
| .73 | .000 | 6.13 | .032 | 11.53 | .190 | 16.93 | .059 | 22.33 | .029 |
| .75 | .000 | 6.15 | .032 | 11.55 | .193 | 16.95 | .059 | 22.35 | .029 |
| .77 | .000 | 6.17 | .032 | 11.57 | .196 | 16.97 | .059 | 22.37 | .029 |
| .78 | .000 | 6.18 | .032 | 11.58 | .198 | 16.98 | .059 | 22.38 | .029 |
| .80 | .000 | 6.20 | .032 | 11.60 | .200 | 17.00 | .059 | 22.40 | .029 |
| .82 | .000 | 6.22 | .032 | 11.62 | .212 | 17.02 | .059 | 22.42 | .029 |
| .83 | .000 | 6.23 | .032 | 11.63 | .244 | 17.03 | .058 | 22.43 | .029 |
| .85 | .000 | 6.25 | .032 | 11.65 | .282 | 17.05 | .058 | 22.45 | .029 |
| .87 | .000 | 6.27 | .032 | 11.67 | .314 | 17.07 | .058 | 22.47 | .029 |
| .88 | .000 | 6.28 | .032 | 11.68 | .340 | 17.08 | .058 | 22.48 | .029 |
| .90 | .000 | 6.30 | .032 | 11.70 | .362 | 17.10 | .058 | 22.50 | .029 |
| .92 | .000 | 6.32 | .032 | 11.72 | .378 | 17.12 | .058 | 22.52 | .029 |
| .93 | .000 | 6.33 | .032 | 11.73 | .392 | 17.13 | .058 | 22.53 | .029 |
| .95 | .000 | 6.35 | .032 | 11.75 | .403 | 17.15 | .058 | 22.55 | .029 |
| .97 | .000 | 6.37 | .032 | 11.77 | .412 | 17.17 | .058 | 22.57 | .029 |
| .98 | .000 | 6.38 | .032 | 11.78 | .420 | 17.18 | .058 | 22.58 | .029 |
| 1.00 | .000 | 6.40 | .032 | 11.80 | .428 | 17.20 | .058 | 22.60 | .029 |
| 1.02 | .000 | 6.42 | .032 | 11.82 | .457 | 17.22 | .058 | 22.62 | .029 |
| 1.03 | .000 | 6.43 | .032 | 11.83 | .527 | 17.23 | .058 | 22.63 | .029 |
| 1.05 | .000 | 6.45 | .032 | 11.85 | .612 | 17.25 | .058 | 22.65 | .029 |
| 1.07 | .000 | 6.47 | .032 | 11.87 | .681 | 17.27 | .058 | 22.67 | .029 |
| 1.08 | .000 | 6.48 | .032 | 11.88 | .734 | 17.28 | .058 | 22.68 | .029 |
| 1.10 | .000 | 6.50 | .032 | 11.90 | .780 | 17.30 | .057 | 22.70 | .029 |
| 1.12 | .000 | 6.52 | .032 | 11.92 | .816 | 17.32 | .057 | 22.72 | .029 |
| 1.13 | .000 | 6.53 | .032 | 11.93 | .846 | 17.33 | .057 | 22.73 | .029 |
| 1.15 | .000 | 6.55 | .032 | 11.95 | .871 | 17.35 | .057 | 22.75 | .029 |
| 1.17 | .000 | 6.57 | .032 | 11.97 | .893 | 17.37 | .057 | 22.77 | .029 |
| 1.18 | .000 | 6.58 | .032 | 11.98 | .913 | 17.38 | .057 | 22.78 | .029 |
| 1.20 | .000 | 6.60 | .032 | 12.00 | .932 | 17.40 | .057 | 22.80 | .029 |
| 1.22 | .000 | 6.62 | .032 | 12.02 | .983 | 17.42 | .057 | 22.82 | .029 |
| 1.23 | .000 | 6.63 | .032 | 12.03 | 1.083 | 17.43 | .057 | 22.83 | .029 |
| 1.25 | .000 | 6.65 | .033 | 12.05 | 1.168 | 17.45 | .057 | 22.85 | .029 |
| 1.27 | .000 | 6.67 | .033 | 12.07 | 1.223 | 17.47 | .057 | 22.87 | .029 |
| 1.28 | .000 | 6.68 | .033 | 12.08 | 1.280 | 17.48 | .057 | 22.88 | .029 |
| 1.30 | .000 | 6.70 | .033 | 12.10 | 1.343 | 17.50 | .057 | 22.90 | .029 |
| 1.32 | .000 | 6.72 | .033 | 12.12 | 1.396 | 17.52 | .057 | 22.92 | .029 |
| 1.33 | .000 | 6.73 | .033 | 12.13 | 1.444 | 17.53 | .057 | 22.93 | .029 |
| 1.35 | .000 | 6.75 | .033 | 12.15 | 1.487 | 17.55 | .057 | 22.95 | .029 |
| 1.37 | .000 | 6.77 | .033 | 12.17 | 1.524 | 17.57 | .057 | 22.97 | .029 |
| 1.38 | .000 | 6.78 | .033 | 12.18 | 1.558 | 17.58 | .057 | 22.98 | .029 |
| 1.40 | .000 | 6.80 | .033 | 12.20 | 1.587 | 17.60 | .057 | 23.00 | .029 |
| 1.42 | .000 | 6.82 | .033 | 12.22 | 1.593 | 17.62 | .057 | 23.02 | .029 |
| 1.43 | .000 | 6.83 | .033 | 12.23 | 1.593 | 17.63 | .057 | 23.03 | .029 |
| 1.45 | .000 | 6.85 | .033 | 12.25 | 1.583 | 17.65 | .057 | 23.05 | .029 |
| 1.47 | .000 | 6.87 | .033 | 12.27 | 1.573 | 17.67 | .057 | 23.07 | .029 |
| 1.48 | .000 | 6.88 | .033 | 12.28 | 1.484 | 17.68 | .057 | 23.08 | .029 |
| 1.50 | .000 | 6.90 | .033 | 12.30 | 1.425 | 17.70 | .057 | 23.10 | .029 |
| 1.52 | .000 | 6.92 | .033 | 12.32 | 1.377 | 17.72 | .057 | 23.12 | .029 |
| 1.53 | .000 | 6.93 | .033 | 12.33 | 1.322 | 17.73 | .057 | 23.13 | .029 |
| 1.55 | .000 | 6.95 | .033 | 12.35 | 1.282 | 17.75 | .057 | 23.15 | .029 |
| 1.57 | .000 | 6.97 | .033 | 12.37 | 1.226 | 17.77 | .057 | 23.17 | .029 |
| 1.58 | .000 | 6.98 | .033 | 12.38 | 1.176 | 17.78 | .057 | 23.18 | .029 |
| 1.60 | .000 | 7.00 | .033 | 12.40 | 1.122 | 17.80 | .057 | 23.20 | .029 |
| 1.62 | .000 | 7.02 | .033 | 12.42 | 1.089 | 17.82 | .057 | 23.22 | .029 |
| 1.63 | .000 | 7.03 | .033 | 12.43 | 1.060 | 17.83 | .057 | 23.23 | .029 |
| 1.65 | .000 | 7.05 | .033 | 12.45 | 1.031 | 17.85 | .057 | 23.25 | .029 |
| 1.67 | .000 | 7.07 | .033 | 12.47 | .995 | 17.87 | .057 | 23.27 | .029 |
| 1.68 | .000 | 7.08 | .033 | 12.48 | .948 | 17.88 | .057 | 23.28 | .029 |
| 1.70 | .000 | 7.10 | .033 | 12.50 | .899 | 17.90 | .057 | 23.30 | .029 |
| 1.72 | .000 | 7.12 | .033 | 12.52 | .847 | 17.92 | .057 | 23.32 | .029 |
| 1.73 | .000 | 7.13 | .033 | 12.53 | .793 | 17.93 | .057 | 23.33 | .029 |
| 1.75 | .000 | 7.15 | .033 | 12.55 | .766 | 17.95 | .057 | 23.35 | .029 |
| 1.77 | .000 | 7.17 | .033 | 12.57 | .746 | 17.97 | .057 | 23.37 | .029 |
| 1.78 | .000 | 7.18 | .033 | 12.58 | .729 | 17.98 | .057 | 23.38 | .029 |
| 1.80 | .000 | 7.20 | .033 | 12.60 | .711 | 18.00 | .057 | 23.40 | .029 |
| 1.82 | .000 | 7.22 | .033 | 12.62 | .687 | 18.02 | .057 | 23.42 | .029 |
| 1.83 | .000 | 7.23 | .033 | 12.63 | .660 | 18.03 | .057 | 23.43 | .029 |
| 1.85 | .000 | 7.25 | .033 | 12.65 | .628 | 18.05 | .057 | 23.45 | .029 |
| 1.87 | .000 | 7.27 | .033 | 12.67 | .596 | 18.07 | .057 | 23.47 | .029 |
| 1.88 | .000 | 7.28 | .033 | 12.68 | .574 | 18.08 | .057 | 23.48 | .029 |
| 1.90 | .000 | 7.30 | .033 | 12.70 | .556 | 18.10 | .057 | 23.50 | .029 |
| 1.92 | .000 | 7.32 | .033 | 12.72 | .535 | 18.12 | .057 | 23.52 | .029 |
| 1.93 | .000 | 7.33 | .033 | 12.73 | .512 | 18.13 | .057 | 23.53 | .029 |
| 1.95 | .000 | 7.35 | .033 | 12.75 | .497 | 18.15 | .057 | 23.55 | .029 |
| 1.97 | .000 | 7.37 | .033 | 12.77 | .485 | 18.17 | .057 | 23.57 | .029 |
| 1.98 | .000 | 7.38 | .033 | 12.78 | .474 | 18.18 | .057 | 23.58 | .029 |
| 2.00 | .000 | 7.40 | .033 | 12.80 | .464 | 18.20 | .057 | 23.60 | .029 |
| 2.02 | .000 | 7.42 | .033 | 12.82 | .454 | 18.22 | .057 | 23.62 | .028 |
| 2.03 | .000 | 7.43 | .033 | 12.83 | .444 | 18.23 | .057 | 23.63 | .027 |
| 2.05 | .000 | 7.45 | .033 | 12.85 | .434 | 18.25 | .057 | 23.65 | .025 |
| 2.07 | .000 | 7.47 | .033 | 12.87 | .425 | 18.27 | .057 | 23.67 | .024 |
| 2.08 | .000 | 7.48 | .034 | 12.88 | .417 | 18.28 | .057 | 23.68 | .023 |
| 2.10 | .000 | 7.50 | .034 | 12.90 | .404 | 18.30 | .057 | 23.70 | .022 |
| 2.12 | .000 | 7.52 | .034 | 12.92 | .393 | 18.32 | .057 | 23.72 | .021 |
| 2.13 | .000 | 7.53 | .034 | 12.93 | .385 | 18.33 | .057 | 23.73 | .020 |
| 2.15 | .000 | 7.55 | .034 | 12.95 | .378 | 18.35 | .057 | 23.75 | .020 |
| 2.17 | .000 | 7.57 | .034 | 12.97 | .372 | 18.37 | .057 | 23.77 | .019 |
| 2.18 | .000 | 7.58 | .034 | 12.98 | .366 | 18.38 | .057 | 23.78 | .019 |
| 2.20 | .000 | 7.60 | .034 | 13.00 | .360 | 18.40 | .057 | 23.80 | .018 |
| 2.22 | .000 | 7.62 | .034 | 13.02 | .353 | 18.42 | .057 | 23.82 | .018 |
| 2.23 | .000 | 7.63 | .034 | 13.03 | .343 | 18.43 | .057 | 23.83 | .018 |
| 2.25 | .000 | 7.65 | .034 | 13.05 | .332 | 18.45 | .057 | 23.85 | .017 |
| 2.27 | .000 | 7.67 | .034 | 13.07 | .322 | 18.47 | .057 | 23.87 | .017 |
| 2.28 | .000 | 7.68 | .034 | 13.08 | .314 | 18.48 | .057 | 23.88 | .017 |
| 2.30 | .000 | 7.70 | .034 | 13.10 | .301 | 18.50 | .057 | 23.90 | .016 |
| 2.32 | .000 | 7.72 | .034 | 13.12 | .284 | 18.52 | .057 | 23.92 | .016 |
| 2.33 | .000 | 7.73 | .034 | 13.13 | .276 | 18.53 | .057 | 23.93 | .016 |
| 2.35 | .000 | 7.75 | .034 | 13.15 | .270 | 18.55 | .057 | 23.95 | .016 |
| 2.37 | .000 | 7.77 | .034 | 13.17 | .264 | 18.57 | .057 | 23.97 | .015 |
| 2.38 | .000 | 7.78 | .034 | 13.18 | .260 | 18.58 | .057 | 23.98 | .015 |
| 2.40 | .000 | 7.80 | .034 | 13.20 | .255 | 18.60 | .057 | 24.00 | .015 |
| 2.42 | .000 | 7.82 | .034 | 13.22 | .250 | 18.62 | .057 | 24.02 | .015 |
| 2.43 | .000 | 7.83 | .034 | 13.23 | .244 | 18.63 | .057 | 24.03 | .014 |
| 2.45 | .000 | 7.85 | .034 | 13.25 | .238 | 18.65 | .057 | 24.05 | .014 |
| 2.47 | .000 | 7.87 | .034 | 13.27 | .232 | 18.67 | .057 | 24.07 | .014 |
| 2.48 | .000 | 7.88 | .034 | 13.28 | .227 | 18.68 | .057 | 24.08 | .013 |
| 2.50 | .000 | 7.90 | .034 | 13.30 | .222 | 18.70 | .057 | 24.10 | .013 |
| 2.52 | .000 | 7.92 | .034 | 13.32 | .218 | 18.72 | .057 | 24.12 | .013 |
| 2.53 | .000 | 7.93 | .034 | 13.33 | .214 | 18.73 | .057 | 24.13 | .013 |
| 2.55 | .000 | 7.95 | .034 | 13.35 | .210 | 18.75 | .057 | 24.15 | .012 |
| 2.57 | .000 | 7.97 | .034 | 13.37 | .207 | 18.77 | .057 | 24.17 | .012 |
| 2.58 | .000 | 7.98 | .034 | 13.38 | .204 | 18.78 | .057 | 24.18 | .012 |
| 2.60 | .000 | 8.00 | .034 | 13.40 | .201 | 18.80 | .057 | 24.20 | .012 |
| 2.62 | .000 | 8.02 | .034 | 13.42 | .198 | 18.82 | .057 | 24.22 | .012 |
| 2.63 | .000 | 8.03 | .034 | 13.43 | .195 | 18.83 | .057 | 24.23 | .011 |
| 2.65 | .000 | 8.05 | .034 | 13.45 | .192 | 18.85 | .057 | 24.25 | .010 |
| 2.67 | .000 | 8.07 | .034 | 13.47 | .190 | 18.87 | .057 | 24.27 | .009 |
| 2.68 | .000 | 8.08 | .034 | 13.48 | .188 | 18.88 | .057 | 24.28 | .008 |
| 2.70 | .000 | 8.10 | .034 | 13.50 | .185 | 18.90 | .057 | 24.30 | .008 |
| 2.72 | .000 | 8.12 | .034 | 13.52 | .183 | 18.92 | .057 | 24.32 | .007 |
| 2.73 | .001 | 8.13 | .034 | 13.53 | .181 | 18.93 | .057 | 24.33 | .007 |
| 2.75 | .003 | 8.15 | .034 | 13.55 | .179 | 18.95 | .057 | 24.35 | .007 |
| 2.77 | .006 | 8.17 | .034 | 13.57 | .177 | 18.97 | .057 | 24.37 | .006 |
| 2.78 | .008 | 8.18 | .034 | 13.58 | .176 | 18.98 | .057 | 24.38 | .006 |
| 2.80 | .009 | 8.20 | .034 | 13.60 | .174 | 19.00 | .057 | 24.40 | .006 |

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03303>    2.82    .011|   8.22    .035|  13.62    .172|  19.02    .057|  24.42    .005
03304>    2.83    .012|   8.23    .037|  13.63    .171|  19.03    .057|  24.43    .005
03305>    2.85    .012|   8.25    .040|  13.65    .169|  19.05    .057|  24.45    .005
03306>    2.87    .013|   8.27    .042|  13.67    .168|  19.07    .057|  24.47    .005
03307>    2.88    .013|   8.28    .044|  13.68    .167|  19.08    .057|  24.48    .005
03308>    2.90    .014|   8.30    .045|  13.70    .165|  19.10    .057|  24.50    .004
03309>    2.92    .014|   8.32    .046|  13.72    .164|  19.12    .057|  24.52    .004
03310>    2.93    .014|   8.33    .047|  13.73    .163|  19.13    .057|  24.53    .004
03311>    2.95    .015|   8.35    .048|  13.75    .162|  19.15    .057|  24.55    .004
03312>    2.97    .015|   8.37    .048|  13.77    .161|  19.17    .057|  24.57    .004
03313>    2.98    .015|   8.38    .049|  13.78    .160|  19.18    .057|  24.58    .003
03314>    3.00    .015|   8.40    .049|  13.80    .159|  19.20    .057|  24.60    .003
03315>    3.02    .015|   8.42    .049|  13.82    .158|  19.22    .057|  24.62    .003
03316>    3.03    .015|   8.43    .050|  13.83    .157|  19.23    .055|  24.63    .003
03317>    3.05    .015|   8.45    .050|  13.85    .156|  19.25    .054|  24.65    .003
03318>    3.07    .015|   8.47    .050|  13.87    .156|  19.27    .053|  24.67    .003
03319>    3.08    .015|   8.48    .050|  13.88    .155|  19.28    .052|  24.68    .003
03320>    3.10    .015|   8.50    .051|  13.90    .154|  19.30    .051|  24.70    .002
03321>    3.12    .015|   8.52    .051|  13.92    .153|  19.32    .051|  24.72    .002
03322>    3.13    .015|   8.53    .051|  13.93    .153|  19.33    .050|  24.73    .002
03323>    3.15    .015|   8.55    .051|  13.95    .152|  19.35    .050|  24.75    .002
03324>    3.17    .015|   8.57    .051|  13.97    .152|  19.37    .050|  24.77    .002
03325>    3.18    .015|   8.58    .051|  13.98    .151|  19.38    .049|  24.78    .002
03326>    3.20    .015|   8.60    .051|  14.00    .151|  19.40    .049|  24.80    .002
03327>    3.22    .015|   8.62    .051|  14.02    .150|  19.42    .049|  24.82    .002
03328>    3.23    .015|   8.63    .052|  14.03    .150|  19.43    .048|  24.83    .002
03329>    3.25    .015|   8.65    .052|  14.05    .149|  19.45    .048|  24.85    .002
03330>    3.27    .015|   8.67    .052|  14.07    .149|  19.47    .048|  24.87    .002
03331>    3.28    .015|   8.68    .052|  14.08    .148|  19.48    .048|  24.88    .002
03332>    3.30    .015|   8.70    .052|  14.10    .148|  19.50    .047|  24.90    .001
03333>    3.32    .015|   8.72    .052|  14.12    .147|  19.52    .047|  24.92    .001
03334>    3.33    .015|   8.73    .052|  14.13    .147|  19.53    .047|  24.93    .001
03335>    3.35    .015|   8.75    .052|  14.15    .147|  19.55    .047|  24.95    .001
03336>    3.37    .015|   8.77    .052|  14.17    .146|  19.57    .047|  24.97    .001
03337>    3.38    .016|   8.78    .052|  14.18    .146|  19.58    .046|  24.98    .001
03338>    3.40    .016|   8.80    .052|  14.20    .146|  19.60    .046|  25.00    .001
03339>    3.42    .016|   8.82    .052|  14.22    .144|  19.62    .046|  25.02    .001
03340>    3.43    .016|   8.83    .052|  14.23    .139|  19.63    .046|  25.03    .001
03341>    3.45    .016|   8.85    .053|  14.25    .134|  19.65    .046|  25.05    .001
03342>    3.47    .016|   8.87    .053|  14.27    .129|  19.67    .046|  25.07    .001
03343>    3.48    .016|   8.88    .053|  14.28    .125|  19.68    .046|  25.08    .001
03344>    3.50    .016|   8.90    .053|  14.30    .122|  19.70    .045|  25.10    .001
03345>    3.52    .016|   8.92    .053|  14.32    .119|  19.72    .045|  25.12    .001
03346>    3.53    .016|   8.93    .053|  14.33    .117|  19.73    .045|  25.13    .001
03347>    3.55    .016|   8.95    .053|  14.35    .115|  19.75    .045|  25.15    .001
03348>    3.57    .016|   8.97    .053|  14.37    .114|  19.77    .045|  25.17    .001
03349>    3.58    .016|   8.98    .053|  14.38    .112|  19.78    .045|  25.18    .001
03350>    3.60    .016|   9.00    .053|  14.40    .111|  19.80    .045|  25.20    .001
03351>    3.62    .016|   9.02    .053|  14.42    .110|  19.82    .045|  25.22    .001
03352>    3.63    .016|   9.03    .053|  14.43    .108|  19.83    .045|  25.23    .001
03353>    3.65    .016|   9.05    .053|  14.45    .107|  19.85    .045|  25.25    .001
03354>    3.67    .016|   9.07    .053|  14.47    .106|  19.87    .044|  25.27    .001
03355>    3.68    .016|   9.08    .053|  14.48    .105|  19.88    .044|  25.28    .001
03356>    3.70    .016|   9.10    .053|  14.50    .104|  19.90    .044|  25.30    .001
03357>    3.72    .016|   9.12    .053|  14.52    .103|  19.92    .044|  25.32    .000
03358>    3.73    .016|   9.13    .053|  14.53    .102|  19.93    .044|  25.33    .000
03359>    3.75    .016|   9.15    .054|  14.55    .102|  19.95    .044|  25.35    .000
03360>    3.77    .016|   9.17    .054|  14.57    .101|  19.97    .044|  25.37    .000
03361>    3.78    .016|   9.18    .054|  14.58    .100|  19.98    .044|  25.38    .000
03362>    3.80    .016|   9.20    .054|  14.60    .099|  20.00    .044|  25.40    .000
03363>    3.82    .016|   9.22    .054|  14.62    .098|  20.02    .044|  25.42    .000
03364>    3.83    .016|   9.23    .054|  14.63    .098|  20.03    .044|  25.43    .000
03365>    3.85    .016|   9.25    .054|  14.65    .097|  20.05    .044|  25.45    .000
03366>    3.87    .016|   9.27    .054|  14.67    .096|  20.07    .044|  25.47    .000
03367>    3.88    .016|   9.28    .054|  14.68    .096|  20.08    .044|  25.48    .000
03368>    3.90    .016|   9.30    .054|  14.70    .095|  20.10    .044|  25.50    .000
03369>    3.92    .016|   9.32    .054|  14.72    .095|  20.12    .044|  25.52    .000
03370>    3.93    .016|   9.33    .054|  14.73    .094|  20.13    .044|  25.53    .000
03371>    3.95    .016|   9.35    .054|  14.75    .094|  20.15    .044|  25.55    .000
03372>    3.97    .016|   9.37    .054|  14.77    .093|  20.17    .044|  25.57    .000
03373>    3.98    .016|   9.38    .054|  14.78    .093|  20.18    .044|  25.58    .000
03374>    4.00    .016|   9.40    .054|  14.80    .092|  20.20    .044|  25.60    .000
03375>    4.02    .016|   9.42    .054|  14.82    .092|  20.22    .043|  25.62    .000
03376>    4.03    .016|   9.43    .054|  14.83    .092|  20.23    .043|  25.63    .000
03377>    4.05    .016|   9.45    .054|  14.85    .091|  20.25    .043|  25.65    .000
03378>    4.07    .016|   9.47    .054|  14.87    .091|  20.27    .043|  25.67    .000
03379>    4.08    .016|   9.48    .054|  14.88    .091|  20.28    .043|  25.68    .000
03380>    4.10    .016|   9.50    .054|  14.90    .090|  20.30    .043|  25.70    .000
03381>    4.12    .016|   9.52    .054|  14.92    .090|  20.32    .043|  25.72    .000
03382>    4.13    .016|   9.53    .055|  14.93    .090|  20.33    .043|  25.73    .000
03383>    4.15    .016|   9.55    .055|  14.95    .089|  20.35    .043|  25.75    .000
03384>    4.17    .016|   9.57    .055|  14.97    .089|  20.37    .043|  25.77    .000
03385>    4.18    .016|   9.58    .055|  14.98    .089|  20.38    .043|  25.78    .000
03386>    4.20    .016|   9.60    .055|  15.00    .089|  20.40    .043|  25.80    .000
03387>    4.22    .016|   9.62    .055|  15.02    .089|  20.42    .043|  25.82    .000
03388>    4.23    .018|   9.63    .055|  15.03    .088|  20.43    .043|  25.83    .000
03389>    4.25    .021|   9.65    .055|  15.05    .088|  20.45    .043|  25.85    .000
03390>    4.27    .023|   9.67    .055|  15.07    .088|  20.47    .043|  25.87    .000
03391>    4.28    .025|   9.68    .055|  15.08    .088|  20.48    .043|  25.88    .000
03392>    4.30    .026|   9.70    .055|  15.10    .088|  20.50    .043|  25.90    .000
03393>    4.32    .027|   9.72    .055|  15.12    .087|  20.52    .043|  25.92    .000
03394>    4.33    .028|   9.73    .055|  15.13    .087|  20.53    .043|  25.93    .000
03395>    4.35    .029|   9.75    .055|  15.15    .087|  20.55    .043|  25.95    .000
03396>    4.37    .029|   9.77    .055|  15.17    .087|  20.57    .043|  25.97    .000
03397>    4.38    .029|   9.78    .055|  15.18    .087|  20.58    .043|  25.98    .000
03398>    4.40    .030|   9.80    .055|  15.20    .087|  20.60    .043|  26.00    .000
03399>    4.42    .030|   9.82    .055|  15.22    .087|  20.62    .043|  26.02    .000
03400>    4.43    .030|   9.83    .055|  15.23    .086|  20.63    .043|  26.03    .000
03401>    4.45    .030|   9.85    .055|  15.25    .086|  20.65    .043|  26.05    .000
03402>    4.47    .030|   9.87    .055|  15.27    .086|  20.67    .043|  26.07    .000
03403>    4.48    .031|   9.88    .055|  15.28    .086|  20.68    .043|  26.08    .000
03404>    4.50    .031|   9.90    .055|  15.30    .086|  20.70    .043|  26.10    .000
03405>    4.52    .031|   9.92    .055|  15.32    .086|  20.72    .043|  26.12    .000
03406>    4.53    .031|   9.93    .056|  15.33    .086|  20.73    .043|  26.13    .000
03407>    4.55    .031|   9.95    .056|  15.35    .086|  20.75    .043|  26.15    .000
03408>    4.57    .031|   9.97    .056|  15.37    .086|  20.77    .043|  26.17    .000
03409>    4.58    .031|   9.98    .056|  15.38    .086|  20.78    .043|  26.18    .000
03410>    4.60    .031|  10.00    .056|  15.40    .086|  20.80    .043|  26.20    .000
03411>    4.62    .031|  10.02    .056|  15.42    .085|  20.82    .043|  26.22    .000
03412>    4.63    .031|  10.03    .056|  15.43    .085|  20.83    .043|  26.23    .000
03413>    4.65    .031|  10.05    .056|  15.45    .085|  20.85    .043|  26.25    .000
03414>    4.67    .031|  10.07    .056|  15.47    .085|  20.87    .043|  26.27    .000
03415>    4.68    .031|  10.08    .056|  15.48    .085|  20.88    .043|  26.28    .000
03416>    4.70    .031|  10.10    .056|  15.50    .085|  20.90    .043|  26.30    .000
03417>    4.72    .031|  10.12    .056|  15.52    .085|  20.92    .043|  26.32    .000
03418>    4.73    .031|  10.13    .056|  15.53    .085|  20.93    .043|  26.33    .000
03419>    4.75    .031|  10.15    .056|  15.55    .085|  20.95    .043|  26.35    .000
03420>    4.77    .031|  10.17    .056|  15.57    .085|  20.97    .043|  26.37    .000
03421>    4.78    .031|  10.18    .056|  15.58    .085|  20.98    .043|  26.38    .000
03422>    4.80    .031|  10.20    .056|  15.60    .085|  21.00    .043|  26.40    .000
03423>    4.82    .031|  10.22    .058|  15.62    .085|  21.02    .043|  26.42    .000
03424>    4.83    .031|  10.23    .063|  15.63    .085|  21.03    .043|  26.43    .000
03425>    4.85    .031|  10.25    .070|  15.65    .085|  21.05    .043|  26.45    .000
03426>    4.87    .031|  10.27    .075|  15.67    .085|  21.07    .043|  26.47    .000
03427>    4.88    .031|  10.28    .080|  15.68    .085|  21.08    .043|  26.48    .000
03428>    4.90    .031|  10.30    .083|  15.70    .085|  21.10    .043|  26.50    .000
03429>    4.92    .031|  10.32    .086|  15.72    .085|  21.12    .043|  26.52    .000

03430>    4.93    .031|  10.33    .088|  15.73    .085|  21.13    .043|  26.53    .000
03431>    4.95    .031|  10.35    .090|  15.75    .085|  21.15    .043|  26.55    .000
03432>    4.97    .031|  10.37    .091|  15.77    .085|  21.17    .043|  26.57    .000
03433>    4.98    .031|  10.38    .093|  15.78    .085|  21.18    .043|  26.58    .000
03434>    5.00    .031|  10.40    .094|  15.80    .085|  21.20    .043|  26.60    .000
03435>    5.02    .031|  10.42    .095|  15.82    .085|  21.22    .043|  26.62    .000
03436>    5.03    .031|  10.43    .095|  15.83    .085|  21.23    .042|  26.63    .000
03437>    5.05    .031|  10.45    .096|  15.85    .085|  21.25    .040|  26.65    .000
03438>    5.07    .031|  10.47    .097|  15.87    .085|  21.27    .039|  26.67    .000
03439>    5.08    .031|  10.48    .097|  15.88    .085|  21.28    .038|  26.68    .000
03440>    5.10    .031|  10.50    .098|  15.90    .084|  21.30    .037|  26.70    .000
03441>    5.12    .031|  10.52    .098|  15.92    .084|  21.32    .037|  26.72    .000
03442>    5.13    .031|  10.53    .099|  15.93    .084|  21.33    .036|  26.73    .000
03443>    5.15    .031|  10.55    .099|  15.95    .084|  21.35    .036|  26.75    .000
03444>    5.17    .031|  10.57    .100|  15.97    .084|  21.37    .036|  26.77    .000
03445>    5.18    .031|  10.58    .100|  15.98    .084|  21.38    .035|  26.78    .000
03446>    5.20    .031|  10.60    .101|  16.00    .084|  21.40    .035|  26.80    .000
03447>    5.22    .031|  10.62    .101|  16.02    .084|  21.42    .035|  26.82    .000
03448>    5.23    .032|  10.63    .101|  16.03    .084|  21.43    .034|  26.83    .000
03449>    5.25    .032|  10.65    .102|  16.05    .084|  21.45    .034|  26.85    .000
03450>    5.27    .032|  10.67    .102|  16.07    .084|  21.47    .034|  26.87    .000
03451>    5.28    .032|  10.68    .102|  16.08    .084|  21.48    .034|  26.88    .000
03452>    5.30    .032|  10.70    .102|  16.10    .084|  21.50    .033|  26.90    .000
03453>    5.32    .032|  10.72    .103|  16.12    .084|  21.52    .033|
03454>    5.33    .032|  10.73    .103|  16.13    .084|  21.53    .033|
03455>    5.35    .032|  10.75    .103|  16.15    .084|  21.55    .033|
03456>    5.37    .032|  10.77    .103|  16.17    .084|  21.57    .033|
03457>    5.38    .032|  10.78    .104|  16.18    .084|  21.58    .032|
03458> ------------------------------------------------------------------------------------------
03459> 001:0092------------------------------------------------------------------------------------
03460> *
03461> *
03462> *# MH 112
03463> *
03464> *
03465> *#===============
03466> *# ADD TO AREA 50
03467> *
03468> ------------------------
03469> | ADD HYD (       846) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
03470> ------------------------                  (ha)     (cms)   (hrs)   (mm)   (cms)
03471>                        ID1 07:       874     3.65     .229   12.60  54.38    .000
03472>                       +ID2 05:114           19.89    1.593   12.23  42.09    .000
03473>                        ============================================================
03474>                        SUM 04:       846    23.54    1.796   12.23  44.00    .000
03475>
03476>    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
03477>
03478> ------------------------------------------------------------------------------------------
03479> 001:0093------------------------------------------------------------------------------------
03480> *#=======================
03481> *#    DRAINAGE AREA 53 ||
03482> *#                    ||
03483> *#=======================
03484> *
03485> *
03486> ----------------------
03487> | CALIB STANDHYD     |   Area    (ha)=   17.48
03488> | 08:000204 DT=12.00 |   Total Imp(%)=   56.00   Dir. Conn.(%)=   42.00
03489> ----------------------
03490>                                IMPERVIOUS    PERVIOUS (i)
03491>      Surface Area     (ha)=       9.79          7.69
03492>      Dep. Storage     (mm)=        .80          1.50
03493>      Average Slope     (%)=        .20          2.00
03494>      Length            (m)=     447.00         40.00
03495>      Mannings n             =       .013          .250
03496>
03497>      Max.eff.Inten.(mm/hr)=      71.76         36.70
03498>                 over (min)       12.00         24.00
03499>      Storage Coeff.  (min)=      11.61 (ii)    22.15 (ii)
03500>      Unit Hyd. Tpeak (min)=      12.00         24.00
03501>      Unit Hyd. peak  (cms)=        .09           .05
03502>                                                          *TOTALS*
03503>      PEAK FLOW       (cms)=       1.13           .55          1.528 (iii)
03504>      TIME TO PEAK    (hrs)=      12.20         12.40         12.200
03505>      RUNOFF VOLUME    (mm)=      61.60         29.91         43.218
03506>      TOTAL RAINFALL   (mm)=      62.40         62.40         62.400
03507>      RUNOFF COEFFICIENT   =        .99           .48           .693
03508>       *** WARNING: Storage Coefficient is smaller than DT!
03509>                    Use a smaller DT or a larger area.
03510>
03511>       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
03512>           CN* =  75.0    Ia = Dep. Storage  (Above)
03513>      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
03514>           THAN THE STORAGE COEFFICIENT.
03515>     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
03516>
03517> ------------------------------------------------------------------------------------------
03518> 001:0094------------------------------------------------------------------------------------
03519> *
03520> *
03521> *#========================
03522> *# OSD 85 L/S/HA  PARK 30 L/S/HA
03523> *#  85*16.42 = 1395.7 L/S
03524> *#  30*1.06 = 31.8 L/S
03525> *#  TOTAL = 1428 L/S
03526> *#========================
03527> *
03528> ----------------------
03529> | ROUTE RESERVOIR    |    Requested routing time step = 12.0 min.
03530> |  IN>08:(000204)    |
03531> | OUT<05:(000471)    |    =========  OUTFLOW STORAGE TABLE  =========
03532> ----------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
03533>                             (cms)    (ha.m.)   |    (cms)    (ha.m.)
03534>                              .000  .0000E+00    |    1.428  .2308E+00
03535>                             1.400  .2000E-02    |     .000  .0000E+00
03536>
03537>      ROUTING RESULTS            AREA     QPEAK     TPEAK       R.V.
03538>      --------------------       (ha)     (cms)     (hrs)       (mm)
03539>      INFLOW >08: (000204)      17.48     1.528    12.200     43.218
03540>      OUTFLOW<05: (000471)      17.48     1.400    12.200     43.230
03541>
03542>                    PEAK   FLOW   REDUCTION [Qout/Qin](%)=   91.654
03543>                    TIME SHIFT OF PEAK FLOW         (min)=      .00
03544>                    MAXIMUM  STORAGE   USED       (ha.m.)=.1474E-01
03545>
03546> ------------------------------------------------------------------------------------------
03547> 001:0095------------------------------------------------------------------------------------
03548> *
03549> *# MH 110
03550> *
03551> ------------------------
03552> | ADD HYD (       584) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
03553> ------------------------                  (ha)     (cms)   (hrs)   (mm)   (cms)
03554>                        ID1 05:       471    17.48    1.400   12.20  43.23    .000
03555>                       +ID2 04:       846    23.54    1.796   12.23  44.00    .000
03556>                        ============================================================
```

```
                    SUM 08:      584    41.02    3.191   12.22  43.67    .000

   NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

001:0096----------------------------------------------------------------------------
*
*#================================================
*# AREA FORMERLY KNOWN AS 52 (EAST OF PORTOBELLO)
*#================================================
*
*#================================================
*# MATTAMY SUMMERSIDE DRAINAGE AREA 6.13 ha - H-217
*#================================================
*
*
--------------------
| READ HYD         |   AREA       (ha)=    6.169
| ID=03 (000217)   |   QPEAK     (cms)=     .466
| DT= 1.00 PCYC= 1 |   TPEAK     (hrs)=   12.217
--------------------   VOLUME     (mm)=   44.642
  Filename: C:\SWMHYMO\111083\2018-0~1\H-217.031
  Comments: Minor System Outflow to MH 217

  TIME    FLOW |  TIME    FLOW |  TIME    FLOW |  TIME    FLOW |  TIME    FLOW
   hrs     cms |   hrs     cms |   hrs     cms |   hrs     cms |   hrs     cms
    .00    .000|   5.22    .011|  10.43    .033|  15.65    .027|  20.87    .014
    .02    .000|   5.23    .011|  10.45    .033|  15.67    .027|  20.88    .014
    .03    .000|   5.25    .011|  10.47    .033|  15.68    .027|  20.90    .014
    .05    .000|   5.27    .011|  10.48    .034|  15.70    .027|  20.92    .014
    .07    .000|   5.28    .011|  10.50    .034|  15.72    .027|  20.93    .014
    .08    .000|   5.30    .011|  10.52    .034|  15.73    .027|  20.95    .014
    .10    .000|   5.32    .011|  10.53    .034|  15.75    .027|  20.97    .014
    .12    .000|   5.33    .011|  10.55    .034|  15.77    .027|  20.98    .014
    .13    .000|   5.35    .011|  10.57    .034|  15.78    .027|  21.00    .014
    .15    .000|   5.37    .011|  10.58    .034|  15.80    .027|  21.02    .014
    .17    .000|   5.38    .011|  10.60    .034|  15.82    .027|  21.03    .014
    .18    .000|   5.40    .011|  10.62    .034|  15.83    .027|  21.05    .014
    .20    .000|   5.42    .011|  10.63    .035|  15.85    .027|  21.07    .014
    .22    .000|   5.43    .011|  10.65    .035|  15.87    .027|  21.08    .014
    .23    .000|   5.45    .011|  10.67    .035|  15.88    .027|  21.10    .014
    .25    .000|   5.47    .011|  10.68    .035|  15.90    .027|  21.12    .014
    .27    .000|   5.48    .011|  10.70    .035|  15.92    .027|  21.13    .014
    .28    .000|   5.50    .011|  10.72    .035|  15.93    .027|  21.15    .014
    .30    .000|   5.52    .011|  10.73    .035|  15.95    .027|  21.17    .014
    .32    .000|   5.53    .011|  10.75    .035|  15.97    .027|  21.18    .014
    .33    .000|   5.55    .011|  10.77    .035|  15.98    .027|  21.20    .014
    .35    .000|   5.57    .011|  10.78    .035|  16.00    .027|  21.22    .014
    .37    .000|   5.58    .011|  10.80    .035|  16.02    .027|  21.23    .013
    .38    .000|   5.60    .011|  10.82    .035|  16.03    .027|  21.25    .013
    .40    .000|   5.62    .011|  10.83    .035|  16.05    .027|  21.27    .012
    .42    .000|   5.63    .011|  10.85    .035|  16.07    .027|  21.28    .012
    .43    .000|   5.65    .011|  10.87    .036|  16.08    .027|  21.30    .011
    .45    .000|   5.67    .011|  10.88    .036|  16.10    .027|  21.32    .011
    .47    .000|   5.68    .011|  10.90    .036|  16.12    .027|  21.33    .011
    .48    .000|   5.70    .011|  10.92    .036|  16.13    .027|  21.35    .011
    .50    .000|   5.72    .011|  10.93    .036|  16.15    .027|  21.37    .011
    .52    .000|   5.73    .011|  10.95    .036|  16.17    .027|  21.38    .011
    .53    .000|   5.75    .011|  10.97    .036|  16.18    .027|  21.40    .011
    .55    .000|   5.77    .011|  10.98    .036|  16.20    .027|  21.42    .011
    .57    .000|   5.78    .011|  11.00    .036|  16.22    .027|  21.43    .011
    .58    .000|   5.80    .011|  11.02    .036|  16.23    .026|  21.45    .010
    .60    .000|   5.82    .011|  11.03    .036|  16.25    .025|  21.47    .010
    .62    .000|   5.83    .011|  11.05    .036|  16.27    .024|  21.48    .010
    .63    .000|   5.85    .011|  11.07    .036|  16.28    .023|  21.50    .010
    .65    .000|   5.87    .011|  11.08    .036|  16.30    .022|  21.52    .010
    .67    .000|   5.88    .011|  11.10    .036|  16.32    .022|  21.53    .010
    .68    .000|   5.90    .011|  11.12    .036|  16.33    .022|  21.55    .010
    .70    .000|   5.92    .011|  11.13    .036|  16.35    .022|  21.57    .010
    .72    .000|   5.93    .011|  11.15    .036|  16.37    .021|  21.58    .010
    .73    .000|   5.95    .011|  11.17    .036|  16.38    .021|  21.60    .010
    .75    .000|   5.97    .011|  11.18    .036|  16.40    .021|  21.62    .010
    .77    .000|   5.98    .011|  11.20    .036|  16.42    .021|  21.63    .010
    .78    .000|   6.00    .011|  11.22    .037|  16.43    .021|  21.65    .010
    .80    .000|   6.02    .011|  11.23    .039|  16.45    .021|  21.67    .010
    .82    .000|   6.03    .011|  11.25    .041|  16.47    .020|  21.68    .010
    .83    .000|   6.05    .011|  11.27    .043|  16.48    .020|  21.70    .010
    .85    .000|   6.07    .011|  11.28    .045|  16.50    .020|  21.72    .010
    .87    .000|   6.08    .011|  11.30    .046|  16.52    .020|  21.73    .010
    .88    .000|   6.10    .011|  11.32    .046|  16.53    .020|  21.75    .010
    .90    .000|   6.12    .011|  11.33    .047|  16.55    .020|  21.77    .010
    .92    .000|   6.13    .011|  11.35    .047|  16.57    .020|  21.78    .010
    .93    .000|   6.15    .011|  11.37    .048|  16.58    .020|  21.80    .010
    .95    .000|   6.17    .011|  11.38    .048|  16.60    .020|  21.82    .010
    .97    .000|   6.18    .011|  11.40    .048|  16.62    .020|  21.83    .010
    .98    .000|   6.20    .011|  11.42    .049|  16.63    .019|  21.85    .010
   1.00    .000|   6.22    .011|  11.43    .052|  16.65    .019|  21.87    .009
   1.02    .000|   6.23    .011|  11.45    .057|  16.67    .019|  21.88    .009
   1.03    .000|   6.25    .011|  11.47    .060|  16.68    .019|  21.90    .009
   1.05    .000|   6.27    .011|  11.48    .063|  16.70    .019|  21.92    .009
   1.07    .000|   6.28    .011|  11.50    .065|  16.72    .019|  21.93    .009
   1.08    .000|   6.30    .011|  11.52    .066|  16.73    .019|  21.95    .009
   1.10    .000|   6.32    .011|  11.53    .067|  16.75    .019|  21.97    .009
   1.12    .000|   6.33    .011|  11.55    .068|  16.77    .019|  21.98    .009
   1.13    .000|   6.35    .011|  11.57    .068|  16.78    .019|  22.00    .009
   1.15    .000|   6.37    .011|  11.58    .069|  16.80    .019|  22.02    .009
   1.17    .000|   6.38    .011|  11.60    .069|  16.82    .019|  22.03    .009
   1.18    .000|   6.40    .011|  11.62    .074|  16.83    .019|  22.05    .009
   1.20    .000|   6.42    .011|  11.63    .086|  16.85    .019|  22.07    .009
   1.22    .000|   6.43    .011|  11.65    .103|  16.87    .019|  22.08    .009
   1.23    .000|   6.45    .011|  11.67    .117|  16.88    .019|  22.10    .009
   1.25    .000|   6.47    .011|  11.68    .127|  16.90    .019|  22.12    .009
   1.27    .000|   6.48    .011|  11.70    .134|  16.92    .019|  22.13    .009
   1.28    .000|   6.50    .011|  11.72    .139|  16.93    .019|  22.15    .009
   1.30    .000|   6.52    .011|  11.73    .143|  16.95    .019|  22.17    .009
   1.32    .000|   6.53    .011|  11.75    .146|  16.97    .018|  22.18    .009
   1.33    .000|   6.55    .011|  11.77    .148|  16.98    .018|  22.20    .009
   1.35    .000|   6.57    .011|  11.78    .150|  17.00    .018|  22.22    .009
   1.37    .000|   6.58    .011|  11.80    .152|  17.02    .018|  22.23    .009
   1.38    .000|   6.60    .011|  11.82    .162|  17.03    .018|  22.25    .009
   1.40    .000|   6.62    .011|  11.83    .189|  17.05    .018|  22.27    .009
   1.42    .000|   6.63    .011|  11.85    .225|  17.07    .018|  22.28    .009
   1.43    .000|   6.65    .011|  11.87    .256|  17.08    .018|  22.30    .009
   1.45    .000|   6.67    .011|  11.88    .275|  17.10    .018|  22.32    .009
   1.47    .000|   6.68    .011|  11.90    .288|  17.12    .018|  22.33    .009
   1.48    .000|   6.70    .011|  11.92    .297|  17.13    .018|  22.35    .009
   1.50    .000|   6.72    .011|  11.93    .304|  17.15    .018|  22.37    .009
   1.52    .000|   6.73    .011|  11.95    .310|  17.17    .018|  22.38    .009
   1.53    .000|   6.75    .011|  11.97    .315|  17.18    .018|  22.40    .009
   1.55    .000|   6.77    .011|  11.98    .319|  17.20    .018|  22.42    .009
   1.57    .000|   6.78    .011|  12.00    .323|  17.22    .018|  22.43    .009
   1.58    .000|   6.80    .011|  12.02    .342|  17.23    .018|  22.45    .009
   1.60    .000|   6.82    .011|  12.03    .381|  17.25    .018|  22.47    .009
   1.62    .000|   6.83    .011|  12.05    .410|  17.27    .018|  22.48    .009
   1.63    .000|   6.85    .011|  12.07    .428|  17.28    .018|  22.50    .009
   1.65    .000|   6.87    .011|  12.08    .436|  17.30    .018|  22.52    .009
   1.67    .000|   6.88    .011|  12.10    .442|  17.32    .018|  22.53    .009
   1.68    .000|   6.90    .011|  12.12    .447|  17.33    .018|  22.55    .009
   1.70    .000|   6.92    .011|  12.13    .453|  17.35    .018|  22.57    .009
   1.72    .000|   6.93    .011|  12.15    .458|  17.37    .018|  22.58    .009
   1.73    .000|   6.95    .011|  12.17    .461|  17.38    .018|  22.60    .009
   1.75    .000|   6.97    .011|  12.18    .463|  17.40    .018|  22.62    .009
   1.77    .000|   6.98    .011|  12.20    .465|  17.42    .018|  22.63    .009
   1.78    .000|   7.00    .011|  12.22    .466|  17.43    .018|  22.65    .009
   1.80    .000|   7.02    .011|  12.23    .465|  17.45    .018|  22.67    .009
   1.82    .000|   7.03    .011|  12.25    .461|  17.47    .018|  22.68    .009
   1.83    .000|   7.05    .011|  12.27    .455|  17.48    .018|  22.70    .009
   1.85    .000|   7.07    .011|  12.28    .444|  17.50    .018|  22.72    .009
   1.87    .000|   7.08    .011|  12.30    .439|  17.52    .018|  22.73    .009
   1.88    .000|   7.10    .011|  12.32    .429|  17.53    .018|  22.75    .009
   1.90    .000|   7.12    .011|  12.33    .424|  17.55    .018|  22.77    .009
   1.92    .000|   7.13    .011|  12.35    .419|  17.57    .018|  22.78    .009
   1.93    .000|   7.15    .011|  12.37    .414|  17.58    .018|  22.80    .009
   1.95    .000|   7.17    .011|  12.38    .406|  17.60    .018|  22.82    .009
   1.97    .000|   7.18    .011|  12.40    .395|  17.62    .018|  22.83    .009
   1.98    .000|   7.20    .011|  12.42    .391|  17.63    .018|  22.85    .009
   2.00    .000|   7.22    .011|  12.43    .383|  17.65    .018|  22.87    .009
   2.02    .000|   7.23    .011|  12.45    .371|  17.67    .018|  22.88    .009
   2.03    .000|   7.25    .011|  12.47    .355|  17.68    .018|  22.90    .009
   2.05    .000|   7.27    .011|  12.48    .339|  17.70    .018|  22.92    .009
   2.07    .000|   7.28    .011|  12.50    .332|  17.72    .018|  22.93    .009
   2.08    .000|   7.30    .011|  12.52    .298|  17.73    .018|  22.95    .009
   2.10    .000|   7.32    .011|  12.53    .281|  17.75    .018|  22.97    .009
   2.12    .000|   7.33    .011|  12.55    .266|  17.77    .018|  22.98    .009
   2.13    .000|   7.35    .011|  12.57    .260|  17.78    .018|  23.00    .009
   2.15    .000|   7.37    .011|  12.58    .256|  17.80    .018|  23.02    .009
   2.17    .000|   7.38    .011|  12.60    .253|  17.82    .018|  23.03    .009
   2.18    .000|   7.40    .011|  12.62    .240|  17.83    .018|  23.05    .009
   2.20    .000|   7.42    .011|  12.63    .225|  17.85    .018|  23.07    .009
   2.22    .000|   7.43    .011|  12.65    .214|  17.87    .018|  23.08    .009
   2.23    .000|   7.45    .011|  12.67    .206|  17.88    .018|  23.10    .009
   2.25    .000|   7.47    .011|  12.68    .200|  17.90    .018|  23.12    .009
   2.27    .000|   7.48    .011|  12.70    .196|  17.92    .018|  23.13    .009
   2.28    .000|   7.50    .011|  12.72    .191|  17.93    .018|  23.15    .009
   2.30    .000|   7.52    .011|  12.73    .188|  17.95    .018|  23.17    .009
   2.32    .000|   7.53    .011|  12.75    .178|  17.97    .018|  23.18    .009
   2.33    .000|   7.55    .011|  12.77    .173|  17.98    .018|  23.20    .009
   2.35    .000|   7.57    .011|  12.78    .170|  18.00    .018|  23.22    .009
   2.37    .000|   7.58    .011|  12.80    .167|  18.02    .018|  23.23    .009
   2.38    .000|   7.60    .011|  12.82    .162|  18.03    .018|  23.25    .009
   2.40    .000|   7.62    .011|  12.83    .149|  18.05    .018|  23.27    .009
   2.42    .000|   7.63    .012|  12.85    .142|  18.07    .018|  23.28    .009
   2.43    .000|   7.65    .012|  12.87    .138|  18.08    .018|  23.30    .009
   2.45    .000|   7.67    .012|  12.88    .135|  18.10    .018|  23.32    .009
   2.47    .000|   7.68    .012|  12.90    .133|  18.12    .018|  23.33    .009
   2.48    .000|   7.70    .012|  12.92    .130|  18.13    .018|  23.35    .009
   2.50    .000|   7.72    .012|  12.93    .129|  18.15    .018|  23.37    .009
   2.52    .000|   7.73    .012|  12.95    .126|  18.17    .018|  23.38    .009
   2.53    .000|   7.75    .012|  12.97    .118|  18.18    .018|  23.40    .009
   2.55    .000|   7.77    .012|  12.98    .115|  18.20    .018|  23.42    .009
   2.57    .000|   7.78    .012|  13.00    .113|  18.22    .018|  23.43    .009
   2.58    .000|   7.80    .012|  13.02    .111|  18.23    .018|  23.45    .009
   2.60    .000|   7.82    .012|  13.03    .108|  18.25    .018|  23.47    .009
   2.62    .000|   7.83    .012|  13.05    .104|  18.27    .018|  23.48    .009
   2.63    .000|   7.85    .012|  13.07    .100|  18.28    .018|  23.50    .009
   2.65    .000|   7.87    .012|  13.08    .097|  18.30    .018|  23.52    .009
   2.67    .000|   7.88    .012|  13.10    .095|  18.32    .018|  23.53    .009
   2.68    .000|   7.90    .012|  13.12    .093|  18.33    .018|  23.55    .009
   2.70    .000|   7.92    .012|  13.13    .091|  18.35    .018|  23.57    .009
   2.72    .000|   7.93    .012|  13.15    .090|  18.37    .018|  23.58    .009
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   2.75    .001|   7.97    .012|  13.18    .087|  18.40    .018|  23.62    .009
   2.77    .002|   7.98    .012|  13.20    .086|  18.42    .018|  23.63    .008
   2.78    .003|   8.00    .012|  13.22    .085|  18.43    .018|  23.65    .008
   2.80    .004|   8.02    .012|  13.23    .083|  18.45    .018|  23.67    .007
   2.82    .004|   8.03    .012|  13.25    .081|  18.47    .018|  23.68    .007
   2.83    .005|   8.05    .012|  13.27    .075|  18.48    .018|  23.70    .006
   2.85    .005|   8.07    .012|  13.28    .068|  18.50    .018|  23.72    .006
   2.87    .005|   8.08    .012|  13.30    .065|  18.52    .018|  23.73    .006
   2.88    .005|   8.10    .012|  13.32    .063|  18.53    .018|  23.75    .006
   2.90    .005|   8.12    .012|  13.33    .061|  18.55    .018|  23.77    .005
   2.92    .005|   8.13    .012|  13.35    .060|  18.57    .018|  23.78    .005
   2.93    .005|   8.15    .012|  13.37    .059|  18.58    .018|  23.80    .005
   2.95    .005|   8.17    .012|  13.38    .058|  18.60    .018|  23.82    .005
   2.97    .005|   8.18    .012|  13.40    .058|  18.62    .018|  23.83    .005
   2.98    .005|   8.20    .012|  13.42    .057|  18.63    .018|  23.85    .005
   3.00    .005|   8.22    .012|  13.43    .056|  18.65    .018|  23.87    .005
   3.02    .005|   8.23    .013|  13.45    .056|  18.67    .018|  23.88    .005
   3.03    .005|   8.25    .014|  13.47    .055|  18.68    .018|  23.90    .005
   3.05    .005|   8.27    .015|  13.48    .055|  18.70    .018|  23.92    .005
   3.07    .005|   8.28    .016|  13.50    .054|  18.72    .018|  23.93    .005
   3.08    .005|   8.30    .016|  13.52    .053|  18.73    .018|  23.95    .005
   3.10    .005|   8.32    .016|  13.53    .053|  18.75    .018|  23.97    .004
   3.12    .005|   8.33    .017|  13.55    .053|  18.77    .018|  23.98    .004
   3.13    .005|   8.35    .017|  13.57    .052|  18.78    .018|  24.00    .004
   3.15    .005|   8.37    .017|  13.58    .052|  18.80    .018|  24.02    .004
   3.17    .005|   8.38    .017|  13.60    .051|  18.82    .018|  24.03    .004
   3.18    .005|   8.40    .017|  13.62    .051|  18.83    .018|  24.05    .004
   3.20    .005|   8.42    .017|  13.63    .051|  18.85    .018|  24.07    .004
   3.22    .005|   8.43    .017|  13.65    .050|  18.87    .018|  24.08    .004
   3.23    .005|   8.45    .017|  13.67    .050|  18.88    .018|  24.10    .004
   3.25    .005|   8.47    .017|  13.68    .050|  18.90    .018|  24.12    .004
   3.27    .005|   8.48    .017|  13.70    .049|  18.92    .018|  24.13    .004
   3.28    .005|   8.50    .017|  13.72    .049|  18.93    .018|  24.15    .004
   3.30    .005|   8.52    .017|  13.73    .049|  18.95    .018|  24.17    .004
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   3.33    .005|   8.55    .018|  13.77    .048|  18.98    .018|  24.20    .003
   3.35    .005|   8.57    .018|  13.78    .048|  19.00    .018|  24.22    .003
   3.37    .005|   8.58    .018|  13.80    .048|  19.02    .018|  24.23    .003
   3.38    .005|   8.60    .018|  13.82    .048|  19.03    .018|  24.25    .003
   3.40    .005|   8.62    .018|  13.83    .048|  19.05    .018|  24.27    .002
   3.42    .005|   8.63    .018|  13.85    .047|  19.07    .018|  24.28    .002
   3.43    .005|   8.65    .018|  13.87    .047|  19.08    .018|  24.30    .002
   3.45    .005|   8.67    .018|  13.88    .047|  19.10    .018|  24.32    .002
   3.47    .005|   8.68    .018|  13.90    .047|  19.12    .018|  24.33    .002
   3.48    .005|   8.70    .018|  13.92    .047|  19.13    .018|  24.35    .002
   3.50    .005|   8.72    .018|  13.93    .047|  19.15    .018|  24.37    .001
   3.52    .005|   8.73    .018|  13.95    .047|  19.17    .018|  24.38    .001
   3.53    .005|   8.75    .018|  13.97    .046|  19.18    .018|  24.40    .001
   3.55    .005|   8.77    .018|  13.98    .046|  19.20    .018|  24.42    .001
   3.57    .005|   8.78    .018|  14.00    .046|  19.22    .018|  24.43    .001
   3.58    .005|   8.80    .018|  14.02    .046|  19.23    .018|  24.45    .001
   3.60    .005|   8.82    .018|  14.03    .046|  19.25    .017|  24.47    .001
   3.62    .005|   8.83    .018|  14.05    .046|  19.27    .016|  24.48    .001
   3.63    .005|   8.85    .018|  14.07    .046|  19.28    .016|  24.50    .001
   3.65    .005|   8.87    .018|  14.08    .046|  19.30    .016|  24.52    .001
   3.67    .005|   8.88    .018|  14.10    .046|  19.32    .016|  24.53    .001
   3.68    .005|   8.90    .018|  14.12    .046|  19.33    .016|  24.55    .001
   3.70    .005|   8.92    .018|  14.13    .046|  19.35    .015|  24.57    .001
   3.72    .005|   8.93    .018|  14.15    .046|  19.37    .015|  24.58    .001
   3.73    .005|   8.95    .018|  14.17    .045|  19.38    .015|  24.60    .001
   3.75    .005|   8.97    .018|  14.18    .045|  19.40    .015|  24.62    .001
   3.77    .005|   8.98    .018|  14.20    .045|  19.42    .015|  24.63    .001
   3.78    .005|   9.00    .018|  14.22    .045|  19.43    .015|  24.65    .001
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03811>    3.80    .005|   9.02    .018|  14.23    .043|  19.45    .015|  24.67    .001
03812>    3.82    .005|   9.03    .018|  14.25    .041|  19.47    .015|  24.68    .001
03813>    3.83    .005|   9.05    .018|  14.27    .039|  19.48    .015|  24.70    .001
03814>    3.85    .005|   9.07    .018|  14.28    .037|  19.50    .015|  24.72    .000
03815>    3.87    .005|   9.08    .018|  14.30    .036|  19.52    .015|  24.73    .000
03816>    3.88    .005|   9.10    .018|  14.32    .035|  19.53    .015|  24.75    .000
03817>    3.90    .005|   9.12    .018|  14.33    .035|  19.55    .015|  24.77    .000
03818>    3.92    .005|   9.13    .018|  14.35    .034|  19.57    .015|  24.78    .000
03819>    3.93    .005|   9.15    .018|  14.37    .034|  19.58    .015|  24.80    .000
03820>    3.95    .005|   9.17    .018|  14.38    .033|  19.60    .014|  24.82    .000
03821>    3.97    .005|   9.18    .018|  14.40    .033|  19.62    .014|  24.83    .000
03822>    3.98    .005|   9.20    .018|  14.42    .033|  19.63    .014|  24.85    .000
03823>    4.00    .005|   9.22    .018|  14.43    .032|  19.65    .014|  24.87    .000
03824>    4.02    .005|   9.23    .018|  14.45    .032|  19.67    .014|  24.88    .000
03825>    4.03    .005|   9.25    .018|  14.47    .032|  19.68    .014|  24.90    .000
03826>    4.05    .005|   9.27    .018|  14.48    .032|  19.70    .014|  24.92    .000
03827>    4.07    .005|   9.28    .018|  14.50    .031|  19.72    .014|  24.93    .000
03828>    4.08    .005|   9.30    .018|  14.52    .031|  19.73    .014|  24.95    .000
03829>    4.10    .005|   9.32    .018|  14.53    .031|  19.75    .014|  24.97    .000
03830>    4.12    .005|   9.33    .018|  14.55    .031|  19.77    .014|  24.98    .000
03831>    4.13    .005|   9.35    .018|  14.57    .031|  19.78    .014|  25.00    .000
03832>    4.15    .005|   9.37    .018|  14.58    .030|  19.80    .014|  25.02    .000
03833>    4.17    .005|   9.38    .018|  14.60    .030|  19.82    .014|  25.03    .000
03834>    4.18    .005|   9.40    .018|  14.62    .030|  19.83    .014|  25.05    .000
03835>    4.20    .005|   9.42    .018|  14.63    .030|  19.85    .014|  25.07    .000
03836>    4.22    .006|   9.43    .018|  14.65    .030|  19.87    .014|  25.08    .000
03837>    4.23    .006|   9.45    .018|  14.67    .029|  19.88    .014|  25.10    .000
03838>    4.25    .008|   9.47    .018|  14.68    .029|  19.90    .014|  25.12    .000
03839>    4.27    .008|   9.48    .018|  14.70    .029|  19.92    .014|  25.13    .000
03840>    4.28    .009|   9.50    .018|  14.72    .029|  19.93    .014|  25.15    .000
03841>    4.30    .010|   9.52    .018|  14.73    .029|  19.95    .014|  25.17    .000
03842>    4.32    .010|   9.53    .019|  14.75    .029|  19.97    .014|  25.18    .000
03843>    4.33    .010|   9.55    .019|  14.77    .029|  19.98    .014|  25.20    .000
03844>    4.35    .010|   9.57    .019|  14.78    .029|  20.00    .014|  25.22    .000
03845>    4.37    .010|   9.58    .019|  14.80    .028|  20.02    .014|  25.23    .000
03846>    4.38    .010|   9.60    .019|  14.82    .028|  20.03    .014|  25.25    .000
03847>    4.40    .010|   9.62    .019|  14.83    .028|  20.05    .014|  25.27    .000
03848>    4.42    .010|   9.63    .019|  14.85    .028|  20.07    .014|  25.28    .000
03849>    4.43    .011|   9.65    .019|  14.87    .028|  20.08    .014|  25.30    .000
03850>    4.45    .011|   9.67    .019|  14.88    .028|  20.10    .014|  25.32    .000
03851>    4.47    .011|   9.68    .019|  14.90    .028|  20.12    .014|  25.33    .000
03852>    4.48    .011|   9.70    .019|  14.92    .028|  20.13    .014|  25.35    .000
03853>    4.50    .011|   9.72    .019|  14.93    .028|  20.15    .014|  25.37    .000
03854>    4.52    .011|   9.73    .019|  14.95    .028|  20.17    .014|  25.38    .000
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03856>    4.55    .011|   9.77    .019|  14.98    .028|  20.20    .014|  25.42    .000
03857>    4.57    .011|   9.78    .019|  15.00    .028|  20.22    .014|  25.43    .000
03858>    4.58    .011|   9.80    .019|  15.02    .028|  20.23    .014|  25.45    .000
03859>    4.60    .011|   9.82    .019|  15.03    .028|  20.25    .014|  25.47    .000
03860>    4.62    .011|   9.83    .019|  15.05    .028|  20.27    .014|  25.48    .000
03861>    4.63    .011|   9.85    .019|  15.07    .027|  20.28    .014|  25.50    .000
03862>    4.65    .011|   9.87    .019|  15.08    .027|  20.30    .014|  25.52    .000
03863>    4.67    .011|   9.88    .019|  15.10    .027|  20.32    .014|  25.53    .000
03864>    4.68    .011|   9.90    .019|  15.12    .027|  20.33    .014|  25.55    .000
03865>    4.70    .011|   9.92    .019|  15.13    .027|  20.35    .014|  25.57    .000
03866>    4.72    .011|   9.93    .019|  15.15    .027|  20.37    .014|  25.58    .000
03867>    4.73    .011|   9.95    .019|  15.17    .027|  20.38    .014|  25.60    .000
03868>    4.75    .011|   9.97    .019|  15.18    .027|  20.40    .014|  25.62    .000
03869>    4.77    .011|   9.98    .019|  15.20    .027|  20.42    .014|  25.63    .000
03870>    4.78    .011|  10.00    .019|  15.22    .027|  20.43    .014|  25.65    .000
03871>    4.80    .011|  10.02    .019|  15.23    .027|  20.45    .014|  25.67    .000
03872>    4.82    .011|  10.03    .019|  15.25    .027|  20.47    .014|  25.68    .000
03873>    4.83    .011|  10.05    .019|  15.27    .027|  20.48    .014|  25.70    .000
03874>    4.85    .011|  10.07    .019|  15.28    .027|  20.50    .014|  25.72    .000
03875>    4.87    .011|  10.08    .019|  15.30    .027|  20.52    .014|  25.73    .000
03876>    4.88    .011|  10.10    .019|  15.32    .027|  20.53    .014|  25.75    .000
03877>    4.90    .011|  10.12    .019|  15.33    .027|  20.55    .014|  25.77    .000
03878>    4.92    .011|  10.13    .019|  15.35    .027|  20.57    .014|  25.78    .000
03879>    4.93    .011|  10.15    .019|  15.37    .027|  20.58    .014|  25.80    .000
03880>    4.95    .011|  10.17    .019|  15.38    .027|  20.60    .014|  25.82    .000
03881>    4.97    .011|  10.18    .019|  15.40    .027|  20.62    .014|  25.83    .000
03882>    4.98    .011|  10.20    .019|  15.42    .027|  20.63    .014|  25.85    .000
03883>    5.00    .011|  10.22    .020|  15.43    .027|  20.65    .014|  25.87    .000
03884>    5.02    .011|  10.23    .022|  15.45    .027|  20.67    .014|  25.88    .000
03885>    5.03    .011|  10.25    .025|  15.47    .027|  20.68    .014|  25.90    .000
03886>    5.05    .011|  10.27    .027|  15.48    .027|  20.70    .014|  25.92    .000
03887>    5.07    .011|  10.28    .029|  15.50    .027|  20.72    .014|  25.93    .000
03888>    5.08    .011|  10.30    .030|  15.52    .027|  20.73    .014|  25.95    .000
03889>    5.10    .011|  10.32    .031|  15.53    .027|  20.75    .014|  25.97    .000
03890>    5.12    .011|  10.33    .032|  15.55    .027|  20.77    .014|  25.98    .000
03891>    5.13    .011|  10.35    .032|  15.57    .027|  20.78    .014|  26.00    .000
03892>    5.15    .011|  10.37    .032|  15.58    .027|  20.80    .014|
03893>    5.17    .011|  10.38    .033|  15.60    .027|  20.82    .014|
03894>    5.18    .011|  10.40    .033|  15.62    .027|  20.83    .014|
03895>    5.20    .011|  10.42    .033|  15.63    .027|  20.85    .014|
03896> ------------------------------------------------------------------------------
03897> 001:0097-------------------------------------------------------------------------
03898> *
03899> *
03900> *
03901> *#########################
03902> *#    DRAINAGE AREA 54 ||
03903> *#                    ||
03904> *#########################
03905> *
03906> *
03907> ----------------------
03908> | CALIB STANDHYD     |   Area    (ha)=   13.08
03909> | 04:000204 DT=12.00 |   Total Imp(%)=   50.00   Dir. Conn.(%)=   29.00
03910> ----------------------
03911>                              IMPERVIOUS    PERVIOUS (i)
03912>      Surface Area     (ha)=       6.54         6.54
03913>      Dep. Storage     (mm)=        .80         1.50
03914>      Average Slope     (%)=        .20         2.00
03915>      Length            (m)=     475.00        40.00
03916>      Mannings n            =       .013         .250
03917>
03918>      Max.eff.Inten.(mm/hr)=      71.76        41.24
03919>                 over (min)       12.00        24.00
03920>      Storage Coeff.  (min)=      12.04 (ii)   22.10 (ii)
03921>      Unit Hyd. Tpeak (min)=      12.00        24.00
03922>      Unit Hyd. peak  (cms)=        .09          .05
03923>                                                          *TOTALS*
03924>      PEAK FLOW       (cms)=        .58          .52          .956 (iii)
03925>      TIME TO PEAK    (hrs)=      12.20        12.40         12.200
03926>      RUNOFF VOLUME    (mm)=      61.60        31.11         39.950
03927>      TOTAL RAINFALL   (mm)=      62.40        62.40         62.400
03928>      RUNOFF COEFFICIENT   =        .99          .50          .640
03929>
03930>        (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
03931>            CN* =  75.0    Ia = Dep. Storage  (Above)
03932>         (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
03933>              THAN THE STORAGE COEFFICIENT.
03934>       (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
03935>
03936> ------------------------------------------------------------------------------
03937> 001:0098-------------------------------------------------------------------------

03938> *
03939> *
03940> *#########################
03941> *# OSD 85 L/S/HA 30 L/S/HA
03942> *#  85*10.89 = 925.7 L/S
03943> *#  30*2.19 = 65.7 L/S
03944> *#  TOTAL = 991.4 L/S
03945> *#########################
03946> *
03947> ---------------------
03948> | ROUTE RESERVOIR   |    Requested routing time step = 12.0 min.
03949> |  IN>04:(000204)   |
03950> | OUT<05:(000471)   |    =========  OUTLFOW STORAGE TABLE  =========
03951> ---------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
03952>                            (cms)    (ha.m.)   |    (cms)    (ha.m.)
03953>                             .000  .0000E+00   |     .991  .1455E+00
03954>                             .950  .2000E-02   |     .000  .0000E+00
03955>
03956>      ROUTING RESULTS            AREA     QPEAK     TPEAK       R.V.
03957>      ---------------------       (ha)     (cms)     (hrs)       (mm)
03958>      INFLOW >04: (000204)      13.08      .956    12.200     39.950
03959>      OUTFLOW<05: (000471)      13.08      .935    12.200     39.950
03960>
03961>                    PEAK   FLOW   REDUCTION [Qout/Qin](%)=   97.792
03962>                    TIME SHIFT OF PEAK FLOW         (min)=      .00
03963>                    MAXIMUM  STORAGE   USED       (ha.m.)=.2727E-02
03964>
03965> ------------------------------------------------------------------------------
03966> 001:0099-------------------------------------------------------------------------
03967> *
03968> *# ADD AREA 52 AND 54
03969> *
03970> ------------------------
03971> | ADD HYD (       463) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
03972> ------------------------                  (ha)     (cms)   (hrs)   (mm)   (cms)
03973>                          ID1 03:       217    6.17     .466   12.22  44.64    .000
03974>                         +ID2 05:       471    13.08     .935   12.20  39.95    .000
03975>                          ============================================================
03976>                          SUM 09:       463    19.25    1.400   12.20  41.45    .000
03977>
03978>    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
03979>
03980> ------------------------------------------------------------------------------
03981> 001:0100-------------------------------------------------------------------------
03982> *
03983> *# MH 107
03984> *
03985> *# ADD TO REST
03986> *
03987> ------------------------
03988> | ADD HYD (       463) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
03989> ------------------------                  (ha)     (cms)   (hrs)   (mm)   (cms)
03990>                          ID1 09:       463    19.25    1.400   12.20  41.45    .000
03991>                         +ID2 08:       584    41.02    3.191   12.22  43.67    .000
03992>                          ============================================================
03993>                          SUM 05:       463    60.27    4.589   12.20  42.96    .000
03994>
03995>    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
03996>
03997> ------------------------------------------------------------------------------
03998> 001:0101-------------------------------------------------------------------------
03999> *
04000> *
04001> *#########################
04002> *#    DRAINAGE AREA 55 ||
04003> *#                    ||
04004> *#########################
04005> *
04006> *
04007> ----------------------
04008> | CALIB STANDHYD     |   Area    (ha)=   15.69
04009> | 01:000204 DT=12.00 |   Total Imp(%)=   60.00   Dir. Conn.(%)=   37.00
04010> ----------------------
04011>                              IMPERVIOUS    PERVIOUS (i)
04012>      Surface Area     (ha)=       9.41         6.28
04013>      Dep. Storage     (mm)=        .80         1.50
04014>      Average Slope     (%)=        .20         2.00
04015>      Length            (m)=     530.00        40.00
04016>      Mannings n            =       .013         .250
04017>
04018>      Max.eff.Inten.(mm/hr)=      71.76        48.35
04019>                 over (min)       12.00        24.00
04020>      Storage Coeff.  (min)=      12.86 (ii)   22.30 (ii)
04021>      Unit Hyd. Tpeak (min)=      12.00        24.00
04022>      Unit Hyd. peak  (cms)=        .09          .05
04023>                                                          *TOTALS*
04024>      PEAK FLOW       (cms)=        .86          .58         1.288 (iii)
04025>      TIME TO PEAK    (hrs)=      12.20        12.40         12.200
04026>      RUNOFF VOLUME    (mm)=      61.60        32.77         43.440
04027>      TOTAL RAINFALL   (mm)=      62.40        62.40         62.400
04028>      RUNOFF COEFFICIENT   =        .99          .53          .696
04029>
04030>        (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
04031>            CN* =  75.0    Ia = Dep. Storage  (Above)
04032>         (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
04033>              THAN THE STORAGE COEFFICIENT.
04034>       (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
04035>
04036> ------------------------------------------------------------------------------
04037> 001:0102-------------------------------------------------------------------------
04038> *
04039> *
04040> *#########################
04041> *# OSD 85 L/S/HA
04042> *#  85*15.69 = 1334 L/S
04043> *#########################
04044> *
04045> ---------------------
04046> | ROUTE RESERVOIR   |    Requested routing time step = 12.0 min.
04047> |  IN>01:(000204)   |
04048> | OUT<09:(000471)   |    =========  OUTLFOW STORAGE TABLE  =========
04049> ---------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
04050>                            (cms)    (ha.m.)   |    (cms)    (ha.m.)
04051>                             .000  .0000E+00   |    1.334  .1825E+00
04052>                            1.300  .2000E-02   |     .000  .0000E+00
04053>
04054>      ROUTING RESULTS            AREA     QPEAK     TPEAK       R.V.
04055>      ---------------------       (ha)     (cms)     (hrs)       (mm)
04056>      INFLOW >01: (000204)      15.69     1.288    12.200     43.440
04057>      OUTFLOW<09: (000471)      15.69     1.267    12.200     43.440
04058>
04059>                    PEAK   FLOW   REDUCTION [Qout/Qin](%)=   98.407
04060>                    TIME SHIFT OF PEAK FLOW         (min)=      .00
04061>                    MAXIMUM  STORAGE   USED       (ha.m.)=.2688E-02
04062>
04063> ------------------------------------------------------------------------------
04064> 001:0103-------------------------------------------------------------------------
```

```
04065> *
04066> *# MH 105
04067> *
04068> *# TRUNK 2
04069> *
04070> ------------------------
04071> | ADD HYD (       874) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
04072> ------------------------                  (ha)     (cms)   (hrs)   (mm)   (cms)
04073>                       ID1 09:       471    15.69    1.267   12.20  43.44    .000
04074>                      +ID2 05:       463    60.27    4.589   12.20  42.96    .000
04075>                       ========================================================
04076>                       SUM 04:       874    75.96    5.856   12.20  43.06    .000
04077>
04078>    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
04079>
04080> ------------------------------------------------------------------------------
04081> 001:0104-------------------------------------------------------------------------
04082> *
04083> *
04084> --------------------
04085> | SAVE HYD        |   AREA       (ha)=   75.960
04086> | ID=04 (000874)  |   QPEAK     (cms)=    5.856 (i)
04087> | DT= 1.00 PCYC=-1 |   TPEAK     (hrs)=   12.200
04088> --------------------   VOLUME      (mm)=   43.061
04089>   Filename: C:\SWMHYMO\111083\2018-0~1\104.031
04090>   Comments: 104-24SCS5
04091>
04092>     (i)  PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
04093> ------------------------------------------------------------------------------
04094> 001:0105-------------------------------------------------------------------------
04095> *
04096> *
04097> *
04098> *#################################
04099> *#  ADD TWO TRUNKS
04100> *#################################
04101> *
04102> ------------------------
04103> | ADD HYD (       562) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
04104> ------------------------                  (ha)     (cms)   (hrs)   (mm)   (cms)
04105>                       ID1 04:       874    75.96    5.856   12.20  43.06    .000
04106>                      +ID2 06:       450    72.56    5.400   12.20  42.24    .000
04107>                       ========================================================
04108>                       SUM 09:       562   148.52   11.256   12.20  42.66    .000
04109>
04110>    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
04111>
04112> ------------------------------------------------------------------------------
04113> 001:0106-------------------------------------------------------------------------
04114> *
04115> *
04116> *
04117> *#######################################################
04118> *# ISGAR LANDS (EAST AND WEST OF AVALON SOUTH POND)
04119> *#######################################################
04120> *
04121> *# ISGAR LANDS - AREA I1
04122> *# NEW WESTERN INLET
04123> *
04124> ----------------------
04125> | CALIB STANDHYD    |   Area    (ha)=    8.35
04126> | 01:I1     DT=12.00 |   Total Imp(%)=   60.00   Dir. Conn.(%)=   45.00
04127> ----------------------
04128>                              IMPERVIOUS    PERVIOUS (i)
04129>      Surface Area     (ha)=       5.01         3.34
04130>      Dep. Storage     (mm)=        .80         1.50
04131>      Average Slope     (%)=        .20         2.00
04132>      Length            (m)=     357.00        40.00
04133>      Mannings n             =      .013         .250
04134>
04135>      Max.eff.Inten.(mm/hr)=      71.76        39.22
04136>                   over (min)       12.00        24.00
04137>      Storage Coeff.  (min)=      10.15 (ii)   20.41 (ii)
04138>      Unit Hyd. Tpeak (min)=      12.00        24.00
04139>      Unit Hyd. peak  (cms)=        .10          .05
04140>                                                          *TOTALS*
04141>      PEAK FLOW       (cms)=        .61          .26          .799 (iii)
04142>      TIME TO PEAK    (hrs)=      12.20        12.40         12.200
04143>      RUNOFF VOLUME    (mm)=      61.60        30.59         44.543
04144>      TOTAL RAINFALL   (mm)=      62.40        62.40         62.400
04145>      RUNOFF COEFFICIENT   =        .99          .49           .714
04146>       *** WARNING: Storage Coefficient is smaller than DT!
04147>                    Use a smaller DT or a larger area.
04148>
04149>       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
04150>           CN* =  75.0    Ia = Dep. Storage  (Above)
04151>      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
04152>           THAN THE STORAGE COEFFICIENT.
04153>     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
04154>
04155> ------------------------------------------------------------------------------
04156> 001:0107-------------------------------------------------------------------------
04157> *
04158> *
04159> *#########################
04160> *# INFLOW 200 l/s/ha = 8.35 x 200 = 1670 l/s
04161> *# ON-SITE STORAGE (30% LESS THAN AVALON WEST) - 75.60 m3/ha = 631.3 M3
04162> *#########################
04163> *
04164> --------------------
04165> | ROUTE RESERVOIR   |    Requested routing time step =  1.0 min.
04166> |  IN>01:(I1    )   |
04167> | OUT<04:(I1    )   |    =========  OUTLFOW STORAGE TABLE  =========
04168> --------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
04169>                           (cms)    (ha.m.)   |    (cms)    (ha.m.)
04170>                            .000  .0000E+00   |    1.670  .6313E-01
04171>                           1.660  .2000E-02   |     .000  .0000E+00
04172>
04173>      ROUTING RESULTS            AREA     QPEAK     TPEAK       R.V.
04174>      --------------------       (ha)     (cms)     (hrs)       (mm)
04175>      INFLOW >01: (I1    )       8.35      .799    12.200     44.543
04176>      OUTFLOW<04: (I1    )       8.35      .791    12.200     44.543
04177>     OVERFLOW<06: (000487)        .00      .000      .000       .000
04178>
04179>                    TOTAL NUMBER OF SIMULATED OVERFLOWS  =        0
04180>                    CUMULATIVE TIME OF OVERFLOWS  (hours)=      .00
04181>                    PERCENTAGE OF TIME OVERFLOWING    (%)=      .00
04182>
04183>
04184>                    PEAK   FLOW   REDUCTION [Qout/Qin](%)=   99.091
04185>                    TIME SHIFT OF PEAK FLOW         (min)=      .00
04186>                    MAXIMUM  STORAGE   USED       (ha.m.)=.9754E-03
04187>
04188> ------------------------------------------------------------------------------
04189> 001:0108-------------------------------------------------------------------------
04190> *
04191> *# TOTAL (MINOR AND MAJOR FLOW) FROM I1 TO POND
04192> *
04193> ------------------------
04194> | ADD HYD (       784) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
04195> ------------------------                  (ha)     (cms)   (hrs)   (mm)   (cms)
04196>                       ID1 04:I1            8.35     .791   12.20  44.54    .000
04197>                      +ID2 06:       487      .00     .000     .00    .00    .000
04198>                       ========================================================
04199>                       SUM 07:       784     8.35     .791   12.20  44.54    .000
04200>
04201>    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
04202>
04203> ------------------------------------------------------------------------------
04204> 001:0109-------------------------------------------------------------------------
04205> *
04206> *
04207> *#############################################################
04208> *# MAJOR OVERLAND FLOW FROM AREAS EAST OF PORTOBELLO TO FACILITY
04209> *# FORMERLY AREAS 51 AND 52 (26.06 HA TOTAL AREA)
04210> *# TO BE CAPTURED BY MINOR SYSTEM STORM SEWERS IN EASTERN ISGAR
04211> *#############################################################
04212> *
04213> *
04214>       *** NOTE: The hydrograph which was read is dry.
04215> --------------------
04216> | READ HYD        |   AREA       (ha)=     .000
04217> | ID=05 (005152)  |   QPEAK     (cms)=     .000
04218> | DT= 1.00 PCYC= 1 |   TPEAK     (hrs)=     .000
04219> --------------------   VOLUME      (mm)=     .000
04220>   Filename: C:\SWMHYMO\111083\2018-0~1\H-MAJout.031
04221>   Comments: Major System Outflow from Portobello Blvd
04222>
04223> ------------------------------------------------------------------------------
04224> 001:0110-------------------------------------------------------------------------
04225> *
04226> *
04227> *
04228> *# ISGAR LANDS - AREA I2
04229> *# NEW EASTERN INLET
04230> *
04231> ----------------------
04232> | CALIB STANDHYD     |   Area    (ha)=   12.02
04233> | 06:I2     DT=12.00 |   Total Imp(%)=   65.00   Dir. Conn.(%)=   51.00
04234> ----------------------
04235>                              IMPERVIOUS    PERVIOUS (i)
04236>      Surface Area     (ha)=       7.81         4.21
04237>      Dep. Storage     (mm)=        .80         1.50
04238>      Average Slope     (%)=        .20         2.00
04239>      Length            (m)=     479.00        40.00
04240>      Mannings n             =      .013         .250
04241>
04242>      Max.eff.Inten.(mm/hr)=      71.76        40.34
04243>                   over (min)       12.00        24.00
04244>      Storage Coeff.  (min)=      12.10 (ii)   22.25 (ii)
04245>      Unit Hyd. Tpeak (min)=      12.00        24.00
04246>      Unit Hyd. peak  (cms)=        .09          .05
04247>                                                          *TOTALS*
04248>      PEAK FLOW       (cms)=        .93          .33          1.170 (iii)
04249>      TIME TO PEAK    (hrs)=      12.20        12.40         12.200
04250>      RUNOFF VOLUME    (mm)=      61.60        30.88         46.546
04251>      TOTAL RAINFALL   (mm)=      62.40        62.40         62.400
04252>      RUNOFF COEFFICIENT   =        .99          .49           .746
04253>
04254>       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
04255>           CN* =  75.0    Ia = Dep. Storage  (Above)
04256>      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
04257>           THAN THE STORAGE COEFFICIENT.
04258>     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
04259>
04260> ------------------------------------------------------------------------------
04261> 001:0111-------------------------------------------------------------------------
04262> *
04263> *
04264> *
04265> *#########################
04266> *# INFLOW 200 L/S/HA - 12.02 X 200 = 2404 L/S
04267> *# ON-SITE STORAGE (30% LESS THAN AVALON WEST) - 84.90 m3/ha = 1020.5 M3
04268> *#########################
04269> *
04270> --------------------
04271> | ROUTE RESERVOIR   |    Requested routing time step =  1.0 min.
04272> |  IN>06:(I2    )   |
04273> | OUT<04:(I2    )   |    =========  OUTLFOW STORAGE TABLE  =========
04274> --------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
04275>                           (cms)    (ha.m.)   |    (cms)    (ha.m.)
04276>                            .000  .0000E+00   |    2.404  .1020E+00
04277>                           2.390  .2000E-02   |     .000  .0000E+00
04278>
04279>      ROUTING RESULTS            AREA     QPEAK     TPEAK       R.V.
04280>      --------------------       (ha)     (cms)     (hrs)       (mm)
04281>      INFLOW >06: (I2    )      12.02     1.170    12.200     46.546
04282>      OUTFLOW<04: (I2    )      12.02     1.162    12.200     46.546
04283>     OVERFLOW<08: (000487)        .00      .000      .000       .000
04284>
04285>                    TOTAL NUMBER OF SIMULATED OVERFLOWS  =        0
04286>                    CUMULATIVE TIME OF OVERFLOWS  (hours)=      .00
04287>                    PERCENTAGE OF TIME OVERFLOWING    (%)=      .00
04288>
04289>
04290>                    PEAK   FLOW   REDUCTION [Qout/Qin](%)=   99.372
04291>                    TIME SHIFT OF PEAK FLOW         (min)=      .00
04292>                    MAXIMUM  STORAGE   USED       (ha.m.)=.9946E-03
04293>
04294> ------------------------------------------------------------------------------
04295> 001:0112-------------------------------------------------------------------------
04296> *
04297> *# TOTAL MINOR FLOW (MAJOR FLOW PORTOBELLO AND I2)
04298> *
04299> ------------------------
04300> | ADD HYD (       845) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
04301> ------------------------                  (ha)     (cms)   (hrs)   (mm)   (cms)
04302>                       ID1 04:I2           12.02    1.162   12.20  46.55    .000
04303>                      +ID2 05:      5152     .00     .000     .00    .00    .000
04304>                       ========================================================
04305>                       SUM 06:       845    12.02    1.162   12.20  46.55    .000
04306>
04307>    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
04308>
04309> ------------------------------------------------------------------------------
04310> 001:0113-------------------------------------------------------------------------
04311> *
04312> *# ISGAR LANDS - AREA I3
04313> *# NEW EASTERN INLET
04314> *
04315> ----------------------
04316> | CALIB STANDHYD     |   Area    (ha)=    7.64
04317> | 01:I3     DT=12.00 |   Total Imp(%)=   49.00   Dir. Conn.(%)=   30.00
04318> ----------------------
```

```
                              IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=        3.74         3.90
     Dep. Storage     (mm)=         .80         1.50
     Average Slope     (%)=         .20         2.00
     Length            (m)=      292.00        40.00
     Mannings n           =        .013         .250

     Max.eff.Inten.(mm/hr)=       71.76        39.11
                  over (min)      12.00        24.00
     Storage Coeff.  (min)=        8.99 (ii)   19.27 (ii)
     Unit Hyd. Tpeak (min)=       12.00        24.00
     Unit Hyd. peak  (cms)=         .10          .05
                                                          *TOTALS*
     PEAK FLOW       (cms)=         .38          .31          .613 (iii)
     TIME TO PEAK    (hrs)=       12.20        12.40        12.200
     RUNOFF VOLUME    (mm)=       61.60        30.56        39.871
     TOTAL RAINFALL   (mm)=       62.40        62.40        62.400
     RUNOFF COEFFICIENT   =         .99          .49          .639
      *** WARNING: Storage Coefficient is smaller than DT!
                  Use a smaller DT or a larger area.

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN* =  75.0    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

--------------------------------------------------------------------------------
001:0114--------------------------------------------------------------------------
*
*
*# MAJOR FLOW FROM I3
*
----------------------
| ADD HYD (       784) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
----------------------                    (ha)     (cms)   (hrs)   (mm)   (cms)
                      ID1 01:I3            7.64      .613   12.20  39.87    .000
                     +ID2 08:       487      .00      .000     .00    .00    .000
                      ==========================================================
                      SUM 05:       784     7.64      .613   12.20  39.87    .000

   NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

--------------------------------------------------------------------------------
001:0115--------------------------------------------------------------------------
*
*#=========================
*# INFLOW 200 L/S/HA - 7.64 X 200 = 1528 L/S
*# ON-SITE STORAGE (30% LESS THAN AVALON WEST) - 108.55 m3/ha = 829.3 M3
*#=========================
*
---------------------
| ROUTE RESERVOIR   |    Requested routing time step =  1.0 min.
|  IN>05:(000784)   |
| OUT<03:(I3    )   |    =========  OUTLFOW STORAGE TABLE  =========
--------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
                          (cms)    (ha.m.)   |    (cms)    (ha.m.)
                            .000  .0000E+00   |    1.528  .8293E-01
                           1.510  .2000E-02   |     .000  .0000E+00

     ROUTING RESULTS           AREA     QPEAK     TPEAK       R.V.
     ---------------           (ha)     (cms)     (hrs)       (mm)
     INFLOW >05: (000784)      7.64      .613    12.200     39.872
     OUTFLOW<03: (I3    )      7.64      .607    12.217     39.872
    OVERFLOW<01: (000487)       .00      .000      .000       .000

                  TOTAL NUMBER OF SIMULATED OVERFLOWS  =        0
                  CUMULATIVE TIME OF OVERFLOWS  (hours)=      .00
                  PERCENTAGE OF TIME OVERFLOWING    (%)=      .00


                  PEAK   FLOW   REDUCTION [Qout/Qin](%)=   99.077
                  TIME SHIFT OF PEAK FLOW        (min)=     1.00
                  MAXIMUM  STORAGE   USED       (ha.m.)=.8223E-03

--------------------------------------------------------------------------------
001:0116--------------------------------------------------------------------------
*
*# TOTAL MINOR SYSTEM FLOW FROM MAJOR PORTOBELLO, I2 AND I3 (NEW EASTERN INLET)
*
----------------------
| ADD HYD (       784) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
----------------------                    (ha)     (cms)   (hrs)   (mm)   (cms)
                      ID1 06:       845    12.02    1.162   12.20  46.55    .000
                     +ID2 03:I3           7.64      .607   12.22  39.87    .000
                      ==========================================================
                      SUM 05:       784    19.66    1.769   12.20  43.95    .000

   NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

--------------------------------------------------------------------------------
001:0117--------------------------------------------------------------------------
*
*# TOTAL FLOW FROM I2 AND I3 INTO POND VIA NEW EASTERN INLET TO POND(INCLUDES MA
*
----------------------
| ADD HYD (       784) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
----------------------                    (ha)     (cms)   (hrs)   (mm)   (cms)
                      ID1 01:       487      .00      .000     .00    .00    .000
                     +ID2 05:       784    19.66    1.769   12.20  43.95    .000
                      ==========================================================
                      SUM 08:       784    19.66    1.769   12.20  43.95    .000

   NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

--------------------------------------------------------------------------------
001:0118--------------------------------------------------------------------------
*
*
*
*#=======================
*#    DRAINAGE AREA 60 ||
*#    SWM AREA         ||
*#=======================
*
*
----------------------
| CALIB NASHYD       |   Area    (ha)=   12.50   Curve Number   (CN)=95.00
| 01:000100 DT= 6.00 |   Ia      (mm)=    1.500  # of Linear Res.(N)= 3.00
----------------------   U.H. Tp(hrs)=     .250

     Unit Hyd Qpeak  (cms)=    1.910

     PEAK FLOW       (cms)=    1.349 (i)
     TIME TO PEAK    (hrs)=   12.300
     RUNOFF VOLUME    (mm)=   49.938
     TOTAL RAINFALL   (mm)=   62.400
     RUNOFF COEFFICIENT   =     .800

     (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

--------------------------------------------------------------------------------
001:0119--------------------------------------------------------------------------
*
*# ADD TOTAL FLOW FROM ISGAR LANDS (I1, I2 AND I3 PLUS MAJOR PORTOBELLO) TO POND
*
------------------------
| ADD HYD (       784) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
------------------------                  (ha)     (cms)   (hrs)   (mm)   (cms)
                       ID1 01:       100    12.50    1.349   12.30  49.94    .000
                      +ID2 08:       784    19.66    1.769   12.20  43.95    .000
                      +ID3 07:       784     8.35     .791   12.20  44.54    .000
                       ========================================================
                       SUM 06:       784    40.51    3.783   12.22  45.92    .000

   NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

--------------------------------------------------------------------------------
001:0120--------------------------------------------------------------------------
*
*# MH SWMF
*
--------------------
| SAVE HYD          |   AREA       (ha)=   40.510
| ID=06 (000784)    |   QPEAK     (cms)=    3.783 (i)
| DT= 1.00 PCYC=-1  |   TPEAK     (hrs)=   12.217
--------------------   VOLUME      (mm)=   45.921
  Filename: C:\SWMHYMO\111083\2018-0~1\POND.031
  Comments: POND-24SCS5

     (i)  PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

--------------------------------------------------------------------------------
001:0121--------------------------------------------------------------------------
*
*#================================
*#  ADD POND AREA TO EXISTING EAST AND WEST TRUNKS
*#================================
*
------------------------
| ADD HYD (       562) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
------------------------                  (ha)     (cms)   (hrs)   (mm)   (cms)
                       ID1 06:       784    40.51    3.783   12.22  45.92    .000
                      +ID2 09:       562   148.52   11.256   12.20  42.66    .000
                       ========================================================
                       SUM 04:       562   189.03   15.034   12.20  43.36    .000

   NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

--------------------------------------------------------------------------------
001:0122--------------------------------------------------------------------------
*
*
*#=========================================
*#     NEIGHBOURHOOD 4  SWM FACILITY       ||
*#       OUTLET PIPE TO POINT B            ||
*#       OUTLET PIPE  1200 DIA             ||
*#=========================================
*
*# NOTE:  XPSWMM USED FOR ROUTING THE SWM FACILITY
*
----------------------
| ROUTE RESERVOIR   |    Requested routing time step =  1.0 min.
|  IN>04:(000562)   |
| OUT<02:(000471)   |    =========  OUTLFOW STORAGE TABLE  =========
----------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
                            (cms)    (ha.m.)   |    (cms)    (ha.m.)
                              .000  .0000E+00   |     .930  .4960E+01
                              .350  .2300E+01   |    1.520  .8710E+01
                              .650  .3740E+01   |    1.700  .1129E+02

     ROUTING RESULTS            AREA     QPEAK     TPEAK       R.V.
     ---------------            (ha)     (cms)     (hrs)       (mm)
     INFLOW >04: (000562)     189.03    15.034    12.200     43.360
     OUTFLOW<02: (000471)     189.03     1.002    14.533     43.359

                   PEAK   FLOW   REDUCTION [Qout/Qin](%)=    6.665
                   TIME SHIFT OF PEAK FLOW        (min)=   140.00
                   MAXIMUM  STORAGE   USED       (ha.m.)=.5418E+01

--------------------------------------------------------------------------------
001:0123--------------------------------------------------------------------------
*
--------------------
| SAVE HYD          |   AREA       (ha)=  189.030
| ID=02 (000471)    |   QPEAK     (cms)=    1.002 (i)
| DT= 1.00 PCYC=-1  |   TPEAK     (hrs)=   14.533
--------------------   VOLUME      (mm)=   43.359
  Filename: C:\SWMHYMO\111083\2018-0~1\ISGAR.031
  Comments: ISGAR-24SCS5

     (i)  PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

--------------------------------------------------------------------------------
001:0124--------------------------------------------------------------------------
*
*
*
*
*
*
*
*
*
*
*
*
*
*
*
*#=========================================================
*#   100 YEAR 24 HOUR SCS TYPE II STORM (103.2 MM)
*#   (12 MIN TIME STEP)
*#=========================================================
*
*
--------------------
| READ STORM       |    Filename: 100 YEAR 24 HOUR SCS TYPE II STORM (103.
| Ptotal= 103.20 mm|    Comments: 100 YEAR 24 HOUR SCS TYPE II STORM (103.
--------------------
               TIME    RAIN |   TIME    RAIN |   TIME    RAIN |   TIME    RAIN
                hrs   mm/hr |    hrs   mm/hr |    hrs   mm/hr |    hrs   mm/hr
                .20    .000 |   6.40   2.064 |  12.60  12.900 |  18.80   2.064
                .40   1.032 |   6.60   2.064 |  12.80   9.288 |  19.00   2.064
                .60   1.032 |   6.80   2.064 |  13.00   8.772 |  19.20   2.064
                .80   1.032 |   7.00   2.064 |  13.20   6.192 |  19.40   1.548
               1.00   1.032 |   7.20   2.064 |  13.40   5.160 |  19.60   1.548
               1.20   1.032 |   7.40   2.064 |  13.60   5.160 |  19.80   1.548
               1.40   1.032 |   7.60   2.064 |  13.80   5.160 |  20.00   1.548
```

```
04573>              1.60   1.032 |   7.80   2.064 |  14.00   5.160 |  20.20   1.548
04574>              1.80   1.032 |   8.00   2.064 |  14.20   5.160 |  20.40   1.548
04575>              2.00   1.032 |   8.20   2.064 |  14.40   3.096 |  20.60   1.548
04576>              2.20   1.032 |   8.40   3.096 |  14.60   3.096 |  20.80   1.548
04577>              2.40   1.032 |   8.60   3.096 |  14.80   3.096 |  21.00   1.548
04578>              2.60   1.032 |   8.80   3.096 |  15.00   3.096 |  21.20   1.548
04579>              2.80   1.032 |   9.00   3.096 |  15.20   3.096 |  21.40   1.032
04580>              3.00   1.032 |   9.20   3.096 |  15.40   3.096 |  21.60   1.032
04581>              3.20   1.032 |   9.40   3.096 |  15.60   3.096 |  21.80   1.032
04582>              3.40   1.032 |   9.60   3.096 |  15.80   3.096 |  22.00   1.032
04583>              3.60   1.032 |   9.80   3.096 |  16.00   3.096 |  22.20   1.032
04584>              3.80   1.032 |  10.00   3.096 |  16.20   3.096 |  22.40   1.032
04585>              4.00   1.032 |  10.20   3.096 |  16.40   2.064 |  22.60   1.032
04586>              4.20   1.032 |  10.40   5.676 |  16.60   2.064 |  22.80   1.032
04587>              4.40   2.064 |  10.60   5.676 |  16.80   2.064 |  23.00   1.032
04588>              4.60   2.064 |  10.80   5.676 |  17.00   2.064 |  23.20   1.032
04589>              4.80   2.064 |  11.00   5.676 |  17.20   2.064 |  23.40   1.032
04590>              5.00   2.064 |  11.20   5.676 |  17.40   2.064 |  23.60   1.032
04591>              5.20   2.064 |  11.40   7.740 |  17.60   2.064 |  23.80    .361
04592>              5.40   2.064 |  11.60  11.352 |  17.80   2.064 |  24.00    .361
04593>              5.60   2.064 |  11.80  25.800 |  18.00   2.064 |  24.20    .310
04594>              5.80   2.064 |  12.00  56.760 |  18.20   2.064 |
04595>              6.00   2.064 |  12.20 118.680 |  18.40   2.064 |
04596>              6.20   2.064 |  12.40  20.640 |  18.60   2.064 |
04597>
04598> --------------------------------------------------------------------------------
04599> 001:0125-------------------------------------------------------------------------
04600> *
04601> *
04602> *#=========================================
04603> *#     NEIGHBOURHOOD 4                   ||
04604> *#=========================================
04605> *
04606> *#=======================
04607> *#   DRAINAGE AREA 40  ||
04608> *#                     ||
04609> *#=======================
04610> *
04611> ---------------------
04612> | CALIB STANDHYD     |   Area    (ha)=   11.73
04613> | 06:000204 DT=12.00 |   Total Imp(%)=   54.00   Dir. Conn.(%)=   32.00
04614> ---------------------
04615>                             IMPERVIOUS    PERVIOUS (i)
04616>      Surface Area     (ha)=       6.33         5.40
04617>      Dep. Storage     (mm)=        .80         1.50
04618>      Average Slope     (%)=        .20         2.00
04619>      Length            (m)=     414.00        40.00
04620>      Mannings n           =       .013         .250
04621>
04622>      Max.eff.Inten.(mm/hr)=     118.68       129.63
04623>                   over (min)       12.00        12.00
04624>      Storage Coeff.  (min)=        9.07 (ii)   15.43 (ii)
04625>      Unit Hyd. Tpeak (min)=       12.00        12.00
04626>      Unit Hyd. peak  (cms)=         .10          .08
04627>                                                          *TOTALS*
04628>      PEAK FLOW       (cms)=        1.04         1.30         2.336 (iii)
04629>      TIME TO PEAK    (hrs)=       12.20        12.20        12.200
04630>      RUNOFF VOLUME    (mm)=      102.40        65.48        77.296
04631>      TOTAL RAINFALL   (mm)=      103.20       103.20       103.200
04632>      RUNOFF COEFFICIENT   =         .99          .63          .749
04633>       *** WARNING: Storage Coefficient is smaller than DT!
04634>                    Use a smaller DT or a larger area.
04635>
04636>        (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
04637>            CN* =  75.0    Ia = Dep. Storage  (Above)
04638>       (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
04639>            THAN THE STORAGE COEFFICIENT.
04640>      (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
04641>
04642> --------------------------------------------------------------------------------
04643> 001:0126-------------------------------------------------------------------------
04644> *
04645> *
04646> *#================================
04647> *# OSD 85 L/S/HA PARKS 30 L/S/HA
04648> *#  85*10.71 = 910.4 L/S
04649> *#  30*1.02 = 30.6 L/S
04650> *#  TOTAL = 941 L/S
04651> *#================================
04652> *
04653> ---------------------
04654> | ROUTE RESERVOIR   |    Requested routing time step = 12.0 min.
04655> |  IN>06:(000204)   |
04656> | OUT<09:(000471)   |    =========  OUTLFOW STORAGE TABLE  =========
04657> ---------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
04658>                            (cms)    (ha.m.)   |    (cms)    (ha.m.)
04659>                             .000  .0000E+00   |     .941  .1368E+00
04660>                             .900  .2000E-02   |     .000  .0000E+00
04661>
04662>      ROUTING RESULTS            AREA     QPEAK     TPEAK       R.V.
04663>      ---------------------       (ha)     (cms)     (hrs)       (mm)
04664>      INFLOW >06: (000204)      11.73     2.336    12.200     77.296
04665>      OUTFLOW<09: (000471)      11.73      .937    12.600     77.429
04666>
04667>                      PEAK   FLOW   REDUCTION [Qout/Qin](%)=   40.134
04668>                      TIME SHIFT OF PEAK FLOW         (min)=    24.00
04669>                      MAXIMUM  STORAGE   USED       (ha.m.)=.1336E+00
04670>
04671> --------------------------------------------------------------------------------
04672> 001:0127-------------------------------------------------------------------------
04673> *
04674> *# MH 505
04675> *
04676> *#=======================
04677> *#   DRAINAGE AREA 41  ||
04678> *#=======================
04679> *
04680> *
04681> ---------------------
04682> | CALIB STANDHYD     |   Area    (ha)=    9.06
04683> | 05:000204 DT=12.00 |   Total Imp(%)=   58.00   Dir. Conn.(%)=   35.00
04684> ---------------------
04685>                             IMPERVIOUS    PERVIOUS (i)
04686>      Surface Area     (ha)=       5.25         3.81
04687>      Dep. Storage     (mm)=        .80         1.50
04688>      Average Slope     (%)=        .20         2.00
04689>      Length            (m)=     452.00        40.00
04690>      Mannings n           =       .013         .250
04691>
04692>      Max.eff.Inten.(mm/hr)=     118.68       137.86
04693>                   over (min)       12.00        12.00
04694>      Storage Coeff.  (min)=        9.56 (ii)   15.76 (ii)
04695>      Unit Hyd. Tpeak (min)=       12.00        12.00
04696>      Unit Hyd. peak  (cms)=         .10          .08
04697>                                                          *TOTALS*
04698>      PEAK FLOW       (cms)=         .86          .96         1.828 (iii)
04699>      TIME TO PEAK    (hrs)=       12.20        12.20        12.200
04700>      RUNOFF VOLUME    (mm)=      102.40        66.59        79.126
04701>      TOTAL RAINFALL   (mm)=      103.20       103.20       103.200
04702>      RUNOFF COEFFICIENT   =         .99          .65          .767
04703>       *** WARNING: Storage Coefficient is smaller than DT!
04704>                    Use a smaller DT or a larger area.
04705>
04706>        (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
04707>            CN* =  75.0    Ia = Dep. Storage  (Above)
04708>       (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
04709>            THAN THE STORAGE COEFFICIENT.
04710>      (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
04711>
04712> --------------------------------------------------------------------------------
04713> 001:0128-------------------------------------------------------------------------
04714> *
04715> *#=========================
04716> *# OSD 85 L/S/HA
04717> *#  85*9.06 = 770.1 L/S
04718> *#=========================
04719> *
04720> ---------------------
04721> | ROUTE RESERVOIR   |    Requested routing time step = 12.0 min.
04722> |  IN>05:(000204)   |
04723> | OUT<07:(000471)   |    =========  OUTLFOW STORAGE TABLE  =========
04724> ---------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
04725>                            (cms)    (ha.m.)   |    (cms)    (ha.m.)
04726>                             .000  .0000E+00   |     .770  .1072E+00
04727>                             .700  .2000E-02   |     .000  .0000E+00
04728>
04729>      ROUTING RESULTS            AREA     QPEAK     TPEAK       R.V.
04730>      ---------------------       (ha)     (cms)     (hrs)       (mm)
04731>      INFLOW >05: (000204)       9.06     1.828    12.200     79.126
04732>      OUTFLOW<07: (000471)       9.06      .763    12.600     79.702
04733>
04734>                      PEAK   FLOW   REDUCTION [Qout/Qin](%)=   41.716
04735>                      TIME SHIFT OF PEAK FLOW         (min)=    24.00
04736>                      MAXIMUM  STORAGE   USED       (ha.m.)=.1032E+00
04737>
04738>       *** WARNING: Outflow volume is less than inflow volume.
04739> --------------------------------------------------------------------------------
04740> 001:0129-------------------------------------------------------------------------
04741> *
04742> *# MH 521
04743> *
04744> ------------------------
04745> | ADD HYD (       401) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
04746> ------------------------                   (ha)     (cms)  (hrs)   (mm)   (cms)
04747>                          ID1 09:       471    11.73     .937   12.60  77.43    .000
04748>                         +ID2 07:       471     9.06     .763   12.60  79.70    .000
04749>                          ================================================================
04750>                          SUM 06:       401    20.79    1.700   12.60  78.42    .000
04751>
04752>    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
04753>
04754> --------------------------------------------------------------------------------
04755> 001:0130-------------------------------------------------------------------------
04756> *
04757> *
04758> *#=======================
04759> *#    DRAINAGE AREA 42 ||
04760> *#                     ||
04761> *#=======================
04762> *
04763> *
04764> ---------------------
04765> | CALIB NASHYD       |   Area    (ha)=    4.10   Curve Number   (CN)=75.00
04766> | 05:000100 DT=12.00 |   Ia      (mm)=   1.500   # of Linear Res.(N)= 3.00
04767> ---------------------   U.H. Tp(hrs)=    .410
04768>
04769>      Unit Hyd Qpeak  (cms)=     .382
04770>
04771>      PEAK FLOW       (cms)=     .356 (i)
04772>      TIME TO PEAK    (hrs)=   12.400
04773>      RUNOFF VOLUME    (mm)=   55.497
04774>      TOTAL RAINFALL   (mm)=  103.200
04775>      RUNOFF COEFFICIENT   =     .538
04776>
04777>      (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
04778>
04779> --------------------------------------------------------------------------------
04780> 001:0131-------------------------------------------------------------------------
04781> *
04782> *#=========================
04783> *# OSD 30 L/S/HA
04784> *#  30*4.1 = 123 L/S
04785> *#=========================
04786> *
04787> ---------------------
04788> | ROUTE RESERVOIR   |    Requested routing time step = 12.0 min.
04789> |  IN>05:(000100)   |
04790> | OUT<04:(000471)   |    =========  OUTLFOW STORAGE TABLE  =========
04791> ---------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
04792>                            (cms)    (ha.m.)   |    (cms)    (ha.m.)
04793>                             .000  .0000E+00   |     .123  .4859E-01
04794>                             .090  .2000E-02   |     .000  .0000E+00
04795>       *** WARNING: STORAGE-Q values were extrapolated.
04796>                    Increase curve or use overflow option.
04797>
04798>      ROUTING RESULTS            AREA     QPEAK     TPEAK       R.V.
04799>      ---------------------       (ha)     (cms)     (hrs)       (mm)
04800>      INFLOW >05: (000100)       4.10      .356    12.400     55.497
04801>      OUTFLOW<04: (000471)       4.10      .131    13.200     55.497
04802>
04803>                      PEAK   FLOW   REDUCTION [Qout/Qin](%)=   36.860
04804>                      TIME SHIFT OF PEAK FLOW         (min)=    48.00
04805>                      MAXIMUM  STORAGE   USED       (ha.m.)=.6062E-01
04806>
04807> --------------------------------------------------------------------------------
04808> 001:0132-------------------------------------------------------------------------
04809> *
04810> *# MH 529
04811> *
04812> *
04813> ------------------------
04814> | ADD HYD (       105) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
04815> ------------------------                   (ha)     (cms)  (hrs)   (mm)   (cms)
04816>                          ID1 06:       401    20.79    1.700   12.60  78.42    .000
04817>                         +ID2 04:       471     4.10     .131   13.20  55.50    .000
04818>                          ================================================================
04819>                          SUM 01:       105    24.89    1.818   12.60  74.64    .000
04820>
04821>    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
04822>
04823> --------------------------------------------------------------------------------
04824> 001:0133-------------------------------------------------------------------------
04825> *
04826> *
```

```
04827> *#=======================
04828> *#    DRAINAGE AREA 43 ||
04829> *#                     ||
04830> *#=======================
04831> *
04832> *
04833> ---------------------
04834> | CALIB STANDHYD     |   Area    (ha)=   17.21
04835> | 05:000204 DT=12.00 |   Total Imp(%)=   59.00   Dir. Conn.(%)=   37.00
04836> ---------------------
04837>                             IMPERVIOUS    PERVIOUS (i)
04838>      Surface Area     (ha)=      10.15         7.06
04839>      Dep. Storage     (mm)=        .80         1.50
04840>      Average Slope     (%)=        .20         2.00
04841>      Length            (m)=     449.00        40.00
04842>      Mannings n             =       .013         .250
04843>
04844>      Max.eff.Inten.(mm/hr)=     118.68       136.55
04845>                   over (min)       12.00        12.00
04846>      Storage Coeff.  (min)=       9.52 (ii)   15.75 (ii)
04847>      Unit Hyd. Tpeak (min)=      12.00        12.00
04848>      Unit Hyd. peak  (cms)=        .10          .08
04849>                                                          *TOTALS*
04850>      PEAK FLOW       (cms)=       1.74         1.77          3.508 (iii)
04851>      TIME TO PEAK    (hrs)=      12.20        12.20         12.200
04852>      RUNOFF VOLUME    (mm)=     102.40        66.42         79.734
04853>      TOTAL RAINFALL   (mm)=     103.20       103.20        103.200
04854>      RUNOFF COEFFICIENT  =        .99          .64           .773
04855>       *** WARNING: Storage Coefficient is smaller than DT!
04856>                    Use a smaller DT or a larger area.
04857>
04858>        (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
04859>            CN* =  75.0    Ia = Dep. Storage  (Above)
04860>       (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
04861>            THAN THE STORAGE COEFFICIENT.
04862>      (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
04863>
04864> ----------------------------------------------------------------------------
04865> 001:0134----------------------------------------------------------------------
04866> *
04867> *
04868> *#=========================
04869> *# OSD 85 L/S/HA PARKS 30 L/S/HA
04870> *#  85*16.89 = 1435.7 L/S
04871> *#  30*0.32 =9.6 L/S
04872> *#  TOTAL =1445 L/S
04873> *#=========================
04874> *
04875> ---------------------
04876> | ROUTE RESERVOIR   |    Requested routing time step = 12.0 min.
04877> |  IN>05:(000204)   |
04878> | OUT<08:(000471)   |    =========  OUTLFOW STORAGE TABLE  =========
04879> ---------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
04880>                            (cms)    (ha.m.)   |    (cms)    (ha.m.)
04881>                              .000  .0000E+00   |   1.445  .2103E+00
04882>                             1.400  .2000E-02   |     .000  .0000E+00
04883>
04884>      ROUTING RESULTS            AREA     QPEAK     TPEAK       R.V.
04885>      ---------------------       (ha)     (cms)     (hrs)       (mm)
04886>      INFLOW >05: (000204)      17.21     3.508    12.200     79.734
04887>      OUTFLOW<08: (000471)      17.21     1.438    12.600     81.020
04888>
04889>                    PEAK   FLOW   REDUCTION [Qout/Qin](%)=   40.997
04890>                    TIME SHIFT OF PEAK FLOW       (min)=    24.00
04891>                    MAXIMUM  STORAGE   USED      (ha.m.)=.1927E+00
04892>
04893>       *** WARNING: Outflow volume is less than inflow volume.
04894> ----------------------------------------------------------------------------
04895> 001:0135----------------------------------------------------------------------
04896> *
04897> *# MH 539
04898> *
04899> ------------------------
04900> | ADD HYD (       100) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
04901> ------------------------                   (ha)     (cms)   (hrs)   (mm)   (cms)
04902>                        ID1 01:       105    24.89    1.818   12.60  74.64    .000
04903>                      +ID2 08:       471    17.21    1.438   12.60  81.02    .000
04904>                       ============================================================
04905>                       SUM 07:       100    42.10    3.256   12.60  77.25    .000
04906>
04907>    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
04908>
04909> ----------------------------------------------------------------------------
04910> 001:0136----------------------------------------------------------------------
04911> *
04912> *
04913> *#=======================
04914> *#    DRAINAGE AREA 44 ||
04915> *#                     ||
04916> *#=======================
04917> *
04918> *
04919> ---------------------
04920> | CALIB STANDHYD     |   Area    (ha)=    4.06
04921> | 05:000204 DT=12.00 |   Total Imp(%)=   58.00   Dir. Conn.(%)=   38.00
04922> ---------------------
04923>                             IMPERVIOUS    PERVIOUS (i)
04924>      Surface Area     (ha)=       2.35         1.71
04925>      Dep. Storage     (mm)=        .80         1.50
04926>      Average Slope     (%)=        .20         2.00
04927>      Length            (m)=     165.00        40.00
04928>      Mannings n             =       .013         .250
04929>
04930>      Max.eff.Inten.(mm/hr)=     118.68       129.38
04931>                   over (min)       12.00        12.00
04932>      Storage Coeff.  (min)=       5.22 (ii)   11.59 (ii)
04933>      Unit Hyd. Tpeak (min)=      12.00        12.00
04934>      Unit Hyd. peak  (cms)=        .13          .09
04935>                                                          *TOTALS*
04936>      PEAK FLOW       (cms)=        .48          .46           .944 (iii)
04937>      TIME TO PEAK    (hrs)=      12.20        12.20         12.200
04938>      RUNOFF VOLUME    (mm)=     102.40        65.45         79.490
04939>      TOTAL RAINFALL   (mm)=     103.20       103.20        103.200
04940>      RUNOFF COEFFICIENT  =        .99          .63           .770
04941>       *** WARNING: Storage Coefficient is smaller than DT!
04942>                    Use a smaller DT or a larger area.
04943>
04944>        (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
04945>            CN* =  75.0    Ia = Dep. Storage  (Above)
04946>       (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
04947>            THAN THE STORAGE COEFFICIENT.
04948>      (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
04949>
04950> ----------------------------------------------------------------------------
04951> 001:0137----------------------------------------------------------------------
04952> *
04953> *
04954> *#=========================
04955> *# OSD 85 L/S/HA  PARK 30 L/S/HA
04956> *#  85*3.7 = 314.5 L/S
04957> *#  30*0.28 = 8.4 L/S
04958> *#  TOTAL = 322.9 L/S
04959> *#=========================
04960> *
04961> ---------------------
04962> | ROUTE RESERVOIR   |    Requested routing time step = 12.0 min.
04963> |  IN>05:(000204)   |
04964> | OUT<09:(000471)   |    =========  OUTLFOW STORAGE TABLE  =========
04965> ---------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
04966>                            (cms)    (ha.m.)   |    (cms)    (ha.m.)
04967>                              .000  .0000E+00   |     .323  .6847E-01
04968>                              .290  .2000E-02   |     .000  .0000E+00
04969>
04970>      ROUTING RESULTS            AREA     QPEAK     TPEAK       R.V.
04971>      ---------------------       (ha)     (cms)     (hrs)       (mm)
04972>      INFLOW >05: (000204)       4.06      .944    12.200     79.490
04973>      OUTFLOW<09: (000471)       4.06      .318    12.400     80.009
04974>
04975>                    PEAK   FLOW   REDUCTION [Qout/Qin](%)=   33.710
04976>                    TIME SHIFT OF PEAK FLOW       (min)=    12.00
04977>                    MAXIMUM  STORAGE   USED      (ha.m.)=.6025E-01
04978>
04979>       *** WARNING: Outflow volume is less than inflow volume.
04980> ----------------------------------------------------------------------------
04981> 001:0138----------------------------------------------------------------------
04982> *
04983> *# MH 541
04984> *
04985> ------------------------
04986> | ADD HYD (       100) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
04987> ------------------------                   (ha)     (cms)   (hrs)   (mm)   (cms)
04988>                        ID1 07:       100    42.10    3.256   12.60  77.25    .000
04989>                      +ID2 09:       471     4.06     .318   12.40  80.01    .000
04990>                       ============================================================
04991>                       SUM 03:       100    46.16    3.573   12.60  77.49    .000
04992>
04993>    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
04994>
04995> ----------------------------------------------------------------------------
04996> 001:0139----------------------------------------------------------------------
04997> *
04998> *
04999> *#=======================
05000> *#    DRAINAGE AREA 45 ||
05001> *#                     ||
05002> *#=======================
05003> *
05004> ---------------------
05005> | CALIB STANDHYD     |   Area    (ha)=    3.13
05006> | 05:000204 DT=12.00 |   Total Imp(%)=   57.00   Dir. Conn.(%)=   57.00
05007> ---------------------
05008>                             IMPERVIOUS    PERVIOUS (i)
05009>      Surface Area     (ha)=       1.78         1.35
05010>      Dep. Storage     (mm)=        .80         1.50
05011>      Average Slope     (%)=        .20         2.00
05012>      Length            (m)=     147.00        40.00
05013>      Mannings n             =       .013         .250
05014>
05015>      Max.eff.Inten.(mm/hr)=     118.68        74.72
05016>                   over (min)       12.00        12.00
05017>      Storage Coeff.  (min)=       4.87 (ii)   12.80 (ii)
05018>      Unit Hyd. Tpeak (min)=      12.00        12.00
05019>      Unit Hyd. peak  (cms)=        .13          .09
05020>                                                          *TOTALS*
05021>      PEAK FLOW       (cms)=        .56          .20           .762 (iii)
05022>      TIME TO PEAK    (hrs)=      12.20        12.20         12.200
05023>      RUNOFF VOLUME    (mm)=     102.40        55.50         82.232
05024>      TOTAL RAINFALL   (mm)=     103.20       103.20        103.200
05025>      RUNOFF COEFFICIENT  =        .99          .54           .797
05026>       *** WARNING: Storage Coefficient is smaller than DT!
05027>                    Use a smaller DT or a larger area.
05028>
05029>        (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
05030>            CN* =  75.0    Ia = Dep. Storage  (Above)
05031>       (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
05032>            THAN THE STORAGE COEFFICIENT.
05033>      (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
05034>
05035> ----------------------------------------------------------------------------
05036> 001:0140----------------------------------------------------------------------
05037> *
05038> *
05039> *#=========================
05040> *# OSD 85 L/S/HA
05041> *#  85*3.13 = 266.1 L/S
05042> *#=========================
05043> *
05044> ---------------------
05045> | ROUTE RESERVOIR   |    Requested routing time step = 12.0 min.
05046> |  IN>05:(000204)   |
05047> | OUT<08:(000471)   |    =========  OUTLFOW STORAGE TABLE  =========
05048> ---------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
05049>                            (cms)    (ha.m.)   |    (cms)    (ha.m.)
05050>                              .000  .0000E+00   |     .266  .5982E-01
05051>                              .200  .2000E-02   |     .000  .0000E+00
05052>
05053>      ROUTING RESULTS            AREA     QPEAK     TPEAK       R.V.
05054>      ---------------------       (ha)     (cms)     (hrs)       (mm)
05055>      INFLOW >05: (000204)       3.13      .762    12.200     82.232
05056>      OUTFLOW<08: (000471)       3.13      .255    12.400     82.708
05057>
05058>                    PEAK   FLOW   REDUCTION [Qout/Qin](%)=   33.469
05059>                    TIME SHIFT OF PEAK FLOW       (min)=    12.00
05060>                    MAXIMUM  STORAGE   USED      (ha.m.)=.5019E-01
05061>
05062>       *** WARNING: Outflow volume is less than inflow volume.
05063> ----------------------------------------------------------------------------
05064> 001:0141----------------------------------------------------------------------
05065> *
05066> *# MH 542
05067> *
05068> ------------------------
05069> | ADD HYD (       100) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
05070> ------------------------                   (ha)     (cms)   (hrs)   (mm)   (cms)
05071>                        ID1 03:       100    46.16    3.573   12.60  77.49    .000
05072>                      +ID2 08:       471     3.13     .255   12.40  82.71    .000
05073>                       ============================================================
05074>                       SUM 04:       100    49.29    3.823   12.60  77.82    .000
05075>
05076>    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
05077>
05078> ----------------------------------------------------------------------------
05079> 001:0142----------------------------------------------------------------------
05080> *
```

```
*#########################
*#    DRAINAGE AREA 46 ||
*#                     ||
*#########################
*
*
----------------------
| CALIB STANDHYD     |   Area    (ha)=   19.48
| 05:000204 DT=12.00 |   Total Imp(%)=   61.00   Dir. Conn.(%)=   43.00
----------------------
                              IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=       11.88         7.60
     Dep. Storage     (mm)=         .80         1.50
     Average Slope     (%)=         .20         2.00
     Length            (m)=      464.00        40.00
     Mannings n            =        .013         .250

     Max.eff.Inten.(mm/hr)=     118.68       127.65
                   over (min)       12.00        12.00
     Storage Coeff.  (min)=       9.71 (ii)   16.11 (ii)
     Unit Hyd. Tpeak (min)=       12.00        12.00
     Unit Hyd. peak  (cms)=         .10          .07
                                                          *TOTALS*
     PEAK FLOW       (cms)=        2.27         1.76         4.033 (iii)
     TIME TO PEAK    (hrs)=       12.20        12.20        12.200
     RUNOFF VOLUME    (mm)=      102.40        65.20        81.198
     TOTAL RAINFALL   (mm)=      103.20       103.20       103.200
     RUNOFF COEFFICIENT   =         .99          .63          .787
      *** WARNING: Storage Coefficient is smaller than DT!
                   Use a smaller DT or a larger area.

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN* =  75.0    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

--------------------------------------------------------------------------------
001:0143---------------------------------------------------------------------------
*
*
*#########################
*# OSD 85 L/S/HA  PARK 30 L/S/HA
*#  85*18.51 = 1573.4 L/S
*#  30*0.97 = 29.1 L/S
*#  TOTAL = 1602.5 L/S
*#########################
*
----------------------
| ROUTE RESERVOIR   |    Requested routing time step = 12.0 min.
|  IN>05:(000204)   |
| OUT<08:(000471)   |    =========  OUTLFOW STORAGE TABLE  =========
----------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
                            (cms)    (ha.m.)   |    (cms)    (ha.m.)
                             .000  .0000E+00   |    1.602  .2804E+00
                            1.550  .2000E-02   |     .000  .0000E+00

     ROUTING RESULTS            AREA     QPEAK     TPEAK       R.V.
     ---------------------       (ha)     (cms)     (hrs)       (mm)
     INFLOW >05: (000204)      19.48     4.033    12.200     81.198
     OUTFLOW<08: (000471)      19.48     1.591    12.600     81.232

                   PEAK   FLOW   REDUCTION [Qout/Qin](%)=   39.454
                   TIME SHIFT OF PEAK FLOW       (min)=    24.00
                   MAXIMUM  STORAGE   USED       (ha.m.)=.2339E+00

--------------------------------------------------------------------------------
001:0144---------------------------------------------------------------------------
*
*# MH 544
*
------------------------
| ADD HYD (       100) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
------------------------                   (ha)     (cms)   (hrs)   (mm)   (cms)
                      ID1 04:       100    49.29    3.823   12.60  77.82    .000
                     +ID2 08:       471    19.48    1.591   12.60  81.23    .000
                      ==========================================================
                      SUM 07:       100    68.77    5.414   12.60  78.79    .000

   NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

--------------------------------------------------------------------------------
001:0145---------------------------------------------------------------------------
*
*#########################
*#    DRAINAGE AREA 47 ||
*#                     ||
*#########################
*
*
----------------------
| CALIB STANDHYD     |   Area    (ha)=    3.79
| 05:000204 DT=12.00 |   Total Imp(%)=   56.00   Dir. Conn.(%)=   35.00
----------------------
                              IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=        2.12         1.67
     Dep. Storage     (mm)=         .80         1.50
     Average Slope     (%)=         .20         2.00
     Length            (m)=      229.00        40.00
     Mannings n            =        .013         .250

     Max.eff.Inten.(mm/hr)=     118.68       129.51
                   over (min)       12.00        12.00
     Storage Coeff.  (min)=        6.36 (ii)   12.72 (ii)
     Unit Hyd. Tpeak (min)=       12.00        12.00
     Unit Hyd. peak  (cms)=         .12          .09
                                                          *TOTALS*
     PEAK FLOW       (cms)=         .40          .44          .836 (iii)
     TIME TO PEAK    (hrs)=       12.20        12.20        12.200
     RUNOFF VOLUME    (mm)=      102.40        65.47        78.393
     TOTAL RAINFALL   (mm)=      103.20       103.20       103.200
     RUNOFF COEFFICIENT   =         .99          .63          .760
      *** WARNING: Storage Coefficient is smaller than DT!
                   Use a smaller DT or a larger area.

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN* =  75.0    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

--------------------------------------------------------------------------------
001:0146---------------------------------------------------------------------------
*
*
*#########################
*# OSD 85 L/S/HA  PARK 30 L/S/HA
*#  85*3.5 = 297.5 L/S
*#  30*0.29 = 8.7 L/S
*#  TOTAL = 306.2 L/S
*#########################
*
----------------------
| ROUTE RESERVOIR   |    Requested routing time step = 12.0 min.
|  IN>05:(000204)   |
| OUT<08:(000471)   |    =========  OUTLFOW STORAGE TABLE  =========
----------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
                            (cms)    (ha.m.)   |    (cms)    (ha.m.)
                             .000  .0000E+00   |     .306  .6031E-01
                             .250  .2000E-02   |     .000  .0000E+00

     ROUTING RESULTS            AREA     QPEAK     TPEAK       R.V.
     ---------------------       (ha)     (cms)     (hrs)       (mm)
     INFLOW >05: (000204)       3.79      .836    12.200     78.393
     OUTFLOW<08: (000471)       3.79      .299    12.400     79.204

                   PEAK   FLOW   REDUCTION [Qout/Qin](%)=   35.731
                   TIME SHIFT OF PEAK FLOW       (min)=    12.00
                   MAXIMUM  STORAGE   USED       (ha.m.)=.5500E-01

      *** WARNING: Outflow volume is less than inflow volume.
--------------------------------------------------------------------------------
001:0147---------------------------------------------------------------------------
*
*# MH 546
*
*#########################
*# TRUNK 1
*#########################
*
------------------------
| ADD HYD (       450) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
------------------------                   (ha)     (cms)   (hrs)   (mm)   (cms)
                      ID1 08:       471     3.79     .299   12.40  79.20    .000
                     +ID2 07:       100    68.77    5.414   12.60  78.79    .000
                      ==========================================================
                      SUM 06:       450    72.56    5.712   12.60  78.81    .000

   NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

--------------------------------------------------------------------------------
001:0148---------------------------------------------------------------------------
*
--------------------
| SAVE HYD        |   AREA       (ha)=   72.560
| ID=06 (000450)  |   QPEAK     (cms)=    5.712 (i)
| DT=12.00 PCYC=-1 |   TPEAK     (hrs)=   12.600
--------------------  VOLUME     (mm)=   78.811
  Filename: C:\SWMHYMO\111083\2018-0~1\544.035
  Comments: 544-24SCS100

     (i)  PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
--------------------------------------------------------------------------------
001:0149---------------------------------------------------------------------------
*
*#########################
*# TRUNK 2
*#########################
*
*#########################
*#    DRAINAGE AREA 50 ||
*#   COMMERICAL        ||
*#########################
*
*
----------------------
| CALIB STANDHYD     |   Area    (ha)=    3.65
| 05:000204 DT=12.00 |   Total Imp(%)=   80.00   Dir. Conn.(%)=   80.00
----------------------
                              IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=        2.92          .73
     Dep. Storage     (mm)=         .80         1.50
     Average Slope     (%)=         .20         2.00
     Length            (m)=      292.00        40.00
     Mannings n            =        .013         .250

     Max.eff.Inten.(mm/hr)=     118.68        74.72
                   over (min)       12.00        12.00
     Storage Coeff.  (min)=        7.35 (ii)   15.28 (ii)
     Unit Hyd. Tpeak (min)=       12.00        12.00
     Unit Hyd. peak  (cms)=         .11          .08
                                                          *TOTALS*
     PEAK FLOW       (cms)=         .85          .10          .954 (iii)
     TIME TO PEAK    (hrs)=       12.20        12.20        12.200
     RUNOFF VOLUME    (mm)=      102.40        55.50        93.019
     TOTAL RAINFALL   (mm)=      103.20       103.20       103.200
     RUNOFF COEFFICIENT   =         .99          .54          .901
      *** WARNING: Storage Coefficient is smaller than DT!
                   Use a smaller DT or a larger area.

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN* =  75.0    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

--------------------------------------------------------------------------------
001:0150---------------------------------------------------------------------------
*
*
*#########################
*# OSD 85 L/S/HA
*#  85*3.65 = 310.3 L/S
*#########################
*
----------------------
| ROUTE RESERVOIR   |    Requested routing time step = 12.0 min.
|  IN>05:(000204)   |
| OUT<08:(000471)   |    =========  OUTLFOW STORAGE TABLE  =========
----------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
                            (cms)    (ha.m.)   |    (cms)    (ha.m.)
                             .000  .0000E+00   |     .310  .9484E-01
                             .200  .2000E-02   |     .000  .0000E+00

     ROUTING RESULTS            AREA     QPEAK     TPEAK       R.V.
     ---------------------       (ha)     (cms)     (hrs)       (mm)
     INFLOW >05: (000204)       3.65      .954    12.200     93.019
     OUTFLOW<08: (000471)       3.65      .284    12.400     93.229

                   PEAK   FLOW   REDUCTION [Qout/Qin](%)=   29.773
                   TIME SHIFT OF PEAK FLOW       (min)=    12.00
                   MAXIMUM  STORAGE   USED       (ha.m.)=.7589E-01

--------------------------------------------------------------------------------
```

```
05335> 001:0151-------------------------------------------------------------------------------
05336> *
05337> --------------------
05338> | SHIFT HYD(       874)|
05339> | IN= 8---> OUT= 7    |
05340> | SHIFT=  10.0 min    |       AREA     QPEAK      TPEAK      R.V.
05341> ----------------------        (ha)     (cms)      (hrs)      (mm)
05342>          ID= 8:       471       3.65      .284     12.400     93.229
05343>     SHIFT ID= 7:      874       3.65      .284     12.600     93.229
05344>
05345> *** WARNING: HYDROGRAPH WAS SHIFTED BY  12.0 MIN.
05346>
05347> -------------------------------------------------------------------------------
05348> 001:0152-------------------------------------------------------------------------------
05349> *
05350> *# MH 111
05351> *
05352> *#################################################
05353> *# AREA FORMERLY KNOWN AS 51 (EAST OF PORTOBELLO)
05354> *#################################################
05355> *
05356> *#################################################
05357> *# MATTAMY SUMMERSIDE DRAINAGE AREA 19.93 ha - H-114
05358> *# TO MH 112
05359> *#################################################
05360> *
05361> *
05362> --------------------
05363> | READ HYD          |   AREA       (ha)=   18.860
05364> | ID=05 (114    )   |   QPEAK     (cms)=    1.662
05365> | DT= 1.00 PCYC= 1 |   TPEAK     (hrs)=   12.250
05366> --------------------   VOLUME     (mm)=   77.494
05367>   Filename: C:\SWMHYMO\111083\2018-0~1\H-114.035
05368>   Comments: Minor System Outflow to MH 114
05369>
05370>  TIME    FLOW |  TIME    FLOW |  TIME    FLOW |  TIME    FLOW |  TIME    FLOW
05371>   hrs     cms |   hrs     cms |   hrs     cms |   hrs     cms |   hrs     cms
05372>    .00    .000|  5.25    .055|  10.50    .185|  15.75    .152|  21.00    .077
05373>    .02    .000|  5.27    .055|  10.52    .186|  15.77    .152|  21.02    .077
05374>    .03    .000|  5.28    .055|  10.53    .187|  15.78    .152|  21.03    .077
05375>    .05    .000|  5.30    .055|  10.55    .188|  15.80    .152|  21.05    .077
05376>    .07    .000|  5.32    .055|  10.57    .189|  15.82    .152|  21.07    .077
05377>    .08    .000|  5.33    .055|  10.58    .190|  15.83    .152|  21.08    .077
05378>    .10    .000|  5.35    .055|  10.60    .190|  15.85    .152|  21.10    .077
05379>    .12    .000|  5.37    .055|  10.62    .191|  15.87    .152|  21.12    .077
05380>    .13    .000|  5.38    .055|  10.63    .192|  15.88    .152|  21.13    .077
05381>    .15    .000|  5.40    .055|  10.65    .193|  15.90    .152|  21.15    .077
05382>    .17    .000|  5.42    .055|  10.67    .193|  15.92    .152|  21.17    .077
05383>    .18    .000|  5.43    .055|  10.68    .194|  15.93    .152|  21.18    .077
05384>    .20    .000|  5.45    .055|  10.70    .195|  15.95    .152|  21.20    .077
05385>    .22    .000|  5.47    .055|  10.72    .195|  15.97    .152|  21.22    .076
05386>    .23    .000|  5.48    .056|  10.73    .196|  15.98    .152|  21.23    .074
05387>    .25    .000|  5.50    .056|  10.75    .196|  16.00    .152|  21.25    .071
05388>    .27    .000|  5.52    .056|  10.77    .197|  16.02    .152|  21.27    .069
05389>    .28    .000|  5.53    .056|  10.78    .197|  16.03    .152|  21.28    .068
05390>    .30    .000|  5.55    .056|  10.80    .198|  16.05    .152|  21.30    .066
05391>    .32    .000|  5.57    .056|  10.82    .198|  16.07    .152|  21.32    .065
05392>    .33    .000|  5.58    .056|  10.83    .198|  16.08    .152|  21.33    .064
05393>    .35    .000|  5.60    .056|  10.85    .199|  16.10    .152|  21.35    .063
05394>    .37    .000|  5.62    .056|  10.87    .199|  16.12    .152|  21.37    .063
05395>    .38    .000|  5.63    .056|  10.88    .200|  16.13    .152|  21.38    .062
05396>    .40    .000|  5.65    .056|  10.90    .200|  16.15    .152|  21.40    .061
05397>    .42    .000|  5.67    .056|  10.92    .200|  16.17    .152|  21.42    .061
05398>    .43    .000|  5.68    .056|  10.93    .201|  16.18    .152|  21.43    .060
05399>    .45    .000|  5.70    .056|  10.95    .201|  16.20    .152|  21.45    .060
05400>    .47    .000|  5.72    .056|  10.97    .201|  16.22    .150|  21.47    .059
05401>    .48    .000|  5.73    .056|  10.98    .202|  16.23    .146|  21.48    .058
05402>    .50    .000|  5.75    .056|  11.00    .202|  16.25    .141|  21.50    .058
05403>    .52    .000|  5.77    .056|  11.02    .202|  16.27    .137|  21.52    .058
05404>    .53    .000|  5.78    .057|  11.03    .203|  16.28    .133|  21.53    .057
05405>    .55    .000|  5.80    .057|  11.05    .203|  16.30    .131|  21.55    .057
05406>    .57    .000|  5.82    .057|  11.07    .203|  16.32    .128|  21.57    .056
05407>    .58    .000|  5.83    .057|  11.08    .204|  16.33    .127|  21.58    .056
05408>    .60    .000|  5.85    .057|  11.10    .204|  16.35    .125|  21.60    .056
05409>    .62    .000|  5.87    .057|  11.12    .204|  16.37    .123|  21.62    .055
05410>    .63    .000|  5.88    .057|  11.13    .205|  16.38    .122|  21.63    .055
05411>    .65    .000|  5.90    .057|  11.15    .205|  16.40    .121|  21.65    .055
05412>    .67    .000|  5.92    .057|  11.17    .205|  16.42    .120|  21.67    .055
05413>    .68    .000|  5.93    .057|  11.18    .205|  16.43    .118|  21.68    .055
05414>    .70    .000|  5.95    .057|  11.20    .206|  16.45    .117|  21.70    .054
05415>    .72    .000|  5.97    .057|  11.22    .209|  16.47    .116|  21.72    .054
05416>    .73    .000|  5.98    .057|  11.23    .218|  16.48    .115|  21.73    .054
05417>    .75    .000|  6.00    .057|  11.25    .228|  16.50    .114|  21.75    .054
05418>    .77    .000|  6.02    .057|  11.27    .237|  16.52    .113|  21.77    .054
05419>    .78    .000|  6.03    .057|  11.28    .243|  16.53    .113|  21.78    .054
05420>    .80    .000|  6.05    .057|  11.30    .248|  16.55    .112|  21.80    .053
05421>    .82    .000|  6.07    .057|  11.32    .252|  16.57    .111|  21.82    .053
05422>    .83    .000|  6.08    .058|  11.33    .255|  16.58    .110|  21.83    .053
05423>    .85    .000|  6.10    .058|  11.35    .258|  16.60    .110|  21.85    .053
05424>    .87    .000|  6.12    .058|  11.37    .261|  16.62    .109|  21.87    .053
05425>    .88    .000|  6.13    .058|  11.38    .263|  16.63    .109|  21.88    .053
05426>    .90    .000|  6.15    .058|  11.40    .265|  16.65    .108|  21.90    .053
05427>    .92    .000|  6.17    .058|  11.42    .273|  16.67    .108|  21.92    .053
05428>    .93    .000|  6.18    .058|  11.43    .290|  16.68    .108|  21.93    .053
05429>    .95    .000|  6.20    .058|  11.45    .309|  16.70    .107|  21.95    .053
05430>    .97    .000|  6.22    .058|  11.47    .324|  16.72    .107|  21.97    .052
05431>    .98    .000|  6.23    .058|  11.48    .337|  16.73    .106|  21.98    .052
05432>   1.00    .000|  6.25    .058|  11.50    .347|  16.75    .106|  22.00    .052
05433>   1.02    .000|  6.27    .058|  11.52    .355|  16.77    .106|  22.02    .052
05434>   1.03    .000|  6.28    .058|  11.53    .361|  16.78    .106|  22.03    .052
05435>   1.05    .000|  6.30    .058|  11.55    .367|  16.80    .105|  22.05    .052
05436>   1.07    .000|  6.32    .058|  11.57    .372|  16.82    .105|  22.07    .052
05437>   1.08    .000|  6.33    .058|  11.58    .376|  16.83    .105|  22.08    .052
05438>   1.10    .000|  6.35    .058|  11.60    .380|  16.85    .105|  22.10    .052
05439>   1.12    .000|  6.37    .058|  11.62    .408|  16.87    .105|  22.12    .052
05440>   1.13    .000|  6.38    .058|  11.63    .473|  16.88    .104|  22.13    .052
05441>   1.15    .000|  6.40    .059|  11.65    .545|  16.90    .104|  22.15    .052
05442>   1.17    .000|  6.42    .059|  11.67    .605|  16.92    .104|  22.17    .052
05443>   1.18    .000|  6.43    .059|  11.68    .654|  16.93    .104|  22.18    .052
05444>   1.20    .000|  6.45    .059|  11.70    .691|  16.95    .104|  22.20    .052
05445>   1.22    .000|  6.47    .059|  11.72    .720|  16.97    .104|  22.22    .052
05446>   1.23    .000|  6.48    .059|  11.73    .743|  16.98    .103|  22.23    .052
05447>   1.25    .000|  6.50    .059|  11.75    .764|  17.00    .103|  22.25    .052
05448>   1.27    .000|  6.52    .059|  11.77    .783|  17.02    .103|  22.27    .052
05449>   1.28    .000|  6.53    .059|  11.78    .800|  17.03    .103|  22.28    .052
05450>   1.30    .000|  6.55    .059|  11.80    .815|  17.05    .103|  22.30    .052
05451>   1.32    .000|  6.57    .059|  11.82    .878|  17.07    .103|  22.32    .052
05452>   1.33    .000|  6.58    .059|  11.83   1.000|  17.08    .103|  22.33    .052
05453>   1.35    .000|  6.60    .059|  11.85   1.114|  17.10    .103|  22.35    .052
05454>   1.37    .000|  6.62    .059|  11.87   1.196|  17.12    .103|  22.37    .052
05455>   1.38    .000|  6.63    .059|  11.88   1.264|  17.13    .103|  22.38    .052
05456>   1.40    .000|  6.65    .059|  11.90   1.320|  17.15    .103|  22.40    .052
05457>   1.42    .000|  6.67    .059|  11.92   1.367|  17.17    .103|  22.42    .052
05458>   1.43    .000|  6.68    .059|  11.93   1.407|  17.18    .103|  22.43    .052
05459>   1.45    .000|  6.70    .059|  11.95   1.443|  17.20    .103|  22.45    .052
05460>   1.47    .000|  6.72    .060|  11.97   1.478|  17.22    .102|  22.47    .052
05461>   1.48    .000|  6.73    .060|  11.98   1.511|  17.23    .102|  22.48    .052
05462>   1.50    .000|  6.75    .060|  12.00   1.537|  17.25    .102|  22.50    .052
05463>   1.52    .000|  6.77    .060|  12.02   1.580|  17.27    .102|  22.52    .052
05464>   1.53    .000|  6.78    .060|  12.03   1.615|  17.28    .102|  22.53    .052
05465>   1.55    .000|  6.80    .060|  12.05   1.626|  17.30    .102|  22.55    .052
05466>   1.57    .000|  6.82    .060|  12.07   1.633|  17.32    .102|  22.57    .052
05467>   1.58    .000|  6.83    .060|  12.08   1.639|  17.33    .102|  22.58    .052
05468>   1.60    .000|  6.85    .060|  12.10   1.646|  17.35    .102|  22.60    .052
05469>   1.62    .000|  6.87    .060|  12.12   1.652|  17.37    .102|  22.62    .052
05470>   1.63    .000|  6.88    .060|  12.13   1.657|  17.38    .102|  22.63    .052
05471>   1.65    .000|  6.90    .060|  12.15   1.660|  17.40    .102|  22.65    .052
05472>   1.67    .000|  6.92    .060|  12.17   1.661|  17.42    .102|  22.67    .052
05473>   1.68    .000|  6.93    .060|  12.18   1.661|  17.43    .102|  22.68    .052
05474>   1.70    .000|  6.95    .060|  12.20   1.661|  17.45    .102|  22.70    .052
05475>   1.72    .000|  6.97    .060|  12.22   1.661|  17.47    .102|  22.72    .052
05476>   1.73    .001|  6.98    .060|  12.23   1.661|  17.48    .102|  22.73    .052
05477>   1.75    .005|  7.00    .060|  12.25   1.662|  17.50    .102|  22.75    .052
05478>   1.77    .009|  7.02    .060|  12.27   1.661|  17.52    .102|  22.77    .052
05479>   1.78    .013|  7.03    .060|  12.28   1.660|  17.53    .102|  22.78    .052
05480>   1.80    .017|  7.05    .061|  12.30   1.658|  17.55    .102|  22.80    .052
05481>   1.82    .019|  7.07    .061|  12.32   1.657|  17.57    .102|  22.82    .052
05482>   1.83    .021|  7.08    .061|  12.33   1.656|  17.58    .102|  22.83    .052
05483>   1.85    .022|  7.10    .061|  12.35   1.655|  17.60    .102|  22.85    .052
05484>   1.87    .023|  7.12    .061|  12.37   1.655|  17.62    .102|  22.87    .052
05485>   1.88    .023|  7.13    .061|  12.38   1.654|  17.63    .102|  22.88    .052
05486>   1.90    .024|  7.15    .061|  12.40   1.654|  17.65    .102|  22.90    .052
05487>   1.92    .024|  7.17    .061|  12.42   1.653|  17.67    .102|  22.92    .052
05488>   1.93    .024|  7.18    .061|  12.43   1.651|  17.68    .102|  22.93    .052
05489>   1.95    .025|  7.20    .061|  12.45   1.648|  17.70    .102|  22.95    .052
05490>   1.97    .025|  7.22    .061|  12.47   1.644|  17.72    .102|  22.97    .052
05491>   1.98    .025|  7.23    .061|  12.48   1.637|  17.73    .102|  22.98    .052
05492>   2.00    .025|  7.25    .061|  12.50   1.619|  17.75    .102|  23.00    .052
05493>   2.02    .025|  7.27    .061|  12.52   1.599|  17.77    .102|  23.02    .052
05494>   2.03    .025|  7.28    .061|  12.53   1.582|  17.78    .102|  23.03    .052
05495>   2.05    .025|  7.30    .061|  12.55   1.569|  17.80    .102|  23.05    .052
05496>   2.07    .025|  7.32    .061|  12.57   1.558|  17.82    .102|  23.07    .052
05497>   2.08    .025|  7.33    .061|  12.58   1.548|  17.83    .102|  23.08    .052
05498>   2.10    .025|  7.35    .061|  12.60   1.533|  17.85    .102|  23.10    .052
05499>   2.12    .026|  7.37    .061|  12.62   1.518|  17.87    .102|  23.12    .052
05500>   2.13    .026|  7.38    .062|  12.63   1.506|  17.88    .102|  23.13    .052
05501>   2.15    .026|  7.40    .062|  12.65   1.489|  17.90    .102|  23.15    .052
05502>   2.17    .026|  7.42    .062|  12.67   1.477|  17.92    .102|  23.17    .052
05503>   2.18    .026|  7.43    .062|  12.68   1.466|  17.93    .102|  23.18    .052
05504>   2.20    .026|  7.45    .062|  12.70   1.429|  17.95    .102|  23.20    .052
05505>   2.22    .026|  7.47    .062|  12.72   1.390|  17.97    .102|  23.22    .052
05506>   2.23    .026|  7.48    .062|  12.73   1.368|  17.98    .102|  23.23    .052
05507>   2.25    .026|  7.50    .062|  12.75   1.337|  18.00    .102|  23.25    .052
05508>   2.27    .026|  7.52    .062|  12.77   1.297|  18.02    .102|  23.27    .052
05509>   2.28    .026|  7.53    .062|  12.78   1.278|  18.03    .102|  23.28    .052
05510>   2.30    .026|  7.55    .062|  12.80   1.267|  18.05    .102|  23.30    .052
05511>   2.32    .026|  7.57    .062|  12.82   1.257|  18.07    .102|  23.32    .052
05512>   2.33    .026|  7.58    .062|  12.83   1.248|  18.08    .102|  23.33    .052
05513>   2.35    .026|  7.60    .062|  12.85   1.239|  18.10    .102|  23.35    .052
05514>   2.37    .026|  7.62    .062|  12.87   1.220|  18.12    .102|  23.37    .052
05515>   2.38    .026|  7.63    .062|  12.88   1.203|  18.13    .102|  23.38    .052
05516>   2.40    .026|  7.65    .062|  12.90   1.189|  18.15    .102|  23.40    .052
05517>   2.42    .026|  7.67    .062|  12.92   1.169|  18.17    .102|  23.42    .052
05518>   2.43    .026|  7.68    .062|  12.93   1.159|  18.18    .102|  23.43    .052
05519>   2.45    .026|  7.70    .062|  12.95   1.152|  18.20    .102|  23.45    .052
05520>   2.47    .026|  7.72    .062|  12.97   1.143|  18.22    .102|  23.47    .052
05521>   2.48    .026|  7.73    .063|  12.98   1.130|  18.23    .102|  23.48    .052
05522>   2.50    .026|  7.75    .063|  13.00   1.117|  18.25    .102|  23.50    .052
05523>   2.52    .026|  7.77    .063|  13.02    .642|  18.27    .102|  23.52    .052
05524>   2.53    .026|  7.78    .063|  13.03    .618|  18.28    .102|  23.53    .052
05525>   2.55    .026|  7.80    .063|  13.05    .598|  18.30    .102|  23.55    .052
05526>   2.57    .026|  7.82    .063|  13.07    .579|  18.32    .102|  23.57    .052
05527>   2.58    .026|  7.83    .063|  13.08    .562|  18.33    .102|  23.58    .052
05528>   2.60    .026|  7.85    .063|  13.10    .549|  18.35    .102|  23.60    .052
05529>   2.62    .026|  7.87    .063|  13.12    .538|  18.37    .102|  23.62    .050
05530>   2.63    .026|  7.88    .063|  13.13    .521|  18.38    .102|  23.63    .048
05531>   2.65    .026|  7.90    .063|  13.15    .509|  18.40    .102|  23.65    .044
05532>   2.67    .026|  7.92    .063|  13.17    .500|  18.42    .102|  23.67    .042
05533>   2.68    .026|  7.93    .063|  13.18    .492|  18.43    .102|  23.68    .039
05534>   2.70    .026|  7.95    .063|  13.20    .485|  18.45    .102|  23.70    .038
05535>   2.72    .026|  7.97    .063|  13.22    .477|  18.47    .102|  23.72    .036
05536>   2.73    .026|  7.98    .063|  13.23    .466|  18.48    .102|  23.73    .035
05537>   2.75    .026|  8.00    .063|  13.25    .456|  18.50    .102|  23.75    .034
05538>   2.77    .026|  8.02    .063|  13.27    .447|  18.52    .102|  23.77    .033
05539>   2.78    .026|  8.03    .063|  13.28    .439|  18.53    .102|  23.78    .032
05540>   2.80    .026|  8.05    .063|  13.30    .431|  18.55    .102|  23.80    .031
05541>   2.82    .026|  8.07    .063|  13.32    .425|  18.57    .102|  23.82    .030
05542>   2.83    .026|  8.08    .063|  13.33    .419|  18.58    .102|  23.83    .029
05543>   2.85    .026|  8.10    .064|  13.35    .411|  18.60    .102|  23.85    .029
05544>   2.87    .026|  8.12    .064|  13.37    .393|  18.62    .102|  23.87    .028
05545>   2.88    .026|  8.13    .064|  13.38    .383|  18.63    .102|  23.88    .027
05546>   2.90    .026|  8.15    .064|  13.40    .377|  18.65    .102|  23.90    .027
05547>   2.92    .026|  8.17    .064|  13.42    .372|  18.67    .102|  23.92    .026
05548>   2.93    .026|  8.18    .064|  13.43    .368|  18.68    .102|  23.93    .026
05549>   2.95    .026|  8.20    .064|  13.45    .364|  18.70    .102|  23.95    .025
05550>   2.97    .026|  8.22    .066|  13.47    .357|  18.72    .102|  23.97    .025
05551>   2.98    .026|  8.23    .070|  13.48    .348|  18.73    .102|  23.98    .024
05552>   3.00    .026|  8.25    .075|  13.50    .341|  18.75    .102|  24.00    .024
05553>   3.02    .026|  8.27    .079|  13.52    .332|  18.77    .102|  24.02    .023
05554>   3.03    .026|  8.28    .082|  13.53    .327|  18.78    .102|  24.03    .023
05555>   3.05    .026|  8.30    .084|  13.55    .323|  18.80    .102|  24.05    .022
05556>   3.07    .026|  8.32    .086|  13.57    .321|  18.82    .102|  24.07    .022
05557>   3.08    .026|  8.33    .087|  13.58    .318|  18.83    .102|  24.08    .021
05558>   3.10    .026|  8.35    .088|  13.60    .316|  18.85    .102|  24.10    .021
05559>   3.12    .026|  8.37    .089|  13.62    .314|  18.87    .102|  24.12    .020
05560>   3.13    .026|  8.38    .090|  13.63    .313|  18.88    .102|  24.13    .020
05561>   3.15    .026|  8.40    .091|  13.65    .311|  18.90    .102|  24.15    .020
05562>   3.17    .026|  8.42    .091|  13.67    .309|  18.92    .102|  24.17    .020
05563>   3.18    .026|  8.43    .092|  13.68    .308|  18.93    .102|  24.18    .019
05564>   3.20    .026|  8.45    .092|  13.70    .306|  18.95    .102|  24.20    .019
05565>   3.22    .026|  8.47    .093|  13.72    .305|  18.97    .102|  24.22    .018
05566>   3.23    .026|  8.48    .093|  13.73    .304|  18.98    .102|  24.23    .017
05567>   3.25    .026|  8.50    .094|  13.75    .290|  19.00    .102|  24.25    .015
05568>   3.27    .026|  8.52    .094|  13.77    .272|  19.02    .102|  24.27    .014
05569>   3.28    .026|  8.53    .094|  13.78    .267|  19.03    .102|  24.28    .012
05570>   3.30    .026|  8.55    .095|  13.80    .265|  19.05    .102|  24.30    .011
05571>   3.32    .026|  8.57    .095|  13.82    .264|  19.07    .102|  24.32    .011
05572>   3.33    .026|  8.58    .095|  13.83    .263|  19.08    .102|  24.33    .010
05573>   3.35    .026|  8.60    .096|  13.85    .262|  19.10    .102|  24.35    .009
05574>   3.37    .026|  8.62    .096|  13.87    .261|  19.12    .102|  24.37    .009
05575>   3.38    .026|  8.63    .096|  13.88    .261|  19.13    .102|  24.38    .008
05576>   3.40    .026|  8.65    .096|  13.90    .260|  19.15    .102|  24.40    .008
05577>   3.42    .026|  8.67    .096|  13.92    .260|  19.17    .102|  24.42    .007
05578>   3.43    .026|  8.68    .097|  13.93    .259|  19.18    .102|  24.43    .007
05579>   3.45    .026|  8.70    .097|  13.95    .258|  19.20    .102|  24.45    .006
05580>   3.47    .026|  8.72    .097|  13.97    .258|  19.22    .101|  24.47    .006
05581>   3.48    .026|  8.73    .097|  13.98    .258|  19.23    .099|  24.48    .006
05582>   3.50    .026|  8.75    .097|  14.00    .257|  19.25    .097|  24.50    .005
05583>   3.52    .026|  8.77    .097|  14.02    .257|  19.27    .095|  24.52    .005
05584>   3.53    .026|  8.78    .098|  14.03    .256|  19.28    .093|  24.53    .004
05585>   3.55    .026|  8.80    .098|  14.05    .256|  19.30    .092|  24.55    .004
05586>   3.57    .026|  8.82    .098|  14.07    .256|  19.32    .090|  24.57    .004
05587>   3.58    .026|  8.83    .098|  14.08    .255|  19.33    .090|  24.58    .004
05588>   3.60    .026|  8.85    .098|  14.10    .255|  19.35    .089|  24.60    .003
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05589>    3.62    .026|   8.87    .098|  14.12    .255|  19.37    .088|  24.62    .003
05590>    3.63    .026|   8.88    .098|  14.13    .255|  19.38    .087|  24.63    .003
05591>    3.65    .026|   8.90    .099|  14.15    .254|  19.40    .087|  24.65    .003
05592>    3.67    .026|   8.92    .099|  14.17    .254|  19.42    .086|  24.67    .003
05593>    3.68    .026|   8.93    .099|  14.18    .254|  19.43    .085|  24.68    .002
05594>    3.70    .026|   8.95    .099|  14.20    .254|  19.45    .085|  24.70    .002
05595>    3.72    .026|   8.97    .099|  14.22    .250|  19.47    .084|  24.72    .002
05596>    3.73    .026|   8.98    .099|  14.23    .241|  19.48    .084|  24.73    .002
05597>    3.75    .026|   9.00    .099|  14.25    .231|  19.50    .083|  24.75    .002
05598>    3.77    .026|   9.02    .099|  14.27    .223|  19.52    .083|  24.77    .002
05599>    3.78    .026|   9.03    .100|  14.28    .215|  19.53    .082|  24.78    .002
05600>    3.80    .026|   9.05    .100|  14.30    .210|  19.55    .082|  24.80    .002
05601>    3.82    .026|   9.07    .100|  14.32    .206|  19.57    .082|  24.82    .001
05602>    3.83    .026|   9.08    .100|  14.33    .202|  19.58    .081|  24.83    .001
05603>    3.85    .026|   9.10    .100|  14.35    .199|  19.60    .081|  24.85    .001
05604>    3.87    .026|   9.12    .100|  14.37    .196|  19.62    .081|  24.87    .001
05605>    3.88    .026|   9.13    .100|  14.38    .193|  19.63    .081|  24.88    .001
05606>    3.90    .026|   9.15    .100|  14.40    .190|  19.65    .080|  24.90    .001
05607>    3.92    .026|   9.17    .100|  14.42    .188|  19.67    .080|  24.92    .001
05608>    3.93    .026|   9.18    .100|  14.43    .185|  19.68    .080|  24.93    .001
05609>    3.95    .026|   9.20    .101|  14.45    .183|  19.70    .080|  24.95    .001
05610>    3.97    .026|   9.22    .101|  14.47    .181|  19.72    .079|  24.97    .001
05611>    3.98    .026|   9.23    .101|  14.48    .179|  19.73    .079|  24.98    .001
05612>    4.00    .026|   9.25    .101|  14.50    .177|  19.75    .079|  25.00    .001
05613>    4.02    .026|   9.27    .101|  14.52    .175|  19.77    .079|  25.02    .001
05614>    4.03    .026|   9.28    .101|  14.53    .173|  19.78    .079|  25.03    .001
05615>    4.05    .026|   9.30    .101|  14.55    .172|  19.80    .079|  25.05    .001
05616>    4.07    .026|   9.32    .101|  14.57    .170|  19.82    .079|  25.07    .001
05617>    4.08    .026|   9.33    .101|  14.58    .169|  19.83    .079|  25.08    .001
05618>    4.10    .026|   9.35    .101|  14.60    .168|  19.85    .078|  25.10    .001
05619>    4.12    .026|   9.37    .102|  14.62    .167|  19.87    .078|  25.12    .000
05620>    4.13    .026|   9.38    .102|  14.63    .166|  19.88    .078|  25.13    .000
05621>    4.15    .026|   9.40    .102|  14.65    .165|  19.90    .078|  25.15    .000
05622>    4.17    .026|   9.42    .102|  14.67    .164|  19.92    .078|  25.17    .000
05623>    4.18    .026|   9.43    .102|  14.68    .163|  19.93    .078|  25.18    .000
05624>    4.20    .026|   9.45    .102|  14.70    .162|  19.95    .078|  25.20    .000
05625>    4.22    .028|   9.47    .102|  14.72    .162|  19.97    .078|  25.22    .000
05626>    4.23    .032|   9.48    .102|  14.73    .161|  19.98    .078|  25.23    .000
05627>    4.25    .037|   9.50    .102|  14.75    .160|  20.00    .078|  25.25    .000
05628>    4.27    .041|   9.52    .102|  14.77    .160|  20.02    .078|  25.27    .000
05629>    4.28    .044|   9.53    .102|  14.78    .159|  20.03    .078|  25.28    .000
05630>    4.30    .046|   9.55    .103|  14.80    .159|  20.05    .078|  25.30    .000
05631>    4.32    .047|   9.57    .103|  14.82    .158|  20.07    .078|  25.32    .000
05632>    4.33    .049|   9.58    .103|  14.83    .158|  20.08    .078|  25.33    .000
05633>    4.35    .049|   9.60    .103|  14.85    .157|  20.10    .077|  25.35    .000
05634>    4.37    .050|   9.62    .103|  14.87    .157|  20.12    .077|  25.37    .000
05635>    4.38    .051|   9.63    .103|  14.88    .157|  20.13    .077|  25.38    .000
05636>    4.40    .051|   9.65    .103|  14.90    .156|  20.15    .077|  25.40    .000
05637>    4.42    .051|   9.67    .103|  14.92    .156|  20.17    .077|  25.42    .000
05638>    4.43    .052|   9.68    .103|  14.93    .156|  20.18    .077|  25.43    .000
05639>    4.45    .052|   9.70    .103|  14.95    .155|  20.20    .077|  25.45    .000
05640>    4.47    .052|   9.72    .103|  14.97    .155|  20.22    .077|  25.47    .000
05641>    4.48    .052|   9.73    .103|  14.98    .155|  20.23    .077|  25.48    .000
05642>    4.50    .052|   9.75    .104|  15.00    .155|  20.25    .077|  25.50    .000
05643>    4.52    .052|   9.77    .104|  15.02    .154|  20.27    .077|  25.52    .000
05644>    4.53    .052|   9.78    .104|  15.03    .154|  20.28    .077|  25.53    .000
05645>    4.55    .053|   9.80    .104|  15.05    .154|  20.30    .077|  25.55    .000
05646>    4.57    .053|   9.82    .104|  15.07    .154|  20.32    .077|  25.57    .000
05647>    4.58    .053|   9.83    .104|  15.08    .154|  20.33    .077|  25.58    .000
05648>    4.60    .053|   9.85    .104|  15.10    .154|  20.35    .077|  25.60    .000
05649>    4.62    .053|   9.87    .104|  15.12    .153|  20.37    .077|  25.62    .000
05650>    4.63    .053|   9.88    .104|  15.13    .153|  20.38    .077|  25.63    .000
05651>    4.65    .053|   9.90    .104|  15.15    .153|  20.40    .077|  25.65    .000
05652>    4.67    .053|   9.92    .104|  15.17    .153|  20.42    .077|  25.67    .000
05653>    4.68    .053|   9.93    .105|  15.18    .153|  20.43    .077|  25.68    .000
05654>    4.70    .053|   9.95    .105|  15.20    .153|  20.45    .077|  25.70    .000
05655>    4.72    .053|   9.97    .105|  15.22    .153|  20.47    .077|  25.72    .000
05656>    4.73    .053|   9.98    .105|  15.23    .153|  20.48    .077|  25.73    .000
05657>    4.75    .053|  10.00    .105|  15.25    .153|  20.50    .077|  25.75    .000
05658>    4.77    .053|  10.02    .105|  15.27    .153|  20.52    .077|  25.77    .000
05659>    4.78    .053|  10.03    .105|  15.28    .153|  20.53    .077|  25.78    .000
05660>    4.80    .053|  10.05    .105|  15.30    .152|  20.55    .077|  25.80    .000
05661>    4.82    .053|  10.07    .105|  15.32    .152|  20.57    .077|  25.82    .000
05662>    4.83    .053|  10.08    .105|  15.33    .152|  20.58    .077|  25.83    .000
05663>    4.85    .054|  10.10    .105|  15.35    .152|  20.60    .077|  25.85    .000
05664>    4.87    .054|  10.12    .105|  15.37    .152|  20.62    .077|  25.87    .000
05665>    4.88    .054|  10.13    .105|  15.38    .152|  20.63    .077|  25.88    .000
05666>    4.90    .054|  10.15    .106|  15.40    .152|  20.65    .077|  25.90    .000
05667>    4.92    .054|  10.17    .106|  15.42    .152|  20.67    .077|  25.92    .000
05668>    4.93    .054|  10.18    .106|  15.43    .152|  20.68    .077|  25.93    .000
05669>    4.95    .054|  10.20    .106|  15.45    .152|  20.70    .077|  25.95    .000
05670>    4.97    .054|  10.22    .110|  15.47    .152|  20.72    .077|  25.97    .000
05671>    4.98    .054|  10.23    .121|  15.48    .152|  20.73    .077|  25.98    .000
05672>    5.00    .054|  10.25    .133|  15.50    .152|  20.75    .077|  26.00    .000
05673>    5.02    .054|  10.27    .143|  15.52    .152|  20.77    .077|  26.02    .000
05674>    5.03    .054|  10.28    .151|  15.53    .152|  20.78    .077|  26.03    .000
05675>    5.05    .054|  10.30    .157|  15.55    .152|  20.80    .077|  26.05    .000
05676>    5.07    .054|  10.32    .162|  15.57    .152|  20.82    .077|  26.07    .000
05677>    5.08    .054|  10.33    .165|  15.58    .152|  20.83    .077|  26.08    .000
05678>    5.10    .054|  10.35    .168|  15.60    .152|  20.85    .077|  26.10    .000
05679>    5.12    .054|  10.37    .171|  15.62    .152|  20.87    .077|  26.12    .000
05680>    5.13    .054|  10.38    .173|  15.63    .152|  20.88    .077|  26.13    .000
05681>    5.15    .054|  10.40    .175|  15.65    .152|  20.90    .077|  26.15    .000
05682>    5.17    .054|  10.42    .177|  15.67    .152|  20.92    .077|  26.17    .000
05683>    5.18    .055|  10.43    .179|  15.68    .152|  20.93    .077|  26.18    .000
05684>    5.20    .055|  10.45    .181|  15.70    .152|  20.95    .077|  26.20    .000
05685>    5.22    .055|  10.47    .182|  15.72    .152|  20.97    .077|  26.22    .000
05686>    5.23    .055|  10.48    .183|  15.73    .152|  20.98    .077|
05687> ------------------------------------------------------------------------------
05688> 001:0153-------------------------------------------------------------------------
05689> *
05690> *
05691> *
05692> *# MH 112
05693> *
05694> *
05695> *
05696> *#===============
05697> *# ADD TO AREA 50
05698> *
05699> ------------------------
05700> | ADD HYD (       846) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
05701> ------------------------                  (ha)     (cms)   (hrs)   (mm)   (cms)
05702>                        ID1 07:       874     3.65     .284   12.60  93.23    .000
05703>                       +ID2 05:114           18.86    1.662   12.25  77.49    .000
05704>                        ============================================================
05705>                        SUM 04:       846    22.51    1.907   12.43  80.05    .000
05706>
05707>    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
05708>
05709> -------------------------------------------------------------------------------
05710> 001:0154-------------------------------------------------------------------------
05711> *#========================
05712> *#    DRAINAGE AREA 53 ||
05713> *#                     ||
05714> *#========================
05715> *
05716> *
05717> ----------------------
05718> | CALIB STANDHYD     |   Area    (ha)=   17.48
05719> | 08:000204 DT=12.00 |   Total Imp(%)=   56.00   Dir. Conn.(%)=   42.00
05720> ----------------------
05721>                                IMPERVIOUS    PERVIOUS (i)
05722>      Surface Area     (ha)=       9.79         7.69
05723>      Dep. Storage     (mm)=        .80         1.50
05724>      Average Slope     (%)=        .20         2.00
05725>      Length            (m)=     447.00        40.00
05726>      Mannings n         =        .013         .250
05727>
05728>      Max.eff.Inten.(mm/hr)=     118.68       110.83
05729>                   over (min)      12.00        12.00
05730>      Storage Coeff.  (min)=       9.49 (ii)   16.27 (ii)
05731>      Unit Hyd. Tpeak (min)=      12.00        12.00
05732>      Unit Hyd. peak  (cms)=        .10          .07
05733>                                                          *TOTALS*
05734>      PEAK FLOW       (cms)=       2.01         1.54          3.541 (iii)
05735>      TIME TO PEAK    (hrs)=      12.20        12.20         12.200
05736>      RUNOFF VOLUME    (mm)=     102.40        62.64         79.340
05737>      TOTAL RAINFALL   (mm)=     103.20       103.20        103.200
05738>      RUNOFF COEFFICIENT   =        .99          .61           .769
05739>       *** WARNING: Storage Coefficient is smaller than DT!
05740>                    Use a smaller DT or a larger area.
05741>
05742>        (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
05743>            CN* =  75.0    Ia = Dep. Storage  (Above)
05744>       (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
05745>            THAN THE STORAGE COEFFICIENT.
05746>      (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
05747>
05748> -------------------------------------------------------------------------------
05749> 001:0155-------------------------------------------------------------------------
05750> *
05751> *
05752> *#========================
05753> *# OSD 85 L/S/HA  PARK 30 L/S/HA
05754> *#  85*16.42 = 1395.7 L/S
05755> *#  30*1.06 = 31.8 L/S
05756> *#  TOTAL = 1428 L/S
05757> *#========================
05758> *
05759> ---------------------
05760> | ROUTE RESERVOIR   |    Requested routing time step = 12.0 min.
05761> |  IN>08:(000204)   |
05762> | OUT<05:(000471)   |    =========  OUTLFOW STORAGE TABLE  =========
05763>  ---------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
05764>                             (cms)    (ha.m.)   |    (cms)    (ha.m.)
05765>                              .000  .0000E+00   |    1.428  .2308E+00
05766>                             1.400  .2000E-02   |     .000  .0000E+00
05767>
05768>      ROUTING RESULTS             AREA     QPEAK     TPEAK       R.V.
05769>      --------------------         (ha)     (cms)     (hrs)       (mm)
05770>      INFLOW >08: (000204)      17.48     3.541    12.200     79.340
05771>      OUTFLOW<05: (000471)      17.48     1.422    12.600     80.275
05772>
05773>                     PEAK   FLOW   REDUCTION [Qout/Qin](%)=   40.165
05774>                     TIME SHIFT OF PEAK FLOW         (min)=    24.00
05775>                     MAXIMUM  STORAGE   USED      (ha.m.)=.1975E+00
05776>
05777>       *** WARNING: Outflow volume is less than inflow volume.
05778> -------------------------------------------------------------------------------
05779> 001:0156-------------------------------------------------------------------------
05780> *
05781> *# MH 110
05782> *
05783> ------------------------
05784> | ADD HYD (       584) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
05785> ------------------------                  (ha)     (cms)   (hrs)   (mm)   (cms)
05786>                        ID1 05:       471    17.48    1.422   12.60  80.27    .000
05787>                       +ID2 04:       846    22.51    1.907   12.43  80.05    .000
05788>                        ============================================================
05789>                        SUM 08:       584    39.99    3.329   12.43  80.15    .000
05790>
05791>    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
05792>
05793> -------------------------------------------------------------------------------
05794> 001:0157-------------------------------------------------------------------------
05795> *
05796> *#================================================
05797> *# AREA FORMERLY KNOWN AS 52 (EAST OF PORTOBELLO)
05798> *#================================================
05799> *
05800> *#================================================
05801> *# MATTAMY SUMMERSIDE DRAINAGE AREA 6.13 ha - H-217 - MINOR
05802> *#================================================
05803> *
05804> *
05805> --------------------
05806> | READ HYD          |   AREA       (ha)=    5.660
05807> | ID=03 (000217)    |   QPEAK     (cms)=     .512
05808> | DT= 1.00 PCYC= 1  |   TPEAK     (hrs)=   12.233
05809> --------------------   VOLUME       (mm)=   80.904
05810>   Filename: C:\SWMHYMO\111083\2018-0~1\H-217.035
05811>   Comments: Minor System Outflow to MH 217
05812>
05813>   TIME    FLOW |  TIME    FLOW |  TIME    FLOW |  TIME    FLOW |  TIME    FLOW
05814>    hrs     cms |   hrs     cms |   hrs     cms |   hrs     cms |   hrs     cms
05815>     .00    .000|   5.12    .019|  10.23    .042|  15.35    .048|  20.47    .024
05816>     .02    .000|   5.13    .019|  10.25    .047|  15.37    .048|  20.48    .024
05817>     .03    .000|   5.15    .019|  10.27    .051|  15.38    .048|  20.50    .024
05818>     .05    .000|   5.17    .019|  10.28    .054|  15.40    .048|  20.52    .024
05819>     .07    .000|   5.18    .019|  10.30    .056|  15.42    .048|  20.53    .024
05820>     .08    .000|   5.20    .019|  10.32    .057|  15.43    .048|  20.55    .024
05821>     .10    .000|   5.22    .019|  10.33    .058|  15.45    .048|  20.57    .024
05822>     .12    .000|   5.23    .019|  10.35    .059|  15.47    .048|  20.58    .024
05823>     .13    .000|   5.25    .019|  10.37    .059|  15.48    .048|  20.60    .024
05824>     .15    .000|   5.27    .019|  10.38    .060|  15.50    .048|  20.62    .024
05825>     .17    .000|   5.28    .019|  10.40    .060|  15.52    .048|  20.63    .024
05826>     .18    .000|   5.30    .019|  10.42    .061|  15.53    .048|  20.65    .024
05827>     .20    .000|   5.32    .019|  10.43    .061|  15.55    .048|  20.67    .024
05828>     .22    .000|   5.33    .019|  10.45    .061|  15.57    .048|  20.68    .024
05829>     .23    .000|   5.35    .019|  10.47    .062|  15.58    .048|  20.70    .024
05830>     .25    .000|   5.37    .019|  10.48    .062|  15.60    .048|  20.72    .024
05831>     .27    .000|   5.38    .019|  10.50    .063|  15.62    .048|  20.73    .024
05832>     .28    .000|   5.40    .019|  10.52    .063|  15.63    .048|  20.75    .024
05833>     .30    .000|   5.42    .019|  10.53    .063|  15.65    .048|  20.77    .024
05834>     .32    .000|   5.43    .019|  10.55    .063|  15.67    .048|  20.78    .024
05835>     .33    .000|   5.45    .019|  10.57    .064|  15.68    .048|  20.80    .024
05836>     .35    .000|   5.47    .019|  10.58    .064|  15.70    .048|  20.82    .024
05837>     .37    .000|   5.48    .019|  10.60    .064|  15.72    .048|  20.83    .024
05838>     .38    .000|   5.50    .019|  10.62    .064|  15.73    .048|  20.85    .024
05839>     .40    .000|   5.52    .019|  10.63    .064|  15.75    .048|  20.87    .024
05840>     .42    .000|   5.53    .019|  10.65    .065|  15.77    .048|  20.88    .024
05841>     .43    .000|   5.55    .019|  10.67    .065|  15.78    .048|  20.90    .024
05842>     .45    .000|   5.57    .019|  10.68    .065|  15.80    .048|  20.92    .024
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| | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 05843> | .47 | .000 | 5.58 | .019 | 10.70 | .065 | 15.82 | .048 | 20.93 | .024 | 05970> | 2.58 | .009 | 7.70 | .021 | 12.82 | .308 | 17.93 | .032 | 23.05 | .016 |
| 05844> | .48 | .000 | 5.60 | .019 | 10.72 | .065 | 15.83 | .048 | 20.95 | .024 | 05971> | 2.60 | .009 | 7.72 | .021 | 12.83 | .294 | 17.95 | .032 | 23.07 | .016 |
| 05845> | .50 | .000 | 5.62 | .019 | 10.73 | .065 | 15.85 | .048 | 20.97 | .024 | 05972> | 2.62 | .009 | 7.73 | .021 | 12.85 | .285 | 17.97 | .032 | 23.08 | .016 |
| 05846> | .52 | .000 | 5.63 | .019 | 10.75 | .066 | 15.87 | .048 | 20.98 | .024 | 05973> | 2.63 | .009 | 7.75 | .021 | 12.87 | .280 | 17.98 | .032 | 23.10 | .016 |
| 05847> | .53 | .000 | 5.65 | .019 | 10.77 | .066 | 15.88 | .048 | 21.00 | .024 | 05974> | 2.65 | .009 | 7.77 | .021 | 12.88 | .276 | 18.00 | .032 | 23.12 | .016 |
| 05848> | .55 | .000 | 5.67 | .019 | 10.78 | .066 | 15.90 | .048 | 21.02 | .024 | 05975> | 2.67 | .009 | 7.78 | .021 | 12.90 | .273 | 18.02 | .032 | 23.13 | .016 |
| 05849> | .57 | .000 | 5.68 | .019 | 10.80 | .066 | 15.92 | .048 | 21.03 | .024 | 05976> | 2.68 | .009 | 7.80 | .021 | 12.92 | .270 | 18.03 | .032 | 23.15 | .016 |
| 05850> | .58 | .000 | 5.70 | .019 | 10.82 | .066 | 15.93 | .048 | 21.05 | .024 | 05977> | 2.70 | .009 | 7.82 | .021 | 12.93 | .267 | 18.05 | .032 | 23.17 | .016 |
| 05851> | .60 | .000 | 5.72 | .019 | 10.83 | .066 | 15.95 | .048 | 21.07 | .024 | 05978> | 2.72 | .009 | 7.83 | .021 | 12.95 | .264 | 18.07 | .032 | 23.18 | .016 |
| 05852> | .62 | .000 | 5.73 | .019 | 10.85 | .066 | 15.97 | .048 | 21.08 | .024 | 05979> | 2.73 | .009 | 7.85 | .021 | 12.97 | .251 | 18.08 | .032 | 23.20 | .016 |
| 05853> | .63 | .000 | 5.75 | .019 | 10.87 | .066 | 15.98 | .048 | 21.10 | .024 | 05980> | 2.75 | .009 | 7.87 | .021 | 12.98 | .246 | 18.10 | .032 | 23.22 | .016 |
| 05854> | .65 | .000 | 5.77 | .019 | 10.88 | .067 | 16.00 | .048 | 21.12 | .024 | 05981> | 2.77 | .009 | 7.88 | .021 | 13.00 | .243 | 18.12 | .032 | 23.23 | .016 |
| 05855> | .67 | .000 | 5.78 | .019 | 10.90 | .067 | 16.02 | .048 | 21.13 | .024 | 05982> | 2.78 | .009 | 7.90 | .021 | 13.02 | .241 | 18.13 | .032 | 23.25 | .016 |
| 05856> | .68 | .000 | 5.80 | .019 | 10.92 | .067 | 16.03 | .048 | 21.15 | .024 | 05983> | 2.80 | .009 | 7.92 | .021 | 13.03 | .236 | 18.15 | .032 | 23.27 | .016 |
| 05857> | .70 | .000 | 5.82 | .019 | 10.93 | .067 | 16.05 | .048 | 21.17 | .024 | 05984> | 2.82 | .009 | 7.93 | .021 | 13.05 | .231 | 18.17 | .032 | 23.28 | .016 |
| 05858> | .72 | .000 | 5.83 | .019 | 10.95 | .067 | 16.07 | .048 | 21.18 | .024 | 05985> | 2.83 | .009 | 7.95 | .021 | 13.07 | .226 | 18.18 | .032 | 23.30 | .016 |
| 05859> | .73 | .000 | 5.85 | .019 | 10.97 | .067 | 16.08 | .048 | 21.20 | .024 | 05986> | 2.85 | .009 | 7.97 | .021 | 13.08 | .218 | 18.20 | .032 | 23.32 | .016 |
| 05860> | .75 | .000 | 5.87 | .019 | 10.98 | .067 | 16.10 | .048 | 21.22 | .024 | 05987> | 2.87 | .009 | 7.98 | .021 | 13.10 | .213 | 18.22 | .032 | 23.33 | .016 |
| 05861> | .77 | .000 | 5.88 | .019 | 11.00 | .067 | 16.12 | .048 | 21.23 | .023 | 05988> | 2.88 | .009 | 8.00 | .021 | 13.12 | .206 | 18.23 | .032 | 23.35 | .016 |
| 05862> | .78 | .000 | 5.90 | .019 | 11.02 | .067 | 16.13 | .048 | 21.25 | .022 | 05989> | 2.90 | .009 | 8.02 | .021 | 13.13 | .195 | 18.25 | .032 | 23.37 | .016 |
| 05863> | .80 | .000 | 5.92 | .019 | 11.03 | .067 | 16.15 | .048 | 21.27 | .021 | 05990> | 2.92 | .009 | 8.03 | .021 | 13.15 | .190 | 18.27 | .032 | 23.38 | .016 |
| 05864> | .82 | .000 | 5.93 | .019 | 11.05 | .067 | 16.17 | .048 | 21.28 | .020 | 05991> | 2.93 | .009 | 8.05 | .021 | 13.17 | .183 | 18.28 | .032 | 23.40 | .016 |
| 05865> | .83 | .000 | 5.95 | .019 | 11.07 | .067 | 16.18 | .048 | 21.30 | .020 | 05992> | 2.95 | .009 | 8.07 | .021 | 13.18 | .177 | 18.30 | .032 | 23.42 | .016 |
| 05866> | .85 | .000 | 5.97 | .019 | 11.08 | .068 | 16.20 | .048 | 21.32 | .020 | 05993> | 2.97 | .009 | 8.08 | .021 | 13.20 | .174 | 18.32 | .032 | 23.43 | .016 |
| 05867> | .87 | .000 | 5.98 | .019 | 11.10 | .068 | 16.22 | .047 | 21.33 | .019 | 05994> | 2.98 | .009 | 8.10 | .021 | 13.22 | .172 | 18.33 | .032 | 23.45 | .016 |
| 05868> | .88 | .000 | 6.00 | .020 | 11.12 | .068 | 16.23 | .045 | 21.35 | .019 | 05995> | 3.00 | .009 | 8.12 | .021 | 13.23 | .169 | 18.35 | .032 | 23.47 | .016 |
| 05869> | .90 | .000 | 6.02 | .020 | 11.13 | .068 | 16.25 | .043 | 21.37 | .019 | 05996> | 3.02 | .009 | 8.13 | .021 | 13.25 | .166 | 18.37 | .032 | 23.48 | .016 |
| 05870> | .92 | .000 | 6.03 | .020 | 11.15 | .068 | 16.27 | .041 | 21.38 | .019 | 05997> | 3.03 | .009 | 8.15 | .021 | 13.27 | .163 | 18.38 | .032 | 23.50 | .016 |
| 05871> | .93 | .000 | 6.05 | .020 | 11.17 | .068 | 16.28 | .040 | 21.40 | .019 | 05998> | 3.05 | .009 | 8.17 | .021 | 13.28 | .161 | 18.40 | .032 | 23.52 | .016 |
| 05872> | .95 | .000 | 6.07 | .020 | 11.18 | .068 | 16.30 | .039 | 21.42 | .018 | 05999> | 3.07 | .009 | 8.18 | .021 | 13.30 | .155 | 18.42 | .032 | 23.53 | .016 |
| 05873> | .97 | .000 | 6.08 | .020 | 11.20 | .068 | 16.32 | .039 | 21.43 | .018 | 06000> | 3.08 | .009 | 8.20 | .021 | 13.32 | .145 | 18.43 | .032 | 23.55 | .016 |
| 05874> | .98 | .000 | 6.10 | .020 | 11.22 | .070 | 16.33 | .038 | 21.45 | .018 | 06001> | 3.10 | .009 | 8.22 | .022 | 13.33 | .141 | 18.45 | .032 | 23.57 | .016 |
| 05875> | 1.00 | .000 | 6.12 | .020 | 11.23 | .074 | 16.35 | .038 | 21.47 | .018 | 06002> | 3.12 | .009 | 8.23 | .024 | 13.35 | .134 | 18.47 | .032 | 23.58 | .016 |
| 05876> | 1.02 | .000 | 6.13 | .020 | 11.25 | .078 | 16.37 | .037 | 21.48 | .018 | 06003> | 3.13 | .009 | 8.25 | .026 | 13.37 | .128 | 18.48 | .032 | 23.60 | .016 |
| 05877> | 1.03 | .000 | 6.15 | .020 | 11.27 | .081 | 16.38 | .037 | 21.50 | .018 | 06004> | 3.15 | .009 | 8.27 | .028 | 13.38 | .125 | 18.50 | .032 | 23.62 | .016 |
| 05878> | 1.05 | .000 | 6.17 | .020 | 11.28 | .083 | 16.40 | .037 | 21.52 | .018 | 06005> | 3.17 | .009 | 8.28 | .029 | 13.40 | .123 | 18.52 | .032 | 23.63 | .014 |
| 05879> | 1.07 | .000 | 6.18 | .020 | 11.30 | .085 | 16.42 | .036 | 21.53 | .017 | 06006> | 3.18 | .009 | 8.30 | .030 | 13.42 | .122 | 18.53 | .032 | 23.65 | .013 |
| 05880> | 1.08 | .000 | 6.20 | .020 | 11.32 | .086 | 16.43 | .036 | 21.55 | .017 | 06007> | 3.20 | .009 | 8.32 | .030 | 13.43 | .121 | 18.55 | .032 | 23.67 | .012 |
| 05881> | 1.10 | .000 | 6.22 | .020 | 11.33 | .087 | 16.45 | .036 | 21.57 | .017 | 06008> | 3.22 | .009 | 8.33 | .030 | 13.45 | .120 | 18.57 | .032 | 23.68 | .011 |
| 05882> | 1.12 | .000 | 6.23 | .020 | 11.35 | .088 | 16.47 | .035 | 21.58 | .017 | 06009> | 3.23 | .009 | 8.35 | .031 | 13.47 | .119 | 18.58 | .032 | 23.70 | .011 |
| 05883> | 1.13 | .000 | 6.25 | .020 | 11.37 | .088 | 16.48 | .035 | 21.60 | .017 | 06010> | 3.25 | .009 | 8.37 | .031 | 13.48 | .118 | 18.60 | .032 | 23.72 | .010 |
| 05884> | 1.15 | .000 | 6.27 | .020 | 11.38 | .089 | 16.50 | .035 | 21.62 | .017 | 06011> | 3.27 | .009 | 8.38 | .031 | 13.50 | .115 | 18.62 | .032 | 23.73 | .010 |
| 05885> | 1.17 | .000 | 6.28 | .020 | 11.40 | .089 | 16.52 | .035 | 21.63 | .017 | 06012> | 3.28 | .009 | 8.40 | .031 | 13.52 | .108 | 18.63 | .032 | 23.75 | .010 |
| 05886> | 1.18 | .000 | 6.30 | .020 | 11.42 | .092 | 16.53 | .034 | 21.65 | .017 | 06013> | 3.30 | .009 | 8.42 | .031 | 13.53 | .106 | 18.65 | .032 | 23.77 | .009 |
| 05887> | 1.20 | .000 | 6.32 | .020 | 11.43 | .099 | 16.55 | .034 | 21.67 | .017 | 06014> | 3.32 | .009 | 8.43 | .031 | 13.55 | .104 | 18.67 | .032 | 23.78 | .009 |
| 05888> | 1.22 | .000 | 6.33 | .020 | 11.45 | .107 | 16.57 | .034 | 21.68 | .017 | 06015> | 3.33 | .009 | 8.45 | .032 | 13.57 | .103 | 18.68 | .032 | 23.80 | .009 |
| 05889> | 1.23 | .000 | 6.35 | .020 | 11.47 | .113 | 16.58 | .034 | 21.70 | .017 | 06016> | 3.35 | .009 | 8.47 | .032 | 13.58 | .103 | 18.70 | .032 | 23.82 | .009 |
| 05890> | 1.25 | .000 | 6.37 | .020 | 11.48 | .118 | 16.60 | .034 | 21.72 | .017 | 06017> | 3.37 | .009 | 8.48 | .032 | 13.60 | .102 | 18.72 | .032 | 23.83 | .008 |
| 05891> | 1.27 | .000 | 6.38 | .020 | 11.50 | .121 | 16.62 | .034 | 21.73 | .017 | 06018> | 3.38 | .009 | 8.50 | .032 | 13.62 | .102 | 18.73 | .032 | 23.85 | .008 |
| 05892> | 1.28 | .000 | 6.40 | .020 | 11.52 | .123 | 16.63 | .034 | 21.75 | .017 | 06019> | 3.40 | .009 | 8.52 | .032 | 13.63 | .102 | 18.75 | .032 | 23.87 | .008 |
| 05893> | 1.30 | .000 | 6.42 | .020 | 11.53 | .124 | 16.65 | .033 | 21.77 | .017 | 06020> | 3.42 | .009 | 8.53 | .032 | 13.65 | .101 | 18.77 | .032 | 23.88 | .008 |
| 05894> | 1.32 | .000 | 6.43 | .020 | 11.55 | .126 | 16.67 | .033 | 21.78 | .017 | 06021> | 3.43 | .009 | 8.55 | .032 | 13.67 | .101 | 18.78 | .032 | 23.90 | .008 |
| 05895> | 1.33 | .000 | 6.45 | .020 | 11.57 | .127 | 16.68 | .033 | 21.80 | .017 | 06022> | 3.45 | .009 | 8.57 | .032 | 13.68 | .101 | 18.80 | .032 | 23.92 | .008 |
| 05896> | 1.35 | .000 | 6.47 | .020 | 11.58 | .128 | 16.70 | .033 | 21.82 | .016 | 06023> | 3.47 | .009 | 8.58 | .032 | 13.70 | .100 | 18.82 | .032 | 23.93 | .007 |
| 05897> | 1.37 | .000 | 6.48 | .020 | 11.60 | .129 | 16.72 | .033 | 21.83 | .016 | 06024> | 3.48 | .009 | 8.60 | .032 | 13.72 | .100 | 18.83 | .032 | 23.95 | .007 |
| 05898> | 1.38 | .000 | 6.50 | .020 | 11.62 | .140 | 16.73 | .033 | 21.85 | .016 | 06025> | 3.50 | .009 | 8.62 | .032 | 13.73 | .100 | 18.85 | .032 | 23.97 | .007 |
| 05899> | 1.40 | .000 | 6.52 | .020 | 11.63 | .169 | 16.75 | .033 | 21.87 | .016 | 06026> | 3.52 | .009 | 8.63 | .032 | 13.75 | .100 | 18.87 | .032 | 23.98 | .007 |
| 05900> | 1.42 | .000 | 6.53 | .020 | 11.65 | .200 | 16.77 | .033 | 21.88 | .016 | 06027> | 3.53 | .009 | 8.65 | .032 | 13.77 | .100 | 18.88 | .032 | 24.00 | .007 |
| 05901> | 1.43 | .000 | 6.55 | .020 | 11.67 | .223 | 16.78 | .033 | 21.90 | .016 | 06028> | 3.55 | .009 | 8.67 | .033 | 13.78 | .099 | 18.90 | .032 | 24.02 | .007 |
| 05902> | 1.45 | .000 | 6.57 | .020 | 11.68 | .239 | 16.80 | .033 | 21.92 | .016 | 06029> | 3.57 | .009 | 8.68 | .033 | 13.80 | .099 | 18.92 | .032 | 24.03 | .007 |
| 05903> | 1.47 | .000 | 6.58 | .020 | 11.70 | .249 | 16.82 | .033 | 21.93 | .016 | 06030> | 3.58 | .009 | 8.70 | .033 | 13.82 | .099 | 18.93 | .032 | 24.05 | .006 |
| 05904> | 1.48 | .000 | 6.60 | .020 | 11.72 | .256 | 16.83 | .033 | 21.95 | .016 | 06031> | 3.60 | .009 | 8.72 | .033 | 13.83 | .099 | 18.95 | .032 | 24.07 | .006 |
| 05905> | 1.50 | .000 | 6.62 | .020 | 11.73 | .262 | 16.85 | .033 | 21.97 | .016 | 06032> | 3.62 | .009 | 8.73 | .033 | 13.85 | .099 | 18.97 | .032 | 24.08 | .006 |
| 05906> | 1.52 | .000 | 6.63 | .020 | 11.75 | .266 | 16.87 | .033 | 21.98 | .016 | 06033> | 3.63 | .009 | 8.75 | .033 | 13.87 | .099 | 18.98 | .032 | 24.10 | .006 |
| 05907> | 1.53 | .000 | 6.65 | .020 | 11.77 | .271 | 16.88 | .032 | 22.00 | .016 | 06034> | 3.65 | .009 | 8.77 | .033 | 13.88 | .099 | 19.00 | .032 | 24.12 | .006 |
| 05908> | 1.55 | .000 | 6.67 | .020 | 11.78 | .275 | 16.90 | .032 | 22.02 | .016 | 06035> | 3.67 | .009 | 8.78 | .033 | 13.90 | .099 | 19.02 | .032 | 24.13 | .006 |
| 05909> | 1.57 | .000 | 6.68 | .020 | 11.80 | .279 | 16.92 | .032 | 22.03 | .016 | 06036> | 3.68 | .009 | 8.80 | .033 | 13.92 | .099 | 19.03 | .032 | 24.15 | .006 |
| 05910> | 1.58 | .000 | 6.70 | .020 | 11.82 | .302 | 16.93 | .032 | 22.05 | .016 | 06037> | 3.70 | .009 | 8.82 | .033 | 13.93 | .098 | 19.05 | .032 | 24.17 | .006 |
| 05911> | 1.60 | .000 | 6.72 | .020 | 11.83 | .357 | 16.95 | .032 | 22.07 | .016 | 06038> | 3.72 | .009 | 8.83 | .033 | 13.95 | .098 | 19.07 | .032 | 24.18 | .006 |
| 05912> | 1.62 | .000 | 6.73 | .020 | 11.85 | .401 | 16.97 | .032 | 22.08 | .016 | 06039> | 3.73 | .009 | 8.85 | .033 | 13.97 | .098 | 19.08 | .032 | 24.20 | .006 |
| 05913> | 1.63 | .000 | 6.75 | .020 | 11.87 | .423 | 16.98 | .032 | 22.10 | .016 | 06040> | 3.75 | .009 | 8.87 | .033 | 13.98 | .098 | 19.10 | .032 | 24.22 | .005 |
| 05914> | 1.65 | .000 | 6.77 | .020 | 11.88 | .433 | 17.00 | .032 | 22.12 | .016 | 06041> | 3.77 | .009 | 8.88 | .033 | 14.00 | .098 | 19.12 | .032 | 24.23 | .005 |
| 05915> | 1.67 | .000 | 6.78 | .020 | 11.90 | .442 | 17.02 | .032 | 22.13 | .016 | 06042> | 3.78 | .009 | 8.90 | .033 | 14.02 | .084 | 19.13 | .032 | 24.25 | .004 |
| 05916> | 1.68 | .000 | 6.80 | .020 | 11.92 | .447 | 17.03 | .032 | 22.15 | .016 | 06043> | 3.80 | .009 | 8.92 | .033 | 14.03 | .081 | 19.15 | .032 | 24.27 | .003 |
| 05917> | 1.70 | .000 | 6.82 | .020 | 11.93 | .452 | 17.05 | .032 | 22.17 | .016 | 06044> | 3.82 | .009 | 8.93 | .033 | 14.05 | .080 | 19.17 | .032 | 24.28 | .003 |
| 05918> | 1.72 | .000 | 6.83 | .020 | 11.95 | .456 | 17.07 | .032 | 22.18 | .016 | 06045> | 3.83 | .009 | 8.95 | .033 | 14.07 | .080 | 19.18 | .032 | 24.30 | .003 |
| 05919> | 1.73 | .001 | 6.85 | .020 | 11.97 | .458 | 17.08 | .032 | 22.20 | .016 | 06046> | 3.85 | .009 | 8.97 | .033 | 14.08 | .080 | 19.20 | .032 | 24.32 | .003 |
| 05920> | 1.75 | .002 | 6.87 | .020 | 11.98 | .461 | 17.10 | .032 | 22.22 | .016 | 06047> | 3.87 | .009 | 8.98 | .033 | 14.10 | .080 | 19.22 | .032 | 24.33 | .002 |
| 05921> | 1.77 | .004 | 6.88 | .020 | 12.00 | .464 | 17.12 | .032 | 22.23 | .016 | 06048> | 3.88 | .009 | 9.00 | .033 | 14.12 | .079 | 19.23 | .031 | 24.35 | .002 |
| 05922> | 1.78 | .006 | 6.90 | .020 | 12.02 | .471 | 17.13 | .032 | 22.25 | .016 | 06049> | 3.90 | .009 | 9.02 | .033 | 14.13 | .079 | 19.25 | .030 | 24.37 | .002 |
| 05923> | 1.80 | .007 | 6.92 | .020 | 12.03 | .478 | 17.15 | .032 | 22.27 | .016 | 06050> | 3.92 | .009 | 9.03 | .033 | 14.15 | .079 | 19.27 | .029 | 24.38 | .002 |
| 05924> | 1.82 | .008 | 6.93 | .020 | 12.05 | .484 | 17.17 | .032 | 22.28 | .016 | 06051> | 3.93 | .009 | 9.05 | .033 | 14.17 | .079 | 19.28 | .028 | 24.40 | .002 |
| 05925> | 1.83 | .008 | 6.95 | .020 | 12.07 | .489 | 17.18 | .032 | 22.30 | .016 | 06052> | 3.95 | .009 | 9.07 | .033 | 14.18 | .079 | 19.30 | .028 | 24.42 | .002 |
| 05926> | 1.85 | .008 | 6.97 | .020 | 12.08 | .494 | 17.20 | .032 | 22.32 | .016 | 06053> | 3.97 | .009 | 9.08 | .034 | 14.20 | .079 | 19.32 | .028 | 24.43 | .002 |
| 05927> | 1.87 | .008 | 6.98 | .020 | 12.10 | .499 | 17.22 | .032 | 22.33 | .016 | 06054> | 3.98 | .009 | 9.10 | .034 | 14.22 | .078 | 19.33 | .027 | 24.45 | .001 |
| 05928> | 1.88 | .009 | 7.00 | .020 | 12.12 | .503 | 17.23 | .032 | 22.35 | .016 | 06055> | 4.00 | .009 | 9.12 | .034 | 14.23 | .074 | 19.35 | .027 | 24.47 | .001 |
| 05929> | 1.90 | .009 | 7.02 | .020 | 12.13 | .507 | 17.25 | .032 | 22.37 | .016 | 06056> | 4.02 | .009 | 9.13 | .034 | 14.25 | .069 | 19.37 | .027 | 24.48 | .001 |
| 05930> | 1.92 | .009 | 7.03 | .020 | 12.15 | .510 | 17.27 | .032 | 22.38 | .016 | 06057> | 4.03 | .009 | 9.15 | .034 | 14.27 | .066 | 19.38 | .027 | 24.50 | .001 |
| 05931> | 1.93 | .009 | 7.05 | .021 | 12.17 | .511 | 17.28 | .032 | 22.40 | .016 | 06058> | 4.05 | .009 | 9.17 | .034 | 14.28 | .064 | 19.40 | .027 | 24.52 | .001 |
| 05932> | 1.95 | .009 | 7.07 | .021 | 12.18 | .511 | 17.30 | .032 | 22.42 | .016 | 06059> | 4.07 | .009 | 9.18 | .034 | 14.30 | .062 | 19.42 | .026 | 24.53 | .001 |
| 05933> | 1.97 | .009 | 7.08 | .021 | 12.20 | .512 | 17.32 | .032 | 22.43 | .016 | 06060> | 4.08 | .009 | 9.20 | .034 | 14.32 | .061 | 19.43 | .026 | 24.55 | .001 |
| 05934> | 1.98 | .009 | 7.10 | .021 | 12.22 | .512 | 17.33 | .032 | 22.45 | .016 | 06061> | 4.10 | .009 | 9.22 | .034 | 14.33 | .060 | 19.45 | .026 | 24.57 | .001 |
| 05935> | 2.00 | .009 | 7.12 | .021 | 12.23 | .512 | 17.35 | .032 | 22.47 | .016 | 06062> | 4.12 | .009 | 9.23 | .034 | 14.35 | .059 | 19.47 | .026 | 24.58 | .001 |
| 05936> | 2.02 | .009 | 7.13 | .021 | 12.25 | .512 | 17.37 | .032 | 22.48 | .016 | 06063> | 4.13 | .009 | 9.25 | .034 | 14.37 | .058 | 19.48 | .026 | 24.60 | .001 |
| 05937> | 2.03 | .009 | 7.15 | .021 | 12.27 | .512 | 17.38 | .032 | 22.50 | .016 | 06064> | 4.15 | .009 | 9.27 | .034 | 14.38 | .058 | 19.50 | .026 | 24.62 | .001 |
| 05938> | 2.05 | .009 | 7.17 | .021 | 12.28 | .511 | 17.40 | .032 | 22.52 | .016 | 06065> | 4.17 | .009 | 9.28 | .034 | 14.40 | .057 | 19.52 | .026 | 24.63 | .001 |
| 05939> | 2.07 | .009 | 7.18 | .021 | 12.30 | .511 | 17.42 | .032 | 22.53 | .016 | 06066> | 4.18 | .009 | 9.30 | .034 | 14.42 | .056 | 19.53 | .025 | 24.65 | .001 |
| 05940> | 2.08 | .009 | 7.20 | .021 | 12.32 | .510 | 17.43 | .032 | 22.55 | .016 | 06067> | 4.20 | .009 | 9.32 | .034 | 14.43 | .056 | 19.55 | .025 | 24.67 | .001 |
| 05941> | 2.10 | .009 | 7.22 | .021 | 12.33 | .509 | 17.45 | .032 | 22.57 | .016 | 06068> | 4.22 | .010 | 9.33 | .034 | 14.45 | .055 | 19.57 | .025 | 24.68 | .000 |
| 05942> | 2.12 | .009 | 7.23 | .021 | 12.35 | .508 | 17.47 | .032 | 22.58 | .016 | 06069> | 4.23 | .012 | 9.35 | .034 | 14.47 | .054 | 19.58 | .025 | 24.70 | .000 |
| 05943> | 2.13 | .009 | 7.25 | .021 | 12.37 | .508 | 17.48 | .032 | 22.60 | .016 | 06070> | 4.25 | .014 | 9.37 | .034 | 14.48 | .054 | 19.60 | .025 | 24.72 | .000 |
| 05944> | 2.15 | .009 | 7.27 | .021 | 12.38 | .507 | 17.50 | .032 | 22.62 | .016 | 06071> | 4.27 | .015 | 9.38 | .034 | 14.50 | .053 | 19.62 | .025 | 24.73 | .000 |
| 05945> | 2.17 | .009 | 7.28 | .021 | 12.40 | .506 | 17.52 | .032 | 22.63 | .016 | 06072> | 4.28 | .016 | 9.40 | .034 | 14.52 | .053 | 19.63 | .025 | 24.75 | .000 |
| 05946> | 2.18 | .009 | 7.30 | .021 | 12.42 | .502 | 17.53 | .032 | 22.65 | .016 | 06073> | 4.30 | .017 | 9.42 | .034 | 14.53 | .053 | 19.65 | .025 | 24.77 | .000 |
| 05947> | 2.20 | .009 | 7.32 | .021 | 12.43 | .498 | 17.55 | .032 | 22.67 | .016 | 06074> | 4.32 | .017 | 9.43 | .034 | 14.55 | .052 | 19.67 | .025 | 24.78 | .000 |
| 05948> | 2.22 | .009 | 7.33 | .021 | 12.45 | .491 | 17.57 | .032 | 22.68 | .016 | 06075> | 4.33 | .017 | 9.45 | .034 | 14.57 | .052 | 19.68 | .025 | 24.80 | .000 |
| 05949> | 2.23 | .009 | 7.35 | .021 | 12.47 | .486 | 17.58 | .032 | 22.70 | .016 | 06076> | 4.35 | .018 | 9.47 | .034 | 14.58 | .051 | 19.70 | .025 | 24.82 | .000 |
| 05950> | 2.25 | .009 | 7.37 | .021 | 12.48 | .482 | 17.60 | .032 | 22.72 | .016 | 06077> | 4.37 | .018 | 9.48 | .034 | 14.60 | .051 | 19.72 | .025 | 24.83 | .000 |
| 05951> | 2.27 | .009 | 7.38 | .021 | 12.50 | .480 | 17.62 | .032 | 22.73 | .016 | 06078> | 4.38 | .018 | 9.50 | .034 | 14.62 | .051 | 19.73 | .025 | 24.85 | .000 |
| 05952> | 2.28 | .009 | 7.40 | .021 | 12.52 | .474 | 17.63 | .032 | 22.75 | .016 | 06079> | 4.40 | .018 | 9.52 | .034 | 14.63 | .051 | 19.75 | .025 | 24.87 | .000 |
| 05953> | 2.30 | .009 | 7.42 | .021 | 12.53 | .456 | 17.65 | .032 | 22.77 | .016 | 06080> | 4.42 | .018 | 9.53 | .034 | 14.65 | .050 | 19.77 | .025 | 24.88 | .000 |
| 05954> | 2.32 | .009 | 7.43 | .021 | 12.55 | .448 | 17.67 | .032 | 22.78 | .016 | 06081> | 4.43 | .018 | 9.55 | .034 | 14.67 | .050 | 19.78 | .025 | 24.90 | .000 |
| 05955> | 2.33 | .009 | 7.45 | .021 | 12.57 | .442 | 17.68 | .032 | 22.80 | .016 | 06082> | 4.45 | .018 | 9.57 | .034 | 14.68 | .050 | 19.80 | .025 | 24.92 | .000 |
| 05956> | 2.35 | .009 | 7.47 | .021 | 12.58 | .435 | 17.70 | .032 | 22.82 | .016 | 06083> | 4.47 | .018 | 9.58 | .034 | 14.70 | .050 | 19.82 | .024 | 24.93 | .000 |
| 05957> | 2.37 | .009 | 7.48 | .021 | 12.60 | .430 | 17.72 | .032 | 22.83 | .016 | 06084> | 4.48 | .018 | 9.60 | .034 | 14.72 | .050 | 19.83 | .024 | 24.95 | .000 |
| 05958> | 2.38 | .009 | 7.50 | .021 | 12.62 | .425 | 17.73 | .032 | 22.85 | .016 | 06085> | 4.50 | .018 | 9.62 | .034 | 14.73 | .050 | 19.85 | .024 | 24.97 | .000 |
| 05959> | 2.40 | .009 | 7.52 | .021 | 12.63 | .420 | 17.75 | .032 | 22.87 | .016 | 06086> | 4.52 | .018 | 9.63 | .034 | 14.75 | .049 | 19.87 | .024 | 24.98 | .000 |
| 05960> | 2.42 | .009 | 7.53 | .021 | 12.65 | .414 | 17.77 | .032 | 22.88 | .016 | 06087> | 4.53 | .018 | 9.65 | .034 | 14.77 | .049 | 19.88 | .024 | 25.00 | .000 |
| 05961> | 2.43 | .009 | 7.55 | .021 | 12.67 | .409 | 17.78 | .032 | 22.90 | .016 | 06088> | 4.55 | .018 | 9.67 | .034 | 14.78 | .049 | 19.90 | .024 | 25.02 | .000 |
| 05962> | 2.45 | .009 | 7.57 | .021 | 12.68 | .405 | 17.80 | .032 | 22.92 | .016 | 06089> | 4.57 | .018 | 9.68 | .034 | 14.80 | .049 | 19.92 | .024 | 25.03 | .000 |
| 05963> | 2.47 | .009 | 7.58 | .021 | 12.70 | .402 | 17.82 | .032 | 22.93 | .016 | 06090> | 4.58 | .018 | 9.70 | .035 | 14.82 | .049 | 19.93 | .024 | 25.05 | .000 |
| 05964> | 2.48 | .009 | 7.60 | .021 | 12.72 | .398 | 17.83 | .032 | 22.95 | .016 | 06091> | 4.60 | .018 | 9.72 | .035 | 14.83 | .049 | 19.95 | .024 | 25.07 | .000 |
| 05965> | 2.50 | .009 | 7.62 | .021 | 12.73 | .390 | 17.85 | .032 | 22.97 | .016 | 06092> | 4.62 | .018 | 9.73 | .035 | 14.85 | .049 | 19.97 | .024 | 25.08 | .000 |
| 05966> | 2.52 | .009 | 7.63 | .021 | 12.75 | .377 | 17.87 | .032 | 22.98 | .016 | 06093> | 4.63 | .018 | 9.75 | .035 | 14.87 | .049 | 19.98 | .024 | 25.10 | .000 |
| 05967> | 2.53 | .009 | 7.65 | .021 | 12.77 | .335 | 17.88 | .032 | 23.00 | .016 | 06094> | 4.65 | .018 | 9.77 | .035 | 14.88 | .049 | 20.00 | .024 | 25.12 | .000 |
| 05968> | 2.55 | .009 | 7.67 | .021 | 12.78 | .322 | 17.90 | .032 | 23.02 | .016 | 06095> | 4.67 | .018 | 9.78 | .035 | 14.90 | .049 | 20.02 | .024 | 25.13 | .000 |
| 05969> | 2.57 | .009 | 7.68 | .021 | 12.80 | .316 | 17.92 | .032 | 23.03 | .016 | 06096> | 4.68 | .018 | 9.80 | .035 | 14.92 | .048 | 20.03 | .024 | 25.15 | .000 |

```
06097>    4.70    .018|   9.82    .035|  14.93    .048|  20.05    .024|  25.17    .000
06098>    4.72    .018|   9.83    .035|  14.95    .048|  20.07    .024|  25.18    .000
06099>    4.73    .018|   9.85    .035|  14.97    .048|  20.08    .024|  25.20    .000
06100>    4.75    .018|   9.87    .035|  14.98    .048|  20.10    .024|  25.22    .000
06101>    4.77    .018|   9.88    .035|  15.00    .048|  20.12    .024|  25.23    .000
06102>    4.78    .018|   9.90    .035|  15.02    .048|  20.13    .024|  25.25    .000
06103>    4.80    .018|   9.92    .035|  15.03    .048|  20.15    .024|  25.27    .000
06104>    4.82    .018|   9.93    .035|  15.05    .048|  20.17    .024|  25.28    .000
06105>    4.83    .018|   9.95    .035|  15.07    .048|  20.18    .024|  25.30    .000
06106>    4.85    .018|   9.97    .035|  15.08    .048|  20.20    .024|  25.32    .000
06107>    4.87    .018|   9.98    .035|  15.10    .048|  20.22    .024|  25.33    .000
06108>    4.88    .018|  10.00    .035|  15.12    .048|  20.23    .024|  25.35    .000
06109>    4.90    .018|  10.02    .035|  15.13    .048|  20.25    .024|  25.37    .000
06110>    4.92    .018|  10.03    .035|  15.15    .048|  20.27    .024|  25.38    .000
06111>    4.93    .018|  10.05    .035|  15.17    .048|  20.28    .024|  25.40    .000
06112>    4.95    .018|  10.07    .035|  15.18    .048|  20.30    .024|  25.42    .000
06113>    4.97    .018|  10.08    .035|  15.20    .048|  20.32    .024|  25.43    .000
06114>    4.98    .018|  10.10    .035|  15.22    .048|  20.33    .024|  25.45    .000
06115>    5.00    .018|  10.12    .035|  15.23    .048|  20.35    .024|  25.47    .000
06116>    5.02    .018|  10.13    .035|  15.25    .048|  20.37    .024|  25.48    .000
06117>    5.03    .019|  10.15    .035|  15.27    .048|  20.38    .024|  25.50    .000
06118>    5.05    .019|  10.17    .035|  15.28    .048|  20.40    .024|  25.52    .000
06119>    5.07    .019|  10.18    .035|  15.30    .048|  20.42    .024|  25.53    .000
06120>    5.08    .019|  10.20    .035|  15.32    .048|  20.43    .024|  25.55    .000
06121>    5.10    .019|  10.22    .037|  15.33    .048|  20.45    .024|
06122> --------------------------------------------------------------------------------
06123> 001:0158-------------------------------------------------------------------------
06124> *
06125> *
06126> *
06127> *#########################
06128> *#    DRAINAGE AREA 54 ||
06129> *#                     ||
06130> *#########################
06131> *
06132> *
06133> ----------------------
06134> | CALIB STANDHYD     |   Area    (ha)=   13.08
06135> | 04:000204 DT=12.00 |   Total Imp(%)=   50.00   Dir. Conn.(%)=   29.00
06136> ----------------------
06137>                              IMPERVIOUS    PERVIOUS (i)
06138>      Surface Area     (ha)=       6.54         6.54
06139>      Dep. Storage     (mm)=        .80         1.50
06140>      Average Slope     (%)=        .20         2.00
06141>      Length            (m)=     475.00        40.00
06142>      Mannings n             =      .013         .250
06143>
06144>      Max.eff.Inten.(mm/hr)=     118.68       122.75
06145>                    over (min)       12.00        12.00
06146>      Storage Coeff.  (min)=       9.85 (ii)   16.35 (ii)
06147>      Unit Hyd. Tpeak (min)=      12.00        12.00
06148>      Unit Hyd. peak  (cms)=        .10          .07
06149>                                                          *TOTALS*
06150>      PEAK FLOW       (cms)=       1.02         1.45         2.470 (iii)
06151>      TIME TO PEAK    (hrs)=      12.20        12.20        12.200
06152>      RUNOFF VOLUME    (mm)=     102.40        64.50        75.488
06153>      TOTAL RAINFALL   (mm)=     103.20       103.20       103.200
06154>      RUNOFF COEFFICIENT   =        .99          .62          .731
06155>       *** WARNING: Storage Coefficient is smaller than DT!
06156>                    Use a smaller DT or a larger area.
06157>
06158>        (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
06159>            CN* =  75.0    Ia = Dep. Storage  (Above)
06160>       (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
06161>            THAN THE STORAGE COEFFICIENT.
06162>      (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
06163>
06164> --------------------------------------------------------------------------------
06165> 001:0159-------------------------------------------------------------------------
06166> *
06167> *
06168> *#########################
06169> *# OSD 85 L/S/HA 30 L/S/HA
06170> *#  85*10.89 = 925.7 L/S
06171> *#  30*2.19 = 65.7 L/S
06172> *#  TOTAL = 991.4 L/S
06173> *#########################
06174> *
06175> ----------------------
06176> | ROUTE RESERVOIR   |    Requested routing time step = 12.0 min.
06177> |  IN>04:(000204)   |
06178> | OUT<05:(000471)   |    =========  OUTLFOW STORAGE TABLE  =========
06179> ----------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
06180>                             (cms)    (ha.m.)   |    (cms)    (ha.m.)
06181>                              .000  .0000E+00   |     .991  .1455E+00
06182>                              .950  .2000E-02   |     .000  .0000E+00
06183>
06184>      ROUTING RESULTS            AREA     QPEAK     TPEAK       R.V.
06185>      ---------------------       (ha)     (cms)     (hrs)       (mm)
06186>      INFLOW >04: (000204)      13.08     2.470    12.200     75.488
06187>      OUTFLOW<05: (000471)      13.08      .990    12.600     75.489
06188>
06189>                     PEAK   FLOW   REDUCTION [Qout/Qin](%)=   40.071
06190>                     TIME SHIFT OF PEAK FLOW         (min)=    24.00
06191>                     MAXIMUM  STORAGE   USED       (ha.m.)=.1462E+00
06192>
06193> --------------------------------------------------------------------------------
06194> 001:0160-------------------------------------------------------------------------
06195> *
06196> *# ADD AREA 52 AND 54
06197> *
06198> ------------------------
06199> | ADD HYD (       463) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
06200> ------------------------                   (ha)     (cms)   (hrs)   (mm)   (cms)
06201>                        ID1 03:       217     5.66     .512   12.23  80.90    .000
06202>                       +ID2 05:       471    13.08     .990   12.60  75.49    .000
06203>                        ========================================================
06204>                        SUM 09:       463    18.74    1.494   12.40  77.12    .000
06205>
06206>    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
06207>
06208> --------------------------------------------------------------------------------
06209> 001:0161-------------------------------------------------------------------------
06210> *
06211> *# MH 107
06212> *
06213> *# ADD TO REST
06214> *
06215> ------------------------
06216> | ADD HYD (       463) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
06217> ------------------------                   (ha)     (cms)   (hrs)   (mm)   (cms)
06218>                        ID1 09:       463    18.74    1.494   12.40  77.12    .000
06219>                       +ID2 08:       584    39.99    3.329   12.43  80.15    .000
06220>                        ========================================================
06221>                        SUM 05:       463    58.73    4.820   12.40  79.18    .000
06222>
06223>    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
06224>
06225> --------------------------------------------------------------------------------
06226> 001:0162-------------------------------------------------------------------------
06227> *
06228> *
06229> *#########################
06230> *#    DRAINAGE AREA 55 ||
06231> *#                     ||
06232> *#########################
06233> *
06234> *
06235> ----------------------
06236> | CALIB STANDHYD     |   Area    (ha)=   15.69
06237> | 01:000204 DT=12.00 |   Total Imp(%)=   60.00   Dir. Conn.(%)=   37.00
06238> ----------------------
06239>                              IMPERVIOUS    PERVIOUS (i)
06240>      Surface Area     (ha)=       9.41         6.28
06241>      Dep. Storage     (mm)=        .80         1.50
06242>      Average Slope     (%)=        .20         2.00
06243>      Length            (m)=     530.00        40.00
06244>      Mannings n             =      .013         .250
06245>
06246>      Max.eff.Inten.(mm/hr)=     118.68       141.13
06247>                    over (min)       12.00        12.00
06248>      Storage Coeff.  (min)=      10.52 (ii)   16.67 (ii)
06249>      Unit Hyd. Tpeak (min)=      12.00        12.00
06250>      Unit Hyd. peak  (cms)=        .10          .07
06251>                                                          *TOTALS*
06252>      PEAK FLOW       (cms)=       1.54         1.58         3.119 (iii)
06253>      TIME TO PEAK    (hrs)=      12.20        12.20        12.200
06254>      RUNOFF VOLUME    (mm)=     102.40        67.01        80.107
06255>      TOTAL RAINFALL   (mm)=     103.20       103.20       103.200
06256>      RUNOFF COEFFICIENT   =        .99          .65          .776
06257>       *** WARNING: Storage Coefficient is smaller than DT!
06258>                    Use a smaller DT or a larger area.
06259>
06260>        (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
06261>            CN* =  75.0    Ia = Dep. Storage  (Above)
06262>       (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
06263>            THAN THE STORAGE COEFFICIENT.
06264>      (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
06265>
06266> --------------------------------------------------------------------------------
06267> 001:0163-------------------------------------------------------------------------
06268> *
06269> *
06270> *#########################
06271> *# OSD 85 L/S/HA
06272> *#  85*15.69 = 1334 L/S
06273> *#########################
06274> *
06275> ----------------------
06276> | ROUTE RESERVOIR   |    Requested routing time step = 12.0 min.
06277> |  IN>01:(000204)   |
06278> | OUT<09:(000471)   |    =========  OUTLFOW STORAGE TABLE  =========
06279> ----------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
06280>                             (cms)    (ha.m.)   |    (cms)    (ha.m.)
06281>                              .000  .0000E+00   |    1.334  .1825E+00
06282>                             1.300  .2000E-02   |     .000  .0000E+00
06283>
06284>      ROUTING RESULTS            AREA     QPEAK     TPEAK       R.V.
06285>      ---------------------       (ha)     (cms)     (hrs)       (mm)
06286>      INFLOW >01: (000204)      15.69     3.119    12.200     80.107
06287>      OUTFLOW<09: (000471)      15.69     1.329    12.600     81.465
06288>
06289>                     PEAK   FLOW   REDUCTION [Qout/Qin](%)=   42.599
06290>                     TIME SHIFT OF PEAK FLOW         (min)=    24.00
06291>                     MAXIMUM  STORAGE   USED       (ha.m.)=.1661E+00
06292>
06293>       *** WARNING: Outflow volume is less than inflow volume.
06294> --------------------------------------------------------------------------------
06295> 001:0164-------------------------------------------------------------------------
06296> *
06297> *# MH 105
06298> *
06299> *# TRUNK 2
06300> *
06301> ------------------------
06302> | ADD HYD (       874) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
06303> ------------------------                   (ha)     (cms)   (hrs)   (mm)   (cms)
06304>                        ID1 09:       471    15.69    1.329   12.60  81.47    .000
06305>                       +ID2 05:       463    58.73    4.820   12.40  79.18    .000
06306>                        ========================================================
06307>                        SUM 04:       874    74.42    6.148   12.40  79.66    .000
06308>
06309>    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
06310>
06311> --------------------------------------------------------------------------------
06312> 001:0165-------------------------------------------------------------------------
06313> *
06314> *
06315> --------------------
06316> | SAVE HYD          |   AREA      (ha)=   74.420
06317> | ID=04 (000874)    |   QPEAK    (cms)=    6.148 (i)
06318> | DT= 1.00 PCYC=-1  |   TPEAK    (hrs)=   12.400
06319> --------------------   VOLUME      (mm)=   79.664
06320>   Filename: C:\SWMHYMO\111083\2018-0~1\104.035
06321>   Comments: 104-24SCS100
06322>
06323>      (i)  PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
06324> --------------------------------------------------------------------------------
06325> 001:0166-------------------------------------------------------------------------
06326> *
06327> *
06328> *#################################
06329> *#  ADD TWO TRUNKS
06330> *#################################
06331> *
06332> ------------------------
06333> | ADD HYD (       562) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
06334> ------------------------                   (ha)     (cms)   (hrs)   (mm)   (cms)
06335>                        ID1 04:       874    74.42    6.148   12.40  79.66    .000
06336>                       +ID2 06:       450    72.56    5.712   12.60  78.81    .000
06337>                        ========================================================
06338>                        SUM 09:       562   146.98   11.854   12.40  79.24    .000
06339>
06340>    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
06341>
06342> --------------------------------------------------------------------------------
06343> 001:0167-------------------------------------------------------------------------
06344> *
06345> *
06346> *
06347> *#####################################################
06348> *# ISGAR LANDS (EAST AND WEST OF AVALON SOUTH POND)
06349> *#####################################################
06350> *
```

```
06351> *# ISGAR LANDS - AREA I1
06352> *# NEW WESTERN INLET
06353> *
06354> ----------------------
06355> | CALIB STANDHYD     |   Area    (ha)=    8.35
06356> | 01:I1     DT=12.00 |   Total Imp(%)=   60.00   Dir. Conn.(%)=   45.00
06357> ----------------------
06358>                              IMPERVIOUS    PERVIOUS (i)
06359>      Surface Area     (ha)=       5.01         3.34
06360>      Dep. Storage     (mm)=        .80         1.50
06361>      Average Slope     (%)=        .20         2.00
06362>      Length            (m)=     357.00        40.00
06363>      Mannings n           =       .013         .250
06364>
06365>      Max.eff.Inten.(mm/hr)=     118.68       117.47
06366>                   over (min)       12.00        12.00
06367>      Storage Coeff.  (min)=       8.30 (ii)   14.91 (ii)
06368>      Unit Hyd. Tpeak (min)=      12.00        12.00
06369>      Unit Hyd. peak  (cms)=        .11          .08
06370>                                                          *TOTALS*
06371>      PEAK FLOW       (cms)=       1.07          .74         1.804 (iii)
06372>      TIME TO PEAK    (hrs)=      12.20        12.20        12.200
06373>      RUNOFF VOLUME    (mm)=     102.40        63.70        81.113
06374>      TOTAL RAINFALL   (mm)=     103.20       103.20       103.200
06375>      RUNOFF COEFFICIENT   =        .99          .62          .786
06376>       *** WARNING: Storage Coefficient is smaller than DT!
06377>                    Use a smaller DT or a larger area.
06378>
06379>        (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
06380>            CN* =  75.0    Ia = Dep. Storage  (Above)
06381>       (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
06382>            THAN THE STORAGE COEFFICIENT.
06383>      (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
06384>
06385> ------------------------------------------------------------------------------
06386> 001:0168---------------------------------------------------------------------
06387> *
06388> *
06389> *#=========================
06390> *# INFLOW 200 l/s/ha = 8.35 x 200 = 1670 l/s
06391> *# ON-SITE STORAGE (30% LESS THAN AVALON WEST) - 75.60 m3/ha = 631.3 M3
06392> *#=========================
06393> *
06394> --------------------
06395> | ROUTE RESERVOIR   |    Requested routing time step =  1.0 min.
06396> |  IN>01:(I1    )   |
06397> | OUT<04:(I1    )   |    =========  OUTLFOW STORAGE TABLE  =========
06398> --------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
06399>                           (cms)    (ha.m.)   |    (cms)    (ha.m.)
06400>                            .000  .0000E+00   |    1.670  .6313E-01
06401>                           1.660  .2000E-02   |     .000  .0000E+00
06402>
06403>      ROUTING RESULTS            AREA     QPEAK     TPEAK       R.V.
06404>      --------------------       (ha)     (cms)     (hrs)       (mm)
06405>      INFLOW >01: (I1    )       8.35     1.804    12.200     81.113
06406>      OUTFLOW<04: (I1    )       8.35     1.660    12.233     81.113
06407>     OVERFLOW<06: (000487)        .00      .000      .000       .000
06408>
06409>                     TOTAL NUMBER OF SIMULATED OVERFLOWS  =        0
06410>                     CUMULATIVE TIME OF OVERFLOWS  (hours)=      .00
06411>                     PERCENTAGE OF TIME OVERFLOWING    (%)=      .00
06412>
06413>
06414>                     PEAK   FLOW   REDUCTION [Qout/Qin](%)=   92.029
06415>                     TIME SHIFT OF PEAK FLOW         (min)=     2.00
06416>                     MAXIMUM  STORAGE   USED       (ha.m.)=.3625E-02
06417>
06418> ------------------------------------------------------------------------------
06419> 001:0169---------------------------------------------------------------------
06420> *
06421> *# TOTAL (MINOR AND MAJOR FLOW) FROM I1 TO POND
06422> *
06423> ----------------------
06424> | ADD HYD (       784) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
06425> ----------------------                    (ha)     (cms)   (hrs)   (mm)   (cms)
06426>                        ID1 04:I1          8.35     1.660   12.23  81.11    .000
06427>                      +ID2 06:       487     .00      .000     .00    .00    .000
06428>                       ============================================================
06429>                       SUM 07:        784     8.35    1.660   12.23  81.11    .000
06430>
06431>    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
06432>
06433> ------------------------------------------------------------------------------
06434> 001:0170---------------------------------------------------------------------
06435> *
06436> *
06437> *#================================================================
06438> *# MAJOR OVERLAND FLOW FROM AREAS EAST OF PORTOBELLO TO FACILITY
06439> *# FORMERLY AREAS 51 AND 52 (26.06 HA TOTAL AREA)
06440> *# TO BE CAPTURED BY MINOR SYSTEM STORM SEWERS IN EASTERN ISGAR
06441> *#================================================================
06442> *
06443> *
06444> --------------------
06445> | READ HYD          |   AREA       (ha)=    1.540
06446> | ID=05 (005152)    |   QPEAK     (cms)=    1.939
06447> | DT= 1.00 PCYC= 1  |   TPEAK     (hrs)=   12.233
06448> --------------------   VOLUME       (mm)=   82.898
06449>   Filename: C:\SWMHYMO\111083\2018-0~1\H-MAJout.035
06450>   Comments: Major System Outflow from Portobello Blvd
06451>
06452>   TIME    FLOW |  TIME    FLOW |  TIME    FLOW |  TIME    FLOW |  TIME    FLOW
06453>    hrs     cms |   hrs     cms |   hrs     cms |   hrs     cms |   hrs     cms
06454>     .00    .000|  2.53    .000|  5.07    .000|  7.60    .000|  10.13   .000
06455>     .02    .000|  2.55    .000|  5.08    .000|  7.62    .000|  10.15   .000
06456>     .03    .000|  2.57    .000|  5.10    .000|  7.63    .000|  10.17   .000
06457>     .05    .000|  2.58    .000|  5.12    .000|  7.65    .000|  10.18   .000
06458>     .07    .000|  2.60    .000|  5.13    .000|  7.67    .000|  10.20   .000
06459>     .08    .000|  2.62    .000|  5.15    .000|  7.68    .000|  10.22   .000
06460>     .10    .000|  2.63    .000|  5.17    .000|  7.70    .000|  10.23   .000
06461>     .12    .000|  2.65    .000|  5.18    .000|  7.72    .000|  10.25   .000
06462>     .13    .000|  2.67    .000|  5.20    .000|  7.73    .000|  10.27   .000
06463>     .15    .000|  2.68    .000|  5.22    .000|  7.75    .000|  10.28   .000
06464>     .17    .000|  2.70    .000|  5.23    .000|  7.77    .000|  10.30   .000
06465>     .18    .000|  2.72    .000|  5.25    .000|  7.78    .000|  10.32   .000
06466>     .20    .000|  2.73    .000|  5.27    .000|  7.80    .000|  10.33   .000
06467>     .22    .000|  2.75    .000|  5.28    .000|  7.82    .000|  10.35   .000
06468>     .23    .000|  2.77    .000|  5.30    .000|  7.83    .000|  10.37   .000
06469>     .25    .000|  2.78    .000|  5.32    .000|  7.85    .000|  10.38   .000
06470>     .27    .000|  2.80    .000|  5.33    .000|  7.87    .000|  10.40   .000
06471>     .28    .000|  2.82    .000|  5.35    .000|  7.88    .000|  10.42   .000
06472>     .30    .000|  2.83    .000|  5.37    .000|  7.90    .000|  10.43   .000
06473>     .32    .000|  2.85    .000|  5.38    .000|  7.92    .000|  10.45   .000
06474>     .33    .000|  2.87    .000|  5.40    .000|  7.93    .000|  10.47   .000
06475>     .35    .000|  2.88    .000|  5.42    .000|  7.95    .000|  10.48   .000
06476>     .37    .000|  2.90    .000|  5.43    .000|  7.97    .000|  10.50   .000
06477>     .38    .000|  2.92    .000|  5.45    .000|  7.98    .000|  10.52   .000
06478>     .40    .000|  2.93    .000|  5.47    .000|  8.00    .000|  10.53   .000
06479>     .42    .000|  2.95    .000|  5.48    .000|  8.02    .000|  10.55   .000
06480>     .43    .000|  2.97    .000|  5.50    .000|  8.03    .000|  10.57   .000
06481>     .45    .000|  2.98    .000|  5.52    .000|  8.05    .000|  10.58   .000
06482>     .47    .000|  3.00    .000|  5.53    .000|  8.07    .000|  10.60   .000
06483>     .48    .000|  3.02    .000|  5.55    .000|  8.08    .000|  10.62   .000
06484>     .50    .000|  3.03    .000|  5.57    .000|  8.10    .000|  10.63   .000
06485>     .52    .000|  3.05    .000|  5.58    .000|  8.12    .000|  10.65   .000
06486>     .53    .000|  3.07    .000|  5.60    .000|  8.13    .000|  10.67   .000
06487>     .55    .000|  3.08    .000|  5.62    .000|  8.15    .000|  10.68   .000
06488>     .57    .000|  3.10    .000|  5.63    .000|  8.17    .000|  10.70   .000
06489>     .58    .000|  3.12    .000|  5.65    .000|  8.18    .000|  10.72   .000
06490>     .60    .000|  3.13    .000|  5.67    .000|  8.20    .000|  10.73   .000
06491>     .62    .000|  3.15    .000|  5.68    .000|  8.22    .000|  10.75   .000
06492>     .63    .000|  3.17    .000|  5.70    .000|  8.23    .000|  10.77   .000
06493>     .65    .000|  3.18    .000|  5.72    .000|  8.25    .000|  10.78   .000
06494>     .67    .000|  3.20    .000|  5.73    .000|  8.27    .000|  10.80   .000
06495>     .68    .000|  3.22    .000|  5.75    .000|  8.28    .000|  10.82   .000
06496>     .70    .000|  3.23    .000|  5.77    .000|  8.30    .000|  10.83   .000
06497>     .72    .000|  3.25    .000|  5.78    .000|  8.32    .000|  10.85   .000
06498>     .73    .000|  3.27    .000|  5.80    .000|  8.33    .000|  10.87   .000
06499>     .75    .000|  3.28    .000|  5.82    .000|  8.35    .000|  10.88   .000
06500>     .77    .000|  3.30    .000|  5.83    .000|  8.37    .000|  10.90   .000
06501>     .78    .000|  3.32    .000|  5.85    .000|  8.38    .000|  10.92   .000
06502>     .80    .000|  3.33    .000|  5.87    .000|  8.40    .000|  10.93   .000
06503>     .82    .000|  3.35    .000|  5.88    .000|  8.42    .000|  10.95   .000
06504>     .83    .000|  3.37    .000|  5.90    .000|  8.43    .000|  10.97   .000
06505>     .85    .000|  3.38    .000|  5.92    .000|  8.45    .000|  10.98   .000
06506>     .87    .000|  3.40    .000|  5.93    .000|  8.47    .000|  11.00   .000
06507>     .88    .000|  3.42    .000|  5.95    .000|  8.48    .000|  11.02   .000
06508>     .90    .000|  3.43    .000|  5.97    .000|  8.50    .000|  11.03   .000
06509>     .92    .000|  3.45    .000|  5.98    .000|  8.52    .000|  11.05   .000
06510>     .93    .000|  3.47    .000|  6.00    .000|  8.53    .000|  11.07   .000
06511>     .95    .000|  3.48    .000|  6.02    .000|  8.55    .000|  11.08   .000
06512>     .97    .000|  3.50    .000|  6.03    .000|  8.57    .000|  11.10   .000
06513>     .98    .000|  3.52    .000|  6.05    .000|  8.58    .000|  11.12   .000
06514>    1.00    .000|  3.53    .000|  6.07    .000|  8.60    .000|  11.13   .000
06515>    1.02    .000|  3.55    .000|  6.08    .000|  8.62    .000|  11.15   .000
06516>    1.03    .000|  3.57    .000|  6.10    .000|  8.63    .000|  11.17   .000
06517>    1.05    .000|  3.58    .000|  6.12    .000|  8.65    .000|  11.18   .000
06518>    1.07    .000|  3.60    .000|  6.13    .000|  8.67    .000|  11.20   .000
06519>    1.08    .000|  3.62    .000|  6.15    .000|  8.68    .000|  11.22   .000
06520>    1.10    .000|  3.63    .000|  6.17    .000|  8.70    .000|  11.23   .000
06521>    1.12    .000|  3.65    .000|  6.18    .000|  8.72    .000|  11.25   .000
06522>    1.13    .000|  3.67    .000|  6.20    .000|  8.73    .000|  11.27   .000
06523>    1.15    .000|  3.68    .000|  6.22    .000|  8.75    .000|  11.28   .000
06524>    1.17    .000|  3.70    .000|  6.23    .000|  8.77    .000|  11.30   .000
06525>    1.18    .000|  3.72    .000|  6.25    .000|  8.78    .000|  11.32   .000
06526>    1.20    .000|  3.73    .000|  6.27    .000|  8.80    .000|  11.33   .000
06527>    1.22    .000|  3.75    .000|  6.28    .000|  8.82    .000|  11.35   .000
06528>    1.23    .000|  3.77    .000|  6.30    .000|  8.83    .000|  11.37   .000
06529>    1.25    .000|  3.78    .000|  6.32    .000|  8.85    .000|  11.38   .000
06530>    1.27    .000|  3.80    .000|  6.33    .000|  8.87    .000|  11.40   .000
06531>    1.28    .000|  3.82    .000|  6.35    .000|  8.88    .000|  11.42   .000
06532>    1.30    .000|  3.83    .000|  6.37    .000|  8.90    .000|  11.43   .000
06533>    1.32    .000|  3.85    .000|  6.38    .000|  8.92    .000|  11.45   .000
06534>    1.33    .000|  3.87    .000|  6.40    .000|  8.93    .000|  11.47   .000
06535>    1.35    .000|  3.88    .000|  6.42    .000|  8.95    .000|  11.48   .000
06536>    1.37    .000|  3.90    .000|  6.43    .000|  8.97    .000|  11.50   .000
06537>    1.38    .000|  3.92    .000|  6.45    .000|  8.98    .000|  11.52   .000
06538>    1.40    .000|  3.93    .000|  6.47    .000|  9.00    .000|  11.53   .000
06539>    1.42    .000|  3.95    .000|  6.48    .000|  9.02    .000|  11.55   .000
06540>    1.43    .000|  3.97    .000|  6.50    .000|  9.03    .000|  11.57   .000
06541>    1.45    .000|  3.98    .000|  6.52    .000|  9.05    .000|  11.58   .000
06542>    1.47    .000|  4.00    .000|  6.53    .000|  9.07    .000|  11.60   .000
06543>    1.48    .000|  4.02    .000|  6.55    .000|  9.08    .000|  11.62   .000
06544>    1.50    .000|  4.03    .000|  6.57    .000|  9.10    .000|  11.63   .000
06545>    1.52    .000|  4.05    .000|  6.58    .000|  9.12    .000|  11.65   .000
06546>    1.53    .000|  4.07    .000|  6.60    .000|  9.13    .000|  11.67   .000
06547>    1.55    .000|  4.08    .000|  6.62    .000|  9.15    .000|  11.68   .000
06548>    1.57    .000|  4.10    .000|  6.63    .000|  9.17    .000|  11.70   .000
06549>    1.58    .000|  4.12    .000|  6.65    .000|  9.18    .000|  11.72   .000
06550>    1.60    .000|  4.13    .000|  6.67    .000|  9.20    .000|  11.73   .000
06551>    1.62    .000|  4.15    .000|  6.68    .000|  9.22    .000|  11.75   .000
06552>    1.63    .000|  4.17    .000|  6.70    .000|  9.23    .000|  11.77   .000
06553>    1.65    .000|  4.18    .000|  6.72    .000|  9.25    .000|  11.78   .000
06554>    1.67    .000|  4.20    .000|  6.73    .000|  9.27    .000|  11.80   .000
06555>    1.68    .000|  4.22    .000|  6.75    .000|  9.28    .000|  11.82   .000
06556>    1.70    .000|  4.23    .000|  6.77    .000|  9.30    .000|  11.83   .000
06557>    1.72    .000|  4.25    .000|  6.78    .000|  9.32    .000|  11.85   .000
06558>    1.73    .000|  4.27    .000|  6.80    .000|  9.33    .000|  11.87   .000
06559>    1.75    .000|  4.28    .000|  6.82    .000|  9.35    .000|  11.88   .000
06560>    1.77    .000|  4.30    .000|  6.83    .000|  9.37    .000|  11.90   .000
06561>    1.78    .000|  4.32    .000|  6.85    .000|  9.38    .000|  11.92   .000
06562>    1.80    .000|  4.33    .000|  6.87    .000|  9.40    .000|  11.93   .000
06563>    1.82    .000|  4.35    .000|  6.88    .000|  9.42    .000|  11.95   .000
06564>    1.83    .000|  4.37    .000|  6.90    .000|  9.43    .000|  11.97   .000
06565>    1.85    .000|  4.38    .000|  6.92    .000|  9.45    .000|  11.98   .000
06566>    1.87    .000|  4.40    .000|  6.93    .000|  9.47    .000|  12.00   .000
06567>    1.88    .000|  4.42    .000|  6.95    .000|  9.48    .000|  12.02   .000
06568>    1.90    .000|  4.43    .000|  6.97    .000|  9.50    .000|  12.03   .000
06569>    1.92    .000|  4.45    .000|  6.98    .000|  9.52    .000|  12.05   .000
06570>    1.93    .000|  4.47    .000|  7.00    .000|  9.53    .000|  12.07   .000
06571>    1.95    .000|  4.48    .000|  7.02    .000|  9.55    .000|  12.08   .000
06572>    1.97    .000|  4.50    .000|  7.03    .000|  9.57    .000|  12.10   .368
06573>    1.98    .000|  4.52    .000|  7.05    .000|  9.58    .000|  12.12   .536
06574>    2.00    .000|  4.53    .000|  7.07    .000|  9.60    .000|  12.13   .785
06575>    2.02    .000|  4.55    .000|  7.08    .000|  9.62    .000|  12.15  1.054
06576>    2.03    .000|  4.57    .000|  7.10    .000|  9.63    .000|  12.17  1.256
06577>    2.05    .000|  4.58    .000|  7.12    .000|  9.65    .000|  12.18  1.412
06578>    2.07    .000|  4.60    .000|  7.13    .000|  9.67    .000|  12.20  1.562
06579>    2.08    .000|  4.62    .000|  7.15    .000|  9.68    .000|  12.22  1.797
06580>    2.10    .000|  4.63    .000|  7.17    .000|  9.70    .000|  12.23  1.939
06581>    2.12    .000|  4.65    .000|  7.18    .000|  9.72    .000|  12.25  1.844
06582>    2.13    .000|  4.67    .000|  7.20    .000|  9.73    .000|  12.27  1.663
06583>    2.15    .000|  4.68    .000|  7.22    .000|  9.75    .000|  12.28  1.439
06584>    2.17    .000|  4.70    .000|  7.23    .000|  9.77    .000|  12.30  1.167
06585>    2.18    .000|  4.72    .000|  7.25    .000|  9.78    .000|  12.32   .891
06586>    2.20    .000|  4.73    .000|  7.27    .000|  9.80    .000|  12.33   .650
06587>    2.22    .000|  4.75    .000|  7.28    .000|  9.82    .000|  12.35   .495
06588>    2.23    .000|  4.77    .000|  7.30    .000|  9.83    .000|  12.37   .460
06589>    2.25    .000|  4.78    .000|  7.32    .000|  9.85    .000|  12.38   .457
06590>    2.27    .000|  4.80    .000|  7.33    .000|  9.87    .000|  12.40   .427
06591>    2.28    .000|  4.82    .000|  7.35    .000|  9.88    .000|  12.42   .369
06592>    2.30    .000|  4.83    .000|  7.37    .000|  9.90    .000|  12.43   .299
06593>    2.32    .000|  4.85    .000|  7.38    .000|  9.92    .000|  12.45   .220
06594>    2.33    .000|  4.87    .000|  7.40    .000|  9.93    .000|  12.47   .147
06595>    2.35    .000|  4.88    .000|  7.42    .000|  9.95    .000|  12.48   .000
06596>    2.37    .000|  4.90    .000|  7.43    .000|  9.97    .000|  12.50   .000
06597>    2.38    .000|  4.92    .000|  7.45    .000|  9.98    .000|  12.52   .000
06598>    2.40    .000|  4.93    .000|  7.47    .000| 10.00    .000|  12.53   .000
06599>    2.42    .000|  4.95    .000|  7.48    .000| 10.02    .000|  12.55   .035
06600>    2.43    .000|  4.97    .000|  7.50    .000| 10.03    .000|  12.57   .000
06601>    2.45    .000|  4.98    .000|  7.52    .000| 10.05    .000|  12.58   .013
06602>    2.47    .000|  5.00    .000|  7.53    .000| 10.07    .000|
06603>    2.48    .000|  5.02    .000|  7.55    .000| 10.08    .000|
06604>    2.50    .000|  5.03    .000|  7.57    .000| 10.10    .000|
```

```
06605>    2.52    .000|   5.05    .000|   7.58    .000|  10.12    .000|
06606> ------------------------------------------------------------------------------
06607> 001:0171------------------------------------------------------------------------
06608> *
06609> *
06610> *
06611> *# ISGAR LANDS - AREA I2
06612> *# NEW EASTERN INLET
06613> *
06614> ----------------------
06615> | CALIB STANDHYD     |   Area    (ha)=   12.02
06616> | 06:I2     DT=12.00 |   Total Imp(%)=   65.00   Dir. Conn.(%)=   51.00
06617> ----------------------
06618>                             IMPERVIOUS    PERVIOUS (i)
06619>      Surface Area     (ha)=       7.81        4.21
06620>      Dep. Storage     (mm)=        .80        1.50
06621>      Average Slope     (%)=        .20        2.00
06622>      Length            (m)=     479.00       40.00
06623>      Mannings n           =       .013        .250
06624>
06625>      Max.eff.Inten.(mm/hr)=     118.68      120.40
06626>                   over (min)       12.00       12.00
06627>      Storage Coeff.  (min)=       9.90 (ii)   16.45 (ii)
06628>      Unit Hyd. Tpeak (min)=      12.00       12.00
06629>      Unit Hyd. peak  (cms)=        .10         .07
06630>                                                          *TOTALS*
06631>      PEAK FLOW       (cms)=       1.65         .91         2.562 (iii)
06632>      TIME TO PEAK    (hrs)=      12.20       12.20        12.200
06633>      RUNOFF VOLUME    (mm)=     102.40       64.14        83.655
06634>      TOTAL RAINFALL   (mm)=     103.20      103.20       103.200
06635>      RUNOFF COEFFICIENT   =        .99         .62          .811
06636>       *** WARNING: Storage Coefficient is smaller than DT!
06637>                    Use a smaller DT or a larger area.
06638>
06639>       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
06640>           CN* =  75.0    Ia = Dep. Storage  (Above)
06641>      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
06642>           THAN THE STORAGE COEFFICIENT.
06643>     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
06644>
06645> ------------------------------------------------------------------------------
06646> 001:0172------------------------------------------------------------------------
06647> *
06648> *
06649> *
06650> *#########################
06651> *# INFLOW 200 L/S/HA - 12.02 X 200 = 2404 L/S
06652> *# ON-SITE STORAGE (30% LESS THAN AVALON WEST) - 84.90 m3/ha = 1020.5 M3
06653> *#########################
06654> *
06655> ----------------------
06656> | ROUTE RESERVOIR   |    Requested routing time step =  1.0 min.
06657> |  IN>06:(I2    )   |
06658> | OUT<04:(I2    )   |    =========  OUTLFOW STORAGE TABLE  =========
06659> ----------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
06660>                             (cms)    (ha.m.)   |    (cms)    (ha.m.)
06661>                              .000  .0000E+00   |    2.404  .1020E+00
06662>                             2.390  .2000E-02   |     .000  .0000E+00
06663>
06664>      ROUTING RESULTS            AREA     QPEAK     TPEAK       R.V.
06665>      --------------------        (ha)     (cms)     (hrs)       (mm)
06666>      INFLOW >06: (I2    )      12.02     2.562    12.200     83.655
06667>      OUTFLOW<04: (I2    )      12.02     2.390    12.233     83.655
06668>     OVERFLOW<08: (000487)        .00      .000      .000       .000
06669>
06670>                    TOTAL NUMBER OF SIMULATED OVERFLOWS  =        0
06671>                    CUMULATIVE TIME OF OVERFLOWS  (hours)=      .00
06672>                    PERCENTAGE OF TIME OVERFLOWING    (%)=      .00
06673>
06674>
06675>                    PEAK   FLOW   REDUCTION [Qout/Qin](%)=   93.285
06676>                    TIME SHIFT OF PEAK FLOW         (min)=     2.00
06677>                    MAXIMUM  STORAGE   USED       (ha.m.)=.3757E-02
06678>
06679> ------------------------------------------------------------------------------
06680> 001:0173------------------------------------------------------------------------
06681> *
06682> *# TOTAL MINOR FLOW (MAJOR FLOW PORTOBELLO AND I2)
06683> *
06684> ------------------------
06685> | ADD HYD (       845) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
06686> ------------------------                  (ha)     (cms)   (hrs)   (mm)   (cms)
06687>                     ID1 04:I2           12.02    2.390   12.23  83.65    .000
06688>                    +ID2 05:      5152     1.54    1.939   12.23  82.90    .000
06689>                     ========================================================
06690>                     SUM 06:       845    13.56    4.329   12.23  83.57    .000
06691>
06692>    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
06693>
06694> ------------------------------------------------------------------------------
06695> 001:0174------------------------------------------------------------------------
06696> *
06697> *# ISGAR LANDS - AREA I3
06698> *# NEW EASTERN INLET
06699> *
06700> ----------------------
06701> | CALIB STANDHYD     |   Area    (ha)=    7.64
06702> | 01:I3     DT=12.00 |   Total Imp(%)=   49.00   Dir. Conn.(%)=   30.00
06703> ----------------------
06704>                             IMPERVIOUS    PERVIOUS (i)
06705>      Surface Area     (ha)=       3.74        3.90
06706>      Dep. Storage     (mm)=        .80        1.50
06707>      Average Slope     (%)=        .20        2.00
06708>      Length            (m)=     292.00       40.00
06709>      Mannings n           =       .013        .250
06710>
06711>      Max.eff.Inten.(mm/hr)=     118.68      117.18
06712>                   over (min)       12.00       12.00
06713>      Storage Coeff.  (min)=       7.35 (ii)   13.98 (ii)
06714>      Unit Hyd. Tpeak (min)=      12.00       12.00
06715>      Unit Hyd. peak  (cms)=        .11         .08
06716>                                                          *TOTALS*
06717>      PEAK FLOW       (cms)=        .67         .88         1.554 (iii)
06718>      TIME TO PEAK    (hrs)=      12.20       12.20        12.200
06719>      RUNOFF VOLUME    (mm)=     102.40       63.65        75.277
06720>      TOTAL RAINFALL   (mm)=     103.20      103.20       103.200
06721>      RUNOFF COEFFICIENT   =        .99         .62          .729
06722>       *** WARNING: Storage Coefficient is smaller than DT!
06723>                    Use a smaller DT or a larger area.
06724>
06725>       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
06726>           CN* =  75.0    Ia = Dep. Storage  (Above)
06727>      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
06728>           THAN THE STORAGE COEFFICIENT.
06729>     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
06730>
06731> ------------------------------------------------------------------------------
06732> 001:0175------------------------------------------------------------------------
06733> *
06734> *
06735> *# MAJOR FLOW FROM I3
06736> *
06737> ------------------------
06738> | ADD HYD (       784) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
06739> ------------------------                  (ha)     (cms)   (hrs)   (mm)   (cms)
06740>                     ID1 01:I3            7.64     1.554   12.20  75.28    .000
06741>                    +ID2 08:       487     .00      .000     .00    .00    .000
06742>                     ========================================================
06743>                     SUM 05:       784     7.64     1.554   12.20  75.28    .000
06744>
06745>    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
06746>
06747> ------------------------------------------------------------------------------
06748> 001:0176------------------------------------------------------------------------
06749> *
06750> *#########################
06751> *# INFLOW 200 L/S/HA - 7.64 X 200 = 1528 L/S
06752> *# ON-SITE STORAGE (30% LESS THAN AVALON WEST) - 108.55 m3/ha = 829.3 M3
06753> *#########################
06754> *
06755> ----------------------
06756> | ROUTE RESERVOIR   |    Requested routing time step =  1.0 min.
06757> |  IN>05:(000784)   |
06758> | OUT<03:(I3    )   |    =========  OUTLFOW STORAGE TABLE  =========
06759> ----------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
06760>                             (cms)    (ha.m.)   |    (cms)    (ha.m.)
06761>                              .000  .0000E+00   |    1.528  .8293E-01
06762>                             1.510  .2000E-02   |     .000  .0000E+00
06763>
06764>      ROUTING RESULTS            AREA     QPEAK     TPEAK       R.V.
06765>      --------------------        (ha)     (cms)     (hrs)       (mm)
06766>      INFLOW >05: (000784)       7.64     1.554    12.200     75.278
06767>      OUTFLOW<03: (I3    )       7.64     1.510    12.217     75.278
06768>     OVERFLOW<01: (000487)        .00      .000      .000       .000
06769>
06770>                    TOTAL NUMBER OF SIMULATED OVERFLOWS  =        0
06771>                    CUMULATIVE TIME OF OVERFLOWS  (hours)=      .00
06772>                    PERCENTAGE OF TIME OVERFLOWING    (%)=      .00
06773>
06774>
06775>                    PEAK   FLOW   REDUCTION [Qout/Qin](%)=   97.153
06776>                    TIME SHIFT OF PEAK FLOW         (min)=     1.00
06777>                    MAXIMUM  STORAGE   USED       (ha.m.)=.2255E-02
06778>
06779> ------------------------------------------------------------------------------
06780> 001:0177------------------------------------------------------------------------
06781> *
06782> *# TOTAL MINOR SYSTEM FLOW FROM MAJOR PORTOBELLO, I2 AND I3 (NEW EASTERN INLET)
06783> *
06784> ------------------------
06785> | ADD HYD (       784) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
06786> ------------------------                  (ha)     (cms)   (hrs)   (mm)   (cms)
06787>                     ID1 06:       845    13.56    4.329   12.23  83.57    .000
06788>                    +ID2 03:I3           7.64     1.510   12.22  75.28    .000
06789>                     ========================================================
06790>                     SUM 05:       784    21.20    5.804   12.23  80.58    .000
06791>
06792>    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
06793>
06794> ------------------------------------------------------------------------------
06795> 001:0178------------------------------------------------------------------------
06796> *
06797> *# TOTAL FLOW FROM I2 AND I3 INTO POND VIA NEW EASTERN INLET TO POND(INCLUDES MA
06798> *
06799> ------------------------
06800> | ADD HYD (       784) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
06801> ------------------------                  (ha)     (cms)   (hrs)   (mm)   (cms)
06802>                     ID1 01:       487     .00      .000     .00    .00    .000
06803>                    +ID2 05:       784    21.20    5.804   12.23  80.58    .000
06804>                     ========================================================
06805>                     SUM 08:       784    21.20    5.804   12.23  80.58    .000
06806>
06807>    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
06808>
06809> ------------------------------------------------------------------------------
06810> 001:0179------------------------------------------------------------------------
06811> *
06812> *
06813> *
06814> *########################
06815> *#    DRAINAGE AREA 60 ||
06816> *#    SWM AREA         ||
06817> *########################
06818> *
06819> *
06820> ----------------------
06821> | CALIB NASHYD       |   Area    (ha)=   12.50   Curve Number   (CN)=95.00
06822> | 01:000100 DT= 6.00 |   Ia      (mm)=   1.500   # of Linear Res.(N)= 3.00
06823> ----------------------   U.H. Tp(hrs)=    .250
06824>
06825>      Unit Hyd Qpeak  (cms)=    1.910
06826>
06827>      PEAK FLOW       (cms)=    2.369 (i)
06828>      TIME TO PEAK    (hrs)=   12.300
06829>      RUNOFF VOLUME    (mm)=   89.885
06830>      TOTAL RAINFALL   (mm)=  103.200
06831>      RUNOFF COEFFICIENT   =     .871
06832>
06833>      (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
06834>
06835> ------------------------------------------------------------------------------
06836> 001:0180------------------------------------------------------------------------
06837> *
06838> *# ADD TOTAL FLOW FROM ISGAR LANDS (I1, I2 AND I3 PLUS MAJOR PORTOBELLO) TO POND
06839> *
06840> ------------------------
06841> | ADD HYD (       784) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
06842> ------------------------                  (ha)     (cms)   (hrs)   (mm)   (cms)
06843>                     ID1 01:       100    12.50    2.369   12.30  89.88    .000
06844>                    +ID2 08:       784    21.20    5.804   12.23  80.58    .000
06845>                    +ID3 07:       784     8.35    1.660   12.23  81.11    .000
06846>                     ========================================================
06847>                     SUM 06:       784    42.05    9.689   12.23  83.45    .000
06848>
06849>    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
06850>
06851> ------------------------------------------------------------------------------
06852> 001:0181------------------------------------------------------------------------
06853> *
06854> *# MH SWMF
06855> *
06856> --------------------
06857> | SAVE HYD        |   AREA       (ha)=   42.050
06858> | ID=06 (000784)  |   QPEAK     (cms)=    9.689 (i)
```

```
| DT= 1.00 PCYC=-1 |   TPEAK     (hrs)=   12.233
 -------------------   VOLUME     (mm)=   83.453
  Filename: C:\SWMHYMO\111083\2018-0~1\POND.035
  Comments: POND-24SCS100

     (i)  PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
-------------------------------------------------------------------------------
001:0182--------------------------------------------------------------------------
*
*#================================
*#  ADD POND AREA TO EXISTING EAST AND WEST TRUNKS
*#================================
*
-------------------------
| ADD HYD (       562) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
-------------------------                   (ha)     (cms)   (hrs)   (mm)   (cms)
                      ID1 06:       784    42.05    9.689   12.23  83.45    .000
                     +ID2 09:       562   146.98   11.854   12.40  79.24    .000
                      ==========================================================
                      SUM 04:       562   189.03   21.356   12.23  80.18    .000

   NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

-------------------------------------------------------------------------------
001:0183--------------------------------------------------------------------------
*
*
*#========================================
*#     NEIGHBOURHOOD 4  SWM FACILITY      ||
*#       OUTLET PIPE TO POINT B           ||
*#       OUTLET PIPE  1200 DIA            ||
*#========================================
*
*# NOTE:  XPSWMM USED FOR ROUTING THE SWM FACILITY
*
--------------------
| ROUTE RESERVOIR   |    Requested routing time step =  1.0 min.
|  IN>04:(000562)   |
| OUT<02:(000471)   |    =========  OUTLFOW STORAGE TABLE  =========
--------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
                          (cms)    (ha.m.)   |    (cms)    (ha.m.)
                           .000  .0000E+00   |     .930  .4960E+01
                           .350  .2300E+01   |    1.520  .8710E+01
                           .650  .3740E+01   |    1.700  .1129E+02

     ROUTING RESULTS            AREA     QPEAK     TPEAK       R.V.
     --------------------        (ha)     (cms)     (hrs)       (mm)
     INFLOW >04: (000562)     189.03    21.356    12.233     80.180
     OUTFLOW<02: (000471)     189.03     1.630    14.900     80.177

                   PEAK   FLOW   REDUCTION [Qout/Qin](%)=    7.632
                   TIME SHIFT OF PEAK FLOW         (min)=   160.00
                   MAXIMUM  STORAGE   USED       (ha.m.)=.1029E+02

-------------------------------------------------------------------------------
001:0184--------------------------------------------------------------------------
*
*
--------------------
| SAVE HYD          |   AREA       (ha)=  189.030
| ID=02 (000471)    |   QPEAK     (cms)=    1.630 (i)
| DT= 1.00 PCYC=-1 |   TPEAK     (hrs)=   14.900
--------------------   VOLUME     (mm)=   80.177
  Filename: C:\SWMHYMO\111083\2018-0~1\ISGAR.035
  Comments: ISGAR-24SCS100

     (i)  PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
-------------------------------------------------------------------------------
001:0185--------------------------------------------------------------------------
*
*
*
*
*
*
*
*
*
*#============================================================
*# ====    JULY 1st 1979 HISTORICAL STORM)                ====
*# ====                                                   ====
*#============================================================
*
--------------------
| READ STORM       |    Filename: JULY1, 1979 STORM
| Ptotal=  88.86 mm|    Comments: JULY1, 1979 STORM
--------------------
               TIME    RAIN |   TIME    RAIN |   TIME    RAIN |   TIME    RAIN
                hrs   mm/hr |    hrs   mm/hr |    hrs   mm/hr |    hrs   mm/hr
                .08    .000 |    .92  38.100 |   1.75  71.100 |   2.58   3.800
                .17   2.300 |   1.00  38.100 |   1.83  30.500 |   2.67   3.800
                .25   2.300 |   1.08  38.100 |   1.92  30.500 |   2.75   3.800
                .33   8.890 |   1.17  38.100 |   2.00  30.500 |   2.83   3.800
                .42   8.890 |   1.25  50.800 |   2.08  30.500 |   2.92   3.800
                .50  38.100 |   1.33  50.800 |   2.17   3.800 |   3.00   3.800
                .58  38.100 |   1.42  76.200 |   2.25   3.800 |   3.08   3.800
                .67  38.100 |   1.50 106.700 |   2.33   3.800 |
                .75  38.100 |   1.58 106.700 |   2.42   3.800 |
                .83  38.100 |   1.67  71.100 |   2.50   3.800 |

-------------------------------------------------------------------------------
001:0186--------------------------------------------------------------------------
*
*
*#============================================
*#     NEIGHBOURHOOD 4                      ||
*#============================================
*
*#=======================
*#   DRAINAGE AREA 40  ||
*#                     ||
*#=======================
*
----------------------
| CALIB STANDHYD     |   Area    (ha)=   11.73
| 06:000204 DT= 5.00 |   Total Imp(%)=   54.00   Dir. Conn.(%)=   32.00
----------------------
                                IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=       6.33         5.40
     Dep. Storage     (mm)=        .80         1.50
     Average Slope     (%)=        .20         2.00
     Length            (m)=     414.00        40.00
     Mannings n           =       .013         .250

     Max.eff.Inten.(mm/hr)=     106.70       104.01
                over (min)       10.00        15.00
     Storage Coeff.  (min)=       9.46 (ii)   16.41 (ii)
     Unit Hyd. Tpeak (min)=      10.00        15.00
     Unit Hyd. peak  (cms)=        .12          .07

                                                      *TOTALS*
     PEAK FLOW       (cms)=        .90         1.17         2.007 (iii)
     TIME TO PEAK    (hrs)=       1.67         1.75         1.750
     RUNOFF VOLUME    (mm)=      88.06        53.17        64.335
     TOTAL RAINFALL   (mm)=      88.86        88.86        88.857
     RUNOFF COEFFICIENT   =        .99          .60          .724

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN* =  75.0    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

-------------------------------------------------------------------------------
001:0187--------------------------------------------------------------------------
*
*
*#================================
*# OSD 85 L/S/HA PARKS 30 L/S/HA
*#  85*10.71 = 910.4 L/S
*#  30*1.02 = 30.6 L/S
*#  TOTAL = 941 L/S
*#================================
*
----------------------
| ROUTE RESERVOIR   |    Requested routing time step =  5.0 min.
|  IN>06:(000204)   |
| OUT<09:(000471)   |    =========  OUTLFOW STORAGE TABLE  =========
----------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
                          (cms)    (ha.m.)   |    (cms)    (ha.m.)
                           .000  .0000E+00   |     .941  .1736E+00
                           .900  .2000E-02   |     .000  .0000E+00

      *** WARNING: STORAGE-Q values were extrapolated.
                   Increase curve or use overflow option.

     ROUTING RESULTS            AREA     QPEAK     TPEAK       R.V.
     --------------------        (ha)     (cms)     (hrs)       (mm)
     INFLOW >06: (000204)      11.73     2.007     1.750     64.335
     OUTFLOW<09: (000471)      11.73      .943     2.167     64.739

                   PEAK   FLOW   REDUCTION [Qout/Qin](%)=   46.985
                   TIME SHIFT OF PEAK FLOW         (min)=    25.00
                   MAXIMUM  STORAGE   USED       (ha.m.)=.1839E+00

      *** WARNING: Outflow volume is less than inflow volume.
-------------------------------------------------------------------------------
001:0188--------------------------------------------------------------------------
*
*# MH 505
--------------------
| SAVE HYD          |   AREA       (ha)=   11.730
| ID=09 (000471)    |   QPEAK     (cms)=     .943 (i)
| DT= 5.00 PCYC=-1 |   TPEAK     (hrs)=    2.167
--------------------   VOLUME     (mm)=   64.739
  Filename: C:\SWMHYMO\111083\2018-0~1\505.080
  Comments: 505-JULY-79

     (i)  PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
-------------------------------------------------------------------------------
001:0189--------------------------------------------------------------------------
*
*#=======================
*#   DRAINAGE AREA 41  ||
*#=======================
*
*
----------------------
| CALIB STANDHYD     |   Area    (ha)=    9.06
| 05:000204 DT= 5.00 |   Total Imp(%)=   58.00   Dir. Conn.(%)=   35.00
----------------------
                                IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=       5.25         3.81
     Dep. Storage     (mm)=        .80         1.50
     Average Slope     (%)=        .20         2.00
     Length            (m)=     452.00        40.00
     Mannings n           =       .013         .250

     Max.eff.Inten.(mm/hr)=     106.70       110.60
                over (min)       10.00        15.00
     Storage Coeff.  (min)=       9.97 (ii)   16.75 (ii)
     Unit Hyd. Tpeak (min)=      10.00        15.00
     Unit Hyd. peak  (cms)=        .11          .07

                                                      *TOTALS*
     PEAK FLOW       (cms)=        .76          .87         1.577 (iii)
     TIME TO PEAK    (hrs)=       1.67         1.75         1.750
     RUNOFF VOLUME    (mm)=      88.06        54.17        66.030
     TOTAL RAINFALL   (mm)=      88.86        88.86        88.857
     RUNOFF COEFFICIENT   =        .99          .61          .743

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN* =  75.0    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

-------------------------------------------------------------------------------
001:0190--------------------------------------------------------------------------
*
*#========================
*# OSD 85 L/S/HA
*#  85*9.06 = 770.1 L/S
*#========================
*
--------------------
| ROUTE RESERVOIR   |    Requested routing time step =  5.0 min.
|  IN>05:(000204)   |
| OUT<07:(000471)   |    =========  OUTLFOW STORAGE TABLE  =========
--------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
                          (cms)    (ha.m.)   |    (cms)    (ha.m.)
                           .000  .0000E+00   |     .770  .1269E+00
                           .700  .2000E-02   |     .000  .0000E+00

      *** WARNING: STORAGE-Q values were extrapolated.
                   Increase curve or use overflow option.

     ROUTING RESULTS            AREA     QPEAK     TPEAK       R.V.
     --------------------        (ha)     (cms)     (hrs)       (mm)
     INFLOW >05: (000204)       9.06     1.577     1.750     66.030
     OUTFLOW<07: (000471)       9.06      .777     2.167     66.030

                   PEAK   FLOW   REDUCTION [Qout/Qin](%)=   49.294
                   TIME SHIFT OF PEAK FLOW         (min)=    25.00
                   MAXIMUM  STORAGE   USED       (ha.m.)=.1407E+00

-------------------------------------------------------------------------------
001:0191--------------------------------------------------------------------------
```

```
07113> *
07114> *# MH 521
07115> --------------------
07116> | SAVE HYD         |   AREA       (ha)=    9.060
07117> | ID=07 (000471)   |   QPEAK     (cms)=     .777 (i)
07118> | DT= 5.00 PCYC=-1 |   TPEAK     (hrs)=    2.167
07119> --------------------   VOLUME     (mm)=   66.030
07120>   Filename: C:\SWMHYMO\111083\2018-0~1\521.080
07121>   Comments: 521-JULY-79
07122>
07123>      (i)  PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
07124> ------------------------------------------------------------------------------
07125> 001:0192--------------------------------------------------------------------------
07126> *
07127> ------------------------
07128> | ADD HYD (       401) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
07129> ------------------------                  (ha)     (cms)   (hrs)   (mm)   (cms)
07130>                        ID1 09:       471    11.73     .943    2.17  64.74    .000
07131>                       +ID2 07:       471     9.06     .777    2.17  66.03    .000
07132>                        ============================================================
07133>                        SUM 06:       401    20.79    1.721    2.17  65.30    .000
07134>
07135>    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
07136>
07137> ------------------------------------------------------------------------------
07138> 001:0193--------------------------------------------------------------------------
07139> *
07140> *#########################
07141> *#    DRAINAGE AREA 42 ||
07142> *#                     ||
07143> *#########################
07144> *
07145> *
07146> ----------------------
07147> | CALIB NASHYD       |   Area    (ha)=    4.10   Curve Number   (CN)=75.00
07148> | 05:000100 DT= 5.00 |   Ia      (mm)=   1.500   # of Linear Res.(N)= 3.00
07149> ----------------------   U.H. Tp(hrs)=    .410
07150>
07151>      Unit Hyd Qpeak  (cms)=     .382
07152>
07153>      PEAK FLOW       (cms)=     .417 (i)
07154>      TIME TO PEAK    (hrs)=    2.000
07155>      RUNOFF VOLUME    (mm)=   44.361
07156>      TOTAL RAINFALL   (mm)=   88.857
07157>      RUNOFF COEFFICIENT   =     .499
07158>
07159>      (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
07160>
07161> ------------------------------------------------------------------------------
07162> 001:0194--------------------------------------------------------------------------
07163> *
07164> *##########################
07165> *# OSD 30 L/S/HA
07166> *#  30*4.1 = 123 L/S
07167> *##########################
07168> *
07169> ---------------------
07170> | ROUTE RESERVOIR   |    Requested routing time step =  5.0 min.
07171> |  IN>05:(000100)   |
07172> | OUT<04:(000471)   |    =========  OUTLFOW STORAGE TABLE  =========
07173> ---------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
07174>                            (cms)    (ha.m.)   |    (cms)    (ha.m.)
07175>                              .000  .0000E+00   |     .123  .9511E-01
07176>                              .090  .2000E-02   |     .000  .0000E+00
07177>
07178>      ROUTING RESULTS            AREA     QPEAK     TPEAK       R.V.
07179>      --------------------       (ha)     (cms)     (hrs)       (mm)
07180>      INFLOW >05: (000100)       4.10      .417     2.000     44.361
07181>      OUTFLOW<04: (000471)       4.10      .123     2.833     44.361
07182>
07183>                     PEAK   FLOW   REDUCTION [Qout/Qin](%)=   29.483
07184>                     TIME SHIFT OF PEAK FLOW         (min)=    50.00
07185>                     MAXIMUM  STORAGE   USED       (ha.m.)=.9518E-01
07186>
07187> ------------------------------------------------------------------------------
07188> 001:0195--------------------------------------------------------------------------
07189> *
07190> *# MH 529
07191> --------------------
07192> | SAVE HYD         |   AREA       (ha)=    4.100
07193> | ID=04 (000471)   |   QPEAK     (cms)=     .123 (i)
07194> | DT= 5.00 PCYC=-1 |   TPEAK     (hrs)=    2.833
07195> --------------------   VOLUME     (mm)=   44.361
07196>   Filename: C:\SWMHYMO\111083\2018-0~1\529.080
07197>   Comments: 529-JULY-79
07198>
07199>      (i)  PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
07200> ------------------------------------------------------------------------------
07201> 001:0196--------------------------------------------------------------------------
07202> *
07203> *
07204> ------------------------
07205> | ADD HYD (       105) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
07206> ------------------------                  (ha)     (cms)   (hrs)   (mm)   (cms)
07207>                        ID1 06:       401    20.79    1.721    2.17  65.30    .000
07208>                       +ID2 04:       471     4.10     .123    2.83  44.36    .000
07209>                        ============================================================
07210>                        SUM 01:       105    24.89    1.835    2.25  61.85    .000
07211>
07212>    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
07213>
07214> ------------------------------------------------------------------------------
07215> 001:0197--------------------------------------------------------------------------
07216> *
07217> *
07218> *
07219> *########################
07220> *#    DRAINAGE AREA 43 ||
07221> *#                     ||
07222> *########################
07223> *
07224> *
07225> ----------------------
07226> | CALIB STANDHYD     |   Area    (ha)=   17.21
07227> | 05:000204 DT= 5.00 |   Total Imp(%)=   59.00   Dir. Conn.(%)=   37.00
07228> ----------------------
07229>                              IMPERVIOUS    PERVIOUS (i)
07230>      Surface Area     (ha)=      10.15         7.06
07231>      Dep. Storage     (mm)=        .80         1.50
07232>      Average Slope     (%)=        .20         2.00
07233>      Length            (m)=     449.00        40.00
07234>      Mannings n           =       .013         .250
07235>
07236>      Max.eff.Inten.(mm/hr)=     106.70       109.55
07237>                  over (min)       10.00        15.00
07238>      Storage Coeff.  (min)=       9.93 (ii)   16.74 (ii)
07239>      Unit Hyd. Tpeak (min)=      10.00        15.00
07240>      Unit Hyd. peak  (cms)=        .11          .07
07241>                                                      *TOTALS*
07242>      PEAK FLOW       (cms)=       1.52         1.60         3.018 (iii)
07243>      TIME TO PEAK    (hrs)=       1.67         1.75         1.750
07244>      RUNOFF VOLUME    (mm)=      88.06        54.01        66.610
07245>      TOTAL RAINFALL   (mm)=      88.86        88.86        88.857
07246>      RUNOFF COEFFICIENT   =        .99          .61          .750
07247>
07248>        (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
07249>            CN* =  75.0    Ia = Dep. Storage  (Above)
07250>       (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
07251>            THAN THE STORAGE COEFFICIENT.
07252>      (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
07253>
07254> ------------------------------------------------------------------------------
07255> 001:0198--------------------------------------------------------------------------
07256> *
07257> *
07258> *#########################
07259> *# OSD 85 L/S/HA PARKS 30 L/S/HA
07260> *#  85*16.89 = 1435.7 L/S
07261> *#  30*0.32 =9.6 L/S
07262> *#  TOTAL =1445 L/S
07263> *#########################
07264> *
07265> ---------------------
07266> | ROUTE RESERVOIR   |    Requested routing time step =  5.0 min.
07267> |  IN>05:(000204)   |
07268> | OUT<08:(000471)   |    =========  OUTLFOW STORAGE TABLE  =========
07269> ---------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
07270>                            (cms)    (ha.m.)   |    (cms)    (ha.m.)
07271>                              .000  .0000E+00   |    1.445  .2386E+00
07272>                             1.400  .2000E-02   |     .000  .0000E+00
07273>      *** WARNING: STORAGE-Q values were extrapolated.
07274>                   Increase curve or use overflow option.
07275>
07276>      ROUTING RESULTS            AREA     QPEAK     TPEAK       R.V.
07277>      --------------------       (ha)     (cms)     (hrs)       (mm)
07278>      INFLOW >05: (000204)      17.21     3.018     1.750     66.610
07279>      OUTFLOW<08: (000471)      17.21     1.450     2.167     67.068
07280>
07281>                     PEAK   FLOW   REDUCTION [Qout/Qin](%)=   48.033
07282>                     TIME SHIFT OF PEAK FLOW         (min)=    25.00
07283>                     MAXIMUM  STORAGE   USED       (ha.m.)=.2652E+00
07284>
07285>      *** WARNING: Outflow volume is less than inflow volume.
07286> ------------------------------------------------------------------------------
07287> 001:0199--------------------------------------------------------------------------
07288> *
07289> *# MH 539
07290> --------------------
07291> | SAVE HYD         |   AREA       (ha)=   17.210
07292> | ID=08 (000471)   |   QPEAK     (cms)=    1.450 (i)
07293> | DT= 5.00 PCYC=-1 |   TPEAK     (hrs)=    2.167
07294> --------------------   VOLUME     (mm)=   67.068
07295>   Filename: C:\SWMHYMO\111083\2018-0~1\539.080
07296>   Comments: 539-JULY-79
07297>
07298>      (i)  PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
07299> ------------------------------------------------------------------------------
07300> 001:0200--------------------------------------------------------------------------
07301> *
07302> ------------------------
07303> | ADD HYD (       100) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
07304> ------------------------                  (ha)     (cms)   (hrs)   (mm)   (cms)
07305>                        ID1 01:       105    24.89    1.835    2.25  61.85    .000
07306>                       +ID2 08:       471    17.21    1.450    2.17  67.07    .000
07307>                        ============================================================
07308>                        SUM 07:       100    42.10    3.284    2.25  63.98    .000
07309>
07310>    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
07311>
07312> ------------------------------------------------------------------------------
07313> 001:0201--------------------------------------------------------------------------
07314> *
07315> *
07316> *########################
07317> *#    DRAINAGE AREA 44 ||
07318> *#                     ||
07319> *########################
07320> *
07321> *
07322> ----------------------
07323> | CALIB STANDHYD     |   Area    (ha)=    4.06
07324> | 05:000204 DT= 5.00 |   Total Imp(%)=   58.00   Dir. Conn.(%)=   38.00
07325> ----------------------
07326>                              IMPERVIOUS    PERVIOUS (i)
07327>      Surface Area     (ha)=       2.35         1.71
07328>      Dep. Storage     (mm)=        .80         1.50
07329>      Average Slope     (%)=        .20         2.00
07330>      Length            (m)=     165.00        40.00
07331>      Mannings n           =       .013         .250
07332>
07333>      Max.eff.Inten.(mm/hr)=     106.70       114.79
07334>                  over (min)        5.00        10.00
07335>      Storage Coeff.  (min)=       5.45 (ii)   12.13 (ii)
07336>      Unit Hyd. Tpeak (min)=       5.00        10.00
07337>      Unit Hyd. peak  (cms)=        .20          .10
07338>                                                      *TOTALS*
07339>      PEAK FLOW       (cms)=        .43          .41          .795 (iii)
07340>      TIME TO PEAK    (hrs)=       1.58         1.67         1.583
07341>      RUNOFF VOLUME    (mm)=      88.06        53.14        66.410
07342>      TOTAL RAINFALL   (mm)=      88.86        88.86        88.857
07343>      RUNOFF COEFFICIENT   =        .99          .60          .747
07344>
07345>        (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
07346>            CN* =  75.0    Ia = Dep. Storage  (Above)
07347>       (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
07348>            THAN THE STORAGE COEFFICIENT.
07349>      (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
07350>
07351> ------------------------------------------------------------------------------
07352> 001:0202--------------------------------------------------------------------------
07353> *
07354> *
07355> *##########################
07356> *# OSD 85 L/S/HA  PARK 30 L/S/HA
07357> *#  85*3.7 = 314.5 L/S
07358> *#  30*0.28 = 8.4 L/S
07359> *#  TOTAL = 322.9 L/S
07360> *##########################
07361> *
07362> ---------------------
07363> | ROUTE RESERVOIR   |    Requested routing time step =  5.0 min.
07364> |  IN>05:(000204)   |
07365> | OUT<09:(000471)   |    =========  OUTLFOW STORAGE TABLE  =========
07366> ---------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
```

```
                          (cms)    (ha.m.)   |    (cms)    (ha.m.)
                           .000  .0000E+00   |     .323  .7215E-01
                           .290  .2000E-02   |     .000  .0000E+00
      *** WARNING: STORAGE-Q values were extrapolated.
                   Increase curve or use overflow option.

     ROUTING RESULTS           AREA     QPEAK     TPEAK       R.V.
     ---------------------      (ha)     (cms)     (hrs)       (mm)
     INFLOW >05: (000204)      4.06      .795     1.583     66.410
     OUTFLOW<09: (000471)      4.06      .326     2.083     66.726

                   PEAK   FLOW   REDUCTION [Qout/Qin](%)=   40.948
                   TIME SHIFT OF PEAK FLOW         (min)=    30.00
                   MAXIMUM  STORAGE   USED       (ha.m.)=.7822E-01

      *** WARNING: Outflow volume is less than inflow volume.
-------------------------------------------------------------------------------
001:0203-------------------------------------------------------------------------
*
*# MH 541
--------------------
| SAVE HYD        |   AREA       (ha)=    4.060
| ID=09 (000471)  |   QPEAK      (cms)=     .326 (i)
| DT= 5.00 PCYC=-1 |   TPEAK     (hrs)=    2.083
-------------------   VOLUME     (mm)=   66.726
  Filename: C:\SWMHYMO\111083\2018-0~1\541.080
  Comments: 541-JULY-79

     (i)  PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
-------------------------------------------------------------------------------
001:0204-------------------------------------------------------------------------
*
------------------------
| ADD HYD (       100) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
------------------------                   (ha)     (cms)   (hrs)   (mm)   (cms)
                      ID1 07:       100    42.10    3.284    2.25  63.98    .000
                     +ID2 09:       471     4.06     .326    2.08  66.73    .000
                      ==========================================================
                      SUM 03:       100    46.16    3.608    2.17  64.23    .000

   NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

-------------------------------------------------------------------------------
001:0205-------------------------------------------------------------------------
*
*
*#########################
*#    DRAINAGE AREA 45 ||
*#                     ||
*#########################
*
----------------------
| CALIB STANDHYD     |   Area    (ha)=    3.13
| 05:000204 DT= 5.00 |   Total Imp(%)=   57.00   Dir. Conn.(%)=   57.00
----------------------
                             IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=       1.78         1.35
     Dep. Storage     (mm)=        .80         1.50
     Average Slope     (%)=        .20         2.00
     Length            (m)=     147.00        40.00
     Mannings n            =       .013         .250

     Max.eff.Inten.(mm/hr)=     106.70        60.04
                 over (min)=       5.00        15.00
     Storage Coeff.  (min)=       5.08 (ii)   13.74 (ii)
     Unit Hyd. Tpeak (min)=       5.00        15.00
     Unit Hyd. peak  (cms)=        .21          .08
                                                      *TOTALS*
     PEAK FLOW       (cms)=        .50          .18         .632 (iii)
     TIME TO PEAK    (hrs)=       1.58         1.75        1.583
     RUNOFF VOLUME    (mm)=      88.06        44.36       69.268
     TOTAL RAINFALL   (mm)=      88.86        88.86       88.857
     RUNOFF COEFFICIENT   =        .99          .50         .780

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN* =  75.0    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

-------------------------------------------------------------------------------
001:0206-------------------------------------------------------------------------
*
*
*#########################
*# OSD 85 L/S/HA
*#  85*3.13 = 266.1 L/S
*#########################
*
---------------------
| ROUTE RESERVOIR   |    Requested routing time step =  5.0 min.
|  IN>05:(000204)   |
| OUT<08:(000471)   |    =========  OUTLFOW STORAGE TABLE  =========
---------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
                           (cms)    (ha.m.)   |    (cms)    (ha.m.)
                            .000  .0000E+00   |     .266  .6353E-01
                            .200  .2000E-02   |     .000  .0000E+00

     ROUTING RESULTS           AREA     QPEAK     TPEAK       R.V.
     ---------------------      (ha)     (cms)     (hrs)       (mm)
     INFLOW >05: (000204)      3.13      .632     1.583     69.268
     OUTFLOW<08: (000471)      3.13      .266     2.083     69.268

                   PEAK   FLOW   REDUCTION [Qout/Qin](%)=   42.137
                   TIME SHIFT OF PEAK FLOW         (min)=    30.00
                   MAXIMUM  STORAGE   USED       (ha.m.)=.6365E-01

-------------------------------------------------------------------------------
001:0207-------------------------------------------------------------------------
*
*# MH 542
--------------------
| SAVE HYD        |   AREA       (ha)=    3.130
| ID=08 (000471)  |   QPEAK      (cms)=     .266 (i)
| DT= 5.00 PCYC=-1 |   TPEAK     (hrs)=    2.083
-------------------   VOLUME     (mm)=   69.268
  Filename: C:\SWMHYMO\111083\2018-0~1\542.080
  Comments: 542-JULY-79

     (i)  PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
-------------------------------------------------------------------------------
001:0208-------------------------------------------------------------------------
*
------------------------
| ADD HYD (       100) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
------------------------                   (ha)     (cms)   (hrs)   (mm)   (cms)
                      ID1 03:       100    46.16    3.608    2.17  64.23    .000
                     +ID2 08:       471     3.13     .266    2.08  69.27    .000
                      ==========================================================
                      SUM 04:       100    49.29    3.873    2.17  64.55    .000

   NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

-------------------------------------------------------------------------------
001:0209-------------------------------------------------------------------------
*
*#########################
*#    DRAINAGE AREA 46 ||
*#                     ||
*#########################
*
*
----------------------
| CALIB STANDHYD     |   Area    (ha)=   19.48
| 05:000204 DT= 5.00 |   Total Imp(%)=   61.00   Dir. Conn.(%)=   43.00
----------------------
                             IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=      11.88         7.60
     Dep. Storage     (mm)=        .80         1.50
     Average Slope     (%)=        .20         2.00
     Length            (m)=     464.00        40.00
     Mannings n            =       .013         .250

     Max.eff.Inten.(mm/hr)=     106.70       102.43
                 over (min)=      10.00        15.00
     Storage Coeff.  (min)=      10.13 (ii)   17.12 (ii)
     Unit Hyd. Tpeak (min)=      10.00        15.00
     Unit Hyd. peak  (cms)=        .11          .07
                                                      *TOTALS*
     PEAK FLOW       (cms)=       1.99         1.60        3.457 (iii)
     TIME TO PEAK    (hrs)=       1.67         1.75        1.750
     RUNOFF VOLUME    (mm)=      88.06        52.92       68.031
     TOTAL RAINFALL   (mm)=      88.86        88.86       88.857
     RUNOFF COEFFICIENT   =        .99          .60          .766

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN* =  75.0    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

-------------------------------------------------------------------------------
001:0210-------------------------------------------------------------------------
*
*
*#########################
*# OSD 85 L/S/HA  PARK 30 L/S/HA
*#  85*18.51 = 1573.4 L/S
*#  30*0.97 = 29.1 L/S
*#  TOTAL = 1602.5 L/S
*#########################
*
---------------------
| ROUTE RESERVOIR   |    Requested routing time step =  5.0 min.
|  IN>05:(000204)   |
| OUT<08:(000471)   |    =========  OUTLFOW STORAGE TABLE  =========
---------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
                           (cms)    (ha.m.)   |    (cms)    (ha.m.)
                            .000  .0000E+00   |    1.602  .3089E+00
                           1.550  .2000E-02   |     .000  .0000E+00
      *** WARNING: STORAGE-Q values were extrapolated.
                   Increase curve or use overflow option.

     ROUTING RESULTS           AREA     QPEAK     TPEAK       R.V.
     ---------------------      (ha)     (cms)     (hrs)       (mm)
     INFLOW >05: (000204)      19.48     3.457     1.750     68.031
     OUTFLOW<08: (000471)      19.48     1.604     2.167     68.670

                   PEAK   FLOW   REDUCTION [Qout/Qin](%)=   46.405
                   TIME SHIFT OF PEAK FLOW         (min)=    25.00
                   MAXIMUM  STORAGE   USED       (ha.m.)=.3217E+00

      *** WARNING: Outflow volume is less than inflow volume.
-------------------------------------------------------------------------------
001:0211-------------------------------------------------------------------------
*
*# MH 544
--------------------
| SAVE HYD        |   AREA       (ha)=   19.480
| ID=08 (000471)  |   QPEAK      (cms)=    1.604 (i)
| DT= 5.00 PCYC=-1 |   TPEAK     (hrs)=    2.167
-------------------   VOLUME     (mm)=   68.670
  Filename: C:\SWMHYMO\111083\2018-0~1\544.080
  Comments: 544-JULY-79

     (i)  PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
-------------------------------------------------------------------------------
001:0212-------------------------------------------------------------------------
*
------------------------
| ADD HYD (       100) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
------------------------                   (ha)     (cms)   (hrs)   (mm)   (cms)
                      ID1 04:       100    49.29    3.873    2.17  64.55    .000
                     +ID2 08:       471    19.48    1.604    2.17  68.67    .000
                      ==========================================================
                      SUM 07:       100    68.77    5.477    2.17  65.71    .000

   NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

-------------------------------------------------------------------------------
001:0213-------------------------------------------------------------------------
*
*#########################
*#    DRAINAGE AREA 47 ||
*#                     ||
*#########################
*
*
----------------------
| CALIB STANDHYD     |   Area    (ha)=    3.79
| 05:000204 DT= 5.00 |   Total Imp(%)=   56.00   Dir. Conn.(%)=   35.00
----------------------
                             IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=       2.12         1.67
     Dep. Storage     (mm)=        .80         1.50
     Average Slope     (%)=        .20         2.00
     Length            (m)=     229.00        40.00
     Mannings n            =       .013         .250

     Max.eff.Inten.(mm/hr)=     106.70       103.92
                 over (min)=       5.00        15.00
     Storage Coeff.  (min)=       6.63 (ii)   13.58 (ii)
     Unit Hyd. Tpeak (min)=       5.00        15.00
     Unit Hyd. peak  (cms)=        .18          .08
```

```
                                                        *TOTALS*
     PEAK FLOW       (cms)=        .36          .38          .667 (iii)
     TIME TO PEAK    (hrs)=       1.58         1.75         1.750
     RUNOFF VOLUME    (mm)=      88.06        53.16        65.372
     TOTAL RAINFALL   (mm)=      88.86        88.86        88.857
     RUNOFF COEFFICIENT   =        .99          .60          .736

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN* =  75.0    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

------------------------------------------------------------------------------
001:0214------------------------------------------------------------------------
*
*
*#=========================
*# OSD 85 L/S/HA  PARK 30 L/S/HA
*#  85*3.5 = 297.5 L/S
*#  30*0.29 = 8.7 L/S
*#  TOTAL = 306.2 L/S
*#=========================
*
---------------------
| ROUTE RESERVOIR   |    Requested routing time step =  5.0 min.
|  IN>05:(000204)   |
| OUT<08:(000471)   |    =========  OUTLFOW STORAGE TABLE  =========
---------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
                           (cms)     (ha.m.)   |    (cms)     (ha.m.)
                            .000  .0000E+00   |     .306  .6724E-01
                            .250  .2000E-02   |     .000  .0000E+00
      *** WARNING: STORAGE-Q values were extrapolated.
                   Increase curve or use overflow option.

     ROUTING RESULTS            AREA     QPEAK     TPEAK       R.V.
     --------------------       (ha)     (cms)     (hrs)       (mm)
     INFLOW >05: (000204)      3.79      .667     1.750     65.372
     OUTFLOW<08: (000471)      3.79      .309     2.167     65.532

                   PEAK   FLOW   REDUCTION [Qout/Qin](%)=   46.244
                   TIME SHIFT OF PEAK FLOW         (min)=    25.00
                   MAXIMUM  STORAGE   USED       (ha.m.)=.7041E-01

------------------------------------------------------------------------------
001:0215------------------------------------------------------------------------
*
*# MH 546
---------------------
| SAVE HYD          |   AREA       (ha)=    3.790
| ID=08 (000471)    |   QPEAK     (cms)=     .309 (i)
| DT= 5.00 PCYC=-1  |   TPEAK     (hrs)=    2.167
---------------------   VOLUME     (mm)=   65.532
  Filename: C:\SWMHYMO\111083\2018-0~1\546.080
  Comments: 546-JULY-79

     (i)  PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
------------------------------------------------------------------------------
001:0216------------------------------------------------------------------------
*
*#========================
*# TRUNK 1
*#========================
*
-----------------------
| ADD HYD (       450) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
-----------------------                    (ha)     (cms)   (hrs)   (mm)   (cms)
                      ID1 08:       471     3.79      .309    2.17  65.53    .000
                    +ID2 07:       100    68.77    5.477    2.17  65.71    .000
                     ============================================================
                      SUM 06:       450    72.56    5.786    2.17  65.70    .000

   NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

------------------------------------------------------------------------------
001:0217------------------------------------------------------------------------
*
---------------------
| PRINT HYD         |   AREA       (ha)=   72.560
| ID=06 (000450)    |   QPEAK     (cms)=    5.786 (i)
| DT= 5.00 PCYC= 1  |   TPEAK     (hrs)=    2.167
---------------------   VOLUME     (mm)=   65.704

     (i)  PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
  TIME    FLOW |  TIME    FLOW |  TIME    FLOW |  TIME    FLOW |  TIME    FLOW
   hrs     cms |   hrs     cms |   hrs     cms |   hrs     cms |   hrs     cms
    .00    .000|  1.33   5.317|  2.67   5.623|  4.00    .133|  5.33    .094
    .08    .000|  1.42   5.403|  2.75   5.580|  4.08    .133|  5.42    .094
    .17    .000|  1.50   5.433|  2.83   5.537|  4.17    .121|  5.50    .092
    .25    .000|  1.58   5.486|  2.92   5.493|  4.25    .121|  5.58    .091
    .33    .054|  1.67   5.552|  3.00   5.449|  4.33    .113|  5.67    .090
    .42    .222|  1.75   5.621|  3.08   2.842|  4.42    .113|  5.75    .048
    .50    .830|  1.83   5.682|  3.17    .900|  4.50    .108|  5.83    .009
    .58   1.744|  1.92   5.727|  3.25    .687|  4.58    .107|  5.92    .002
    .67   2.372|  2.00   5.758|  3.33    .443|  4.67    .104|  6.00    .000
    .75   2.848|  2.08   5.778|  3.42    .419|  4.75    .104|  6.08    .000
    .83   3.258|  2.17   5.786|  3.50    .275|  4.83    .102|  6.17    .000
    .92   3.593|  2.25   5.780|  3.58    .270|  4.92    .101|
   1.00   3.904|  2.33   5.762|  3.67    .196|  5.00    .099|
   1.08   4.174|  2.42   5.734|  3.75    .195|  5.08    .098|
   1.17   4.429|  2.50   5.701|  3.83    .155|  5.17    .097|
   1.25   4.817|  2.58   5.663|  3.92    .155|  5.25    .096|
------------------------------------------------------------------------------
001:0218------------------------------------------------------------------------
*
*#========================
*# TRUNK 2
*#========================
*
*#========================
*#    DRAINAGE AREA 50 ||
*#   COMMERICAL        ||
*#========================
*
*
----------------------
| CALIB STANDHYD     |   Area    (ha)=    3.65
| 05:000204 DT= 5.00 |   Total Imp(%)=   80.00   Dir. Conn.(%)=   80.00
----------------------

                               IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=       2.92          .73
     Dep. Storage     (mm)=        .80         1.50
     Average Slope     (%)=        .20         2.00
     Length            (m)=     292.00        40.00
     Mannings n           =       .013         .250

     Max.eff.Inten.(mm/hr)=     106.70        60.04
                 over (min)       10.00        15.00
     Storage Coeff.  (min)=       7.67 (ii)   16.33 (ii)
     Unit Hyd. Tpeak (min)=      10.00        15.00
     Unit Hyd. peak  (cms)=        .13          .07

                                                        *TOTALS*
     PEAK FLOW       (cms)=        .73          .09          .810 (iii)
     TIME TO PEAK    (hrs)=       1.67         1.75         1.667
     RUNOFF VOLUME    (mm)=      88.06        44.36        79.318
     TOTAL RAINFALL   (mm)=      88.86        88.86        88.857
     RUNOFF COEFFICIENT   =        .99          .50          .893

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN* =  75.0    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

------------------------------------------------------------------------------
001:0219------------------------------------------------------------------------
*
*
*#=========================
*# OSD 85 L/S/HA
*#  85*3.65 = 310.3 L/S
*#=========================
*
---------------------
| ROUTE RESERVOIR   |    Requested routing time step =  5.0 min.
|  IN>05:(000204)   |
| OUT<08:(000471)   |    =========  OUTLFOW STORAGE TABLE  =========
---------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
                           (cms)     (ha.m.)   |    (cms)     (ha.m.)
                            .000  .0000E+00   |     .310  .1157E+00
                            .200  .2000E-02   |     .000  .0000E+00

     ROUTING RESULTS            AREA     QPEAK     TPEAK       R.V.
     --------------------       (ha)     (cms)     (hrs)       (mm)
     INFLOW >05: (000204)      3.65      .810     1.667     79.318
     OUTFLOW<08: (000471)      3.65      .310     2.167     79.438

                   PEAK   FLOW   REDUCTION [Qout/Qin](%)=   38.224
                   TIME SHIFT OF PEAK FLOW         (min)=    30.00
                   MAXIMUM  STORAGE   USED       (ha.m.)=.1157E+00

------------------------------------------------------------------------------
001:0220------------------------------------------------------------------------
*
---------------------
| SHIFT HYD(       874)|
| IN= 8---> OUT= 7     |
| SHIFT=  10.0 min     |       AREA     QPEAK     TPEAK      R.V.
-----------------------        (ha)     (cms)     (hrs)      (mm)
          ID= 8:       471      3.65      .310     2.167    79.438
    SHIFT ID= 7:       874      3.65      .310     2.333    79.438

------------------------------------------------------------------------------
001:0221------------------------------------------------------------------------
*
*# MH 111
---------------------
| SAVE HYD          |   AREA       (ha)=    3.650
| ID=08 (000471)    |   QPEAK     (cms)=     .310 (i)
| DT= 5.00 PCYC=-1  |   TPEAK     (hrs)=    2.167
---------------------   VOLUME     (mm)=   79.438
  Filename: C:\SWMHYMO\111083\2018-0~1\111.080
  Comments: 111-JULY-79

     (i)  PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
------------------------------------------------------------------------------
001:0222------------------------------------------------------------------------
*
*#=============================================
*# AREA FORMERLY KNOWN AS 51 (EAST OF PORTOBELLO)
*#=============================================
*
*#=============================================
*# MATTAMY SUMMERSIDE DRAINAGE AREA 19.93 ha - H-114
*# TO MH 112
*#=============================================
*
*
---------------------
| READ HYD          |   AREA       (ha)=   17.734
| ID=05 (114    )   |   QPEAK     (cms)=    1.662
| DT= 1.00 PCYC= 1  |   TPEAK     (hrs)=    1.683
---------------------   VOLUME     (mm)=   60.251
  Filename: C:\SWMHYMO\111083\2018-0~1\H-114.080
  Comments: Minor System Outflow to MH 114

  TIME    FLOW |  TIME    FLOW |  TIME    FLOW |  TIME    FLOW |  TIME    FLOW
   hrs     cms |   hrs     cms |   hrs     cms |   hrs     cms |   hrs     cms
    .00    .000|  1.17   1.340|  2.33   1.177|  3.50    .029|  4.67    .000
    .02    .000|  1.18   1.366|  2.35   1.163|  3.52    .027|  4.68    .000
    .03    .000|  1.20   1.388|  2.37   1.150|  3.53    .025|  4.70    .000
    .05    .000|  1.22   1.408|  2.38   1.127|  3.55    .024|  4.72    .000
    .07    .000|  1.23   1.427|  2.40   1.107|  3.57    .022|  4.73    .000
    .08    .000|  1.25   1.444|  2.42   1.090|  3.58    .021|  4.75    .000
    .10    .000|  1.27   1.472|  2.43   1.078|  3.60    .020|  4.77    .000
    .12    .000|  1.28   1.509|  2.45   1.070|  3.62    .019|  4.78    .000
    .13    .000|  1.30   1.547|  2.47   1.049|  3.63    .018|  4.80    .000
    .15    .000|  1.32   1.589|  2.48   1.024|  3.65    .017|  4.82    .000
    .17    .000|  1.33   1.608|  2.50    .999|  3.67    .016|  4.83    .000
    .18    .000|  1.35   1.615|  2.52    .988|  3.68    .015|  4.85    .000
    .20    .000|  1.37   1.624|  2.53    .982|  3.70    .014|  4.87    .000
    .22    .000|  1.38   1.631|  2.55    .976|  3.72    .013|  4.88    .000
    .23    .000|  1.40   1.636|  2.57    .972|  3.73    .012|  4.90    .000
    .25    .000|  1.42   1.641|  2.58    .964|  3.75    .012|  4.92    .000
    .27    .000|  1.43   1.646|  2.60    .958|  3.77    .011|  4.93    .000
    .28    .000|  1.45   1.649|  2.62    .405|  3.78    .010|  4.95    .000
    .30    .000|  1.47   1.653|  2.63    .394|  3.80    .010|  4.97    .000
    .32    .014|  1.48   1.656|  2.65    .386|  3.82    .009|  4.98    .000
    .33    .049|  1.50   1.660|  2.67    .379|  3.83    .009|  5.00    .000
    .35    .089|  1.52   1.661|  2.68    .372|  3.85    .008|  5.02    .000
    .37    .122|  1.53   1.661|  2.70    .366|  3.87    .008|  5.03    .000
    .38    .148|  1.55   1.661|  2.72    .361|  3.88    .007|  5.05    .000
    .40    .166|  1.57   1.661|  2.73    .352|  3.90    .007|  5.07    .000
    .42    .178|  1.58   1.662|  2.75    .342|  3.92    .006|  5.08    .000
    .43    .188|  1.60   1.662|  2.77    .336|  3.93    .006|  5.10    .000
    .45    .195|  1.62   1.662|  2.78    .330|  3.95    .006|  5.12    .000
    .47    .200|  1.63   1.662|  2.80    .326|  3.97    .005|  5.13    .000
    .48    .204|  1.65   1.662|  2.82    .322|  3.98    .005|  5.15    .000
    .50    .207|  1.67   1.662|  2.83    .318|  4.00    .005|  5.17    .000
    .52    .255|  1.68   1.662|  2.85    .315|  4.02    .005|  5.18    .000
    .53    .374|  1.70   1.662|  2.87    .307|  4.03    .004|  5.20    .000
    .55    .509|  1.72   1.662|  2.88    .291|  4.05    .004|  5.22    .000
    .57    .614|  1.73   1.662|  2.90    .284|  4.07    .004|  5.23    .000
    .58    .693|  1.75   1.661|  2.92    .272|  4.08    .004|  5.25    .000
```

```
07875>     .60    .750|   1.77   1.661|   2.93    .266|   4.10    .003|   5.27    .000
07876>     .62    .790|   1.78   1.661|   2.95    .262|   4.12    .003|   5.28    .000
07877>     .63    .822|   1.80   1.661|   2.97    .259|   4.13    .003|   5.30    .000
07878>     .65    .847|   1.82   1.661|   2.98    .257|   4.15    .003|   5.32    .000
07879>     .67    .868|   1.83   1.660|   3.00    .255|   4.17    .003|   5.33    .000
07880>     .68    .885|   1.85   1.660|   3.02    .247|   4.18    .003|   5.35    .000
07881>     .70    .901|   1.87   1.660|   3.03    .230|   4.20    .002|   5.37    .000
07882>     .72    .915|   1.88   1.659|   3.05    .212|   4.22    .002|   5.38    .000
07883>     .73    .929|   1.90   1.659|   3.07    .196|   4.23    .002|   5.40    .000
07884>     .75    .941|   1.92   1.659|   3.08    .182|   4.25    .002|   5.42    .000
07885>     .77    .953|   1.93   1.658|   3.10    .171|   4.27    .002|   5.43    .000
07886>     .78    .964|   1.95   1.658|   3.12    .163|   4.28    .002|   5.45    .000
07887>     .80    .975|   1.97   1.658|   3.13    .155|   4.30    .002|   5.47    .000
07888>     .82    .986|   1.98   1.657|   3.15    .138|   4.32    .002|   5.48    .000
07889>     .83    .996|   2.00   1.656|   3.17    .116|   4.33    .002|   5.50    .000
07890>     .85   1.007|   2.02   1.654|   3.18    .098|   4.35    .001|   5.52    .000
07891>     .87   1.018|   2.03   1.647|   3.20    .090|   4.37    .001|   5.53    .000
07892>     .88   1.028|   2.05   1.633|   3.22    .084|   4.38    .001|   5.55    .000
07893>     .90   1.039|   2.07   1.617|   3.23    .079|   4.40    .001|   5.57    .000
07894>     .92   1.050|   2.08   1.584|   3.25    .074|   4.42    .001|   5.58    .000
07895>     .93   1.061|   2.10   1.560|   3.27    .070|   4.43    .001|   5.60    .000
07896>     .95   1.071|   2.12   1.537|   3.28    .066|   4.45    .001|   5.62    .000
07897>     .97   1.082|   2.13   1.521|   3.30    .061|   4.47    .001|   5.63    .000
07898>     .98   1.093|   2.15   1.507|   3.32    .057|   4.48    .001|   5.65    .000
07899>    1.00   1.103|   2.17   1.486|   3.33    .054|   4.50    .001|   5.67    .000
07900>    1.02   1.114|   2.18   1.466|   3.35    .050|   4.52    .001|   5.68    .000
07901>    1.03   1.127|   2.20   1.453|   3.37    .047|   4.53    .001|   5.70    .000
07902>    1.05   1.140|   2.22   1.437|   3.38    .044|   4.55    .001|   5.72    .000
07903>    1.07   1.150|   2.23   1.383|   3.40    .042|   4.57    .001|   5.73    .000
07904>    1.08   1.161|   2.25   1.323|   3.42    .039|   4.58    .001|   5.75    .000
07905>    1.10   1.187|   2.27   1.286|   3.43    .037|   4.60    .001|   5.77    .000
07906>    1.12   1.233|   2.28   1.257|   3.45    .034|   4.62    .001|   5.78    .000
07907>    1.13   1.274|   2.30   1.224|   3.47    .032|   4.63    .001|   5.80    .000
07908>    1.15   1.308|   2.32   1.196|   3.48    .030|   4.65    .001|
07909> ------------------------------------------------------------------------------
07910> 001:0223----------------------------------------------------------------------
07911> *
07912> --------------------
07913> | PRINT HYD        |   AREA       (ha)=   17.734
07914> | ID=05 (114   )   |   QPEAK     (cms)=    1.662 (i)
07915> | DT= 1.00 PCYC= 1 |   TPEAK     (hrs)=    1.683
07916> --------------------   VOLUME      (mm)=   60.251
07917>
07918>      (i)  PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
07919>   TIME    FLOW |  TIME    FLOW |  TIME    FLOW |  TIME    FLOW |  TIME    FLOW
07920>    hrs     cms |   hrs     cms |   hrs     cms |   hrs     cms |   hrs     cms
07921>    .00    .000|   1.17   1.340|   2.33   1.177|   3.50    .029|   4.67    .000
07922>    .02    .000|   1.18   1.366|   2.35   1.163|   3.52    .027|   4.68    .000
07923>    .03    .000|   1.20   1.388|   2.37   1.150|   3.53    .025|   4.70    .000
07924>    .05    .000|   1.22   1.408|   2.38   1.127|   3.55    .024|   4.72    .000
07925>    .07    .000|   1.23   1.427|   2.40   1.107|   3.57    .022|   4.73    .000
07926>    .08    .000|   1.25   1.444|   2.42   1.090|   3.58    .021|   4.75    .000
07927>    .10    .000|   1.27   1.472|   2.43   1.078|   3.60    .020|   4.77    .000
07928>    .12    .000|   1.28   1.509|   2.45   1.070|   3.62    .019|   4.78    .000
07929>    .13    .000|   1.30   1.547|   2.47   1.049|   3.63    .018|   4.80    .000
07930>    .15    .000|   1.32   1.589|   2.48   1.024|   3.65    .017|   4.82    .000
07931>    .17    .000|   1.33   1.608|   2.50    .999|   3.67    .016|   4.83    .000
07932>    .18    .000|   1.35   1.615|   2.52    .988|   3.68    .015|   4.85    .000
07933>    .20    .000|   1.37   1.624|   2.53    .982|   3.70    .014|   4.87    .000
07934>    .22    .000|   1.38   1.631|   2.55    .976|   3.72    .013|   4.88    .000
07935>    .23    .000|   1.40   1.636|   2.57    .972|   3.73    .012|   4.90    .000
07936>    .25    .000|   1.42   1.641|   2.58    .964|   3.75    .012|   4.92    .000
07937>    .27    .000|   1.43   1.646|   2.60    .958|   3.77    .011|   4.93    .000
07938>    .28    .000|   1.45   1.649|   2.62    .405|   3.78    .010|   4.95    .000
07939>    .30    .000|   1.47   1.653|   2.63    .394|   3.80    .010|   4.97    .000
07940>    .32    .014|   1.48   1.656|   2.65    .386|   3.82    .009|   4.98    .000
07941>    .33    .049|   1.50   1.660|   2.67    .379|   3.83    .009|   5.00    .000
07942>    .35    .089|   1.52   1.661|   2.68    .372|   3.85    .008|   5.02    .000
07943>    .37    .122|   1.53   1.661|   2.70    .366|   3.87    .008|   5.03    .000
07944>    .38    .148|   1.55   1.661|   2.72    .361|   3.88    .007|   5.05    .000
07945>    .40    .166|   1.57   1.661|   2.73    .352|   3.90    .007|   5.07    .000
07946>    .42    .178|   1.58   1.662|   2.75    .342|   3.92    .006|   5.08    .000
07947>    .43    .188|   1.60   1.662|   2.77    .336|   3.93    .006|   5.10    .000
07948>    .45    .195|   1.62   1.662|   2.78    .330|   3.95    .006|   5.12    .000
07949>    .47    .200|   1.63   1.662|   2.80    .326|   3.97    .005|   5.13    .000
07950>    .48    .204|   1.65   1.662|   2.82    .322|   3.98    .005|   5.15    .000
07951>    .50    .207|   1.67   1.662|   2.83    .318|   4.00    .005|   5.17    .000
07952>    .52    .255|   1.68   1.662|   2.85    .315|   4.02    .005|   5.18    .000
07953>    .53    .374|   1.70   1.662|   2.87    .307|   4.03    .004|   5.20    .000
07954>    .55    .509|   1.72   1.662|   2.88    .291|   4.05    .004|   5.22    .000
07955>    .57    .614|   1.73   1.662|   2.90    .284|   4.07    .004|   5.23    .000
07956>    .58    .693|   1.75   1.661|   2.92    .272|   4.08    .004|   5.25    .000
07957>    .60    .750|   1.77   1.661|   2.93    .266|   4.10    .003|   5.27    .000
07958>    .62    .790|   1.78   1.661|   2.95    .262|   4.12    .003|   5.28    .000
07959>    .63    .822|   1.80   1.661|   2.97    .259|   4.13    .003|   5.30    .000
07960>    .65    .847|   1.82   1.661|   2.98    .257|   4.15    .003|   5.32    .000
07961>    .67    .868|   1.83   1.660|   3.00    .255|   4.17    .003|   5.33    .000
07962>    .68    .885|   1.85   1.660|   3.02    .247|   4.18    .003|   5.35    .000
07963>    .70    .901|   1.87   1.660|   3.03    .230|   4.20    .002|   5.37    .000
07964>    .72    .915|   1.88   1.659|   3.05    .212|   4.22    .002|   5.38    .000
07965>    .73    .929|   1.90   1.659|   3.07    .196|   4.23    .002|   5.40    .000
07966>    .75    .941|   1.92   1.659|   3.08    .182|   4.25    .002|   5.42    .000
07967>    .77    .953|   1.93   1.658|   3.10    .171|   4.27    .002|   5.43    .000
07968>    .78    .964|   1.95   1.658|   3.12    .163|   4.28    .002|   5.45    .000
07969>    .80    .975|   1.97   1.658|   3.13    .155|   4.30    .002|   5.47    .000
07970>    .82    .986|   1.98   1.657|   3.15    .138|   4.32    .002|   5.48    .000
07971>    .83    .996|   2.00   1.656|   3.17    .116|   4.33    .002|   5.50    .000
07972>    .85   1.007|   2.02   1.654|   3.18    .098|   4.35    .001|   5.52    .000
07973>    .87   1.018|   2.03   1.647|   3.20    .090|   4.37    .001|   5.53    .000
07974>    .88   1.028|   2.05   1.633|   3.22    .084|   4.38    .001|   5.55    .000
07975>    .90   1.039|   2.07   1.617|   3.23    .079|   4.40    .001|   5.57    .000
07976>    .92   1.050|   2.08   1.584|   3.25    .074|   4.42    .001|   5.58    .000
07977>    .93   1.061|   2.10   1.560|   3.27    .070|   4.43    .001|   5.60    .000
07978>    .95   1.071|   2.12   1.537|   3.28    .066|   4.45    .001|   5.62    .000
07979>    .97   1.082|   2.13   1.521|   3.30    .061|   4.47    .001|   5.63    .000
07980>    .98   1.093|   2.15   1.507|   3.32    .057|   4.48    .001|   5.65    .000
07981>   1.00   1.103|   2.17   1.486|   3.33    .054|   4.50    .001|   5.67    .000
07982>   1.02   1.114|   2.18   1.466|   3.35    .050|   4.52    .001|   5.68    .000
07983>   1.03   1.127|   2.20   1.453|   3.37    .047|   4.53    .001|   5.70    .000
07984>   1.05   1.140|   2.22   1.437|   3.38    .044|   4.55    .001|   5.72    .000
07985>   1.07   1.150|   2.23   1.383|   3.40    .042|   4.57    .001|   5.73    .000
07986>   1.08   1.161|   2.25   1.323|   3.42    .039|   4.58    .001|   5.75    .000
07987>   1.10   1.187|   2.27   1.286|   3.43    .037|   4.60    .001|   5.77    .000
07988>   1.12   1.233|   2.28   1.257|   3.45    .034|   4.62    .001|   5.78    .000
07989>   1.13   1.274|   2.30   1.224|   3.47    .032|   4.63    .001|   5.80    .000
07990>   1.15   1.308|   2.32   1.196|   3.48    .030|   4.65    .001|
07991> ------------------------------------------------------------------------------
07992> 001:0224----------------------------------------------------------------------
07993> *
07994> *
07995> *# MH 112
07996> *
07997> --------------------
07998> | SAVE HYD         |   AREA       (ha)=   17.734
07999> | ID=05 (114   )   |   QPEAK     (cms)=    1.662 (i)
08000> | DT= 1.00 PCYC=-1 |   TPEAK     (hrs)=    1.683
08001> --------------------   VOLUME      (mm)=   60.251
08002>   Filename: C:\SWMHYMO\111083\2018-0~1\112.080
08003>   Comments: 112-JULY-79
08004>
08005>      (i)  PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
08006> ------------------------------------------------------------------------------
08007> 001:0225----------------------------------------------------------------------
08008> *
08009> *
08010> *#===============
08011> *# ADD TO AREA 50
08012> *
08013> ------------------------
08014> | ADD HYD (       846) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
08015> ------------------------                   (ha)     (cms)   (hrs)   (mm)   (cms)
08016>                        ID1 07:       874    3.65     .310    2.33  79.44    .000
08017>                       +ID2 05:114           17.73    1.662    1.68  60.25    .000
08018>                        ==========================================================
08019>                        SUM 04:       846    21.38    1.952    2.00  63.53    .000
08020>
08021>    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
08022>
08023> ------------------------------------------------------------------------------
08024> 001:0226----------------------------------------------------------------------
08025> *#=======================
08026> *#    DRAINAGE AREA 53 ||
08027> *#                    ||
08028> *#=======================
08029> *
08030> *
08031> ----------------------
08032> | CALIB STANDHYD     |   Area    (ha)=   17.48
08033> | 08:000204 DT= 5.00 |   Total Imp(%)=   56.00   Dir. Conn.(%)=   42.00
08034> ----------------------
08035>                                IMPERVIOUS    PERVIOUS (i)
08036>      Surface Area     (ha)=        9.79         7.69
08037>      Dep. Storage     (mm)=         .80         1.50
08038>      Average Slope     (%)=         .20         2.00
08039>      Length            (m)=      447.00        40.00
08040>      Mannings n         =         .013         .250
08041>
08042>      Max.eff.Inten.(mm/hr)=      106.70        88.96
08043>                over (min)        10.00        15.00
08044>      Storage Coeff.  (min)=       9.91 (ii)   17.30 (ii)
08045>      Unit Hyd. Tpeak (min)=      10.00        15.00
08046>      Unit Hyd. peak  (cms)=        .11          .07
08047>                                                          *TOTALS*
08048>      PEAK FLOW       (cms)=       1.75         1.39         3.027 (iii)
08049>      TIME TO PEAK    (hrs)=       1.67         1.75         1.750
08050>      RUNOFF VOLUME    (mm)=      88.06        50.64        66.355
08051>      TOTAL RAINFALL   (mm)=      88.86        88.86        88.857
08052>      RUNOFF COEFFICIENT  =        .99          .57          .747
08053>
08054>        (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
08055>            CN* =  75.0    Ia = Dep. Storage  (Above)
08056>       (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
08057>            THAN THE STORAGE COEFFICIENT.
08058>      (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
08059>
08060> ------------------------------------------------------------------------------
08061> 001:0227----------------------------------------------------------------------
08062> *
08063> *
08064> *#========================
08065> *# OSD 85 L/S/HA  PARK 30 L/S/HA
08066> *#  85*16.42 = 1395.7 L/S
08067> *#  30*1.06 = 31.8 L/S
08068> *#  TOTAL = 1428 L/S
08069> *#========================
08070> *
08071> ---------------------
08072> | ROUTE RESERVOIR   |    Requested routing time step =  5.0 min.
08073> |  IN>08:(000204)   |
08074> | OUT<05:(000471)   |    =========  OUTFLOW STORAGE TABLE  =========
08075> ---------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
08076>                            (cms)    (ha.m.)   |    (cms)    (ha.m.)
08077>                             .000  .0000E+00   |    1.428  .2558E+00
08078>                            1.400  .2000E-02   |     .000  .0000E+00
08079>      *** WARNING: STORAGE-Q values were extrapolated.
08080>                   Increase curve or use overflow option.
08081>
08082>      ROUTING RESULTS            AREA     QPEAK     TPEAK       R.V.
08083>      --------------------       (ha)     (cms)     (hrs)       (mm)
08084>      INFLOW >08: (000204)      17.48     3.027     1.750     66.355
08085>      OUTFLOW<05: (000471)      17.48     1.429     2.167     66.454
08086>
08087>                    PEAK   FLOW   REDUCTION [Qout/Qin](%)=   47.227
08088>                    TIME SHIFT OF PEAK FLOW         (min)=    25.00
08089>                    MAXIMUM  STORAGE   USED       (ha.m.)=.2708E+00
08090>
08091> ------------------------------------------------------------------------------
08092> 001:0228----------------------------------------------------------------------
08093> *
08094> *# MH 110
08095> ---------------------
08096> | SAVE HYD         |   AREA       (ha)=   17.480
08097> | ID=05 (000471)   |   QPEAK     (cms)=    1.429 (i)
08098> | DT= 5.00 PCYC=-1 |   TPEAK     (hrs)=    2.167
08099> ---------------------   VOLUME      (mm)=   66.454
08100>   Filename: C:\SWMHYMO\111083\2018-0~1\110.080
08101>   Comments: 110-JULY-79
08102>
08103>      (i)  PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
08104> ------------------------------------------------------------------------------
08105> 001:0229----------------------------------------------------------------------
08106> *
08107> ------------------------
08108> | ADD HYD (       584) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
08109> ------------------------                   (ha)     (cms)   (hrs)   (mm)   (cms)
08110>                        ID1 05:       471    17.48    1.429    2.17  66.45    .000
08111>                       +ID2 04:       846    21.38    1.952    2.00  63.53    .000
08112>                        ==========================================================
08113>                        SUM 08:       584    38.86    3.379    2.00  64.84    .000
08114>
08115>    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
08116>
08117> ------------------------------------------------------------------------------
08118> 001:0230----------------------------------------------------------------------
08119> *
08120> *#================================================
08121> *# AREA FORMERLY KNOWN AS 52 (EAST OF PORTOBELLO)
08122> *#================================================
08123> *
08124> *#================================================
08125> *# MATTAMY SUMMERSIDE DRAINAGE AREA 6.13 ha - H-217 - MINOR
08126> *#================================================
08127> *
08128> *
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08129> --------------------
08130> | READ HYD         |   AREA       (ha)=    5.119
08131> | ID=03 (000217)   |   QPEAK     (cms)=     .511
08132> | DT= 1.00 PCYC= 1 |   TPEAK     (hrs)=    1.600
08133> --------------------   VOLUME     (mm)=   63.092
08134>   Filename: C:\SWMHYMO\111083\2018-0~1\H-217.080
08135>   Comments: Minor System Outflow to MH 217
08136>
08137>   TIME    FLOW |  TIME    FLOW |  TIME    FLOW |  TIME    FLOW |  TIME    FLOW
08138>    hrs     cms |   hrs     cms |   hrs     cms |   hrs     cms |   hrs     cms
08139>     .00    .000|   1.00    .376|   2.00    .497|   3.00    .083|   4.00    .001
08140>     .02    .000|   1.02    .380|   2.02    .495|   3.02    .080|   4.02    .001
08141>     .03    .000|   1.03    .383|   2.03    .491|   3.03    .073|   4.03    .001
08142>     .05    .000|   1.05    .386|   2.05    .476|   3.05    .065|   4.05    .001
08143>     .07    .000|   1.07    .389|   2.07    .457|   3.07    .059|   4.07    .000
08144>     .08    .000|   1.08    .392|   2.08    .448|   3.08    .055|   4.08    .000
08145>     .10    .000|   1.10    .401|   2.10    .441|   3.10    .052|   4.10    .000
08146>     .12    .000|   1.12    .419|   2.12    .431|   3.12    .049|   4.12    .000
08147>     .13    .000|   1.13    .432|   2.13    .420|   3.13    .047|   4.13    .000
08148>     .15    .000|   1.15    .437|   2.15    .413|   3.15    .046|   4.15    .000
08149>     .17    .000|   1.17    .441|   2.17    .408|   3.17    .044|   4.17    .000
08150>     .18    .000|   1.18    .444|   2.18    .402|   3.18    .043|   4.18    .000
08151>     .20    .000|   1.20    .446|   2.20    .398|   3.20    .041|   4.20    .000
08152>     .22    .000|   1.22    .449|   2.22    .393|   3.22    .040|   4.22    .000
08153>     .23    .000|   1.23    .451|   2.23    .389|   3.23    .039|   4.23    .000
08154>     .25    .000|   1.25    .452|   2.25    .378|   3.25    .037|   4.25    .000
08155>     .27    .000|   1.27    .457|   2.27    .367|   3.27    .036|   4.27    .000
08156>     .28    .000|   1.28    .464|   2.28    .324|   3.28    .035|   4.28    .000
08157>     .30    .000|   1.30    .469|   2.30    .310|   3.30    .034|   4.30    .000
08158>     .32    .006|   1.32    .472|   2.32    .287|   3.32    .033|   4.32    .000
08159>     .33    .022|   1.33    .475|   2.33    .265|   3.33    .032|   4.33    .000
08160>     .35    .040|   1.35    .478|   2.35    .254|   3.35    .032|   4.35    .000
08161>     .37    .053|   1.37    .482|   2.37    .248|   3.37    .031|   4.37    .000
08162>     .38    .061|   1.38    .486|   2.38    .242|   3.38    .030|   4.38    .000
08163>     .40    .066|   1.40    .490|   2.40    .238|   3.40    .029|   4.40    .000
08164>     .42    .070|   1.42    .494|   2.42    .234|   3.42    .029|   4.42    .000
08165>     .43    .072|   1.43    .497|   2.43    .230|   3.43    .013|   4.43    .000
08166>     .45    .073|   1.45    .501|   2.45    .226|   3.45    .008|   4.45    .000
08167>     .47    .074|   1.47    .504|   2.47    .215|   3.47    .007|   4.47    .000
08168>     .48    .074|   1.48    .507|   2.48    .198|   3.48    .006|   4.48    .000
08169>     .50    .074|   1.50    .510|   2.50    .185|   3.50    .006|   4.50    .000
08170>     .52    .094|   1.52    .511|   2.52    .179|   3.52    .005|   4.52    .000
08171>     .53    .147|   1.53    .511|   2.53    .175|   3.53    .005|   4.53    .000
08172>     .55    .206|   1.55    .511|   2.55    .169|   3.55    .004|   4.55    .000
08173>     .57    .246|   1.57    .511|   2.57    .162|   3.57    .004|   4.57    .000
08174>     .58    .269|   1.58    .511|   2.58    .157|   3.58    .004|   4.58    .000
08175>     .60    .283|   1.60    .511|   2.60    .144|   3.60    .004|   4.60    .000
08176>     .62    .292|   1.62    .511|   2.62    .139|   3.62    .003|   4.62    .000
08177>     .63    .297|   1.63    .511|   2.63    .135|   3.63    .003|   4.63    .000
08178>     .65    .301|   1.65    .511|   2.65    .128|   3.65    .003|   4.65    .000
08179>     .67    .305|   1.67    .511|   2.67    .125|   3.67    .003|   4.67    .000
08180>     .68    .308|   1.68    .511|   2.68    .123|   3.68    .003|   4.68    .000
08181>     .70    .311|   1.70    .511|   2.70    .122|   3.70    .002|   4.70    .000
08182>     .72    .313|   1.72    .511|   2.72    .121|   3.72    .002|   4.72    .000
08183>     .73    .316|   1.73    .510|   2.73    .119|   3.73    .002|   4.73    .000
08184>     .75    .319|   1.75    .510|   2.75    .118|   3.75    .002|   4.75    .000
08185>     .77    .322|   1.77    .510|   2.77    .117|   3.77    .002|   4.77    .000
08186>     .78    .325|   1.78    .509|   2.78    .116|   3.78    .002|   4.78    .000
08187>     .80    .328|   1.80    .509|   2.80    .115|   3.80    .002|   4.80    .000
08188>     .82    .332|   1.82    .508|   2.82    .115|   3.82    .001|   4.82    .000
08189>     .83    .335|   1.83    .508|   2.83    .108|   3.83    .001|   4.83    .000
08190>     .85    .339|   1.85    .507|   2.85    .103|   3.85    .001|   4.85    .000
08191>     .87    .342|   1.87    .507|   2.87    .100|   3.87    .001|   4.87    .000
08192>     .88    .347|   1.88    .506|   2.88    .099|   3.88    .001|   4.88    .000
08193>     .90    .350|   1.90    .506|   2.90    .098|   3.90    .001|   4.90    .000
08194>     .92    .354|   1.92    .505|   2.92    .097|   3.92    .001|   4.92    .000
08195>     .93    .357|   1.93    .505|   2.93    .097|   3.93    .001|   4.93    .000
08196>     .95    .363|   1.95    .504|   2.95    .092|   3.95    .001|   4.95    .000
08197>     .97    .369|   1.97    .502|   2.97    .087|   3.97    .001|   4.97    .000
08198>     .98    .373|   1.98    .499|   2.98    .084|   3.98    .001|
08199> --------------------------------------------------------------------------------
08200> 001:0231-----------------------------------------------------------------------
08201> *
08202> *
08203> *
08204> *
08205> *#########################
08206> *#    DRAINAGE AREA 54 ||
08207> *#                     ||
08208> *#########################
08209> *
08210> *
08211> ----------------------
08212> | CALIB STANDHYD     |   Area    (ha)=   13.08
08213> | 04:000204 DT= 5.00 |   Total Imp(%)=   50.00   Dir. Conn.(%)=   29.00
08214> ----------------------
08215>                              IMPERVIOUS    PERVIOUS (i)
08216>      Surface Area     (ha)=       6.54         6.54
08217>      Dep. Storage     (mm)=        .80         1.50
08218>      Average Slope     (%)=        .20         2.00
08219>      Length            (m)=     475.00        40.00
08220>      Mannings n           =       .013         .250
08221>
08222>      Max.eff.Inten.(mm/hr)=     106.70        98.51
08223>                 over (min)=      10.00        15.00
08224>      Storage Coeff.  (min)=      10.27 (ii)   17.38 (ii)
08225>      Unit Hyd. Tpeak (min)=      10.00        15.00
08226>      Unit Hyd. peak  (cms)=        .11          .07
08227>                                                          *TOTALS*
08228>      PEAK FLOW       (cms)=        .90         1.31         2.155 (iii)
08229>      TIME TO PEAK    (hrs)=       1.67         1.75         1.750
08230>      RUNOFF VOLUME    (mm)=      88.06        52.29        62.663
08231>      TOTAL RAINFALL   (mm)=      88.86        88.86        88.857
08232>      RUNOFF COEFFICIENT   =        .99          .59          .705
08233>
08234>        (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
08235>            CN* =  75.0    Ia = Dep. Storage  (Above)
08236>       (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
08237>            THAN THE STORAGE COEFFICIENT.
08238>      (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
08239>
08240> --------------------------------------------------------------------------------
08241> 001:0232-----------------------------------------------------------------------
08242> *
08243> *
08244> *#########################
08245> *# OSD 85 L/S/HA 30 L/S/HA
08246> *#  85*10.89 = 925.7 L/S
08247> *#  30*2.19 = 65.7 L/S
08248> *#  TOTAL = 991.4 L/S
08249> *#########################
08250> *
08251> ----------------------
08252> | ROUTE RESERVOIR    |    Requested routing time step =  5.0 min.
08253> |  IN>04:(000204)    |
08254> | OUT<05:(000471)    |    =========  OUTLFOW STORAGE TABLE  =========
08255> ----------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
08256>                              (cms)    (ha.m.)   |    (cms)    (ha.m.)
08257>                               .000  .0000E+00   |     .991  .1882E+00
08258>                               .950  .2000E-02   |     .000  .0000E+00
08259>      *** WARNING: STORAGE-Q values were extrapolated.
08260>                   Increase curve or use overflow option.
08261>
08262>      ROUTING RESULTS            AREA     QPEAK     TPEAK       R.V.
08263>      --------------------        (ha)     (cms)     (hrs)       (mm)
08264>      INFLOW >04: (000204)      13.08     2.155     1.750     62.663
08265>      OUTFLOW<05: (000471)      13.08      .995     2.250     63.087
08266>
08267>                   PEAK   FLOW   REDUCTION [Qout/Qin](%)=   46.181
08268>                   TIME SHIFT OF PEAK FLOW         (min)=    30.00
08269>                   MAXIMUM  STORAGE   USED       (ha.m.)=.2063E+00
08270>
08271>      *** WARNING: Outflow volume is less than inflow volume.
08272> --------------------------------------------------------------------------------
08273> 001:0233-----------------------------------------------------------------------
08274> *
08275> *# ADD AREA 52 AND 54
08276> *
08277> ------------------------
08278> | ADD HYD (       463) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
08279> ------------------------                  (ha)     (cms)   (hrs)   (mm)   (cms)
08280>                          ID1 03:       217     5.12     .511    1.60  63.09    .000
08281>                         +ID2 05:       471    13.08     .995    2.25  63.09    .000
08282>                          ================================================
08283>                          SUM 09:       463    18.20    1.492    1.95  63.09    .000
08284>
08285>    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
08286>
08287> --------------------------------------------------------------------------------
08288> 001:0234-----------------------------------------------------------------------
08289> *
08290> --------------------
08291> | PRINT HYD        |   AREA       (ha)=   18.199
08292> | ID=09 (000463)   |   QPEAK     (cms)=    1.492 (i)
08293> | DT= 1.00 PCYC= 1 |   TPEAK     (hrs)=    1.950
08294> --------------------   VOLUME     (mm)=   63.088
08295>
08296>      (i)  PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
08297>   TIME    FLOW |  TIME    FLOW |  TIME    FLOW |  TIME    FLOW |  TIME    FLOW
08298>    hrs     cms |   hrs     cms |   hrs     cms |   hrs     cms |   hrs     cms
08299>     .00    .000|   1.22   1.229|   2.43   1.221|   3.65    .039|   4.87    .000
08300>     .02    .000|   1.23   1.247|   2.45   1.217|   3.67    .048|   4.88    .000
08301>     .03    .000|   1.25   1.264|   2.47   1.204|   3.68    .039|   4.90    .000
08302>     .05    .000|   1.27   1.290|   2.48   1.187|   3.70    .030|   4.92    .000
08303>     .07    .000|   1.28   1.320|   2.50   1.173|   3.72    .020|   4.93    .000
08304>     .08    .000|   1.30   1.348|   2.52   1.166|   3.73    .011|   4.95    .000
08305>     .10    .000|   1.32   1.373|   2.53   1.162|   3.75    .002|   4.97    .000
08306>     .12    .000|   1.33   1.398|   2.55   1.155|   3.77    .007|   4.98    .000
08307>     .13    .000|   1.35   1.407|   2.57   1.147|   3.78    .012|   5.00    .000
08308>     .15    .000|   1.37   1.416|   2.58   1.142|   3.80    .016|   5.02    .000
08309>     .17    .000|   1.38   1.426|   2.60   1.127|   3.82    .021|   5.03    .000
08310>     .18    .000|   1.40   1.435|   2.62   1.122|   3.83    .026|   5.05    .000
08311>     .20    .000|   1.42   1.445|   2.63   1.116|   3.85    .021|   5.07    .000
08312>     .22    .000|   1.43   1.448|   2.65   1.108|   3.87    .016|   5.08    .000
08313>     .23    .000|   1.45   1.452|   2.67   1.105|   3.88    .011|   5.10    .000
08314>     .25    .000|   1.47   1.456|   2.68   1.102|   3.90    .006|   5.12    .000
08315>     .27    .001|   1.48   1.459|   2.70   1.100|   3.92    .001|   5.13    .000
08316>     .28    .002|   1.50   1.462|   2.72   1.097|   3.93    .004|   5.15    .000
08317>     .30    .003|   1.52   1.464|   2.73   1.095|   3.95    .006|   5.17    .000
08318>     .32    .011|   1.53   1.465|   2.75   1.093|   3.97    .009|   5.18    .000
08319>     .33    .028|   1.55   1.466|   2.77   1.091|   3.98    .012|   5.20    .000
08320>     .35    .050|   1.57   1.467|   2.78   1.089|   4.00    .014|   5.22    .000
08321>     .37    .067|   1.58   1.468|   2.80   1.087|   4.02    .012|   5.23    .000
08322>     .38    .079|   1.60   1.470|   2.82   1.086|   4.03    .009|   5.25    .000
08323>     .40    .089|   1.62   1.471|   2.83   1.078|   4.05    .006|   5.27    .000
08324>     .42    .096|   1.63   1.472|   2.85   1.072|   4.07    .003|   5.28    .000
08325>     .43    .113|   1.65   1.474|   2.87   1.068|   4.08    .000|   5.30    .000
08326>     .45    .129|   1.67   1.475|   2.88   1.066|   4.10    .002|   5.32    .000
08327>     .47    .144|   1.68   1.476|   2.90   1.064|   4.12    .003|   5.33    .000
08328>     .48    .160|   1.70   1.478|   2.92   1.062|   4.13    .005|   5.35    .000
08329>     .50    .175|   1.72   1.479|   2.93   1.061|   4.15    .006|   5.37    .000
08330>     .52    .220|   1.73   1.481|   2.95   1.055|   4.17    .008|   5.38    .000
08331>     .53    .299|   1.75   1.482|   2.97   1.048|   4.18    .006|   5.40    .000
08332>     .55    .384|   1.77   1.483|   2.98   1.045|   4.20    .005|   5.42    .000
08333>     .57    .450|   1.78   1.484|   3.00   1.043|   4.22    .003|   5.43    .000
08334>     .58    .499|   1.80   1.485|   3.02   1.039|   4.23    .002|   5.45    .000
08335>     .60    .534|   1.82   1.486|   3.03   1.031|   4.25    .000|   5.47    .000
08336>     .62    .564|   1.83   1.487|   3.05   1.022|   4.27    .001|   5.48    .000
08337>     .63    .591|   1.85   1.488|   3.07   1.015|   4.28    .002|   5.50    .000
08338>     .65    .616|   1.87   1.488|   3.08   1.009|   4.30    .003|   5.52    .000
08339>     .67    .641|   1.88   1.489|   3.10    .956|   4.32    .004|   5.53    .000
08340>     .68    .661|   1.90   1.490|   3.12    .903|   4.33    .004|   5.55    .000
08341>     .70    .680|   1.92   1.491|   3.13    .851|   4.35    .004|   5.57    .000
08342>     .72    .700|   1.93   1.491|   3.15    .799|   4.37    .003|   5.58    .000
08343>     .73    .720|   1.95   1.492|   3.17    .747|   4.38    .002|   5.60    .000
08344>     .75    .739|   1.97   1.490|   3.18    .605|   4.40    .001|   5.62    .000
08345>     .77    .758|   1.98   1.487|   3.20    .463|   4.42    .000|   5.63    .000
08346>     .78    .777|   2.00   1.487|   3.22    .321|   4.43    .001|   5.65    .000
08347>     .80    .795|   2.02   1.486|   3.23    .179|   4.45    .001|   5.67    .000
08348>     .82    .814|   2.03   1.482|   3.25    .037|   4.47    .002|   5.68    .000
08349>     .83    .833|   2.05   1.467|   3.27    .068|   4.48    .002|   5.70    .000
08350>     .85    .850|   2.07   1.449|   3.28    .099|   4.50    .002|   5.72    .000
08351>     .87    .867|   2.08   1.441|   3.30    .131|   4.52    .002|   5.73    .000
08352>     .88    .885|   2.10   1.435|   3.32    .162|   4.53    .001|   5.75    .000
08353>     .90    .902|   2.12   1.425|   3.33    .193|   4.55    .001|   5.77    .000
08354>     .92    .918|   2.13   1.414|   3.35    .160|   4.57    .001|   5.78    .000
08355>     .93    .935|   2.15   1.408|   3.37    .127|   4.58    .000|   5.80    .000
08356>     .95    .953|   2.17   1.402|   3.38    .094|   4.60    .000|   5.82    .000
08357>     .97    .971|   2.18   1.397|   3.40    .062|   4.62    .001|   5.83    .000
08358>     .98    .987|   2.20   1.393|   3.42    .029|   4.63    .001|   5.85    .000
08359>    1.00   1.003|   2.22   1.389|   3.43    .030|   4.65    .001|   5.87    .000
08360>    1.02   1.018|   2.23   1.384|   3.45    .042|   4.67    .001|   5.88    .000
08361>    1.03   1.032|   2.25   1.373|   3.47    .058|   4.68    .001|   5.90    .000
08362>    1.05   1.046|   2.27   1.362|   3.48    .074|   4.70    .001|   5.92    .000
08363>    1.07   1.060|   2.28   1.319|   3.50    .090|   4.72    .001|   5.93    .000
08364>    1.08   1.074|   2.30   1.304|   3.52    .073|   4.73    .000|   5.95    .000
08365>    1.10   1.094|   2.32   1.281|   3.53    .056|   4.75    .000|   5.97    .000
08366>    1.12   1.122|   2.33   1.259|   3.55    .038|   4.77    .000|   5.98    .000
08367>    1.13   1.146|   2.35   1.248|   3.57    .021|   4.78    .000|   6.00    .000
08368>    1.15   1.161|   2.37   1.241|   3.58    .004|   4.80    .000|
08369>    1.17   1.175|   2.38   1.235|   3.60    .013|   4.82    .001|
08370>    1.18   1.193|   2.40   1.230|   3.62    .022|   4.83    .001|
08371>    1.20   1.211|   2.42   1.225|   3.63    .031|   4.85    .001|
08372> --------------------------------------------------------------------------------
08373> 001:0235-----------------------------------------------------------------------
08374> *
08375> *# MH 107
08376> --------------------
08377> | SAVE HYD         |   AREA       (ha)=   18.199
08378> | ID=09 (000463)   |   QPEAK     (cms)=    1.492 (i)
08379> | DT= 1.00 PCYC=-1 |   TPEAK     (hrs)=    1.950
08380> --------------------   VOLUME     (mm)=   63.088
08381>   Filename: C:\SWMHYMO\111083\2018-0~1\107.080
08382>   Comments: 107-JULY-79
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08383>
08384>      (i)  PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
08385> ------------------------------------------------------------------------------
08386> 001:0236-----------------------------------------------------------------------
08387> *
08388> *# ADD TO REST
08389> *
08390> ----------------------
08391> | ADD HYD (       463) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
08392> ----------------------                    (ha)     (cms)   (hrs)   (mm)   (cms)
08393>                        ID1 09:       463    18.20    1.492    1.95  63.09    .000
08394>                       +ID2 08:       584    38.86    3.379    2.00  64.84    .000
08395>                        ============================================================
08396>                        SUM 05:       463    57.06    4.865    2.00  64.28    .000
08397>
08398>    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
08399>
08400> ------------------------------------------------------------------------------
08401> 001:0237-----------------------------------------------------------------------
08402> *
08403> *
08404> *#=======================
08405> *#    DRAINAGE AREA 55 ||
08406> *#                     ||
08407> *#=======================
08408> *
08409> *
08410> ----------------------
08411> | CALIB STANDHYD     |   Area    (ha)=   15.69
08412> | 01:000204 DT= 5.00 |   Total Imp(%)=   60.00   Dir. Conn.(%)=   37.00
08413> ----------------------
08414>                              IMPERVIOUS    PERVIOUS (i)
08415>      Surface Area     (ha)=       9.41         6.28
08416>      Dep. Storage     (mm)=        .80         1.50
08417>      Average Slope     (%)=        .20         2.00
08418>      Length            (m)=     530.00        40.00
08419>      Mannings n             =      .013         .250
08420>
08421>      Max.eff.Inten.(mm/hr)=     106.70       107.70
08422>                 over (min)       10.00        20.00
08423>      Storage Coeff.  (min)=      10.97 (ii)   17.82 (ii)
08424>      Unit Hyd. Tpeak (min)=      10.00        20.00
08425>      Unit Hyd. peak  (cms)=        .11          .06
08426>                                                          *TOTALS*
08427>      PEAK FLOW       (cms)=       1.36         1.41         2.625 (iii)
08428>      TIME TO PEAK    (hrs)=       1.67         1.83          1.750
08429>      RUNOFF VOLUME    (mm)=      88.06        54.55         66.946
08430>      TOTAL RAINFALL   (mm)=      88.86        88.86         88.857
08431>      RUNOFF COEFFICIENT   =        .99          .61           .753
08432>
08433>        (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
08434>            CN* =  75.0    Ia = Dep. Storage  (Above)
08435>       (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
08436>            THAN THE STORAGE COEFFICIENT.
08437>      (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
08438>
08439> ------------------------------------------------------------------------------
08440> 001:0238-----------------------------------------------------------------------
08441> *
08442> *
08443> *#=========================
08444> *# OSD 85 L/S/HA
08445> *#  85*15.69 = 1334 L/S
08446> *#=========================
08447> *
08448> --------------------
08449> | ROUTE RESERVOIR   |    Requested routing time step =  5.0 min.
08450> |  IN>01:(000204)   |
08451> | OUT<09:(000471)   |    =========  OUTLFW STORAGE TABLE  =========
08452> --------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
08453>                           (cms)    (ha.m.)   |    (cms)    (ha.m.)
08454>                            .000  .0000E+00   |   1.334  .2094E+00
08455>                           1.300  .2000E-02   |    .000  .0000E+00
08456>      *** WARNING: STORAGE-Q values were extrapolated.
08457>                   Increase curve or use overflow option.
08458>
08459>      ROUTING RESULTS            AREA     QPEAK     TPEAK       R.V.
08460>      --------------------       (ha)     (cms)     (hrs)       (mm)
08461>      INFLOW >01: (000204)      15.69     2.625     1.750     66.946
08462>      OUTFLOW<09: (000471)      15.69     1.336     2.250     67.191
08463>
08464>                    PEAK   FLOW   REDUCTION [Qout/Qin](%)=   50.906
08465>                    TIME SHIFT OF PEAK FLOW         (min)=    30.00
08466>                    MAXIMUM  STORAGE   USED       (ha.m.)=.2263E+00
08467>
08468> ------------------------------------------------------------------------------
08469> 001:0239-----------------------------------------------------------------------
08470> *
08471> *# MH 105
08472> --------------------
08473> | SAVE HYD       |   AREA       (ha)=   15.690
08474> | ID=09 (000471) |   QPEAK     (cms)=    1.336 (i)
08475> | DT= 5.00 PCYC=-1 |   TPEAK     (hrs)=    2.250
08476> --------------------  VOLUME      (mm)=   67.191
08477>   Filename: C:\SWMHYMO\111083\2018-0~1\105.080
08478>   Comments: 105-JULY-79
08479>
08480>      (i)  PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
08481> ------------------------------------------------------------------------------
08482> 001:0240-----------------------------------------------------------------------
08483> *
08484> *# TRUNK 2
08485> *
08486> ----------------------
08487> | ADD HYD (       874) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
08488> ----------------------                    (ha)     (cms)   (hrs)   (mm)   (cms)
08489>                        ID1 09:       471    15.69    1.336    2.25  67.19    .000
08490>                       +ID2 05:       463    57.06    4.865    2.00  64.28    .000
08491>                        ============================================================
08492>                        SUM 04:       874    72.75    6.197    2.00  64.91    .000
08493>
08494>    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
08495>
08496> ------------------------------------------------------------------------------
08497> 001:0241-----------------------------------------------------------------------
08498> *
08499> --------------------
08500> | PRINT HYD      |   AREA       (ha)=   72.753
08501> | ID=04 (000874) |   QPEAK     (cms)=    6.197 (i)
08502> | DT= 1.00 PCYC= 1 |   TPEAK     (hrs)=    2.000
08503> --------------------  VOLUME      (mm)=   64.910
08504>
08505>      (i)  PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
08506>   TIME    FLOW |  TIME    FLOW |  TIME    FLOW |  TIME    FLOW |  TIME    FLOW
08507>    hrs     cms |   hrs     cms |   hrs     cms |   hrs     cms |   hrs     cms
08508>     .00    .000|   1.22   5.042|   2.43   5.363|   3.65    .369|   4.87    .002
08509>     .02    .000|   1.23   5.118|   2.45   5.348|   3.67    .400|   4.88    .001
08510>     .03    .000|   1.25   5.191|   2.47   5.313|   3.68    .365|   4.90    .001
08511>     .05    .000|   1.27   5.306|   2.48   5.269|   3.70    .329|   4.92    .000
08512>     .07    .000|   1.28   5.433|   2.50   5.228|   3.72    .294|   4.93    .001
08513>     .08    .000|   1.30   5.557|   2.52   5.208|   3.73    .258|   4.95    .001
08514>     .10    .000|   1.32   5.684|   2.53   5.194|   3.75    .223|   4.97    .001
08515>     .12    .000|   1.33   5.788|   2.55   5.179|   3.77    .239|   4.98    .001
08516>     .13    .000|   1.35   5.832|   2.57   5.164|   3.78    .255|   5.00    .002
08517>     .15    .000|   1.37   5.878|   2.58   5.148|   3.80    .271|   5.02    .001
08518>     .17    .000|   1.38   5.922|   2.60   5.125|   3.82    .288|   5.03    .001
08519>     .18    .000|   1.40   5.965|   2.62   4.564|   3.83    .304|   5.05    .001
08520>     .20    .000|   1.42   6.008|   2.63   4.545|   3.85    .263|   5.07    .000
08521>     .22    .000|   1.43   6.018|   2.65   4.526|   3.87    .223|   5.08    .000
08522>     .23    .000|   1.45   6.026|   2.67   4.512|   3.88    .182|   5.10    .000
08523>     .25    .000|   1.47   6.035|   2.68   4.500|   3.90    .142|   5.12    .000
08524>     .27    .005|   1.48   6.043|   2.70   4.489|   3.92    .101|   5.13    .001
08525>     .28    .011|   1.50   6.051|   2.72   4.478|   3.93    .092|   5.15    .001
08526>     .30    .016|   1.52   6.057|   2.73   4.464|   3.95    .083|   5.17    .001
08527>     .32    .041|   1.53   6.061|   2.75   4.449|   3.97    .074|   5.18    .001
08528>     .33    .097|   1.55   6.065|   2.77   4.438|   3.98    .064|   5.20    .001
08529>     .35    .174|   1.57   6.069|   2.78   4.428|   4.00    .055|   5.22    .000
08530>     .37    .238|   1.58   6.072|   2.80   4.418|   4.02    .045|   5.23    .000
08531>     .38    .291|   1.60   6.077|   2.82   4.410|   4.03    .035|   5.25    .000
08532>     .40    .333|   1.62   6.082|   2.83   4.395|   4.05    .025|   5.27    .000
08533>     .42    .368|   1.63   6.088|   2.85   4.382|   4.07    .015|   5.28    .000
08534>     .43    .445|   1.65   6.093|   2.87   4.367|   4.08    .005|   5.30    .000
08535>     .45    .519|   1.67   6.098|   2.88   4.346|   4.10    .010|   5.32    .000
08536>     .47    .591|   1.68   6.104|   2.90   4.334|   4.12    .015|   5.33    .001
08537>     .48    .662|   1.70   6.110|   2.92   4.318|   4.13    .021|   5.35    .000
08538>     .50    .732|   1.72   6.117|   2.93   4.306|   4.15    .026|   5.37    .000
08539>     .52    .913|   1.73   6.123|   2.95   4.294|   4.17    .031|   5.38    .000
08540>     .53   1.197|   1.75   6.129|   2.97   4.281|   4.18    .025|   5.40    .000
08541>     .55   1.505|   1.77   6.135|   2.98   4.272|   4.20    .020|   5.42    .000
08542>     .57   1.764|   1.78   6.141|   3.00   4.265|   4.22    .014|   5.43    .000
08543>     .58   1.980|   1.80   6.148|   3.02   3.711|   4.23    .008|   5.45    .000
08544>     .60   2.144|   1.82   6.154|   3.03   3.145|   4.25    .003|   5.47    .000
08545>     .62   2.287|   1.83   6.159|   3.05   2.575|   4.27    .006|   5.48    .000
08546>     .63   2.418|   1.85   6.164|   3.07   2.011|   4.28    .008|   5.50    .000
08547>     .65   2.541|   1.87   6.170|   3.08   1.450|   4.30    .011|   5.52    .000
08548>     .67   2.659|   1.88   6.175|   3.10   1.523|   4.32    .014|   5.53    .000
08549>     .68   2.762|   1.90   6.180|   3.12   1.599|   4.33    .017|   5.55    .000
08550>     .70   2.862|   1.92   6.185|   3.13   1.677|   4.35    .014|   5.57    .000
08551>     .72   2.960|   1.93   6.189|   3.15   1.745|   4.37    .011|   5.58    .000
08552>     .73   3.058|   1.95   6.193|   3.17   1.808|   4.38    .008|   5.60    .000
08553>     .75   3.154|   1.97   6.194|   3.18   1.510|   4.40    .005|   5.62    .000
08554>     .77   3.233|   1.98   6.195|   3.20   1.221|   4.42    .001|   5.63    .000
08555>     .78   3.311|   2.00   6.197|   3.22    .935|   4.43    .003|   5.65    .000
08556>     .80   3.389|   2.02   6.197|   3.23    .650|   4.45    .005|   5.67    .000
08557>     .82   3.466|   2.03   6.189|   3.25    .364|   4.47    .006|   5.68    .000
08558>     .83   3.544|   2.05   6.162|   3.27    .473|   4.48    .008|   5.70    .000
08559>     .85   3.604|   2.07   6.130|   3.28    .582|   4.50    .010|   5.72    .000
08560>     .87   3.665|   2.08   6.092|   3.30    .692|   4.52    .008|   5.73    .000
08561>     .88   3.726|   2.10   6.062|   3.32    .801|   4.53    .006|   5.75    .000
08562>     .90   3.787|   2.12   6.030|   3.33    .911|   4.55    .004|   5.77    .000
08563>     .92   3.847|   2.13   6.006|   3.35    .789|   4.57    .003|   5.78    .000
08564>     .93   3.905|   2.15   5.987|   3.37    .667|   4.58    .001|   5.80    .000
08565>     .95   3.964|   2.17   5.961|   3.38    .545|   4.60    .002|   5.82    .000
08566>     .97   4.024|   2.18   5.937|   3.40    .423|   4.62    .003|   5.83    .000
08567>     .98   4.082|   2.20   5.919|   3.42    .302|   4.63    .004|   5.85    .000
08568>    1.00   4.139|   2.22   5.900|   3.43    .345|   4.65    .005|   5.87    .000
08569>    1.02   4.191|   2.23   5.842|   3.45    .399|   4.67    .005|   5.88    .000
08570>    1.03   4.243|   2.25   5.771|   3.47    .457|   4.68    .004|   5.90    .000
08571>    1.05   4.297|   2.27   5.723|   3.48    .515|   4.70    .003|   5.92    .000
08572>    1.07   4.348|   2.28   5.650|   3.50    .574|   4.72    .002|   5.93    .000
08573>    1.08   4.398|   2.30   5.602|   3.52    .508|   4.73    .001|   5.95    .000
08574>    1.10   4.468|   2.32   5.550|   3.53    .443|   4.75    .000|   5.97    .000
08575>    1.12   4.567|   2.33   5.509|   3.55    .377|   4.77    .001|   5.98    .000
08576>    1.13   4.657|   2.35   5.483|   3.57    .312|   4.78    .001|   6.00    .000
08577>    1.15   4.731|   2.37   5.461|   3.58    .246|   4.80    .002|   6.02    .000
08578>    1.17   4.802|   2.38   5.431|   3.60    .277|   4.82    .003|   6.03    .000
08579>    1.18   4.885|   2.40   5.404|   3.62    .308|   4.83    .003|
08580>    1.20   4.965|   2.42   5.381|   3.63    .339|   4.85    .003|
08581> ------------------------------------------------------------------------------
08582> 001:0242-----------------------------------------------------------------------
08583> *
08584> *#================================
08585> *#  ADD TWO TRUNKS
08586> *#================================
08587> *
08588> ----------------------
08589> | ADD HYD (       562) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
08590> ----------------------                    (ha)     (cms)   (hrs)   (mm)   (cms)
08591>                        ID1 04:       874    72.75    6.197    2.00  64.91    .000
08592>                       +ID2 06:       450    72.56    5.786    2.17  65.70    .000
08593>                        ============================================================
08594>                        SUM 09:       562   145.31   11.958    2.02  65.31    .000
08595>
08596>    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
08597>
08598> ------------------------------------------------------------------------------
08599> 001:0243-----------------------------------------------------------------------
08600> *
08601> *
08602> *
08603> *#=====================================================
08604> *# ISGAR LANDS (EAST AND WEST OF AVALON SOUTH POND)
08605> *#=====================================================
08606> *
08607> *# ISGAR LANDS - AREA I1
08608> *# NEW WESTERN INLET
08609> *
08610> ----------------------
08611> | CALIB STANDHYD     |   Area    (ha)=    8.35
08612> | 01:I1     DT=12.00 |   Total Imp(%)=   60.00   Dir. Conn.(%)=   45.00
08613> ----------------------
08614>                              IMPERVIOUS    PERVIOUS (i)
08615>      Surface Area     (ha)=       5.01         3.34
08616>      Dep. Storage     (mm)=        .80         1.50
08617>      Average Slope     (%)=        .20         2.00
08618>      Length            (m)=     357.00        40.00
08619>      Mannings n             =      .013         .250
08620>
08621>      Max.eff.Inten.(mm/hr)=      91.45        87.45
08622>                 over (min)       10.00        20.00
08623>      Storage Coeff.  (min)=       9.21 (ii)   16.65 (ii)
08624>      Unit Hyd. Tpeak (min)=      10.00        20.00
08625>      Unit Hyd. peak  (cms)=        .11          .06
08626>                                                          *TOTALS*
08627>      PEAK FLOW       (cms)=        .88          .63          1.449 (iii)
08628>      TIME TO PEAK    (hrs)=       1.67         1.83          1.667
08629>      RUNOFF VOLUME    (mm)=      85.84        49.74         65.987
08630>      TOTAL RAINFALL   (mm)=      89.03        89.03         89.029
08631>      RUNOFF COEFFICIENT   =        .96          .56           .741
08632>       *** WARNING: Storage Coefficient is smaller than DT!
08633>                    Use a smaller DT or a larger area.
08634>
08635>        (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
08636>            CN* =  75.0    Ia = Dep. Storage  (Above)
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      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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001:0244------------------------------------------------------------------------
*
*
*#=========================
*# INFLOW 200 l/s/ha = 8.35 x 200 = 1670 l/s
*# ON-SITE STORAGE (30% LESS THAN AVALON WEST) - 75.60 m3/ha = 631.3 M3
*#=========================
*
---------------------
| ROUTE RESERVOIR   |    Requested routing time step =  1.0 min.
|  IN>01:(I1    )   |
| OUT<04:(I1    )   |    =========  OUTLFOW STORAGE TABLE  =========
---------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
                           (cms)    (ha.m.)   |    (cms)    (ha.m.)
                            .000  .0000E+00   |    1.670  .6313E-01
                           1.660  .2000E-02   |     .000  .0000E+00

     ROUTING RESULTS            AREA     QPEAK     TPEAK       R.V.
     --------------------       (ha)     (cms)     (hrs)       (mm)
     INFLOW >01: (I1    )       8.35     1.449     1.667     65.987
     OUTFLOW<04: (I1    )       8.35     1.443     1.667     65.987
    OVERFLOW<06: (000487)        .00      .000      .000       .000

                    TOTAL NUMBER OF SIMULATED OVERFLOWS  =        0
                    CUMULATIVE TIME OF OVERFLOWS  (hours)=      .00
                    PERCENTAGE OF TIME OVERFLOWING    (%)=      .00


                    PEAK   FLOW   REDUCTION [Qout/Qin](%)=   99.605
                    TIME SHIFT OF PEAK FLOW         (min)=      .00
                    MAXIMUM  STORAGE   USED       (ha.m.)=.1756E-02

------------------------------------------------------------------------------
001:0245------------------------------------------------------------------------
*
*# TOTAL (MINOR AND MAJOR FLOW) FROM I1 TO POND
*
------------------------
| ADD HYD (       784) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
------------------------                  (ha)     (cms)   (hrs)   (mm)   (cms)
                     ID1 04:I1             8.35     1.443    1.67  65.99    .000
                    +ID2 06:       487      .00      .000     .00    .00    .000
                     ==========================================================
                     SUM 07:       784     8.35     1.443    1.67  65.99    .000

   NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

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001:0246------------------------------------------------------------------------
*
*
*#=============================================================
*# MAJOR OVERLAND FLOW FROM AREAS EAST OF PORTOBELLO TO FACILITY
*# FORMERLY AREAS 51 AND 52 (26.06 HA TOTAL AREA)
*# TO BE CAPTURED BY MINOR SYSTEM STORM SEWERS IN EASTERN ISGAR
*#=============================================================
*
*
--------------------
| READ HYD          |   AREA       (ha)=    3.207
| ID=05 (005152)    |   QPEAK     (cms)=    1.510
| DT= 1.00 PCYC= 1  |   TPEAK     (hrs)=    1.567
--------------------   VOLUME     (mm)=   64.970
  Filename: C:\SWMHYMO\111083\2018-0~1\H-MAJout.080
  Comments: Major System Outflow from Portobello Blvd

  TIME    FLOW |  TIME    FLOW |  TIME    FLOW |  TIME    FLOW |  TIME    FLOW
   hrs     cms |   hrs     cms |   hrs     cms |   hrs     cms |   hrs     cms
   .00    .000|    .42    .000|    .83    .000|   1.25    .000|   1.67   1.481
   .02    .000|    .43    .000|    .85    .000|   1.27    .000|   1.68   1.479
   .03    .000|    .45    .000|    .87    .000|   1.28    .000|   1.70   1.386
   .05    .000|    .47    .000|    .88    .000|   1.30    .000|   1.72   1.306
   .07    .000|    .48    .000|    .90    .000|   1.32    .000|   1.73   1.238
   .08    .000|    .50    .000|    .92    .000|   1.33    .000|   1.75   1.073
   .10    .000|    .52    .000|    .93    .000|   1.35    .000|   1.77    .889
   .12    .000|    .53    .000|    .95    .000|   1.37    .000|   1.78    .729
   .13    .000|    .55    .000|    .97    .000|   1.38    .295|   1.80    .634
   .15    .000|    .57    .000|    .98    .000|   1.40    .348|   1.82    .596
   .17    .000|    .58    .000|   1.00    .000|   1.42    .445|   1.83    .571
   .18    .000|    .60    .000|   1.02    .000|   1.43    .630|   1.85    .534
   .20    .000|    .62    .000|   1.03    .000|   1.45    .836|   1.87    .489
   .22    .000|    .63    .000|   1.05    .000|   1.47    .972|   1.88    .445
   .23    .000|    .65    .000|   1.07    .000|   1.48   1.060|   1.90    .387
   .25    .000|    .67    .000|   1.08    .000|   1.50   1.147|   1.92    .333
   .27    .000|    .68    .000|   1.10    .000|   1.52   1.243|   1.93    .327
   .28    .000|    .70    .000|   1.12    .000|   1.53   1.326|   1.95    .352
   .30    .000|    .72    .000|   1.13    .000|   1.55   1.439|   1.97    .365
   .32    .000|    .73    .000|   1.15    .000|   1.57   1.510|   1.98    .358
   .33    .000|    .75    .000|   1.17    .000|   1.58   1.501|   2.00    .337
   .35    .000|    .77    .000|   1.18    .000|   1.60   1.498|   2.02    .302
   .37    .000|    .78    .000|   1.20    .000|   1.62   1.488|   2.03    .249
   .38    .000|    .80    .000|   1.22    .000|   1.63   1.480|   2.05    .169
   .40    .000|    .82    .000|   1.23    .000|   1.65   1.477|
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001:0247------------------------------------------------------------------------
*
*
*
*# ISGAR LANDS - AREA I2
*# NEW EASTERN INLET
*
----------------------
| CALIB STANDHYD     |   Area    (ha)=   12.02
| 06:I2     DT=12.00 |   Total Imp(%)=   65.00   Dir. Conn.(%)=   51.00
----------------------
                              IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=       7.81         4.21
     Dep. Storage     (mm)=        .80         1.50
     Average Slope     (%)=        .20         2.00
     Length            (m)=     479.00        40.00
     Mannings n           =       .013         .250

     Max.eff.Inten.(mm/hr)=      91.45        89.66
                  over (min)      10.00        20.00
     Storage Coeff.  (min)=      10.98 (ii)   18.36 (ii)
     Unit Hyd. Tpeak (min)=      10.00        20.00
     Unit Hyd. peak  (cms)=        .10          .06
                                                          *TOTALS*
     PEAK FLOW       (cms)=       1.40          .79         2.108 (iii)
     TIME TO PEAK    (hrs)=       1.67         1.83         1.667
     RUNOFF VOLUME    (mm)=      85.84        50.14        68.345
     TOTAL RAINFALL   (mm)=      89.03        89.03        89.029

     RUNOFF COEFFICIENT   =        .96          .56          .768

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN* =  75.0    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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001:0248------------------------------------------------------------------------
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*#=========================
*# INFLOW 200 L/S/HA - 12.02 X 200 = 2404 L/S
*# ON-SITE STORAGE (30% LESS THAN AVALON WEST) - 84.90 m3/ha = 1020.5 M3
*#=========================
*
---------------------
| ROUTE RESERVOIR   |    Requested routing time step =  1.0 min.
|  IN>06:(I2    )   |
| OUT<04:(I2    )   |    =========  OUTLFOW STORAGE TABLE  =========
---------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
                           (cms)    (ha.m.)   |    (cms)    (ha.m.)
                            .000  .0000E+00   |    2.404  .1020E+00
                           2.390  .2000E-02   |     .000  .0000E+00

     ROUTING RESULTS            AREA     QPEAK     TPEAK       R.V.
     --------------------       (ha)     (cms)     (hrs)       (mm)
     INFLOW >06: (I2    )      12.02     2.108     1.667     68.345
     OUTFLOW<04: (I2    )      12.02     2.102     1.667     68.345
    OVERFLOW<08: (000487)        .00      .000      .000       .000

                    TOTAL NUMBER OF SIMULATED OVERFLOWS  =        0
                    CUMULATIVE TIME OF OVERFLOWS  (hours)=      .00
                    PERCENTAGE OF TIME OVERFLOWING    (%)=      .00


                    PEAK   FLOW   REDUCTION [Qout/Qin](%)=   99.730
                    TIME SHIFT OF PEAK FLOW         (min)=      .00
                    MAXIMUM  STORAGE   USED       (ha.m.)=.1776E-02

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001:0249------------------------------------------------------------------------
*
*# TOTAL MINOR FLOW (MAJOR FLOW PORTOBELLO AND I2)
*
------------------------
| ADD HYD (       845) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
------------------------                  (ha)     (cms)   (hrs)   (mm)   (cms)
                     ID1 04:I2            12.02     2.102    1.67  68.34    .000
                    +ID2 05:      5152      3.21     1.510    1.57  64.97    .000
                     ==========================================================
                     SUM 06:       845    15.23     3.583    1.67  67.63    .000

   NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

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001:0250------------------------------------------------------------------------
*
*# ISGAR LANDS - AREA I3
*# NEW EASTERN INLET
*
----------------------
| CALIB STANDHYD     |   Area    (ha)=    7.64
| 01:I3     DT=12.00 |   Total Imp(%)=   49.00   Dir. Conn.(%)=   30.00
----------------------
                              IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=       3.74         3.90
     Dep. Storage     (mm)=        .80         1.50
     Average Slope     (%)=        .20         2.00
     Length            (m)=     292.00        40.00
     Mannings n           =       .013         .250

     Max.eff.Inten.(mm/hr)=      91.45        87.24
                  over (min)      10.00        20.00
     Storage Coeff.  (min)=       8.16 (ii)   15.62 (ii)
     Unit Hyd. Tpeak (min)=      10.00        20.00
     Unit Hyd. peak  (cms)=        .12          .06
                                                          *TOTALS*
     PEAK FLOW       (cms)=        .55          .75         1.220 (iii)
     TIME TO PEAK    (hrs)=       1.67         1.83         1.667
     RUNOFF VOLUME    (mm)=      85.84        49.71        60.546
     TOTAL RAINFALL   (mm)=      89.03        89.03        89.029
     RUNOFF COEFFICIENT   =        .96          .56          .680
      *** WARNING: Storage Coefficient is smaller than DT!
                   Use a smaller DT or a larger area.

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN* =  75.0    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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001:0251------------------------------------------------------------------------
*
*
*
*# MAJOR FLOW FROM I3
*
------------------------
| ADD HYD (       784) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
------------------------                  (ha)     (cms)   (hrs)   (mm)   (cms)
                     ID1 01:I3            7.64     1.220    1.67  60.55    .000
                    +ID2 08:       487      .00      .000     .00    .00    .000
                     ==========================================================
                     SUM 05:       784     7.64     1.220    1.67  60.55    .000

   NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

------------------------------------------------------------------------------
001:0252------------------------------------------------------------------------
*
*#=========================
*# INFLOW 200 L/S/HA - 7.64 X 200 = 1528 L/S
*# ON-SITE STORAGE (30% LESS THAN AVALON WEST) - 108.55 m3/ha = 829.3 M3
*#=========================
*
---------------------
| ROUTE RESERVOIR   |    Requested routing time step =  1.0 min.
|  IN>05:(000784)   |
| OUT<03:(I3    )   |    =========  OUTLFOW STORAGE TABLE  =========
---------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
                           (cms)    (ha.m.)   |    (cms)    (ha.m.)
                            .000  .0000E+00   |    1.528  .8293E-01
                           1.510  .2000E-02   |     .000  .0000E+00
```

```
08891>      ROUTING RESULTS            AREA     QPEAK     TPEAK       R.V.
08892>      --------------------       (ha)     (cms)     (hrs)       (mm)
08893>     INFLOW >05: (000784)        7.64     1.220     1.667     60.546
08894>     OUTFLOW<03: (I3    )        7.64     1.217     1.683     60.546
08895>    OVERFLOW<01: (000487)         .00      .000      .000       .000
08896>
08897>                    TOTAL NUMBER OF SIMULATED OVERFLOWS  =        0
08898>                    CUMULATIVE TIME OF OVERFLOWS  (hours)=      .00
08899>                    PERCENTAGE OF TIME OVERFLOWING    (%)=      .00
08900>
08901>
08902>                    PEAK   FLOW   REDUCTION [Qout/Qin](%)=   99.711
08903>                    TIME SHIFT OF PEAK FLOW         (min)=     1.00
08904>                    MAXIMUM  STORAGE   USED       (ha.m.)=.1627E-02
08905>
08906> ------------------------------------------------------------------------------
08907> 001:0253----------------------------------------------------------------------
08908> *
08909> *# TOTAL MINOR SYSTEM FLOW FROM MAJOR PORTOBELLO, I2 AND I3 (NEW EASTERN INLET)
08910> *
08911> ----------------------
08912> | ADD HYD (       784) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
08913> ----------------------                    (ha)     (cms)   (hrs)   (mm)   (cms)
08914>                        ID1 06:       845    15.23    3.583    1.67  67.63    .000
08915>                       +ID2 03:I3           7.64    1.217    1.68  60.55    .000
08916>                        ============================================================
08917>                        SUM 05:       784    22.87    4.797    1.67  65.27    .000
08918>
08919>    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
08920>
08921> ------------------------------------------------------------------------------
08922> 001:0254----------------------------------------------------------------------
08923> *
08924> *# TOTAL FLOW FROM I2 AND I3 INTO POND VIA NEW EASTERN INLET TO POND(INCLUDES MA
08925> *
08926> ----------------------
08927> | ADD HYD (       784) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
08928> ----------------------                    (ha)     (cms)   (hrs)   (mm)   (cms)
08929>                        ID1 01:       487     .00     .000     .00    .00    .000
08930>                       +ID2 05:       784    22.87    4.797    1.67  65.27    .000
08931>                        ============================================================
08932>                        SUM 08:       784    22.87    4.797    1.67  65.27    .000
08933>
08934>    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
08935>
08936> ------------------------------------------------------------------------------
08937> 001:0255----------------------------------------------------------------------
08938> *
08939> *
08940> *
08941> *#########################
08942> *#    DRAINAGE AREA 60 ||
08943> *#    SWM AREA         ||
08944> *#########################
08945> *
08946> *
08947> ----------------------
08948> | CALIB NASHYD      |   Area    (ha)=   12.50   Curve Number   (CN)=95.00
08949> | 01:000100 DT= 6.00 |   Ia      (mm)=   1.500   # of Linear Res.(N)= 3.00
08950> ----------------------   U.H. Tp(hrs)=    .250
08951>
08952>      Unit Hyd Qpeak  (cms)=    1.910
08953>
08954>      PEAK FLOW       (cms)=    2.519 (i)
08955>      TIME TO PEAK    (hrs)=    1.750
08956>      RUNOFF VOLUME    (mm)=   73.897
08957>      TOTAL RAINFALL   (mm)=   88.857
08958>      RUNOFF COEFFICIENT   =     .832
08959>
08960>      (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
08961>
08962> ------------------------------------------------------------------------------
08963> 001:0256----------------------------------------------------------------------
08964> *
08965> *# ADD TOTAL FLOW FROM ISGAR LANDS (I1, I2 AND I3 PLUS MAJOR PORTOBELLO) TO POND
08966> *
08967> ----------------------
08968> | ADD HYD (       784) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
08969> ----------------------                    (ha)     (cms)   (hrs)   (mm)   (cms)
08970>                        ID1 01:       100    12.50    2.519    1.75  73.90    .000
08971>                       +ID2 08:       784    22.87    4.797    1.67  65.27    .000
08972>                       +ID3 07:       784     8.35    1.443    1.67  65.99    .000
08973>                        ============================================================
08974>                        SUM 06:       784    43.72    8.628    1.68  67.87    .000
08975>
08976>    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
08977>
08978> ------------------------------------------------------------------------------
08979> 001:0257----------------------------------------------------------------------
08980> *
08981> *# MH SWMF
08982> *
08983> --------------------
08984> | SAVE HYD        |   AREA       (ha)=   43.717
08985> | ID=06 (000784)  |   QPEAK     (cms)=    8.628 (i)
08986> | DT= 1.00 PCYC=-1 |   TPEAK     (hrs)=    1.683
08987> --------------------   VOLUME      (mm)=   67.871
08988>   Filename: C:\SWMHYMO\111083\2018-0~1\POND.080
08989>   Comments: POND-JULY-79
08990>
08991>      (i)  PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
08992> ------------------------------------------------------------------------------
08993> 001:0258----------------------------------------------------------------------
08994> *
08995> *#################################
08996> *#  ADD POND AREA TO EXISTING EAST AND WEST TRUNKS
08997> *#################################
08998> *
08999> ----------------------
09000> | ADD HYD (       562) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
09001> ----------------------                    (ha)     (cms)   (hrs)   (mm)   (cms)
09002>                        ID1 06:       784    43.72    8.628    1.68  67.87    .000
09003>                       +ID2 09:       562   145.31   11.958    2.02  65.31    .000
09004>                        ============================================================
09005>                        SUM 04:       562   189.03   20.299    1.68  65.90    .000
09006>
09007>    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
09008>
09009> ------------------------------------------------------------------------------
09010> 001:0259----------------------------------------------------------------------
09011> *
09012> *
09013> *##########################################
09014> *#     NEIGHBOURHOOD 4  SWM FACILITY      ||
09015> *#       OUTLET PIPE TO POINT B           ||
09016> *#       OUTLET PIPE  1200 DIA            ||
09017> *##########################################
09018> *
09019> *# NOTE:  XPSWMM USED FOR ROUTING THE SWM FACILITY
09020> *
09021> ---------------------
09022> | ROUTE RESERVOIR   |    Requested routing time step =  1.0 min.
09023> |  IN>04:(000562)   |
09024> | OUT<02:(000471)   |    =========  OUTLFOW STORAGE TABLE  =========
09025> ---------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
09026>                            (cms)    (ha.m.)   |    (cms)    (ha.m.)
09027>                             .000  .0000E+00   |     .930  .4960E+01
09028>                             .350  .2300E+01   |    1.520  .8710E+01
09029>                             .650  .3740E+01   |    1.700  .1129E+02
09030>
09031>      ROUTING RESULTS            AREA     QPEAK     TPEAK       R.V.
09032>      --------------------       (ha)     (cms)     (hrs)       (mm)
09033>      INFLOW >04: (000562)     189.03    20.299     1.683     65.900
09034>      OUTFLOW<02: (000471)     189.03     1.697     3.217     65.897
09035>
09036>                    PEAK   FLOW   REDUCTION [Qout/Qin](%)=    8.359
09037>                    TIME SHIFT OF PEAK FLOW         (min)=    92.00
09038>                    MAXIMUM  STORAGE   USED       (ha.m.)=.1124E+02
09039>
09040> ------------------------------------------------------------------------------
09041> 001:0260----------------------------------------------------------------------
09042> *
09043> --------------------
09044> | SAVE HYD        |   AREA       (ha)=  189.030
09045> | ID=02 (000471)  |   QPEAK     (cms)=    1.697 (i)
09046> | DT= 1.00 PCYC=-1 |   TPEAK     (hrs)=    3.217
09047> --------------------   VOLUME      (mm)=   65.897
09048>   Filename: C:\SWMHYMO\111083\2018-0~1\ISGAR.080
09049>   Comments: ISGAR-JULY-79
09050>
09051>      (i)  PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
09052> ------------------------------------------------------------------------------
09053> 001:0261----------------------------------------------------------------------
09054> *
09055> *
09056> *
09057> *
09058> *
09059> *
09060> *
09061> *
09062> *
09063> *############################################################
09064> *#       ====          QUALITY CONTROL ANALYSIS          ====
09065> *############################################################
09066> *
09067> *############################################################
09068> *# ====  25 mm CHICAGO STORM  4 HOUR DURATION             ====
09069> *############################################################
09070> *
09071> *
09072> *
09073> --------------------
09074> | READ STORM      |    Filename: 25 MM 4 HOUR CHICAGO - 10 MIN TIME STEP
09075> | Ptotal=  25.04 mm|    Comments: 25 MM 4 HOUR CHICAGO - 10 MIN TIME STEP
09076> --------------------
09077>               TIME    RAIN |   TIME    RAIN |   TIME    RAIN |   TIME    RAIN
09078>                hrs   mm/hr |    hrs   mm/hr |    hrs   mm/hr |    hrs   mm/hr
09079>                .17   1.199 |   1.17  14.392 |   2.17   3.418 |   3.17   1.477
09080>                .33   1.412 |   1.33  60.423 |   2.33   2.802 |   3.33   1.351
09081>                .50   1.722 |   1.50  19.400 |   2.50   2.374 |   3.50   1.246
09082>                .67   2.213 |   1.67   9.406 |   2.67   2.059 |   3.67   1.156
09083>                .83   3.106 |   1.83   6.015 |   2.83   1.819 |   3.83   1.079
09084>               1.00   5.186 |   2.00   4.371 |   3.00   1.630 |   4.00   1.012
09085>
09086> ------------------------------------------------------------------------------
09087> 001:0262----------------------------------------------------------------------
09088> *
09089> *
09090> *########################################
09091> *#     NEIGHBOURHOOD 4                  ||
09092> *########################################
09093> *
09094> *#########################
09095> *#   DRAINAGE AREA 40  ||
09096> *#                     ||
09097> *#########################
09098> *
09099> ----------------------
09100> | CALIB STANDHYD     |   Area    (ha)=   11.73
09101> | 06:000204 DT= 2.50 |   Total Imp(%)=   54.00   Dir. Conn.(%)=   32.00
09102> ----------------------
09103>                                IMPERVIOUS    PERVIOUS (i)
09104>      Surface Area     (ha)=       6.33         5.40
09105>      Dep. Storage     (mm)=        .80         1.50
09106>      Average Slope     (%)=        .20         2.00
09107>      Length            (m)=     414.00        40.00
09108>      Mannings n             =       .013         .250
09109>
09110>      Max.eff.Inten.(mm/hr)=      52.22        13.56
09111>                   over (min)      12.50        27.50
09112>      Storage Coeff.  (min)=      12.59 (ii)   28.29 (ii)
09113>      Unit Hyd. Tpeak (min)=      12.50        27.50
09114>      Unit Hyd. peak  (cms)=        .09          .04
09115>                                                          *TOTALS*
09116>      PEAK FLOW       (cms)=        .35          .11          .400 (iii)
09117>      TIME TO PEAK    (hrs)=       1.46         1.79         1.500
09118>      RUNOFF VOLUME    (mm)=      24.24         7.10        12.588
09119>      TOTAL RAINFALL   (mm)=      25.04        25.04        25.045
09120>      RUNOFF COEFFICIENT   =        .97          .28          .503
09121>
09122>        (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
09123>            CN* =  75.0    Ia = Dep. Storage  (Above)
09124>       (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
09125>            THAN THE STORAGE COEFFICIENT.
09126>      (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
09127>
09128> ------------------------------------------------------------------------------
09129> 001:0263----------------------------------------------------------------------
09130> *
09131> *
09132> *#################################
09133> *# OSD 85 L/S/HA PARKS 30 L/S/HA
09134> *#  85*10.71 = 910.4 L/S
09135> *#  30*1.02 = 30.6 L/S
09136> *#  TOTAL = 941 L/S
09137> *#################################
09138> *
09139> ---------------------
09140> | ROUTE RESERVOIR   |    Requested routing time step =  2.5 min.
09141> |  IN>06:(000204)   |
09142> | OUT<09:(000471)   |    =========  OUTLFOW STORAGE TABLE  =========
09143> ---------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
09144>                            (cms)    (ha.m.)   |    (cms)    (ha.m.)
```

```
                              .000  .0000E+00   |     .941  .1368E+00
                              .900  .2000E-02   |     .000  .0000E+00

     ROUTING RESULTS            AREA     QPEAK     TPEAK       R.V.
     --------------------        (ha)     (cms)     (hrs)       (mm)
     INFLOW >06: (000204)      11.73      .400     1.500     12.588
     OUTFLOW<09: (000471)      11.73      .401     1.500     12.588

                   PEAK   FLOW   REDUCTION [Qout/Qin](%)=  100.121
                   TIME SHIFT OF PEAK FLOW         (min)=      .00
                   MAXIMUM  STORAGE   USED       (ha.m.)=.8945E-03

      *** WARNING: Inflow peak was not reduced!
                   Check OUTFLOW/STORAGE table or reduce DT.
-------------------------------------------------------------------------------
001:0264-------------------------------------------------------------------------
*
*# MH 505
*
*#########################
*#   DRAINAGE AREA 41  ||
*#########################
*
*
----------------------
| CALIB STANDHYD    |   Area    (ha)=    9.06
| 05:000204 DT= 2.50 |   Total Imp(%)=   58.00   Dir. Conn.(%)=   35.00
----------------------
                          IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=       5.25        3.81
     Dep. Storage     (mm)=        .80        1.50
     Average Slope     (%)=        .20        2.00
     Length            (m)=     452.00       40.00
     Mannings n         =       .013        .250

     Max.eff.Inten.(mm/hr)=      52.22       14.73
                   over (min)       12.50       27.50
     Storage Coeff.  (min)=     13.27 (ii)   28.46 (ii)
     Unit Hyd. Tpeak (min)=      12.50       27.50
     Unit Hyd. peak  (cms)=        .09         .04
                                                          *TOTALS*
     PEAK FLOW       (cms)=        .29         .09          .328 (iii)
     TIME TO PEAK    (hrs)=       1.46        1.75         1.500
     RUNOFF VOLUME    (mm)=      24.24        7.36        13.268
     TOTAL RAINFALL   (mm)=      25.04       25.04        25.045
     RUNOFF COEFFICIENT   =        .97         .29          .530

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN* =  75.0    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

-------------------------------------------------------------------------------
001:0265-------------------------------------------------------------------------
*
*#########################
*# OSD 85 L/S/HA
*#  85*9.06 = 770.1 L/S
*#########################
*
----------------------
| ROUTE RESERVOIR   |    Requested routing time step =  2.5 min.
|  IN>05:(000204)   |
| OUT<07:(000471)   |    =========  OUTLFOW STORAGE TABLE  =========
----------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
                            (cms)    (ha.m.)   |    (cms)    (ha.m.)
                             .000  .0000E+00   |     .770  .1072E+00
                             .700  .2000E-02   |     .000  .0000E+00

     ROUTING RESULTS            AREA     QPEAK     TPEAK       R.V.
     --------------------        (ha)     (cms)     (hrs)       (mm)
     INFLOW >05: (000204)       9.06      .328     1.500     13.268
     OUTFLOW<07: (000471)       9.06      .328     1.500     13.268

                   PEAK   FLOW   REDUCTION [Qout/Qin](%)=  100.058
                   TIME SHIFT OF PEAK FLOW         (min)=      .00
                   MAXIMUM  STORAGE   USED       (ha.m.)=.9394E-03

      *** WARNING: Inflow peak was not reduced!
                   Check OUTFLOW/STORAGE table or reduce DT.
-------------------------------------------------------------------------------
001:0266-------------------------------------------------------------------------
*
*# MH 521
*
------------------------
| ADD HYD (       401) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
------------------------                   (ha)     (cms)   (hrs)   (mm)   (cms)
                       ID1 09:       471    11.73     .401    1.50  12.59    .000
                      +ID2 07:       471     9.06     .328    1.50  13.27    .000
                       ============================================================
                       SUM 06:       401    20.79     .729    1.50  12.88    .000

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

-------------------------------------------------------------------------------
001:0267-------------------------------------------------------------------------
*
*#########################
*#    DRAINAGE AREA 42 ||
*#                     ||
*#########################
*
*
----------------------
| CALIB NASHYD      |   Area    (ha)=    4.10   Curve Number   (CN)=75.00
| 05:000100 DT= 2.50 |   Ia      (mm)=   1.500   # of Linear Res.(N)= 3.00
----------------------   U.H. Tp(hrs)=    .410

     Unit Hyd Qpeak  (cms)=     .382

     PEAK FLOW       (cms)=     .044 (i)
     TIME TO PEAK    (hrs)=    1.833
     RUNOFF VOLUME    (mm)=    5.123
     TOTAL RAINFALL   (mm)=   25.045
     RUNOFF COEFFICIENT   =     .205

     (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

-------------------------------------------------------------------------------
001:0268-------------------------------------------------------------------------
*
*#########################
*# OSD 30 L/S/HA
*#  30*4.1 = 123 L/S
*#########################
*
----------------------
| ROUTE RESERVOIR   |    Requested routing time step =  2.5 min.
|  IN>05:(000100)   |
| OUT<04:(000471)   |    =========  OUTLFOW STORAGE TABLE  =========
----------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
                            (cms)    (ha.m.)   |    (cms)    (ha.m.)
                             .000  .0000E+00   |     .123  .4859E-01
                             .090  .2000E-02   |     .000  .0000E+00

     ROUTING RESULTS            AREA     QPEAK     TPEAK       R.V.
     --------------------        (ha)     (cms)     (hrs)       (mm)
     INFLOW >05: (000100)       4.10      .044     1.833      5.123
     OUTFLOW<04: (000471)       4.10      .044     1.875      5.123

                   PEAK   FLOW   REDUCTION [Qout/Qin](%)=   98.747
                   TIME SHIFT OF PEAK FLOW         (min)=     2.50
                   MAXIMUM  STORAGE   USED       (ha.m.)=.9739E-03

-------------------------------------------------------------------------------
001:0269-------------------------------------------------------------------------
*
*# MH 529
*
*
------------------------
| ADD HYD (       105) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
------------------------                   (ha)     (cms)   (hrs)   (mm)   (cms)
                       ID1 06:       401    20.79     .729    1.50  12.88    .000
                      +ID2 04:       471     4.10     .044    1.88   5.12    .000
                       ============================================================
                       SUM 01:       105    24.89     .749    1.50  11.61    .000

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

-------------------------------------------------------------------------------
001:0270-------------------------------------------------------------------------
*
*
*
*#########################
*#    DRAINAGE AREA 43 ||
*#                     ||
*#########################
*
*
----------------------
| CALIB STANDHYD    |   Area    (ha)=   17.21
| 05:000204 DT= 2.50 |   Total Imp(%)=   59.00   Dir. Conn.(%)=   37.00
----------------------
                          IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=      10.15        7.06
     Dep. Storage     (mm)=        .80        1.50
     Average Slope     (%)=        .20        2.00
     Length            (m)=     449.00       40.00
     Mannings n         =       .013        .250

     Max.eff.Inten.(mm/hr)=      52.22       14.54
                   over (min)       12.50       27.50
     Storage Coeff.  (min)=     13.22 (ii)   28.48 (ii)
     Unit Hyd. Tpeak (min)=      12.50       27.50
     Unit Hyd. peak  (cms)=        .09         .04
                                                          *TOTALS*
     PEAK FLOW       (cms)=        .58         .16          .651 (iii)
     TIME TO PEAK    (hrs)=       1.46        1.75         1.500
     RUNOFF VOLUME    (mm)=      24.24        7.32        13.580
     TOTAL RAINFALL   (mm)=      25.04       25.04        25.045
     RUNOFF COEFFICIENT   =        .97         .29          .542

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN* =  75.0    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

-------------------------------------------------------------------------------
001:0271-------------------------------------------------------------------------
*
*
*#########################
*# OSD 85 L/S/HA PARKS 30 L/S/HA
*#  85*16.89 = 1435.7 L/S
*#  30*0.32 =9.6 L/S
*#  TOTAL =1445 L/S
*#########################
*
----------------------
| ROUTE RESERVOIR   |    Requested routing time step =  2.5 min.
|  IN>05:(000204)   |
| OUT<08:(000471)   |    =========  OUTLFOW STORAGE TABLE  =========
----------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
                            (cms)    (ha.m.)   |    (cms)    (ha.m.)
                             .000  .0000E+00   |    1.445  .2103E+00
                            1.400  .2000E-02   |     .000  .0000E+00

     ROUTING RESULTS            AREA     QPEAK     TPEAK       R.V.
     --------------------        (ha)     (cms)     (hrs)       (mm)
     INFLOW >05: (000204)      17.21      .651     1.500     13.580
     OUTFLOW<08: (000471)      17.21      .652     1.500     13.580

                   PEAK   FLOW   REDUCTION [Qout/Qin](%)=  100.142
                   TIME SHIFT OF PEAK FLOW         (min)=      .00
                   MAXIMUM  STORAGE   USED       (ha.m.)=.9389E-03

      *** WARNING: Inflow peak was not reduced!
                   Check OUTFLOW/STORAGE table or reduce DT.
-------------------------------------------------------------------------------
001:0272-------------------------------------------------------------------------
*
*# MH 539
*
------------------------
| ADD HYD (       100) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
------------------------                   (ha)     (cms)   (hrs)   (mm)   (cms)
                       ID1 01:       105    24.89     .749    1.50  11.61    .000
                      +ID2 08:       471    17.21     .652    1.50  13.58    .000
                       ============================================================
                       SUM 07:       100    42.10    1.401    1.50  12.41    .000

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

-------------------------------------------------------------------------------
001:0273-------------------------------------------------------------------------
*
*
*#########################
*#    DRAINAGE AREA 44 ||
```

```
09399> *#                      ||
09400> *#======================
09401> *
09402> *
09403> ----------------------
09404> | CALIB STANDHYD     |   Area    (ha)=    4.06
09405> | 05:000204 DT= 2.50 |   Total Imp(%)=   58.00   Dir. Conn.(%)=   38.00
09406> ----------------------
09407>                              IMPERVIOUS    PERVIOUS (i)
09408>      Surface Area     (ha)=       2.35         1.71
09409>      Dep. Storage     (mm)=        .80         1.50
09410>      Average Slope     (%)=        .20         2.00
09411>      Length            (m)=     165.00        40.00
09412>      Mannings n             =      .013         .250
09413>
09414>      Max.eff.Inten.(mm/hr)=      60.42        15.23
09415>                   over (min)       7.50        22.50
09416>      Storage Coeff.  (min)=       6.84 (ii)   21.82 (ii)
09417>      Unit Hyd. Tpeak (min)=       7.50        22.50
09418>      Unit Hyd. peak  (cms)=        .16          .05
09419>                                                          *TOTALS*
09420>      PEAK FLOW       (cms)=        .19          .04          .206 (iii)
09421>      TIME TO PEAK    (hrs)=       1.38         1.67         1.375
09422>      RUNOFF VOLUME    (mm)=      24.24         7.09        13.612
09423>      TOTAL RAINFALL   (mm)=      25.04        25.04        25.045
09424>      RUNOFF COEFFICIENT   =        .97          .28          .543
09425>
09426>        (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
09427>            CN* =  75.0   Ia = Dep. Storage  (Above)
09428>       (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
09429>            THAN THE STORAGE COEFFICIENT.
09430>      (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
09431>
09432> ---------------------------------------------------------------------------
09433> 001:0274-----------------------------------------------------------------------
09434> *
09435> *
09436> *#========================
09437> *# OSD 85 L/S/HA  PARK 30 L/S/HA
09438> *#  85*3.7 = 314.5 L/S
09439> *#  30*0.28 = 8.4 L/S
09440> *#  TOTAL = 322.9 L/S
09441> *#========================
09442> *
09443> ----------------------
09444> | ROUTE RESERVOIR   |    Requested routing time step =  2.5 min.
09445> |  IN>05:(000204)   |
09446> | OUT<09:(000471)   |    =========  OUTLFOW STORAGE TABLE  =========
09447> ----------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
09448>                             (cms)    (ha.m.)   |    (cms)    (ha.m.)
09449>                              .000  .0000E+00   |     .323  .6847E-01
09450>                              .290  .2000E-02   |     .000  .0000E+00
09451>
09452>      ROUTING RESULTS            AREA     QPEAK     TPEAK       R.V.
09453>      ---------------------      (ha)     (cms)     (hrs)       (mm)
09454>      INFLOW >05: (000204)       4.06      .206     1.375     13.612
09455>      OUTFLOW<09: (000471)       4.06      .203     1.417     13.612
09456>
09457>                    PEAK   FLOW   REDUCTION [Qout/Qin](%)=   98.407
09458>                    TIME SHIFT OF PEAK FLOW         (min)=     2.50
09459>                    MAXIMUM  STORAGE   USED       (ha.m.)=.1427E-02
09460>
09461> ---------------------------------------------------------------------------
09462> 001:0275-----------------------------------------------------------------------
09463> *
09464> *# MH 541
09465> *
09466> ------------------------
09467> | ADD HYD (       100) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
09468> ------------------------                  (ha)     (cms)   (hrs)   (mm)   (cms)
09469>                      ID1 07:       100    42.10    1.401    1.50  12.41    .000
09470>                     +ID2 09:       471     4.06     .203    1.42  13.61    .000
09471>                      ================================================================
09472>                      SUM 03:       100    46.16    1.567    1.50  12.52    .000
09473>
09474>    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
09475>
09476> ---------------------------------------------------------------------------
09477> 001:0276-----------------------------------------------------------------------
09478> *
09479> *
09480> *#========================
09481> *#    DRAINAGE AREA 45 ||
09482> *#                    ||
09483> *#========================
09484> *
09485> ----------------------
09486> | CALIB STANDHYD     |   Area    (ha)=    3.13
09487> | 05:000204 DT= 2.50 |   Total Imp(%)=   57.00   Dir. Conn.(%)=   57.00
09488> ----------------------
09489>                              IMPERVIOUS    PERVIOUS (i)
09490>      Surface Area     (ha)=       1.78         1.35
09491>      Dep. Storage     (mm)=        .80         1.50
09492>      Average Slope     (%)=        .20         2.00
09493>      Length            (m)=     147.00        40.00
09494>      Mannings n             =      .013         .250
09495>
09496>      Max.eff.Inten.(mm/hr)=      60.42         6.50
09497>                   over (min)       7.50        27.50
09498>      Storage Coeff.  (min)=       6.38 (ii)   27.44 (ii)
09499>      Unit Hyd. Tpeak (min)=       7.50        27.50
09500>      Unit Hyd. peak  (cms)=        .17          .04
09501>                                                          *TOTALS*
09502>      PEAK FLOW       (cms)=        .23          .01          .231 (iii)
09503>      TIME TO PEAK    (hrs)=       1.38         1.79         1.375
09504>      RUNOFF VOLUME    (mm)=      24.24         5.12        16.022
09505>      TOTAL RAINFALL   (mm)=      25.04        25.04        25.045
09506>      RUNOFF COEFFICIENT   =        .97          .20          .640
09507>
09508>        (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
09509>            CN* =  75.0    Ia = Dep. Storage  (Above)
09510>       (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
09511>            THAN THE STORAGE COEFFICIENT.
09512>      (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
09513>
09514> ---------------------------------------------------------------------------
09515> 001:0277-----------------------------------------------------------------------
09516> *
09517> *
09518> *#========================
09519> *# OSD 85 L/S/HA
09520> *#  85*3.13 = 266.1 L/S
09521> *#========================
09522> *
09523> ----------------------
09524> | ROUTE RESERVOIR   |    Requested routing time step =  2.5 min.
09525> |  IN>05:(000204)   |
09526> | OUT<08:(000471)   |    =========  OUTLFOW STORAGE TABLE  =========
09527> ----------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
09528>                             (cms)    (ha.m.)   |    (cms)    (ha.m.)
09529>                              .000  .0000E+00   |     .266  .5982E-01
09530>                              .200  .2000E-02   |     .000  .0000E+00
09531>
09532>      ROUTING RESULTS            AREA     QPEAK     TPEAK       R.V.
09533>      ---------------------      (ha)     (cms)     (hrs)       (mm)
09534>      INFLOW >05: (000204)       3.13      .231     1.375     16.022
09535>      OUTFLOW<08: (000471)       3.13      .201     1.417     16.022
09536>
09537>                    PEAK   FLOW   REDUCTION [Qout/Qin](%)=   87.077
09538>                    TIME SHIFT OF PEAK FLOW         (min)=     2.50
09539>                    MAXIMUM  STORAGE   USED       (ha.m.)=.2813E-02
09540>
09541> ---------------------------------------------------------------------------
09542> 001:0278-----------------------------------------------------------------------
09543> *
09544> *# MH 542
09545> *
09546> ------------------------
09547> | ADD HYD (       100) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
09548> ------------------------                  (ha)     (cms)   (hrs)   (mm)   (cms)
09549>                       ID1 03:       100    46.16    1.567    1.50  12.52    .000
09550>                      +ID2 08:       471     3.13     .201    1.42  16.02    .000
09551>                       ================================================================
09552>                       SUM 04:       100    49.29    1.767    1.50  12.74    .000
09553>
09554>    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
09555>
09556> ---------------------------------------------------------------------------
09557> 001:0279-----------------------------------------------------------------------
09558> *
09559> *#========================
09560> *#    DRAINAGE AREA 46 ||
09561> *#                    ||
09562> *#========================
09563> *
09564> *
09565> ----------------------
09566> | CALIB STANDHYD     |   Area    (ha)=   19.48
09567> | 05:000204 DT= 2.50 |   Total Imp(%)=   61.00   Dir. Conn.(%)=   43.00
09568> ----------------------
09569>                              IMPERVIOUS    PERVIOUS (i)
09570>      Surface Area     (ha)=      11.88         7.60
09571>      Dep. Storage     (mm)=        .80         1.50
09572>      Average Slope     (%)=        .20         2.00
09573>      Length            (m)=     464.00        40.00
09574>      Mannings n             =      .013         .250
09575>
09576>      Max.eff.Inten.(mm/hr)=      46.75        12.66
09577>                   over (min)      15.00        30.00
09578>      Storage Coeff.  (min)=      14.09 (ii)   30.23 (ii)
09579>      Unit Hyd. Tpeak (min)=      15.00        30.00
09580>      Unit Hyd. peak  (cms)=        .08          .04
09581>                                                          *TOTALS*
09582>      PEAK FLOW       (cms)=        .72          .15          .794 (iii)
09583>      TIME TO PEAK    (hrs)=       1.50         1.83         1.500
09584>      RUNOFF VOLUME    (mm)=      24.24         7.04        14.438
09585>      TOTAL RAINFALL   (mm)=      25.04        25.04        25.045
09586>      RUNOFF COEFFICIENT   =        .97          .28          .576
09587>
09588>        (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
09589>            CN* =  75.0    Ia = Dep. Storage  (Above)
09590>       (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
09591>            THAN THE STORAGE COEFFICIENT.
09592>      (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
09593>
09594> ---------------------------------------------------------------------------
09595> 001:0280-----------------------------------------------------------------------
09596> *
09597> *
09598> *#========================
09599> *# OSD 85 L/S/HA  PARK 30 L/S/HA
09600> *#  85*18.51 = 1573.4 L/S
09601> *#  30*0.97 = 29.1 L/S
09602> *#  TOTAL = 1602.5 L/S
09603> *#========================
09604> *
09605> ----------------------
09606> | ROUTE RESERVOIR   |    Requested routing time step =  2.5 min.
09607> |  IN>05:(000204)   |
09608> | OUT<08:(000471)   |    =========  OUTLFOW STORAGE TABLE  =========
09609> ----------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
09610>                             (cms)    (ha.m.)   |    (cms)    (ha.m.)
09611>                              .000  .0000E+00   |    1.602  .2804E+00
09612>                             1.550  .2000E-02   |     .000  .0000E+00
09613>
09614>      ROUTING RESULTS            AREA     QPEAK     TPEAK       R.V.
09615>      ---------------------      (ha)     (cms)     (hrs)       (mm)
09616>      INFLOW >05: (000204)       19.48     .794     1.500     14.438
09617>      OUTFLOW<08: (000471)       19.48     .794     1.542     14.438
09618>
09619>                    PEAK   FLOW   REDUCTION [Qout/Qin](%)=  100.048
09620>                    TIME SHIFT OF PEAK FLOW         (min)=     2.50
09621>                    MAXIMUM  STORAGE   USED       (ha.m.)=.1042E-02
09622>
09623>       *** WARNING: Inflow peak was not reduced!
09624>                    Check OUTFLOW/STORAGE table or reduce DT.
09625> ---------------------------------------------------------------------------
09626> 001:0281-----------------------------------------------------------------------
09627> *
09628> *# MH 544
09629> *
09630> ------------------------
09631> | ADD HYD (       100) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
09632> ------------------------                  (ha)     (cms)   (hrs)   (mm)   (cms)
09633>                       ID1 04:       100    49.29    1.767    1.50  12.74    .000
09634>                      +ID2 08:       471    19.48     .794    1.54  14.44    .000
09635>                       ================================================================
09636>                       SUM 07:       100    68.77    2.558    1.50  13.22    .000
09637>
09638>    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
09639>
09640> ---------------------------------------------------------------------------
09641> 001:0282-----------------------------------------------------------------------
09642> *
09643> *#========================
09644> *#    DRAINAGE AREA 47 ||
09645> *#                    ||
09646> *#========================
09647> *
09648> *
09649> ----------------------
09650> | CALIB STANDHYD     |   Area    (ha)=    3.79
09651> | 05:000204 DT= 2.50 |   Total Imp(%)=   56.00   Dir. Conn.(%)=   35.00
09652> ----------------------
```

```
                              IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=        2.12          1.67
     Dep. Storage     (mm)=         .80          1.50
     Average Slope     (%)=         .20          2.00
     Length            (m)=      229.00         40.00
     Mannings n           =        .013          .250

     Max.eff.Inten.(mm/hr)=       60.42         15.25
                  over (min)        7.50         22.50
     Storage Coeff.  (min)=        8.33 (ii)    23.30 (ii)
     Unit Hyd. Tpeak (min)=        7.50         22.50
     Unit Hyd. peak  (cms)=         .14           .05
                                                          *TOTALS*
     PEAK FLOW       (cms)=         .15           .04          .167 (iii)
     TIME TO PEAK    (hrs)=        1.38          1.67         1.375
     RUNOFF VOLUME    (mm)=       24.24          7.10        13.100
     TOTAL RAINFALL   (mm)=       25.04         25.04        25.045
     RUNOFF COEFFICIENT   =         .97           .28          .523

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN* =  75.0    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

--------------------------------------------------------------------------------
001:0283--------------------------------------------------------------------------
*
*
*#########################
*# OSD 85 L/S/HA  PARK 30 L/S/HA
*#  85*3.5 = 297.5 L/S
*#  30*0.29 = 8.7 L/S
*#  TOTAL = 306.2 L/S
*#########################
*
--------------------
| ROUTE RESERVOIR   |    Requested routing time step =  2.5 min.
|  IN>05:(000204)   |
| OUT<08:(000471)   |    =========  OUTLFOW STORAGE TABLE  =========
--------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
                          (cms)    (ha.m.)   |    (cms)    (ha.m.)
                           .000  .0000E+00   |     .306  .6031E-01
                           .250  .2000E-02   |     .000  .0000E+00

     ROUTING RESULTS            AREA     QPEAK     TPEAK       R.V.
     --------------------       (ha)     (cms)     (hrs)       (mm)
     INFLOW >05: (000204)       3.79      .167     1.375     13.100
     OUTFLOW<08: (000471)       3.79      .166     1.417     13.100

                   PEAK   FLOW   REDUCTION [Qout/Qin](%)=   99.437
                   TIME SHIFT OF PEAK FLOW         (min)=    2.50
                   MAXIMUM  STORAGE   USED       (ha.m.)=.1333E-02

--------------------------------------------------------------------------------
001:0284--------------------------------------------------------------------------
*
*# MH 546
*
*########################
*# TRUNK 1
*########################
*
----------------------
| ADD HYD (       450) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
----------------------                    (ha)     (cms)   (hrs)   (mm)   (cms)
                      ID1 08:       471     3.79      .166    1.42  13.10    .000
                     +ID2 07:       100    68.77    2.558    1.50  13.22    .000
                      ==========================================================
                      SUM 06:       450    72.56    2.704    1.50  13.22    .000

   NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

--------------------------------------------------------------------------------
001:0285--------------------------------------------------------------------------
*
--------------------
| SAVE HYD          |   AREA       (ha)=   72.560
| ID=06 (000450)    |   QPEAK     (cms)=    2.704 (i)
| DT= 2.50 PCYC=-1 |   TPEAK     (hrs)=    1.500
--------------------   VOLUME      (mm)=   13.215
  Filename: C:\SWMHYMO\111083\2018-0~1\544.001
  Comments: 544-25MM4HCH

     (i)  PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

--------------------------------------------------------------------------------
001:0286--------------------------------------------------------------------------
*
*########################
*# TRUNK 2
*########################
*
*########################
*#    DRAINAGE AREA 50 ||
*#   COMMERICAL        ||
*########################
*
*
----------------------
| CALIB STANDHYD     |   Area    (ha)=    3.65
| 05:000204 DT= 2.50 |   Total Imp(%)=   80.00   Dir. Conn.(%)=   80.00
----------------------
                              IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=        2.92          .73
     Dep. Storage     (mm)=         .80         1.50
     Average Slope     (%)=         .20         2.00
     Length            (m)=      292.00        40.00
     Mannings n           =        .013         .250

     Max.eff.Inten.(mm/hr)=       60.42         5.88
                  over (min)       10.00        32.50
     Storage Coeff.  (min)=        9.63 (ii)   31.55 (ii)
     Unit Hyd. Tpeak (min)=       10.00        32.50
     Unit Hyd. peak  (cms)=         .12          .04
                                                          *TOTALS*
     PEAK FLOW       (cms)=         .31          .01          .312 (iii)
     TIME TO PEAK    (hrs)=        1.42         1.88         1.417
     RUNOFF VOLUME    (mm)=       24.24         5.12        20.420
     TOTAL RAINFALL   (mm)=       25.04        25.04        25.045
     RUNOFF COEFFICIENT   =         .97          .20          .815

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN* =  75.0    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

--------------------------------------------------------------------------------
001:0287--------------------------------------------------------------------------
*
*
*#########################
*# OSD 85 L/S/HA
*#  85*3.65 = 310.3 L/S
*#########################
*
----------------------
| ROUTE RESERVOIR   |    Requested routing time step =  2.5 min.
|  IN>05:(000204)   |
| OUT<08:(000471)   |    =========  OUTLFOW STORAGE TABLE  =========
--------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
                          (cms)    (ha.m.)   |    (cms)    (ha.m.)
                           .000  .0000E+00   |     .310  .9484E-01
                           .200  .2000E-02   |     .000  .0000E+00

     ROUTING RESULTS            AREA     QPEAK     TPEAK       R.V.
     --------------------       (ha)     (cms)     (hrs)       (mm)
     INFLOW >05: (000204)       3.65      .312     1.417     20.420
     OUTFLOW<08: (000471)       3.65      .208     1.583     20.420

                   PEAK   FLOW   REDUCTION [Qout/Qin](%)=   66.719
                   TIME SHIFT OF PEAK FLOW         (min)=   10.00
                   MAXIMUM  STORAGE   USED       (ha.m.)=.8797E-02

--------------------------------------------------------------------------------
001:0288--------------------------------------------------------------------------
*
--------------------
| SHIFT HYD(       874)|
| IN= 8---> OUT= 7     |
| SHIFT=  10.00 min    |       AREA     QPEAK      TPEAK      R.V.
------------------------       (ha)     (cms)      (hrs)      (mm)
          ID= 8:       471       3.65      .208      1.583    20.420
    SHIFT ID= 7:       874       3.65      .208      1.750    20.420

--------------------------------------------------------------------------------
001:0289--------------------------------------------------------------------------
*
*# MH 111
*
*###############################################
*# AREA FORMERLY KNOWN AS 51 (EAST OF PORTOBELLO)
*###############################################
*
*###############################################
*# MATTAMY SUMMERSIDE DRAINAGE AREA 19.93 ha - H-114
*# TO MH 112
*###############################################
*
*
--------------------
| READ HYD          |   AREA       (ha)=   19.930
| ID=05 (114   )    |   QPEAK     (cms)=    1.081
| DT= 1.00 PCYC= 1 |   TPEAK     (hrs)=    1.350
--------------------   VOLUME      (mm)=   13.318
  Filename: C:\SWMHYMO\111083\2018-0~1\H-114.001
  Comments: Minor System Outflow to MH 114
```

| TIME hrs | FLOW cms | TIME hrs | FLOW cms | TIME hrs | FLOW cms | TIME hrs | FLOW cms | TIME hrs | FLOW cms |
|---|---|---|---|---|---|---|---|---|---|
| .00 | .000 | 2.03 | .196 | 4.07 | .043 | 6.10 | .002 | 8.13 | .000 |
| .02 | .000 | 2.05 | .191 | 4.08 | .039 | 6.12 | .002 | 8.15 | .000 |
| .03 | .000 | 2.07 | .187 | 4.10 | .036 | 6.13 | .002 | 8.17 | .000 |
| .05 | .000 | 2.08 | .184 | 4.12 | .034 | 6.15 | .002 | 8.18 | .000 |
| .07 | .000 | 2.10 | .181 | 4.13 | .032 | 6.17 | .002 | 8.20 | .000 |
| .08 | .000 | 2.12 | .178 | 4.15 | .030 | 6.18 | .002 | 8.22 | .000 |
| .10 | .000 | 2.13 | .176 | 4.17 | .029 | 6.20 | .002 | 8.23 | .000 |
| .12 | .000 | 2.15 | .174 | 4.18 | .027 | 6.22 | .002 | 8.25 | .000 |
| .13 | .000 | 2.17 | .173 | 4.20 | .026 | 6.23 | .002 | 8.27 | .000 |
| .15 | .000 | 2.18 | .171 | 4.22 | .025 | 6.25 | .001 | 8.28 | .000 |
| .17 | .000 | 2.20 | .168 | 4.23 | .025 | 6.27 | .001 | 8.30 | .000 |
| .18 | .000 | 2.22 | .164 | 4.25 | .024 | 6.28 | .001 | 8.32 | .000 |
| .20 | .000 | 2.23 | .161 | 4.27 | .023 | 6.30 | .001 | 8.33 | .000 |
| .22 | .000 | 2.25 | .158 | 4.28 | .023 | 6.32 | .001 | 8.35 | .000 |
| .23 | .000 | 2.27 | .156 | 4.30 | .022 | 6.33 | .001 | 8.37 | .000 |
| .25 | .000 | 2.28 | .154 | 4.32 | .021 | 6.35 | .001 | 8.38 | .000 |
| .27 | .000 | 2.30 | .152 | 4.33 | .021 | 6.37 | .001 | 8.40 | .000 |
| .28 | .000 | 2.32 | .151 | 4.35 | .020 | 6.38 | .001 | 8.42 | .000 |
| .30 | .000 | 2.33 | .149 | 4.37 | .020 | 6.40 | .001 | 8.43 | .000 |
| .32 | .000 | 2.35 | .148 | 4.38 | .019 | 6.42 | .001 | 8.45 | .000 |
| .33 | .000 | 2.37 | .145 | 4.40 | .019 | 6.43 | .001 | 8.47 | .000 |
| .35 | .000 | 2.38 | .143 | 4.42 | .018 | 6.45 | .001 | 8.48 | .000 |
| .37 | .000 | 2.40 | .140 | 4.43 | .018 | 6.47 | .001 | 8.50 | .000 |
| .38 | .000 | 2.42 | .138 | 4.45 | .018 | 6.48 | .001 | 8.52 | .000 |
| .40 | .000 | 2.43 | .137 | 4.47 | .017 | 6.50 | .001 | 8.53 | .000 |
| .42 | .000 | 2.45 | .135 | 4.48 | .017 | 6.52 | .001 | 8.55 | .000 |
| .43 | .000 | 2.47 | .133 | 4.50 | .016 | 6.53 | .001 | 8.57 | .000 |
| .45 | .000 | 2.48 | .132 | 4.52 | .016 | 6.55 | .001 | 8.58 | .000 |
| .47 | .000 | 2.50 | .131 | 4.53 | .016 | 6.57 | .001 | 8.60 | .000 |
| .48 | .000 | 2.52 | .130 | 4.55 | .015 | 6.58 | .001 | 8.62 | .000 |
| .50 | .000 | 2.53 | .128 | 4.57 | .015 | 6.60 | .001 | 8.63 | .000 |
| .52 | .000 | 2.55 | .126 | 4.58 | .015 | 6.62 | .001 | 8.65 | .000 |
| .53 | .000 | 2.57 | .124 | 4.60 | .014 | 6.63 | .001 | 8.67 | .000 |
| .55 | .000 | 2.58 | .122 | 4.62 | .014 | 6.65 | .001 | 8.68 | .000 |
| .57 | .000 | 2.60 | .121 | 4.63 | .014 | 6.67 | .001 | 8.70 | .000 |
| .58 | .000 | 2.62 | .119 | 4.65 | .013 | 6.68 | .001 | 8.72 | .000 |
| .60 | .000 | 2.63 | .118 | 4.67 | .013 | 6.70 | .001 | 8.73 | .000 |
| .62 | .000 | 2.65 | .117 | 4.68 | .013 | 6.72 | .001 | 8.75 | .000 |
| .63 | .000 | 2.67 | .116 | 4.70 | .013 | 6.73 | .001 | 8.77 | .000 |
| .65 | .000 | 2.68 | .115 | 4.72 | .012 | 6.75 | .001 | 8.78 | .000 |
| .67 | .000 | 2.70 | .114 | 4.73 | .012 | 6.77 | .001 | 8.80 | .000 |
| .68 | .000 | 2.72 | .112 | 4.75 | .012 | 6.78 | .001 | 8.82 | .000 |
| .70 | .000 | 2.73 | .110 | 4.77 | .011 | 6.80 | .001 | 8.83 | .000 |
| .72 | .000 | 2.75 | .109 | 4.78 | .011 | 6.82 | .001 | 8.85 | .000 |
| .73 | .000 | 2.77 | .108 | 4.80 | .011 | 6.83 | .001 | 8.87 | .000 |
| .75 | .002 | 2.78 | .107 | 4.82 | .011 | 6.85 | .001 | 8.88 | .000 |
| .77 | .010 | 2.80 | .106 | 4.83 | .010 | 6.87 | .001 | 8.90 | .000 |
| .78 | .022 | 2.82 | .105 | 4.85 | .010 | 6.88 | .001 | 8.92 | .000 |
| .80 | .034 | 2.83 | .104 | 4.87 | .010 | 6.90 | .001 | 8.93 | .000 |
| .82 | .044 | 2.85 | .103 | 4.88 | .010 | 6.92 | .001 | 8.95 | .000 |
| .83 | .052 | 2.87 | .102 | 4.90 | .009 | 6.93 | .001 | 8.97 | .000 |
| .85 | .060 | 2.88 | .101 | 4.92 | .009 | 6.95 | .001 | 8.98 | .000 |
| .87 | .071 | 2.90 | .099 | 4.93 | .009 | 6.97 | .001 | 9.00 | .000 |
| .88 | .082 | 2.92 | .098 | 4.95 | .009 | 6.98 | .001 | 9.02 | .000 |
| .90 | .092 | 2.93 | .097 | 4.97 | .009 | 7.00 | .001 | 9.03 | .000 |
| .92 | .099 | 2.95 | .096 | 4.98 | .008 | 7.02 | .001 | 9.05 | .000 |
| .93 | .105 | 2.97 | .095 | 5.00 | .008 | 7.03 | .001 | 9.07 | .000 |
| .95 | .111 | 2.98 | .095 | 5.02 | .008 | 7.05 | .001 | 9.08 | .000 |
| .97 | .115 | 3.00 | .094 | 5.03 | .008 | 7.07 | .001 | 9.10 | .000 |
| .98 | .118 | 3.02 | .093 | 5.05 | .008 | 7.08 | .000 | 9.12 | .000 |
| 1.00 | .120 | 3.03 | .092 | 5.07 | .007 | 7.10 | .000 | 9.13 | .000 |
| 1.02 | .130 | 3.05 | .091 | 5.08 | .007 | 7.12 | .000 | 9.15 | .000 |
| 1.03 | .155 | 3.07 | .090 | 5.10 | .007 | 7.13 | .000 | 9.17 | .000 |
| 1.05 | .186 | 3.08 | .089 | 5.12 | .007 | 7.15 | .000 | 9.18 | .000 |

```
09907>    1.07    .214|   3.10    .088|   5.13    .007|   7.17    .000|   9.20    .000
09908>    1.08    .237|   3.12    .087|   5.15    .007|   7.18    .000|   9.22    .000
09909>    1.10    .255|   3.13    .087|   5.17    .006|   7.20    .000|   9.23    .000
09910>    1.12    .270|   3.15    .086|   5.18    .006|   7.22    .000|   9.25    .000
09911>    1.13    .282|   3.17    .086|   5.20    .006|   7.23    .000|   9.27    .000
09912>    1.15    .291|   3.18    .085|   5.22    .006|   7.25    .000|   9.28    .000
09913>    1.17    .298|   3.20    .084|   5.23    .006|   7.27    .000|   9.30    .000
09914>    1.18    .345|   3.22    .083|   5.25    .006|   7.28    .000|   9.32    .000
09915>    1.20    .472|   3.23    .082|   5.27    .006|   7.30    .000|   9.33    .000
09916>    1.22    .628|   3.25    .081|   5.28    .005|   7.32    .000|   9.35    .000
09917>    1.23    .742|   3.27    .081|   5.30    .005|   7.33    .000|   9.37    .000
09918>    1.25    .824|   3.28    .080|   5.32    .005|   7.35    .000|   9.38    .000
09919>    1.27    .891|   3.30    .079|   5.33    .005|   7.37    .000|   9.40    .000
09920>    1.28    .948|   3.32    .079|   5.35    .005|   7.38    .000|   9.42    .000
09921>    1.30    .995|   3.33    .078|   5.37    .005|   7.40    .000|   9.43    .000
09922>    1.32   1.032|   3.35    .078|   5.38    .005|   7.42    .000|   9.45    .000
09923>    1.33   1.064|   3.37    .077|   5.40    .005|   7.43    .000|   9.47    .000
09924>    1.35   1.081|   3.38    .076|   5.42    .005|   7.45    .000|   9.48    .000
09925>    1.37   1.076|   3.40    .075|   5.43    .004|   7.47    .000|   9.50    .000
09926>    1.38   1.035|   3.42    .075|   5.45    .004|   7.48    .000|   9.52    .000
09927>    1.40    .975|   3.43    .074|   5.47    .004|   7.50    .000|   9.53    .000
09928>    1.42    .909|   3.45    .074|   5.48    .004|   7.52    .000|   9.55    .000
09929>    1.43    .849|   3.47    .073|   5.50    .004|   7.53    .000|   9.57    .000
09930>    1.45    .790|   3.48    .073|   5.52    .004|   7.55    .000|   9.58    .000
09931>    1.47    .748|   3.50    .072|   5.53    .004|   7.57    .000|   9.60    .000
09932>    1.48    .705|   3.52    .072|   5.55    .004|   7.58    .000|   9.62    .000
09933>    1.50    .669|   3.53    .071|   5.57    .004|   7.60    .000|   9.63    .000
09934>    1.52    .636|   3.55    .070|   5.58    .004|   7.62    .000|   9.65    .000
09935>    1.53    .600|   3.57    .070|   5.60    .004|   7.63    .000|   9.67    .000
09936>    1.55    .562|   3.58    .069|   5.62    .003|   7.65    .000|   9.68    .000
09937>    1.57    .523|   3.60    .069|   5.63    .003|   7.67    .000|   9.70    .000
09938>    1.58    .491|   3.62    .068|   5.65    .003|   7.68    .000|   9.72    .000
09939>    1.60    .465|   3.63    .068|   5.67    .003|   7.70    .000|   9.73    .000
09940>    1.62    .431|   3.65    .067|   5.68    .003|   7.72    .000|   9.75    .000
09941>    1.63    .406|   3.67    .067|   5.70    .003|   7.73    .000|   9.77    .000
09942>    1.65    .391|   3.68    .067|   5.72    .003|   7.75    .000|   9.78    .000
09943>    1.67    .381|   3.70    .066|   5.73    .003|   7.77    .000|   9.80    .000
09944>    1.68    .370|   3.72    .065|   5.75    .003|   7.78    .000|   9.82    .000
09945>    1.70    .339|   3.73    .065|   5.77    .003|   7.80    .000|   9.83    .000
09946>    1.72    .315|   3.75    .064|   5.78    .003|   7.82    .000|   9.85    .000
09947>    1.73    .298|   3.77    .064|   5.80    .003|   7.83    .000|   9.87    .000
09948>    1.75    .285|   3.78    .063|   5.82    .003|   7.85    .000|   9.88    .000
09949>    1.77    .275|   3.80    .063|   5.83    .003|   7.87    .000|   9.90    .000
09950>    1.78    .267|   3.82    .063|   5.85    .003|   7.88    .000|   9.92    .000
09951>    1.80    .260|   3.83    .062|   5.87    .002|   7.90    .000|   9.93    .000
09952>    1.82    .255|   3.85    .062|   5.88    .002|   7.92    .000|   9.95    .000
09953>    1.83    .251|   3.87    .062|   5.90    .002|   7.93    .000|   9.97    .000
09954>    1.85    .246|   3.88    .061|   5.92    .002|   7.95    .000|   9.98    .000
09955>    1.87    .239|   3.90    .060|   5.93    .002|   7.97    .000|  10.00    .000
09956>    1.88    .231|   3.92    .060|   5.95    .002|   7.98    .000|  10.02    .000
09957>    1.90    .224|   3.93    .060|   5.97    .002|   8.00    .000|  10.03    .000
09958>    1.92    .219|   3.95    .059|   5.98    .002|   8.02    .000|  10.05    .000
09959>    1.93    .214|   3.97    .059|   6.00    .002|   8.03    .000|  10.07    .000
09960>    1.95    .210|   3.98    .059|   6.02    .002|   8.05    .000|
09961>    1.97    .207|   4.00    .058|   6.03    .002|   8.07    .000|
09962>    1.98    .205|   4.02    .057|   6.05    .002|   8.08    .000|
09963>    2.00    .203|   4.03    .053|   6.07    .002|   8.10    .000|
09964>    2.02    .200|   4.05    .048|   6.08    .002|   8.12    .000|
09965> --------------------------------------------------------------------------------
09966> 001:0290--------------------------------------------------------------------------
09967> *
09968> *
09969> *
09970> *# MH 112
09971> *
09972> *
09973> *#===============
09974> *# ADD TO AREA 50
09975> *
09976> ------------------------
09977> | ADD HYD (       846) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
09978> ------------------------                  (ha)     (cms)   (hrs)   (mm)   (cms)
09979>                        ID1 07:       874     3.65     .208    1.75  20.42    .000
09980>                       +ID2 05:114           19.93    1.081    1.35  13.32    .000
09981>                        ========================================================
09982>                        SUM 04:       846    23.58    1.152    1.37  14.42    .000
09983>
09984>    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
09985>
09986> --------------------------------------------------------------------------------
09987> 001:0291--------------------------------------------------------------------------
09988> *#=======================
09989> *#    DRAINAGE AREA 53 ||
09990> *#                     ||
09991> *#=======================
09992> *
09993> *
09994> ----------------------
09995> | CALIB STANDHYD     |   Area    (ha)=   17.48
09996> | 08:000204 DT= 2.50 |   Total Imp(%)=   56.00   Dir. Conn.(%)=   42.00
09997> ----------------------
09998>                              IMPERVIOUS    PERVIOUS (i)
09999>      Surface Area     (ha)=       9.79         7.69
10000>      Dep. Storage     (mm)=        .80         1.50
10001>      Average Slope     (%)=        .20         2.00
10002>      Length            (m)=     447.00        40.00
10003>      Mannings n             =      .013         .250
10004>
10005>      Max.eff.Inten.(mm/hr)=      52.22        10.48
10006>            over (min)     =      12.50        30.00
10007>      Storage Coeff. (min)=      13.19 (ii)   30.59 (ii)
10008>      Unit Hyd. Tpeak (min)=      12.50        30.00
10009>      Unit Hyd. peak  (cms)=        .09          .04
10010>                                                          *TOTALS*
10011>      PEAK FLOW       (cms)=        .67          .13          .713 (iii)
10012>      TIME TO PEAK    (hrs)=       1.46         1.83         1.500
10013>      RUNOFF VOLUME    (mm)=      24.24         6.48        13.944
10014>      TOTAL RAINFALL   (mm)=      25.04        25.04        25.045
10015>      RUNOFF COEFFICIENT   =        .97          .26          .557
10016>
10017>        (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
10018>            CN* =  75.0    Ia = Dep. Storage  (Above)
10019>       (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
10020>            THAN THE STORAGE COEFFICIENT.
10021>      (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
10022>
10023> --------------------------------------------------------------------------------
10024> 001:0292--------------------------------------------------------------------------
10025> *
10026> *
10027> *#=========================
10028> *# OSD 85 L/S/HA  PARK 30 L/S/HA
10029> *#  85*16.42 = 1395.7 L/S
10030> *#  30*1.06 = 31.8 L/S
10031> *#  TOTAL = 1428 L/S
10032> *#=========================
10033> *
10034> ---------------------
10035> | ROUTE RESERVOIR   |    Requested routing time step =  2.5 min.
10036> |  IN>08:(000204)   |
10037> | OUT<05:(000471)   |    =========  OUTFLOW STORAGE TABLE  =========
10038> ---------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
10039>                            (cms)    (ha.m.)   |    (cms)    (ha.m.)
10040>                             .000  .0000E+00    |   1.428  .2308E+00
10041>                            1.400  .2000E-02    |    .000  .0000E+00
10042>
10043>      ROUTING RESULTS            AREA     QPEAK     TPEAK       R.V.
10044>      -------------------         (ha)     (cms)     (hrs)       (mm)
10045>      INFLOW >08: (000204)      17.48      .713     1.500     13.944
10046>      OUTFLOW<05: (000471)      17.48      .715     1.500     13.944
10047>
10048>                    PEAK   FLOW   REDUCTION [Qout/Qin](%)=  100.246
10049>                    TIME SHIFT OF PEAK FLOW         (min)=      .00
10050>                    MAXIMUM  STORAGE   USED      (ha.m.)=.1034E-02
10051>
10052>       *** WARNING: Inflow peak was not reduced!
10053>                    Check OUTFLOW/STORAGE table or reduce DT.
10054> --------------------------------------------------------------------------------
10055> 001:0293--------------------------------------------------------------------------
10056> *
10057> *# MH 110
10058> *
10059> ------------------------
10060> | ADD HYD (       584) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
10061> ------------------------                  (ha)     (cms)   (hrs)   (mm)   (cms)
10062>                         ID1 05:       471    17.48     .715    1.50  13.94    .000
10063>                        +ID2 04:       846    23.58    1.152    1.37  14.42    .000
10064>                         ========================================================
10065>                         SUM 08:       584    41.06    1.725    1.38  14.22    .000
10066>
10067>    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
10068>
10069> --------------------------------------------------------------------------------
10070> 001:0294--------------------------------------------------------------------------
10071> *
10072> *#================================================
10073> *# AREA FORMERLY KNOWN AS 52 (EAST OF PORTOBELLO)
10074> *#================================================
10075> *
10076> *#================================================
10077> *# MATTAMY SUMMERSIDE DRAINAGE AREA 6.13 ha - H-217 - MINOR
10078> *#================================================
10079> *
10080> *
10081> --------------------
10082> | READ HYD         |   AREA       (ha)=    6.130
10083> | ID=03 (000217)   |   QPEAK     (cms)=     .370
10084> | DT= 1.00 PCYC= 1 |   TPEAK     (hrs)=    1.333
10085> --------------------   VOLUME     (mm)=   14.481
10086>   Filename: C:\SWMHYMO\111083\2018-0~1\H-217.001
10087>   Comments: Minor System Outflow to MH 217
10088>
10089>   TIME    FLOW |  TIME    FLOW |  TIME    FLOW |  TIME    FLOW |  TIME    FLOW
10090>    hrs     cms |   hrs     cms |   hrs     cms |   hrs     cms |   hrs     cms
10091>     .00    .000|   1.67    .125|   3.33    .025|   5.00    .002|   6.67    .000
10092>     .02    .000|   1.68    .123|   3.35    .024|   5.02    .002|   6.68    .000
10093>     .03    .000|   1.70    .120|   3.37    .024|   5.03    .002|   6.70    .000
10094>     .05    .000|   1.72    .115|   3.38    .024|   5.05    .002|   6.72    .000
10095>     .07    .000|   1.73    .111|   3.40    .024|   5.07    .002|   6.73    .000
10096>     .08    .000|   1.75    .108|   3.42    .023|   5.08    .002|   6.75    .000
10097>     .10    .000|   1.77    .106|   3.43    .023|   5.10    .002|   6.77    .000
10098>     .12    .000|   1.78    .104|   3.45    .023|   5.12    .002|   6.78    .000
10099>     .13    .000|   1.80    .093|   3.47    .023|   5.13    .001|   6.80    .000
10100>     .15    .000|   1.82    .086|   3.48    .023|   5.15    .001|   6.82    .000
10101>     .17    .000|   1.83    .083|   3.50    .023|   5.17    .001|   6.83    .000
10102>     .18    .000|   1.85    .081|   3.52    .022|   5.18    .001|   6.85    .000
10103>     .20    .000|   1.87    .078|   3.53    .022|   5.20    .001|   6.87    .000
10104>     .22    .000|   1.88    .075|   3.55    .022|   5.22    .001|   6.88    .000
10105>     .23    .000|   1.90    .073|   3.57    .022|   5.23    .001|   6.90    .000
10106>     .25    .000|   1.92    .071|   3.58    .022|   5.25    .001|   6.92    .000
10107>     .27    .000|   1.93    .069|   3.60    .021|   5.27    .001|   6.93    .000
10108>     .28    .000|   1.95    .068|   3.62    .021|   5.28    .001|   6.95    .000
10109>     .30    .000|   1.97    .068|   3.63    .021|   5.30    .001|   6.97    .000
10110>     .32    .000|   1.98    .067|   3.65    .021|   5.32    .001|   6.98    .000
10111>     .33    .000|   2.00    .067|   3.67    .021|   5.33    .001|   7.00    .000
10112>     .35    .000|   2.02    .066|   3.68    .021|   5.35    .001|   7.02    .000
10113>     .37    .000|   2.03    .064|   3.70    .021|   5.37    .001|   7.03    .000
10114>     .38    .000|   2.05    .063|   3.72    .020|   5.38    .001|   7.05    .000
10115>     .40    .000|   2.07    .061|   3.73    .020|   5.40    .001|   7.07    .000
10116>     .42    .000|   2.08    .060|   3.75    .020|   5.42    .001|   7.08    .000
10117>     .43    .000|   2.10    .059|   3.77    .020|   5.43    .001|   7.10    .000
10118>     .45    .000|   2.12    .058|   3.78    .020|   5.45    .001|   7.12    .000
10119>     .47    .000|   2.13    .057|   3.80    .020|   5.47    .001|   7.13    .000
10120>     .48    .000|   2.15    .057|   3.82    .020|   5.48    .001|   7.15    .000
10121>     .50    .000|   2.17    .056|   3.83    .020|   5.50    .001|   7.17    .000
10122>     .52    .000|   2.18    .056|   3.85    .019|   5.52    .001|   7.18    .000
10123>     .53    .000|   2.20    .055|   3.87    .019|   5.53    .001|   7.20    .000
10124>     .55    .000|   2.22    .053|   3.88    .019|   5.55    .001|   7.22    .000
10125>     .57    .000|   2.23    .052|   3.90    .019|   5.57    .001|   7.23    .000
10126>     .58    .000|   2.25    .051|   3.92    .019|   5.58    .001|   7.25    .000
10127>     .60    .000|   2.27    .050|   3.93    .019|   5.60    .001|   7.27    .000
10128>     .62    .000|   2.28    .050|   3.95    .019|   5.62    .001|   7.28    .000
10129>     .63    .000|   2.30    .049|   3.97    .018|   5.63    .001|   7.30    .000
10130>     .65    .000|   2.32    .049|   3.98    .018|   5.65    .001|   7.32    .000
10131>     .67    .000|   2.33    .048|   4.00    .018|   5.67    .001|   7.33    .000
10132>     .68    .000|   2.35    .048|   4.02    .018|   5.68    .001|   7.35    .000
10133>     .70    .000|   2.37    .047|   4.03    .016|   5.70    .001|   7.37    .000
10134>     .72    .000|   2.38    .046|   4.05    .014|   5.72    .001|   7.38    .000
10135>     .73    .000|   2.40    .045|   4.07    .012|   5.73    .001|   7.40    .000
10136>     .75    .001|   2.42    .044|   4.08    .010|   5.75    .001|   7.42    .000
10137>     .77    .004|   2.43    .044|   4.10    .009|   5.77    .001|   7.43    .000
10138>     .78    .010|   2.45    .043|   4.12    .008|   5.78    .001|   7.45    .000
10139>     .80    .015|   2.47    .043|   4.13    .008|   5.80    .001|   7.47    .000
10140>     .82    .019|   2.48    .042|   4.15    .007|   5.82    .001|   7.48    .000
10141>     .83    .023|   2.50    .042|   4.17    .007|   5.83    .000|   7.50    .000
10142>     .85    .025|   2.52    .042|   4.18    .007|   5.85    .000|   7.52    .000
10143>     .87    .029|   2.53    .041|   4.20    .007|   5.87    .000|   7.53    .000
10144>     .88    .033|   2.55    .040|   4.22    .006|   5.88    .000|   7.55    .000
10145>     .90    .037|   2.57    .039|   4.23    .006|   5.90    .000|   7.57    .000
10146>     .92    .040|   2.58    .039|   4.25    .006|   5.92    .000|   7.58    .000
10147>     .93    .041|   2.60    .038|   4.27    .006|   5.93    .000|   7.60    .000
10148>     .95    .043|   2.62    .038|   4.28    .006|   5.95    .000|   7.62    .000
10149>     .97    .044|   2.63    .037|   4.30    .006|   5.97    .000|   7.63    .000
10150>     .98    .044|   2.65    .037|   4.32    .006|   5.98    .000|   7.65    .000
10151>    1.00    .044|   2.67    .037|   4.33    .005|   6.00    .000|   7.67    .000
10152>    1.02    .048|   2.68    .037|   4.35    .005|   6.02    .000|   7.68    .000
10153>    1.03    .058|   2.70    .036|   4.37    .005|   6.03    .000|   7.70    .000
10154>    1.05    .072|   2.72    .035|   4.38    .005|   6.05    .000|   7.72    .000
10155>    1.07    .084|   2.73    .035|   4.40    .005|   6.07    .000|   7.73    .000
10156>    1.08    .093|   2.75    .034|   4.42    .005|   6.08    .000|   7.75    .000
10157>    1.10    .100|   2.77    .034|   4.43    .005|   6.10    .000|   7.77    .000
10158>    1.12    .104|   2.78    .034|   4.45    .005|   6.12    .000|   7.78    .000
10159>    1.13    .107|   2.80    .033|   4.47    .004|   6.13    .000|   7.80    .000
10160>    1.15    .109|   2.82    .033|   4.48    .004|   6.15    .000|   7.82    .000
```

```
10161>    1.17    .110|   2.83    .033|   4.50    .004|   6.17    .000|   7.83    .000
10162>    1.18    .128|   2.85    .033|   4.52    .004|   6.18    .000|   7.85    .000
10163>    1.20    .182|   2.87    .032|   4.53    .004|   6.20    .000|   7.87    .000
10164>    1.22    .258|   2.88    .032|   4.55    .004|   6.22    .000|   7.88    .000
10165>    1.23    .309|   2.90    .031|   4.57    .004|   6.23    .000|   7.90    .000
10166>    1.25    .336|   2.92    .031|   4.58    .004|   6.25    .000|   7.92    .000
10167>    1.27    .350|   2.93    .030|   4.60    .004|   6.27    .000|   7.93    .000
10168>    1.28    .360|   2.95    .030|   4.62    .003|   6.28    .000|   7.95    .000
10169>    1.30    .366|   2.97    .030|   4.63    .003|   6.30    .000|   7.97    .000
10170>    1.32    .368|   2.98    .030|   4.65    .003|   6.32    .000|   7.98    .000
10171>    1.33    .370|   3.00    .030|   4.67    .003|   6.33    .000|   8.00    .000
10172>    1.35    .370|   3.02    .029|   4.68    .003|   6.35    .000|   8.02    .000
10173>    1.37    .363|   3.03    .029|   4.70    .003|   6.37    .000|   8.03    .000
10174>    1.38    .349|   3.05    .029|   4.72    .003|   6.38    .000|   8.05    .000
10175>    1.40    .337|   3.07    .028|   4.73    .003|   6.40    .000|   8.07    .000
10176>    1.42    .302|   3.08    .028|   4.75    .003|   6.42    .000|   8.08    .000
10177>    1.43    .271|   3.10    .028|   4.77    .003|   6.43    .000|   8.10    .000
10178>    1.45    .254|   3.12    .027|   4.78    .003|   6.45    .000|   8.12    .000
10179>    1.47    .232|   3.13    .027|   4.80    .003|   6.47    .000|   8.13    .000
10180>    1.48    .220|   3.15    .027|   4.82    .002|   6.48    .000|   8.15    .000
10181>    1.50    .200|   3.17    .027|   4.83    .002|   6.50    .000|   8.17    .000
10182>    1.52    .186|   3.18    .027|   4.85    .002|   6.52    .000|   8.18    .000
10183>    1.53    .172|   3.20    .026|   4.87    .002|   6.53    .000|   8.20    .000
10184>    1.55    .157|   3.22    .026|   4.88    .002|   6.55    .000|   8.22    .000
10185>    1.57    .145|   3.23    .026|   4.90    .002|   6.57    .000|   8.23    .000
10186>    1.58    .137|   3.25    .025|   4.92    .002|   6.58    .000|   8.25    .000
10187>    1.60    .132|   3.27    .025|   4.93    .002|   6.60    .000|   8.27    .000
10188>    1.62    .129|   3.28    .025|   4.95    .002|   6.62    .000|   8.28    .000
10189>    1.63    .127|   3.30    .025|   4.97    .002|   6.63    .000|   8.30    .000
10190>    1.65    .126|   3.32    .025|   4.98    .002|   6.65    .000|
10191> --------------------------------------------------------------------------------
10192> 001:0295-------------------------------------------------------------------------
10193> *
10194> *
10195> *
10196> *#########################
10197> *#    DRAINAGE AREA 54 ||
10198> *#                     ||
10199> *#########################
10200> *
10201> *
10202> ----------------------
10203> | CALIB STANDHYD     |   Area    (ha)=   13.08
10204> | 04:000204 DT= 2.50 |   Total Imp(%)=   50.00   Dir. Conn.(%)=   29.00
10205> ----------------------
10206>                              IMPERVIOUS    PERVIOUS (i)
10207>      Surface Area     (ha)=       6.54         6.54
10208>      Dep. Storage     (mm)=        .80         1.50
10209>      Average Slope     (%)=        .20         2.00
10210>      Length            (m)=     475.00        40.00
10211>      Mannings n           =       .013         .250
10212>
10213>      Max.eff.Inten.(mm/hr)=      46.75        12.01
10214>                 over (min)       15.00        30.00
10215>      Storage Coeff.  (min)=      14.29 (ii)   30.77 (ii)
10216>      Unit Hyd. Tpeak (min)=      15.00        30.00
10217>      Unit Hyd. peak  (cms)=        .08          .04
10218>                                                          *TOTALS*
10219>      PEAK FLOW       (cms)=        .33          .12          .386 (iii)
10220>      TIME TO PEAK    (hrs)=       1.50         1.83         1.542
10221>      RUNOFF VOLUME    (mm)=      24.24         6.88        17.917
10222>      TOTAL RAINFALL   (mm)=      25.04        25.04        25.045
10223>      RUNOFF COEFFICIENT   =        .97          .27          .476
10224>
10225>        (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
10226>            CN* =  75.0    Ia = Dep. Storage  (Above)
10227>       (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
10228>            THAN THE STORAGE COEFFICIENT.
10229>      (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
10230>
10231> --------------------------------------------------------------------------------
10232> 001:0296-------------------------------------------------------------------------
10233> *
10234> *
10235> *#########################
10236> *# OSD 85 L/S/HA 30 L/S/HA
10237> *#  85*10.89 = 925.7 L/S
10238> *#  30*2.19 = 65.7 L/S
10239> *#  TOTAL = 991.4 L/S
10240> *#########################
10241> *
10242> ----------------------
10243> | ROUTE RESERVOIR   |    Requested routing time step =  2.5 min.
10244> |  IN>04:(000204)   |
10245> | OUT<05:(000471)   |    =========  OUTLFOW STORAGE TABLE  =========
10246> ----------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
10247>                             (cms)    (ha.m.)   |    (cms)    (ha.m.)
10248>                              .000  .0000E+00   |     .991  .1455E+00
10249>                              .950  .2000E-02   |     .000  .0000E+00
10250>
10251>      ROUTING RESULTS            AREA     QPEAK     TPEAK       R.V.
10252>      ----------------------      (ha)     (cms)     (hrs)       (mm)
10253>      INFLOW >04: (000204)      13.08      .386     1.542     11.917
10254>      OUTFLOW<05: (000471)      13.08      .387     1.542     11.917
10255>
10256>                    PEAK   FLOW   REDUCTION [Qout/Qin](%)=  100.131
10257>                    TIME SHIFT OF PEAK FLOW         (min)=     .00
10258>                    MAXIMUM  STORAGE   USED       (ha.m.)=.8185E-03
10259>
10260>       *** WARNING: Inflow peak was not reduced!
10261>                    Check OUTFLOW/STORAGE table or reduce DT.
10262> --------------------------------------------------------------------------------
10263> 001:0297-------------------------------------------------------------------------
10264> *
10265> *# ADD AREA 52 AND 54
10266> *
10267> ------------------------
10268> | ADD HYD (       463) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
10269> ------------------------                  (ha)     (cms)   (hrs)   (mm)   (cms)
10270>                      ID1 03:       217     6.13      .370    1.33  14.48    .000
10271>                     +ID2 05:       471    13.08      .387    1.54  11.92    .000
10272>                      ============================================================
10273>                      SUM 09:       463    19.21      .632    1.40  12.74    .000
10274>
10275>    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
10276>
10277> --------------------------------------------------------------------------------
10278> 001:0298-------------------------------------------------------------------------
10279> *
10280> *# MH 107
10281> *
10282> *# ADD TO REST
10283> *
10284> ------------------------
10285> | ADD HYD (       463) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
10286> ------------------------                  (ha)     (cms)   (hrs)   (mm)   (cms)
10287>                      ID1 09:       463    19.21      .632    1.40  12.74    .000
10288>                     +ID2 08:       584    41.06     1.725    1.38  14.22    .000
10289>                      ============================================================
10290>                      SUM 05:       463    60.27     2.348    1.38  13.74    .000
10291>
10292>    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
10293>
10294> --------------------------------------------------------------------------------
10295> 001:0299-------------------------------------------------------------------------
10296> *
10297> *
10298> *#########################
10299> *#    DRAINAGE AREA 55 ||
10300> *#                     ||
10301> *#########################
10302> *
10303> *
10304> ----------------------
10305> | CALIB STANDHYD     |   Area    (ha)=   15.69
10306> | 01:000204 DT= 2.50 |   Total Imp(%)=   60.00   Dir. Conn.(%)=   37.00
10307> ----------------------
10308>                              IMPERVIOUS    PERVIOUS (i)
10309>      Surface Area     (ha)=       9.41         6.28
10310>      Dep. Storage     (mm)=        .80         1.50
10311>      Average Slope     (%)=        .20         2.00
10312>      Length            (m)=     530.00        40.00
10313>      Mannings n           =       .013         .250
10314>
10315>      Max.eff.Inten.(mm/hr)=      46.75        14.49
10316>                 over (min)       15.00        30.00
10317>      Storage Coeff.  (min)=      15.26 (ii)   30.55 (ii)
10318>      Unit Hyd. Tpeak (min)=      15.00        30.00
10319>      Unit Hyd. peak  (cms)=        .07          .04
10320>                                                          *TOTALS*
10321>      PEAK FLOW       (cms)=        .48          .14          .555 (iii)
10322>      TIME TO PEAK    (hrs)=       1.50         1.83         1.542
10323>      RUNOFF VOLUME    (mm)=      24.24         7.46        13.668
10324>      TOTAL RAINFALL   (mm)=      25.04        25.04        25.045
10325>      RUNOFF COEFFICIENT   =        .97          .30          .546
10326>
10327>        (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
10328>            CN* =  75.0    Ia = Dep. Storage  (Above)
10329>       (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
10330>            THAN THE STORAGE COEFFICIENT.
10331>      (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
10332>
10333> --------------------------------------------------------------------------------
10334> 001:0300-------------------------------------------------------------------------
10335> *
10336> *
10337> *#########################
10338> *# OSD 85 L/S/HA
10339> *#  85*15.69 = 1334 L/S
10340> *#########################
10341> *
10342> ----------------------
10343> | ROUTE RESERVOIR   |    Requested routing time step =  2.5 min.
10344> |  IN>01:(000204)   |
10345> | OUT<09:(000471)   |    =========  OUTLFOW STORAGE TABLE  =========
10346> ----------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
10347>                             (cms)    (ha.m.)   |    (cms)    (ha.m.)
10348>                              .000  .0000E+00   |    1.334  .1825E+00
10349>                             1.300  .2000E-02   |     .000  .0000E+00
10350>
10351>      ROUTING RESULTS            AREA     QPEAK     TPEAK       R.V.
10352>      ----------------------      (ha)     (cms)     (hrs)       (mm)
10353>      INFLOW >01: (000204)      15.69      .555     1.542     13.668
10354>      OUTFLOW<09: (000471)      15.69      .556     1.542     13.668
10355>
10356>                    PEAK   FLOW   REDUCTION [Qout/Qin](%)=  100.168
10357>                    TIME SHIFT OF PEAK FLOW         (min)=     .00
10358>                    MAXIMUM  STORAGE   USED       (ha.m.)=.8628E-03
10359>
10360>       *** WARNING: Inflow peak was not reduced!
10361>                    Check OUTFLOW/STORAGE table or reduce DT.
10362> --------------------------------------------------------------------------------
10363> 001:0301-------------------------------------------------------------------------
10364> *
10365> *# MH 105
10366> *
10367> *# TRUNK 2
10368> *
10369> ------------------------
10370> | ADD HYD (       874) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
10371> ------------------------                  (ha)     (cms)   (hrs)   (mm)   (cms)
10372>                      ID1 09:       471    15.69      .556    1.54  13.67    .000
10373>                     +ID2 05:       463    60.27     2.348    1.38  13.74    .000
10374>                      ============================================================
10375>                      SUM 04:       874    75.96     2.772    1.40  13.73    .000
10376>
10377>    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
10378>
10379> --------------------------------------------------------------------------------
10380> 001:0302-------------------------------------------------------------------------
10381> *
10382> --------------------
10383> | SAVE HYD          |   AREA      (ha)=   75.960
10384> | ID=04 (000874)    |   QPEAK     (cms)=    2.772 (i)
10385> | DT= 1.00 PCYC=-1  |   TPEAK     (hrs)=    1.400
10386> --------------------   VOLUME     (mm)=   13.728
10387>   Filename: C:\SWMHYMO\111083\2018-0~1\104.001
10388>   Comments: 104-25MM4HCH
10389>
10390>      (i)  PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
10391> --------------------------------------------------------------------------------
10392> 001:0303-------------------------------------------------------------------------
10393> *
10394> *#################################
10395> *#  ADD TWO TRUNKS
10396> *#################################
10397> *
10398> ------------------------
10399> | ADD HYD (       562) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
10400> ------------------------                  (ha)     (cms)   (hrs)   (mm)   (cms)
10401>                      ID1 04:       874    75.96     2.772    1.40  13.73    .000
10402>                     +ID2 06:       450    72.56     2.704    1.50  13.22    .000
10403>                      ============================================================
10404>                      SUM 09:       562   148.52     5.418    1.47  13.48    .000
10405>
10406>    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
10407>
10408> --------------------------------------------------------------------------------
10409> 001:0304-------------------------------------------------------------------------
10410> *
10411> *
10412> *
10413> *#################################################
10414> *# ISGAR LANDS (EAST AND WEST OF AVALON SOUTH POND)
```

```
*#====================================================
*
*# ISGAR LANDS - AREA I1
*# NEW WESTERN INLET
*
----------------------
| CALIB STANDHYD     |   Area    (ha)=    8.35
| 01:I1     DT=12.00 |   Total Imp(%)=   60.00   Dir. Conn.(%)=   45.00
----------------------
                              IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=       5.01         3.34
     Dep. Storage     (mm)=        .80         1.50
     Average Slope     (%)=        .20         2.00
     Length            (m)=     357.00        40.00
     Mannings n           =       .013         .250

     Max.eff.Inten.(mm/hr)=      60.42        11.32
                   over (min)       10.00        30.00
     Storage Coeff.  (min)=      10.87 (ii)   27.74 (ii)
     Unit Hyd. Tpeak (min)=      10.00        30.00
     Unit Hyd. peak  (cms)=        .10          .04
                                                      *TOTALS*
     PEAK FLOW       (cms)=        .42          .06          .439 (iii)
     TIME TO PEAK    (hrs)=       1.33         1.67         1.333
     RUNOFF VOLUME    (mm)=      23.50         6.35        14.066
     TOTAL RAINFALL   (mm)=      25.04        25.04        25.045
     RUNOFF COEFFICIENT   =        .94          .25          .562

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN* =  75.0    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

-------------------------------------------------------------------------------
001:0305-------------------------------------------------------------------------
*
*
*#=========================
*# INFLOW 200 l/s/ha = 8.35 x 200 = 1670 l/s
*# ON-SITE STORAGE (30% LESS THAN AVALON WEST) - 75.60 m3/ha = 631.3 M3
*#=========================
*
--------------------
| ROUTE RESERVOIR   |    Requested routing time step =  1.0 min.
|  IN>01:(I1    )   |
| OUT<04:(I1    )   |    =========  OUTLFOW STORAGE TABLE  =========
--------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
                          (cms)    (ha.m.)   |    (cms)    (ha.m.)
                            .000  .0000E+00   |    1.670  .6313E-01
                           1.660  .2000E-02   |     .000  .0000E+00

     ROUTING RESULTS            AREA     QPEAK     TPEAK       R.V.
     --------------------        (ha)     (cms)     (hrs)       (mm)
     INFLOW >01: (I1    )       8.35      .439     1.333     14.066
     OUTFLOW<04: (I1    )       8.35      .434     1.350     14.066
    OVERFLOW<06: (000487)        .00      .000      .000       .000

                    TOTAL NUMBER OF SIMULATED OVERFLOWS  =        0
                    CUMULATIVE TIME OF OVERFLOWS  (hours)=      .00
                    PERCENTAGE OF TIME OVERFLOWING    (%)=      .00


                    PEAK   FLOW   REDUCTION [Qout/Qin](%)=   98.849
                    TIME SHIFT OF PEAK FLOW         (min)=    1.00
                    MAXIMUM  STORAGE   USED       (ha.m.)=.5403E-03

-------------------------------------------------------------------------------
001:0306-------------------------------------------------------------------------
*
*# TOTAL (MINOR AND MAJOR FLOW) FROM I1 TO POND
*
-----------------------
| ADD HYD (       784) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
-----------------------                    (ha)     (cms)   (hrs)  (mm)   (cms)
                        ID1 04:I1           8.35     .434    1.35  14.07    .000
                      +ID2 06:       487     .00     .000     .00    .00    .000
                       ============================================================
                       SUM 07:       784     8.35     .434    1.35  14.07    .000

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

-------------------------------------------------------------------------------
001:0307-------------------------------------------------------------------------
*
*
*#================================================================
*# MAJOR OVERLAND FLOW FROM AREAS EAST OF PORTOBELLO TO FACILITY
*# FORMERLY AREAS 51 AND 52 (26.06 HA TOTAL AREA)
*# TO BE CAPTURED BY MINOR SYSTEM STORM SEWERS IN EASTERN ISGAR
*#================================================================
*
*
       *** NOTE: The hydrograph which was read is dry.
--------------------
| READ HYD          |   AREA       (ha)=     .000
| ID=05 (005152)    |   QPEAK      (cms)=    .000
| DT= 1.00 PCYC= 1  |   TPEAK      (hrs)=    .000
--------------------   VOLUME       (mm)=     .000
  Filename: C:\SWMHYMO\111083\2018-0-1\H-MAJout.001
  Comments: Major System Outflow from Portobello Blvd

-------------------------------------------------------------------------------
001:0308-------------------------------------------------------------------------
*
*
*
*# ISGAR LANDS - AREA I2
*# NEW EASTERN INLET
*
----------------------
| CALIB STANDHYD     |   Area    (ha)=   12.02
| 06:I2     DT=12.00 |   Total Imp(%)=   65.00   Dir. Conn.(%)=   51.00
----------------------
                              IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=       7.81         4.21
     Dep. Storage     (mm)=        .80         1.50
     Average Slope     (%)=        .20         2.00
     Length            (m)=     479.00        40.00
     Mannings n           =       .013         .250

     Max.eff.Inten.(mm/hr)=      60.42        11.70
                   over (min)       10.00        30.00
     Storage Coeff.  (min)=      12.96 (ii)   29.61 (ii)
     Unit Hyd. Tpeak (min)=      10.00        30.00
     Unit Hyd. peak  (cms)=        .09          .04
                                                      *TOTALS*
     PEAK FLOW       (cms)=        .63          .08          .648 (iii)
     TIME TO PEAK    (hrs)=       1.33         1.83         1.333
     RUNOFF VOLUME    (mm)=      23.50         6.44        15.140
     TOTAL RAINFALL   (mm)=      25.04        25.04        25.045
     RUNOFF COEFFICIENT   =        .94          .26          .605

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN* =  75.0    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

-------------------------------------------------------------------------------
001:0309-------------------------------------------------------------------------
*
*
*
*#=========================
*# INFLOW 200 L/S/HA - 12.02 X 200 = 2404 L/S
*# ON-SITE STORAGE (30% LESS THAN AVALON WEST) - 84.90 m3/ha = 1020.5 M3
*#=========================
*
--------------------
| ROUTE RESERVOIR   |    Requested routing time step =  1.0 min.
|  IN>06:(I2    )   |
| OUT<04:(I2    )   |    =========  OUTLFOW STORAGE TABLE  =========
--------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
                          (cms)    (ha.m.)   |    (cms)    (ha.m.)
                            .000  .0000E+00   |    2.404  .1020E+00
                           2.390  .2000E-02   |     .000  .0000E+00

     ROUTING RESULTS            AREA     QPEAK     TPEAK       R.V.
     --------------------        (ha)     (cms)     (hrs)       (mm)
     INFLOW >06: (I2    )      12.02      .648     1.333     15.140
     OUTFLOW<04: (I2    )      12.02      .642     1.350     15.140
    OVERFLOW<08: (000487)        .00      .000      .000       .000

                    TOTAL NUMBER OF SIMULATED OVERFLOWS  =        0
                    CUMULATIVE TIME OF OVERFLOWS  (hours)=      .00
                    PERCENTAGE OF TIME OVERFLOWING    (%)=      .00


                    PEAK   FLOW   REDUCTION [Qout/Qin](%)=   98.985
                    TIME SHIFT OF PEAK FLOW         (min)=    1.00
                    MAXIMUM  STORAGE   USED       (ha.m.)=.5573E-03

-------------------------------------------------------------------------------
001:0310-------------------------------------------------------------------------
*
*# TOTAL MINOR FLOW (MAJOR FLOW PORTOBELLO AND I2)
*
-----------------------
| ADD HYD (       845) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
-----------------------                    (ha)     (cms)   (hrs)  (mm)   (cms)
                        ID1 04:I2           12.02     .642    1.35  15.14    .000
                      +ID2 05:       5152     .00     .000     .00    .00    .000
                       ============================================================
                       SUM 06:       845     12.02     .642    1.35  15.14    .000

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

-------------------------------------------------------------------------------
001:0311-------------------------------------------------------------------------
*
*# ISGAR LANDS - AREA I3
*# NEW EASTERN INLET
*
----------------------
| CALIB STANDHYD     |   Area    (ha)=    7.64
| 01:I3     DT=12.00 |   Total Imp(%)=   49.00   Dir. Conn.(%)=   30.00
----------------------
                              IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=       3.74         3.90
     Dep. Storage     (mm)=        .80         1.50
     Average Slope     (%)=        .20         2.00
     Length            (m)=     292.00        40.00
     Mannings n           =       .013         .250

     Max.eff.Inten.(mm/hr)=      60.42        11.29
                   over (min)       10.00        30.00
     Storage Coeff.  (min)=       9.63 (ii)   26.52 (ii)
     Unit Hyd. Tpeak (min)=      10.00        30.00
     Unit Hyd. peak  (cms)=        .11          .04
                                                      *TOTALS*
     PEAK FLOW       (cms)=        .27          .07          .293 (iii)
     TIME TO PEAK    (hrs)=       1.33         1.67         1.333
     RUNOFF VOLUME    (mm)=      23.50         6.34        11.488
     TOTAL RAINFALL   (mm)=      25.04        25.04        25.045
     RUNOFF COEFFICIENT   =        .94          .25          .459
      *** WARNING: Storage Coefficient is smaller than DT!
                   Use a smaller DT or a larger area.

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN* =  75.0    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

-------------------------------------------------------------------------------
001:0312-------------------------------------------------------------------------
*
*
*# MAJOR FLOW FROM I3
*
-----------------------
| ADD HYD (       784) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
-----------------------                    (ha)     (cms)   (hrs)  (mm)   (cms)
                        ID1 01:I3           7.64     .293    1.33  11.49    .000
                      +ID2 08:       487     .00     .000     .00    .00    .000
                       ============================================================
                       SUM 05:       784     7.64     .293    1.33  11.49    .000

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

-------------------------------------------------------------------------------
001:0313-------------------------------------------------------------------------
*
*#=========================
*# INFLOW 200 L/S/HA - 7.64 X 200 = 1528 L/S
*# ON-SITE STORAGE (30% LESS THAN AVALON WEST) - 108.55 m3/ha = 829.3 M3
*#=========================
*
--------------------
| ROUTE RESERVOIR   |    Requested routing time step =  1.0 min.
|  IN>05:(000784)   |
| OUT<03:(I3    )   |    =========  OUTLFOW STORAGE TABLE  =========
--------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
```

```
                          (cms)    (ha.m.)   |    (cms)    (ha.m.)
                           .000  .0000E+00   |    1.528  .8293E-01
                          1.510  .2000E-02   |     .000  .0000E+00

     ROUTING RESULTS           AREA     QPEAK     TPEAK       R.V.
     --------------------      (ha)     (cms)     (hrs)       (mm)
     INFLOW >05: (000784)      7.64      .293     1.333     11.488
     OUTFLOW<03: (I3    )      7.64      .290     1.350     11.488
    OVERFLOW<01: (000487)       .00      .000      .000       .000

                  TOTAL NUMBER OF SIMULATED OVERFLOWS  =        0
                  CUMULATIVE TIME OF OVERFLOWS  (hours)=      .00
                  PERCENTAGE OF TIME OVERFLOWING    (%)=      .00


                  PEAK   FLOW   REDUCTION [Qout/Qin](%)=   98.978
                  TIME SHIFT OF PEAK FLOW         (min)=     1.00
                  MAXIMUM  STORAGE   USED       (ha.m.)=.3957E-03

-------------------------------------------------------------------------------
001:0314---------------------------------------------------------------------
*
*# TOTAL MINOR SYSTEM FLOW FROM MAJOR PORTOBELLO, I2 AND I3 (NEW EASTERN INLET)
*
------------------------
| ADD HYD (       784) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
------------------------                  (ha)     (cms)   (hrs)   (mm)   (cms)
                       ID1 06:       845    12.02     .642    1.35  15.14    .000
                      +ID2 03:I3           7.64     .290    1.35  11.49    .000
                       ========================================================
                       SUM 05:       784    19.66     .931    1.35  13.72    .000

   NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

-------------------------------------------------------------------------------
001:0315---------------------------------------------------------------------
*
*# TOTAL FLOW FROM I2 AND I3 INTO POND VIA NEW EASTERN INLET TO POND(INCLUDES MA
*
------------------------
| ADD HYD (       784) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
------------------------                  (ha)     (cms)   (hrs)   (mm)   (cms)
                       ID1 01:       487     .00     .000     .00    .00    .000
                      +ID2 05:       784    19.66     .931    1.35  13.72    .000
                       ========================================================
                       SUM 08:       784    19.66     .931    1.35  13.72    .000

   NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

-------------------------------------------------------------------------------
001:0316---------------------------------------------------------------------
*
*
*
*#=======================
*#    DRAINAGE AREA 60 ||
*#    SWM AREA         ||
*#=======================
*
*
----------------------
| CALIB NASHYD       |   Area    (ha)=   12.50   Curve Number   (CN)=95.00
| 01:000100 DT= 6.00 |   Ia      (mm)=   1.500   # of Linear Res.(N)= 3.00
----------------------   U.H. Tp(hrs)=    .250

     Unit Hyd Qpeak  (cms)=    1.910

     PEAK FLOW       (cms)=     .613 (i)
     TIME TO PEAK    (hrs)=    1.500
     RUNOFF VOLUME    (mm)=   15.018
     TOTAL RAINFALL   (mm)=   25.045
     RUNOFF COEFFICIENT   =     .600

     (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

      *** WARNING: Time step is too large for value of TP.
                   R.V. may be ok.  Peak flow could be off.
-------------------------------------------------------------------------------
001:0317---------------------------------------------------------------------
*
*# ADD TOTAL FLOW FROM ISGAR LANDS (I1, I2 AND I3 PLUS MAJOR PORTOBELLO) TO POND
*
------------------------
| ADD HYD (       784) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
------------------------                  (ha)     (cms)   (hrs)   (mm)   (cms)
                       ID1 01:       100    12.50     .613    1.50  15.02    .000
                      +ID2 08:       784    19.66     .931    1.35  13.72    .000
                      +ID3 07:       784     8.35     .434    1.35  14.07    .000
                       ========================================================
                       SUM 06:       784    40.51    1.826    1.35  14.19    .000

   NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

-------------------------------------------------------------------------------
001:0318---------------------------------------------------------------------
*
*# MH SWMF
*
--------------------
| SAVE HYD         |   AREA       (ha)=   40.510
| ID=06 (000784)   |   QPEAK     (cms)=    1.826 (i)
| DT= 1.00 PCYC=-1 |   TPEAK     (hrs)=    1.350
--------------------   VOLUME     (mm)=   14.192
  Filename: C:\SWMHYMO\111083\2018-0~1\POND.001
  Comments: POND-25MM4HCH

     (i)  PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

-------------------------------------------------------------------------------
001:0319---------------------------------------------------------------------
*
*#================================
*#  ADD POND AREA TO EXISTING EAST AND WEST TRUNKS
*#================================
*
------------------------
| ADD HYD (       562) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
------------------------                  (ha)     (cms)   (hrs)   (mm)   (cms)
                       ID1 06:       784    40.51    1.826    1.35  14.19    .000
                      +ID2 09:       562   148.52    5.418    1.47  13.48    .000
                       ========================================================
                       SUM 04:       562   189.03    7.131    1.47  13.63    .000

   NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

-------------------------------------------------------------------------------
001:0320---------------------------------------------------------------------
*
*
*#=========================================
*#     NEIGHBOURHOOD 4  SWM FACILITY       ||
*#       OUTLET PIPE TO POINT B            ||
*#       OUTLET PIPE  1200 DIA             ||
*#=========================================
*
*# NOTE:  XPSWMM USED FOR ROUTING THE SWM FACILITY
*
---------------------
| ROUTE RESERVOIR   |    Requested routing time step =  1.0 min.
|  IN>04:(000562)   |
| OUT<02:(000471)   |    =========  OUTLFOW STORAGE TABLE  =========
---------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
                           (cms)    (ha.m.)   |    (cms)    (ha.m.)
                            .000  .0000E+00   |     .930  .4960E+01
                            .350  .2300E+01   |    1.520  .8710E+01
                            .650  .3740E+01   |    1.700  .1129E+02

     ROUTING RESULTS           AREA     QPEAK     TPEAK       R.V.
     --------------------      (ha)     (cms)     (hrs)       (mm)
     INFLOW >04: (000562)     189.03     7.131     1.467     13.631
     OUTFLOW<02: (000471)     189.03      .341     4.133     13.630

                  PEAK   FLOW   REDUCTION [Qout/Qin](%)=    4.777
                  TIME SHIFT OF PEAK FLOW         (min)=   160.00
                  MAXIMUM  STORAGE   USED       (ha.m.)=.2238E+01

-------------------------------------------------------------------------------
001:0321---------------------------------------------------------------------
*
--------------------
| SAVE HYD         |   AREA       (ha)=  189.030
| ID=02 (000471)   |   QPEAK     (cms)=     .341 (i)
| DT= 1.00 PCYC=-1 |   TPEAK     (hrs)=    4.133
--------------------   VOLUME     (mm)=   13.630
  Filename: C:\SWMHYMO\111083\2018-0~1\ISGAR.001
  Comments: ISGAR-25MM4HCH

     (i)  PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

-------------------------------------------------------------------------------
001:0322---------------------------------------------------------------------
*
*
*
*
*
*
*
*
*
*
*
*
*
*
*
*
*
*#============================================================
*#  100 YEAR 3 HR CHICAGO STORM - 10 MIN TIME STEP
*#============================================================
*
*
--------------------
| READ STORM       |    Filename: 100 YEAR 3 HOUR CHICAGO - 10 MIN TIME ST
| Ptotal=  71.66 mm|    Comments: 100 YEAR 3 HOUR CHICAGO - 10 MIN TIME ST
--------------------
               TIME    RAIN |   TIME    RAIN |   TIME    RAIN |   TIME    RAIN
                hrs   mm/hr |    hrs   mm/hr |    hrs   mm/hr |    hrs   mm/hr
                .17   6.046 |   1.00 178.559 |   1.83  11.059 |   2.67   5.760
                .33   7.542 |   1.17  54.049 |   2.00   9.285 |   2.83   5.280
                .50  10.159 |   1.33  27.319 |   2.17   8.024 |   3.00   4.879
                .67  15.969 |   1.50  18.240 |   2.33   7.080 |
                .83  40.655 |   1.67  13.737 |   2.50   6.347 |

-------------------------------------------------------------------------------
001:0323---------------------------------------------------------------------
*
*
*#=========================================
*#     NEIGHBOURHOOD 4                     ||
*#=========================================
*
*#=======================
*#   DRAINAGE AREA 40  ||
*#                     ||
*#=======================
*
----------------------
| CALIB STANDHYD     |   Area    (ha)=   11.73
| 06:000204 DT=10.00 |   Total Imp(%)=   54.00   Dir. Conn.(%)=   32.00
----------------------
                                IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=       6.33         5.40
     Dep. Storage     (mm)=        .80         1.50
     Average Slope     (%)=        .20         2.00
     Length            (m)=     414.00        40.00
     Mannings n             =       .013         .250

     Max.eff.Inten.(mm/hr)=     178.56       138.92
                    over (min)      10.00        10.00
     Storage Coeff.  (min)=       7.70 (ii)   13.89 (ii)
     Unit Hyd. Tpeak (min)=      10.00        10.00
     Unit Hyd. peak  (cms)=        .12          .09
                                                          *TOTALS*
     PEAK FLOW       (cms)=       1.45         1.13         2.581 (iii)
     TIME TO PEAK    (hrs)=       1.00         1.00         1.000
     RUNOFF VOLUME    (mm)=      70.86        39.02        49.209
     TOTAL RAINFALL   (mm)=      71.66        71.66        71.665
     RUNOFF COEFFICIENT   =        .99          .54          .687
      *** WARNING: Storage Coefficient is smaller than DT!
                   Use a smaller DT or a larger area.

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN* =  75.0    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

-------------------------------------------------------------------------------
001:0324---------------------------------------------------------------------
*
*
*#================================
*# OSD 85 L/S/HA PARKS 30 L/S/HA
*#  85*10.71 = 910.4 L/S
*#  30*1.02 = 30.6 L/S
*#  TOTAL = 941 L/S
*#================================
*
```

```
10923> --------------------
10924> | ROUTE RESERVOIR   |    Requested routing time step = 10.0 min.
10925> |  IN>06:(000204)   |
10926> | OUT<09:(000471)   |    =========  OUTLFOW STORAGE TABLE  =========
10927> --------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
10928>                           (cms)    (ha.m.)   |    (cms)    (ha.m.)
10929>                            .000  .0000E+00   |     .941  .1368E+00
10930>                            .900  .2000E-02   |     .000  .0000E+00
10931>      *** WARNING: STORAGE-Q values were extrapolated.
10932>                   Increase curve or use overflow option.
10933>
10934>     ROUTING RESULTS            AREA     QPEAK     TPEAK       R.V.
10935>     --------------------        (ha)     (cms)     (hrs)       (mm)
10936>     INFLOW >06: (000204)      11.73     2.581     1.000     49.209
10937>     OUTFLOW<09: (000471)      11.73      .947     1.333     50.364
10938>
10939>                   PEAK   FLOW   REDUCTION [Qout/Qin](%)=   36.710
10940>                   TIME SHIFT OF PEAK FLOW         (min)=    20.00
10941>                   MAXIMUM  STORAGE   USED       (ha.m.)=.1632E+00
10942>
10943>      *** WARNING: Outflow volume is less than inflow volume.
10944> ----------------------------------------------------------------------------
10945> 001:0325----------------------------------------------------------------------
10946> *
10947> *# MH 505
10948> --------------------
10949> | SAVE HYD          |   AREA       (ha)=   11.730
10950> | ID=09 (000471)   |   QPEAK     (cms)=    .947 (i)
10951> | DT=10.00 PCYC=-1 |   TPEAK     (hrs)=   1.333
10952> --------------------   VOLUME      (mm)=   50.364
10953>   Filename: C:\SWMHYMO\111083\2018-0~1\505.045
10954>   Comments: 505-3CHI100
10955>
10956>     (i)  PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
10957> ----------------------------------------------------------------------------
10958> 001:0326----------------------------------------------------------------------
10959> *
10960> *#=======================
10961> *#   DRAINAGE AREA 41  ||
10962> *#=======================
10963> *
10964> *
10965> ----------------------
10966> | CALIB STANDHYD    |   Area    (ha)=    9.06
10967> | 05:000204 DT=10.00 |   Total Imp(%)=   58.00   Dir. Conn.(%)=   35.00
10968> ----------------------
10969>                             IMPERVIOUS    PERVIOUS (i)
10970>     Surface Area     (ha)=       5.25         3.81
10971>     Dep. Storage     (mm)=        .80         1.50
10972>     Average Slope     (%)=        .20         2.00
10973>     Length            (m)=     452.00        40.00
10974>     Mannings n           =       .013         .250
10975>
10976>     Max.eff.Inten.(mm/hr)=     178.56       149.19
10977>                   over (min)       10.00        10.00
10978>     Storage Coeff.  (min)=       8.12 (ii)   14.13 (ii)
10979>     Unit Hyd. Tpeak (min)=      10.00        10.00
10980>     Unit Hyd. peak  (cms)=        .12          .09
10981>                                                          *TOTALS*
10982>     PEAK FLOW       (cms)=       1.20          .85         2.047 (iii)
10983>     TIME TO PEAK    (hrs)=       1.00         1.00         1.000
10984>     RUNOFF VOLUME    (mm)=      70.86        39.85        50.708
10985>     TOTAL RAINFALL   (mm)=      71.66        71.66        71.665
10986>     RUNOFF COEFFICIENT   =        .99          .56          .708
10987>      *** WARNING: Storage Coefficient is smaller than DT!
10988>                   Use a smaller DT or a larger area.
10989>
10990>       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
10991>           CN* =  75.0    Ia = Dep. Storage  (Above)
10992>      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
10993>           THAN THE STORAGE COEFFICIENT.
10994>     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
10995>
10996> ----------------------------------------------------------------------------
10997> 001:0327----------------------------------------------------------------------
10998> *
10999> *#=========================
11000> *# OSD 85 L/S/HA
11001> *#  85*9.06 = 770.1 L/S
11002> *#=========================
11003> *
11004> --------------------
11005> | ROUTE RESERVOIR   |    Requested routing time step = 10.0 min.
11006> |  IN>05:(000204)   |
11007> | OUT<07:(000471)   |    =========  OUTLFOW STORAGE TABLE  =========
11008> --------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
11009>                           (cms)    (ha.m.)   |    (cms)    (ha.m.)
11010>                            .000  .0000E+00   |     .770  .1072E+00
11011>                            .700  .2000E-02   |     .000  .0000E+00
11012>      *** WARNING: STORAGE-Q values were extrapolated.
11013>                   Increase curve or use overflow option.
11014>
11015>     ROUTING RESULTS            AREA     QPEAK     TPEAK       R.V.
11016>     --------------------        (ha)     (cms)     (hrs)       (mm)
11017>     INFLOW >05: (000204)       9.06     2.047     1.000     50.708
11018>     OUTFLOW<07: (000471)       9.06      .781     1.333     51.227
11019>
11020>                   PEAK   FLOW   REDUCTION [Qout/Qin](%)=   38.163
11021>                   TIME SHIFT OF PEAK FLOW         (min)=    20.00
11022>                   MAXIMUM  STORAGE   USED       (ha.m.)=.1275E+00
11023>
11024>      *** WARNING: Outflow volume is less than inflow volume.
11025> ----------------------------------------------------------------------------
11026> 001:0328----------------------------------------------------------------------
11027> *
11028> *# MH 521
11029> --------------------
11030> | SAVE HYD          |   AREA       (ha)=    9.060
11031> | ID=07 (000471)   |   QPEAK     (cms)=     .781 (i)
11032> | DT=10.00 PCYC=-1 |   TPEAK     (hrs)=    1.333
11033> --------------------   VOLUME      (mm)=   51.227
11034>   Filename: C:\SWMHYMO\111083\2018-0~1\521.045
11035>   Comments: 521-3CHI100
11036>
11037>     (i)  PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
11038> ----------------------------------------------------------------------------
11039> 001:0329----------------------------------------------------------------------
11040> *
11041> ------------------------
11042> | ADD HYD (       401) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
11043> ------------------------                   (ha)     (cms)   (hrs)   (mm)   (cms)
11044>                       ID1 09:       471    11.73     .947    1.33  50.36    .000
11045>                      +ID2 07:       471     9.06     .781    1.33  51.23    .000
11046>                       ==========================================================
11047>                       SUM 06:       401    20.79    1.729    1.33  50.74    .000
11048>
11049>    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
11050>
11051> ----------------------------------------------------------------------------
11052> 001:0330----------------------------------------------------------------------
11053> *
11054> *
11055> *#=======================
11056> *#    DRAINAGE AREA 42 ||
11057> *#                     ||
11058> *#=======================
11059> *
11060> *
11061> ----------------------
11062> | CALIB NASHYD      |   Area    (ha)=    4.10   Curve Number   (CN)=75.00
11063> | 05:000100 DT=10.00 |   Ia      (mm)=   1.500   # of Linear Res.(N)= 3.00
11064> ----------------------   U.H. Tp(hrs)=    .410
11065>
11066>     Unit Hyd Qpeak  (cms)=     .382
11067>
11068>     PEAK FLOW       (cms)=     .291 (i)
11069>     TIME TO PEAK    (hrs)=    1.333
11070>     RUNOFF VOLUME    (mm)=   31.796
11071>     TOTAL RAINFALL   (mm)=   71.665
11072>     RUNOFF COEFFICIENT   =     .444
11073>
11074>     (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
11075>
11076> ----------------------------------------------------------------------------
11077> 001:0331----------------------------------------------------------------------
11078> *
11079> *#=========================
11080> *# OSD 30 L/S/HA
11081> *#  30*4.1 = 123 L/S
11082> *#=========================
11083> *
11084> --------------------
11085> | ROUTE RESERVOIR   |    Requested routing time step = 10.0 min.
11086> |  IN>05:(000100)   |
11087> | OUT<04:(000471)   |    =========  OUTLFOW STORAGE TABLE  =========
11088> --------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
11089>                           (cms)    (ha.m.)   |    (cms)    (ha.m.)
11090>                            .000  .0000E+00   |     .123  .4859E-01
11091>                            .090  .2000E-02   |     .000  .0000E+00
11092>
11093>     ROUTING RESULTS            AREA     QPEAK     TPEAK       R.V.
11094>     --------------------        (ha)     (cms)     (hrs)       (mm)
11095>     INFLOW >05: (000100)       4.10      .291     1.333     31.796
11096>     OUTFLOW<04: (000471)       4.10      .123     2.167     31.866
11097>
11098>                   PEAK   FLOW   REDUCTION [Qout/Qin](%)=   42.174
11099>                   TIME SHIFT OF PEAK FLOW         (min)=    50.00
11100>                   MAXIMUM  STORAGE   USED       (ha.m.)=.4857E-01
11101>
11102> ----------------------------------------------------------------------------
11103> 001:0332----------------------------------------------------------------------
11104> *
11105> *# MH 529
11106> --------------------
11107> | SAVE HYD          |   AREA       (ha)=    4.100
11108> | ID=04 (000471)   |   QPEAK     (cms)=     .123 (i)
11109> | DT=10.00 PCYC=-1 |   TPEAK     (hrs)=    2.167
11110> --------------------   VOLUME      (mm)=   31.866
11111>   Filename: C:\SWMHYMO\111083\2018-0~1\529.045
11112>   Comments: 529-3CHI100
11113>
11114>     (i)  PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
11115> ----------------------------------------------------------------------------
11116> 001:0333----------------------------------------------------------------------
11117> *
11118> *
11119> ------------------------
11120> | ADD HYD (       105) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
11121> ------------------------                   (ha)     (cms)   (hrs)   (mm)   (cms)
11122>                       ID1 06:       401    20.79    1.729    1.33  50.74    .000
11123>                      +ID2 04:       471     4.10     .123    2.17  31.87    .000
11124>                       ==========================================================
11125>                       SUM 01:       105    24.89    1.836    1.50  47.63    .000
11126>
11127>    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
11128>
11129> ----------------------------------------------------------------------------
11130> 001:0334----------------------------------------------------------------------
11131> *
11132> *
11133> *#=======================
11134> *#    DRAINAGE AREA 43 ||
11135> *#                     ||
11136> *#=======================
11137> *
11138> *
11139> ----------------------
11140> | CALIB STANDHYD    |   Area    (ha)=   17.21
11141> | 05:000204 DT=10.00 |   Total Imp(%)=   59.00   Dir. Conn.(%)=   37.00
11142> ----------------------
11143>                             IMPERVIOUS    PERVIOUS (i)
11144>     Surface Area     (ha)=      10.15         7.06
11145>     Dep. Storage     (mm)=        .80         1.50
11146>     Average Slope     (%)=        .20         2.00
11147>     Length            (m)=     449.00        40.00
11148>     Mannings n           =       .013         .250
11149>
11150>     Max.eff.Inten.(mm/hr)=     178.56       147.55
11151>                   over (min)       10.00        10.00
11152>     Storage Coeff.  (min)=       8.08 (ii)   14.13 (ii)
11153>     Unit Hyd. Tpeak (min)=      10.00        10.00
11154>     Unit Hyd. peak  (cms)=        .12          .09
11155>                                                          *TOTALS*
11156>     PEAK FLOW       (cms)=       2.41         1.56         3.967 (iii)
11157>     TIME TO PEAK    (hrs)=       1.00         1.00         1.000
11158>     RUNOFF VOLUME    (mm)=      70.86        39.72        51.246
11159>     TOTAL RAINFALL   (mm)=      71.66        71.66        71.665
11160>     RUNOFF COEFFICIENT   =        .99          .55          .715
11161>      *** WARNING: Storage Coefficient is smaller than DT!
11162>                   Use a smaller DT or a larger area.
11163>
11164>       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
11165>           CN* =  75.0    Ia = Dep. Storage  (Above)
11166>      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
11167>           THAN THE STORAGE COEFFICIENT.
11168>     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
11169>
11170> ----------------------------------------------------------------------------
11171> 001:0335----------------------------------------------------------------------
11172> *
11173> *
11174> *#=========================
11175> *# OSD 85 L/S/HA PARKS 30 L/S/HA
11176> *#  85*16.89 = 1435.7 L/S
```

```
*#  30*0.32 =9.6 L/S
*#  TOTAL =1445 L/S
*#=========================
*
--------------------
| ROUTE RESERVOIR   |    Requested routing time step = 10.0 min.
|  IN>05:(000204)   |
| OUT<08:(000471)   |    =========  OUTLFOW STORAGE TABLE  =========
--------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
                          (cms)    (ha.m.)   |    (cms)    (ha.m.)
                           .000  .0000E+00   |    1.445  .2103E+00
                          1.400  .2000E-02   |     .000  .0000E+00
      *** WARNING: STORAGE-Q values were extrapolated.
                   Increase curve or use overflow option.

     ROUTING RESULTS            AREA     QPEAK     TPEAK       R.V.
     --------------------        (ha)     (cms)     (hrs)       (mm)
     INFLOW >05: (000204)      17.21     3.967     1.000     51.246
     OUTFLOW<08: (000471)      17.21     1.451     1.333     52.236

                   PEAK   FLOW   REDUCTION [Qout/Qin](%)=   36.587
                   TIME SHIFT OF PEAK FLOW         (min)=   20.00
                   MAXIMUM  STORAGE   USED       (ha.m.)=.2478E+00

      *** WARNING: Outflow volume is less than inflow volume.
----------------------------------------------------------------------------
001:0336------------------------------------------------------------------------
*
*# MH 539
--------------------
| SAVE HYD         |   AREA       (ha)=   17.210
| ID=08 (000471)   |   QPEAK     (cms)=    1.451 (i)
| DT=10.00 PCYC=-1 |   TPEAK     (hrs)=    1.333
--------------------   VOLUME     (mm)=   52.236
  Filename: C:\SWMHYMO\111083\2018-0~1\539.045
  Comments: 539-3CHI100

     (i)  PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
----------------------------------------------------------------------------
001:0337------------------------------------------------------------------------
*
------------------------
| ADD HYD (       100) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
------------------------                   (ha)     (cms)   (hrs)   (mm)   (cms)
                       ID1 01:       105    24.89    1.836    1.50  47.63    .000
                      +ID2 08:       471    17.21    1.451    1.33  52.24    .000
                       ============================================================
                       SUM 07:       100    42.10    3.287    1.50  49.51    .000

   NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

----------------------------------------------------------------------------
001:0338------------------------------------------------------------------------
*
*
*#=========================
*#    DRAINAGE AREA 44 ||
*#                     ||
*#=========================
*
*
----------------------
| CALIB STANDHYD     |   Area    (ha)=    4.06
| 05:000204 DT=10.00 |   Total Imp(%)=   58.00   Dir. Conn.(%)=   38.00
----------------------
                              IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=        2.35         1.71
     Dep. Storage     (mm)=         .80         1.50
     Average Slope     (%)=         .20         2.00
     Length            (m)=      165.00        40.00
     Mannings n            =        .013         .250

     Max.eff.Inten.(mm/hr)=     178.56       138.61
                  over (min)       10.00        10.00
     Storage Coeff.  (min)=       4.43 (ii)   10.63 (ii)
     Unit Hyd. Tpeak (min)=      10.00        10.00
     Unit Hyd. peak  (cms)=        .15          .10
                                                          *TOTALS*
     PEAK FLOW       (cms)=        .70          .42         1.121 (iii)
     TIME TO PEAK    (hrs)=       1.00         1.00         1.000
     RUNOFF VOLUME    (mm)=      70.86        38.99        51.104
     TOTAL RAINFALL   (mm)=      71.66        71.66        71.665
     RUNOFF COEFFICIENT   =        .99          .54          .713
      *** WARNING: Storage Coefficient is smaller than DT!
                   Use a smaller DT or a larger area.

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN* =  75.0    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

----------------------------------------------------------------------------
001:0339------------------------------------------------------------------------
*
*
*#=========================
*# OSD 85 L/S/HA  PARK 30 L/S/HA
*#  85*3.7 = 314.5 L/S
*#  30*0.28 = 8.4 L/S
*#  TOTAL = 322.9 L/S
*#=========================
*
--------------------
| ROUTE RESERVOIR   |    Requested routing time step = 10.0 min.
|  IN>05:(000204)   |
| OUT<09:(000471)   |    =========  OUTLFOW STORAGE TABLE  =========
--------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
                          (cms)    (ha.m.)   |    (cms)    (ha.m.)
                           .000  .0000E+00   |     .323  .6847E-01
                           .290  .2000E-02   |     .000  .0000E+00
      *** WARNING: STORAGE-Q values were extrapolated.
                   Increase curve or use overflow option.

     ROUTING RESULTS            AREA     QPEAK     TPEAK       R.V.
     --------------------        (ha)     (cms)     (hrs)       (mm)
     INFLOW >05: (000204)       4.06     1.121     1.000     51.104
     OUTFLOW<09: (000471)       4.06      .323     1.333     51.241

                   PEAK   FLOW   REDUCTION [Qout/Qin](%)=   28.835
                   TIME SHIFT OF PEAK FLOW         (min)=   20.00
                   MAXIMUM  STORAGE   USED       (ha.m.)=.6959E-01

----------------------------------------------------------------------------
001:0340------------------------------------------------------------------------
*
*# MH 541
--------------------
| SAVE HYD         |   AREA       (ha)=    4.060
| ID=09 (000471)   |   QPEAK     (cms)=     .323 (i)
| DT=10.00 PCYC=-1 |   TPEAK     (hrs)=    1.333
--------------------   VOLUME     (mm)=   51.241
  Filename: C:\SWMHYMO\111083\2018-0~1\541.045
  Comments: 541-3CHI100

     (i)  PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
----------------------------------------------------------------------------
001:0341------------------------------------------------------------------------
*
------------------------
| ADD HYD (       100) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
------------------------                   (ha)     (cms)   (hrs)   (mm)   (cms)
                       ID1 07:       100    42.10    3.287    1.50  49.51    .000
                      +ID2 09:       471     4.06     .323    1.33  51.24    .000
                       ============================================================
                       SUM 03:       100    46.16    3.609    1.50  49.67    .000

   NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

----------------------------------------------------------------------------
001:0342------------------------------------------------------------------------
*
*
*#=========================
*#    DRAINAGE AREA 45 ||
*#                     ||
*#=========================
*
----------------------
| CALIB STANDHYD     |   Area    (ha)=    3.13
| 05:000204 DT=10.00 |   Total Imp(%)=   57.00   Dir. Conn.(%)=   57.00
----------------------
                              IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=        1.78         1.35
     Dep. Storage     (mm)=         .80         1.50
     Average Slope     (%)=         .20         2.00
     Length            (m)=      147.00        40.00
     Mannings n            =        .013         .250

     Max.eff.Inten.(mm/hr)=     178.56        73.62
                  over (min)       10.00        10.00
     Storage Coeff.  (min)=       4.14 (ii)   12.11 (ii)
     Unit Hyd. Tpeak (min)=      10.00        10.00
     Unit Hyd. peak  (cms)=        .15          .10
                                                          *TOTALS*
     PEAK FLOW       (cms)=        .82          .16          .985 (iii)
     TIME TO PEAK    (hrs)=       1.00         1.00         1.000
     RUNOFF VOLUME    (mm)=      70.86        31.80        54.065
     TOTAL RAINFALL   (mm)=      71.66        71.66        71.665
     RUNOFF COEFFICIENT   =        .99          .44          .754
      *** WARNING: Storage Coefficient is smaller than DT!
                   Use a smaller DT or a larger area.

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN* =  75.0    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

----------------------------------------------------------------------------
001:0343------------------------------------------------------------------------
*
*
*#=========================
*# OSD 85 L/S/HA
*#  85*3.13 = 266.1 L/S
*#=========================
*
--------------------
| ROUTE RESERVOIR   |    Requested routing time step = 10.0 min.
|  IN>05:(000204)   |
| OUT<08:(000471)   |    =========  OUTLFOW STORAGE TABLE  =========
--------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
                          (cms)    (ha.m.)   |    (cms)    (ha.m.)
                           .000  .0000E+00   |     .266  .5982E-01
                           .200  .2000E-02   |     .000  .0000E+00

     ROUTING RESULTS            AREA     QPEAK     TPEAK       R.V.
     --------------------        (ha)     (cms)     (hrs)       (mm)
     INFLOW >05: (000204)       3.13      .985     1.000     54.065
     OUTFLOW<08: (000471)       3.13      .265     1.333     54.189

                   PEAK   FLOW   REDUCTION [Qout/Qin](%)=   26.956
                   TIME SHIFT OF PEAK FLOW         (min)=   20.00
                   MAXIMUM  STORAGE   USED       (ha.m.)=.5980E-01

----------------------------------------------------------------------------
001:0344------------------------------------------------------------------------
*
*# MH 542
--------------------
| SAVE HYD         |   AREA       (ha)=    3.130
| ID=08 (000471)   |   QPEAK     (cms)=     .265 (i)
| DT=10.00 PCYC=-1 |   TPEAK     (hrs)=    1.333
--------------------   VOLUME     (mm)=   54.189
  Filename: C:\SWMHYMO\111083\2018-0~1\542.045
  Comments: 542-3CHI100

     (i)  PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
----------------------------------------------------------------------------
001:0345------------------------------------------------------------------------
*
------------------------
| ADD HYD (       100) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
------------------------                   (ha)     (cms)   (hrs)   (mm)   (cms)
                       ID1 03:       100    46.16    3.609    1.50  49.67    .000
                      +ID2 08:       471     3.13     .265    1.33  54.19    .000
                       ============================================================
                       SUM 04:       100    49.29    3.871    1.50  49.95    .000

   NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

----------------------------------------------------------------------------
001:0346------------------------------------------------------------------------
*
*#=========================
*#    DRAINAGE AREA 46 ||
*#                     ||
*#=========================
*
*
----------------------
| CALIB STANDHYD     |   Area    (ha)=   19.48
| 05:000204 DT=10.00 |   Total Imp(%)=   61.00   Dir. Conn.(%)=   43.00
```

```
11431> ----------------------
11432>                            IMPERVIOUS    PERVIOUS (i)
11433>      Surface Area     (ha)=      11.88         7.60
11434>      Dep. Storage     (mm)=        .80         1.50
11435>      Average Slope     (%)=        .20         2.00
11436>      Length            (m)=     464.00        40.00
11437>      Mannings n             =       .013         .250
11438>
11439>      Max.eff.Inten.(mm/hr)=     178.56       136.46
11440>                   over (min)       10.00        10.00
11441>      Storage Coeff.  (min)=       8.25 (ii)   14.48 (ii)
11442>      Unit Hyd. Tpeak (min)=      10.00        10.00
11443>      Unit Hyd. peak  (cms)=        .12          .08
11444>                                                          *TOTALS*
11445>      PEAK FLOW       (cms)=       3.15         1.52         4.669 (iii)
11446>      TIME TO PEAK    (hrs)=       1.00         1.00         1.000
11447>      RUNOFF VOLUME    (mm)=      70.86        38.81        52.594
11448>      TOTAL RAINFALL   (mm)=      71.66        71.66        71.665
11449>      RUNOFF COEFFICIENT   =        .99          .54          .734
11450>       *** WARNING: Storage Coefficient is smaller than DT!
11451>                    Use a smaller DT or a larger area.
11452>
11453>        (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
11454>            CN* =  75.0    Ia = Dep. Storage  (Above)
11455>       (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
11456>            THAN THE STORAGE COEFFICIENT.
11457>      (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
11458>
11459> ---------------------------------------------------------------------------
11460> 001:0347-----------------------------------------------------------------------
11461> *
11462> *
11463> *#########################
11464> *# OSD 85 L/S/HA  PARK 30 L/S/HA
11465> *#  85*18.51 = 1573.4 L/S
11466> *#  30*0.97 = 29.1 L/S
11467> *#  TOTAL = 1602.5 L/S
11468> *#########################
11469> *
11470> --------------------
11471> | ROUTE RESERVOIR   |    Requested routing time step = 10.0 min.
11472> |  IN>05:(000204)   |
11473> | OUT<08:(000471)   |    =========  OUTLFOW STORAGE TABLE  =========
11474> --------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
11475>                           (cms)    (ha.m.)   |    (cms)    (ha.m.)
11476>                            .000  .0000E+00   |   1.602  .2804E+00
11477>                           1.550  .2000E-02   |    .000  .0000E+00
11478>       *** WARNING: STORAGE-Q values were extrapolated.
11479>                    Increase curve or use overflow option.
11480>
11481>      ROUTING RESULTS            AREA     QPEAK     TPEAK       R.V.
11482>      --------------------        (ha)     (cms)     (hrs)       (mm)
11483>      INFLOW >05: (000204)      19.48     4.669     1.000     52.594
11484>      OUTFLOW<08: (000471)      19.48     1.605     1.500     52.941
11485>
11486>                    PEAK   FLOW   REDUCTION [Qout/Qin](%)=   34.375
11487>                    TIME SHIFT OF PEAK FLOW         (min)=    30.00
11488>                    MAXIMUM  STORAGE   USED       (ha.m.)=.3034E+00
11489>
11490>       *** WARNING: Outflow volume is less than inflow volume.
11491> ---------------------------------------------------------------------------
11492> 001:0348-----------------------------------------------------------------------
11493> *
11494> *# MH 544
11495> --------------------
11496> | SAVE HYD         |   AREA       (ha)=   19.480
11497> | ID=08 (000471)   |   QPEAK     (cms)=    1.605 (i)
11498> | DT=10.00 PCYC=-1 |   TPEAK     (hrs)=    1.500
11499> --------------------   VOLUME     (mm)=   52.941
11500>   Filename: C:\SWMHYMO\111083\2018-0~1\544.045
11501>   Comments: 544-3CHI100
11502>
11503>      (i)  PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
11504> ---------------------------------------------------------------------------
11505> 001:0349-----------------------------------------------------------------------
11506> *
11507> ------------------------
11508> | ADD HYD (       100) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
11509> ------------------------                   (ha)     (cms)  (hrs)  (mm)   (cms)
11510>                       ID1 04:       100    49.29    3.871    1.50  49.95    .000
11511>                      +ID2 08:       471    19.48    1.605    1.50  52.94    .000
11512>                       ============================================================
11513>                       SUM 07:       100    68.77    5.476    1.50  50.80    .000
11514>
11515>    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
11516>
11517> ---------------------------------------------------------------------------
11518> 001:0350-----------------------------------------------------------------------
11519> *
11520> *#########################
11521> *#    DRAINAGE AREA 47 ||
11522> *#                     ||
11523> *#########################
11524> *
11525> *
11526> ----------------------
11527> | CALIB STANDHYD   |   Area    (ha)=    3.79
11528> | 05:000204 DT=10.00 |   Total Imp(%)=   56.00   Dir. Conn.(%)=   35.00
11529> ----------------------
11530>                            IMPERVIOUS    PERVIOUS (i)
11531>      Surface Area     (ha)=       2.12         1.67
11532>      Dep. Storage     (mm)=        .80         1.50
11533>      Average Slope     (%)=        .20         2.00
11534>      Length            (m)=     229.00        40.00
11535>      Mannings n             =       .013         .250
11536>
11537>      Max.eff.Inten.(mm/hr)=     178.56       138.77
11538>                   over (min)       10.00        10.00
11539>      Storage Coeff.  (min)=       5.40 (ii)   11.59 (ii)
11540>      Unit Hyd. Tpeak (min)=      10.00        10.00
11541>      Unit Hyd. peak  (cms)=        .14          .10
11542>                                                          *TOTALS*
11543>      PEAK FLOW       (cms)=        .58          .39          .966 (iii)
11544>      TIME TO PEAK    (hrs)=       1.00         1.00         1.000
11545>      RUNOFF VOLUME    (mm)=      70.86        39.01        50.157
11546>      TOTAL RAINFALL   (mm)=      71.66        71.66        71.665
11547>      RUNOFF COEFFICIENT   =        .99          .54          .700
11548>       *** WARNING: Storage Coefficient is smaller than DT!
11549>                    Use a smaller DT or a larger area.
11550>
11551>        (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
11552>            CN* =  75.0    Ia = Dep. Storage  (Above)
11553>       (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
11554>            THAN THE STORAGE COEFFICIENT.
11555>      (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
11556>
11557> ---------------------------------------------------------------------------
11558> 001:0351-----------------------------------------------------------------------
11559> *
11560> *
11561> *#########################
11562> *# OSD 85 L/S/HA  PARK 30 L/S/HA
11563> *#  85*3.5 = 297.5 L/S
11564> *#  30*0.29 = 8.7 L/S
11565> *#  TOTAL = 306.2 L/S
11566> *#########################
11567> *
11568> --------------------
11569> | ROUTE RESERVOIR   |    Requested routing time step = 10.0 min.
11570> |  IN>05:(000204)   |
11571> | OUT<08:(000471)   |    =========  OUTLFOW STORAGE TABLE  =========
11572> --------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
11573>                           (cms)    (ha.m.)   |    (cms)    (ha.m.)
11574>                            .000  .0000E+00   |     .306  .6031E-01
11575>                            .250  .2000E-02   |     .000  .0000E+00
11576>       *** WARNING: STORAGE-Q values were extrapolated.
11577>                    Increase curve or use overflow option.
11578>
11579>      ROUTING RESULTS            AREA     QPEAK     TPEAK       R.V.
11580>      --------------------        (ha)     (cms)     (hrs)       (mm)
11581>      INFLOW >05: (000204)       3.79      .966     1.000     50.157
11582>      OUTFLOW<08: (000471)       3.79      .307     1.333     50.233
11583>
11584>                    PEAK   FLOW   REDUCTION [Qout/Qin](%)=   31.756
11585>                    TIME SHIFT OF PEAK FLOW         (min)=    20.00
11586>                    MAXIMUM  STORAGE   USED       (ha.m.)=.6188E-01
11587>
11588> ---------------------------------------------------------------------------
11589> 001:0352-----------------------------------------------------------------------
11590> *
11591> *# MH 546
11592> --------------------
11593> | SAVE HYD         |   AREA       (ha)=    3.790
11594> | ID=08 (000471)   |   QPEAK     (cms)=     .307 (i)
11595> | DT=10.00 PCYC=-1 |   TPEAK     (hrs)=    1.333
11596> --------------------   VOLUME     (mm)=   50.233
11597>   Filename: C:\SWMHYMO\111083\2018-0~1\546.045
11598>   Comments: 546-3CHI100
11599>
11600>      (i)  PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
11601> ---------------------------------------------------------------------------
11602> 001:0353-----------------------------------------------------------------------
11603> *
11604> *#########################
11605> *# TRUNK 1
11606> *#########################
11607> *
11608> ------------------------
11609> | ADD HYD (       450) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
11610> ------------------------                   (ha)     (cms)  (hrs)  (mm)   (cms)
11611>                       ID1 08:       471     3.79     .307    1.33  50.23    .000
11612>                      +ID2 07:       100    68.77    5.476    1.50  50.80    .000
11613>                       ============================================================
11614>                       SUM 06:       450    72.56    5.781    1.33  50.77    .000
11615>
11616>    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
11617>
11618> ---------------------------------------------------------------------------
11619> 001:0354-----------------------------------------------------------------------
11620> *
11621> --------------------
11622> | PRINT HYD        |   AREA       (ha)=   72.560
11623> | ID=06 (000450)   |   QPEAK     (cms)=    5.781 (i)
11624> | DT=10.00 PCYC= 1 |   TPEAK     (hrs)=    1.333
11625> --------------------   VOLUME     (mm)=   50.769
11626>
11627>      (i)  PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
11628>   TIME    FLOW |  TIME    FLOW |  TIME    FLOW |  TIME    FLOW |  TIME    FLOW
11629>    hrs     cms |   hrs     cms |   hrs     cms |   hrs     cms |   hrs     cms
11630>     .00    .000|   1.17   5.709|   2.33   4.837|   3.50    .120|   4.67    .002
11631>     .17    .062|   1.33   5.781|   2.50    .664|   3.67    .184|   4.83    .000
11632>     .33    .408|   1.50   5.781|   2.67   1.889|   3.83    .100|   5.00    .000
11633>     .50    .704|   1.67   5.741|   2.83    .391|   4.00    .113|   5.17    .000
11634>     .67   1.149|   1.83   5.679|   3.00   1.619|   4.17    .091|   5.33    .000
11635>     .83   3.030|   2.00   5.604|   3.17    .200|   4.33    .004|
11636>    1.00   5.500|   2.17   5.521|   3.33    .516|   4.50    .001|
11637> ---------------------------------------------------------------------------
11638> 001:0355-----------------------------------------------------------------------
11639> *
11640> *#########################
11641> *# TRUNK 2
11642> *#########################
11643> *
11644> *#########################
11645> *#    DRAINAGE AREA 50 ||
11646> *#   COMMERICAL        ||
11647> *#########################
11648> *
11649> *
11650> ----------------------
11651> | CALIB STANDHYD   |   Area    (ha)=    3.65
11652> | 05:000204 DT=10.00 |   Total Imp(%)=   80.00   Dir. Conn.(%)=   80.00
11653> ----------------------
11654>                            IMPERVIOUS    PERVIOUS (i)
11655>      Surface Area     (ha)=       2.92          .73
11656>      Dep. Storage     (mm)=        .80         1.50
11657>      Average Slope     (%)=        .20         2.00
11658>      Length            (m)=     292.00        40.00
11659>      Mannings n             =       .013         .250
11660>
11661>      Max.eff.Inten.(mm/hr)=     178.56        73.62
11662>                   over (min)       10.00        10.00
11663>      Storage Coeff.  (min)=       6.25 (ii)   14.22 (ii)
11664>      Unit Hyd. Tpeak (min)=      10.00        10.00
11665>      Unit Hyd. peak  (cms)=        .14          .09
11666>                                                          *TOTALS*
11667>      PEAK FLOW       (cms)=       1.21          .08         1.294 (iii)
11668>      TIME TO PEAK    (hrs)=       1.00         1.00         1.000
11669>      RUNOFF VOLUME    (mm)=      70.86        31.80        63.051
11670>      TOTAL RAINFALL   (mm)=      71.66        71.66        71.665
11671>      RUNOFF COEFFICIENT   =        .99          .44          .880
11672>       *** WARNING: Storage Coefficient is smaller than DT!
11673>                    Use a smaller DT or a larger area.
11674>
11675>        (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
11676>            CN* =  75.0    Ia = Dep. Storage  (Above)
11677>       (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
11678>            THAN THE STORAGE COEFFICIENT.
11679>      (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
11680>
11681> ---------------------------------------------------------------------------
11682> 001:0356-----------------------------------------------------------------------
11683> *
11684> *
```

```
*#=========================
*# OSD 85 L/S/HA
*#  85*3.65 = 310.3 L/S
*#=========================
*
---------------------
| ROUTE RESERVOIR   |    Requested routing time step = 10.0 min.
|  IN>05:(000204)   |
| OUT<08:(000471)   |    =========  OUTLFOW STORAGE TABLE  =========
---------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
                           (cms)    (ha.m.)   |    (cms)    (ha.m.)
                            .000  .0000E+00   |     .310  .9484E-01
                            .200  .2000E-02   |     .000  .0000E+00

     ROUTING RESULTS            AREA     QPEAK     TPEAK       R.V.
     ---------------            (ha)     (cms)     (hrs)       (mm)
     INFLOW >05: (000204)       3.65     1.294     1.000     63.051
     OUTFLOW<08: (000471)       3.65      .308     1.333     63.257

                    PEAK   FLOW   REDUCTION [Qout/Qin](%)=   23.848
                    TIME SHIFT OF PEAK FLOW         (min)=    20.00
                    MAXIMUM  STORAGE   USED       (ha.m.)=.9480E-01

--------------------------------------------------------------------------------
001:0357--------------------------------------------------------------------------
*
--------------------
| SHIFT HYD(       874)|
| IN= 8---> OUT= 7     |
| SHIFT=  10.0 min     |      AREA     QPEAK      TPEAK      R.V.
----------------------       (ha)     (cms)      (hrs)      (mm)
          ID= 8:       471      3.65      .308      1.333    63.257
     SHIFT ID= 7:      874      3.65      .308      1.500    63.257

--------------------------------------------------------------------------------
001:0358--------------------------------------------------------------------------
*
*# MH 111
--------------------
| SAVE HYD          |   AREA       (ha)=    3.650
| ID=08 (000471)    |   QPEAK      (cms)=    .308 (i)
| DT=10.00 PCYC=-1  |   TPEAK      (hrs)=   1.333
--------------------   VOLUME       (mm)=   63.257
   Filename: C:\SWMHYMO\111083\2018-0~1\111.045
   Comments: 111-3CHI100

     (i)  PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
--------------------------------------------------------------------------------
001:0359--------------------------------------------------------------------------
*
*#================================================
*# AREA FORMERLY KNOWN AS 51 (EAST OF PORTOBELLO)
*#================================================
*
*#================================================
*# MATTAMY SUMMERSIDE DRAINAGE AREA 19.93 ha - H-114
*# TO MH 112
*#================================================
*
*
--------------------
| READ HYD          |   AREA       (ha)=   17.733
| ID=05 (114   )    |   QPEAK      (cms)=    1.662
| DT= 1.00 PCYC= 1  |   TPEAK      (hrs)=    1.167
--------------------   VOLUME       (mm)=   49.519
   Filename: C:\SWMHYMO\111083\2018-0~1\H-114.045
   Comments: Minor System Outflow to MH 114

  TIME    FLOW |  TIME    FLOW |  TIME    FLOW |  TIME    FLOW |  TIME    FLOW
   hrs     cms |   hrs     cms |   hrs     cms |   hrs     cms |   hrs     cms
   .00    .000|  1.17   1.662|  2.33    .470|  3.50    .028|  4.67    .000
   .02    .000|  1.18   1.662|  2.35    .464|  3.52    .026|  4.68    .000
   .03    .000|  1.20   1.661|  2.37    .457|  3.53    .025|  4.70    .000
   .05    .000|  1.22   1.660|  2.38    .451|  3.55    .023|  4.72    .000
   .07    .000|  1.23   1.659|  2.40    .440|  3.57    .022|  4.73    .000
   .08    .000|  1.25   1.658|  2.42    .432|  3.58    .020|  4.75    .000
   .10    .000|  1.27   1.658|  2.43    .424|  3.60    .019|  4.77    .000
   .12    .000|  1.28   1.657|  2.45    .414|  3.62    .018|  4.78    .000
   .13    .000|  1.30   1.657|  2.47    .408|  3.63    .017|  4.80    .000
   .15    .000|  1.32   1.656|  2.48    .399|  3.65    .016|  4.82    .000
   .17    .000|  1.33   1.655|  2.50    .392|  3.67    .015|  4.83    .000
   .18    .000|  1.35   1.652|  2.52    .386|  3.68    .014|  4.85    .000
   .20    .000|  1.37   1.648|  2.53    .373|  3.70    .013|  4.87    .000
   .22    .000|  1.38   1.643|  2.55    .365|  3.72    .012|  4.88    .000
   .23    .000|  1.40   1.637|  2.57    .359|  3.73    .012|  4.90    .000
   .25    .011|  1.42   1.632|  2.58    .355|  3.75    .011|  4.92    .000
   .27    .042|  1.43   1.609|  2.60    .351|  3.77    .010|  4.93    .000
   .28    .080|  1.45   1.594|  2.62    .348|  3.78    .010|  4.95    .000
   .30    .112|  1.47   1.585|  2.63    .346|  3.80    .009|  4.97    .000
   .32    .135|  1.48   1.576|  2.65    .343|  3.82    .009|  4.98    .000
   .33    .150|  1.50   1.565|  2.67    .341|  3.83    .008|  5.00    .000
   .35    .167|  1.52   1.554|  2.68    .338|  3.85    .008|  5.02    .000
   .37    .188|  1.53   1.542|  2.70    .333|  3.87    .007|  5.03    .000
   .38    .205|  1.55   1.532|  2.72    .329|  3.88    .007|  5.05    .000
   .40    .219|  1.57   1.523|  2.73    .324|  3.90    .006|  5.07    .000
   .42    .228|  1.58   1.505|  2.75    .305|  3.92    .006|  5.08    .000
   .43    .234|  1.60   1.489|  2.77    .289|  3.93    .006|  5.10    .000
   .45    .239|  1.62   1.476|  2.78    .283|  3.95    .005|  5.12    .000
   .47    .242|  1.63   1.460|  2.80    .280|  3.97    .005|  5.13    .000
   .48    .245|  1.65   1.425|  2.82    .278|  3.98    .005|  5.15    .000
   .50    .247|  1.67   1.411|  2.83    .276|  4.00    .004|  5.17    .000
   .52    .265|  1.68   1.400|  2.85    .274|  4.02    .004|  5.18    .000
   .53    .298|  1.70   1.384|  2.87    .270|  4.03    .004|  5.20    .000
   .55    .327|  1.72   1.353|  2.88    .266|  4.05    .004|  5.22    .000
   .57    .349|  1.73   1.316|  2.90    .263|  4.07    .004|  5.23    .000
   .58    .364|  1.75   1.296|  2.92    .261|  4.08    .003|  5.25    .000
   .60    .375|  1.77   1.284|  2.93    .259|  4.10    .003|  5.27    .000
   .62    .382|  1.78   1.276|  2.95    .257|  4.12    .003|  5.28    .000
   .63    .388|  1.80   1.269|  2.97    .255|  4.13    .003|  5.30    .000
   .65    .393|  1.82   1.263|  2.98    .254|  4.15    .003|  5.32    .000
   .67    .396|  1.83   1.246|  3.00    .252|  4.17    .002|  5.33    .000
   .68    .469|  1.85   1.235|  3.02    .237|  4.18    .002|  5.35    .000
   .70    .604|  1.87   1.216|  3.03    .209|  4.20    .002|  5.37    .000
   .72    .714|  1.88   1.198|  3.05    .183|  4.22    .002|  5.38    .000
   .73    .799|  1.90   1.184|  3.07    .162|  4.23    .002|  5.40    .000
   .75    .856|  1.92   1.172|  3.08    .147|  4.25    .002|  5.42    .000
   .77    .896|  1.93   1.152|  3.10    .136|  4.27    .002|  5.43    .000
   .78    .926|  1.95   1.143|  3.12    .126|  4.28    .002|  5.45    .000
   .80    .951|  1.97   1.126|  3.13    .118|  4.30    .002|  5.47    .000
   .82    .972|  1.98   1.106|  3.15    .111|  4.32    .001|  5.48    .000
   .83    .991|  2.00   1.098|  3.17    .104|  4.33    .001|  5.50    .000
   .85   1.168|  2.02   1.088|  3.18    .097|  4.35    .001|  5.52    .000
   .87   1.337|  2.03    .614|  3.20    .092|  4.37    .001|  5.53    .000
   .88   1.513|  2.05    .601|  3.22    .086|  4.38    .001|  5.55    .000
   .90   1.545|  2.07    .589|  3.23    .081|  4.40    .001|  5.57    .000
   .92   1.577|  2.08    .580|  3.25    .076|  4.42    .001|  5.58    .000
   .93   1.604|  2.10    .572|  3.27    .071|  4.43    .001|  5.60    .000
   .95   1.620|  2.12    .561|  3.28    .066|  4.45    .001|  5.62    .000
   .97   1.629|  2.13    .549|  3.30    .062|  4.47    .001|  5.63    .000
   .98   1.636|  2.15    .541|  3.32    .058|  4.48    .001|  5.65    .000
  1.00   1.643|  2.17    .535|  3.33    .054|  4.50    .001|  5.67    .000
  1.02   1.644|  2.18    .527|  3.35    .050|  4.52    .001|  5.68    .000
  1.03   1.642|  2.20    .517|  3.37    .047|  4.53    .001|  5.70    .000
  1.05   1.642|  2.22    .509|  3.38    .044|  4.55    .001|  5.72    .000
  1.07   1.644|  2.23    .501|  3.40    .041|  4.57    .001|  5.73    .000
  1.08   1.647|  2.25    .494|  3.42    .039|  4.58    .001|
  1.10   1.650|  2.27    .488|  3.43    .036|  4.60    .001|
  1.12   1.654|  2.28    .483|  3.45    .034|  4.62    .001|
  1.13   1.657|  2.30    .478|  3.47    .032|  4.63    .000|
  1.15   1.660|  2.32    .474|  3.48    .030|  4.65    .000|
--------------------------------------------------------------------------------
001:0360--------------------------------------------------------------------------
*
*
*# MH 112
--------------------
| SAVE HYD          |   AREA       (ha)=   17.733
| ID=05 (114   )    |   QPEAK      (cms)=    1.662 (i)
| DT= 1.00 PCYC=-1  |   TPEAK      (hrs)=    1.167
--------------------   VOLUME       (mm)=   49.519
   Filename: C:\SWMHYMO\111083\2018-0~1\112.045
   Comments: 112-3CHI100

     (i)  PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
--------------------------------------------------------------------------------
001:0361--------------------------------------------------------------------------
*
*
*
*#===============
*# ADD TO AREA 50
*
-----------------------
| ADD HYD (       846) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
-----------------------                    (ha)     (cms)   (hrs)   (mm)   (cms)
                        ID1 07:       874     3.65     .308    1.50  63.26    .000
                       +ID2 05:114           17.73    1.662    1.17  49.52    .000
                        ==========================================================
                        SUM 04:       846    21.38    1.948    1.33  51.86    .000

   NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

--------------------------------------------------------------------------------
001:0362--------------------------------------------------------------------------
*#=======================
*#    DRAINAGE AREA 53 ||
*#                     ||
*#=======================
*
*
----------------------
| CALIB STANDHYD     |   Area    (ha)=   17.48
| 08:000204 DT=10.00 |   Total Imp(%)=   56.00   Dir. Conn.(%)=   42.00
----------------------
                              IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=       9.79         7.69
     Dep. Storage     (mm)=        .80         1.50
     Average Slope     (%)=        .20         2.00
     Length            (m)=     447.00        40.00
     Mannings n             =       .013         .250

     Max.eff.Inten.(mm/hr)=     178.56        81.56
                  over (min)      10.00        20.00
     Storage Coeff.  (min)=       8.06 (ii)   15.72 (ii)
     Unit Hyd. Tpeak (min)=      10.00        20.00
     Unit Hyd. peak  (cms)=        .12          .06
                                                          *TOTALS*
     PEAK FLOW       (cms)=       2.78         1.19          3.365 (iii)
     TIME TO PEAK    (hrs)=       1.00         1.17          1.000
     RUNOFF VOLUME    (mm)=      70.86        36.91         51.172
     TOTAL RAINFALL   (mm)=      71.66        71.66         71.665
     RUNOFF COEFFICIENT   =        .99          .52           .714
      *** WARNING: Storage Coefficient is smaller than DT!
                   Use a smaller DT or a larger area.

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN* =  75.0    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

--------------------------------------------------------------------------------
001:0363--------------------------------------------------------------------------
*
*
*#=========================
*# OSD 85 L/S/HA  PARK 30 L/S/HA
*#  85*16.42 = 1395.7 L/S
*#  30*1.06 = 31.8 L/S
*#  TOTAL = 1428 L/S
*#=========================
*
---------------------
| ROUTE RESERVOIR   |    Requested routing time step = 10.0 min.
|  IN>08:(000204)   |
| OUT<05:(000471)   |    =========  OUTLFOW STORAGE TABLE  =========
---------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
                           (cms)    (ha.m.)   |    (cms)    (ha.m.)
                            .000  .0000E+00   |    1.428  .2308E+00
                           1.400  .2000E-02   |     .000  .0000E+00

     ROUTING RESULTS            AREA     QPEAK     TPEAK       R.V.
     ---------------            (ha)     (cms)     (hrs)       (mm)
     INFLOW >08: (000204)      17.48     3.365     1.000     51.172
     OUTFLOW<05: (000471)      17.48     1.427     1.500     52.562

                    PEAK   FLOW   REDUCTION [Qout/Qin](%)=   42.407
                    TIME SHIFT OF PEAK FLOW         (min)=    30.00
                    MAXIMUM  STORAGE   USED       (ha.m.)=.2276E+00

      *** WARNING: Outflow volume is less than inflow volume.
--------------------------------------------------------------------------------
001:0364--------------------------------------------------------------------------
*
*# MH 110
--------------------
| SAVE HYD          |   AREA       (ha)=   17.480
| ID=05 (000471)    |   QPEAK      (cms)=    1.427 (i)
| DT=10.00 PCYC=-1  |   TPEAK      (hrs)=    1.500
--------------------   VOLUME       (mm)=   52.562
   Filename: C:\SWMHYMO\111083\2018-0~1\110.045
   Comments: 110-3CHI100

     (i)  PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
```

```
11939> ------------------------------------------------------------------------------
11940> 001:0365-------------------------------------------------------------------
11941> *
11942> ------------------------
11943> | ADD HYD (       584) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
11944> ------------------------                  (ha)     (cms)   (hrs)   (mm)    (cms)
11945>                      ID1 05:       471    17.48    1.427    1.50  52.56    .000
11946>                     +ID2 04:       846    21.38    1.948    1.33  51.86    .000
11947>                      ==========================================================
11948>                      SUM 08:       584    38.86    3.374    1.33  52.18    .000
11949>
11950>    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
11951>
11952> ------------------------------------------------------------------------------
11953> 001:0366-------------------------------------------------------------------
11954> *
11955> *#================================================
11956> *# AREA FORMERLY KNOWN AS 52 (EAST OF PORTOBELLO)
11957> *#================================================
11958> *
11959> *#================================================
11960> *# MATTAMY SUMMERSIDE DRAINAGE AREA 6.13 ha - H-217 - MINOR
11961> *#================================================
11962> *
11963> *
11964> --------------------
11965> | READ HYD          |   AREA       (ha)=    5.081
11966> | ID=03 (000217)    |   QPEAK     (cms)=     .511
11967> | DT= 1.00 PCYC= 1  |   TPEAK      (hrs)=   1.167
11968> --------------------   VOLUME      (mm)=   52.105
11969>   Filename: C:\SWMHYMO\111083\2018-0~1\H-217.045
11970>   Comments: Minor System Outflow to MH 217
11971>
11972>   TIME    FLOW |  TIME    FLOW |  TIME    FLOW |  TIME    FLOW |  TIME    FLOW
11973>    hrs     cms |   hrs     cms |   hrs     cms |   hrs     cms |   hrs     cms
11974>    .00    .000|   1.02    .499|   2.03    .240|   3.05    .050|   4.07    .001
11975>    .02    .000|   1.03    .497|   2.05    .232|   3.07    .043|   4.08    .000
11976>    .03    .000|   1.05    .498|   2.07    .227|   3.08    .038|   4.10    .000
11977>    .05    .000|   1.07    .500|   2.08    .224|   3.10    .034|   4.12    .000
11978>    .07    .000|   1.08    .502|   2.10    .222|   3.12    .032|   4.13    .000
11979>    .08    .000|   1.10    .504|   2.12    .220|   3.13    .030|   4.15    .000
11980>    .10    .000|   1.12    .506|   2.13    .219|   3.15    .028|   4.17    .000
11981>    .12    .000|   1.13    .508|   2.15    .216|   3.17    .026|   4.18    .000
11982>    .13    .000|   1.15    .510|   2.17    .201|   3.18    .024|   4.20    .000
11983>    .15    .000|   1.17    .511|   2.18    .193|   3.20    .023|   4.22    .000
11984>    .17    .000|   1.18    .510|   2.20    .188|   3.22    .021|   4.23    .000
11985>    .18    .000|   1.20    .510|   2.22    .185|   3.23    .020|   4.25    .000
11986>    .20    .000|   1.22    .509|   2.23    .183|   3.25    .018|   4.27    .000
11987>    .22    .000|   1.23    .509|   2.25    .181|   3.27    .017|   4.28    .000
11988>    .23    .000|   1.25    .508|   2.27    .179|   3.28    .016|   4.30    .000
11989>    .25    .004|   1.27    .508|   2.28    .176|   3.30    .014|   4.32    .000
11990>    .27    .017|   1.28    .507|   2.30    .163|   3.32    .013|   4.33    .000
11991>    .28    .033|   1.30    .506|   2.32    .153|   3.33    .012|   4.35    .000
11992>    .30    .046|   1.32    .505|   2.33    .149|   3.35    .011|   4.37    .000
11993>    .32    .053|   1.33    .504|   2.35    .147|   3.37    .011|   4.38    .000
11994>    .33    .058|   1.35    .502|   2.37    .144|   3.38    .010|   4.40    .000
11995>    .35    .063|   1.37    .498|   2.38    .141|   3.40    .009|   4.42    .000
11996>    .37    .070|   1.38    .489|   2.40    .140|   3.42    .008|   4.43    .000
11997>    .38    .076|   1.40    .481|   2.42    .138|   3.43    .008|   4.45    .000
11998>    .40    .080|   1.42    .472|   2.43    .137|   3.45    .007|   4.47    .000
11999>    .42    .083|   1.43    .461|   2.45    .136|   3.47    .007|   4.48    .000
12000>    .43    .084|   1.45    .456|   2.47    .135|   3.48    .006|   4.50    .000
12001>    .45    .085|   1.47    .452|   2.48    .135|   3.50    .006|   4.52    .000
12002>    .47    .085|   1.48    .450|   2.50    .131|   3.52    .005|   4.53    .000
12003>    .48    .085|   1.50    .447|   2.52    .124|   3.53    .005|   4.55    .000
12004>    .50    .086|   1.52    .442|   2.53    .120|   3.55    .005|   4.57    .000
12005>    .52    .092|   1.53    .433|   2.55    .118|   3.57    .004|   4.58    .000
12006>    .53    .106|   1.55    .426|   2.57    .116|   3.58    .004|   4.60    .000
12007>    .55    .118|   1.57    .422|   2.58    .115|   3.60    .004|   4.62    .000
12008>    .57    .125|   1.58    .418|   2.60    .114|   3.62    .003|   4.63    .000
12009>    .58    .130|   1.60    .415|   2.62    .113|   3.63    .003|   4.65    .000
12010>    .60    .133|   1.62    .412|   2.63    .113|   3.65    .003|   4.67    .000
12011>    .62    .135|   1.63    .410|   2.65    .112|   3.67    .003|   4.68    .000
12012>    .63    .136|   1.65    .407|   2.67    .111|   3.68    .003|   4.70    .000
12013>    .65    .137|   1.67    .405|   2.68    .110|   3.70    .002|   4.72    .000
12014>    .67    .137|   1.68    .400|   2.70    .109|   3.72    .002|   4.73    .000
12015>    .68    .166|   1.70    .393|   2.72    .108|   3.73    .002|   4.75    .000
12016>    .70    .223|   1.72    .379|   2.73    .106|   3.75    .002|   4.77    .000
12017>    .72    .269|   1.73    .350|   2.75    .106|   3.77    .002|   4.78    .000
12018>    .73    .294|   1.75    .328|   2.77    .105|   3.78    .002|   4.80    .000
12019>    .75    .309|   1.77    .311|   2.78    .104|   3.80    .002|   4.82    .000
12020>    .77    .318|   1.78    .304|   2.80    .104|   3.82    .001|   4.83    .000
12021>    .78    .324|   1.80    .299|   2.82    .103|   3.83    .001|   4.85    .000
12022>    .80    .329|   1.82    .296|   2.83    .103|   3.85    .001|   4.87    .000
12023>    .82    .333|   1.83    .293|   2.85    .102|   3.87    .001|   4.88    .000
12024>    .83    .337|   1.85    .289|   2.87    .101|   3.88    .001|   4.90    .000
12025>    .85    .399|   1.87    .284|   2.88    .100|   3.90    .001|   4.92    .000
12026>    .87    .417|   1.88    .280|   2.90    .099|   3.92    .001|   4.93    .000
12027>    .88    .433|   1.90    .276|   2.92    .098|   3.93    .001|   4.95    .000
12028>    .90    .449|   1.92    .273|   2.93    .098|   3.95    .001|   4.97    .000
12029>    .92    .464|   1.93    .259|   2.95    .097|   3.97    .001|   4.98    .000
12030>    .93    .476|   1.95    .254|   2.97    .097|   3.98    .001|
12031>    .95    .482|   1.97    .251|   2.98    .097|   4.00    .001|
12032>    .97    .487|   1.98    .249|   3.00    .096|   4.02    .001|
12033>    .98    .493|   2.00    .247|   3.02    .083|   4.03    .001|
12034>   1.00    .498|   2.02    .244|   3.03    .062|   4.05    .001|
12035> ------------------------------------------------------------------------------
12036> 001:0367-------------------------------------------------------------------
12037> *
12038> *
12039> *
12040> *#=======================
12041> *#    DRAINAGE AREA 54 ||
12042> *#                     ||
12043> *#=======================
12044> *
12045> *
12046> ----------------------
12047> | CALIB STANDHYD     |   Area    (ha)=   13.08
12048> | 04:000204 DT=10.00 |   Total Imp(%)=   50.00   Dir. Conn.(%)=   29.00
12049> ----------------------
12050>                                IMPERVIOUS    PERVIOUS (i)
12051>      Surface Area     (ha)=       6.54         6.54
12052>      Dep. Storage     (mm)=        .80         1.50
12053>      Average Slope     (%)=        .20         2.00
12054>      Length            (m)=     475.00        40.00
12055>      Mannings n             =      .013         .250
12056>
12057>      Max.eff.Inten.(mm/hr)=     178.56        91.47
12058>                   over (min)      10.00        20.00
12059>      Storage Coeff.  (min)=       8.36 (ii)   15.68 (ii)
12060>      Unit Hyd. Tpeak (min)=      10.00        20.00
12061>      Unit Hyd. peak  (cms)=        .12          .06
12062>                                                          *TOTALS*
12063>      PEAK FLOW       (cms)=       1.42         1.14          1.978 (iii)
12064>      TIME TO PEAK    (hrs)=       1.00         1.17          1.000
12065>      RUNOFF VOLUME    (mm)=      70.86        38.28         47.731
12066>      TOTAL RAINFALL   (mm)=      71.66        71.66         71.665
12067>      RUNOFF COEFFICIENT  =        .99          .53           .666
12068>       *** WARNING: Storage Coefficient is smaller than DT!
12069>                    Use a smaller DT or a larger area.
12070>
12071>       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
12072>           CN* =  75.0    Ia = Dep. Storage  (Above)
12073>       (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
12074>            THAN THE STORAGE COEFFICIENT.
12075>      (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
12076>
12077> ------------------------------------------------------------------------------
12078> 001:0368-------------------------------------------------------------------
12079> *
12080> *
12081> *#=========================
12082> *# OSD 85 L/S/HA 30 L/S/HA
12083> *#  85*10.89 = 925.7 L/S
12084> *#  30*2.19 = 65.7 L/S
12085> *#  TOTAL = 991.4 L/S
12086> *#=========================
12087> *
12088> ---------------------
12089> | ROUTE RESERVOIR   |    Requested routing time step = 10.0 min.
12090> |  IN>04:(000204)   |
12091> | OUT<05:(000471)   |    =========  OUTFLOW STORAGE TABLE  =========
12092> ---------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
12093>                            (cms)    (ha.m.)   |    (cms)    (ha.m.)
12094>                             .000  .0000E+00   |     .991  .1455E+00
12095>                             .950  .2000E-02   |     .000  .0000E+00
12096>       *** WARNING: STORAGE-Q values were extrapolated.
12097>                    Increase curve or use overflow option.
12098>
12099>       ROUTING RESULTS            AREA     QPEAK     TPEAK       R.V.
12100>       --------------------       (ha)     (cms)     (hrs)       (mm)
12101>       INFLOW >04: (000204)      13.08     1.978     1.000     47.731
12102>       OUTFLOW<05: (000471)      13.08      .992     1.500     48.002
12103>
12104>                    PEAK   FLOW   REDUCTION [Qout/Qin](%)=   50.164
12105>                    TIME SHIFT OF PEAK FLOW         (min)=    30.00
12106>                    MAXIMUM  STORAGE   USED       (ha.m.)=.1479E+00
12107>
12108>       *** WARNING: Outflow volume is less than inflow volume.
12109> ------------------------------------------------------------------------------
12110> 001:0369-------------------------------------------------------------------
12111> *
12112> *# ADD AREA 52 AND 54
12113> *
12114> ------------------------
12115> | ADD HYD (       463) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
12116> ------------------------                  (ha)     (cms)   (hrs)   (mm)   (cms)
12117>                      ID1 03:       217     5.08     .511    1.17  52.11    .000
12118>                     +ID2 05:       471    13.08     .992    1.50  48.00    .000
12119>                      ==========================================================
12120>                      SUM 09:       463    18.16    1.493    1.32  49.15    .000
12121>
12122>    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
12123>
12124> ------------------------------------------------------------------------------
12125> 001:0370-------------------------------------------------------------------
12126> *
12127> --------------------
12128> | PRINT HYD         |   AREA       (ha)=   18.161
12129> | ID=09 (000463)    |   QPEAK     (cms)=    1.493 (i)
12130> | DT= 1.00 PCYC= 1  |   TPEAK      (hrs)=   1.317
12131> --------------------   VOLUME      (mm)=   49.150
12132>
12133>      (i)  PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
12134>   TIME    FLOW |  TIME    FLOW |  TIME    FLOW |  TIME    FLOW |  TIME    FLOW
12135>    hrs     cms |   hrs     cms |   hrs     cms |   hrs     cms |   hrs     cms
12136>    .00    .000|   1.15   1.484|   2.30   1.119|   3.45    .052|   4.60    .001
12137>    .02    .001|   1.17   1.487|   2.32   1.108|   3.47    .036|   4.62    .001
12138>    .03    .002|   1.18   1.488|   2.33   1.102|   3.48    .021|   4.63    .001
12139>    .05    .003|   1.20   1.488|   2.35   1.004|   3.50    .006|   4.65    .001
12140>    .07    .003|   1.22   1.489|   2.37    .906|   3.52    .009|   4.67    .001
12141>    .08    .004|   1.23   1.490|   2.38    .809|   3.53    .013|   4.68    .001
12142>    .10    .005|   1.25   1.490|   2.40    .712|   3.55    .016|   4.70    .001
12143>    .12    .006|   1.27   1.491|   2.42    .615|   3.57    .019|   4.72    .001
12144>    .13    .007|   1.28   1.492|   2.43    .518|   3.58    .023|   4.73    .001
12145>    .15    .008|   1.30   1.492|   2.45    .422|   3.60    .026|   4.75    .000
12146>    .17    .009|   1.32   1.493|   2.47    .326|   3.62    .030|   4.77    .000
12147>    .18    .013|   1.33   1.492|   2.48    .230|   3.63    .034|   4.78    .000
12148>    .20    .018|   1.35   1.491|   2.50    .131|   3.65    .037|   4.80    .000
12149>    .22    .023|   1.37   1.487|   2.52    .166|   3.67    .041|   4.82    .000
12150>    .23    .028|   1.38   1.479|   2.53    .205|   3.68    .037|   4.83    .000
12151>    .25    .037|   1.40   1.471|   2.55    .244|   3.70    .033|   4.85    .000
12152>    .27    .055|   1.42   1.463|   2.57    .285|   3.72    .029|   4.87    .000
12153>    .28    .075|   1.43   1.451|   2.58    .326|   3.73    .025|   4.88    .000
12154>    .30    .092|   1.45   1.446|   2.60    .368|   3.75    .021|   4.90    .000
12155>    .32    .105|   1.47   1.444|   2.62    .409|   3.77    .017|   4.92    .000
12156>    .33    .114|   1.48   1.441|   2.63    .451|   3.78    .013|   4.93    .000
12157>    .35    .123|   1.50   1.439|   2.65    .492|   3.80    .009|   4.95    .000
12158>    .37    .135|   1.52   1.434|   2.67    .534|   3.82    .005|   4.97    .000
12159>    .38    .145|   1.53   1.424|   2.68    .492|   3.83    .001|   4.98    .000
12160>    .40    .153|   1.55   1.417|   2.70    .449|   3.85    .002|   5.00    .000
12161>    .42    .159|   1.57   1.413|   2.72    .406|   3.87    .003|   5.02    .000
12162>    .43    .164|   1.58   1.409|   2.73    .363|   3.88    .004|   5.03    .000
12163>    .45    .169|   1.60   1.406|   2.75    .321|   3.90    .005|   5.05    .000
12164>    .47    .174|   1.62   1.403|   2.77    .279|   3.92    .006|   5.07    .000
12165>    .48    .178|   1.63   1.400|   2.78    .236|   3.93    .007|   5.08    .000
12166>    .50    .183|   1.65   1.397|   2.80    .194|   3.95    .008|   5.10    .000
12167>    .52    .195|   1.67   1.395|   2.82    .152|   3.97    .009|   5.12    .000
12168>    .53    .215|   1.68   1.389|   2.83    .110|   3.98    .010|   5.13    .000
12169>    .55    .233|   1.70   1.381|   2.85    .142|   4.00    .011|   5.15    .000
12170>    .57    .247|   1.72   1.367|   2.87    .173|   4.02    .010|   5.17    .000
12171>    .58    .258|   1.73   1.337|   2.88    .204|   4.03    .009|   5.18    .000
12172>    .60    .267|   1.75   1.314|   2.90    .236|   4.05    .008|   5.20    .000
12173>    .62    .275|   1.77   1.297|   2.92    .268|   4.07    .007|   5.22    .000
12174>    .63    .282|   1.78   1.289|   2.93    .299|   4.08    .006|   5.23    .000
12175>    .65    .289|   1.80   1.284|   2.95    .331|   4.10    .005|   5.25    .000
12176>    .67    .296|   1.82   1.280|   2.97    .363|   4.12    .003|   5.27    .000
12177>    .68    .348|   1.83   1.276|   2.98    .395|   4.13    .002|   5.28    .000
12178>    .70    .430|   1.85   1.272|   3.00    .427|   4.15    .001|   5.30    .000
12179>    .72    .500|   1.87   1.266|   3.02    .381|   4.17    .000|   5.32    .000
12180>    .73    .550|   1.88   1.260|   3.03    .327|   4.18    .001|   5.33    .000
12181>    .75    .589|   1.90   1.256|   3.05    .282|   4.20    .001|   5.35    .000
12182>    .77    .622|   1.92   1.252|   3.07    .241|   4.22    .001|   5.37    .000
12183>    .78    .653|   1.93   1.237|   3.08    .203|   4.23    .001|   5.38    .000
12184>    .80    .682|   1.95   1.231|   3.10    .167|   4.25    .002|   5.40    .000
12185>    .82    .711|   1.97   1.227|   3.12    .131|   4.27    .002|   5.42    .000
12186>    .83    .739|   1.98   1.224|   3.13    .096|   4.28    .002|   5.43    .000
12187>    .85    .857|   2.00   1.221|   3.15    .061|   4.30    .002|   5.45    .000
12188>    .87    .931|   2.02   1.217|   3.17    .026|   4.32    .003|   5.47    .000
12189>    .88   1.002|   2.03   1.213|   3.18    .039|   4.33    .003|   5.48    .000
12190>    .90   1.074|   2.05   1.203|   3.20    .052|   4.35    .003|   5.50    .000
12191>    .92   1.144|   2.07   1.197|   3.22    .066|   4.37    .002|   5.52    .000
12192>    .93   1.212|   2.08   1.194|   3.23    .079|   4.38    .002|   5.53    .000
```

```
12193>     .95   1.273|   2.10   1.191|   3.25    .093|   4.40    .002|   5.55    .000
12194>     .97   1.334|   2.12   1.188|   3.27    .106|   4.42    .002|   5.57    .000
12195>     .98   1.396|   2.13   1.185|   3.28    .120|   4.43    .001|   5.58    .000
12196>    1.00   1.456|   2.15   1.181|   3.30    .133|   4.45    .001|   5.60    .000
12197>    1.02   1.459|   2.17   1.165|   3.32    .147|   4.47    .001|   5.62    .000
12198>    1.03   1.460|   2.18   1.156|   3.33    .161|   4.48    .000|   5.63    .000
12199>    1.05   1.462|   2.20   1.150|   3.35    .145|   4.50    .000|   5.65    .000
12200>    1.07   1.465|   2.22   1.146|   3.37    .130|   4.52    .000|   5.67    .000
12201>    1.08   1.469|   2.23   1.142|   3.38    .114|   4.53    .000|   5.68    .000
12202>    1.10   1.473|   2.25   1.139|   3.40    .098|   4.55    .000|   5.70    .000
12203>    1.12   1.477|   2.27   1.137|   3.42    .083|   4.57    .000|   5.72    .000
12204>    1.13   1.481|   2.28   1.133|   3.43    .067|   4.58    .000|
12205> --------------------------------------------------------------------------------
12206> 001:0371-------------------------------------------------------------------------
12207> *
12208> *# MH 107
12209> --------------------
12210> | SAVE HYD        |   AREA       (ha)=   18.161
12211> | ID=09 (000463)  |   QPEAK     (cms)=    1.493 (i)
12212> | DT= 1.00 PCYC=-1 |   TPEAK     (hrs)=    1.317
12213> --------------------   VOLUME      (mm)=   49.150
12214>   Filename: C:\SWMHYMO\111083\2018-0~1\107.045
12215>   Comments: 107-3CHI100
12216>
12217>      (i)  PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
12218> --------------------------------------------------------------------------------
12219> 001:0372-------------------------------------------------------------------------
12220> *
12221> *# ADD TO REST
12222> *
12223> ------------------------
12224> | ADD HYD (       463) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
12225> ------------------------                   (ha)     (cms)   (hrs)   (mm)   (cms)
12226>                       ID1 09:       463    18.16    1.493    1.32  49.15    .000
12227>                      +ID2 08:       584    38.86    3.374    1.33  52.18    .000
12228>                       ========================================================
12229>                       SUM 05:       463    57.02    4.867    1.33  51.21    .000
12230>
12231>    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
12232>
12233> --------------------------------------------------------------------------------
12234> 001:0373-------------------------------------------------------------------------
12235> *
12236> *
12237> *#=======================
12238> *#    DRAINAGE AREA 55 ||
12239> *#                     ||
12240> *#=======================
12241> *
12242> *
12243> ----------------------
12244> | CALIB STANDHYD     |   Area    (ha)=   15.69
12245> | 01:000204 DT=10.00 |   Total Imp(%)=   60.00   Dir. Conn.(%)=   37.00
12246> ----------------------
12247>                              IMPERVIOUS    PERVIOUS (i)
12248>      Surface Area     (ha)=       9.41         6.28
12249>      Dep. Storage     (mm)=        .80         1.50
12250>      Average Slope     (%)=        .20         2.00
12251>      Length            (m)=     530.00        40.00
12252>      Mannings n           =       .013         .250
12253>
12254>      Max.eff.Inten.(mm/hr)=     178.56       107.00
12255>                 over (min)=      10.00        20.00
12256>      Storage Coeff.  (min)=       8.93 (ii)   15.80 (ii)
12257>      Unit Hyd. Tpeak (min)=      10.00        20.00
12258>      Unit Hyd. peak  (cms)=        .11          .06
12259>                                                          *TOTALS*
12260>      PEAK FLOW       (cms)=       2.11         1.28         2.743 (iii)
12261>      TIME TO PEAK    (hrs)=       1.00         1.17         1.000
12262>      RUNOFF VOLUME    (mm)=      70.86        40.17        51.529
12263>      TOTAL RAINFALL   (mm)=      71.66        71.66        71.665
12264>      RUNOFF COEFFICIENT   =        .99          .56          .719
12265>       *** WARNING: Storage Coefficient is smaller than DT!
12266>                    Use a smaller DT or a larger area.
12267>
12268>       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
12269>           CN* =  75.0    Ia = Dep. Storage  (Above)
12270>      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
12271>           THAN THE STORAGE COEFFICIENT.
12272>     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
12273>
12274> --------------------------------------------------------------------------------
12275> 001:0374-------------------------------------------------------------------------
12276> *
12277> *
12278> *#=========================
12279> *# OSD 85 L/S/HA
12280> *#  85*15.69 = 1334 L/S
12281> *#=========================
12282> *
12283> ---------------------
12284> | ROUTE RESERVOIR   |    Requested routing time step = 10.0 min.
12285> |  IN>01:(000204)   |
12286> | OUT<09:(000471)   |    =========  OUTLFOW STORAGE TABLE  =========
12287> ---------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
12288>                            (cms)     (ha.m.)   |    (cms)    (ha.m.)
12289>                             .000  .0000E+00    |    1.334  .1825E+00
12290>                            1.300  .2000E-02    |    .000  .0000E+00
12291>      *** WARNING: STORAGE-Q values were extrapolated.
12292>                   Increase curve or use overflow option.
12293>
12294>      ROUTING RESULTS            AREA     QPEAK     TPEAK       R.V.
12295>      --------------------        (ha)     (cms)     (hrs)       (mm)
12296>      INFLOW >01: (000204)      15.69     2.743     1.000     51.529
12297>      OUTFLOW<09: (000471)      15.69     1.335     1.500     52.034
12298>
12299>                    PEAK   FLOW   REDUCTION [Qout/Qin](%)=   48.668
12300>                    TIME SHIFT OF PEAK FLOW         (min)=    30.00
12301>                    MAXIMUM  STORAGE   USED       (ha.m.)=.1894E+00
12302>
12303>      *** WARNING: Outflow volume is less than inflow volume.
12304> --------------------------------------------------------------------------------
12305> 001:0375-------------------------------------------------------------------------
12306> *
12307> *# MH 105
12308> --------------------
12309> | SAVE HYD        |   AREA       (ha)=   15.690
12310> | ID=09 (000471)  |   QPEAK     (cms)=    1.335 (i)
12311> | DT=10.00 PCYC=-1 |   TPEAK     (hrs)=    1.500
12312> --------------------   VOLUME      (mm)=   52.034
12313>   Filename: C:\SWMHYMO\111083\2018-0~1\105.045
12314>   Comments: 105-3CHI100
12315>
12316>      (i)  PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
12317> --------------------------------------------------------------------------------
12318> 001:0376-------------------------------------------------------------------------
12319> *
12320> *# TRUNK 2
12321> *
12322> ------------------------
12323> | ADD HYD (       874) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
12324> ------------------------                   (ha)     (cms)   (hrs)   (mm)   (cms)
12325>                       ID1 09:       471    15.69    1.335    1.50  52.03    .000
12326>                      +ID2 05:       463    57.02    4.867    1.33  51.21    .000
12327>                       ========================================================
12328>                       SUM 04:       874    72.71    6.200    1.33  51.39    .000
12329>
12330>    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
12331>
12332> --------------------------------------------------------------------------------
12333> 001:0377-------------------------------------------------------------------------
12334> *
12335> *
12336> --------------------
12337> | PRINT HYD       |   AREA       (ha)=   72.714
12338> | ID=04 (000874)  |   QPEAK     (cms)=    6.200 (i)
12339> | DT= 1.00 PCYC= 1 |   TPEAK     (hrs)=    1.333
12340> --------------------   VOLUME      (mm)=   51.391
12341>
12342>      (i)  PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
12343>   TIME    FLOW |  TIME    FLOW |  TIME    FLOW |  TIME    FLOW |  TIME    FLOW
12344>    hrs     cms |   hrs     cms |   hrs     cms |   hrs     cms |   hrs     cms
12345>     .00    .000|   1.15   6.123|   2.30   4.112|   3.45    .201|   4.60    .002
12346>     .02    .004|   1.17   6.134|   2.32   4.037|   3.47    .149|   4.62    .002
12347>     .03    .008|   1.18   6.142|   2.33   3.969|   3.48    .097|   4.63    .003
12348>     .05    .012|   1.20   6.149|   2.35   3.650|   3.50    .045|   4.65    .003
12349>     .07    .015|   1.22   6.155|   2.37   3.331|   3.52    .054|   4.67    .003
12350>     .08    .019|   1.23   6.161|   2.38   3.012|   3.53    .064|   4.68    .003
12351>     .10    .023|   1.25   6.168|   2.40   2.690|   3.55    .073|   4.70    .002
12352>     .12    .027|   1.27   6.174|   2.42   2.370|   3.57    .083|   4.72    .002
12353>     .13    .031|   1.28   6.181|   2.43   2.051|   3.58    .093|   4.73    .002
12354>     .15    .035|   1.30   6.188|   2.45   1.730|   3.60    .102|   4.75    .002
12355>     .17    .039|   1.32   6.194|   2.47   1.413|   3.62    .112|   4.77    .001
12356>     .18    .061|   1.33   6.200|   2.48   1.093|   3.63    .122|   4.78    .001
12357>     .20    .083|   1.35   6.197|   2.50    .772|   3.65    .132|   4.80    .001
12358>     .22    .104|   1.37   6.191|   2.52    .911|   3.67    .143|   4.82    .001
12359>     .23    .126|   1.38   6.180|   2.53   1.045|   3.68    .129|   4.83    .000
12360>     .25    .164|   1.40   6.168|   2.55   1.186|   3.70    .116|   4.85    .000
12361>     .27    .230|   1.42   6.156|   2.57   1.329|   3.72    .102|   4.87    .000
12362>     .28    .306|   1.43   6.123|   2.58   1.475|   3.73    .089|   4.88    .000
12363>     .30    .372|   1.45   6.105|   2.60   1.622|   3.75    .076|   4.90    .001
12364>     .32    .424|   1.47   6.095|   2.62   1.770|   3.77    .063|   4.92    .001
12365>     .33    .465|   1.48   6.086|   2.63   1.917|   3.78    .050|   4.93    .001
12366>     .35    .509|   1.50   6.074|   2.65   2.066|   3.80    .037|   4.95    .001
12367>     .37    .558|   1.52   6.057|   2.67   2.214|   3.82    .024|   4.97    .001
12368>     .38    .603|   1.53   6.036|   2.68   2.057|   3.83    .011|   4.98    .001
12369>     .40    .641|   1.55   6.017|   2.70   1.898|   3.85    .013|   5.00    .001
12370>     .42    .673|   1.57   6.003|   2.72   1.739|   3.87    .016|   5.02    .001
12371>     .43    .702|   1.58   5.980|   2.73   1.580|   3.88    .019|   5.03    .001
12372>     .45    .728|   1.60   5.961|   2.75   1.408|   3.90    .022|   5.05    .001
12373>     .47    .753|   1.62   5.944|   2.77   1.238|   3.92    .024|   5.07    .001
12374>     .48    .777|   1.63   5.924|   2.78   1.079|   3.93    .027|   5.08    .000
12375>     .50    .800|   1.65   5.886|   2.80    .922|   3.95    .030|   5.10    .000
12376>     .52    .854|   1.67   5.868|   2.82    .767|   3.97    .033|   5.12    .000
12377>     .53    .930|   1.68   5.849|   2.83    .612|   3.98    .036|   5.13    .000
12378>     .55   1.000|   1.70   5.825|   2.85    .728|   4.00    .039|   5.15    .000
12379>     .57   1.060|   1.72   5.777|   2.87    .842|   4.02    .035|   5.17    .000
12380>     .58   1.110|   1.73   5.708|   2.88    .957|   4.03    .031|   5.18    .000
12381>     .60   1.153|   1.75   5.664|   2.90   1.073|   4.05    .028|   5.20    .000
12382>     .62   1.192|   1.77   5.632|   2.92   1.189|   4.07    .024|   5.22    .000
12383>     .63   1.228|   1.78   5.615|   2.93   1.306|   4.08    .021|   5.23    .000
12384>     .65   1.263|   1.80   5.601|   2.95   1.424|   4.10    .017|   5.25    .000
12385>     .67   1.297|   1.82   5.588|   2.97   1.541|   4.12    .014|   5.27    .000
12386>     .68   1.504|   1.83   5.566|   2.98   1.659|   4.13    .010|   5.28    .000
12387>     .70   1.804|   1.85   5.547|   3.00   1.777|   4.15    .007|   5.30    .000
12388>     .72   2.065|   1.87   5.520|   3.02   1.625|   4.17    .003|   5.32    .000
12389>     .73   2.281|   1.88   5.494|   3.03   1.454|   4.18    .004|   5.33    .000
12390>     .75   2.460|   1.90   5.474|   3.05   1.294|   4.20    .005|   5.35    .000
12391>     .77   2.615|   1.92   5.454|   3.07   1.143|   4.22    .005|   5.37    .000
12392>     .78   2.758|   1.93   5.417|   3.08   1.000|   4.23    .006|   5.38    .000
12393>     .80   2.894|   1.95   5.400|   3.10    .863|   4.25    .007|   5.40    .000
12394>     .82   3.025|   1.97   5.377|   3.12    .728|   4.27    .008|   5.42    .000
12395>     .83   3.154|   1.98   5.351|   3.13    .595|   4.28    .008|   5.43    .000
12396>     .85   3.598|   2.00   5.337|   3.15    .463|   4.30    .009|   5.45    .000
12397>     .87   3.991|   2.02   5.320|   3.17    .332|   4.32    .010|   5.47    .000
12398>     .88   4.387|   2.03   4.839|   3.18    .354|   4.33    .011|   5.48    .000
12399>     .90   4.641|   2.05   4.813|   3.20    .377|   4.35    .010|   5.50    .000
12400>     .92   4.892|   2.07   4.793|   3.22    .400|   4.37    .009|   5.52    .000
12401>     .93   5.136|   2.08   4.777|   3.23    .424|   4.38    .008|   5.53    .000
12402>     .95   5.363|   2.10   4.763|   3.25    .447|   4.40    .007|   5.55    .000
12403>     .97   5.582|   2.12   4.747|   3.27    .472|   4.42    .006|   5.57    .000
12404>     .98   5.800|   2.13   4.730|   3.28    .496|   4.43    .005|   5.58    .000
12405>    1.00   6.017|   2.15   4.715|   3.30    .521|   4.45    .004|   5.60    .000
12406>    1.02   6.027|   2.17   4.689|   3.32    .546|   4.47    .003|   5.62    .000
12407>    1.03   6.033|   2.18   4.613|   3.33    .571|   4.48    .002|   5.63    .000
12408>    1.05   6.042|   2.20   4.539|   3.35    .518|   4.50    .001|   5.65    .000
12409>    1.07   6.054|   2.22   4.466|   3.37    .464|   4.52    .001|   5.67    .000
12410>    1.08   6.067|   2.23   4.395|   3.38    .411|   4.53    .001|   5.68    .000
12411>    1.10   6.082|   2.25   4.327|   3.40    .358|   4.55    .002|   5.70    .000
12412>    1.12   6.096|   2.27   4.259|   3.42    .305|   4.57    .002|   5.72    .000
12413>    1.13   6.110|   2.28   4.190|   3.43    .253|   4.58    .002|
12414> --------------------------------------------------------------------------------
12415> 001:0378-------------------------------------------------------------------------
12416> *
12417> *
12418> *#================================
12419> *#  ADD TWO TRUNKS
12420> *#================================
12421> *
12422> ------------------------
12423> | ADD HYD (       562) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
12424> ------------------------                   (ha)     (cms)   (hrs)   (mm)   (cms)
12425>                       ID1 04:       874    72.71    6.200    1.33  51.39    .000
12426>                      +ID2 06:       450    72.56    5.781    1.33  50.77    .000
12427>                       ========================================================
12428>                       SUM 09:       562   145.27   11.981    1.33  51.08    .000
12429>
12430>    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
12431>
12432> --------------------------------------------------------------------------------
12433> 001:0379-------------------------------------------------------------------------
12434> *
12435> *
12436> *
12437> *#=====================================================
12438> *# ISGAR LANDS (EAST AND WEST OF AVALON SOUTH POND)
12439> *#=====================================================
12440> *
12441> *# ISGAR LANDS - AREA I1
12442> *# NEW WESTERN INLET
12443> *
12444> ----------------------
12445> | CALIB STANDHYD     |   Area    (ha)=    8.35
12446> | 01:I1     DT=12.00 |   Total Imp(%)=   60.00   Dir. Conn.(%)=   45.00
```

```
12447> ----------------------
12448>                              IMPERVIOUS    PERVIOUS (i)
12449>      Surface Area     (ha)=       5.01         3.34
12450>      Dep. Storage     (mm)=        .80         1.50
12451>      Average Slope     (%)=        .20         2.00
12452>      Length            (m)=     357.00        40.00
12453>      Mannings n             =       .013         .250
12454>
12455>      Max.eff.Inten.(mm/hr)=     178.56       218.47
12456>                  over (min)       10.00        10.00
12457>      Storage Coeff.  (min)=       7.05 (ii)   12.21 (ii)
12458>      Unit Hyd. Tpeak (min)=      10.00        10.00
12459>      Unit Hyd. peak  (cms)=        .13          .10
12460>                                                          *TOTALS*
12461>      PEAK FLOW       (cms)=        1.50         1.17         2.667 (iii)
12462>      TIME TO PEAK    (hrs)=        1.00         1.00         1.000
12463>      RUNOFF VOLUME    (mm)=       68.21        39.41        52.371
12464>      TOTAL RAINFALL   (mm)=       71.66        71.66        71.665
12465>      RUNOFF COEFFICIENT   =         .95          .55          .731
12466>       *** WARNING: Storage Coefficient is smaller than DT!
12467>                    Use a smaller DT or a larger area.
12468>
12469>        (i) HORTONS EQUATION SELECTED FOR PERVIOUS LOSSES:
12470>             Fo   (mm/hr)= 76.20          K  (1/hr)=  4.14
12471>             Fc   (mm/hr)= 13.20     Cum.Inf.   (mm)=   .00
12472>       (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
12473>            THAN THE STORAGE COEFFICIENT.
12474>       (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
12475>
12476> --------------------------------------------------------------------------------
12477> 001:0380--------------------------------------------------------------------------
12478> *
12479> *
12480> *#########################
12481> *# INFLOW 200 l/s/ha = 8.35 x 200 = 1670 l/s
12482> *# ON-SITE STORAGE (30% LESS THAN AVALON WEST) - 75.60 m3/ha = 631.3 M3
12483> *#########################
12484> *
12485> ----------------------
12486> | ROUTE RESERVOIR   |    Requested routing time step =  1.0 min.
12487> |  IN>01:(I1    )   |
12488> | OUT<04:(I1    )   |    =========  OUTLFOW STORAGE TABLE  =========
12489> ----------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
12490>                             (cms)    (ha.m.)   |    (cms)    (ha.m.)
12491>                              .000  .0000E+00   |    1.670  .6313E-01
12492>                             1.660  .2000E-02   |     .000  .0000E+00
12493>
12494>      ROUTING RESULTS            AREA     QPEAK     TPEAK       R.V.
12495>      --------------------       (ha)     (cms)     (hrs)       (mm)
12496>      INFLOW >01: (I1    )       8.35     2.667     1.000     52.371
12497>      OUTFLOW<04: (I1    )       8.35     1.667     1.150     52.371
12498>     OVERFLOW<06: (000487)        .00      .000      .000       .000
12499>
12500>                     TOTAL NUMBER OF SIMULATED OVERFLOWS  =        0
12501>                     CUMULATIVE TIME OF OVERFLOWS  (hours)=      .00
12502>                     PERCENTAGE OF TIME OVERFLOWING    (%)=      .00
12503>
12504>
12505>                     PEAK   FLOW   REDUCTION [Qout/Qin](%)=   62.487
12506>                     TIME SHIFT OF PEAK FLOW         (min)=     9.00
12507>                     MAXIMUM  STORAGE   USED       (ha.m.)=.4367E-01
12508>
12509> --------------------------------------------------------------------------------
12510> 001:0381--------------------------------------------------------------------------
12511> *
12512> *# TOTAL (MINOR AND MAJOR FLOW) FROM I1 TO POND
12513> *
12514> ------------------------
12515> | ADD HYD (       784) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
12516> ------------------------                  (ha)     (cms)   (hrs)   (mm)   (cms)
12517>                      ID1 04:I1            8.35     1.667    1.15  52.37    .000
12518>                    +ID2 06:       487      .00      .000     .00    .00    .000
12519>                     ==========================================================
12520>                     SUM 07:       784     8.35     1.667    1.15  52.37    .000
12521>
12522>    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
12523>
12524> --------------------------------------------------------------------------------
12525> 001:0382--------------------------------------------------------------------------
12526> *
12527> *
12528> *#############################################################
12529> *# MAJOR OVERLAND FLOW FROM AREAS EAST OF PORTOBELLO TO FACILITY
12530> *# FORMERLY AREAS 51 AND 52 (26.06 HA TOTAL AREA)
12531> *# TO BE CAPTURED BY MINOR SYSTEM STORM SEWERS IN EASTERN ISGAR
12532> *#############################################################
12533> *
12534> *
12535> --------------------
12536> | READ HYD          |   AREA       (ha)=    3.246
12537> | ID=05 (005152)    |   QPEAK     (cms)=    2.569
12538> | DT= 1.00 PCYC= 1  |   TPEAK     (hrs)=    1.017
12539> --------------------   VOLUME     (mm)=   54.698
12540>   Filename: C:\SWMHYMO\111083\2018-0~1\H-MAJout.045
12541>   Comments: Major System Outflow from Portobello Blvd
12542>
12543>   TIME    FLOW |  TIME    FLOW |  TIME    FLOW |  TIME    FLOW |  TIME    FLOW
12544>    hrs     cms |   hrs     cms |   hrs     cms |   hrs     cms |   hrs     cms
12545>     .00    .000|    .32    .000|    .63    .000|    .95    .730|   1.27    .393
12546>     .02    .000|    .33    .000|    .65    .000|    .97   1.170|   1.28    .316
12547>     .03    .000|    .35    .000|    .67    .000|    .98   1.643|   1.30    .289
12548>     .05    .000|    .37    .000|    .68    .000|   1.00   2.176|   1.32    .275
12549>     .07    .000|    .38    .000|    .70    .000|   1.02   2.569|   1.33    .246
12550>     .08    .000|    .40    .000|    .72    .000|   1.03   2.478|   1.35    .213
12551>     .10    .000|    .42    .000|    .73    .000|   1.05   2.330|   1.37    .000
12552>     .12    .000|    .43    .000|    .75    .000|   1.07   2.156|   1.38    .000
12553>     .13    .000|    .45    .000|    .77    .000|   1.08   1.802|   1.40    .078
12554>     .15    .000|    .47    .000|    .78    .000|   1.10   1.526|   1.42    .065
12555>     .17    .000|    .48    .000|    .80    .000|   1.12   1.314|   1.43    .060
12556>     .18    .000|    .50    .000|    .82    .000|   1.13   1.149|   1.45    .049
12557>     .20    .000|    .52    .000|    .83    .000|   1.15   1.049|   1.47    .036
12558>     .22    .000|    .53    .000|    .85    .000|   1.17   1.004|   1.48    .018
12559>     .23    .000|    .55    .000|    .87    .000|   1.18    .986|
12560>     .25    .000|    .57    .000|    .88    .000|   1.20    .943|
12561>     .27    .000|    .58    .000|    .90    .000|   1.22    .849|
12562>     .28    .000|    .60    .000|    .92    .000|   1.23    .708|
12563>     .30    .000|    .62    .000|    .93    .435|   1.25    .537|
12564> --------------------------------------------------------------------------------
12565> 001:0383--------------------------------------------------------------------------
12566> *
12567> *
12568> *
12569> *# ISGAR LANDS - AREA I2
12570> *# NEW EASTERN INLET
12571> *
12572> ----------------------
12573> | CALIB STANDHYD     |   Area    (ha)=   12.02
12574> | 06:I2     DT=12.00 |   Total Imp(%)=   65.00   Dir. Conn.(%)=   51.00
12575> ----------------------
12576>                              IMPERVIOUS    PERVIOUS (i)
12577>      Surface Area     (ha)=       7.81         4.21
12578>      Dep. Storage     (mm)=        .80         1.50
12579>      Average Slope     (%)=        .20         2.00
12580>      Length            (m)=     479.00        40.00
12581>      Mannings n             =       .013         .250
12582>
12583>      Max.eff.Inten.(mm/hr)=     178.56       223.12
12584>                  over (min)       10.00        10.00
12585>      Storage Coeff.  (min)=       8.40 (ii)   13.52 (ii)
12586>      Unit Hyd. Tpeak (min)=      10.00        10.00
12587>      Unit Hyd. peak  (cms)=        .12          .09
12588>                                                          *TOTALS*
12589>      PEAK FLOW       (cms)=        2.28         1.41         3.694 (iii)
12590>      TIME TO PEAK    (hrs)=        1.00         1.00         1.000
12591>      RUNOFF VOLUME    (mm)=       68.21        39.82        54.298
12592>      TOTAL RAINFALL   (mm)=       71.66        71.66        71.665
12593>      RUNOFF COEFFICIENT   =         .95          .56          .758
12594>       *** WARNING: Storage Coefficient is smaller than DT!
12595>                    Use a smaller DT or a larger area.
12596>
12597>        (i) HORTONS EQUATION SELECTED FOR PERVIOUS LOSSES:
12598>             Fo   (mm/hr)= 76.20          K  (1/hr)=  4.14
12599>             Fc   (mm/hr)= 13.20     Cum.Inf.   (mm)=   .00
12600>       (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
12601>            THAN THE STORAGE COEFFICIENT.
12602>       (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
12603>
12604> --------------------------------------------------------------------------------
12605> 001:0384--------------------------------------------------------------------------
12606> *
12607> *
12608> *
12609> *#########################
12610> *# INFLOW 200 L/S/HA - 12.02 X 200 = 2404 L/S
12611> *# ON-SITE STORAGE (30% LESS THAN AVALON WEST) - 84.90 m3/ha = 1020.5 M3
12612> *#########################
12613> *
12614> ----------------------
12615> | ROUTE RESERVOIR   |    Requested routing time step =  1.0 min.
12616> |  IN>06:(I2    )   |
12617> | OUT<04:(I2    )   |    =========  OUTLFOW STORAGE TABLE  =========
12618> ----------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
12619>                             (cms)    (ha.m.)   |    (cms)    (ha.m.)
12620>                              .000  .0000E+00   |    2.404  .1020E+00
12621>                             2.390  .2000E-02   |     .000  .0000E+00
12622>
12623>      ROUTING RESULTS            AREA     QPEAK     TPEAK       R.V.
12624>      --------------------       (ha)     (cms)     (hrs)       (mm)
12625>      INFLOW >06: (I2    )      12.02     3.694     1.000     54.298
12626>      OUTFLOW<04: (I2    )      12.02     2.398     1.167     54.298
12627>     OVERFLOW<08: (000487)        .00      .000      .000       .000
12628>
12629>                     TOTAL NUMBER OF SIMULATED OVERFLOWS  =        0
12630>                     CUMULATIVE TIME OF OVERFLOWS  (hours)=      .00
12631>                     PERCENTAGE OF TIME OVERFLOWING    (%)=      .00
12632>
12633>
12634>                     PEAK   FLOW   REDUCTION [Qout/Qin](%)=   64.898
12635>                     TIME SHIFT OF PEAK FLOW         (min)=    10.00
12636>                     MAXIMUM  STORAGE   USED       (ha.m.)=.5654E-01
12637>
12638> --------------------------------------------------------------------------------
12639> 001:0385--------------------------------------------------------------------------
12640> *
12641> *# TOTAL MINOR FLOW (MAJOR FLOW PORTOBELLO AND I2)
12642> *
12643> ------------------------
12644> | ADD HYD (       845) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
12645> ------------------------                  (ha)     (cms)   (hrs)   (mm)   (cms)
12646>                      ID1 04:I2           12.02    2.398    1.17  54.30    .000
12647>                    +ID2 05:      5152     3.25    2.569    1.02  54.70    .000
12648>                     ==========================================================
12649>                     SUM 06:       845    15.27    4.963    1.02  54.38    .000
12650>
12651>    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
12652>
12653> --------------------------------------------------------------------------------
12654> 001:0386--------------------------------------------------------------------------
12655> *
12656> *# ISGAR LANDS - AREA I3
12657> *# NEW EASTERN INLET
12658> *
12659> ----------------------
12660> | CALIB STANDHYD     |   Area    (ha)=    7.64
12661> | 01:I3     DT=12.00 |   Total Imp(%)=   49.00   Dir. Conn.(%)=   30.00
12662> ----------------------
12663>                              IMPERVIOUS    PERVIOUS (i)
12664>      Surface Area     (ha)=       3.74         3.90
12665>      Dep. Storage     (mm)=        .80         1.50
12666>      Average Slope     (%)=        .20         2.00
12667>      Length            (m)=     292.00        40.00
12668>      Mannings n             =       .013         .250
12669>
12670>      Max.eff.Inten.(mm/hr)=     178.56       218.04
12671>                  over (min)       10.00        10.00
12672>      Storage Coeff.  (min)=       6.25 (ii)   11.41 (ii)
12673>      Unit Hyd. Tpeak (min)=      10.00        10.00
12674>      Unit Hyd. peak  (cms)=        .14          .10
12675>                                                          *TOTALS*
12676>      PEAK FLOW       (cms)=        .95         1.42         2.370 (iii)
12677>      TIME TO PEAK    (hrs)=       1.00         1.00         1.000
12678>      RUNOFF VOLUME    (mm)=      68.21        39.38        48.029
12679>      TOTAL RAINFALL   (mm)=      71.66        71.66        71.665
12680>      RUNOFF COEFFICIENT   =        .95          .55          .670
12681>       *** WARNING: Storage Coefficient is smaller than DT!
12682>                    Use a smaller DT or a larger area.
12683>
12684>        (i) HORTONS EQUATION SELECTED FOR PERVIOUS LOSSES:
12685>             Fo   (mm/hr)= 76.20          K  (1/hr)=  4.14
12686>             Fc   (mm/hr)= 13.20     Cum.Inf.   (mm)=   .00
12687>       (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
12688>            THAN THE STORAGE COEFFICIENT.
12689>       (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
12690>
12691> --------------------------------------------------------------------------------
12692> 001:0387--------------------------------------------------------------------------
12693> *
12694> *
12695> *# MAJOR FLOW FROM I3
12696> *
12697> ------------------------
12698> | ADD HYD (       784) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
12699> ------------------------                  (ha)     (cms)   (hrs)   (mm)   (cms)
12700>                      ID1 01:I3            7.64    2.370    1.00  48.03    .000
```

```
                    +ID2 08:       487      .00     .000     .00    .00    .000
                     ============================================================
                     SUM 05:       784     7.64    2.370    1.00  48.03    .000

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

--------------------------------------------------------------------------------
001:0388--------------------------------------------------------------------------
*
*#=========================
*# INFLOW 200 L/S/HA - 7.64 X 200 = 1528 L/S
*# ON-SITE STORAGE (30% LESS THAN AVALON WEST) - 108.55 m3/ha = 829.3 M3
*#=========================
*
----------------------
| ROUTE RESERVOIR   |    Requested routing time step =  1.0 min.
|  IN>05:(000784)   |
| OUT<03:(I3    )   |    =========  OUTLFOW STORAGE TABLE  =========
----------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
                            (cms)    (ha.m.)   |    (cms)    (ha.m.)
                             .000  .0000E+00   |    1.528  .8293E-01
                            1.510  .2000E-02   |     .000  .0000E+00

     ROUTING RESULTS           AREA     QPEAK     TPEAK       R.V.
     -------------------       (ha)     (cms)     (hrs)       (mm)
     INFLOW >05: (000784)      7.64     2.370     1.000     48.029
     OUTFLOW<03: (I3    )      7.64     1.517     1.150     48.029
    OVERFLOW<01: (000487)       .00      .000      .000       .000

                    TOTAL NUMBER OF SIMULATED OVERFLOWS  =       0
                    CUMULATIVE TIME OF OVERFLOWS  (hours)=      .00
                    PERCENTAGE OF TIME OVERFLOWING    (%)=      .00


                    PEAK   FLOW   REDUCTION [Qout/Qin](%)=   64.029
                    TIME SHIFT OF PEAK FLOW         (min)=     9.00
                    MAXIMUM  STORAGE   USED       (ha.m.)=.3536E-01

--------------------------------------------------------------------------------
001:0389--------------------------------------------------------------------------
*
*# TOTAL MINOR SYSTEM FLOW FROM MAJOR PORTOBELLO, I2 AND I3 (NEW EASTERN INLET)
*
------------------------
| ADD HYD (       784) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
------------------------                    (ha)     (cms)   (hrs)   (mm)   (cms)
                     ID1 06:       845    15.27    4.963    1.02  54.38    .000
                    +ID2 03:I3              7.64    1.517    1.15  48.03    .000
                     ============================================================
                     SUM 05:       784    22.91    6.476    1.02  52.26    .000

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

--------------------------------------------------------------------------------
001:0390--------------------------------------------------------------------------
*
*# TOTAL FLOW FROM I2 AND I3 INTO POND VIA NEW EASTERN INLET TO POND(INCLUDES MA
*
------------------------
| ADD HYD (       784) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
------------------------                    (ha)     (cms)   (hrs)   (mm)   (cms)
                     ID1 01:       487      .00     .000     .00    .00    .000
                    +ID2 05:       784    22.91    6.476    1.02  52.26    .000
                     ============================================================
                     SUM 08:       784    22.91    6.476    1.02  52.26    .000

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

--------------------------------------------------------------------------------
001:0391--------------------------------------------------------------------------
*
*
*
*#=======================
*#    DRAINAGE AREA 60 ||
*#    SWM AREA         ||
*#=======================
*
*
----------------------
| CALIB NASHYD      |   Area    (ha)=   12.50   Curve Number   (CN)=95.00
| 01:000100 DT= 6.00 |   Ia      (mm)=   1.500   # of Linear Res.(N)= 3.00
----------------------   U.H. Tp(hrs)=    .250

     Unit Hyd Qpeak  (cms)=    1.910

     PEAK FLOW       (cms)=    2.559 (i)
     TIME TO PEAK    (hrs)=    1.167
     RUNOFF VOLUME    (mm)=   58.936
     TOTAL RAINFALL   (mm)=   71.665
     RUNOFF COEFFICIENT   =     .822

     (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

      *** WARNING: Time step is too large for value of TP.
                   R.V. may be ok.  Peak flow could be off.
--------------------------------------------------------------------------------
001:0392--------------------------------------------------------------------------
*
*# ADD TOTAL FLOW FROM ISGAR LANDS (I1, I2 AND I3 PLUS MAJOR PORTOBELLO) TO POND
*
------------------------
| ADD HYD (       784) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
------------------------                    (ha)     (cms)   (hrs)   (mm)   (cms)
                     ID1 01:       100    12.50    2.559    1.17  58.94    .000
                    +ID2 08:       784    22.91    6.476    1.02  52.26    .000
                    +ID3 07:       784     8.35    1.667    1.15  52.37    .000
                     ============================================================
                     SUM 06:       784    43.76   10.238    1.02  54.19    .000

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

--------------------------------------------------------------------------------
001:0393--------------------------------------------------------------------------
*
*# MH SWMF
*
--------------------
| SAVE HYD        |   AREA       (ha)=   43.756
| ID=06 (000784)  |   QPEAK     (cms)=   10.238 (i)
| DT= 1.00 PCYC=-1 |   TPEAK     (hrs)=    1.017
--------------------   VOLUME      (mm)=   54.190
  Filename: C:\SWMHYMO\111083\2018-0~1\POND.045
  Comments: POND-3CHI100

     (i)  PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
--------------------------------------------------------------------------------
001:0394--------------------------------------------------------------------------
*
*#================================
*#  ADD POND AREA TO EXISTING EAST AND WEST TRUNKS
*#================================
*
------------------------
| ADD HYD (       562) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
------------------------                    (ha)     (cms)   (hrs)   (mm)   (cms)
                     ID1 06:       784    43.76   10.238    1.02  54.19    .000
                    +ID2 09:       562   145.27   11.981    1.33  51.08    .000
                     ============================================================
                     SUM 04:       562   189.03   21.786    1.02  51.80    .000

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

--------------------------------------------------------------------------------
001:0395--------------------------------------------------------------------------
*
*
*#=========================================
*#     NEIGHBOURHOOD 4  SWM FACILITY       ||
*#       OUTLET PIPE TO POINT B            ||
*#       OUTLET PIPE  1200 DIA             ||
*#=========================================
*
*# NOTE:  XPSWMM USED FOR ROUTING THE SWM FACILITY
*
----------------------
| ROUTE RESERVOIR   |    Requested routing time step =  1.0 min.
|  IN>04:(000562)   |
| OUT<02:(000471)   |    =========  OUTLFOW STORAGE TABLE  =========
----------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
                            (cms)    (ha.m.)   |    (cms)    (ha.m.)
                             .000  .0000E+00   |     .930  .4960E+01
                             .350  .2300E+01   |    1.520  .8710E+01
                             .650  .3740E+01   |    1.700  .1129E+02

     ROUTING RESULTS           AREA     QPEAK     TPEAK       R.V.
     -------------------       (ha)     (cms)     (hrs)       (mm)
     INFLOW >04: (000562)     189.03    21.786     1.017     51.800
     OUTFLOW<02: (000471)     189.03     1.521     3.117     51.799

                    PEAK   FLOW   REDUCTION [Qout/Qin](%)=    6.983
                    TIME SHIFT OF PEAK FLOW         (min)=   126.00
                    MAXIMUM  STORAGE   USED       (ha.m.)=.8728E+01

--------------------------------------------------------------------------------
001:0396--------------------------------------------------------------------------
*
--------------------
| SAVE HYD        |   AREA       (ha)=  189.030
| ID=02 (000471)  |   QPEAK     (cms)=    1.521 (i)
| DT= 1.00 PCYC=-1 |   TPEAK     (hrs)=    3.117
--------------------   VOLUME      (mm)=   51.799
  Filename: C:\SWMHYMO\111083\2018-0~1\ISGAR.045
  Comments: ISGAR-3CHI100

     (i)  PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
--------------------------------------------------------------------------------
001:0397--------------------------------------------------------------------------
*
*
*
*
*
*
*
*
*
*
*
*
*
*
*
*
*#============================================================
*# ====    100 YEAR 3 HOUR CHICAGO + 20%                  ====
*# ====    (10 MIN TIME STEP)                             ====
*#============================================================
*
*
----------------------
| READ STORM       |    Filename: CHICAGO 3 HOUR 10 MIN 100 YEAR STORM - I
| Ptotal=  86.00 mm|    Comments: CHICAGO 3 HOUR 10 MIN 100 YEAR STORM - I
----------------------
               TIME    RAIN |   TIME    RAIN |   TIME    RAIN |   TIME    RAIN
                hrs   mm/hr |    hrs   mm/hr |    hrs   mm/hr |    hrs   mm/hr
                .17   7.255 |   1.00 214.271 |   1.83  13.271 |   2.67   6.912
                .33   9.050 |   1.17  64.859 |   2.00  11.142 |   2.83   6.336
                .50  12.191 |   1.33  32.783 |   2.17   9.628 |   3.00   5.855
                .67  19.163 |   1.50  21.888 |   2.33   8.496 |
                .83  48.786 |   1.67  16.484 |   2.50   7.616 |

--------------------------------------------------------------------------------
001:0398--------------------------------------------------------------------------
*
*
*#=========================================
*#     NEIGHBOURHOOD 4                   ||
*#=========================================
*
*#=======================
*#   DRAINAGE AREA 40  ||
*#                     ||
*#=======================
*
----------------------
| CALIB STANDHYD     |   Area    (ha)=   11.73
| 06:000204 DT=10.00 |   Total Imp(%)=   54.00   Dir. Conn.(%)=   32.00
----------------------

                                IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=        6.33         5.40
     Dep. Storage     (mm)=         .80         1.50
     Average Slope     (%)=         .20         2.00
     Length            (m)=      414.00        40.00
     Mannings n            =        .013         .250

     Max.eff.Inten.(mm/hr)=      214.27       183.80
                  over (min)       10.00        10.00
     Storage Coeff.  (min)=        7.16 (ii)   12.69 (ii)
     Unit Hyd. Tpeak (min)=       10.00        10.00
     Unit Hyd. peak  (cms)=         .13          .09

                                                      *TOTALS*
     PEAK FLOW       (cms)=        1.79         1.59          3.377 (iii)
     TIME TO PEAK    (hrs)=        1.00         1.00          1.000
     RUNOFF VOLUME    (mm)=       85.20        50.77         61.785
     TOTAL RAINFALL   (mm)=       86.00        86.00         85.998
     RUNOFF COEFFICIENT   =         .99          .59           .718
      *** WARNING: Storage Coefficient is smaller than DT!
                   Use a smaller DT or a larger area.
```

```
12955>
12956>       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
12957>           CN* =  75.0    Ia = Dep. Storage  (Above)
12958>      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
12959>           THAN THE STORAGE COEFFICIENT.
12960>     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
12961>
12962> ---------------------------------------------------------------------------
12963> 001:0399----------------------------------------------------------------------
12964> *
12965> *
12966> *#================================
12967> *# OSD 85 L/S/HA PARKS 30 L/S/HA
12968> *#  85*10.71 = 910.4 L/S
12969> *#  30*1.02 = 30.6 L/S
12970> *#  TOTAL = 941 L/S
12971> *#================================
12972> *
12973> ---------------------
12974> | ROUTE RESERVOIR   |    Requested routing time step = 10.0 min.
12975> |  IN>06:(000204)   |
12976> | OUT<09:(000471)   |    =========  OUTLFOW STORAGE TABLE  =========
12977> ---------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
12978>                            (cms)    (ha.m.)   |    (cms)    (ha.m.)
12979>                             .000  .0000E+00   |     .941  .1368E+00
12980>                             .900  .2000E-02   |     .000  .0000E+00
12981>       *** WARNING: STORAGE-Q values were extrapolated.
12982>                    Increase curve or use overflow option.
12983>
12984>      ROUTING RESULTS           AREA     QPEAK     TPEAK       R.V.
12985>      --------------------      (ha)     (cms)     (hrs)       (mm)
12986>      INFLOW >06: (000204)      11.73     3.377     1.000     61.785
12987>      OUTFLOW<09: (000471)      11.73      .976     1.500     62.147
12988>
12989>                     PEAK   FLOW   REDUCTION [Qout/Qin](%)=   28.892
12990>                     TIME SHIFT OF PEAK FLOW       (min)=    30.00
12991>                     MAXIMUM  STORAGE   USED       (ha.m.)=.2527E+00
12992>
12993>       *** WARNING: Outflow volume is less than inflow volume.
12994> ---------------------------------------------------------------------------
12995> 001:0400----------------------------------------------------------------------
12996> *
12997> *# MH 505
12998> *
12999> *#========================
13000> *#   DRAINAGE AREA 41  ||
13001> *#========================
13002> *
13003> *
13004> ----------------------
13005> | CALIB STANDHYD     |   Area    (ha)=    9.06
13006> | 05:000204 DT=10.00 |   Total Imp(%)=   58.00   Dir. Conn.(%)=   35.00
13007> ----------------------
13008>                              IMPERVIOUS    PERVIOUS (i)
13009>      Surface Area     (ha)=       5.25         3.81
13010>      Dep. Storage     (mm)=        .80         1.50
13011>      Average Slope     (%)=        .20         2.00
13012>      Length            (m)=     452.00        40.00
13013>      Mannings n           =       .013         .250
13014>
13015>      Max.eff.Inten.(mm/hr)=     214.27       196.89
13016>                 over (min)       10.00        10.00
13017>      Storage Coeff.  (min)=       7.55 (ii)   12.93 (ii)
13018>      Unit Hyd. Tpeak (min)=      10.00        10.00
13019>      Unit Hyd. peak  (cms)=        .12          .09
13020>                                                          *TOTALS*
13021>      PEAK FLOW       (cms)=       1.48         1.19         2.669 (iii)
13022>      TIME TO PEAK    (hrs)=       1.00         1.00         1.000
13023>      RUNOFF VOLUME    (mm)=      85.20        51.74        63.450
13024>      TOTAL RAINFALL   (mm)=      86.00        86.00        85.998
13025>      RUNOFF COEFFICIENT   =        .99          .60          .738
13026>       *** WARNING: Storage Coefficient is smaller than DT!
13027>                    Use a smaller DT or a larger area.
13028>
13029>       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
13030>           CN* =  75.0    Ia = Dep. Storage  (Above)
13031>      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
13032>           THAN THE STORAGE COEFFICIENT.
13033>     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
13034>
13035> ---------------------------------------------------------------------------
13036> 001:0401----------------------------------------------------------------------
13037> *
13038> *#=========================
13039> *# OSD 85 L/S/HA
13040> *#  85*9.06 = 770.1 L/S
13041> *#=========================
13042> *
13043> ---------------------
13044> | ROUTE RESERVOIR   |    Requested routing time step = 10.0 min.
13045> |  IN>05:(000204)   |
13046> | OUT<07:(000471)   |    =========  OUTLFOW STORAGE TABLE  =========
13047> ---------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
13048>                            (cms)    (ha.m.)   |    (cms)    (ha.m.)
13049>                             .000  .0000E+00   |     .770  .1072E+00
13050>                             .700  .2000E-02   |     .000  .0000E+00
13051>       *** WARNING: STORAGE-Q values were extrapolated.
13052>                    Increase curve or use overflow option.
13053>
13054>      ROUTING RESULTS           AREA     QPEAK     TPEAK       R.V.
13055>      --------------------      (ha)     (cms)     (hrs)       (mm)
13056>      INFLOW >05: (000204)      9.06     2.669     1.000     63.450
13057>      OUTFLOW<07: (000471)      9.06      .826     1.500     64.396
13058>
13059>                     PEAK   FLOW   REDUCTION [Qout/Qin](%)=   30.966
13060>                     TIME SHIFT OF PEAK FLOW       (min)=    30.00
13061>                     MAXIMUM  STORAGE   USED       (ha.m.)=.1948E+00
13062>
13063>       *** WARNING: Outflow volume is less than inflow volume.
13064> ---------------------------------------------------------------------------
13065> 001:0402----------------------------------------------------------------------
13066> *
13067> *# MH 521
13068> *
13069> ------------------------
13070> | ADD HYD (      401) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
13071> ------------------------                  (ha)     (cms)   (hrs)   (mm)   (cms)
13072>                        ID1 09:       471    11.73     .976    1.50  62.15    .000
13073>                       +ID2 07:       471     9.06     .826    1.50  64.40    .000
13074>                        ==========================================================
13075>                        SUM 06:       401    20.79    1.802    1.50  63.13    .000
13076>
13077>    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
13078>
13079> ---------------------------------------------------------------------------
13080> 001:0403----------------------------------------------------------------------
13081> *
13082> *
13083> *#========================
13084> *#    DRAINAGE AREA 42 ||
13085> *#                    ||
13086> *#========================
13087> *
13088> *
13089> ----------------------
13090> | CALIB NASHYD       |   Area    (ha)=    4.10   Curve Number   (CN)=75.00
13091> | 05:000100 DT=10.00 |   Ia      (mm)=   1.500   # of Linear Res.(N)= 3.00
13092> ----------------------  U.H. Tp(hrs)=    .410
13093>
13094>      Unit Hyd Qpeak  (cms)=     .382
13095>
13096>      PEAK FLOW       (cms)=     .392 (i)
13097>      TIME TO PEAK    (hrs)=    1.333
13098>      RUNOFF VOLUME    (mm)=   42.207
13099>      TOTAL RAINFALL   (mm)=   85.998
13100>      RUNOFF COEFFICIENT   =     .491
13101>
13102>      (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
13103>
13104> ---------------------------------------------------------------------------
13105> 001:0404----------------------------------------------------------------------
13106> *
13107> *#========================
13108> *# OSD 30 L/S/HA
13109> *#  30*4.1 = 123 L/S
13110> *#========================
13111> *
13112> ---------------------
13113> | ROUTE RESERVOIR   |    Requested routing time step = 10.0 min.
13114> |  IN>05:(000100)   |
13115> | OUT<04:(000471)   |    =========  OUTLFOW STORAGE TABLE  =========
13116> ---------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
13117>                            (cms)    (ha.m.)   |    (cms)    (ha.m.)
13118>                             .000  .0000E+00   |     .123  .4859E-01
13119>                             .090  .2000E-02   |     .000  .0000E+00
13120>       *** WARNING: STORAGE-Q values were extrapolated.
13121>                    Increase curve or use overflow option.
13122>
13123>      ROUTING RESULTS           AREA     QPEAK     TPEAK       R.V.
13124>      --------------------      (ha)     (cms)     (hrs)       (mm)
13125>      INFLOW >05: (000100)      4.10      .392     1.333     42.207
13126>      OUTFLOW<04: (000471)      4.10      .142     2.333     42.363
13127>
13128>                     PEAK   FLOW   REDUCTION [Qout/Qin](%)=   36.319
13129>                     TIME SHIFT OF PEAK FLOW       (min)=    60.00
13130>                     MAXIMUM  STORAGE   USED       (ha.m.)=.7607E-01
13131>
13132> ---------------------------------------------------------------------------
13133> 001:0405----------------------------------------------------------------------
13134> *
13135> *# MH 529
13136> *
13137> *
13138> ------------------------
13139> | ADD HYD (       105) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
13140> ------------------------                  (ha)     (cms)   (hrs)   (mm)   (cms)
13141>                         ID1 06:       401    20.79    1.802    1.50  63.13    .000
13142>                        +ID2 04:       471     4.10     .142    2.33  42.36    .000
13143>                         ==========================================================
13144>                         SUM 01:       105    24.89    1.921    1.50  59.71    .000
13145>
13146>    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
13147>
13148> ---------------------------------------------------------------------------
13149> 001:0406----------------------------------------------------------------------
13150> *
13151> *
13152> *#========================
13153> *#    DRAINAGE AREA 43 ||
13154> *#                    ||
13155> *#========================
13156> *
13157> *
13158> ----------------------
13159> | CALIB STANDHYD     |   Area    (ha)=   17.21
13160> | 05:000204 DT=10.00 |   Total Imp(%)=   59.00   Dir. Conn.(%)=   37.00
13161> ----------------------
13162>                              IMPERVIOUS    PERVIOUS (i)
13163>      Surface Area     (ha)=      10.15         7.06
13164>      Dep. Storage     (mm)=        .80         1.50
13165>      Average Slope     (%)=        .20         2.00
13166>      Length            (m)=     449.00        40.00
13167>      Mannings n           =       .013         .250
13168>
13169>      Max.eff.Inten.(mm/hr)=     214.27       194.79
13170>                 over (min)       10.00        10.00
13171>      Storage Coeff.  (min)=       7.52 (ii)   12.92 (ii)
13172>      Unit Hyd. Tpeak (min)=      10.00        10.00
13173>      Unit Hyd. peak  (cms)=        .12          .09
13174>                                                          *TOTALS*
13175>      PEAK FLOW       (cms)=       2.98         2.18         5.158 (iii)
13176>      TIME TO PEAK    (hrs)=       1.00         1.00         1.000
13177>      RUNOFF VOLUME    (mm)=      85.20        51.59        64.024
13178>      TOTAL RAINFALL   (mm)=      86.00        86.00        85.998
13179>      RUNOFF COEFFICIENT   =        .99          .60          .744
13180>       *** WARNING: Storage Coefficient is smaller than DT!
13181>                    Use a smaller DT or a larger area.
13182>
13183>       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
13184>           CN* =  75.0    Ia = Dep. Storage  (Above)
13185>      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
13186>           THAN THE STORAGE COEFFICIENT.
13187>     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
13188>
13189> ---------------------------------------------------------------------------
13190> 001:0407----------------------------------------------------------------------
13191> *
13192> *
13193> *#=========================
13194> *# OSD 85 L/S/HA PARKS 30 L/S/HA
13195> *#  85*16.89 = 1435.7 L/S
13196> *#  30*0.32 =9.6 L/S
13197> *#  TOTAL =1445 L/S
13198> *#=========================
13199> *
13200> ---------------------
13201> | ROUTE RESERVOIR   |    Requested routing time step = 10.0 min.
13202> |  IN>05:(000204)   |
13203> | OUT<08:(000471)   |    =========  OUTLFOW STORAGE TABLE  =========
13204> ---------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
13205>                            (cms)    (ha.m.)   |    (cms)    (ha.m.)
13206>                             .000  .0000E+00   |    1.445  .2103E+00
13207>                            1.400  .2000E-02   |     .000  .0000E+00
13208>       *** WARNING: STORAGE-Q values were extrapolated.
```

```
                    Increase curve or use overflow option.

     ROUTING RESULTS            AREA     QPEAK     TPEAK       R.V.
     --------------------        (ha)     (cms)     (hrs)       (mm)
     INFLOW >05: (000204)      17.21     5.158     1.000     64.024
     OUTFLOW<08: (000471)      17.21     1.481     1.500     64.069

                    PEAK   FLOW   REDUCTION [Qout/Qin](%)=   28.720
                    TIME SHIFT OF PEAK FLOW         (min)=    30.00
                    MAXIMUM  STORAGE   USED       (ha.m.)=.3820E+00

-------------------------------------------------------------------------------
001:0408---------------------------------------------------------------------------
*
*# MH 539
*
-------------------------
| ADD HYD (       100) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
-----------------------                    (ha)     (cms)   (hrs)   (mm)   (cms)
                       ID1 01:       105    24.89    1.921    1.50  59.71    .000
                      +ID2 08:       471    17.21    1.481    1.50  64.07    .000
                       ============================================================
                       SUM 07:       100    42.10    3.403    1.50  61.49    .000

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

-------------------------------------------------------------------------------
001:0409---------------------------------------------------------------------------
*
*
*#=======================
*#    DRAINAGE AREA 44 ||
*#                     ||
*#=======================
*
*
----------------------
| CALIB STANDHYD     |   Area    (ha)=    4.06
| 05:000204 DT=10.00 |   Total Imp(%)=   58.00   Dir. Conn.(%)=   38.00
----------------------
                              IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=       2.35         1.71
     Dep. Storage     (mm)=        .80         1.50
     Average Slope     (%)=        .20         2.00
     Length            (m)=     165.00        40.00
     Mannings n           =       .013         .250

     Max.eff.Inten.(mm/hr)=     214.27       183.41
                   over (min)       10.00        10.00
     Storage Coeff.  (min)=      4.12 (ii)    9.66 (ii)
     Unit Hyd. Tpeak (min)=      10.00        10.00
     Unit Hyd. peak  (cms)=        .15          .11
                                                      *TOTALS*
     PEAK FLOW       (cms)=        .85          .59         1.440 (iii)
     TIME TO PEAK    (hrs)=       1.00         1.00         1.000
     RUNOFF VOLUME    (mm)=      85.20        50.74        63.833
     TOTAL RAINFALL   (mm)=      86.00        86.00        85.998
     RUNOFF COEFFICIENT   =        .99          .59          .742
      *** WARNING: Storage Coefficient is smaller than DT!
                   Use a smaller DT or a larger area.

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN* =  75.0    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

-------------------------------------------------------------------------------
001:0410---------------------------------------------------------------------------
*
*
*#=========================
*# OSD 85 L/S/HA  PARK 30 L/S/HA
*#  85*3.7 = 314.5 L/S
*#  30*0.28 = 8.4 L/S
*#  TOTAL = 322.9 L/S
*#=========================
*
---------------------
| ROUTE RESERVOIR   |    Requested routing time step = 10.0 min.
|  IN>05:(000204)   |
| OUT<09:(000471)   |    =========  OUTLFOW STORAGE TABLE  =========
---------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
                           (cms)    (ha.m.)   |    (cms)    (ha.m.)
                             .000  .0000E+00   |     .323  .6847E-01
                             .290  .2000E-02   |     .000  .0000E+00
      *** WARNING: STORAGE-Q values were extrapolated.
                   Increase curve or use overflow option.

     ROUTING RESULTS            AREA     QPEAK     TPEAK       R.V.
     --------------------        (ha)     (cms)     (hrs)       (mm)
     INFLOW >05: (000204)       4.06     1.440     1.000     63.833
     OUTFLOW<09: (000471)       4.06      .338     1.500     63.983

                    PEAK   FLOW   REDUCTION [Qout/Qin](%)=   23.489
                    TIME SHIFT OF PEAK FLOW         (min)=    30.00
                    MAXIMUM  STORAGE   USED       (ha.m.)=.1010E+00

-------------------------------------------------------------------------------
001:0411---------------------------------------------------------------------------
*
*# MH 541
*
-------------------------
| ADD HYD (       100) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
-----------------------                    (ha)     (cms)   (hrs)   (mm)   (cms)
                       ID1 07:       100    42.10    3.403    1.50  61.49    .000
                      +ID2 09:       471     4.06     .338    1.50  63.98    .000
                       ============================================================
                       SUM 03:       100    46.16    3.741    1.50  61.71    .000

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

-------------------------------------------------------------------------------
001:0412---------------------------------------------------------------------------
*
*
*#=======================
*#    DRAINAGE AREA 45 ||
*#                     ||
*#=======================
*
----------------------
| CALIB STANDHYD     |   Area    (ha)=    3.13
| 05:000204 DT=10.00 |   Total Imp(%)=   57.00   Dir. Conn.(%)=   57.00
----------------------
                              IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=       1.78         1.35
     Dep. Storage     (mm)=        .80         1.50
     Average Slope     (%)=        .20         2.00
     Length            (m)=     147.00        40.00
     Mannings n           =       .013         .250

     Max.eff.Inten.(mm/hr)=     214.27       99.58
                   over (min)       10.00        10.00
     Storage Coeff.  (min)=       3.85 (ii)   10.92 (ii)
     Unit Hyd. Tpeak (min)=      10.00        10.00
     Unit Hyd. peak  (cms)=        .16          .10
                                                      *TOTALS*
     PEAK FLOW       (cms)=       1.00          .23         1.233 (iii)
     TIME TO PEAK    (hrs)=       1.00         1.00         1.000
     RUNOFF VOLUME    (mm)=      85.20        42.21        66.711
     TOTAL RAINFALL   (mm)=      86.00        86.00        85.998
     RUNOFF COEFFICIENT   =        .99          .49          .776
      *** WARNING: Storage Coefficient is smaller than DT!
                   Use a smaller DT or a larger area.

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN* =  75.0    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

-------------------------------------------------------------------------------
001:0413---------------------------------------------------------------------------
*
*
*#=========================
*# OSD 85 L/S/HA
*#  85*3.13 = 266.1 L/S
*#=========================
*
---------------------
| ROUTE RESERVOIR   |    Requested routing time step = 10.0 min.
|  IN>05:(000204)   |
| OUT<08:(000471)   |    =========  OUTLFOW STORAGE TABLE  =========
---------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
                           (cms)    (ha.m.)   |    (cms)    (ha.m.)
                             .000  .0000E+00   |     .266  .5982E-01
                             .200  .2000E-02   |     .000  .0000E+00
      *** WARNING: STORAGE-Q values were extrapolated.
                   Increase curve or use overflow option.

     ROUTING RESULTS            AREA     QPEAK     TPEAK       R.V.
     --------------------        (ha)     (cms)     (hrs)       (mm)
     INFLOW >05: (000204)       3.13     1.233     1.000     66.711
     OUTFLOW<08: (000471)       3.13      .291     1.333     66.767

                    PEAK   FLOW   REDUCTION [Qout/Qin](%)=   23.553
                    TIME SHIFT OF PEAK FLOW         (min)=    20.00
                    MAXIMUM  STORAGE   USED       (ha.m.)=.8151E-01

-------------------------------------------------------------------------------
001:0414---------------------------------------------------------------------------
*
*# MH 542
*
-------------------------
| ADD HYD (       100) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
-----------------------                    (ha)     (cms)   (hrs)   (mm)   (cms)
                       ID1 03:       100    46.16    3.741    1.50  61.71    .000
                      +ID2 08:       471     3.13     .291    1.33  66.77    .000
                       ============================================================
                       SUM 04:       100    49.29    4.029    1.50  62.03    .000

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

-------------------------------------------------------------------------------
001:0415---------------------------------------------------------------------------
*
*#=======================
*#    DRAINAGE AREA 46 ||
*#                     ||
*#=======================
*
*
----------------------
| CALIB STANDHYD     |   Area    (ha)=   19.48
| 05:000204 DT=10.00 |   Total Imp(%)=   61.00   Dir. Conn.(%)=   43.00
----------------------
                              IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=      11.88         7.60
     Dep. Storage     (mm)=        .80         1.50
     Average Slope     (%)=        .20         2.00
     Length            (m)=     464.00        40.00
     Mannings n           =       .013         .250

     Max.eff.Inten.(mm/hr)=     214.27       180.67
                   over (min)       10.00        10.00
     Storage Coeff.  (min)=       7.67 (ii)   13.24 (ii)
     Unit Hyd. Tpeak (min)=      10.00        10.00
     Unit Hyd. peak  (cms)=        .12          .09
                                                      *TOTALS*
     PEAK FLOW       (cms)=       3.89         2.14         6.030 (iii)
     TIME TO PEAK    (hrs)=       1.00         1.00         1.000
     RUNOFF VOLUME    (mm)=      85.20        50.53        65.434
     TOTAL RAINFALL   (mm)=      86.00        86.00        85.998
     RUNOFF COEFFICIENT   =        .99          .59          .761
      *** WARNING: Storage Coefficient is smaller than DT!
                   Use a smaller DT or a larger area.

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN* =  75.0    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

-------------------------------------------------------------------------------
001:0416---------------------------------------------------------------------------
*
*
*#=========================
*# OSD 85 L/S/HA  PARK 30 L/S/HA
*#  85*18.51 = 1573.4 L/S
*#  30*0.97 = 29.1 L/S
*#  TOTAL = 1602.5 L/S
*#=========================
*
---------------------
| ROUTE RESERVOIR   |    Requested routing time step = 10.0 min.
|  IN>05:(000204)   |
| OUT<08:(000471)   |    =========  OUTLFOW STORAGE TABLE  =========
---------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
                           (cms)    (ha.m.)   |    (cms)    (ha.m.)
```

```
                          .000  .0000E+00   |    1.602  .2804E+00
                        1.550  .2000E-02   |     .000  .0000E+00
      *** WARNING: STORAGE-Q values were extrapolated.
                   Increase curve or use overflow option.

     ROUTING RESULTS            AREA     QPEAK     TPEAK       R.V.
     --------------------       (ha)     (cms)     (hrs)       (mm)
     INFLOW >05: (000204)      19.48     6.030     1.000     65.434
     OUTFLOW<08: (000471)      19.48     1.635     1.500     67.090

                   PEAK   FLOW   REDUCTION [Qout/Qin](%)=   27.115
                   TIME SHIFT OF PEAK FLOW         (min)=    30.00
                   MAXIMUM  STORAGE   USED       (ha.m.)=.4556E+00

      *** WARNING: Outflow volume is less than inflow volume.
------------------------------------------------------------------------------
001:0417--------------------------------------------------------------------
*
*# MH 544
*
------------------------
| ADD HYD (       100) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
------------------------                  (ha)     (cms)   (hrs)   (mm)   (cms)
                       ID1 04:       100    49.29    4.029    1.50  62.03    .000
                      +ID2 08:       471    19.48    1.635    1.50  67.09    .000
                       ============================================================
                       SUM 07:       100    68.77    5.664    1.50  63.46    .000

   NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

------------------------------------------------------------------------------
001:0418--------------------------------------------------------------------
*
*#======================
*#    DRAINAGE AREA 47 ||
*#                     ||
*#======================
*
*
----------------------
| CALIB STANDHYD     |   Area    (ha)=    3.79
| 05:000204 DT=10.00 |   Total Imp(%)=   56.00   Dir. Conn.(%)=   35.00
----------------------
                               IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=       2.12         1.67
     Dep. Storage     (mm)=        .80         1.50
     Average Slope     (%)=        .20         2.00
     Length            (m)=     229.00        40.00
     Mannings n            =      .013         .250

     Max.eff.Inten.(mm/hr)=     214.27       183.61
                  over (min)      10.00        10.00
     Storage Coeff.  (min)=       5.02 (ii)   10.55 (ii)
     Unit Hyd. Tpeak (min)=      10.00        10.00
     Unit Hyd. peak  (cms)=        .15          .10
                                                      *TOTALS*
     PEAK FLOW       (cms)=        .70          .55         1.251 (iii)
     TIME TO PEAK    (hrs)=       1.00         1.00         1.000
     RUNOFF VOLUME    (mm)=      85.20        50.75        62.809
     TOTAL RAINFALL   (mm)=      86.00        86.00        85.998
     RUNOFF COEFFICIENT   =        .99          .59          .730
      *** WARNING: Storage Coefficient is smaller than DT!
                   Use a smaller DT or a larger area.

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN* =  75.0    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

------------------------------------------------------------------------------
001:0419--------------------------------------------------------------------
*
*
*#=========================
*# OSD 85 L/S/HA  PARK 30 L/S/HA
*#  85*3.5 = 297.5 L/S
*#  30*0.29 = 8.7 L/S
*#  TOTAL = 306.2 L/S
*#=========================
*
---------------------
| ROUTE RESERVOIR   |    Requested routing time step = 10.0 min.
|  IN>05:(000204)   |
| OUT<08:(000471)   |    =========  OUTLFOW STORAGE TABLE  =========
---------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
                           (cms)    (ha.m.)   |    (cms)    (ha.m.)
                            .000  .0000E+00   |     .306  .6031E-01
                            .250  .2000E-02   |     .000  .0000E+00
      *** WARNING: STORAGE-Q values were extrapolated.
                   Increase curve or use overflow option.

     ROUTING RESULTS            AREA     QPEAK     TPEAK       R.V.
     --------------------       (ha)     (cms)     (hrs)       (mm)
     INFLOW >05: (000204)       3.79     1.251     1.000     62.809
     OUTFLOW<08: (000471)       3.79      .332     1.500     63.341

                   PEAK   FLOW   REDUCTION [Qout/Qin](%)=   26.582
                   TIME SHIFT OF PEAK FLOW         (min)=    30.00
                   MAXIMUM  STORAGE   USED       (ha.m.)=.8953E-01

      *** WARNING: Outflow volume is less than inflow volume.
------------------------------------------------------------------------------
001:0420--------------------------------------------------------------------
*
*# MH 546
*
*#======================
*# TRUNK 1
*#======================
*
------------------------
| ADD HYD (       450) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
------------------------                  (ha)     (cms)   (hrs)   (mm)   (cms)
                       ID1 08:       471     3.79     .332    1.50  63.34    .000
                      +ID2 07:       100    68.77    5.664    1.50  63.46    .000
                       ============================================================
                       SUM 06:       450    72.56    5.996    1.50  63.46    .000

   NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

------------------------------------------------------------------------------
001:0421--------------------------------------------------------------------
*
--------------------
| SAVE HYD          |   AREA       (ha)=   72.560
| ID=06 (000450)    |   QPEAK     (cms)=    5.996 (i)
| DT=10.00 PCYC=-1 |   TPEAK     (hrs)=    1.500
-------------------   VOLUME     (mm)=   63.457
  Filename: C:\SWMHYMO\111083\2018-0~1\544.090
  Comments: 544-3CHI120

     (i)  PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
------------------------------------------------------------------------------
001:0422--------------------------------------------------------------------
*
*#=======================
*# TRUNK 2
*#=======================
*
*#=======================
*#    DRAINAGE AREA 50 ||
*#   COMMERICAL        ||
*#=======================
*
*
----------------------
| CALIB STANDHYD     |   Area    (ha)=    3.65
| 05:000204 DT=10.00 |   Total Imp(%)=   80.00   Dir. Conn.(%)=   80.00
----------------------
                               IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=       2.92         .73
     Dep. Storage     (mm)=        .80        1.50
     Average Slope     (%)=        .20        2.00
     Length            (m)=     292.00       40.00
     Mannings n            =      .013         .250

     Max.eff.Inten.(mm/hr)=     214.27       99.58
                  over (min)      10.00       10.00
     Storage Coeff.  (min)=       5.81 (ii)  12.88 (ii)
     Unit Hyd. Tpeak (min)=      10.00       10.00
     Unit Hyd. peak  (cms)=        .14         .09
                                                      *TOTALS*
     PEAK FLOW       (cms)=       1.49          .11         1.605 (iii)
     TIME TO PEAK    (hrs)=       1.00         1.00         1.000
     RUNOFF VOLUME    (mm)=      85.20        42.21        76.599
     TOTAL RAINFALL   (mm)=      86.00        86.00        85.998
     RUNOFF COEFFICIENT   =        .99          .49          .891
      *** WARNING: Storage Coefficient is smaller than DT!
                   Use a smaller DT or a larger area.

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN* =  75.0    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

------------------------------------------------------------------------------
001:0423--------------------------------------------------------------------
*
*
*#=========================
*# OSD 85 L/S/HA
*#  85*3.65 = 310.3 L/S
*#=========================
*
---------------------
| ROUTE RESERVOIR   |    Requested routing time step = 10.0 min.
|  IN>05:(000204)   |
| OUT<08:(000471)   |    =========  OUTLFOW STORAGE TABLE  =========
---------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
                           (cms)    (ha.m.)   |    (cms)    (ha.m.)
                            .000  .0000E+00   |     .310  .9484E-01
                            .200  .2000E-02   |     .000  .0000E+00
      *** WARNING: STORAGE-Q values were extrapolated.
                   Increase curve or use overflow option.

     ROUTING RESULTS            AREA     QPEAK     TPEAK       R.V.
     --------------------       (ha)     (cms)     (hrs)       (mm)
     INFLOW >05: (000204)       3.65     1.605     1.000     76.599
     OUTFLOW<08: (000471)       3.65      .343     1.333     77.432

                   PEAK   FLOW   REDUCTION [Qout/Qin](%)=   21.351
                   TIME SHIFT OF PEAK FLOW         (min)=    20.00
                   MAXIMUM  STORAGE   USED       (ha.m.)=.1245E+00

      *** WARNING: Outflow volume is less than inflow volume.
------------------------------------------------------------------------------
001:0424--------------------------------------------------------------------
*
--------------------
| SHIFT HYD(       874)|
| IN= 8---> OUT= 7     |
| SHIFT=  10.0 min     |       AREA     QPEAK      TPEAK      R.V.
------------------------       (ha)     (cms)      (hrs)      (mm)
          ID= 8:       471       3.65      .343      1.333    77.432
    SHIFT ID= 7:       874       3.65      .343      1.500    77.432

------------------------------------------------------------------------------
001:0425--------------------------------------------------------------------
*
*# MH 111
*
*#=============================================
*# AREA FORMERLY KNOWN AS 51 (EAST OF PORTOBELLO)
*#=============================================
*
*#=============================================
*# MATTAMY SUMMERSIDE DRAINAGE AREA 19.93 ha - H-114
*# TO MH 112
*#=============================================
*
*
--------------------
| READ HYD          |   AREA       (ha)=   15.861
| ID=05 (114    )   |   QPEAK     (cms)=    1.662
| DT= 1.00 PCYC= 1 |   TPEAK     (hrs)=    1.067
--------------------   VOLUME     (mm)=   61.619
  Filename: C:\SWMHYMO\111083\2018-0~1\H-114.090
  Comments: Minor System Outflow to MH 114

  TIME    FLOW |  TIME    FLOW |  TIME    FLOW |  TIME    FLOW |  TIME    FLOW
   hrs     cms |   hrs     cms |   hrs     cms |   hrs     cms |   hrs     cms
    .00    .000|   1.10   1.662|   2.20    .610|   3.30    .065|   4.40    .001
    .02    .000|   1.12   1.662|   2.22    .593|   3.32    .060|   4.42    .001
    .03    .000|   1.13   1.662|   2.23    .581|   3.33    .056|   4.43    .001
    .05    .000|   1.15   1.662|   2.25    .573|   3.35    .052|   4.45    .001
    .07    .000|   1.17   1.662|   2.27    .566|   3.37    .048|   4.47    .001
    .08    .000|   1.18   1.662|   2.28    .559|   3.38    .045|   4.48    .001
    .10    .000|   1.20   1.662|   2.30    .554|   3.40    .041|   4.50    .000
    .12    .000|   1.22   1.662|   2.32    .549|   3.42    .038|   4.52    .000
    .13    .000|   1.23   1.662|   2.33    .544|   3.43    .036|   4.53    .000
    .15    .000|   1.25   1.662|   2.35    .537|   3.45    .033|   4.55    .000
    .17    .000|   1.27   1.662|   2.37    .529|   3.47    .031|   4.57    .000
```

```
13717>     .18    .000|   1.28   1.662|   2.38    .521|   3.48    .029|   4.58    .000
13718>     .20    .000|   1.30   1.662|   2.40    .514|   3.50    .027|   4.60    .000
13719>     .22    .016|   1.32   1.661|   2.42    .509|   3.52    .025|   4.62    .000
13720>     .23    .058|   1.33   1.661|   2.43    .504|   3.53    .023|   4.63    .000
13721>     .25    .104|   1.35   1.661|   2.45    .499|   3.55    .022|   4.65    .000
13722>     .27    .142|   1.37   1.659|   2.47    .495|   3.57    .020|   4.67    .000
13723>     .28    .168|   1.38   1.657|   2.48    .491|   3.58    .019|   4.68    .000
13724>     .30    .184|   1.40   1.655|   2.50    .488|   3.60    .017|   4.70    .000
13725>     .32    .196|   1.42   1.654|   2.52    .483|   3.62    .016|   4.72    .000
13726>     .33    .203|   1.43   1.652|   2.53    .476|   3.63    .015|   4.73    .000
13727>     .35    .218|   1.45   1.650|   2.55    .465|   3.65    .014|   4.75    .000
13728>     .37    .240|   1.47   1.647|   2.57    .456|   3.67    .013|   4.77    .000
13729>     .38    .258|   1.48   1.644|   2.58    .444|   3.68    .012|   4.78    .000
13730>     .40    .272|   1.50   1.628|   2.60    .438|   3.70    .012|   4.80    .000
13731>     .42    .281|   1.52   1.617|   2.62    .428|   3.72    .011|   4.82    .000
13732>     .43    .288|   1.53   1.604|   2.63    .421|   3.73    .010|   4.83    .000
13733>     .45    .292|   1.55   1.592|   2.65    .417|   3.75    .009|   4.85    .000
13734>     .47    .296|   1.57   1.578|   2.67    .411|   3.77    .009|   4.87    .000
13735>     .48    .298|   1.58   1.562|   2.68    .402|   3.78    .008|   4.88    .000
13736>     .50    .301|   1.60   1.552|   2.70    .395|   3.80    .008|   4.90    .000
13737>     .52    .323|   1.62   1.544|   2.72    .389|   3.82    .007|   4.92    .000
13738>     .53    .364|   1.63   1.537|   2.73    .385|   3.83    .007|   4.93    .000
13739>     .55    .399|   1.65   1.530|   2.75    .381|   3.85    .006|   4.95    .000
13740>     .57    .427|   1.67   1.523|   2.77    .378|   3.87    .006|   4.97    .000
13741>     .58    .445|   1.68   1.508|   2.78    .376|   3.88    .005|   4.98    .000
13742>     .60    .457|   1.70   1.484|   2.80    .373|   3.90    .005|   5.00    .000
13743>     .62    .466|   1.72   1.468|   2.82    .371|   3.92    .005|   5.02    .000
13744>     .63    .474|   1.73   1.426|   2.83    .369|   3.93    .004|   5.03    .000
13745>     .65    .479|   1.75   1.411|   2.85    .366|   3.95    .004|   5.05    .000
13746>     .67    .484|   1.77   1.402|   2.87    .361|   3.97    .004|   5.07    .000
13747>     .68    .578|   1.78   1.390|   2.88    .334|   3.98    .004|   5.08    .000
13748>     .70    .736|   1.80   1.378|   2.90    .322|   4.00    .003|   5.10    .000
13749>     .72    .855|   1.82   1.362|   2.92    .317|   4.02    .003|   5.12    .000
13750>     .73    .948|   1.83   1.328|   2.93    .314|   4.03    .003|   5.13    .000
13751>     .75   1.012|   1.85   1.313|   2.95    .312|   4.05    .003|   5.15    .000
13752>     .77   1.059|   1.87   1.296|   2.97    .310|   4.07    .003|   5.17    .000
13753>     .78   1.096|   1.88   1.282|   2.98    .308|   4.08    .002|   5.18    .000
13754>     .80   1.128|   1.90   1.269|   3.00    .307|   4.10    .002|   5.20    .000
13755>     .82   1.155|   1.92   1.253|   3.02    .287|   4.12    .002|   5.22    .000
13756>     .83   1.180|   1.93   1.246|   3.03    .251|   4.13    .002|   5.23    .000
13757>     .85   1.330|   1.95   1.240|   3.05    .220|   4.15    .002|   5.25    .000
13758>     .87   1.531|   1.97   1.226|   3.07    .194|   4.17    .002|   5.27    .000
13759>     .88   1.578|   1.98   1.218|   3.08    .176|   4.18    .002|   5.28    .000
13760>     .90   1.606|   2.00   1.211|   3.10    .161|   4.20    .002|   5.30    .000
13761>     .92   1.627|   2.02   1.187|   3.12    .149|   4.22    .001|   5.32    .000
13762>     .93   1.637|   2.03   1.168|   3.13    .138|   4.23    .001|   5.33    .000
13763>     .95   1.646|   2.05   1.152|   3.15    .128|   4.25    .001|   5.35    .000
13764>     .97   1.653|   2.07   1.137|   3.17    .119|   4.27    .001|   5.37    .000
13765>     .98   1.659|   2.08   1.125|   3.18    .111|   4.28    .001|   5.38    .000
13766>    1.00   1.662|   2.10   1.110|   3.20    .103|   4.30    .001|   5.40    .000
13767>    1.02   1.662|   2.12   1.101|   3.22    .096|   4.32    .001|   5.42    .000
13768>    1.03   1.662|   2.13   1.096|   3.23    .089|   4.33    .001|   5.43    .000
13769>    1.05   1.662|   2.15   1.092|   3.25    .082|   4.35    .001|   5.45    .000
13770>    1.07   1.662|   2.17   1.089|   3.27    .076|   4.37    .001|   5.47    .000
13771>    1.08   1.662|   2.18    .622|   3.28    .070|   4.38    .001|
13772> --------------------------------------------------------------------------------
13773> 001:0426-------------------------------------------------------------------------
13774> *
13775> *
13776> *# MH 112
13777> *
13778> *
13779> *
13780> *#===============
13781> *# ADD TO AREA 50
13782> *
13783> ----------------------
13784> | ADD HYD (       846) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
13785> ----------------------                    (ha)     (cms)   (hrs)   (mm)   (cms)
13786>                        ID1 07:       874     3.65     .343    1.50  77.43    .000
13787>                      +ID2 05:114           15.86    1.662    1.07  61.62    .000
13788>                        ============================================================
13789>                        SUM 04:       846    19.51    1.987    1.43  64.58    .000
13790>
13791>    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
13792>
13793> --------------------------------------------------------------------------------
13794> 001:0427-------------------------------------------------------------------------
13795> *#=======================
13796> *#    DRAINAGE AREA 53 ||
13797> *#                     ||
13798> *#=======================
13799> *
13800> *
13801> ---------------------
13802> | CALIB STANDHYD     |   Area    (ha)=   17.48
13803> | 08:000204 DT=10.00 |   Total Imp(%)=   56.00   Dir. Conn.(%)=   42.00
13804> ---------------------
13805>                              IMPERVIOUS    PERVIOUS (i)
13806>      Surface Area     (ha)=       9.79         7.69
13807>      Dep. Storage     (mm)=        .80         1.50
13808>      Average Slope     (%)=        .20         2.00
13809>      Length            (m)=     447.00        40.00
13810>      Mannings n           =       .013         .250
13811>
13812>      Max.eff.Inten.(mm/hr)=     214.27       154.32
13813>                 over (min)=      10.00        10.00
13814>      Storage Coeff.   (min)=       7.50 (ii)   13.43 (ii)
13815>      Unit Hyd. Tpeak  (min)=      10.00        10.00
13816>      Unit Hyd. peak   (cms)=        .13          .09
13817>                                                          *TOTALS*
13818>      PEAK FLOW        (cms)=       3.44         1.83         5.269 (iii)
13819>      TIME TO PEAK     (hrs)=       1.00         1.00         1.000
13820>      RUNOFF VOLUME     (mm)=      85.20        48.30        63.798
13821>      TOTAL RAINFALL    (mm)=      86.00        86.00        85.998
13822>      RUNOFF COEFFICIENT   =        .99          .56          .742
13823>       *** WARNING: Storage Coefficient is smaller than DT!
13824>                    Use a smaller DT or a larger area.
13825>
13826>       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
13827>           CN* =  75.0    Ia = Dep. Storage  (Above)
13828>      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
13829>           THAN THE STORAGE COEFFICIENT.
13830>     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
13831>
13832> --------------------------------------------------------------------------------
13833> 001:0428-------------------------------------------------------------------------
13834> *
13835> *
13836> *#=========================
13837> *# OSD 85 L/S/HA  PARK 30 L/S/HA
13838> *#  85*16.42 = 1395.7 L/S
13839> *#  30*1.06 = 31.8 L/S
13840> *#  TOTAL = 1428 L/S
13841> *#=========================
13842> *
13843> ----------------------
13844> | ROUTE RESERVOIR   |    Requested routing time step = 10.0 min.
13845> |  IN>08:(000204)   |
13846> | OUT<05:(000471)   |    =========  OUTFLOW STORAGE TABLE  =========
13847> ---------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
13848>                            (cms)    (ha.m.)   |    (cms)    (ha.m.)
13849>                             .000  .0000E+00   |    1.428  .2308E+00
13850>                            1.400  .2000E-02   |     .000  .0000E+00
13851>       *** WARNING: STORAGE-Q values were extrapolated.
13852>                    Increase curve or use overflow option.
13853>
13854>      ROUTING RESULTS            AREA     QPEAK     TPEAK       R.V.
13855>      --------------------       (ha)     (cms)     (hrs)       (mm)
13856>      INFLOW >08: (000204)      17.48     5.269     1.000     63.798
13857>      OUTFLOW<05: (000471)      17.48     1.447     1.500     64.597
13858>
13859>                    PEAK   FLOW   REDUCTION [Qout/Qin](%)=   27.470
13860>                    TIME SHIFT OF PEAK FLOW         (min)=    30.00
13861>                    MAXIMUM  STORAGE   USED       (ha.m.)=.3921E+00
13862>
13863>       *** WARNING: Outflow volume is less than inflow volume.
13864> --------------------------------------------------------------------------------
13865> 001:0429-------------------------------------------------------------------------
13866> *
13867> *# MH 110
13868> *
13869> ------------------------
13870> | ADD HYD (       584) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
13871> ------------------------                    (ha)     (cms)   (hrs)   (mm)   (cms)
13872>                        ID1 05:       471    17.48    1.447    1.50  64.60    .000
13873>                      +ID2 04:       846    19.51    1.987    1.43  64.58    .000
13874>                        ============================================================
13875>                        SUM 08:       584    36.99    3.434    1.43  64.59    .000
13876>
13877>    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
13878>
13879> --------------------------------------------------------------------------------
13880> 001:0430-------------------------------------------------------------------------
13881> *
13882> *#================================================
13883> *# AREA FORMERLY KNOWN AS 52 (EAST OF PORTOBELLO)
13884> *#================================================
13885> *
13886> *#================================================
13887> *# MATTAMY SUMMERSIDE DRAINAGE AREA 6.13 ha - H-217 - MINOR
13888> *#================================================
13889> *
13890> *
13891> --------------------
13892> | READ HYD         |   AREA       (ha)=    4.571
13893> | ID=03 (000217)   |   QPEAK     (cms)=     .516
13894> | DT= 1.00 PCYC= 1 |   TPEAK     (hrs)=    1.067
13895> --------------------   VOLUME      (mm)=   64.325
13896>   Filename: C:\SWMHYMO\111083\2018-0~1\H-217.090
13897>   Comments: Minor System Outflow to MH 217
13898>
13899>   TIME    FLOW |  TIME    FLOW |  TIME    FLOW |  TIME    FLOW |  TIME    FLOW |  TIME    FLOW
13900>    hrs     cms |   hrs     cms |   hrs     cms |   hrs     cms |   hrs     cms |   hrs     cms
13901>     .00    .000|    .97    .507|   1.93    .294|   2.90    .115|   3.87    .001
13902>     .02    .000|    .98    .513|   1.95    .291|   2.92    .115|   3.88    .001
13903>     .03    .000|   1.00    .514|   1.97    .289|   2.93    .114|   3.90    .001
13904>     .05    .000|   1.02    .515|   1.98    .287|   2.95    .114|   3.92    .001
13905>     .07    .000|   1.03    .515|   2.00    .285|   2.97    .113|   3.93    .001
13906>     .08    .000|   1.05    .516|   2.02    .278|   2.98    .113|   3.95    .001
13907>     .10    .000|   1.07    .516|   2.03    .265|   3.00    .112|   3.97    .001
13908>     .12    .000|   1.08    .516|   2.05    .260|   3.02    .105|   3.98    .000
13909>     .13    .000|   1.10    .515|   2.07    .256|   3.03    .091|   4.00    .000
13910>     .15    .000|   1.12    .514|   2.08    .254|   3.05    .079|   4.02    .000
13911>     .17    .000|   1.13    .514|   2.10    .252|   3.07    .070|   4.03    .000
13912>     .18    .000|   1.15    .513|   2.12    .250|   3.08    .065|   4.05    .000
13913>     .20    .000|   1.17    .513|   2.13    .243|   3.10    .061|   4.07    .000
13914>     .22    .007|   1.18    .512|   2.15    .239|   3.12    .052|   4.08    .000
13915>     .23    .025|   1.20    .512|   2.17    .237|   3.13    .037|   4.10    .000
13916>     .25    .045|   1.22    .511|   2.18    .235|   3.15    .032|   4.12    .000
13917>     .27    .058|   1.23    .511|   2.20    .232|   3.17    .029|   4.13    .000
13918>     .28    .066|   1.25    .510|   2.22    .229|   3.18    .027|   4.15    .000
13919>     .30    .071|   1.27    .510|   2.23    .227|   3.20    .025|   4.17    .000
13920>     .32    .073|   1.28    .509|   2.25    .219|   3.22    .023|   4.18    .000
13921>     .33    .075|   1.30    .509|   2.27    .216|   3.23    .021|   4.20    .000
13922>     .35    .079|   1.32    .508|   2.28    .214|   3.25    .019|   4.22    .000
13923>     .37    .088|   1.33    .508|   2.30    .209|   3.27    .017|   4.23    .000
13924>     .38    .094|   1.35    .507|   2.32    .201|   3.28    .016|   4.25    .000
13925>     .40    .098|   1.37    .506|   2.33    .197|   3.30    .014|   4.27    .000
13926>     .42    .100|   1.38    .506|   2.35    .194|   3.32    .013|   4.28    .000
13927>     .43    .102|   1.40    .505|   2.37    .191|   3.33    .012|   4.30    .000
13928>     .45    .102|   1.42    .504|   2.38    .187|   3.35    .011|   4.32    .000
13929>     .47    .103|   1.43    .503|   2.40    .179|   3.37    .010|   4.33    .000
13930>     .48    .103|   1.45    .502|   2.42    .172|   3.38    .009|   4.35    .000
13931>     .50    .104|   1.47    .495|   2.43    .161|   3.40    .009|   4.37    .000
13932>     .52    .113|   1.48    .487|   2.45    .157|   3.42    .008|   4.38    .000
13933>     .53    .131|   1.50    .482|   2.47    .156|   3.43    .007|   4.40    .000
13934>     .55    .145|   1.52    .471|   2.48    .155|   3.45    .007|   4.42    .000
13935>     .57    .153|   1.53    .460|   2.50    .154|   3.47    .006|   4.43    .000
13936>     .58    .159|   1.55    .455|   2.52    .152|   3.48    .006|   4.45    .000
13937>     .60    .162|   1.57    .451|   2.53    .150|   3.50    .005|   4.47    .000
13938>     .62    .164|   1.58    .447|   2.55    .148|   3.52    .005|   4.48    .000
13939>     .63    .166|   1.60    .442|   2.57    .147|   3.53    .004|   4.50    .000
13940>     .65    .167|   1.62    .435|   2.58    .145|   3.55    .004|   4.52    .000
13941>     .67    .168|   1.63    .430|   2.60    .142|   3.57    .004|   4.53    .000
13942>     .68    .207|   1.65    .427|   2.62    .136|   3.58    .003|   4.55    .000
13943>     .70    .279|   1.67    .424|   2.63    .133|   3.60    .003|   4.57    .000
13944>     .72    .324|   1.68    .420|   2.65    .131|   3.62    .003|   4.58    .000
13945>     .73    .347|   1.70    .416|   2.67    .130|   3.63    .003|   4.60    .000
13946>     .75    .358|   1.72    .412|   2.68    .129|   3.65    .002|   4.62    .000
13947>     .77    .367|   1.73    .409|   2.70    .127|   3.67    .002|   4.63    .000
13948>     .78    .374|   1.75    .406|   2.72    .125|   3.68    .002|   4.65    .000
13949>     .80    .382|   1.77    .402|   2.73    .124|   3.70    .002|   4.67    .000
13950>     .82    .389|   1.78    .396|   2.75    .123|   3.72    .002|   4.68    .000
13951>     .83    .394|   1.80    .382|   2.77    .123|   3.73    .002|   4.70    .000
13952>     .85    .426|   1.82    .357|   2.78    .122|   3.75    .001|   4.72    .000
13953>     .87    .446|   1.83    .349|   2.80    .121|   3.77    .001|   4.73    .000
13954>     .88    .466|   1.85    .345|   2.82    .121|   3.78    .001|   4.75    .000
13955>     .90    .480|   1.87    .327|   2.83    .120|   3.80    .001|   4.77    .000
13956>     .92    .487|   1.88    .311|   2.85    .119|   3.82    .001|
13957>     .93    .494|   1.90    .303|   2.87    .118|   3.83    .001|
13958>     .95    .502|   1.92    .298|   2.88    .116|   3.85    .001|
13959> --------------------------------------------------------------------------------
13960> 001:0431-------------------------------------------------------------------------
13961> *
13962> *
13963> *
13964> *#=======================
13965> *#    DRAINAGE AREA 54 ||
13966> *#                     ||
13967> *#=======================
13968> *
13969> *
13970> ----------------------
```

```
| CALIB STANDHYD     |   Area    (ha)=   13.08
| 04:000204 DT=10.00 |   Total Imp(%)=   50.00   Dir. Conn.(%)=   29.00
----------------------
                              IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=       6.54         6.54
     Dep. Storage     (mm)=        .80         1.50
     Average Slope     (%)=        .20         2.00
     Length            (m)=     475.00        40.00
     Mannings n             =      .013         .250

     Max.eff.Inten.(mm/hr)=     214.27       172.95
                   over (min)       10.00        10.00
     Storage Coeff.  (min)=       7.77 (ii)   13.44 (ii)
     Unit Hyd. Tpeak (min)=      10.00        10.00
     Unit Hyd. peak  (cms)=        .12          .09
                                                        *TOTALS*
     PEAK FLOW       (cms)=       1.75         1.75          3.499 (iii)
     TIME TO PEAK    (hrs)=       1.00         1.00          1.000
     RUNOFF VOLUME    (mm)=      85.20        49.91         60.142
     TOTAL RAINFALL   (mm)=      86.00        86.00         85.998
     RUNOFF COEFFICIENT   =        .99          .58           .699
      *** WARNING: Storage Coefficient is smaller than DT!
                   Use a smaller DT or a larger area.

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN* =  75.0    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

-------------------------------------------------------------------------------
001:0432-------------------------------------------------------------------------
*
*
*#########################
*# OSD 85 L/S/HA 30 L/S/HA
*#  85*10.89 = 925.7 L/S
*#  30*2.19 = 65.7 L/S
*#  TOTAL = 991.4 L/S
*#########################
*
--------------------
| ROUTE RESERVOIR   |    Requested routing time step = 10.0 min.
|  IN>04:(000204)   |
| OUT<05:(000471)   |    =========  OUTLFOW STORAGE TABLE  =========
--------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
                          (cms)    (ha.m.)   |    (cms)    (ha.m.)
                           .000  .0000E+00   |     .991  .1455E+00
                           .950  .2000E-02   |     .000  .0000E+00
      *** WARNING: STORAGE-Q values were extrapolated.
                   Increase curve or use overflow option.

     ROUTING RESULTS            AREA     QPEAK     TPEAK       R.V.
     --------------------        (ha)     (cms)     (hrs)        (mm)
     INFLOW >04: (000204)      13.08     3.499     1.000     60.142
     OUTFLOW<05: (000471)      13.08     1.028     1.500     61.194

                   PEAK   FLOW   REDUCTION [Qout/Qin](%)=   29.387
                   TIME SHIFT OF PEAK FLOW         (min)=    30.00
                   MAXIMUM  STORAGE   USED       (ha.m.)=.2734E+00

      *** WARNING: Outflow volume is less than inflow volume.
-------------------------------------------------------------------------------
001:0433-------------------------------------------------------------------------
*
*# ADD AREA 52 AND 54
*
------------------------
| ADD HYD (       463) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
------------------------                  (ha)     (cms)   (hrs)   (mm)   (cms)
                      ID1 03:       217     4.57     .516    1.07  64.33    .000
                     +ID2 05:       471    13.08    1.028    1.50  61.19    .000
                      ==========================================================
                      SUM 09:       463    17.65    1.531    1.33  62.01    .000

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

-------------------------------------------------------------------------------
001:0434-------------------------------------------------------------------------
*
*# MH 107
*
*# ADD TO REST
*
------------------------
| ADD HYD (       463) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
------------------------                  (ha)     (cms)   (hrs)   (mm)   (cms)
                      ID1 09:       463    17.65    1.531    1.33  62.01    .000
                     +ID2 08:       584    36.99    3.434    1.43  64.59    .000
                      ==========================================================
                      SUM 05:       463    54.64    4.964    1.42  63.75    .000

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

-------------------------------------------------------------------------------
001:0435-------------------------------------------------------------------------
*
*
*#######################
*#    DRAINAGE AREA 55 ||
*#                     ||
*#######################
*
*
----------------------
| CALIB STANDHYD     |   Area    (ha)=   15.69
| 01:000204 DT=10.00 |   Total Imp(%)=   60.00   Dir. Conn.(%)=   37.00
----------------------
                              IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=       9.41         6.28
     Dep. Storage     (mm)=        .80         1.50
     Average Slope     (%)=        .20         2.00
     Length            (m)=     530.00        40.00
     Mannings n             =      .013         .250

     Max.eff.Inten.(mm/hr)=     214.27       202.10
                   over (min)       10.00        10.00
     Storage Coeff.  (min)=       8.30 (ii)   13.63 (ii)
     Unit Hyd. Tpeak (min)=      10.00        10.00
     Unit Hyd. peak  (cms)=        .12          .09
                                                        *TOTALS*
     PEAK FLOW       (cms)=       2.61         1.95          4.557 (iii)
     TIME TO PEAK    (hrs)=       1.00         1.00          1.000
     RUNOFF VOLUME    (mm)=      85.20        52.11         64.351
     TOTAL RAINFALL   (mm)=      86.00        86.00         85.998
     RUNOFF COEFFICIENT   =        .99          .61           .748
      *** WARNING: Storage Coefficient is smaller than DT!
                   Use a smaller DT or a larger area.

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN* =  75.0    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

-------------------------------------------------------------------------------
001:0436-------------------------------------------------------------------------
*
*
*#########################
*# OSD 85 L/S/HA
*#  85*15.69 = 1334 L/S
*#########################
*
--------------------
| ROUTE RESERVOIR   |    Requested routing time step = 10.0 min.
|  IN>01:(000204)   |
| OUT<09:(000471)   |    =========  OUTLFOW STORAGE TABLE  =========
--------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
                          (cms)    (ha.m.)   |    (cms)    (ha.m.)
                           .000  .0000E+00   |    1.334  .1825E+00
                          1.300  .2000E-02   |     .000  .0000E+00
      *** WARNING: STORAGE-Q values were extrapolated.
                   Increase curve or use overflow option.

     ROUTING RESULTS            AREA     QPEAK     TPEAK       R.V.
     --------------------        (ha)     (cms)     (hrs)        (mm)
     INFLOW >01: (000204)      15.69     4.557     1.000     64.351
     OUTFLOW<09: (000471)      15.69     1.364     1.500     64.632

                   PEAK   FLOW   REDUCTION [Qout/Qin](%)=   29.928
                   TIME SHIFT OF PEAK FLOW         (min)=    30.00
                   MAXIMUM  STORAGE   USED       (ha.m.)=.3420E+00

      *** WARNING: Outflow volume is less than inflow volume.
-------------------------------------------------------------------------------
001:0437-------------------------------------------------------------------------
*
*# MH 105
*
*# TRUNK 2
*
------------------------
| ADD HYD (       874) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
------------------------                  (ha)     (cms)   (hrs)   (mm)   (cms)
                      ID1 09:       471    15.69    1.364    1.50  64.63    .000
                     +ID2 05:       463    54.64    4.964    1.42  63.75    .000
                      ==========================================================
                      SUM 04:       874    70.33    6.326    1.43  63.95    .000

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

-------------------------------------------------------------------------------
001:0438-------------------------------------------------------------------------
*
*
----------------------
| SAVE HYD          |   AREA      (ha)=   70.332
| ID=04 (000874)    |   QPEAK     (cms)=    6.326 (i)
| DT= 1.00 PCYC=-1 |   TPEAK     (hrs)=    1.433
----------------------  VOLUME      (mm)=   63.949
  Filename: C:\SWMHYMO\111083\2018-0~1\104.090
  Comments: 104-3CHI120

      (i)  PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
-------------------------------------------------------------------------------
001:0439-------------------------------------------------------------------------
*
*
*#################################
*#  ADD TWO TRUNKS
*#################################
*
------------------------
| ADD HYD (       562) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
------------------------                  (ha)     (cms)   (hrs)   (mm)   (cms)
                      ID1 04:       874    70.33    6.326    1.43  63.95    .000
                     +ID2 06:       450    72.56    5.996    1.50  63.46    .000
                      ==========================================================
                      SUM 09:       562   142.89   12.315    1.45  63.70    .000

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

-------------------------------------------------------------------------------
001:0440-------------------------------------------------------------------------
*
*
*
*#####################################################
*# ISGAR LANDS (EAST AND WEST OF AVALON SOUTH POND)
*#####################################################
*
*# ISGAR LANDS - AREA I1
*# NEW WESTERN INLET
*
----------------------
| CALIB STANDHYD     |   Area    (ha)=    8.35
| 01:I1     DT=12.00 |   Total Imp(%)=   60.00   Dir. Conn.(%)=   45.00
----------------------
                              IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=       5.01         3.34
     Dep. Storage     (mm)=        .80         1.50
     Average Slope     (%)=        .20         2.00
     Length            (m)=     357.00        40.00
     Mannings n             =      .013         .250

     Max.eff.Inten.(mm/hr)=     214.27       269.63
                   over (min)       10.00        10.00
     Storage Coeff.  (min)=       6.55 (ii)   11.30 (ii)
     Unit Hyd. Tpeak (min)=      10.00        10.00
     Unit Hyd. peak  (cms)=        .13          .10
                                                        *TOTALS*
     PEAK FLOW       (cms)=       1.85         1.54          3.383 (iii)
     TIME TO PEAK    (hrs)=       1.00         1.00          1.000
     RUNOFF VOLUME    (mm)=      82.01        52.09         65.553
     TOTAL RAINFALL   (mm)=      86.00        86.00         85.998
     RUNOFF COEFFICIENT   =        .95          .61           .762
      *** WARNING: Storage Coefficient is smaller than DT!
                   Use a smaller DT or a larger area.

       (i) HORTONS EQUATION SELECTED FOR PERVIOUS LOSSES:
           Fo   (mm/hr)= 76.20          K  (1/hr)=  4.14
           Fc   (mm/hr)= 13.20     Cum.Inf.   (mm)=   .00
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
```

```
14225>           THAN THE STORAGE COEFFICIENT.
14226>     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
14227>
14228> --------------------------------------------------------------------------------
14229> 001:0441--------------------------------------------------------------------------
14230> *
14231> *
14232> *#=========================
14233> *# INFLOW 200 l/s/ha = 8.35 x 200 = 1670 l/s
14234> *# ON-SITE STORAGE (30% LESS THAN AVALON WEST) - 75.60 m3/ha = 631.3 M3
14235> *#=========================
14236> *
14237> ---------------------
14238> | ROUTE RESERVOIR   |    Requested routing time step =  1.0 min.
14239> |  IN>01:(I1    )   |
14240> | OUT<04:(I1    )   |    =========  OUTLFOW STORAGE TABLE  =========
14241> ---------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
14242>                            (cms)    (ha.m.)   |    (cms)    (ha.m.)
14243>                              .000  .0000E+00   |    1.670  .6313E-01
14244>                             1.660  .2000E-02   |     .000  .0000E+00
14245>
14246>     ROUTING RESULTS            AREA     QPEAK     TPEAK       R.V.
14247>     --------------------       (ha)     (cms)     (hrs)       (mm)
14248>     INFLOW >01: (I1    )       8.35     3.383     1.000     65.553
14249>     OUTFLOW<04: (I1    )       7.84     1.670     1.067     65.553
14250>    OVERFLOW<06: (000487)        .51     1.211     1.067     65.553
14251>
14252>                   TOTAL NUMBER OF SIMULATED OVERFLOWS  =        2
14253>                   CUMULATIVE TIME OF OVERFLOWS  (hours)=      .15
14254>                   PERCENTAGE OF TIME OVERFLOWING    (%)=     3.45
14255>
14256>
14257>                   PEAK   FLOW   REDUCTION [Qout/Qin](%)=   49.358
14258>                   TIME SHIFT OF PEAK FLOW         (min)=     4.00
14259>                   MAXIMUM  STORAGE   USED       (ha.m.)=.6309E-01
14260>
14261> --------------------------------------------------------------------------------
14262> 001:0442--------------------------------------------------------------------------
14263> *
14264> *# TOTAL (MINOR AND MAJOR FLOW) FROM I1 TO POND
14265> *
14266> ------------------------
14267> | ADD HYD (       784) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
14268> ------------------------                  (ha)     (cms)  (hrs)  (mm)   (cms)
14269>                        ID1 04:I1          7.84     1.670    1.07  65.55    .000
14270>                      +ID2 06:       487     .51     1.211    1.07  65.55    .000
14271>                       ============================================================
14272>                        SUM 07:       784     8.35     2.881    1.07  65.55    .000
14273>
14274>    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
14275>
14276> --------------------------------------------------------------------------------
14277> 001:0443--------------------------------------------------------------------------
14278> *
14279> *
14280> *#============================================================
14281> *# MAJOR OVERLAND FLOW FROM AREAS EAST OF PORTOBELLO TO FACILITY
14282> *# FORMERLY AREAS 51 AND 52 (26.06 HA TOTAL AREA)
14283> *# TO BE CAPTURED BY MINOR SYSTEM STORM SEWERS IN EASTERN ISGAR
14284> *#============================================================
14285> *
14286> *
14287> ---------------------
14288> | READ HYD          |   AREA       (ha)=    5.628
14289> | ID=05 (005152)    |   QPEAK     (cms)=    3.857
14290> | DT= 1.00 PCYC= 1  |   TPEAK      (hrs)=   1.033
14291> ---------------------   VOLUME      (mm)=   66.629
14292>   Filename: C:\SWMHYMO\111083\2018-0~1\H-MAJout.090
14293>   Comments: Major System Outflow from Portobello Blvd
14294>
14295>   TIME    FLOW |  TIME    FLOW |  TIME    FLOW |  TIME    FLOW |  TIME    FLOW
14296>    hrs     cms |   hrs     cms |   hrs     cms |   hrs     cms |   hrs     cms
14297>     .00    .000|    .33    .000|    .67    .000|   1.00   3.524|   1.33    .972
14298>     .02    .000|    .35    .000|    .68    .000|   1.02   3.791|   1.35    .844
14299>     .03    .000|    .37    .000|    .70    .000|   1.03   3.857|   1.37    .705
14300>     .05    .000|    .38    .000|    .72    .000|   1.05   3.559|   1.38    .574
14301>     .07    .000|    .40    .000|    .73    .000|   1.07   3.204|   1.40    .480
14302>     .08    .000|    .42    .000|    .75    .000|   1.08   2.927|   1.42    .419
14303>     .10    .000|    .43    .000|    .77    .000|   1.10   2.560|   1.43    .341
14304>     .12    .000|    .45    .000|    .78    .000|   1.12   2.362|   1.45    .227
14305>     .13    .000|    .47    .000|    .80    .000|   1.13   2.416|   1.47    .083
14306>     .15    .000|    .48    .000|    .82    .000|   1.15   2.542|   1.48    .000
14307>     .17    .000|    .50    .000|    .83    .000|   1.17   2.573|   1.50    .103
14308>     .18    .000|    .52    .000|    .85    .000|   1.18   2.508|   1.52    .070
14309>     .20    .000|    .53    .000|    .87    .000|   1.20   2.375|   1.53    .028
14310>     .22    .000|    .55    .000|    .88    .000|   1.22   2.195|   1.55    .000
14311>     .23    .000|    .57    .000|    .90    .000|   1.23   1.982|   1.57    .000
14312>     .25    .000|    .58    .000|    .92    .523|   1.25   1.761|   1.58    .011
14313>     .27    .000|    .60    .000|    .93    .884|   1.27   1.550|   1.60    .008
14314>     .28    .000|    .62    .000|    .95   1.459|   1.28   1.364|
14315>     .30    .000|    .63    .000|    .97   2.348|   1.30   1.186|
14316>     .32    .000|    .65    .000|    .98   3.117|   1.32   1.063|
14317> --------------------------------------------------------------------------------
14318> 001:0444--------------------------------------------------------------------------
14319> *
14320> *
14321> *
14322> *# ISGAR LANDS - AREA I2
14323> *# NEW EASTERN INLET
14324> *
14325> ---------------------
14326> | CALIB STANDHYD    |   Area    (ha)=   12.02
14327> | 06:I2     DT=12.00 |   Total Imp(%)=   65.00   Dir. Conn.(%)=   51.00
14328> ---------------------
14329>                              IMPERVIOUS    PERVIOUS (i)
14330>      Surface Area     (ha)=        7.81         4.21
14331>      Dep. Storage     (mm)=         .80         1.50
14332>      Average Slope     (%)=         .20         2.00
14333>      Length            (m)=      479.00        40.00
14334>      Mannings n             =       .013         .250
14335>
14336>      Max.eff.Inten.(mm/hr)=     214.27       275.14
14337>                   over (min)       10.00        10.00
14338>      Storage Coeff.  (min)=       7.81 (ii)   12.52 (ii)
14339>      Unit Hyd. Tpeak (min)=      10.00        10.00
14340>      Unit Hyd. peak  (cms)=        .12          .09
14341>                                                          *TOTALS*
14342>      PEAK FLOW       (cms)=       2.82         1.86         4.684 (iii)
14343>      TIME TO PEAK    (hrs)=       1.00         1.00         1.000
14344>      RUNOFF VOLUME    (mm)=      82.01        52.51        67.558
14345>      TOTAL RAINFALL   (mm)=      86.00        86.00        85.998
14346>      RUNOFF COEFFICIENT   =        .95          .61          .786
14347>       *** WARNING: Storage Coefficient is smaller than DT!
14348>                    Use a smaller DT or a larger area.
14349>
14350>       (i) HORTONS EQUATION SELECTED FOR PERVIOUS LOSSES:
14351>            Fo   (mm/hr)= 76.20          K  (1/hr)=  4.14
14352>            Fc   (mm/hr)= 13.20     Cum.Inf.   (mm)=   .00
14353>      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
14354>           THAN THE STORAGE COEFFICIENT.
14355>     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
14356>
14357> --------------------------------------------------------------------------------
14358> 001:0445--------------------------------------------------------------------------
14359> *
14360> *
14361> *
14362> *#=========================
14363> *# INFLOW 200 L/S/HA - 12.02 X 200 = 2404 L/S
14364> *# ON-SITE STORAGE (30% LESS THAN AVALON WEST) - 84.90 m3/ha = 1020.5 M3
14365> *#=========================
14366> *
14367> ---------------------
14368> | ROUTE RESERVOIR   |    Requested routing time step =  1.0 min.
14369> |  IN>06:(I2    )   |
14370> | OUT<04:(I2    )   |    =========  OUTLFOW STORAGE TABLE  =========
14371> ---------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
14372>                            (cms)    (ha.m.)   |    (cms)    (ha.m.)
14373>                             .000  .0000E+00   |    2.404  .1020E+00
14374>                            2.390  .2000E-02   |     .000  .0000E+00
14375>
14376>     ROUTING RESULTS            AREA     QPEAK     TPEAK       R.V.
14377>     --------------------       (ha)     (cms)     (hrs)       (mm)
14378>     INFLOW >06: (I2    )      12.02     4.684     1.000     67.558
14379>     OUTFLOW<04: (I2    )      11.58     2.404     1.100     67.558
14380>    OVERFLOW<08: (000487)        .44     1.288     1.100     67.558
14381>
14382>                   TOTAL NUMBER OF SIMULATED OVERFLOWS  =        2
14383>                   CUMULATIVE TIME OF OVERFLOWS  (hours)=      .13
14384>                   PERCENTAGE OF TIME OVERFLOWING    (%)=     2.88
14385>
14386>
14387>                   PEAK   FLOW   REDUCTION [Qout/Qin](%)=   51.325
14388>                   TIME SHIFT OF PEAK FLOW         (min)=     6.00
14389>                   MAXIMUM  STORAGE   USED       (ha.m.)=.1019E+00
14390>
14391> --------------------------------------------------------------------------------
14392> 001:0446--------------------------------------------------------------------------
14393> *
14394> *# TOTAL MINOR FLOW (MAJOR FLOW PORTOBELLO AND I2)
14395> *
14396> ------------------------
14397> | ADD HYD (       845) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
14398> ------------------------                  (ha)     (cms)  (hrs)  (mm)   (cms)
14399>                        ID1 04:I2         11.58     2.404    1.10  67.56    .000
14400>                      +ID2 05:      5152     5.63     3.857    1.03  66.63    .000
14401>                       ============================================================
14402>                        SUM 06:       845    17.21     6.256    1.03  67.25    .000
14403>
14404>    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
14405>
14406> --------------------------------------------------------------------------------
14407> 001:0447--------------------------------------------------------------------------
14408> *
14409> *# ISGAR LANDS - AREA I3
14410> *# NEW EASTERN INLET
14411> *
14412> ---------------------
14413> | CALIB STANDHYD    |   Area    (ha)=    7.64
14414> | 01:I3     DT=12.00 |   Total Imp(%)=   49.00   Dir. Conn.(%)=   30.00
14415> ---------------------
14416>                              IMPERVIOUS    PERVIOUS (i)
14417>      Surface Area     (ha)=        3.74         3.90
14418>      Dep. Storage     (mm)=         .80         1.50
14419>      Average Slope     (%)=         .20         2.00
14420>      Length            (m)=      292.00        40.00
14421>      Mannings n             =       .013         .250
14422>
14423>      Max.eff.Inten.(mm/hr)=     214.27       269.10
14424>                   over (min)       10.00        10.00
14425>      Storage Coeff.  (min)=       5.81 (ii)   10.56 (ii)
14426>      Unit Hyd. Tpeak (min)=      10.00        10.00
14427>      Unit Hyd. peak  (cms)=        .14          .10
14428>                                                          *TOTALS*
14429>      PEAK FLOW       (cms)=       1.17         1.86         3.031 (iii)
14430>      TIME TO PEAK    (hrs)=       1.00         1.00         1.000
14431>      RUNOFF VOLUME    (mm)=      82.01        52.05        61.041
14432>      TOTAL RAINFALL   (mm)=      86.00        86.00        85.998
14433>      RUNOFF COEFFICIENT   =        .95          .61          .710
14434>       *** WARNING: Storage Coefficient is smaller than DT!
14435>                    Use a smaller DT or a larger area.
14436>
14437>       (i) HORTONS EQUATION SELECTED FOR PERVIOUS LOSSES:
14438>            Fo   (mm/hr)= 76.20          K  (1/hr)=  4.14
14439>            Fc   (mm/hr)= 13.20     Cum.Inf.   (mm)=   .00
14440>      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
14441>           THAN THE STORAGE COEFFICIENT.
14442>     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
14443>
14444> --------------------------------------------------------------------------------
14445> 001:0448--------------------------------------------------------------------------
14446> *
14447> *
14448> *# MAJOR FLOW FROM I3
14449> *
14450> ------------------------
14451> | ADD HYD (       784) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
14452> ------------------------                  (ha)     (cms)  (hrs)  (mm)   (cms)
14453>                        ID1 01:I3          7.64     3.031    1.00  61.04    .000
14454>                      +ID2 08:       487     .44     1.288    1.10  67.56    .000
14455>                       ============================================================
14456>                        SUM 05:       784     8.08     3.540    1.10  61.40    .000
14457>
14458>    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
14459>
14460> --------------------------------------------------------------------------------
14461> 001:0449--------------------------------------------------------------------------
14462> *
14463> *#=========================
14464> *# INFLOW 200 L/S/HA - 7.64 X 200 = 1528 L/S
14465> *# ON-SITE STORAGE (30% LESS THAN AVALON WEST) - 108.55 m3/ha = 829.3 M3
14466> *#=========================
14467> *
14468> ---------------------
14469> | ROUTE RESERVOIR   |    Requested routing time step =  1.0 min.
14470> |  IN>05:(000784)   |
14471> | OUT<03:(I3    )   |    =========  OUTLFOW STORAGE TABLE  =========
14472> ---------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
14473>                            (cms)    (ha.m.)   |    (cms)    (ha.m.)
14474>                             .000  .0000E+00   |    1.528  .8293E-01
14475>                            1.510  .2000E-02   |     .000  .0000E+00
14476>
14477>     ROUTING RESULTS            AREA     QPEAK     TPEAK       R.V.
14478>     --------------------       (ha)     (cms)     (hrs)       (mm)
```

```
     INFLOW >05: (000784)       8.08     3.540     1.100     61.397
     OUTFLOW<03: (I3    )       7.62     1.528     1.117     61.397
    OVERFLOW<01: (000487)        .47     1.857     1.117     61.397

                   TOTAL NUMBER OF SIMULATED OVERFLOWS  =        2
                   CUMULATIVE TIME OF OVERFLOWS  (hours)=      .10
                   PERCENTAGE OF TIME OVERFLOWING    (%)=     2.06


                   PEAK   FLOW   REDUCTION [Qout/Qin](%)=   43.160
                   TIME SHIFT OF PEAK FLOW         (min)=     1.00
                   MAXIMUM  STORAGE   USED       (ha.m.)=.8304E-01

--------------------------------------------------------------------------------
001:0450--------------------------------------------------------------------------
*
*# TOTAL MINOR SYSTEM FLOW FROM MAJOR PORTOBELLO, I2 AND I3 (NEW EASTERN INLET)
*
----------------------
| ADD HYD (       784) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
----------------------                    (ha)     (cms)   (hrs)   (mm)   (cms)
                      ID1 06:       845    17.21    6.256    1.03  67.25    .000
                     +ID2 03:I3              7.62    1.528    1.12  61.40    .000
                      ============================================================
                      SUM 05:       784    24.82    7.776    1.03  65.46    .000

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

--------------------------------------------------------------------------------
001:0451--------------------------------------------------------------------------
*
*# TOTAL FLOW FROM I2 AND I3 INTO POND VIA NEW EASTERN INLET TO POND(INCLUDES MA
*
----------------------
| ADD HYD (       784) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
----------------------                    (ha)     (cms)   (hrs)   (mm)   (cms)
                      ID1 01:       487      .47    1.857    1.12  61.40    .000
                     +ID2 05:       784    24.82    7.776    1.03  65.46    .000
                      ============================================================
                      SUM 08:       784    25.29    8.151    1.12  65.38    .000

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

--------------------------------------------------------------------------------
001:0452--------------------------------------------------------------------------
*
*
*
*#=======================
*#    DRAINAGE AREA 60 ||
*#    SWM AREA         ||
*#=======================
*
*
----------------------
| CALIB NASHYD      |   Area    (ha)=   12.50   Curve Number   (CN)=95.00
| 01:000100 DT= 6.00 |   Ia      (mm)=   1.500   # of Linear Res.(N)= 3.00
----------------------   U.H. Tp(hrs)=    .250

     Unit Hyd Qpeak  (cms)=    1.910

     PEAK FLOW       (cms)=    3.175 (i)
     TIME TO PEAK    (hrs)=    1.167
     RUNOFF VOLUME    (mm)=   72.955
     TOTAL RAINFALL   (mm)=   85.998
     RUNOFF COEFFICIENT   =     .848

     (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

      *** WARNING: Time step is too large for value of TP.
                   R.V. may be ok.  Peak flow could be off.
--------------------------------------------------------------------------------
001:0453--------------------------------------------------------------------------
*
*# ADD TOTAL FLOW FROM ISGAR LANDS (I1, I2 AND I3 PLUS MAJOR PORTOBELLO) TO POND
*
----------------------
| ADD HYD (       784) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
----------------------                    (ha)     (cms)   (hrs)   (mm)   (cms)
                      ID1 01:       100    12.50    3.175    1.17  72.96    .000
                     +ID2 08:       784    25.29    8.151    1.12  65.38    .000
                     +ID3 07:       784     8.35    2.881    1.07  65.55    .000
                      ============================================================
                      SUM 06:       784    46.14   13.594    1.12  67.47    .000

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

--------------------------------------------------------------------------------
001:0454--------------------------------------------------------------------------
*
*# MH SWMF
*
--------------------
| SAVE HYD        |   AREA      (ha)=   46.138
| ID=06 (000784)  |   QPEAK     (cms)=  13.594 (i)
| DT= 1.00 PCYC=-1 |   TPEAK     (hrs)=   1.117
--------------------   VOLUME     (mm)=  67.465
   Filename: C:\SWMHYMO\111083\2018-0~1\POND.090
   Comments: POND-3CHI120

     (i)  PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

--------------------------------------------------------------------------------
001:0455--------------------------------------------------------------------------
*
*#================================
*#  ADD POND AREA TO EXISTING EAST AND WEST TRUNKS
*#================================
*
----------------------
| ADD HYD (       562) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
----------------------                    (ha)     (cms)   (hrs)   (mm)   (cms)
                      ID1 06:       784    46.14   13.594    1.12  67.47    .000
                     +ID2 09:       562   142.89   12.315    1.45  63.70    .000
                      ============================================================
                      SUM 04:       562   189.03   25.546    1.12  64.62    .000

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

--------------------------------------------------------------------------------
001:0456--------------------------------------------------------------------------
*
*
*#=========================================
*#     NEIGHBOURHOOD 4  SWM FACILITY      ||
*#       OUTLET PIPE TO POINT B           ||
*#       OUTLET PIPE  1200 DIA            ||
*#=========================================
*
*# NOTE:  XPSWMM USED FOR ROUTING THE SWM FACILITY
*
---------------------
| ROUTE RESERVOIR   |    Requested routing time step =  1.0 min.
|  IN>04:(000562)   |
| OUT<02:(000471)   |    =========  OUTLFOW STORAGE TABLE  =========
---------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
                           (cms)    (ha.m.)   |    (cms)    (ha.m.)
                            .000  .0000E+00   |     .930  .4960E+01
                            .350  .2300E+01   |    1.520  .8710E+01
                            .650  .3740E+01   |    1.700  .1129E+02

     ROUTING RESULTS            AREA     QPEAK     TPEAK       R.V.
     --------------------        (ha)     (cms)     (hrs)       (mm)
     INFLOW >04: (000562)     189.03    25.546     1.117     64.618
     OUTFLOW<02: (000471)     189.03     1.678     3.217     64.616

                   PEAK   FLOW   REDUCTION [Qout/Qin](%)=    6.568
                   TIME SHIFT OF PEAK FLOW         (min)=   126.00
                   MAXIMUM  STORAGE   USED       (ha.m.)=.1097E+02

--------------------------------------------------------------------------------
001:0457--------------------------------------------------------------------------
*
--------------------
| SAVE HYD        |   AREA      (ha)=  189.030
| ID=02 (000471)  |   QPEAK     (cms)=   1.678 (i)
| DT= 1.00 PCYC=-1 |   TPEAK     (hrs)=   3.217
--------------------   VOLUME     (mm)=  64.616
   Filename: C:\SWMHYMO\111083\2018-0~1\ISGAR.090
   Comments: ISGAR-3CHI120

     (i)  PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

--------------------------------------------------------------------------------
001:0458--------------------------------------------------------------------------
*
*
*
*
*
*
*
*
*
*
*
*#============================================================
*# ====    100 YEAR 24 HOUR SCS TYPE II + 20%             ====
*# ====    (12 MIN TIME STEP)                             ====
*#============================================================
*
*
--------------------
| READ STORM      |    Filename: 100 YEAR 24 HOUR SCS TYPE ii (103.2 MM)
| Ptotal= 123.84 mm|    Comments: 100 YEAR 24 HOUR SCS TYPE ii (103.2 MM)
--------------------
              TIME    RAIN |   TIME    RAIN |   TIME    RAIN |   TIME    RAIN
               hrs   mm/hr |    hrs   mm/hr |    hrs   mm/hr |    hrs   mm/hr
               .20    .000 |   6.40   2.477 |  12.60  15.480 |  18.80   2.477
               .40   1.238 |   6.60   2.477 |  12.80  11.146 |  19.00   2.477
               .60   1.238 |   6.80   2.477 |  13.00  10.526 |  19.20   2.477
               .80   1.238 |   7.00   2.477 |  13.20   7.430 |  19.40   1.858
              1.00   1.238 |   7.20   2.477 |  13.40   6.192 |  19.60   1.858
              1.20   1.238 |   7.40   2.477 |  13.60   6.192 |  19.80   1.858
              1.40   1.238 |   7.60   2.477 |  13.80   6.192 |  20.00   1.858
              1.60   1.238 |   7.80   2.477 |  14.00   6.192 |  20.20   1.858
              1.80   1.238 |   8.00   2.477 |  14.20   6.192 |  20.40   1.858
              2.00   1.238 |   8.20   2.477 |  14.40   3.715 |  20.60   1.858
              2.20   1.238 |   8.40   3.715 |  14.60   3.715 |  20.80   1.858
              2.40   1.238 |   8.60   3.715 |  14.80   3.715 |  21.00   1.858
              2.60   1.238 |   8.80   3.715 |  15.00   3.715 |  21.20   1.858
              2.80   1.238 |   9.00   3.715 |  15.20   3.715 |  21.40   1.238
              3.00   1.238 |   9.20   3.715 |  15.40   3.715 |  21.60   1.238
              3.20   1.238 |   9.40   3.715 |  15.60   3.715 |  21.80   1.238
              3.40   1.238 |   9.60   3.715 |  15.80   3.715 |  22.00   1.238
              3.60   1.238 |   9.80   3.715 |  16.00   3.715 |  22.20   1.238
              3.80   1.238 |  10.00   3.715 |  16.20   3.715 |  22.40   1.238
              4.00   1.238 |  10.20   3.715 |  16.40   2.477 |  22.60   1.238
              4.20   1.238 |  10.40   6.811 |  16.60   2.477 |  22.80   1.238
              4.40   2.477 |  10.60   6.811 |  16.80   2.477 |  23.00   1.238
              4.60   2.477 |  10.80   6.811 |  17.00   2.477 |  23.20   1.238
              4.80   2.477 |  11.00   6.811 |  17.20   2.477 |  23.40   1.238
              5.00   2.477 |  11.20   6.811 |  17.40   2.477 |  23.60   1.238
              5.20   2.477 |  11.40   9.288 |  17.60   2.477 |  23.80    .433
              5.40   2.477 |  11.60  13.622 |  17.80   2.477 |  24.00    .433
              5.60   2.477 |  11.80  30.960 |  18.00   2.477 |  24.20    .372
              5.80   2.477 |  12.00  68.112 |  18.20   2.477 |
              6.00   2.477 |  12.20 142.416 |  18.40   2.477 |
              6.20   2.477 |  12.40  24.768 |  18.60   2.477 |

--------------------------------------------------------------------------------
001:0459--------------------------------------------------------------------------
*
*
*#=========================================
*#     NEIGHBOURHOOD 4                    ||
*#=========================================
*
*#=======================
*#   DRAINAGE AREA 40  ||
*#                     ||
*#=======================
*
----------------------
| CALIB STANDHYD     |   Area    (ha)=   11.73
| 06:000204 DT=10.00 |   Total Imp(%)=   54.00   Dir. Conn.(%)=   32.00
----------------------

                                   IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=       6.33          5.40
     Dep. Storage     (mm)=        .80          1.50
     Average Slope     (%)=        .20          2.00
     Length            (m)=     414.00         40.00
     Mannings n             =      .013          .250

     Max.eff.Inten.(mm/hr)=     142.42       165.01
                   over (min)       12.00        12.00
     Storage Coeff.  (min)=       8.43 (ii)   14.21 (ii)
     Unit Hyd. Tpeak (min)=      12.00        12.00
     Unit Hyd. peak  (cms)=        .11          .08

                                                          *TOTALS*
     PEAK FLOW       (cms)=       1.27         1.72          2.995 (iii)
     TIME TO PEAK    (hrs)=      12.20        12.20         12.200
     RUNOFF VOLUME    (mm)=     123.04        83.76         96.333
     TOTAL RAINFALL   (mm)=     123.84       123.84        123.840
     RUNOFF COEFFICIENT   =        .99          .68           .778
      *** WARNING: Storage Coefficient is smaller than DT!
                   Use a smaller DT or a larger area.
```

```
14733>
14734>       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
14735>           CN* =  75.0    Ia = Dep. Storage  (Above)
14736>      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
14737>           THAN THE STORAGE COEFFICIENT.
14738>     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
14739>
14740> ---------------------------------------------------------------------------
14741> 001:0460-----------------------------------------------------------------
14742> *
14743> *
14744> *#################################
14745> *# OSD 85 L/S/HA PARKS 30 L/S/HA
14746> *#  85*10.71 = 910.4 L/S
14747> *#  30*1.02 = 30.6 L/S
14748> *#  TOTAL = 941 L/S
14749> *#################################
14750> *
14751> ---------------------
14752> | ROUTE RESERVOIR   |    Requested routing time step = 12.0 min.
14753> |  IN>06:(000204)   |
14754> | OUT<09:(000471)   |    =========  OUTLFOW STORAGE TABLE  =========
14755> ---------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
14756>                            (cms)    (ha.m.)   |    (cms)    (ha.m.)
14757>                             .000  .0000E+00   |     .941  .1368E+00
14758>                             .900  .2000E-02   |     .000  .0000E+00
14759>       *** WARNING: STORAGE-Q values were extrapolated.
14760>                    Increase curve or use overflow option.
14761>
14762>      ROUTING RESULTS           AREA     QPEAK     TPEAK       R.V.
14763>      ---------------           (ha)     (cms)     (hrs)       (mm)
14764>      INFLOW >06: (000204)     11.73     2.995    12.200     96.333
14765>      OUTFLOW<09: (000471)     11.73      .965    12.600     96.448
14766>
14767>                    PEAK   FLOW   REDUCTION [Qout/Qin](%)=   32.221
14768>                    TIME SHIFT OF PEAK FLOW       (min)=    24.00
14769>                    MAXIMUM  STORAGE   USED       (ha.m.)=.2200E+00
14770>
14771> ---------------------------------------------------------------------------
14772> 001:0461-----------------------------------------------------------------
14773> *
14774> *# MH 505
14775> *
14776> *#########################
14777> *#   DRAINAGE AREA 41  ||
14778> *#########################
14779> *
14780> *
14781> ---------------------
14782> | CALIB STANDHYD     |   Area    (ha)=    9.06
14783> | 05:000204 DT=10.00 |   Total Imp(%)=   58.00   Dir. Conn.(%)=   35.00
14784> ---------------------
14785>                            IMPERVIOUS    PERVIOUS (i)
14786>      Surface Area     (ha)=       5.25         3.81
14787>      Dep. Storage     (mm)=        .80         1.50
14788>      Average Slope     (%)=        .20         2.00
14789>      Length            (m)=     452.00        40.00
14790>      Mannings n           =       .013         .250
14791>
14792>      Max.eff.Inten.(mm/hr)=     142.42       175.08
14793>                  over (min)       12.00        12.00
14794>      Storage Coeff.  (min)=        8.89 (ii)   14.53 (ii)
14795>      Unit Hyd. Tpeak (min)=       12.00        12.00
14796>      Unit Hyd. peak  (cms)=         .10          .08
14797>                                                          *TOTALS*
14798>      PEAK FLOW       (cms)=       1.06         1.28         2.337 (iii)
14799>      TIME TO PEAK    (hrs)=      12.20        12.20        12.200
14800>      RUNOFF VOLUME    (mm)=     123.04        85.02        98.325
14801>      TOTAL RAINFALL   (mm)=     123.84       123.84       123.840
14802>      RUNOFF COEFFICIENT   =        .99          .69          .794
14803>       *** WARNING: Storage Coefficient is smaller than DT!
14804>                    Use a smaller DT or a larger area.
14805>
14806>       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
14807>           CN* =  75.0    Ia = Dep. Storage  (Above)
14808>      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
14809>           THAN THE STORAGE COEFFICIENT.
14810>     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
14811>
14812> ---------------------------------------------------------------------------
14813> 001:0462-----------------------------------------------------------------
14814> *
14815> *#########################
14816> *# OSD 85 L/S/HA
14817> *#  85*9.06 = 770.1 L/S
14818> *#########################
14819> *
14820> ---------------------
14821> | ROUTE RESERVOIR   |    Requested routing time step = 12.0 min.
14822> |  IN>05:(000204)   |
14823> | OUT<07:(000471)   |    =========  OUTLFOW STORAGE TABLE  =========
14824> ---------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
14825>                            (cms)    (ha.m.)   |    (cms)    (ha.m.)
14826>                             .000  .0000E+00   |     .770  .1072E+00
14827>                             .700  .2000E-02   |     .000  .0000E+00
14828>       *** WARNING: STORAGE-Q values were extrapolated.
14829>                    Increase curve or use overflow option.
14830>
14831>      ROUTING RESULTS           AREA     QPEAK     TPEAK       R.V.
14832>      ---------------           (ha)     (cms)     (hrs)       (mm)
14833>      INFLOW >05: (000204)      9.06     2.337    12.200     98.325
14834>      OUTFLOW<07: (000471)      9.06      .807    12.600     99.449
14835>
14836>                    PEAK   FLOW   REDUCTION [Qout/Qin](%)=   34.536
14837>                    TIME SHIFT OF PEAK FLOW       (min)=    24.00
14838>                    MAXIMUM  STORAGE   USED       (ha.m.)=.1677E+00
14839>
14840>       *** WARNING: Outflow volume is less than inflow volume.
14841> ---------------------------------------------------------------------------
14842> 001:0463-----------------------------------------------------------------
14843> *
14844> *# MH 521
14845> *
14846> ----------------------
14847> | ADD HYD (       401) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
14848> ----------------------                    (ha)     (cms)   (hrs)   (mm)   (cms)
14849>                        ID1 09:       471    11.73     .965   12.60  96.45    .000
14850>                       +ID2 07:       471     9.06     .807   12.60  99.45    .000
14851>                        ============================================================
14852>                        SUM 06:       401    20.79    1.772   12.60  97.76    .000
14853>
14854>    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
14855>
14856> ---------------------------------------------------------------------------
14857> 001:0464-----------------------------------------------------------------
14858> *
14859> *
14860> *#########################
14861> *#    DRAINAGE AREA 42 ||
14862> *#                     ||
14863> *#########################
14864> *
14865> *
14866> ----------------------
14867> | CALIB NASHYD       |   Area    (ha)=    4.10   Curve Number   (CN)=75.00
14868> | 05:000100 DT=10.00 |   Ia      (mm)=   1.500   # of Linear Res.(N)= 3.00
14869> ----------------------   U.H. Tp(hrs)=    .410
14870>
14871>      Unit Hyd Qpeak  (cms)=     .382
14872>
14873>      PEAK FLOW       (cms)=     .467 (i)
14874>      TIME TO PEAK    (hrs)=   12.400
14875>      RUNOFF VOLUME    (mm)=   72.302
14876>      TOTAL RAINFALL   (mm)=  123.840
14877>      RUNOFF COEFFICIENT   =     .584
14878>
14879>      (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
14880>
14881> ---------------------------------------------------------------------------
14882> 001:0465-----------------------------------------------------------------
14883> *
14884> *#########################
14885> *# OSD 30 L/S/HA
14886> *#  30*4.1 = 123 L/S
14887> *#########################
14888> *
14889> ---------------------
14890> | ROUTE RESERVOIR   |    Requested routing time step = 12.0 min.
14891> |  IN>05:(000100)   |
14892> | OUT<04:(000471)   |    =========  OUTLFOW STORAGE TABLE  =========
14893> ---------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
14894>                            (cms)    (ha.m.)   |    (cms)    (ha.m.)
14895>                             .000  .0000E+00   |     .123  .4859E-01
14896>                             .090  .2000E-02   |     .000  .0000E+00
14897>       *** WARNING: STORAGE-Q values were extrapolated.
14898>                    Increase curve or use overflow option.
14899>
14900>      ROUTING RESULTS           AREA     QPEAK     TPEAK       R.V.
14901>      ---------------           (ha)     (cms)     (hrs)       (mm)
14902>      INFLOW >05: (000100)      4.10      .467    12.400     72.302
14903>      OUTFLOW<04: (000471)      4.10      .152    13.200     72.302
14904>
14905>                    PEAK   FLOW   REDUCTION [Qout/Qin](%)=   32.625
14906>                    TIME SHIFT OF PEAK FLOW       (min)=    48.00
14907>                    MAXIMUM  STORAGE   USED       (ha.m.)=.9033E-01
14908>
14909> ---------------------------------------------------------------------------
14910> 001:0466-----------------------------------------------------------------
14911> *
14912> *# MH 529
14913> *
14914> *
14915> ----------------------
14916> | ADD HYD (       105) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
14917> ----------------------                    (ha)     (cms)   (hrs)   (mm)   (cms)
14918>                        ID1 06:       401    20.79    1.772   12.60  97.76    .000
14919>                       +ID2 04:       471     4.10     .152   13.20  72.30    .000
14920>                        ============================================================
14921>                        SUM 01:       105    24.89    1.904   12.60  93.56    .000
14922>
14923>    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
14924>
14925> ---------------------------------------------------------------------------
14926> 001:0467-----------------------------------------------------------------
14927> *
14928> *
14929> *#########################
14930> *#    DRAINAGE AREA 43 ||
14931> *#                     ||
14932> *#########################
14933> *
14934> *
14935> ----------------------
14936> | CALIB STANDHYD     |   Area    (ha)=   17.21
14937> | 05:000204 DT=10.00 |   Total Imp(%)=   59.00   Dir. Conn.(%)=   37.00
14938> ----------------------
14939>                            IMPERVIOUS    PERVIOUS (i)
14940>      Surface Area     (ha)=      10.15         7.06
14941>      Dep. Storage     (mm)=        .80         1.50
14942>      Average Slope     (%)=        .20         2.00
14943>      Length            (m)=     449.00        40.00
14944>      Mannings n           =       .013         .250
14945>
14946>      Max.eff.Inten.(mm/hr)=     142.42       173.48
14947>                  over (min)       12.00        12.00
14948>      Storage Coeff.  (min)=        8.85 (ii)   14.51 (ii)
14949>      Unit Hyd. Tpeak (min)=       12.00        12.00
14950>      Unit Hyd. peak  (cms)=         .11          .08
14951>                                                          *TOTALS*
14952>      PEAK FLOW       (cms)=       2.13         2.35         4.477 (iii)
14953>      TIME TO PEAK    (hrs)=      12.20        12.20        12.200
14954>      RUNOFF VOLUME    (mm)=     123.04        84.82        98.963
14955>      TOTAL RAINFALL   (mm)=     123.84       123.84       123.840
14956>      RUNOFF COEFFICIENT   =        .99          .68          .799
14957>       *** WARNING: Storage Coefficient is smaller than DT!
14958>                    Use a smaller DT or a larger area.
14959>
14960>       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
14961>           CN* =  75.0    Ia = Dep. Storage  (Above)
14962>      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
14963>           THAN THE STORAGE COEFFICIENT.
14964>     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
14965>
14966> ---------------------------------------------------------------------------
14967> 001:0468-----------------------------------------------------------------
14968> *
14969> *
14970> *#########################
14971> *# OSD 85 L/S/HA PARKS 30 L/S/HA
14972> *#  85*16.89 = 1435.7 L/S
14973> *#  30*0.32 =9.6 L/S
14974> *#  TOTAL =1445 L/S
14975> *#########################
14976> *
14977> ---------------------
14978> | ROUTE RESERVOIR   |    Requested routing time step = 12.0 min.
14979> |  IN>05:(000204)   |
14980> | OUT<08:(000471)   |    =========  OUTLFOW STORAGE TABLE  =========
14981> ---------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
14982>                            (cms)    (ha.m.)   |    (cms)    (ha.m.)
14983>                             .000  .0000E+00   |    1.445  .2103E+00
14984>                            1.400  .2000E-02   |     .000  .0000E+00
14985>       *** WARNING: STORAGE-Q values were extrapolated.
14986>                    Increase curve or use overflow option.
```

```
14987>
14988>      ROUTING RESULTS            AREA     QPEAK     TPEAK       R.V.
14989>      --------------------        (ha)     (cms)     (hrs)       (mm)
14990>      INFLOW >05: (000204)      17.21     4.477    12.200     98.963
14991>      OUTFLOW<08: (000471)      17.21     1.467    12.600    100.501
14992>
14993>                     PEAK   FLOW   REDUCTION [Qout/Qin](%)=   32.771
14994>                     TIME SHIFT OF PEAK FLOW         (min)=    24.00
14995>                     MAXIMUM  STORAGE   USED       (ha.m.)=.3211E+00
14996>
14997>       *** WARNING: Outflow volume is less than inflow volume.
14998> ------------------------------------------------------------------------------
14999> 001:0469--------------------------------------------------------------------------
15000> *
15001> *# MH 539
15002> *
15003> ------------------------
15004> | ADD HYD (       100) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
15005> ------------------------                   (ha)     (cms)   (hrs)   (mm)   (cms)
15006>                        ID1 01:       105    24.89    1.904   12.60  93.56    .000
15007>                       +ID2 08:       471    17.21    1.467   12.60 100.50    .000
15008>                        ============================================================
15009>                        SUM 07:       100    42.10    3.371   12.60  96.40    .000
15010>
15011>    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
15012>
15013> ------------------------------------------------------------------------------
15014> 001:0470--------------------------------------------------------------------------
15015> *
15016> *
15017> *#=======================
15018> *#    DRAINAGE AREA 44 ||
15019> *#                     ||
15020> *#=======================
15021> *
15022> *
15023> ----------------------
15024> | CALIB STANDHYD     |   Area    (ha)=    4.06
15025> | 05:000204 DT=10.00 |   Total Imp(%)=   58.00   Dir. Conn.(%)=   38.00
15026> ----------------------
15027>                              IMPERVIOUS    PERVIOUS (i)
15028>      Surface Area     (ha)=       2.35         1.71
15029>      Dep. Storage     (mm)=        .80         1.50
15030>      Average Slope     (%)=        .20         2.00
15031>      Length            (m)=     165.00        40.00
15032>      Mannings n           =       .013         .250
15033>
15034>      Max.eff.Inten.(mm/hr)=     142.42       164.71
15035>                    over (min)       12.00        12.00
15036>      Storage Coeff.  (min)=      4.85 (ii)   10.63 (ii)
15037>      Unit Hyd. Tpeak (min)=      12.00        12.00
15038>      Unit Hyd. peak  (cms)=        .13          .10
15039>                                                          *TOTALS*
15040>      PEAK FLOW       (cms)=        .58          .61         1.193 (iii)
15041>      TIME TO PEAK    (hrs)=      12.20        12.20        12.200
15042>      RUNOFF VOLUME    (mm)=     123.04       123.84        98.665
15043>      TOTAL RAINFALL   (mm)=     123.84       123.84       123.840
15044>      RUNOFF COEFFICIENT   =        .99          .68          .797
15045>       *** WARNING: Storage Coefficient is smaller than DT!
15046>                    Use a smaller DT or a larger area.
15047>
15048>        (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
15049>            CN* =  75.0    Ia = Dep. Storage  (Above)
15050>       (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
15051>            THAN THE STORAGE COEFFICIENT.
15052>      (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
15053>
15054> ------------------------------------------------------------------------------
15055> 001:0471--------------------------------------------------------------------------
15056> *
15057> *
15058> *#=========================
15059> *# OSD 85 L/S/HA  PARK 30 L/S/HA
15060> *#  85*3.7 = 314.5 L/S
15061> *#  30*0.28 = 8.4 L/S
15062> *#  TOTAL = 322.9 L/S
15063> *#=========================
15064> *
15065> ---------------------
15066> | ROUTE RESERVOIR   |    Requested routing time step = 12.0 min.
15067> |  IN>05:(000204)   |
15068> | OUT<09:(000471)   |    =========  OUTLFOW STORAGE TABLE  =========
15069> ---------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
15070>                            (cms)    (ha.m.)   |    (cms)    (ha.m.)
15071>                             .000  .0000E+00   |     .323  .6847E-01
15072>                             .290  .2000E-02   |     .000  .0000E+00
15073>      *** WARNING: STORAGE-Q values were extrapolated.
15074>                   Increase curve or use overflow option.
15075>
15076>      ROUTING RESULTS            AREA     QPEAK     TPEAK       R.V.
15077>      --------------------        (ha)     (cms)     (hrs)       (mm)
15078>      INFLOW >05: (000204)       4.06     1.193    12.200     98.665
15079>      OUTFLOW<09: (000471)       4.06      .332    12.600     98.901
15080>
15081>                     PEAK   FLOW   REDUCTION [Qout/Qin](%)=   27.842
15082>                     TIME SHIFT OF PEAK FLOW         (min)=    24.00
15083>                     MAXIMUM  STORAGE   USED       (ha.m.)=.9055E-01
15084>
15085> ------------------------------------------------------------------------------
15086> 001:0472--------------------------------------------------------------------------
15087> *
15088> *# MH 541
15089> *SAVE HYD            ID=[9],   # OF PCYCLES=[1],  ICASEsh=[-1]
15090> *
15091> ------------------------
15092> | ADD HYD (       100) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
15093> ------------------------                   (ha)     (cms)   (hrs)   (mm)   (cms)
15094>                        ID1 07:       100    42.10    3.371   12.60  96.40    .000
15095>                       +ID2 09:       471     4.06     .332   12.60  98.90    .000
15096>                        ============================================================
15097>                        SUM 03:       100    46.16    3.703   12.60  96.62    .000
15098>
15099>    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
15100>
15101> ------------------------------------------------------------------------------
15102> 001:0473--------------------------------------------------------------------------
15103> *
15104> *
15105> *#=========================
15106> *#    DRAINAGE AREA 45 ||
15107> *#                     ||
15108> *#=========================
15109> *
15110> ----------------------
15111> | CALIB STANDHYD     |   Area    (ha)=    3.13
15112> | 05:000204 DT=10.00 |   Total Imp(%)=   57.00   Dir. Conn.(%)=   57.00
15113> ----------------------
15114>                              IMPERVIOUS    PERVIOUS (i)
15115>      Surface Area     (ha)=       1.78         1.35
15116>      Dep. Storage     (mm)=        .80         1.50
15117>      Average Slope     (%)=        .20         2.00
15118>      Length            (m)=     147.00        40.00
15119>      Mannings n           =       .013         .250
15120>
15121>      Max.eff.Inten.(mm/hr)=     142.42        97.18
15122>                    over (min)       12.00        12.00
15123>      Storage Coeff.  (min)=       4.53 (ii)   11.67 (ii)
15124>      Unit Hyd. Tpeak (min)=      12.00        12.00
15125>      Unit Hyd. peak  (cms)=        .13          .09
15126>                                                          *TOTALS*
15127>      PEAK FLOW       (cms)=        .68          .27          .951 (iii)
15128>      TIME TO PEAK    (hrs)=      12.20        12.20        12.200
15129>      RUNOFF VOLUME    (mm)=     123.04        72.30       101.223
15130>      TOTAL RAINFALL   (mm)=     123.84       123.84       123.840
15131>      RUNOFF COEFFICIENT   =        .99          .58          .817
15132>       *** WARNING: Storage Coefficient is smaller than DT!
15133>                    Use a smaller DT or a larger area.
15134>
15135>        (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
15136>            CN* =  75.0    Ia = Dep. Storage  (Above)
15137>       (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
15138>            THAN THE STORAGE COEFFICIENT.
15139>      (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
15140>
15141> ------------------------------------------------------------------------------
15142> 001:0474--------------------------------------------------------------------------
15143> *
15144> *
15145> *#=========================
15146> *# OSD 85 L/S/HA
15147> *#  85*3.13 = 266.1 L/S
15148> *#=========================
15149> *
15150> ---------------------
15151> | ROUTE RESERVOIR   |    Requested routing time step = 12.0 min.
15152> |  IN>05:(000204)   |
15153> | OUT<08:(000471)   |    =========  OUTLFOW STORAGE TABLE  =========
15154> ---------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
15155>                            (cms)    (ha.m.)   |    (cms)    (ha.m.)
15156>                             .000  .0000E+00   |     .266  .5982E-01
15157>                             .200  .2000E-02   |     .000  .0000E+00
15158>      *** WARNING: STORAGE-Q values were extrapolated.
15159>                   Increase curve or use overflow option.
15160>
15161>      ROUTING RESULTS            AREA     QPEAK     TPEAK       R.V.
15162>      --------------------        (ha)     (cms)     (hrs)       (mm)
15163>      INFLOW >05: (000204)       3.13      .951    12.200     101.223
15164>      OUTFLOW<08: (000471)       3.13      .278    12.400     101.223
15165>
15166>                     PEAK   FLOW   REDUCTION [Qout/Qin](%)=   29.211
15167>                     TIME SHIFT OF PEAK FLOW         (min)=    12.00
15168>                     MAXIMUM  STORAGE   USED       (ha.m.)=.7111E-01
15169>
15170> ------------------------------------------------------------------------------
15171> 001:0475--------------------------------------------------------------------------
15172> *
15173> *# MH 542
15174> *
15175> ------------------------
15176> | ADD HYD (       100) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
15177> ------------------------                   (ha)     (cms)   (hrs)   (mm)   (cms)
15178>                        ID1 03:       100    46.16    3.703   12.60  96.62    .000
15179>                       +ID2 08:       471     3.13     .278   12.40 101.22    .000
15180>                        ============================================================
15181>                        SUM 04:       100    49.29    3.978   12.60  96.91    .000
15182>
15183>    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
15184>
15185> ------------------------------------------------------------------------------
15186> 001:0476--------------------------------------------------------------------------
15187> *
15188> *#=======================
15189> *#    DRAINAGE AREA 46 ||
15190> *#                     ||
15191> *#=======================
15192> *
15193> *
15194> ----------------------
15195> | CALIB STANDHYD     |   Area    (ha)=   19.48
15196> | 05:000204 DT=10.00 |   Total Imp(%)=   61.00   Dir. Conn.(%)=   43.00
15197> ----------------------
15198>                              IMPERVIOUS    PERVIOUS (i)
15199>      Surface Area     (ha)=      11.88         7.60
15200>      Dep. Storage     (mm)=        .80         1.50
15201>      Average Slope     (%)=        .20         2.00
15202>      Length            (m)=     464.00        40.00
15203>      Mannings n           =       .013         .250
15204>
15205>      Max.eff.Inten.(mm/hr)=     142.42       162.59
15206>                    over (min)       12.00        12.00
15207>      Storage Coeff.  (min)=       9.03 (ii)   14.84 (ii)
15208>      Unit Hyd. Tpeak (min)=      12.00        12.00
15209>      Unit Hyd. peak  (cms)=        .10          .08
15210>                                                          *TOTALS*
15211>      PEAK FLOW       (cms)=       2.79         2.34         5.129 (iii)
15212>      TIME TO PEAK    (hrs)=      12.20        12.20        12.200
15213>      RUNOFF VOLUME    (mm)=     123.04        83.45       100.474
15214>      TOTAL RAINFALL   (mm)=     123.84       123.84       123.840
15215>      RUNOFF COEFFICIENT   =        .99          .67          .811
15216>       *** WARNING: Storage Coefficient is smaller than DT!
15217>                    Use a smaller DT or a larger area.
15218>
15219>        (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
15220>            CN* =  75.0    Ia = Dep. Storage  (Above)
15221>       (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
15222>            THAN THE STORAGE COEFFICIENT.
15223>      (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
15224>
15225> ------------------------------------------------------------------------------
15226> 001:0477--------------------------------------------------------------------------
15227> *
15228> *
15229> *#=========================
15230> *# OSD 85 L/S/HA  PARK 30 L/S/HA
15231> *#  85*18.51 = 1573.4 L/S
15232> *#  30*0.97 = 29.1 L/S
15233> *#  TOTAL = 1602.5 L/S
15234> *#=========================
15235> *
15236> ---------------------
15237> | ROUTE RESERVOIR   |    Requested routing time step = 12.0 min.
15238> |  IN>05:(000204)   |
15239> | OUT<08:(000471)   |    =========  OUTLFOW STORAGE TABLE  =========
15240> ---------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
```

```
                          (cms)    (ha.m.)   |    (cms)    (ha.m.)
                           .000  .0000E+00   |   1.602  .2804E+00
                          1.550  .2000E-02   |    .000  .0000E+00
      *** WARNING: STORAGE-Q values were extrapolated.
                   Increase curve or use overflow option.

     ROUTING RESULTS           AREA     QPEAK     TPEAK       R.V.
     --------------------       (ha)     (cms)     (hrs)       (mm)
     INFLOW >05: (000204)     19.48     5.129    12.200    100.474
     OUTFLOW<08: (000471)     19.48     1.620    12.600    100.483

                   PEAK   FLOW   REDUCTION [Qout/Qin](%)=   31.582
                   TIME SHIFT OF PEAK FLOW         (min)=    24.00
                   MAXIMUM  STORAGE   USED       (ha.m.)=.3791E+00

--------------------------------------------------------------------------------
001:0478--------------------------------------------------------------------------
*
*# MH 544
*
------------------------
| ADD HYD (       100) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
------------------------                   (ha)     (cms)   (hrs)   (mm)   (cms)
                      ID1 04:       100    49.29    3.978   12.60  96.91    .000
                     +ID2 08:       471    19.48    1.620   12.60 100.48    .000
                      ============================================================
                      SUM 07:       100    68.77    5.597   12.60  97.92    .000

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

--------------------------------------------------------------------------------
001:0479--------------------------------------------------------------------------
*
*#=======================
*#    DRAINAGE AREA 47 ||
*#                     ||
*#=======================
*
*
----------------------
| CALIB STANDHYD     |   Area    (ha)=    3.79
| 05:000204 DT=10.00 |   Total Imp(%)=   56.00   Dir. Conn.(%)=   35.00
----------------------
                               IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=       2.12         1.67
     Dep. Storage     (mm)=        .80         1.50
     Average Slope     (%)=        .20         2.00
     Length            (m)=     229.00        40.00
     Mannings n           =       .013         .250

     Max.eff.Inten.(mm/hr)=     142.42       164.87
                  over (min)      12.00        12.00
     Storage Coeff.  (min)=       5.91 (ii)   11.69 (ii)
     Unit Hyd. Tpeak (min)=      12.00        12.00
     Unit Hyd. peak  (cms)=        .12          .09
                                                          *TOTALS*
     PEAK FLOW       (cms)=        .49          .58          1.063 (iii)
     TIME TO PEAK    (hrs)=      12.20        12.20         12.200
     RUNOFF VOLUME    (mm)=     123.04        83.75         97.499
     TOTAL RAINFALL   (mm)=     123.84       123.84        123.840
     RUNOFF COEFFICIENT   =        .99          .68           .787
      *** WARNING: Storage Coefficient is smaller than DT!
                   Use a smaller DT or a larger area.

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN* =  75.0    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

--------------------------------------------------------------------------------
001:0480--------------------------------------------------------------------------
*
*
*#=========================
*# OSD 85 L/S/HA  PARK 30 L/S/HA
*#  85*3.5 = 297.5 L/S
*#  30*0.29 = 8.7 L/S
*#  TOTAL = 306.2 L/S
*#=========================
*
----------------------
| ROUTE RESERVOIR   |    Requested routing time step = 12.0 min.
|  IN>05:(000204)   |
| OUT<08:(000471)   |    =========  OUTLFOW STORAGE TABLE  =========
----------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
                            (cms)    (ha.m.)   |    (cms)    (ha.m.)
                             .000  .0000E+00   |     .306  .6031E-01
                             .250  .2000E-02   |    .000  .0000E+00
      *** WARNING: STORAGE-Q values were extrapolated.
                   Increase curve or use overflow option.

     ROUTING RESULTS           AREA     QPEAK     TPEAK       R.V.
     --------------------       (ha)     (cms)     (hrs)       (mm)
     INFLOW >05: (000204)      3.79     1.063    12.200     97.499
     OUTFLOW<08: (000471)      3.79      .324    12.600     97.643

                   PEAK   FLOW   REDUCTION [Qout/Qin](%)=   30.443
                   TIME SHIFT OF PEAK FLOW         (min)=    24.00
                   MAXIMUM  STORAGE   USED       (ha.m.)=.8175E-01

--------------------------------------------------------------------------------
001:0481--------------------------------------------------------------------------
*
*# MH 546
*
*#=======================
*# TRUNK 1
*#=======================
*
------------------------
| ADD HYD (       450) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
------------------------                   (ha)     (cms)   (hrs)   (mm)   (cms)
                      ID1 08:       471     3.79     .324   12.60  97.64    .000
                     +ID2 07:       100    68.77    5.597   12.60  97.92    .000
                      ============================================================
                      SUM 06:       450    72.56    5.921   12.60  97.91    .000

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

--------------------------------------------------------------------------------
001:0482--------------------------------------------------------------------------
*
--------------------
| SAVE HYD        |   AREA       (ha)=   72.560
| ID=06 (000450)  |   QPEAK     (cms)=    5.921 (i)
| DT=12.00 PCYC=-1 |   TPEAK     (hrs)=   12.600

--------------------   VOLUME     (mm)=   97.909
  Filename: C:\SWMHYMO\111083\2018-0~1\544.092
  Comments: 544-24SCS120

     (i)  PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

--------------------------------------------------------------------------------
001:0483--------------------------------------------------------------------------
*
*#=======================
*# TRUNK 2
*#=======================
*
*#=======================
*#    DRAINAGE AREA 50 ||
*#   COMMERICAL        ||
*#=======================
*
*
----------------------
| CALIB STANDHYD     |   Area    (ha)=    3.65
| 05:000204 DT=10.00 |   Total Imp(%)=   80.00   Dir. Conn.(%)=   80.00
----------------------
                               IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=       2.92         .73
     Dep. Storage     (mm)=        .80        1.50
     Average Slope     (%)=        .20        2.00
     Length            (m)=     292.00       40.00
     Mannings n           =       .013         .250

     Max.eff.Inten.(mm/hr)=     142.42       97.18
                  over (min)      12.00       12.00
     Storage Coeff.  (min)=       6.84 (ii)  13.98 (ii)
     Unit Hyd. Tpeak (min)=      12.00       12.00
     Unit Hyd. peak  (cms)=        .12         .08
                                                          *TOTALS*
     PEAK FLOW       (cms)=       1.04         .14          1.178 (iii)
     TIME TO PEAK    (hrs)=      12.20        12.20         12.200
     RUNOFF VOLUME    (mm)=     123.04        72.30        112.892
     TOTAL RAINFALL   (mm)=     123.84       123.84        123.840
     RUNOFF COEFFICIENT   =        .99          .58           .912
      *** WARNING: Storage Coefficient is smaller than DT!
                   Use a smaller DT or a larger area.

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN* =  75.0    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

--------------------------------------------------------------------------------
001:0484--------------------------------------------------------------------------
*
*
*#=========================
*# OSD 85 L/S/HA
*#  85*3.65 = 310.3 L/S
*#=========================
*
----------------------
| ROUTE RESERVOIR   |    Requested routing time step = 12.0 min.
|  IN>05:(000204)   |
| OUT<08:(000471)   |    =========  OUTLFOW STORAGE TABLE  =========
----------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
                            (cms)    (ha.m.)   |    (cms)    (ha.m.)
                             .000  .0000E+00   |     .310  .9484E-01
                             .200  .2000E-02   |    .000  .0000E+00
      *** WARNING: STORAGE-Q values were extrapolated.
                   Increase curve or use overflow option.

     ROUTING RESULTS           AREA     QPEAK     TPEAK       R.V.
     --------------------       (ha)     (cms)     (hrs)       (mm)
     INFLOW >05: (000204)      3.65     1.178    12.200    112.892
     OUTFLOW<08: (000471)      3.65      .314    12.600    113.255

                   PEAK   FLOW   REDUCTION [Qout/Qin](%)=   26.671
                   TIME SHIFT OF PEAK FLOW         (min)=    24.00
                   MAXIMUM  STORAGE   USED       (ha.m.)=.1021E+00

      *** WARNING: Outflow volume is less than inflow volume.

--------------------------------------------------------------------------------
001:0485--------------------------------------------------------------------------
*
--------------------
| SHIFT HYD(       874)|
| IN= 8---> OUT= 7     |
| SHIFT=  10.0 min     |       AREA     QPEAK      TPEAK      R.V.
----------------------         (ha)     (cms)      (hrs)      (mm)
          ID= 8:       471      3.65      .314     12.600   113.255
     SHIFT ID= 7:      874      3.65      .314     12.800   113.255

*** WARNING: HYDROGRAPH WAS SHIFTED BY  12.0 MIN.

--------------------------------------------------------------------------------
001:0486--------------------------------------------------------------------------
*
*# MH 111
*
*#=============================================
*# AREA FORMERLY KNOWN AS 51 (EAST OF PORTOBELLO)
*#=============================================
*
*#=============================================
*# MATTAMY SUMMERSIDE DRAINAGE AREA 19.93 ha - H-114
*# TO MH 112
*#=============================================
*
*
--------------------
| READ HYD         |   AREA       (ha)=   17.858
| ID=05 (114   )   |   QPEAK     (cms)=    1.662
| DT= 1.00 PCYC= 1 |   TPEAK     (hrs)=   12.200
--------------------   VOLUME     (mm)=   96.066
  Filename: C:\SWMHYMO\111083\2018-0~1\H-114.092
  Comments: Minor System Outflow to MH 114

  TIME    FLOW |  TIME    FLOW |  TIME    FLOW |  TIME    FLOW |  TIME    FLOW
   hrs     cms |   hrs     cms |   hrs     cms |   hrs     cms |   hrs     cms
    .00    .000|   5.22    .068|  10.43    .226|  15.65    .187|  20.87    .094
    .02    .000|   5.23    .068|  10.45    .228|  15.67    .187|  20.88    .094
    .03    .000|   5.25    .068|  10.47    .230|  15.68    .187|  20.90    .094
    .05    .000|   5.27    .068|  10.48    .232|  15.70    .187|  20.92    .094
    .07    .000|   5.28    .068|  10.50    .233|  15.72    .187|  20.93    .094
    .08    .000|   5.30    .068|  10.52    .235|  15.73    .187|  20.95    .094
    .10    .000|   5.32    .068|  10.53    .236|  15.75    .187|  20.97    .094
    .12    .000|   5.33    .068|  10.55    .237|  15.77    .187|  20.98    .094
    .13    .000|   5.35    .069|  10.57    .239|  15.78    .187|  21.00    .094
    .15    .000|   5.37    .069|  10.58    .240|  15.80    .187|  21.02    .094
```

| | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 15495> | .17 | .000 | 5.38 | .069 | 10.60 | .241 | 15.82 | .187 | 21.03 | .094 | 15622> | 2.28 | .031 | 7.50 | .078 | 12.72 | 1.484 | 17.93 | .125 | 23.15 | .063 |
| 15496> | .18 | .000 | 5.40 | .069 | 10.62 | .242 | 15.83 | .187 | 21.05 | .094 | 15623> | 2.30 | .031 | 7.52 | .078 | 12.73 | 1.474 | 17.95 | .125 | 23.17 | .063 |
| 15497> | .20 | .000 | 5.42 | .069 | 10.63 | .243 | 15.85 | .187 | 21.07 | .094 | 15624> | 2.32 | .031 | 7.53 | .078 | 12.75 | 1.449 | 17.97 | .125 | 23.18 | .063 |
| 15498> | .22 | .000 | 5.43 | .069 | 10.65 | .244 | 15.87 | .187 | 21.08 | .094 | 15625> | 2.33 | .031 | 7.55 | .078 | 12.77 | 1.409 | 17.98 | .125 | 23.20 | .063 |
| 15499> | .23 | .000 | 5.45 | .069 | 10.67 | .244 | 15.88 | .187 | 21.10 | .094 | 15626> | 2.35 | .031 | 7.57 | .078 | 12.78 | 1.392 | 18.00 | .125 | 23.22 | .063 |
| 15500> | .25 | .000 | 5.47 | .069 | 10.68 | .245 | 15.90 | .187 | 21.12 | .094 | 15627> | 2.37 | .031 | 7.58 | .078 | 12.80 | 1.378 | 18.02 | .125 | 23.23 | .063 |
| 15501> | .27 | .000 | 5.48 | .069 | 10.70 | .246 | 15.92 | .187 | 21.13 | .094 | 15628> | 2.38 | .031 | 7.60 | .078 | 12.82 | 1.358 | 18.03 | .125 | 23.25 | .063 |
| 15502> | .28 | .000 | 5.50 | .069 | 10.72 | .247 | 15.93 | .187 | 21.15 | .094 | 15629> | 2.40 | .031 | 7.62 | .078 | 12.83 | 1.321 | 18.05 | .125 | 23.27 | .063 |
| 15503> | .30 | .000 | 5.52 | .069 | 10.73 | .247 | 15.95 | .187 | 21.17 | .094 | 15630> | 2.42 | .031 | 7.63 | .078 | 12.85 | 1.293 | 18.07 | .125 | 23.28 | .063 |
| 15504> | .32 | .000 | 5.53 | .069 | 10.75 | .248 | 15.97 | .187 | 21.18 | .094 | 15631> | 2.43 | .031 | 7.65 | .078 | 12.87 | 1.278 | 18.08 | .125 | 23.30 | .063 |
| 15505> | .33 | .000 | 5.55 | .069 | 10.77 | .249 | 15.98 | .187 | 21.20 | .094 | 15632> | 2.45 | .031 | 7.67 | .078 | 12.88 | 1.269 | 18.10 | .125 | 23.32 | .063 |
| 15506> | .35 | .000 | 5.57 | .070 | 10.78 | .249 | 16.00 | .187 | 21.22 | .093 | 15633> | 2.47 | .031 | 7.68 | .078 | 12.90 | 1.262 | 18.12 | .125 | 23.33 | .063 |
| 15507> | .37 | .000 | 5.58 | .070 | 10.80 | .250 | 16.02 | .187 | 21.23 | .090 | 15634> | 2.48 | .031 | 7.70 | .078 | 12.92 | 1.255 | 18.13 | .125 | 23.35 | .063 |
| 15508> | .38 | .000 | 5.60 | .070 | 10.82 | .250 | 16.03 | .187 | 21.25 | .087 | 15635> | 2.50 | .031 | 7.72 | .078 | 12.93 | 1.238 | 18.15 | .125 | 23.37 | .063 |
| 15509> | .40 | .000 | 5.62 | .070 | 10.83 | .251 | 16.05 | .187 | 21.27 | .085 | 15636> | 2.52 | .031 | 7.73 | .078 | 12.95 | 1.228 | 18.17 | .125 | 23.38 | .063 |
| 15510> | .42 | .000 | 5.63 | .070 | 10.85 | .251 | 16.07 | .187 | 21.28 | .083 | 15637> | 2.53 | .031 | 7.75 | .079 | 12.97 | 1.220 | 18.18 | .125 | 23.40 | .063 |
| 15511> | .43 | .000 | 5.65 | .070 | 10.87 | .252 | 16.08 | .187 | 21.30 | .081 | 15638> | 2.55 | .031 | 7.77 | .079 | 12.98 | 1.206 | 18.20 | .125 | 23.42 | .063 |
| 15512> | .45 | .000 | 5.67 | .070 | 10.88 | .252 | 16.10 | .187 | 21.32 | .080 | 15639> | 2.57 | .031 | 7.78 | .079 | 13.00 | 1.191 | 18.22 | .125 | 23.43 | .063 |
| 15513> | .47 | .000 | 5.68 | .070 | 10.90 | .253 | 16.12 | .187 | 21.33 | .078 | 15640> | 2.58 | .031 | 7.80 | .079 | 13.02 | 1.179 | 18.23 | .125 | 23.45 | .063 |
| 15514> | .48 | .000 | 5.70 | .070 | 10.92 | .253 | 16.13 | .187 | 21.35 | .077 | 15641> | 2.60 | .031 | 7.82 | .079 | 13.03 | 1.155 | 18.25 | .125 | 23.47 | .063 |
| 15515> | .50 | .000 | 5.72 | .070 | 10.93 | .254 | 16.15 | .187 | 21.37 | .076 | 15642> | 2.62 | .031 | 7.83 | .079 | 13.05 | 1.136 | 18.27 | .125 | 23.48 | .063 |
| 15516> | .52 | .000 | 5.73 | .070 | 10.95 | .254 | 16.17 | .187 | 21.38 | .075 | 15643> | 2.63 | .031 | 7.85 | .079 | 13.07 | 1.121 | 18.28 | .125 | 23.50 | .063 |
| 15517> | .53 | .000 | 5.75 | .070 | 10.97 | .254 | 16.18 | .187 | 21.40 | .074 | 15644> | 2.65 | .031 | 7.87 | .079 | 13.08 | 1.103 | 18.30 | .125 | 23.52 | .063 |
| 15518> | .55 | .000 | 5.77 | .070 | 10.98 | .255 | 16.20 | .187 | 21.42 | .074 | 15645> | 2.67 | .031 | 7.88 | .079 | 13.10 | 1.084 | 18.32 | .125 | 23.53 | .063 |
| 15519> | .57 | .000 | 5.78 | .071 | 11.00 | .255 | 16.22 | .184 | 21.43 | .073 | 15646> | 2.68 | .031 | 7.90 | .079 | 13.12 | 1.073 | 18.33 | .125 | 23.55 | .063 |
| 15520> | .58 | .000 | 5.80 | .071 | 11.02 | .256 | 16.23 | .178 | 21.45 | .072 | 15647> | 2.70 | .031 | 7.92 | .079 | 13.13 | 1.064 | 18.35 | .125 | 23.57 | .063 |
| 15521> | .60 | .000 | 5.82 | .071 | 11.03 | .256 | 16.25 | .172 | 21.47 | .071 | 15648> | 2.72 | .031 | 7.93 | .079 | 13.15 | 1.058 | 18.37 | .125 | 23.58 | .063 |
| 15522> | .62 | .000 | 5.83 | .071 | 11.05 | .256 | 16.27 | .167 | 21.48 | .071 | 15649> | 2.73 | .031 | 7.95 | .079 | 13.17 | 1.053 | 18.38 | .125 | 23.60 | .063 |
| 15523> | .63 | .000 | 5.85 | .071 | 11.07 | .257 | 16.28 | .163 | 21.50 | .070 | 15650> | 2.75 | .031 | 7.97 | .079 | 13.18 | 1.049 | 18.40 | .125 | 23.62 | .061 |
| 15524> | .65 | .000 | 5.87 | .071 | 11.08 | .257 | 16.30 | .160 | 21.52 | .070 | 15651> | 2.77 | .031 | 7.98 | .079 | 13.20 | 1.040 | 18.42 | .125 | 23.63 | .058 |
| 15525> | .67 | .000 | 5.88 | .071 | 11.10 | .257 | 16.32 | .157 | 21.53 | .069 | 15652> | 2.78 | .031 | 8.00 | .079 | 13.22 | .546 | 18.43 | .125 | 23.65 | .054 |
| 15526> | .68 | .000 | 5.90 | .071 | 11.12 | .258 | 16.33 | .155 | 21.55 | .069 | 15653> | 2.80 | .031 | 8.02 | .080 | 13.23 | .531 | 18.45 | .125 | 23.67 | .050 |
| 15527> | .70 | .000 | 5.92 | .071 | 11.13 | .258 | 16.35 | .153 | 21.57 | .068 | 15654> | 2.82 | .031 | 8.03 | .080 | 13.25 | .519 | 18.47 | .125 | 23.68 | .048 |
| 15528> | .72 | .000 | 5.93 | .071 | 11.15 | .258 | 16.37 | .151 | 21.58 | .068 | 15655> | 2.83 | .031 | 8.05 | .080 | 13.27 | .508 | 18.48 | .125 | 23.70 | .046 |
| 15529> | .73 | .000 | 5.95 | .071 | 11.17 | .259 | 16.38 | .149 | 21.60 | .068 | 15656> | 2.85 | .031 | 8.07 | .080 | 13.28 | .498 | 18.50 | .125 | 23.72 | .044 |
| 15530> | .75 | .000 | 5.97 | .071 | 11.18 | .259 | 16.40 | .147 | 21.62 | .067 | 15657> | 2.87 | .031 | 8.08 | .080 | 13.30 | .490 | 18.52 | .125 | 23.73 | .042 |
| 15531> | .77 | .000 | 5.98 | .071 | 11.20 | .259 | 16.42 | .145 | 21.63 | .067 | 15658> | 2.88 | .031 | 8.10 | .080 | 13.32 | .482 | 18.53 | .125 | 23.75 | .041 |
| 15532> | .78 | .000 | 6.00 | .072 | 11.22 | .265 | 16.43 | .144 | 21.65 | .067 | 15659> | 2.90 | .031 | 8.12 | .080 | 13.33 | .475 | 18.55 | .125 | 23.77 | .039 |
| 15533> | .80 | .000 | 6.02 | .072 | 11.23 | .277 | 16.45 | .142 | 21.67 | .066 | 15660> | 2.92 | .031 | 8.13 | .080 | 13.35 | .469 | 18.57 | .125 | 23.78 | .038 |
| 15534> | .82 | .000 | 6.03 | .072 | 11.25 | .289 | 16.47 | .141 | 21.68 | .066 | 15661> | 2.93 | .031 | 8.15 | .080 | 13.37 | .463 | 18.58 | .125 | 23.80 | .037 |
| 15535> | .83 | .000 | 6.05 | .072 | 11.27 | .299 | 16.48 | .140 | 21.70 | .066 | 15662> | 2.95 | .031 | 8.17 | .080 | 13.38 | .458 | 18.60 | .125 | 23.82 | .036 |
| 15536> | .85 | .000 | 6.07 | .072 | 11.28 | .307 | 16.50 | .139 | 21.72 | .066 | 15663> | 2.97 | .031 | 8.18 | .080 | 13.40 | .453 | 18.62 | .125 | 23.83 | .035 |
| 15537> | .87 | .000 | 6.08 | .072 | 11.30 | .313 | 16.52 | .138 | 21.73 | .066 | 15664> | 2.98 | .031 | 8.20 | .080 | 13.42 | .448 | 18.63 | .125 | 23.85 | .034 |
| 15538> | .88 | .000 | 6.10 | .072 | 11.32 | .318 | 16.53 | .137 | 21.75 | .065 | 15665> | 3.00 | .031 | 8.22 | .083 | 13.43 | .444 | 18.65 | .125 | 23.87 | .033 |
| 15539> | .90 | .000 | 6.12 | .072 | 11.33 | .322 | 16.55 | .136 | 21.77 | .065 | 15666> | 3.02 | .031 | 8.23 | .089 | 13.45 | .439 | 18.67 | .125 | 23.88 | .032 |
| 15540> | .92 | .000 | 6.13 | .072 | 11.35 | .326 | 16.57 | .135 | 21.78 | .065 | 15667> | 3.03 | .031 | 8.25 | .095 | 13.47 | .434 | 18.68 | .125 | 23.90 | .031 |
| 15541> | .93 | .000 | 6.15 | .072 | 11.37 | .329 | 16.58 | .134 | 21.80 | .065 | 15668> | 3.05 | .031 | 8.27 | .099 | 13.48 | .425 | 18.70 | .125 | 23.92 | .031 |
| 15542> | .95 | .000 | 6.17 | .072 | 11.38 | .332 | 16.60 | .133 | 21.82 | .065 | 15669> | 3.07 | .031 | 8.28 | .103 | 13.50 | .420 | 18.72 | .125 | 23.93 | .030 |
| 15543> | .97 | .000 | 6.18 | .072 | 11.40 | .334 | 16.62 | .133 | 21.83 | .065 | 15670> | 3.08 | .031 | 8.30 | .106 | 13.52 | .416 | 18.73 | .125 | 23.95 | .030 |
| 15544> | .98 | .000 | 6.20 | .072 | 11.42 | .346 | 16.63 | .132 | 21.85 | .065 | 15671> | 3.10 | .031 | 8.32 | .108 | 13.53 | .413 | 18.75 | .125 | 23.97 | .029 |
| 15545> | 1.00 | .000 | 6.22 | .072 | 11.43 | .369 | 16.65 | .132 | 21.87 | .064 | 15672> | 3.12 | .031 | 8.33 | .109 | 13.55 | .404 | 18.77 | .125 | 23.98 | .028 |
| 15546> | 1.02 | .000 | 6.23 | .073 | 11.45 | .392 | 16.67 | .131 | 21.88 | .064 | 15673> | 3.13 | .031 | 8.35 | .111 | 13.57 | .395 | 18.78 | .125 | 24.00 | .028 |
| 15547> | 1.03 | .000 | 6.25 | .073 | 11.47 | .410 | 16.68 | .131 | 21.90 | .064 | 15674> | 3.15 | .031 | 8.37 | .112 | 13.58 | .386 | 18.80 | .125 | 24.02 | .027 |
| 15548> | 1.05 | .000 | 6.27 | .073 | 11.48 | .426 | 16.70 | .130 | 21.92 | .064 | 15675> | 3.17 | .031 | 8.38 | .113 | 13.60 | .382 | 18.82 | .125 | 24.03 | .027 |
| 15549> | 1.07 | .000 | 6.28 | .073 | 11.50 | .438 | 16.72 | .130 | 21.93 | .064 | 15676> | 3.18 | .031 | 8.40 | .114 | 13.62 | .379 | 18.83 | .125 | 24.05 | .026 |
| 15550> | 1.08 | .000 | 6.30 | .073 | 11.52 | .447 | 16.73 | .130 | 21.95 | .064 | 15677> | 3.20 | .031 | 8.42 | .115 | 13.63 | .370 | 18.85 | .125 | 24.07 | .026 |
| 15551> | 1.10 | .000 | 6.32 | .073 | 11.53 | .456 | 16.75 | .129 | 21.97 | .064 | 15678> | 3.22 | .031 | 8.43 | .115 | 13.65 | .366 | 18.87 | .125 | 24.08 | .025 |
| 15552> | 1.12 | .000 | 6.33 | .073 | 11.55 | .463 | 16.77 | .129 | 21.98 | .064 | 15679> | 3.23 | .031 | 8.45 | .116 | 13.67 | .363 | 18.88 | .125 | 24.10 | .025 |
| 15553> | 1.13 | .000 | 6.35 | .073 | 11.57 | .470 | 16.78 | .129 | 22.00 | .064 | 15680> | 3.25 | .031 | 8.47 | .117 | 13.68 | .362 | 18.90 | .125 | 24.12 | .024 |
| 15554> | 1.15 | .000 | 6.37 | .073 | 11.58 | .476 | 16.80 | .128 | 22.02 | .064 | 15681> | 3.27 | .031 | 8.48 | .117 | 13.70 | .360 | 18.92 | .125 | 24.13 | .024 |
| 15555> | 1.17 | .000 | 6.38 | .073 | 11.60 | .481 | 16.82 | .128 | 22.03 | .064 | 15682> | 3.28 | .031 | 8.50 | .118 | 13.72 | .359 | 18.93 | .125 | 24.15 | .023 |
| 15556> | 1.18 | .000 | 6.40 | .073 | 11.62 | .523 | 16.83 | .128 | 22.05 | .064 | 15683> | 3.30 | .031 | 8.52 | .118 | 13.73 | .358 | 18.95 | .125 | 24.17 | .023 |
| 15557> | 1.20 | .000 | 6.42 | .073 | 11.63 | .610 | 16.85 | .128 | 22.07 | .064 | 15684> | 3.32 | .031 | 8.53 | .119 | 13.75 | .357 | 18.97 | .125 | 24.18 | .023 |
| 15558> | 1.22 | .000 | 6.43 | .073 | 11.65 | .697 | 16.87 | .128 | 22.08 | .064 | 15685> | 3.33 | .031 | 8.55 | .119 | 13.77 | .356 | 18.98 | .125 | 24.20 | .023 |
| 15559> | 1.23 | .000 | 6.45 | .073 | 11.67 | .766 | 16.88 | .127 | 22.10 | .064 | 15686> | 3.35 | .031 | 8.57 | .120 | 13.78 | .355 | 19.00 | .125 | 24.22 | .022 |
| 15560> | 1.25 | .000 | 6.47 | .074 | 11.68 | .822 | 16.90 | .127 | 22.12 | .064 | 15687> | 3.37 | .031 | 8.58 | .120 | 13.80 | .354 | 19.02 | .125 | 24.23 | .020 |
| 15561> | 1.27 | .000 | 6.48 | .074 | 11.70 | .864 | 16.92 | .127 | 22.13 | .064 | 15688> | 3.38 | .031 | 8.60 | .120 | 13.82 | .353 | 19.03 | .125 | 24.25 | .017 |
| 15562> | 1.28 | .000 | 6.50 | .074 | 11.72 | .899 | 16.93 | .127 | 22.15 | .064 | 15689> | 3.40 | .031 | 8.62 | .121 | 13.83 | .352 | 19.05 | .125 | 24.27 | .016 |
| 15563> | 1.30 | .000 | 6.52 | .074 | 11.73 | .929 | 16.95 | .127 | 22.17 | .063 | 15690> | 3.42 | .031 | 8.63 | .121 | 13.85 | .344 | 19.07 | .125 | 24.28 | .014 |
| 15564> | 1.32 | .000 | 6.53 | .074 | 11.75 | .956 | 16.97 | .127 | 22.18 | .063 | 15691> | 3.43 | .031 | 8.65 | .121 | 13.87 | .323 | 19.08 | .125 | 24.30 | .013 |
| 15565> | 1.33 | .000 | 6.55 | .074 | 11.77 | .980 | 16.98 | .127 | 22.20 | .063 | 15692> | 3.45 | .031 | 8.67 | .121 | 13.88 | .318 | 19.10 | .125 | 24.32 | .012 |
| 15566> | 1.35 | .000 | 6.57 | .074 | 11.78 | 1.002 | 17.00 | .126 | 22.22 | .063 | 15693> | 3.47 | .031 | 8.68 | .122 | 13.90 | .316 | 19.12 | .125 | 24.33 | .011 |
| 15567> | 1.37 | .000 | 6.58 | .074 | 11.80 | 1.022 | 17.02 | .126 | 22.23 | .063 | 15694> | 3.48 | .031 | 8.70 | .122 | 13.92 | .315 | 19.13 | .125 | 24.35 | .011 |
| 15568> | 1.38 | .000 | 6.60 | .074 | 11.82 | 1.106 | 17.03 | .126 | 22.25 | .063 | 15695> | 3.50 | .031 | 8.72 | .122 | 13.93 | .315 | 19.15 | .125 | 24.37 | .010 |
| 15569> | 1.40 | .000 | 6.62 | .074 | 11.83 | 1.233 | 17.05 | .126 | 22.27 | .063 | 15696> | 3.52 | .031 | 8.73 | .122 | 13.95 | .314 | 19.17 | .126 | 24.38 | .009 |
| 15570> | 1.42 | .000 | 6.63 | .074 | 11.85 | 1.308 | 17.07 | .126 | 22.28 | .063 | 15697> | 3.53 | .031 | 8.75 | .123 | 13.97 | .314 | 19.18 | .126 | 24.40 | .008 |
| 15571> | 1.43 | .000 | 6.65 | .074 | 11.87 | 1.372 | 17.08 | .126 | 22.30 | .063 | 15698> | 3.55 | .032 | 8.77 | .123 | 13.98 | .314 | 19.20 | .126 | 24.42 | .008 |
| 15572> | 1.45 | .000 | 6.67 | .074 | 11.88 | 1.449 | 17.10 | .126 | 22.32 | .063 | 15699> | 3.57 | .032 | 8.78 | .123 | 14.00 | .313 | 19.22 | .124 | 24.43 | .007 |
| 15573> | 1.47 | .000 | 6.68 | .074 | 11.90 | 1.517 | 17.12 | .126 | 22.33 | .063 | 15700> | 3.58 | .032 | 8.80 | .123 | 14.02 | .313 | 19.23 | .121 | 24.45 | .007 |
| 15574> | 1.48 | .002 | 6.70 | .074 | 11.92 | 1.569 | 17.13 | .126 | 22.35 | .063 | 15701> | 3.60 | .032 | 8.82 | .123 | 14.03 | .313 | 19.25 | .118 | 24.47 | .006 |
| 15575> | 1.50 | .008 | 6.72 | .075 | 11.93 | 1.606 | 17.15 | .126 | 22.37 | .063 | 15702> | 3.62 | .032 | 8.83 | .123 | 14.05 | .312 | 19.27 | .116 | 24.48 | .006 |
| 15576> | 1.52 | .013 | 6.73 | .075 | 11.95 | 1.613 | 17.17 | .126 | 22.38 | .063 | 15703> | 3.63 | .032 | 8.85 | .124 | 14.07 | .312 | 19.28 | .114 | 24.50 | .005 |
| 15577> | 1.53 | .018 | 6.75 | .075 | 11.97 | 1.620 | 17.18 | .126 | 22.40 | .063 | 15704> | 3.65 | .032 | 8.87 | .124 | 14.08 | .312 | 19.30 | .112 | 24.52 | .005 |
| 15578> | 1.55 | .021 | 6.77 | .075 | 11.98 | 1.625 | 17.20 | .126 | 22.42 | .063 | 15705> | 3.67 | .032 | 8.88 | .124 | 14.10 | .312 | 19.32 | .111 | 24.53 | .005 |
| 15579> | 1.57 | .024 | 6.78 | .075 | 12.00 | 1.631 | 17.22 | .126 | 22.43 | .063 | 15706> | 3.68 | .032 | 8.90 | .124 | 14.12 | .311 | 19.33 | .109 | 24.55 | .004 |
| 15580> | 1.58 | .026 | 6.80 | .075 | 12.02 | 1.638 | 17.23 | .126 | 22.45 | .063 | 15707> | 3.70 | .032 | 8.92 | .124 | 14.13 | .311 | 19.35 | .108 | 24.57 | .004 |
| 15581> | 1.60 | .027 | 6.82 | .075 | 12.03 | 1.647 | 17.25 | .125 | 22.47 | .063 | 15708> | 3.72 | .032 | 8.93 | .124 | 14.15 | .311 | 19.37 | .107 | 24.58 | .004 |
| 15582> | 1.62 | .028 | 6.83 | .075 | 12.05 | 1.655 | 17.27 | .125 | 22.48 | .063 | 15709> | 3.73 | .032 | 8.95 | .125 | 14.17 | .311 | 19.38 | .106 | 24.60 | .003 |
| 15583> | 1.63 | .028 | 6.85 | .075 | 12.07 | 1.659 | 17.28 | .125 | 22.50 | .063 | 15710> | 3.75 | .032 | 8.97 | .125 | 14.18 | .311 | 19.40 | .106 | 24.62 | .003 |
| 15584> | 1.65 | .029 | 6.87 | .075 | 12.08 | 1.660 | 17.30 | .125 | 22.52 | .063 | 15711> | 3.77 | .032 | 8.98 | .125 | 14.20 | .311 | 19.42 | .105 | 24.63 | .003 |
| 15585> | 1.67 | .029 | 6.88 | .075 | 12.10 | 1.661 | 17.32 | .125 | 22.53 | .063 | 15712> | 3.78 | .032 | 9.00 | .125 | 14.22 | .305 | 19.43 | .104 | 24.65 | .003 |
| 15586> | 1.68 | .030 | 6.90 | .075 | 12.12 | 1.661 | 17.33 | .125 | 22.55 | .063 | 15713> | 3.80 | .032 | 9.02 | .125 | 14.23 | .293 | 19.45 | .103 | 24.67 | .003 |
| 15587> | 1.70 | .030 | 6.92 | .075 | 12.13 | 1.661 | 17.35 | .125 | 22.57 | .063 | 15714> | 3.82 | .032 | 9.03 | .125 | 14.25 | .281 | 19.47 | .103 | 24.68 | .002 |
| 15588> | 1.72 | .030 | 6.93 | .075 | 12.15 | 1.662 | 17.37 | .125 | 22.58 | .063 | 15715> | 3.83 | .032 | 9.05 | .125 | 14.27 | .271 | 19.48 | .102 | 24.70 | .002 |
| 15589> | 1.73 | .030 | 6.95 | .075 | 12.17 | 1.662 | 17.38 | .125 | 22.60 | .063 | 15716> | 3.85 | .032 | 9.07 | .126 | 14.28 | .263 | 19.50 | .101 | 24.72 | .002 |
| 15590> | 1.75 | .030 | 6.97 | .076 | 12.18 | 1.662 | 17.40 | .125 | 22.62 | .063 | 15717> | 3.87 | .032 | 9.08 | .126 | 14.30 | .256 | 19.52 | .101 | 24.73 | .002 |
| 15591> | 1.77 | .030 | 6.98 | .076 | 12.20 | 1.662 | 17.42 | .125 | 22.63 | .063 | 15718> | 3.88 | .032 | 9.10 | .126 | 14.32 | .251 | 19.53 | .100 | 24.75 | .002 |
| 15592> | 1.78 | .030 | 7.00 | .076 | 12.22 | 1.662 | 17.43 | .125 | 22.65 | .063 | 15719> | 3.90 | .032 | 9.12 | .126 | 14.33 | .246 | 19.55 | .100 | 24.77 | .002 |
| 15593> | 1.80 | .031 | 7.02 | .076 | 12.23 | 1.662 | 17.45 | .125 | 22.67 | .063 | 15720> | 3.92 | .032 | 9.13 | .126 | 14.35 | .242 | 19.57 | .099 | 24.78 | .002 |
| 15594> | 1.82 | .031 | 7.03 | .076 | 12.25 | 1.662 | 17.47 | .125 | 22.68 | .063 | 15721> | 3.93 | .032 | 9.15 | .126 | 14.37 | .238 | 19.58 | .099 | 24.80 | .001 |
| 15595> | 1.83 | .031 | 7.05 | .076 | 12.27 | 1.662 | 17.48 | .125 | 22.70 | .063 | 15722> | 3.95 | .032 | 9.17 | .126 | 14.38 | .234 | 19.60 | .099 | 24.82 | .001 |
| 15596> | 1.85 | .031 | 7.07 | .076 | 12.28 | 1.662 | 17.50 | .125 | 22.72 | .063 | 15723> | 3.97 | .032 | 9.18 | .127 | 14.40 | .230 | 19.62 | .098 | 24.83 | .001 |
| 15597> | 1.87 | .031 | 7.08 | .076 | 12.30 | 1.662 | 17.52 | .125 | 22.73 | .063 | 15724> | 3.98 | .032 | 9.20 | .127 | 14.42 | .227 | 19.63 | .098 | 24.85 | .001 |
| 15598> | 1.88 | .031 | 7.10 | .076 | 12.32 | 1.662 | 17.53 | .125 | 22.75 | .063 | 15725> | 4.00 | .032 | 9.22 | .127 | 14.43 | .224 | 19.65 | .098 | 24.87 | .001 |
| 15599> | 1.90 | .031 | 7.12 | .076 | 12.33 | 1.661 | 17.55 | .125 | 22.77 | .063 | 15726> | 4.02 | .032 | 9.23 | .127 | 14.45 | .221 | 19.67 | .098 | 24.88 | .001 |
| 15600> | 1.92 | .031 | 7.13 | .076 | 12.35 | 1.661 | 17.57 | .125 | 22.78 | .063 | 15727> | 4.03 | .032 | 9.25 | .127 | 14.47 | .218 | 19.68 | .097 | 24.90 | .001 |
| 15601> | 1.93 | .031 | 7.15 | .076 | 12.37 | 1.661 | 17.58 | .125 | 22.80 | .063 | 15728> | 4.05 | .032 | 9.27 | .127 | 14.48 | .216 | 19.70 | .097 | 24.92 | .001 |
| 15602> | 1.95 | .031 | 7.17 | .076 | 12.38 | 1.661 | 17.60 | .125 | 22.82 | .063 | 15729> | 4.07 | .032 | 9.28 | .127 | 14.50 | .213 | 19.72 | .097 | 24.93 | .001 |
| 15603> | 1.97 | .031 | 7.18 | .076 | 12.40 | 1.660 | 17.62 | .125 | 22.83 | .063 | 15730> | 4.08 | .032 | 9.30 | .127 | 14.52 | .211 | 19.73 | .097 | 24.95 | .001 |
| 15604> | 1.98 | .031 | 7.20 | .076 | 12.42 | 1.659 | 17.63 | .125 | 22.85 | .063 | 15731> | 4.10 | .032 | 9.32 | .128 | 14.53 | .209 | 19.75 | .097 | 24.97 | .001 |
| 15605> | 2.00 | .031 | 7.22 | .077 | 12.43 | 1.657 | 17.65 | .125 | 22.87 | .063 | 15732> | 4.12 | .032 | 9.33 | .128 | 14.55 | .208 | 19.77 | .096 | 24.98 | .001 |
| 15606> | 2.02 | .031 | 7.23 | .077 | 12.45 | 1.655 | 17.67 | .125 | 22.88 | .063 | 15733> | 4.13 | .032 | 9.35 | .128 | 14.57 | .206 | 19.78 | .096 | 25.00 | .001 |
| 15607> | 2.03 | .031 | 7.25 | .077 | 12.47 | 1.653 | 17.68 | .125 | 22.90 | .063 | 15734> | 4.15 | .032 | 9.37 | .128 | 14.58 | .205 | 19.80 | .096 | 25.02 | .001 |
| 15608> | 2.05 | .031 | 7.27 | .077 | 12.48 | 1.652 | 17.70 | .125 | 22.92 | .063 | 15735> | 4.17 | .032 | 9.38 | .128 | 14.60 | .203 | 19.82 | .096 | 25.03 | .001 |
| 15609> | 2.07 | .031 | 7.28 | .077 | 12.50 | 1.649 | 17.72 | .125 | 22.93 | .063 | 15736> | 4.18 | .032 | 9.40 | .128 | 14.62 | .202 | 19.83 | .096 | 25.05 | .001 |
| 15610> | 2.08 | .031 | 7.30 | .077 | 12.52 | 1.646 | 17.73 | .125 | 22.95 | .063 | 15737> | 4.20 | .032 | 9.42 | .128 | 14.63 | .201 | 19.85 | .096 | 25.07 | .000 |
| 15611> | 2.10 | .031 | 7.32 | .077 | 12.53 | 1.643 | 17.75 | .125 | 22.97 | .063 | 15738> | 4.22 | .035 | 9.43 | .128 | 14.65 | .200 | 19.87 | .096 | 25.08 | .000 |
| 15612> | 2.12 | .031 | 7.33 | .077 | 12.55 | 1.625 | 17.77 | .125 | 22.98 | .063 | 15739> | 4.23 | .040 | 9.45 | .128 | 14.67 | .199 | 19.88 | .096 | 25.10 | .000 |
| 15613> | 2.13 | .031 | 7.35 | .077 | 12.57 | 1.613 | 17.78 | .125 | 23.00 | .063 | 15740> | 4.25 | .046 | 9.47 | .129 | 14.68 | .198 | 19.90 | .095 | 25.12 | .000 |
| 15614> | 2.15 | .031 | 7.37 | .077 | 12.58 | 1.603 | 17.80 | .125 | 23.02 | .063 | 15741> | 4.27 | .050 | 9.48 | .129 | 14.70 | .197 | 19.92 | .095 | 25.13 | .000 |
| 15615> | 2.17 | .031 | 7.38 | .077 | 12.60 | 1.588 | 17.82 | .125 | 23.03 | .063 | 15742> | 4.28 | .054 | 9.50 | .129 | 14.72 | .196 | 19.93 | .095 | 25.15 | .000 |
| 15616> | 2.18 | .031 | 7.40 | .077 | 12.62 | 1.571 | 17.83 | .125 | 23.05 | .063 | 15743> | 4.30 | .056 | 9.52 | .129 | 14.73 | .195 | 19.95 | .095 | 25.17 | .000 |
| 15617> | 2.20 | .031 | 7.42 | .077 | 12.63 | 1.555 | 17.85 | .125 | 23.07 | .063 | 15744> | 4.32 | .058 | 9.53 | .129 | 14.75 | .195 | 19.97 | .095 | 25.18 | .000 |
| 15618> | 2.22 | .031 | 7.43 | .077 | 12.65 | 1.541 | 17.87 | .125 | 23.08 | .063 | 15745> | 4.33 | .059 | 9.55 | .129 | 14.77 | .194 | 19.98 | .095 | 25.20 | .000 |
| 15619> | 2.23 | .031 | 7.45 | .077 | 12.67 | 1.529 | 17.88 | .125 | 23.10 | .063 | 15746> | 4.35 | .060 | 9.57 | .129 | 14.78 | .194 | 20.00 | .095 | 25.22 | .000 |
| 15620> | 2.25 | .031 | 7.47 | .077 | 12.68 | 1.520 | 17.90 | .125 | 23.12 | .063 | 15747> | 4.37 | .061 | 9.58 | .129 | 14.80 | .193 | 20.02 | .095 | 25.23 | .000 |
| 15621> | 2.27 | .031 | 7.48 | .078 | 12.70 | 1.497 | 17.92 | .125 | 23.13 | .063 | 15748> | 4.38 | .062 | 9.60 | .130 | 14.82 | .193 | 20.03 | .095 | 25.25 | .000 |

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15749>    4.40    .062|   9.62    .130|  14.83    .192|  20.05    .095|  25.27    .000
15750>    4.42    .063|   9.63    .130|  14.85    .192|  20.07    .095|  25.28    .000
15751>    4.43    .063|   9.65    .130|  14.87    .191|  20.08    .095|  25.30    .000
15752>    4.45    .063|   9.67    .130|  14.88    .191|  20.10    .095|  25.32    .000
15753>    4.47    .064|   9.68    .130|  14.90    .191|  20.12    .095|  25.33    .000
15754>    4.48    .064|   9.70    .130|  14.92    .190|  20.13    .095|  25.35    .000
15755>    4.50    .064|   9.72    .130|  14.93    .190|  20.15    .095|  25.37    .000
15756>    4.52    .064|   9.73    .130|  14.95    .190|  20.17    .095|  25.38    .000
15757>    4.53    .064|   9.75    .131|  14.97    .189|  20.18    .095|  25.40    .000
15758>    4.55    .064|   9.77    .131|  14.98    .189|  20.20    .095|  25.42    .000
15759>    4.57    .065|   9.78    .131|  15.00    .189|  20.22    .095|  25.43    .000
15760>    4.58    .065|   9.80    .131|  15.02    .189|  20.23    .095|  25.45    .000
15761>    4.60    .065|   9.82    .131|  15.03    .189|  20.25    .095|  25.47    .000
15762>    4.62    .065|   9.83    .131|  15.05    .188|  20.27    .095|  25.48    .000
15763>    4.63    .065|   9.85    .131|  15.07    .188|  20.28    .095|  25.50    .000
15764>    4.65    .065|   9.87    .131|  15.08    .188|  20.30    .095|  25.52    .000
15765>    4.67    .065|   9.88    .131|  15.10    .188|  20.32    .095|  25.53    .000
15766>    4.68    .065|   9.90    .131|  15.12    .188|  20.33    .095|  25.55    .000
15767>    4.70    .065|   9.92    .132|  15.13    .188|  20.35    .095|  25.57    .000
15768>    4.72    .065|   9.93    .132|  15.15    .188|  20.37    .095|  25.58    .000
15769>    4.73    .066|   9.95    .132|  15.17    .188|  20.38    .095|  25.60    .000
15770>    4.75    .066|   9.97    .132|  15.18    .187|  20.40    .095|  25.62    .000
15771>    4.77    .066|   9.98    .132|  15.20    .187|  20.42    .095|  25.63    .000
15772>    4.78    .066|  10.00    .132|  15.22    .187|  20.43    .095|  25.65    .000
15773>    4.80    .066|  10.02    .132|  15.23    .187|  20.45    .094|  25.67    .000
15774>    4.82    .066|  10.03    .132|  15.25    .187|  20.47    .094|  25.68    .000
15775>    4.83    .066|  10.05    .132|  15.27    .187|  20.48    .094|  25.70    .000
15776>    4.85    .066|  10.07    .133|  15.28    .187|  20.50    .094|  25.72    .000
15777>    4.87    .066|  10.08    .133|  15.30    .187|  20.52    .094|  25.73    .000
15778>    4.88    .066|  10.10    .133|  15.32    .187|  20.53    .094|  25.75    .000
15779>    4.90    .066|  10.12    .133|  15.33    .187|  20.55    .094|  25.77    .000
15780>    4.92    .066|  10.13    .133|  15.35    .187|  20.57    .094|  25.78    .000
15781>    4.93    .067|  10.15    .133|  15.37    .187|  20.58    .094|  25.80    .000
15782>    4.95    .067|  10.17    .133|  15.38    .187|  20.60    .094|  25.82    .000
15783>    4.97    .067|  10.18    .133|  15.40    .187|  20.62    .094|  25.83    .000
15784>    4.98    .067|  10.20    .133|  15.42    .187|  20.63    .094|  25.85    .000
15785>    5.00    .067|  10.22    .140|  15.43    .187|  20.65    .094|  25.87    .000
15786>    5.02    .067|  10.23    .155|  15.45    .187|  20.67    .094|  25.88    .000
15787>    5.03    .067|  10.25    .169|  15.47    .187|  20.68    .094|  25.90    .000
15788>    5.05    .067|  10.27    .181|  15.48    .187|  20.70    .094|  25.92    .000
15789>    5.07    .067|  10.28    .191|  15.50    .187|  20.72    .094|  25.93    .000
15790>    5.08    .067|  10.30    .198|  15.52    .187|  20.73    .094|  25.95    .000
15791>    5.10    .067|  10.32    .203|  15.53    .187|  20.75    .094|  25.97    .000
15792>    5.12    .067|  10.33    .208|  15.55    .187|  20.77    .094|  25.98    .000
15793>    5.13    .068|  10.35    .212|  15.57    .187|  20.78    .094|  26.00    .000
15794>    5.15    .068|  10.37    .215|  15.58    .187|  20.80    .094|  26.02    .000
15795>    5.17    .068|  10.38    .218|  15.60    .187|  20.82    .094|  26.03    .000
15796>    5.18    .068|  10.40    .221|  15.62    .187|  20.83    .094|  26.05    .000
15797>    5.20    .068|  10.42    .223|  15.63    .187|  20.85    .094|
15798> --------------------------------------------------------------------------------
15799> 001:0487-------------------------------------------------------------------------
15800> *
15801> *
15802> *# MH 112
15803> *
15804> *
15805> *
15806> *#===============
15807> *# ADD TO AREA 50
15808> *
15809> ----------------------
15810> | ADD HYD (       846) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
15811> ----------------------                    (ha)     (cms)   (hrs)   (mm)   (cms)
15812>                         ID1 07:       874     3.65     .314   12.80 113.25    .000
15813>                       +ID2 05:114             17.86    1.662   12.20  96.07    .000
15814>                         ==========================================================
15815>                         SUM 04:       846    21.51    1.942   12.53  98.98    .000
15816>
15817>    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
15818>
15819> --------------------------------------------------------------------------------
15820> 001:0488-------------------------------------------------------------------------
15821> *#=======================
15822> *#    DRAINAGE AREA 53 ||
15823> *#                     ||
15824> *#=======================
15825> *
15826> *
15827> ----------------------
15828> | CALIB STANDHYD     |   Area    (ha)=   17.48
15829> | 08:000204 DT=10.00 |   Total Imp(%)=   56.00   Dir. Conn.(%)=   42.00
15830> ----------------------
15831>                                IMPERVIOUS    PERVIOUS (i)
15832>      Surface Area     (ha)=       9.79         7.69
15833>      Dep. Storage     (mm)=        .80         1.50
15834>      Average Slope     (%)=        .20         2.00
15835>      Length            (m)=     447.00        40.00
15836>      Mannings n           =       .013         .250
15837>
15838>      Max.eff.Inten.(mm/hr)=     142.42       141.94
15839>                   over (min)      12.00        12.00
15840>      Storage Coeff.  (min)=       8.83 (ii)   14.96 (ii)
15841>      Unit Hyd. Tpeak (min)=      12.00        12.00
15842>      Unit Hyd. peak  (cms)=        .11          .08
15843>                                                          *TOTALS*
15844>      PEAK FLOW       (cms)=       2.46         2.06          4.515 (iii)
15845>      TIME TO PEAK    (hrs)=      12.20        12.20         12.200
15846>      RUNOFF VOLUME    (mm)=     123.04        80.54         98.391
15847>      TOTAL RAINFALL   (mm)=     123.84       123.84        123.840
15848>      RUNOFF COEFFICIENT   =        .99          .65           .794
15849>       *** WARNING: Storage Coefficient is smaller than DT!
15850>                    Use a smaller DT or a larger area.
15851>
15852>        (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
15853>            CN* =  75.0    Ia = Dep. Storage  (Above)
15854>       (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
15855>            THAN THE STORAGE COEFFICIENT.
15856>      (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
15857>
15858> --------------------------------------------------------------------------------
15859> 001:0489-------------------------------------------------------------------------
15860> *
15861> *
15862> *#=========================
15863> *# OSD 85 L/S/HA  PARK 30 L/S/HA
15864> *#  85*16.42 = 1395.7 L/S
15865> *#  30*1.06 = 31.8 L/S
15866> *#  TOTAL = 1428 L/S
15867> *#=========================
15868> *
15869> ---------------------
15870> | ROUTE RESERVOIR   |    Requested routing time step = 12.0 min.
15871> |  IN>08:(000204)   |
15872> | OUT<05:(000471)   |    =========  OUTLFOW STORAGE TABLE  =========
15873> ---------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
15874>                            (cms)    (ha.m.)   |    (cms)    (ha.m.)
15875>                             .000  .0000E+00   |    1.428  .2308E+00
15876>                                1.400  .2000E-02   |     .000  .0000E+00
15877>       *** WARNING: STORAGE-Q values were extrapolated.
15878>                    Increase curve or use overflow option.
15879>
15880>      ROUTING RESULTS            AREA     QPEAK     TPEAK       R.V.
15881>      --------------------       (ha)     (cms)     (hrs)       (mm)
15882>      INFLOW >08: (000204)      17.48     4.515    12.200     98.391
15883>      OUTFLOW<05: (000471)      17.48     1.439    12.600     99.222
15884>
15885>                    PEAK   FLOW   REDUCTION [Qout/Qin](%)=   31.871
15886>                    TIME SHIFT OF PEAK FLOW         (min)=    24.00
15887>                    MAXIMUM  STORAGE   USED       (ha.m.)=.3273E+00
15888>
15889>       *** WARNING: Outflow volume is less than inflow volume.
15890> --------------------------------------------------------------------------------
15891> 001:0490-------------------------------------------------------------------------
15892> *
15893> *# MH 110
15894> *
15895> ------------------------
15896> | ADD HYD (       584) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
15897> ------------------------                  (ha)     (cms)   (hrs)   (mm)   (cms)
15898>                          ID1 05:       471     17.48    1.439   12.60  99.22    .000
15899>                        +ID2 04:       846     21.51    1.942   12.53  98.98    .000
15900>                         ==========================================================
15901>                         SUM 08:       584     38.99    3.380   12.53  99.09    .000
15902>
15903>    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
15904>
15905> --------------------------------------------------------------------------------
15906> 001:0491-------------------------------------------------------------------------
15907> *
15908> *#================================================
15909> *# AREA FORMERLY KNOWN AS 52 (EAST OF PORTOBELLO)
15910> *#================================================
15911> *
15912> *#================================================
15913> *# MATTAMY SUMMERSIDE DRAINAGE AREA 6.13 ha - H-217 - MINOR
15914> *#================================================
15915> *
15916> *
15917> --------------------
15918> | READ HYD         |   AREA       (ha)=    5.320
15919> | ID=03 (000217)   |   QPEAK     (cms)=     .515
15920> | DT= 1.00 PCYC= 1 |   TPEAK     (hrs)=   12.233
15921> --------------------   VOLUME     (mm)=   99.739
15922>  Filename: C:\SWMHYMO\111083\2018-0~1\H-217.092
15923>  Comments: Minor System Outflow to MH 217
15924>
15925>   TIME    FLOW |  TIME    FLOW |  TIME    FLOW |  TIME    FLOW |  TIME    FLOW
15926>    hrs     cms |   hrs     cms |   hrs     cms |   hrs     cms |   hrs     cms
15927>    .00    .000|  5.10    .023|  10.20    .044|  15.30    .058|  20.40    .030
15928>    .02    .000|  5.12    .023|  10.22    .047|  15.32    .058|  20.42    .030
15929>    .03    .000|  5.13    .023|  10.23    .053|  15.33    .058|  20.43    .030
15930>    .05    .000|  5.15    .023|  10.25    .060|  15.35    .058|  20.45    .030
15931>    .07    .000|  5.17    .023|  10.27    .064|  15.37    .058|  20.47    .030
15932>    .08    .000|  5.18    .023|  10.28    .067|  15.38    .058|  20.48    .030
15933>    .10    .000|  5.20    .023|  10.30    .070|  15.40    .058|  20.50    .030
15934>    .12    .000|  5.22    .023|  10.32    .071|  15.42    .058|  20.52    .030
15935>    .13    .000|  5.23    .023|  10.33    .072|  15.43    .058|  20.53    .030
15936>    .15    .000|  5.25    .023|  10.35    .073|  15.45    .058|  20.55    .030
15937>    .17    .000|  5.27    .023|  10.37    .074|  15.47    .058|  20.57    .030
15938>    .18    .000|  5.28    .023|  10.38    .075|  15.48    .058|  20.58    .030
15939>    .20    .000|  5.30    .023|  10.40    .075|  15.50    .058|  20.60    .030
15940>    .22    .000|  5.32    .023|  10.42    .076|  15.52    .058|  20.62    .030
15941>    .23    .000|  5.33    .023|  10.43    .077|  15.53    .058|  20.63    .030
15942>    .25    .000|  5.35    .023|  10.45    .077|  15.55    .058|  20.65    .030
15943>    .27    .000|  5.37    .023|  10.47    .078|  15.57    .058|  20.67    .030
15944>    .28    .000|  5.38    .023|  10.48    .078|  15.58    .058|  20.68    .030
15945>    .30    .000|  5.40    .023|  10.50    .078|  15.60    .058|  20.70    .030
15946>    .32    .000|  5.42    .023|  10.52    .079|  15.62    .058|  20.72    .030
15947>    .33    .000|  5.43    .023|  10.53    .079|  15.63    .058|  20.73    .030
15948>    .35    .000|  5.45    .023|  10.55    .080|  15.65    .058|  20.75    .030
15949>    .37    .000|  5.47    .024|  10.57    .080|  15.67    .058|  20.77    .030
15950>    .38    .000|  5.48    .024|  10.58    .080|  15.68    .058|  20.78    .030
15951>    .40    .000|  5.50    .024|  10.60    .080|  15.70    .058|  20.80    .030
15952>    .42    .000|  5.52    .024|  10.62    .081|  15.72    .058|  20.82    .030
15953>    .43    .000|  5.53    .024|  10.63    .081|  15.73    .058|  20.83    .030
15954>    .45    .000|  5.55    .024|  10.65    .081|  15.75    .058|  20.85    .030
15955>    .47    .000|  5.57    .024|  10.67    .081|  15.77    .058|  20.87    .030
15956>    .48    .000|  5.58    .024|  10.68    .082|  15.78    .058|  20.88    .030
15957>    .50    .000|  5.60    .024|  10.70    .082|  15.80    .058|  20.90    .030
15958>    .52    .000|  5.62    .024|  10.72    .082|  15.82    .058|  20.92    .030
15959>    .53    .000|  5.63    .024|  10.73    .082|  15.83    .058|  20.93    .030
15960>    .55    .000|  5.65    .024|  10.75    .082|  15.85    .058|  20.95    .030
15961>    .57    .000|  5.67    .024|  10.77    .082|  15.87    .058|  20.97    .030
15962>    .58    .000|  5.68    .024|  10.78    .083|  15.88    .058|  20.98    .030
15963>    .60    .000|  5.70    .024|  10.80    .083|  15.90    .058|  21.00    .030
15964>    .62    .000|  5.72    .024|  10.82    .083|  15.92    .058|  21.02    .030
15965>    .63    .000|  5.73    .024|  10.83    .083|  15.93    .059|  21.03    .030
15966>    .65    .000|  5.75    .024|  10.85    .083|  15.95    .059|  21.05    .030
15967>    .67    .000|  5.77    .024|  10.87    .083|  15.97    .059|  21.07    .030
15968>    .68    .000|  5.78    .024|  10.88    .083|  15.98    .059|  21.08    .030
15969>    .70    .000|  5.80    .024|  10.90    .084|  16.00    .059|  21.10    .030
15970>    .72    .000|  5.82    .024|  10.92    .084|  16.02    .059|  21.12    .030
15971>    .73    .000|  5.83    .024|  10.93    .084|  16.03    .059|  21.13    .030
15972>    .75    .000|  5.85    .024|  10.95    .084|  16.05    .059|  21.15    .030
15973>    .77    .000|  5.87    .024|  10.97    .084|  16.07    .059|  21.17    .030
15974>    .78    .000|  5.88    .024|  10.98    .084|  16.08    .059|  21.18    .030
15975>    .80    .000|  5.90    .024|  11.00    .084|  16.10    .059|  21.20    .030
15976>    .82    .000|  5.92    .024|  11.02    .084|  16.12    .059|  21.22    .029
15977>    .83    .000|  5.93    .024|  11.03    .084|  16.13    .059|  21.23    .028
15978>    .85    .000|  5.95    .024|  11.05    .084|  16.15    .059|  21.25    .026
15979>    .87    .000|  5.97    .024|  11.07    .085|  16.17    .059|  21.27    .025
15980>    .88    .000|  5.98    .024|  11.08    .085|  16.18    .059|  21.28    .025
15981>    .90    .000|  6.00    .024|  11.10    .085|  16.20    .059|  21.30    .024
15982>    .92    .000|  6.02    .024|  11.12    .085|  16.22    .057|  21.32    .024
15983>    .93    .000|  6.03    .024|  11.13    .085|  16.23    .055|  21.33    .024
15984>    .95    .000|  6.05    .024|  11.15    .085|  16.25    .052|  21.35    .023
15985>    .97    .000|  6.07    .024|  11.17    .085|  16.27    .050|  21.37    .023
15986>    .98    .000|  6.08    .024|  11.18    .085|  16.28    .049|  21.38    .023
15987>   1.00    .000|  6.10    .024|  11.20    .085|  16.30    .048|  21.40    .022
15988>   1.02    .000|  6.12    .024|  11.22    .087|  16.32    .047|  21.42    .022
15989>   1.03    .000|  6.13    .024|  11.23    .093|  16.33    .047|  21.43    .022
15990>   1.05    .000|  6.15    .024|  11.25    .098|  16.35    .046|  21.45    .022
15991>   1.07    .000|  6.17    .024|  11.27    .102|  16.37    .045|  21.47    .022
15992>   1.08    .000|  6.18    .024|  11.28    .104|  16.38    .045|  21.48    .021
15993>   1.10    .000|  6.20    .025|  11.30    .106|  16.40    .044|  21.50    .021
15994>   1.12    .000|  6.22    .025|  11.32    .107|  16.42    .044|  21.52    .021
15995>   1.13    .000|  6.23    .025|  11.33    .109|  16.43    .044|  21.53    .021
15996>   1.15    .000|  6.25    .025|  11.35    .109|  16.45    .043|  21.55    .021
15997>   1.17    .000|  6.27    .025|  11.37    .110|  16.47    .043|  21.57    .021
15998>   1.18    .000|  6.28    .025|  11.38    .111|  16.48    .043|  21.58    .021
15999>   1.20    .000|  6.30    .025|  11.40    .112|  16.50    .042|  21.60    .021
16000>   1.22    .000|  6.32    .025|  11.42    .116|  16.52    .042|  21.62    .021
16001>   1.23    .000|  6.33    .025|  11.43    .126|  16.53    .042|  21.63    .021
16002>   1.25    .000|  6.35    .025|  11.45    .135|  16.55    .042|  21.65    .020
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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 16003> | 1.27 | .000 | 6.37 | .025 | 11.47 | .143 | 16.57 | .041 | 21.67 | .020 | 16130> | 3.38 | .011 | 8.48 | .040 | 13.58 | .125 | 18.68 | .039 | 23.78 | .011 |
| 16004> | 1.28 | .000 | 6.38 | .025 | 11.48 | .147 | 16.58 | .041 | 21.68 | .020 | 16131> | 3.40 | .011 | 8.50 | .040 | 13.60 | .121 | 18.70 | .039 | 23.80 | .011 |
| 16005> | 1.30 | .000 | 6.40 | .025 | 11.50 | .151 | 16.60 | .041 | 21.70 | .020 | 16132> | 3.42 | .011 | 8.52 | .040 | 13.62 | .119 | 18.72 | .039 | 23.82 | .010 |
| 16006> | 1.32 | .000 | 6.42 | .025 | 11.52 | .153 | 16.62 | .041 | 21.72 | .020 | 16133> | 3.43 | .011 | 8.53 | .040 | 13.63 | .119 | 18.73 | .039 | 23.83 | .010 |
| 16007> | 1.33 | .000 | 6.43 | .025 | 11.53 | .155 | 16.63 | .041 | 21.73 | .020 | 16134> | 3.45 | .011 | 8.55 | .040 | 13.65 | .118 | 18.75 | .039 | 23.85 | .010 |
| 16008> | 1.35 | .000 | 6.45 | .025 | 11.55 | .157 | 16.65 | .041 | 21.75 | .020 | 16135> | 3.47 | .011 | 8.57 | .040 | 13.67 | .118 | 18.77 | .039 | 23.87 | .009 |
| 16009> | 1.37 | .000 | 6.47 | .025 | 11.57 | .159 | 16.67 | .040 | 21.77 | .020 | 16136> | 3.48 | .011 | 8.58 | .040 | 13.68 | .117 | 18.78 | .039 | 23.88 | .009 |
| 16010> | 1.38 | .000 | 6.48 | .025 | 11.58 | .161 | 16.68 | .040 | 21.78 | .020 | 16137> | 3.50 | .011 | 8.60 | .040 | 13.70 | .117 | 18.80 | .039 | 23.90 | .009 |
| 16011> | 1.40 | .000 | 6.50 | .025 | 11.60 | .162 | 16.70 | .040 | 21.80 | .020 | 16138> | 3.52 | .011 | 8.62 | .041 | 13.72 | .117 | 18.82 | .039 | 23.92 | .009 |
| 16012> | 1.42 | .000 | 6.52 | .025 | 11.62 | .178 | 16.72 | .040 | 21.82 | .020 | 16139> | 3.53 | .011 | 8.63 | .041 | 13.73 | .117 | 18.83 | .039 | 23.93 | .009 |
| 16013> | 1.43 | .000 | 6.53 | .025 | 11.63 | .215 | 16.73 | .040 | 21.83 | .020 | 16140> | 3.55 | .011 | 8.65 | .041 | 13.75 | .117 | 18.85 | .039 | 23.95 | .009 |
| 16014> | 1.45 | .000 | 6.55 | .025 | 11.65 | .253 | 16.75 | .040 | 21.85 | .020 | 16141> | 3.57 | .011 | 8.67 | .041 | 13.77 | .116 | 18.87 | .039 | 23.97 | .008 |
| 16015> | 1.47 | .000 | 6.57 | .025 | 11.67 | .278 | 16.77 | .040 | 21.87 | .020 | 16142> | 3.58 | .011 | 8.68 | .041 | 13.78 | .116 | 18.88 | .039 | 23.98 | .008 |
| 16016> | 1.48 | .001 | 6.58 | .025 | 11.68 | .294 | 16.78 | .040 | 21.88 | .020 | 16143> | 3.60 | .011 | 8.70 | .041 | 13.80 | .116 | 18.90 | .039 | 24.00 | .008 |
| 16017> | 1.50 | .003 | 6.60 | .025 | 11.70 | .305 | 16.80 | .040 | 21.90 | .020 | 16144> | 3.62 | .011 | 8.72 | .041 | 13.82 | .116 | 18.92 | .039 | 24.02 | .008 |
| 16018> | 1.52 | .006 | 6.62 | .025 | 11.72 | .313 | 16.82 | .040 | 21.92 | .020 | 16145> | 3.63 | .011 | 8.73 | .041 | 13.83 | .116 | 18.93 | .039 | 24.03 | .008 |
| 16019> | 1.53 | .008 | 6.63 | .025 | 11.73 | .321 | 16.83 | .040 | 21.93 | .020 | 16146> | 3.65 | .011 | 8.75 | .041 | 13.85 | .116 | 18.95 | .039 | 24.05 | .008 |
| 16020> | 1.55 | .009 | 6.65 | .025 | 11.75 | .327 | 16.85 | .040 | 21.95 | .020 | 16147> | 3.67 | .011 | 8.77 | .041 | 13.87 | .116 | 18.97 | .039 | 24.07 | .007 |
| 16021> | 1.57 | .009 | 6.67 | .025 | 11.77 | .333 | 16.87 | .040 | 21.97 | .020 | 16148> | 3.68 | .011 | 8.78 | .041 | 13.88 | .116 | 18.98 | .039 | 24.08 | .007 |
| 16022> | 1.58 | .010 | 6.68 | .025 | 11.78 | .338 | 16.88 | .040 | 21.98 | .020 | 16149> | 3.70 | .011 | 8.80 | .041 | 13.90 | .115 | 19.00 | .039 | 24.10 | .007 |
| 16023> | 1.60 | .010 | 6.70 | .025 | 11.80 | .343 | 16.90 | .040 | 22.00 | .020 | 16150> | 3.72 | .011 | 8.82 | .041 | 13.92 | .115 | 19.02 | .039 | 24.12 | .007 |
| 16024> | 1.62 | .010 | 6.72 | .025 | 11.82 | .374 | 16.92 | .039 | 22.02 | .020 | 16151> | 3.73 | .011 | 8.83 | .041 | 13.93 | .115 | 19.03 | .039 | 24.13 | .007 |
| 16025> | 1.63 | .010 | 6.73 | .025 | 11.83 | .422 | 16.93 | .039 | 22.03 | .020 | 16152> | 3.75 | .011 | 8.85 | .041 | 13.95 | .115 | 19.05 | .039 | 24.15 | .007 |
| 16026> | 1.65 | .010 | 6.75 | .025 | 11.85 | .446 | 16.95 | .039 | 22.05 | .020 | 16153> | 3.77 | .011 | 8.87 | .041 | 13.97 | .115 | 19.07 | .039 | 24.17 | .007 |
| 16027> | 1.67 | .010 | 6.77 | .025 | 11.87 | .456 | 16.97 | .039 | 22.07 | .020 | 16154> | 3.78 | .011 | 8.88 | .041 | 13.98 | .115 | 19.08 | .039 | 24.18 | .007 |
| 16028> | 1.68 | .010 | 6.78 | .025 | 11.88 | .462 | 16.98 | .039 | 22.08 | .020 | 16155> | 3.80 | .011 | 8.90 | .042 | 14.00 | .115 | 19.10 | .039 | 24.20 | .007 |
| 16029> | 1.70 | .010 | 6.80 | .025 | 11.90 | .466 | 17.00 | .039 | 22.10 | .020 | 16156> | 3.82 | .011 | 8.92 | .042 | 14.02 | .115 | 19.12 | .039 | 24.22 | .006 |
| 16030> | 1.72 | .010 | 6.82 | .025 | 11.92 | .469 | 17.02 | .039 | 22.12 | .020 | 16157> | 3.83 | .011 | 8.93 | .042 | 14.03 | .115 | 19.13 | .039 | 24.23 | .005 |
| 16031> | 1.73 | .010 | 6.83 | .025 | 11.93 | .473 | 17.03 | .039 | 22.13 | .020 | 16158> | 3.85 | .011 | 8.95 | .042 | 14.05 | .115 | 19.15 | .039 | 24.25 | .005 |
| 16032> | 1.75 | .010 | 6.85 | .025 | 11.95 | .476 | 17.05 | .039 | 22.15 | .020 | 16159> | 3.87 | .011 | 8.97 | .042 | 14.07 | .115 | 19.17 | .039 | 24.27 | .004 |
| 16033> | 1.77 | .010 | 6.87 | .025 | 11.97 | .480 | 17.07 | .039 | 22.17 | .020 | 16160> | 3.88 | .011 | 8.98 | .042 | 14.08 | .115 | 19.18 | .039 | 24.28 | .004 |
| 16034> | 1.78 | .010 | 6.88 | .025 | 11.98 | .483 | 17.08 | .039 | 22.18 | .020 | 16161> | 3.90 | .011 | 9.00 | .042 | 14.10 | .115 | 19.20 | .039 | 24.30 | .003 |
| 16035> | 1.80 | .010 | 6.90 | .025 | 12.00 | .487 | 17.10 | .039 | 22.20 | .020 | 16162> | 3.92 | .011 | 9.02 | .042 | 14.12 | .103 | 19.22 | .039 | 24.32 | .003 |
| 16036> | 1.82 | .010 | 6.92 | .025 | 12.02 | .493 | 17.12 | .039 | 22.22 | .020 | 16163> | 3.93 | .011 | 9.03 | .042 | 14.13 | .098 | 19.23 | .037 | 24.33 | .003 |
| 16037> | 1.83 | .010 | 6.93 | .025 | 12.03 | .499 | 17.13 | .039 | 22.23 | .020 | 16164> | 3.95 | .011 | 9.05 | .042 | 14.15 | .097 | 19.25 | .036 | 24.35 | .002 |
| 16038> | 1.85 | .010 | 6.95 | .025 | 12.05 | .505 | 17.15 | .039 | 22.25 | .020 | 16165> | 3.97 | .011 | 9.07 | .042 | 14.17 | .097 | 19.27 | .035 | 24.37 | .002 |
| 16039> | 1.87 | .010 | 6.97 | .025 | 12.07 | .507 | 17.17 | .039 | 22.27 | .020 | 16166> | 3.98 | .011 | 9.08 | .042 | 14.18 | .097 | 19.28 | .034 | 24.38 | .002 |
| 16040> | 1.88 | .010 | 6.98 | .025 | 12.08 | .509 | 17.18 | .039 | 22.28 | .020 | 16167> | 4.00 | .011 | 9.10 | .042 | 14.20 | .097 | 19.30 | .034 | 24.40 | .002 |
| 16041> | 1.90 | .010 | 7.00 | .026 | 12.10 | .511 | 17.20 | .039 | 22.30 | .020 | 16168> | 4.02 | .011 | 9.12 | .042 | 14.22 | .095 | 19.32 | .034 | 24.42 | .002 |
| 16042> | 1.92 | .010 | 7.02 | .026 | 12.12 | .511 | 17.22 | .039 | 22.32 | .020 | 16169> | 4.03 | .011 | 9.13 | .042 | 14.23 | .090 | 19.33 | .033 | 24.43 | .002 |
| 16043> | 1.93 | .010 | 7.03 | .026 | 12.13 | .512 | 17.23 | .039 | 22.33 | .020 | 16170> | 4.05 | .011 | 9.15 | .042 | 14.25 | .084 | 19.35 | .033 | 24.45 | .001 |
| 16044> | 1.95 | .010 | 7.05 | .026 | 12.15 | .513 | 17.25 | .039 | 22.35 | .020 | 16171> | 4.07 | .011 | 9.17 | .042 | 14.27 | .080 | 19.37 | .033 | 24.47 | .001 |
| 16045> | 1.97 | .010 | 7.07 | .026 | 12.17 | .513 | 17.27 | .039 | 22.37 | .020 | 16172> | 4.08 | .011 | 9.18 | .042 | 14.28 | .078 | 19.38 | .032 | 24.48 | .001 |
| 16046> | 1.98 | .010 | 7.08 | .026 | 12.18 | .514 | 17.28 | .039 | 22.38 | .020 | 16173> | 4.10 | .011 | 9.20 | .042 | 14.30 | .076 | 19.40 | .032 | 24.50 | .001 |
| 16047> | 2.00 | .010 | 7.10 | .026 | 12.20 | .514 | 17.30 | .039 | 22.40 | .020 | 16174> | 4.12 | .011 | 9.22 | .042 | 14.32 | .074 | 19.42 | .032 | 24.52 | .001 |
| 16048> | 2.02 | .010 | 7.12 | .026 | 12.22 | .514 | 17.32 | .039 | 22.42 | .020 | 16175> | 4.13 | .011 | 9.23 | .042 | 14.33 | .073 | 19.43 | .032 | 24.53 | .001 |
| 16049> | 2.03 | .010 | 7.13 | .026 | 12.23 | .515 | 17.33 | .039 | 22.43 | .020 | 16176> | 4.15 | .011 | 9.25 | .042 | 14.35 | .072 | 19.45 | .032 | 24.55 | .001 |
| 16050> | 2.05 | .010 | 7.15 | .026 | 12.25 | .514 | 17.35 | .039 | 22.45 | .020 | 16177> | 4.17 | .011 | 9.27 | .042 | 14.37 | .071 | 19.47 | .031 | 24.57 | .001 |
| 16051> | 2.07 | .010 | 7.17 | .026 | 12.27 | .514 | 17.37 | .039 | 22.47 | .020 | 16178> | 4.18 | .011 | 9.28 | .042 | 14.38 | .070 | 19.48 | .031 | 24.58 | .001 |
| 16052> | 2.08 | .010 | 7.18 | .026 | 12.28 | .514 | 17.38 | .039 | 22.48 | .020 | 16179> | 4.20 | .011 | 9.30 | .042 | 14.40 | .069 | 19.50 | .031 | 24.60 | .001 |
| 16053> | 2.10 | .010 | 7.20 | .026 | 12.30 | .513 | 17.40 | .039 | 22.50 | .020 | 16180> | 4.22 | .012 | 9.32 | .042 | 14.42 | .068 | 19.52 | .031 | 24.62 | .001 |
| 16054> | 2.12 | .010 | 7.22 | .026 | 12.32 | .513 | 17.42 | .039 | 22.52 | .020 | 16181> | 4.23 | .014 | 9.33 | .042 | 14.43 | .067 | 19.53 | .031 | 24.63 | .001 |
| 16055> | 2.13 | .010 | 7.23 | .026 | 12.33 | .512 | 17.43 | .039 | 22.53 | .020 | 16182> | 4.25 | .017 | 9.35 | .043 | 14.45 | .066 | 19.55 | .031 | 24.65 | .001 |
| 16056> | 2.15 | .010 | 7.25 | .026 | 12.35 | .511 | 17.45 | .039 | 22.55 | .020 | 16183> | 4.27 | .019 | 9.37 | .043 | 14.47 | .066 | 19.57 | .031 | 24.67 | .000 |
| 16057> | 2.17 | .010 | 7.27 | .026 | 12.37 | .510 | 17.47 | .039 | 22.57 | .020 | 16184> | 4.28 | .020 | 9.38 | .043 | 14.48 | .065 | 19.58 | .031 | 24.68 | .000 |
| 16058> | 2.18 | .010 | 7.28 | .026 | 12.38 | .510 | 17.48 | .039 | 22.58 | .020 | 16185> | 4.30 | .021 | 9.40 | .043 | 14.50 | .064 | 19.60 | .030 | 24.70 | .000 |
| 16059> | 2.20 | .010 | 7.30 | .026 | 12.40 | .509 | 17.50 | .039 | 22.60 | .020 | 16186> | 4.32 | .021 | 9.42 | .043 | 14.52 | .064 | 19.62 | .030 | 24.72 | .000 |
| 16060> | 2.22 | .010 | 7.32 | .026 | 12.42 | .509 | 17.52 | .039 | 22.62 | .020 | 16187> | 4.33 | .021 | 9.43 | .043 | 14.53 | .063 | 19.63 | .030 | 24.73 | .000 |
| 16061> | 2.23 | .010 | 7.33 | .026 | 12.43 | .508 | 17.53 | .039 | 22.63 | .020 | 16188> | 4.35 | .021 | 9.45 | .043 | 14.55 | .063 | 19.65 | .030 | 24.75 | .000 |
| 16062> | 2.25 | .010 | 7.35 | .026 | 12.45 | .507 | 17.55 | .039 | 22.65 | .020 | 16189> | 4.37 | .022 | 9.47 | .043 | 14.57 | .063 | 19.67 | .030 | 24.77 | .000 |
| 16063> | 2.27 | .010 | 7.37 | .026 | 12.47 | .506 | 17.57 | .039 | 22.67 | .020 | 16190> | 4.38 | .022 | 9.48 | .043 | 14.58 | .062 | 19.68 | .030 | 24.78 | .000 |
| 16064> | 2.28 | .010 | 7.38 | .026 | 12.48 | .505 | 17.58 | .039 | 22.68 | .020 | 16191> | 4.40 | .022 | 9.50 | .043 | 14.60 | .062 | 19.70 | .030 | 24.80 | .000 |
| 16065> | 2.30 | .010 | 7.40 | .026 | 12.50 | .503 | 17.60 | .039 | 22.70 | .020 | 16192> | 4.42 | .022 | 9.52 | .043 | 14.62 | .062 | 19.72 | .030 | 24.82 | .000 |
| 16066> | 2.32 | .010 | 7.42 | .026 | 12.52 | .497 | 17.62 | .039 | 22.72 | .020 | 16193> | 4.43 | .022 | 9.53 | .043 | 14.63 | .061 | 19.73 | .030 | 24.83 | .000 |
| 16067> | 2.33 | .010 | 7.43 | .026 | 12.53 | .494 | 17.63 | .039 | 22.73 | .020 | 16194> | 4.45 | .022 | 9.55 | .043 | 14.65 | .061 | 19.75 | .030 | 24.85 | .000 |
| 16068> | 2.35 | .010 | 7.45 | .026 | 12.55 | .489 | 17.65 | .039 | 22.75 | .020 | 16195> | 4.47 | .022 | 9.57 | .043 | 14.67 | .061 | 19.77 | .030 | 24.87 | .000 |
| 16069> | 2.37 | .010 | 7.47 | .026 | 12.57 | .483 | 17.67 | .039 | 22.77 | .020 | 16196> | 4.48 | .022 | 9.58 | .043 | 14.68 | .061 | 19.78 | .030 | 24.88 | .000 |
| 16070> | 2.38 | .010 | 7.48 | .026 | 12.58 | .478 | 17.68 | .039 | 22.78 | .020 | 16197> | 4.50 | .022 | 9.60 | .043 | 14.70 | .060 | 19.80 | .030 | 24.90 | .000 |
| 16071> | 2.40 | .010 | 7.50 | .026 | 12.60 | .462 | 17.70 | .039 | 22.80 | .020 | 16198> | 4.52 | .022 | 9.62 | .043 | 14.72 | .060 | 19.82 | .030 | 24.92 | .000 |
| 16072> | 2.42 | .010 | 7.52 | .026 | 12.62 | .452 | 17.72 | .039 | 22.82 | .020 | 16199> | 4.53 | .022 | 9.63 | .043 | 14.73 | .060 | 19.83 | .030 | 24.93 | .000 |
| 16073> | 2.43 | .010 | 7.53 | .026 | 12.63 | .441 | 17.73 | .039 | 22.83 | .020 | 16200> | 4.55 | .022 | 9.65 | .043 | 14.75 | .060 | 19.85 | .030 | 24.95 | .000 |
| 16074> | 2.45 | .010 | 7.55 | .026 | 12.65 | .433 | 17.75 | .039 | 22.85 | .020 | 16201> | 4.57 | .022 | 9.67 | .043 | 14.77 | .060 | 19.87 | .030 | 24.97 | .000 |
| 16075> | 2.47 | .010 | 7.57 | .026 | 12.67 | .426 | 17.77 | .039 | 22.87 | .020 | 16202> | 4.58 | .022 | 9.68 | .043 | 14.78 | .060 | 19.88 | .030 | 24.98 | .000 |
| 16076> | 2.48 | .010 | 7.58 | .026 | 12.68 | .421 | 17.78 | .039 | 22.88 | .020 | 16203> | 4.60 | .022 | 9.70 | .043 | 14.80 | .060 | 19.90 | .030 | 25.00 | .000 |
| 16077> | 2.50 | .010 | 7.60 | .026 | 12.70 | .417 | 17.80 | .039 | 22.90 | .020 | 16204> | 4.62 | .022 | 9.72 | .043 | 14.82 | .059 | 19.92 | .030 | 25.02 | .000 |
| 16078> | 2.52 | .010 | 7.62 | .026 | 12.72 | .413 | 17.82 | .039 | 22.92 | .020 | 16205> | 4.63 | .022 | 9.73 | .043 | 14.83 | .059 | 19.93 | .030 | 25.03 | .000 |
| 16079> | 2.53 | .010 | 7.63 | .026 | 12.73 | .410 | 17.83 | .039 | 22.93 | .020 | 16206> | 4.65 | .022 | 9.75 | .043 | 14.85 | .059 | 19.95 | .030 | 25.05 | .000 |
| 16080> | 2.55 | .010 | 7.65 | .026 | 12.75 | .406 | 17.85 | .039 | 22.95 | .020 | 16207> | 4.67 | .022 | 9.77 | .043 | 14.87 | .059 | 19.97 | .030 | 25.07 | .000 |
| 16081> | 2.57 | .010 | 7.67 | .026 | 12.77 | .403 | 17.87 | .039 | 22.97 | .020 | 16208> | 4.68 | .022 | 9.78 | .043 | 14.88 | .059 | 19.98 | .030 | 25.08 | .000 |
| 16082> | 2.58 | .010 | 7.68 | .026 | 12.78 | .396 | 17.88 | .039 | 22.98 | .020 | 16209> | 4.70 | .022 | 9.80 | .043 | 14.90 | .059 | 20.00 | .030 | 25.10 | .000 |
| 16083> | 2.60 | .010 | 7.70 | .026 | 12.80 | .391 | 17.90 | .039 | 23.00 | .020 | 16210> | 4.72 | .022 | 9.82 | .043 | 14.92 | .059 | 20.02 | .030 | 25.12 | .000 |
| 16084> | 2.62 | .010 | 7.72 | .026 | 12.82 | .375 | 17.92 | .039 | 23.02 | .020 | 16211> | 4.73 | .022 | 9.83 | .043 | 14.93 | .059 | 20.03 | .030 | 25.13 | .000 |
| 16085> | 2.63 | .011 | 7.73 | .026 | 12.83 | .348 | 17.93 | .039 | 23.03 | .020 | 16212> | 4.75 | .022 | 9.85 | .043 | 14.95 | .059 | 20.05 | .030 | 25.15 | .000 |
| 16086> | 2.65 | .011 | 7.75 | .026 | 12.85 | .339 | 17.95 | .039 | 23.05 | .020 | 16213> | 4.77 | .022 | 9.87 | .044 | 14.97 | .059 | 20.07 | .030 | 25.17 | .000 |
| 16087> | 2.67 | .011 | 7.77 | .026 | 12.87 | .334 | 17.97 | .039 | 23.07 | .020 | 16214> | 4.78 | .022 | 9.88 | .044 | 14.98 | .059 | 20.08 | .030 | 25.18 | .000 |
| 16088> | 2.68 | .011 | 7.78 | .026 | 12.88 | .330 | 17.98 | .039 | 23.08 | .020 | 16215> | 4.80 | .023 | 9.90 | .044 | 15.00 | .059 | 20.10 | .030 | 25.20 | .000 |
| 16089> | 2.70 | .011 | 7.80 | .026 | 12.90 | .326 | 18.00 | .039 | 23.10 | .020 | 16216> | 4.82 | .023 | 9.92 | .044 | 15.02 | .059 | 20.12 | .030 | 25.22 | .000 |
| 16090> | 2.72 | .011 | 7.82 | .026 | 12.92 | .302 | 18.02 | .039 | 23.12 | .020 | 16217> | 4.83 | .023 | 9.93 | .044 | 15.03 | .059 | 20.13 | .030 | 25.23 | .000 |
| 16091> | 2.73 | .011 | 7.83 | .026 | 12.93 | .293 | 18.03 | .039 | 23.13 | .020 | 16218> | 4.85 | .023 | 9.95 | .044 | 15.05 | .059 | 20.15 | .030 | 25.25 | .000 |
| 16092> | 2.75 | .011 | 7.85 | .026 | 12.95 | .288 | 18.05 | .039 | 23.15 | .020 | 16219> | 4.87 | .023 | 9.97 | .044 | 15.07 | .059 | 20.17 | .030 | 25.27 | .000 |
| 16093> | 2.77 | .011 | 7.87 | .026 | 12.97 | .285 | 18.07 | .039 | 23.17 | .020 | 16220> | 4.88 | .023 | 9.98 | .044 | 15.08 | .059 | 20.18 | .030 | 25.28 | .000 |
| 16094> | 2.78 | .011 | 7.88 | .027 | 12.98 | .282 | 18.08 | .039 | 23.18 | .020 | 16221> | 4.90 | .023 | 10.00 | .044 | 15.10 | .059 | 20.20 | .030 | 25.30 | .000 |
| 16095> | 2.80 | .011 | 7.90 | .027 | 13.00 | .280 | 18.10 | .039 | 23.20 | .020 | 16222> | 4.92 | .023 | 10.02 | .044 | 15.12 | .059 | 20.22 | .030 | 25.32 | .000 |
| 16096> | 2.82 | .011 | 7.92 | .027 | 13.02 | .277 | 18.12 | .039 | 23.22 | .020 | 16223> | 4.93 | .023 | 10.03 | .044 | 15.13 | .059 | 20.23 | .030 | 25.33 | .000 |
| 16097> | 2.83 | .011 | 7.93 | .027 | 13.03 | .263 | 18.13 | .039 | 23.23 | .020 | 16224> | 4.95 | .023 | 10.05 | .044 | 15.15 | .059 | 20.25 | .030 | 25.35 | .000 |
| 16098> | 2.85 | .011 | 7.95 | .027 | 13.05 | .252 | 18.15 | .039 | 23.25 | .020 | 16225> | 4.97 | .023 | 10.07 | .044 | 15.17 | .059 | 20.27 | .030 | 25.37 | .000 |
| 16099> | 2.87 | .011 | 7.97 | .027 | 13.07 | .246 | 18.17 | .039 | 23.27 | .020 | 16226> | 4.98 | .023 | 10.08 | .044 | 15.18 | .059 | 20.28 | .030 | 25.38 | .000 |
| 16100> | 2.88 | .011 | 7.98 | .027 | 13.08 | .242 | 18.18 | .039 | 23.28 | .020 | 16227> | 5.00 | .023 | 10.10 | .044 | 15.20 | .059 | 20.30 | .030 | 25.40 | .000 |
| 16101> | 2.90 | .011 | 8.00 | .027 | 13.10 | .239 | 18.20 | .039 | 23.30 | .020 | 16228> | 5.02 | .023 | 10.12 | .044 | 15.22 | .059 | 20.32 | .030 | 25.42 | .000 |
| 16102> | 2.92 | .011 | 8.02 | .027 | 13.12 | .236 | 18.22 | .039 | 23.32 | .020 | 16229> | 5.03 | .023 | 10.13 | .044 | 15.23 | .059 | 20.33 | .030 | 25.43 | .000 |
| 16103> | 2.93 | .011 | 8.03 | .027 | 13.13 | .229 | 18.23 | .039 | 23.33 | .020 | 16230> | 5.05 | .023 | 10.15 | .044 | 15.25 | .058 | 20.35 | .030 | | |
| 16104> | 2.95 | .011 | 8.05 | .027 | 13.15 | .224 | 18.25 | .039 | 23.35 | .020 | 16231> | 5.07 | .023 | 10.17 | .044 | 15.27 | .058 | 20.37 | .030 | | |
| 16105> | 2.97 | .011 | 8.07 | .027 | 13.17 | .221 | 18.27 | .039 | 23.37 | .020 | 16232> | 5.08 | .023 | 10.18 | .044 | 15.28 | .058 | 20.38 | .030 | | |
| 16106> | 2.98 | .011 | 8.08 | .027 | 13.18 | .219 | 18.28 | .039 | 23.38 | .020 | 16233> | ---------- | | | | | | | | | |
| 16107> | 3.00 | .011 | 8.10 | .027 | 13.20 | .217 | 18.30 | .039 | 23.40 | .020 | 16234> | 001:0492---------- | | | | | | | | | |
| 16108> | 3.02 | .011 | 8.12 | .027 | 13.22 | .215 | 18.32 | .039 | 23.42 | .020 | 16235> | * | | | | | | | | | |
| 16109> | 3.03 | .011 | 8.13 | .027 | 13.23 | .200 | 18.33 | .039 | 23.43 | .020 | 16236> | * | | | | | | | | | |
| 16110> | 3.05 | .011 | 8.15 | .027 | 13.25 | .187 | 18.35 | .039 | 23.45 | .020 | 16237> | * | | | | | | | | | |
| 16111> | 3.07 | .011 | 8.17 | .027 | 13.27 | .182 | 18.37 | .039 | 23.47 | .020 | 16238> | *#---------- | | | | | | | | | |
| 16112> | 3.08 | .011 | 8.18 | .027 | 13.28 | .178 | 18.38 | .039 | 23.48 | .020 | 16239> | *# DRAINAGE AREA 54 \|\| | | | | | | | | | |
| 16113> | 3.10 | .011 | 8.20 | .027 | 13.30 | .176 | 18.40 | .039 | 23.50 | .020 | 16240> | *# \|\| | | | | | | | | | |
| 16114> | 3.12 | .011 | 8.22 | .028 | 13.32 | .164 | 18.42 | .039 | 23.52 | .020 | 16241> | *#---------- | | | | | | | | | |
| 16115> | 3.13 | .011 | 8.23 | .030 | 13.33 | .158 | 18.43 | .039 | 23.53 | .020 | 16242> | * | | | | | | | | | |
| 16116> | 3.15 | .011 | 8.25 | .033 | 13.35 | .156 | 18.45 | .039 | 23.55 | .020 | 16243> | * | | | | | | | | | |
| 16117> | 3.17 | .011 | 8.27 | .035 | 13.37 | .155 | 18.47 | .039 | 23.57 | .020 | 16244> | ---------- | | | | | | | | | |
| 16118> | 3.18 | .011 | 8.28 | .036 | 13.38 | .153 | 18.48 | .039 | 23.58 | .020 | 16245> | \| CALIB STANDHYD \| Area (ha)= 13.08 | | | | | | | | | |
| 16119> | 3.20 | .011 | 8.30 | .037 | 13.40 | .151 | 18.50 | .039 | 23.60 | .020 | 16246> | \| 04:000204 DT=10.00 \| Total Imp(%)= 50.00 Dir. Conn.(%)= 29.00 | | | | | | | | | |
| 16120> | 3.22 | .011 | 8.32 | .037 | 13.42 | .143 | 18.52 | .039 | 23.62 | .019 | 16247> | ---------- | | | | | | | | | |
| 16121> | 3.23 | .011 | 8.33 | .038 | 13.43 | .139 | 18.53 | .039 | 23.63 | .017 | 16248> | | | | IMPERVIOUS | PERVIOUS (i) | | | | | |
| 16122> | 3.25 | .011 | 8.35 | .038 | 13.45 | .137 | 18.55 | .039 | 23.65 | .016 | 16249> | Surface Area (ha)= | | | 6.54 | 6.54 | | | | | |
| 16123> | 3.27 | .011 | 8.37 | .038 | 13.47 | .136 | 18.57 | .039 | 23.67 | .014 | 16250> | Dep. Storage (mm)= | | | .80 | 1.50 | | | | | |
| 16124> | 3.28 | .011 | 8.38 | .039 | 13.48 | .135 | 18.58 | .039 | 23.68 | .013 | 16251> | Average Slope (%)= | | | .20 | 2.00 | | | | | |
| 16125> | 3.30 | .011 | 8.40 | .039 | 13.50 | .134 | 18.60 | .039 | 23.70 | .013 | 16252> | Length (m)= | | | 475.00 | 40.00 | | | | | |
| 16126> | 3.32 | .011 | 8.42 | .039 | 13.52 | .133 | 18.62 | .039 | 23.72 | .012 | 16253> | Mannings n = | | | .013 | .250 | | | | | |
| 16127> | 3.33 | .011 | 8.43 | .039 | 13.53 | .133 | 18.63 | .039 | 23.73 | .012 | 16254> | | | | | | | | | | |
| 16128> | 3.35 | .011 | 8.45 | .039 | 13.55 | .132 | 18.65 | .039 | 23.75 | .012 | 16255> | Max.eff.Inten.(mm/hr)= | | | 142.42 | 156.59 | | | | | |
| 16129> | 3.37 | .011 | 8.47 | .040 | 13.57 | .132 | 18.67 | .039 | 23.77 | .011 | 16256> | over (min) | | | 12.00 | 12.00 | | | | | |

```
     Storage Coeff.  (min)=       9.15 (ii)   15.05 (ii)
     Unit Hyd. Tpeak (min)=      12.00        12.00
     Unit Hyd. peak  (cms)=        .10          .08
                                                        *TOTALS*
     PEAK FLOW       (cms)=       1.26         1.93         3.184 (iii)
     TIME TO PEAK    (hrs)=      12.20        12.20        12.200
     RUNOFF VOLUME    (mm)=     123.04       82.65        94.362
     TOTAL RAINFALL   (mm)=     123.84       123.84       123.840
     RUNOFF COEFFICIENT   =        .99          .67          .762
      *** WARNING: Storage Coefficient is smaller than DT!
                   Use a smaller DT or a larger area.

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN* =  75.0    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

001:0493--------------------------------------------------------------------------
*
*
*#########################
*# OSD 85 L/S/HA 30 L/S/HA
*#  85*10.89 = 925.7 L/S
*#  30*2.19 = 65.7 L/S
*#  TOTAL = 991.4 L/S
*#########################
*
--------------------
| ROUTE RESERVOIR   |    Requested routing time step = 12.0 min.
|  IN>04:(000204)   |
| OUT<05:(000471)   |    =========  OUTLFOW STORAGE TABLE  =========
--------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
                          (cms)    (ha.m.)   |    (cms)    (ha.m.)
                           .000  .0000E+00   |     .991  .1455E+00
                           .950  .2000E-02   |     .000  .0000E+00
     *** WARNING: STORAGE-Q values were extrapolated.
                  Increase curve or use overflow option.

     ROUTING RESULTS            AREA     QPEAK     TPEAK       R.V.
     --------------------        (ha)     (cms)     (hrs)       (mm)
     INFLOW >04: (000204)      13.08     3.184    12.200     94.362
     OUTFLOW<05: (000471)      13.08     1.019    12.600     94.824

                  PEAK   FLOW   REDUCTION [Qout/Qin](%)=   31.990
                  TIME SHIFT OF PEAK FLOW         (min)=    24.00
                  MAXIMUM  STORAGE   USED       (ha.m.)=.2414E+00

      *** WARNING: Outflow volume is less than inflow volume.
001:0494--------------------------------------------------------------------------
*
*# ADD AREA 52 AND 54
*
------------------------
| ADD HYD (       463) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
------------------------                   (ha)     (cms)   (hrs)   (mm)   (cms)
                       ID1 03:       217     5.32     .515   12.23  99.74    .000
                      +ID2 05:       471    13.08    1.019   12.60  94.82    .000
                       ============================================================
                       SUM 09:       463    18.40    1.521   12.40  96.25    .000

   NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

001:0495--------------------------------------------------------------------------
*
*# MH 107
*
*# ADD TO REST
*
------------------------
| ADD HYD (       463) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
------------------------                   (ha)     (cms)   (hrs)   (mm)   (cms)
                       ID1 09:       463    18.40    1.521   12.40  96.25    .000
                      +ID2 08:       584    38.99    3.380   12.53  99.09    .000
                       ============================================================
                       SUM 05:       463    57.39    4.897   12.50  98.18    .000

   NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

001:0496--------------------------------------------------------------------------
*
*
*########################
*#    DRAINAGE AREA 55 ||
*#                     ||
*########################
*
*
----------------------
| CALIB STANDHYD     |   Area    (ha)=   15.69
| 01:000204 DT=10.00 |   Total Imp(%)=   60.00   Dir. Conn.(%)=   37.00
----------------------
                              IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=        9.41         6.28
     Dep. Storage     (mm)=         .80         1.50
     Average Slope     (%)=         .20         2.00
     Length            (m)=      530.00        40.00
     Mannings n          =        .013         .250

     Max.eff.Inten.(mm/hr)=     142.42       179.07
                   over (min)      12.00        12.00
     Storage Coeff.  (min)=       9.78 (ii)   15.37 (ii)
     Unit Hyd. Tpeak (min)=      12.00        12.00
     Unit Hyd. peak  (cms)=        .10          .08
                                                        *TOTALS*
     PEAK FLOW       (cms)=       1.89         2.10         3.986 (iii)
     TIME TO PEAK    (hrs)=      12.20        12.20        12.200
     RUNOFF VOLUME    (mm)=     123.04       85.49        99.384
     TOTAL RAINFALL   (mm)=     123.84       123.84       123.840
     RUNOFF COEFFICIENT   =        .99          .69          .803
      *** WARNING: Storage Coefficient is smaller than DT!
                   Use a smaller DT or a larger area.

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN* =  75.0    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

001:0497--------------------------------------------------------------------------
*
*
*#########################
*# OSD 85 L/S/HA
*#  85*15.69 = 1334 L/S
*#########################
*
--------------------
| ROUTE RESERVOIR   |    Requested routing time step = 12.0 min.
|  IN>01:(000204)   |
| OUT<09:(000471)   |    =========  OUTLFOW STORAGE TABLE  =========
--------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
                          (cms)    (ha.m.)   |    (cms)    (ha.m.)
                            .000  .0000E+00   |    1.334  .1825E+00
                           1.300  .2000E-02   |     .000  .0000E+00
     *** WARNING: STORAGE-Q values were extrapolated.
                  Increase curve or use overflow option.

     ROUTING RESULTS            AREA     QPEAK     TPEAK       R.V.
     --------------------        (ha)     (cms)     (hrs)       (mm)
     INFLOW >01: (000204)      15.69     3.986    12.200     99.384
     OUTFLOW<09: (000471)      15.69     1.352    12.600    100.807

                  PEAK   FLOW   REDUCTION [Qout/Qin](%)=   33.919
                  TIME SHIFT OF PEAK FLOW         (min)=    24.00
                  MAXIMUM  STORAGE   USED       (ha.m.)=.2828E+00

      *** WARNING: Outflow volume is less than inflow volume.
001:0498--------------------------------------------------------------------------
*
*# MH 105
*
*# TRUNK 2
*
------------------------
| ADD HYD (       874) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
------------------------                   (ha)     (cms)   (hrs)   (mm)   (cms)
                       ID1 09:       471    15.69    1.352   12.60 100.81    .000
                      +ID2 05:       463    57.39    4.897   12.50  98.18    .000
                       ============================================================
                       SUM 04:       874    73.08    6.247   12.50  98.74    .000

   NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

001:0499--------------------------------------------------------------------------
*
*
--------------------
| SAVE HYD          |   AREA       (ha)=   73.078
| ID=04 (000874)    |   QPEAK     (cms)=    6.247 (i)
| DT= 1.00 PCYC=-1 |   TPEAK     (hrs)=   12.500
--------------------   VOLUME      (mm)=   98.743
  Filename: C:\SWMHYMO\111083\2018-0~1\104.092
  Comments: 104-24SCS120

     (i)  PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
001:0500--------------------------------------------------------------------------
*
*
*#################################
*#  ADD TWO TRUNKS
*#################################
*
------------------------
| ADD HYD (       562) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
------------------------                   (ha)     (cms)   (hrs)   (mm)   (cms)
                       ID1 04:       874    73.08    6.247   12.50  98.74    .000
                      +ID2 06:       450    72.56    5.921   12.60  97.91    .000
                       ============================================================
                       SUM 09:       562   145.64   12.151   12.50  98.33    .000

   NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

001:0501--------------------------------------------------------------------------
*
*
*
*#####################################################
*# ISGAR LANDS (EAST AND WEST OF AVALON SOUTH POND)
*#####################################################
*
*# ISGAR LANDS - AREA I1
*# NEW WESTERN INLET
*
----------------------
| CALIB STANDHYD     |   Area    (ha)=    8.35
| 01:I1     DT=12.00 |   Total Imp(%)=   60.00   Dir. Conn.(%)=   45.00
----------------------
                              IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=        5.01         3.34
     Dep. Storage     (mm)=         .80         1.50
     Average Slope     (%)=         .20         2.00
     Length            (m)=      357.00        40.00
     Mannings n          =        .013         .250

     Max.eff.Inten.(mm/hr)=     142.42       150.10
                   over (min)      12.00        12.00
     Storage Coeff.  (min)=       7.71 (ii)   13.71 (ii)
     Unit Hyd. Tpeak (min)=      12.00        12.00
     Unit Hyd. peak  (cms)=        .11          .08
                                                        *TOTALS*
     PEAK FLOW       (cms)=       1.30          .98         2.287 (iii)
     TIME TO PEAK    (hrs)=      12.20        12.20        12.200
     RUNOFF VOLUME    (mm)=     123.04        81.74       100.327
     TOTAL RAINFALL   (mm)=     123.84       123.84       123.840
     RUNOFF COEFFICIENT   =        .99          .66          .810
      *** WARNING: Storage Coefficient is smaller than DT!
                   Use a smaller DT or a larger area.

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN* =  75.0    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

001:0502--------------------------------------------------------------------------
*
*
*#########################
*# INFLOW 200 l/s/ha = 8.35 x 200 = 1670 l/s
*# ON-SITE STORAGE (30% LESS THAN AVALON WEST) - 75.60 m3/ha = 631.3 M3
*#########################
*
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```
| ROUTE RESERVOIR   |    Requested routing time step =  1.0 min.
|  IN>01:(I1    )   |
| OUT<04:(I1    )   |    ========  OUTLFOW STORAGE TABLE  ========
--------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
                          (cms)    (ha.m.)   |    (cms)    (ha.m.)
                           .000  .0000E+00   |   1.670  .6313E-01
                          1.660  .2000E-02   |    .000  .0000E+00

     ROUTING RESULTS            AREA     QPEAK     TPEAK      R.V.
     --------------------       (ha)     (cms)     (hrs)      (mm)
     INFLOW >01: (I1    )       8.35     2.287    12.200    100.327
     OUTFLOW<04: (I1    )       8.35     1.664    12.300    100.327
    OVERFLOW<06: (000487)        .00      .000      .000       .000

                   TOTAL NUMBER OF SIMULATED OVERFLOWS  =        0
                   CUMULATIVE TIME OF OVERFLOWS  (hours)=      .00
                   PERCENTAGE OF TIME OVERFLOWING    (%)=      .00

                   PEAK   FLOW   REDUCTION [Qout/Qin](%)=   72.749
                   TIME SHIFT OF PEAK FLOW         (min)=    6.00
                   MAXIMUM  STORAGE   USED       (ha.m.)=.2451E-01

001:0503-------------------------------------------------------------------------------
*
*# TOTAL (MINOR AND MAJOR FLOW) FROM I1 TO POND
*
------------------------
| ADD HYD (      784) | ID: NHYD        AREA     QPEAK   TPEAK   R.V.    DWF
----------------------                  (ha)     (cms)   (hrs)   (mm)   (cms)
                      ID1 04:I1          8.35    1.664   12.30 100.33    .000
                     +ID2 06:       487    .00     .000     .00    .00    .000
                      ==========================================================
                      SUM 07:        784    8.35    1.664   12.30 100.33    .000

   NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

001:0504-------------------------------------------------------------------------------
*
*
*#============================================================
*# MAJOR OVERLAND FLOW FROM AREAS EAST OF PORTOBELLO TO FACILITY
*# FORMERLY AREAS 51 AND 52 (26.06 HA TOTAL AREA)
*# TO BE CAPTURED BY MINOR SYSTEM STORM SEWERS IN EASTERN ISGAR
*#============================================================
*
*
--------------------
| READ HYD          |   AREA       (ha)=    2.882
| ID=05 (005152)    |   QPEAK     (cms)=    3.182
| DT= 1.00 PCYC= 1  |   TPEAK     (hrs)=   12.233
--------------------    VOLUME       (mm)=  102.047
  Filename: C:\SWMHYMO\111083\2018-0~1\H-MAJout.092
  Comments: Major System Outflow from Portobello Blvd

   TIME    FLOW |  TIME    FLOW |  TIME    FLOW |  TIME    FLOW |  TIME    FLOW
    hrs     cms |   hrs     cms |   hrs     cms |   hrs     cms |   hrs     cms
    .00    .000|   2.53    .000|   5.07    .000|   7.60    .000|  10.13    .000
    .02    .000|   2.55    .000|   5.08    .000|   7.62    .000|  10.15    .000
    .03    .000|   2.57    .000|   5.10    .000|   7.63    .000|  10.17    .000
    .05    .000|   2.58    .000|   5.12    .000|   7.65    .000|  10.18    .000
    .07    .000|   2.60    .000|   5.13    .000|   7.67    .000|  10.20    .000
    .08    .000|   2.62    .000|   5.15    .000|   7.68    .000|  10.22    .000
    .10    .000|   2.63    .000|   5.17    .000|   7.70    .000|  10.23    .000
    .12    .000|   2.65    .000|   5.18    .000|   7.72    .000|  10.25    .000
    .13    .000|   2.67    .000|   5.20    .000|   7.73    .000|  10.27    .000
    .15    .000|   2.68    .000|   5.22    .000|   7.75    .000|  10.28    .000
    .17    .000|   2.70    .000|   5.23    .000|   7.77    .000|  10.30    .000
    .18    .000|   2.72    .000|   5.25    .000|   7.78    .000|  10.32    .000
    .20    .000|   2.73    .000|   5.27    .000|   7.80    .000|  10.33    .000
    .22    .000|   2.75    .000|   5.28    .000|   7.82    .000|  10.35    .000
    .23    .000|   2.77    .000|   5.30    .000|   7.83    .000|  10.37    .000
    .25    .000|   2.78    .000|   5.32    .000|   7.85    .000|  10.38    .000
    .27    .000|   2.80    .000|   5.33    .000|   7.87    .000|  10.40    .000
    .28    .000|   2.82    .000|   5.35    .000|   7.88    .000|  10.42    .000
    .30    .000|   2.83    .000|   5.37    .000|   7.90    .000|  10.43    .000
    .32    .000|   2.85    .000|   5.38    .000|   7.92    .000|  10.45    .000
    .33    .000|   2.87    .000|   5.40    .000|   7.93    .000|  10.47    .000
    .35    .000|   2.88    .000|   5.42    .000|   7.95    .000|  10.48    .000
    .37    .000|   2.90    .000|   5.43    .000|   7.97    .000|  10.50    .000
    .38    .000|   2.92    .000|   5.45    .000|   7.98    .000|  10.52    .000
    .40    .000|   2.93    .000|   5.47    .000|   8.00    .000|  10.53    .000
    .42    .000|   2.95    .000|   5.48    .000|   8.02    .000|  10.55    .000
    .43    .000|   2.97    .000|   5.50    .000|   8.03    .000|  10.57    .000
    .45    .000|   2.98    .000|   5.52    .000|   8.05    .000|  10.58    .000
    .47    .000|   3.00    .000|   5.53    .000|   8.07    .000|  10.60    .000
    .48    .000|   3.02    .000|   5.55    .000|   8.08    .000|  10.62    .000
    .50    .000|   3.03    .000|   5.57    .000|   8.10    .000|  10.63    .000
    .52    .000|   3.05    .000|   5.58    .000|   8.12    .000|  10.65    .000
    .53    .000|   3.07    .000|   5.60    .000|   8.13    .000|  10.67    .000
    .55    .000|   3.08    .000|   5.62    .000|   8.15    .000|  10.68    .000
    .57    .000|   3.10    .000|   5.63    .000|   8.17    .000|  10.70    .000
    .58    .000|   3.12    .000|   5.65    .000|   8.18    .000|  10.72    .000
    .60    .000|   3.13    .000|   5.67    .000|   8.20    .000|  10.73    .000
    .62    .000|   3.15    .000|   5.68    .000|   8.22    .000|  10.75    .000
    .63    .000|   3.17    .000|   5.70    .000|   8.23    .000|  10.77    .000
    .65    .000|   3.18    .000|   5.72    .000|   8.25    .000|  10.78    .000
    .67    .000|   3.20    .000|   5.73    .000|   8.27    .000|  10.80    .000
    .68    .000|   3.22    .000|   5.75    .000|   8.28    .000|  10.82    .000
    .70    .000|   3.23    .000|   5.77    .000|   8.30    .000|  10.83    .000
    .72    .000|   3.25    .000|   5.78    .000|   8.32    .000|  10.85    .000
    .73    .000|   3.27    .000|   5.80    .000|   8.33    .000|  10.87    .000
    .75    .000|   3.28    .000|   5.82    .000|   8.35    .000|  10.88    .000
    .77    .000|   3.30    .000|   5.83    .000|   8.37    .000|  10.90    .000
    .78    .000|   3.32    .000|   5.85    .000|   8.38    .000|  10.92    .000
    .80    .000|   3.33    .000|   5.87    .000|   8.40    .000|  10.93    .000
    .82    .000|   3.35    .000|   5.88    .000|   8.42    .000|  10.95    .000
    .83    .000|   3.37    .000|   5.90    .000|   8.43    .000|  10.97    .000
    .85    .000|   3.38    .000|   5.92    .000|   8.45    .000|  10.98    .000
    .87    .000|   3.40    .000|   5.93    .000|   8.47    .000|  11.00    .000
    .88    .000|   3.42    .000|   5.95    .000|   8.48    .000|  11.02    .000
    .90    .000|   3.43    .000|   5.97    .000|   8.50    .000|  11.03    .000
    .92    .000|   3.45    .000|   5.98    .000|   8.52    .000|  11.05    .000
    .93    .000|   3.47    .000|   6.00    .000|   8.53    .000|  11.07    .000
    .95    .000|   3.48    .000|   6.02    .000|   8.55    .000|  11.08    .000
    .97    .000|   3.50    .000|   6.03    .000|   8.57    .000|  11.10    .000
    .98    .000|   3.52    .000|   6.05    .000|   8.58    .000|  11.12    .000
   1.00    .000|   3.53    .000|   6.07    .000|   8.60    .000|  11.13    .000
   1.02    .000|   3.55    .000|   6.08    .000|   8.62    .000|  11.15    .000
   1.03    .000|   3.57    .000|   6.10    .000|   8.63    .000|  11.17    .000
   1.05    .000|   3.58    .000|   6.12    .000|   8.65    .000|  11.18    .000
   1.07    .000|   3.60    .000|   6.13    .000|   8.67    .000|  11.20    .000
   1.08    .000|   3.62    .000|   6.15    .000|   8.68    .000|  11.22    .000
   1.10    .000|   3.63    .000|   6.17    .000|   8.70    .000|  11.23    .000
   1.12    .000|   3.65    .000|   6.18    .000|   8.72    .000|  11.25    .000
   1.13    .000|   3.67    .000|   6.20    .000|   8.73    .000|  11.27    .000
   1.15    .000|   3.68    .000|   6.22    .000|   8.75    .000|  11.28    .000
   1.17    .000|   3.70    .000|   6.23    .000|   8.77    .000|  11.30    .000
   1.18    .000|   3.72    .000|   6.25    .000|   8.78    .000|  11.32    .000
   1.20    .000|   3.73    .000|   6.27    .000|   8.80    .000|  11.33    .000
   1.22    .000|   3.75    .000|   6.28    .000|   8.82    .000|  11.35    .000
   1.23    .000|   3.77    .000|   6.30    .000|   8.83    .000|  11.37    .000
   1.25    .000|   3.78    .000|   6.32    .000|   8.85    .000|  11.38    .000
   1.27    .000|   3.80    .000|   6.33    .000|   8.87    .000|  11.40    .000
   1.28    .000|   3.82    .000|   6.35    .000|   8.88    .000|  11.42    .000
   1.30    .000|   3.83    .000|   6.37    .000|   8.90    .000|  11.43    .000
   1.32    .000|   3.85    .000|   6.38    .000|   8.92    .000|  11.45    .000
   1.33    .000|   3.87    .000|   6.40    .000|   8.93    .000|  11.47    .000
   1.35    .000|   3.88    .000|   6.42    .000|   8.95    .000|  11.48    .000
   1.37    .000|   3.90    .000|   6.43    .000|   8.97    .000|  11.50    .000
   1.38    .000|   3.92    .000|   6.45    .000|   8.98    .000|  11.52    .000
   1.40    .000|   3.93    .000|   6.47    .000|   9.00    .000|  11.53    .000
   1.42    .000|   3.95    .000|   6.48    .000|   9.02    .000|  11.55    .000
   1.43    .000|   3.97    .000|   6.50    .000|   9.03    .000|  11.57    .000
   1.45    .000|   3.98    .000|   6.52    .000|   9.05    .000|  11.58    .000
   1.47    .000|   4.00    .000|   6.53    .000|   9.07    .000|  11.60    .000
   1.48    .000|   4.02    .000|   6.55    .000|   9.08    .000|  11.62    .000
   1.50    .000|   4.03    .000|   6.57    .000|   9.10    .000|  11.63    .000
   1.52    .000|   4.05    .000|   6.58    .000|   9.12    .000|  11.65    .000
   1.53    .000|   4.07    .000|   6.60    .000|   9.13    .000|  11.67    .000
   1.55    .000|   4.08    .000|   6.62    .000|   9.15    .000|  11.68    .000
   1.57    .000|   4.10    .000|   6.63    .000|   9.17    .000|  11.70    .000
   1.58    .000|   4.12    .000|   6.65    .000|   9.18    .000|  11.72    .000
   1.60    .000|   4.13    .000|   6.67    .000|   9.20    .000|  11.73    .000
   1.62    .000|   4.15    .000|   6.68    .000|   9.22    .000|  11.75    .000
   1.63    .000|   4.17    .000|   6.70    .000|   9.23    .000|  11.77    .000
   1.65    .000|   4.18    .000|   6.72    .000|   9.25    .000|  11.78    .000
   1.67    .000|   4.20    .000|   6.73    .000|   9.27    .000|  11.80    .000
   1.68    .000|   4.22    .000|   6.75    .000|   9.28    .000|  11.82    .000
   1.70    .000|   4.23    .000|   6.77    .000|   9.30    .000|  11.83    .000
   1.72    .000|   4.25    .000|   6.78    .000|   9.32    .000|  11.85    .000
   1.73    .000|   4.27    .000|   6.80    .000|   9.33    .000|  11.87    .000
   1.75    .000|   4.28    .000|   6.82    .000|   9.35    .000|  11.88    .000
   1.77    .000|   4.30    .000|   6.83    .000|   9.37    .000|  11.90    .000
   1.78    .000|   4.32    .000|   6.85    .000|   9.38    .000|  11.92    .000
   1.80    .000|   4.33    .000|   6.87    .000|   9.40    .000|  11.93    .000
   1.82    .000|   4.35    .000|   6.88    .000|   9.42    .000|  11.95    .000
   1.83    .000|   4.37    .000|   6.90    .000|   9.43    .000|  11.97    .000
   1.85    .000|   4.38    .000|   6.92    .000|   9.45    .000|  11.98    .000
   1.87    .000|   4.40    .000|   6.93    .000|   9.47    .000|  12.00    .000
   1.88    .000|   4.42    .000|   6.95    .000|   9.48    .000|  12.02    .000
   1.90    .000|   4.43    .000|   6.97    .000|   9.50    .000|  12.03    .000
   1.92    .000|   4.45    .000|   6.98    .000|   9.52    .000|  12.05    .379
   1.93    .000|   4.47    .000|   7.00    .000|   9.53    .000|  12.07    .564
   1.95    .000|   4.48    .000|   7.02    .000|   9.55    .000|  12.08    .854
   1.97    .000|   4.50    .000|   7.03    .000|   9.57    .000|  12.10   1.207
   1.98    .000|   4.52    .000|   7.05    .000|   9.58    .000|  12.12   1.522
   2.00    .000|   4.53    .000|   7.07    .000|   9.60    .000|  12.13   1.783
   2.02    .000|   4.55    .000|   7.08    .000|   9.62    .000|  12.15   2.170
   2.03    .000|   4.57    .000|   7.10    .000|   9.63    .000|  12.17   2.540
   2.05    .000|   4.58    .000|   7.12    .000|   9.65    .000|  12.18   2.756
   2.07    .000|   4.60    .000|   7.13    .000|   9.67    .000|  12.20   2.980
   2.08    .000|   4.62    .000|   7.15    .000|   9.68    .000|  12.22   3.154
   2.10    .000|   4.63    .000|   7.17    .000|   9.70    .000|  12.23   3.182
   2.12    .000|   4.65    .000|   7.18    .000|   9.72    .000|  12.25   3.022
   2.13    .000|   4.67    .000|   7.20    .000|   9.73    .000|  12.27   2.713
   2.15    .000|   4.68    .000|   7.22    .000|   9.75    .000|  12.28   2.335
   2.17    .000|   4.70    .000|   7.23    .000|   9.77    .000|  12.30   2.003
   2.18    .000|   4.72    .000|   7.25    .000|   9.78    .000|  12.32   1.820
   2.20    .000|   4.73    .000|   7.27    .000|   9.80    .000|  12.33   1.779
   2.22    .000|   4.75    .000|   7.28    .000|   9.82    .000|  12.35   1.769
   2.23    .000|   4.77    .000|   7.30    .000|   9.83    .000|  12.37   1.682
   2.25    .000|   4.78    .000|   7.32    .000|   9.85    .000|  12.38   1.492
   2.27    .000|   4.80    .000|   7.33    .000|   9.87    .000|  12.40   1.311
   2.28    .000|   4.82    .000|   7.35    .000|   9.88    .000|  12.42   1.185
   2.30    .000|   4.83    .000|   7.37    .000|   9.90    .000|  12.43   1.071
   2.32    .000|   4.85    .000|   7.38    .000|   9.92    .000|  12.45    .953
   2.33    .000|   4.87    .000|   7.40    .000|   9.93    .000|  12.47    .803
   2.35    .000|   4.88    .000|   7.42    .000|   9.95    .000|  12.48    .648
   2.37    .000|   4.90    .000|   7.43    .000|   9.97    .000|  12.50    .483
   2.38    .000|   4.92    .000|   7.45    .000|   9.98    .000|  12.52    .314
   2.40    .000|   4.93    .000|   7.47    .000|  10.00    .000|  12.53    .218
   2.42    .000|   4.95    .000|   7.48    .000|  10.02    .000|  12.55    .189
   2.43    .000|   4.97    .000|   7.50    .000|  10.03    .000|  12.57    .139
   2.45    .000|   4.98    .000|   7.52    .000|  10.05    .000|
   2.47    .000|   5.00    .000|   7.53    .000|  10.07    .000|
   2.48    .000|   5.02    .000|   7.55    .000|  10.08    .000|
   2.50    .000|   5.03    .000|   7.57    .000|  10.10    .000|
   2.52    .000|   5.05    .000|   7.58    .000|  10.12    .000|
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001:0505-------------------------------------------------------------------------------
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*
*# ISGAR LANDS - AREA I2
*# NEW EASTERN INLET
*
----------------------
| CALIB STANDHYD     |   Area    (ha)=   12.02
| 06:I2     DT=12.00 |   Total Imp(%)=   65.00   Dir. Conn.(%)=   51.00
----------------------
                                      IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=             7.81          4.21
     Dep. Storage     (mm)=              .80          1.50
     Average Slope     (%)=              .20          2.00
     Length            (m)=           479.00         40.00
     Mannings n           =             .013          .250

     Max.eff.Inten.(mm/hr)=           142.42        153.70
                   over (min)          12.00         12.00
     Storage Coeff.  (min)=           9.20 (ii)    15.14 (ii)
     Unit Hyd. Tpeak (min)=          12.00         12.00
     Unit Hyd. peak  (cms)=            .10           .08

                                                              *TOTALS*
     PEAK FLOW       (cms)=           2.03          1.21          3.242 (iii)
     TIME TO PEAK    (hrs)=          12.20         12.20         12.200
     RUNOFF VOLUME    (mm)=         123.04         82.25        103.054
     TOTAL RAINFALL   (mm)=         123.84        123.84        123.840
     RUNOFF COEFFICIENT   =            .99           .66           .832
      *** WARNING: Storage Coefficient is smaller than DT!
                   Use a smaller DT or a larger area.

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN* =  75.0    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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001:0506-------------------------------------------------------------------------------
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16765> *
16766> *#=========================
16767> *# INFLOW 200 L/S/HA - 12.02 X 200 = 2404 L/S
16768> *# ON-SITE STORAGE (30% LESS THAN AVALON WEST) - 84.90 m3/ha = 1020.5 M3
16769> *#=========================
16770> *
16771> --------------------
16772> | ROUTE RESERVOIR   |    Requested routing time step =  1.0 min.
16773> |  IN>06:(I2    )   |
16774> | OUT<04:(I2    )   |    =========  OUTLFOW STORAGE TABLE  =========
16775> --------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
16776>                           (cms)    (ha.m.)   |    (cms)    (ha.m.)
16777>                            .000  .0000E+00   |   2.404  .1020E+00
16778>                           2.390  .2000E-02   |    .000  .0000E+00
16779>
16780>     ROUTING RESULTS            AREA     QPEAK     TPEAK       R.V.
16781>     --------------------       (ha)     (cms)     (hrs)       (mm)
16782>     INFLOW >06: (I2    )      12.02     3.242    12.200    103.054
16783>     OUTFLOW<04: (I2    )      12.02     2.394    12.300    103.053
16784>    OVERFLOW<08: (000487)        .00      .000      .000       .000
16785>
16786>                    TOTAL NUMBER OF SIMULATED OVERFLOWS  =        0
16787>                    CUMULATIVE TIME OF OVERFLOWS  (hours)=      .00
16788>                    PERCENTAGE OF TIME OVERFLOWING    (%)=      .00
16789>
16790>
16791>                    PEAK   FLOW   REDUCTION [Qout/Qin](%)=   73.862
16792>                    TIME SHIFT OF PEAK FLOW         (min)=    6.00
16793>                    MAXIMUM  STORAGE   USED       (ha.m.)=.3254E-01
16794>
16795> ----------------------------------------------------------------------------
16796> 001:0507-------------------------------------------------------------------
16797> *
16798> *# TOTAL MINOR FLOW (MAJOR FLOW PORTOBELLO AND I2)
16799> *
16800> ----------------------
16801> | ADD HYD (       845) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
16802> ----------------------                    (ha)     (cms)   (hrs)   (mm)   (cms)
16803>                         ID1 04:I2         12.02    2.394   12.30 103.05    .000
16804>                        +ID2 05:      5152    2.88    3.182   12.23 102.05    .000
16805>                         ==========================================================
16806>                         SUM 06:       845    14.90    5.575   12.23 102.86    .000
16807>
16808>    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
16809>
16810> ----------------------------------------------------------------------------
16811> 001:0508-------------------------------------------------------------------
16812> *
16813> *# ISGAR LANDS - AREA I3
16814> *# NEW EASTERN INLET
16815> *
16816> ----------------------
16817> | CALIB STANDHYD     |   Area    (ha)=    7.64
16818> | 01:I3     DT=12.00 |   Total Imp(%)=   49.00   Dir. Conn.(%)=   30.00
16819> ----------------------
16820>                              IMPERVIOUS    PERVIOUS (i)
16821>     Surface Area     (ha)=       3.74         3.90
16822>     Dep. Storage     (mm)=        .80         1.50
16823>     Average Slope     (%)=        .20         2.00
16824>     Length            (m)=     292.00        40.00
16825>     Mannings n           =       .013         .250
16826>
16827>     Max.eff.Inten.(mm/hr)=     142.42       149.75
16828>           over (min)     =      12.00        12.00
16829>     Storage Coeff. (min)=       6.84 (ii)   12.84 (ii)
16830>     Unit Hyd. Tpeak (min)=     12.00        12.00
16831>     Unit Hyd. peak  (cms)=       .12          .09
16832>                                                        *TOTALS*
16833>     PEAK FLOW       (cms)=       .82         1.18         1.994 (iii)
16834>     TIME TO PEAK    (hrs)=     12.20        12.20        12.200
16835>     RUNOFF VOLUME    (mm)=    123.04        81.69        94.097
16836>     TOTAL RAINFALL   (mm)=    123.84       123.84       123.840
16837>     RUNOFF COEFFICIENT   =       .99          .66          .760
16838>      *** WARNING: Storage Coefficient is smaller than DT!
16839>                   Use a smaller DT or a larger area.
16840>
16841>       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
16842>           CN* =  75.0    Ia = Dep. Storage  (Above)
16843>      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
16844>           THAN THE STORAGE COEFFICIENT.
16845>     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
16846>
16847> ----------------------------------------------------------------------------
16848> 001:0509-------------------------------------------------------------------
16849> *
16850> *
16851> *# MAJOR FLOW FROM I3
16852> *
16853> ----------------------
16854> | ADD HYD (       784) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
16855> ----------------------                    (ha)     (cms)   (hrs)   (mm)   (cms)
16856>                         ID1 01:I3          7.64    1.994   12.20  94.10    .000
16857>                        +ID2 08:      487     .00     .000     .00    .00    .000
16858>                         ==========================================================
16859>                         SUM 05:       784     7.64    1.994   12.20  94.10    .000
16860>
16861>    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
16862>
16863> ----------------------------------------------------------------------------
16864> 001:0510-------------------------------------------------------------------
16865> *
16866> *#=========================
16867> *# INFLOW 200 L/S/HA - 7.64 X 200 = 1528 L/S
16868> *# ON-SITE STORAGE (30% LESS THAN AVALON WEST) - 108.55 m3/ha = 829.3 M3
16869> *#=========================
16870> *
16871> --------------------
16872> | ROUTE RESERVOIR   |    Requested routing time step =  1.0 min.
16873> |  IN>05:(000784)   |
16874> | OUT<03:(I3    )   |    =========  OUTLFOW STORAGE TABLE  =========
16875> --------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
16876>                           (cms)    (ha.m.)   |    (cms)    (ha.m.)
16877>                            .000  .0000E+00   |   1.528  .8293E-01
16878>                           1.510  .2000E-02   |    .000  .0000E+00
16879>
16880>     ROUTING RESULTS            AREA     QPEAK     TPEAK       R.V.
16881>     --------------------       (ha)     (cms)     (hrs)       (mm)
16882>     INFLOW >05: (000784)       7.64     1.994    12.200     94.098
16883>     OUTFLOW<03: (I3    )       7.64     1.513    12.283     94.098
16884>    OVERFLOW<01: (000487)        .00      .000      .000       .000
16885>
16886>                    TOTAL NUMBER OF SIMULATED OVERFLOWS  =        0
16887>                    CUMULATIVE TIME OF OVERFLOWS  (hours)=      .00
16888>                    PERCENTAGE OF TIME OVERFLOWING    (%)=      .00
16889>
16890>
16891>                    PEAK   FLOW   REDUCTION [Qout/Qin](%)=   75.893
16892>                    TIME SHIFT OF PEAK FLOW         (min)=    5.00
16893>                    MAXIMUM  STORAGE   USED       (ha.m.)=.1735E-01
16894>
16895> ----------------------------------------------------------------------------
16896> 001:0511-------------------------------------------------------------------
16897> *
16898> *# TOTAL MINOR SYSTEM FLOW FROM MAJOR PORTOBELLO, I2 AND I3 (NEW EASTERN INLET)
16899> *
16900> ----------------------
16901> | ADD HYD (       784) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
16902> ----------------------                    (ha)     (cms)   (hrs)   (mm)   (cms)
16903>                         ID1 06:       845    14.90    5.575   12.23 102.86    .000
16904>                        +ID2 03:I3            7.64    1.513   12.28  94.10    .000
16905>                         ==========================================================
16906>                         SUM 05:       784    22.54    7.088   12.23  99.89    .000
16907>
16908>    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
16909>
16910> ----------------------------------------------------------------------------
16911> 001:0512-------------------------------------------------------------------
16912> *
16913> *# TOTAL FLOW FROM I2 AND I3 INTO POND VIA NEW EASTERN INLET TO POND(INCLUDES MA
16914> *
16915> ----------------------
16916> | ADD HYD (       784) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
16917> ----------------------                    (ha)     (cms)   (hrs)   (mm)   (cms)
16918>                         ID1 01:       487     .00     .000     .00    .00    .000
16919>                        +ID2 05:       784    22.54    7.088   12.23  99.89    .000
16920>                         ==========================================================
16921>                         SUM 08:       784    22.54    7.088   12.23  99.89    .000
16922>
16923>    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
16924>
16925> ----------------------------------------------------------------------------
16926> 001:0513-------------------------------------------------------------------
16927> *
16928> *
16929> *
16930> *#=======================
16931> *#    DRAINAGE AREA 60 ||
16932> *#    SWM AREA         ||
16933> *#=======================
16934> *
16935> *
16936> ----------------------
16937> | CALIB NASHYD       |   Area    (ha)=   12.50   Curve Number   (CN)=95.00
16938> | 01:000100 DT= 6.00 |   Ia      (mm)=   1.500   # of Linear Res.(N)= 3.00
16939> ----------------------   U.H. Tp(hrs)=    .250
16940>
16941>     Unit Hyd Qpeak  (cms)=    1.910
16942>
16943>     PEAK FLOW       (cms)=    2.880 (i)
16944>     TIME TO PEAK    (hrs)=   12.300
16945>     RUNOFF VOLUME    (mm)=  110.289
16946>     TOTAL RAINFALL   (mm)=  123.840
16947>     RUNOFF COEFFICIENT   =     .891
16948>
16949>     (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
16950>
16951> ----------------------------------------------------------------------------
16952> 001:0514-------------------------------------------------------------------
16953> *
16954> *# ADD TOTAL FLOW FROM ISGAR LANDS (I1, I2 AND I3 PLUS MAJOR PORTOBELLO) TO POND
16955> *
16956> ----------------------
16957> | ADD HYD (       784) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
16958> ----------------------                    (ha)     (cms)   (hrs)   (mm)   (cms)
16959>                         ID1 01:       100    12.50    2.880   12.30 110.29    .000
16960>                        +ID2 08:       784    22.54    7.088   12.23  99.89    .000
16961>                        +ID3 07:       784     8.35    1.664   12.30 100.33    .000
16962>                         ==========================================================
16963>                         SUM 06:       784    43.39   11.459   12.23 102.97    .000
16964>
16965>    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
16966>
16967> ----------------------------------------------------------------------------
16968> 001:0515-------------------------------------------------------------------
16969> *
16970> *# MH SWMF
16971> *
16972> --------------------
16973> | SAVE HYD         |   AREA       (ha)=   43.392
16974> | ID=06 (000784)   |   QPEAK     (cms)=   11.459 (i)
16975> | DT= 1.00 PCYC=-1 |   TPEAK     (hrs)=   12.233
16976> --------------------   VOLUME      (mm)=  102.970
16977>   Filename: C:\SWMHYMO\111083\2018-0~1\POND.092
16978>   Comments: POND-24SCS120
16979>
16980>     (i)  PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
16981> ----------------------------------------------------------------------------
16982> 001:0516-------------------------------------------------------------------
16983> *
16984> *#================================
16985> *#  ADD POND AREA TO EXISTING EAST AND WEST TRUNKS
16986> *#================================
16987> *
16988> ----------------------
16989> | ADD HYD (       562) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
16990> ----------------------                    (ha)     (cms)   (hrs)   (mm)   (cms)
16991>                         ID1 06:       784    43.39   11.459   12.23 102.97    .000
16992>                        +ID2 09:       562   145.64   12.151   12.50  98.33    .000
16993>                         ==========================================================
16994>                         SUM 04:       562   189.03   23.294   12.23  99.39    .000
16995>
16996>    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
16997>
16998> ----------------------------------------------------------------------------
16999> 001:0517-------------------------------------------------------------------
17000> *
17001> *
17002> *#=========================================
17003> *#     NEIGHBOURHOOD 4  SWM FACILITY       ||
17004> *#       OUTLET PIPE TO POINT B            ||
17005> *#       OUTLET PIPE  1200 DIA             ||
17006> *#=========================================
17007> *
17008> *# NOTE:  XPSWMM USED FOR ROUTING THE SWM FACILITY
17009> *
17010> ----------------------
17011> | ROUTE RESERVOIR   |    Requested routing time step =  1.0 min.
17012> |  IN>04:(000562)   |
17013> | OUT<02:(000471)   |    =========  OUTLFOW STORAGE TABLE  =========
17014> --------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
17015>                           (cms)    (ha.m.)   |    (cms)    (ha.m.)
17016>                            .000  .0000E+00   |    .930  .4960E+01
17017>                            .350  .2300E+01   |   1.520  .8710E+01
17018>                            .650  .3740E+01   |   1.700  .1129E+02
```

```
17019>       *** WARNING: STORAGE-Q values were extrapolated.
17020>                    Increase curve or use overflow option.
17021>
17022>      ROUTING RESULTS            AREA     QPEAK     TPEAK       R.V.
17023>      -------------------         (ha)     (cms)     (hrs)       (mm)
17024>      INFLOW >04: (000562)     189.03    23.294    12.233     99.394
17025>      OUTFLOW<02: (000471)     189.03     1.818    16.117     99.391
17026>
17027>                    PEAK   FLOW   REDUCTION [Qout/Qin](%)=    7.803
17028>                    TIME SHIFT OF PEAK FLOW          (min)=   233.00
17029>                    MAXIMUM  STORAGE   USED       (ha.m.)=.1298E+02
17030>
17031> ----------------------------------------------------------------------------
17032> 001:0518-------------------------------------------------------------------
17033> *
17034> --------------------
17035> | SAVE HYD         |   AREA       (ha)=  189.030
17036> | ID=02 (000471)   |   QPEAK     (cms)=    1.818 (i)
17037> | DT= 1.00 PCYC=-1 |   TPEAK     (hrs)=   16.117
17038> --------------------   VOLUME     (mm)=   99.391
17039>   Filename: C:\SWMHYMO\111083\2018-0~1\ISGAR.092
17040>   Comments: ISGAR-24SCS120
17041>
17042>      (i)  PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
17043> ----------------------------------------------------------------------------
17044> 001:0519-------------------------------------------------------------------
17045> *
17046> *
17047> *
17048> *
17049> *
17050> *
17051> *
17052> *
17053> *
17054> *
17055>       FINISH
17056> ----------------------------------------------------------------------------
17057> ****************************************************************************
17058>      WARNINGS / ERRORS / NOTES
17059>      -------------------------
17060>  001:0014 CALIB STANDHYD
17061>       *** WARNING: Storage Coefficient is smaller than DT!
17062>                    Use a smaller DT or a larger area.
17063>  001:0017 CALIB STANDHYD
17064>       *** WARNING: Storage Coefficient is smaller than DT!
17065>                    Use a smaller DT or a larger area.
17066>  001:0023 CALIB STANDHYD
17067>       *** WARNING: Storage Coefficient is smaller than DT!
17068>                    Use a smaller DT or a larger area.
17069>  001:0027 CALIB STANDHYD
17070>       *** WARNING: Storage Coefficient is smaller than DT!
17071>                    Use a smaller DT or a larger area.
17072>  001:0045 CALIB STANDHYD
17073>       *** WARNING: Storage Coefficient is smaller than DT!
17074>                    Use a smaller DT or a larger area.
17075>  001:0048 READ HYD
17076>       *** NOTE: The hydrograph which was read is dry.
17077>  001:0052 CALIB STANDHYD
17078>       *** WARNING: Storage Coefficient is smaller than DT!
17079>                    Use a smaller DT or a larger area.
17080>  001:0064 CALIB STANDHYD
17081>       *** WARNING: Storage Coefficient is smaller than DT!
17082>                    Use a smaller DT or a larger area.
17083>  001:0066 CALIB STANDHYD
17084>       *** WARNING: Storage Coefficient is smaller than DT!
17085>                    Use a smaller DT or a larger area.
17086>  001:0072 CALIB STANDHYD
17087>       *** WARNING: Storage Coefficient is smaller than DT!
17088>                    Use a smaller DT or a larger area.
17089>  001:0075 CALIB STANDHYD
17090>       *** WARNING: Storage Coefficient is smaller than DT!
17091>                    Use a smaller DT or a larger area.
17092>  001:0078 CALIB STANDHYD
17093>       *** WARNING: Storage Coefficient is smaller than DT!
17094>                    Use a smaller DT or a larger area.
17095>  001:0081 CALIB STANDHYD
17096>       *** WARNING: Storage Coefficient is smaller than DT!
17097>                    Use a smaller DT or a larger area.
17098>  001:0084 CALIB STANDHYD
17099>       *** WARNING: Storage Coefficient is smaller than DT!
17100>                    Use a smaller DT or a larger area.
17101>  001:0088 CALIB STANDHYD
17102>       *** WARNING: Storage Coefficient is smaller than DT!
17103>                    Use a smaller DT or a larger area.
17104>  001:0093 CALIB STANDHYD
17105>       *** WARNING: Storage Coefficient is smaller than DT!
17106>                    Use a smaller DT or a larger area.
17107>  001:0106 CALIB STANDHYD
17108>       *** WARNING: Storage Coefficient is smaller than DT!
17109>                    Use a smaller DT or a larger area.
17110>  001:0109 READ HYD
17111>       *** NOTE: The hydrograph which was read is dry.
17112>  001:0113 CALIB STANDHYD
17113>       *** WARNING: Storage Coefficient is smaller than DT!
17114>                    Use a smaller DT or a larger area.
17115>  001:0125 CALIB STANDHYD
17116>       *** WARNING: Storage Coefficient is smaller than DT!
17117>                    Use a smaller DT or a larger area.
17118>  001:0127 CALIB STANDHYD
17119>       *** WARNING: Storage Coefficient is smaller than DT!
17120>                    Use a smaller DT or a larger area.
17121>  001:0128 ROUTE RESERVOIR
17122>       *** WARNING: Outflow volume is less than inflow volume.
17123>  001:0131 ROUTE RESERVOIR
17124>       *** WARNING: STORAGE-Q values were extrapolated.
17125>                    Increase curve or use overflow option.
17126>  001:0133 CALIB STANDHYD
17127>       *** WARNING: Storage Coefficient is smaller than DT!
17128>                    Use a smaller DT or a larger area.
17129>  001:0134 ROUTE RESERVOIR
17130>       *** WARNING: Outflow volume is less than inflow volume.
17131>  001:0136 CALIB STANDHYD
17132>       *** WARNING: Storage Coefficient is smaller than DT!
17133>                    Use a smaller DT or a larger area.
17134>  001:0137 ROUTE RESERVOIR
17135>       *** WARNING: Outflow volume is less than inflow volume.
17136>  001:0139 CALIB STANDHYD
17137>       *** WARNING: Storage Coefficient is smaller than DT!
17138>                    Use a smaller DT or a larger area.
17139>  001:0140 ROUTE RESERVOIR
17140>       *** WARNING: Outflow volume is less than inflow volume.
17141>  001:0142 CALIB STANDHYD
17142>       *** WARNING: Storage Coefficient is smaller than DT!
17143>                    Use a smaller DT or a larger area.
17144>  001:0145 CALIB STANDHYD
17145>       *** WARNING: Storage Coefficient is smaller than DT!
17146>                    Use a smaller DT or a larger area.
17147>  001:0146 ROUTE RESERVOIR
17148>       *** WARNING: Outflow volume is less than inflow volume.
17149>  001:0149 CALIB STANDHYD
17150>       *** WARNING: Storage Coefficient is smaller than DT!
17151>                    Use a smaller DT or a larger area.
17152>  001:0154 CALIB STANDHYD
17153>       *** WARNING: Storage Coefficient is smaller than DT!
17154>                    Use a smaller DT or a larger area.
17155>  001:0155 ROUTE RESERVOIR
17156>       *** WARNING: Outflow volume is less than inflow volume.
17157>  001:0158 CALIB STANDHYD
17158>       *** WARNING: Storage Coefficient is smaller than DT!
17159>                    Use a smaller DT or a larger area.
17160>  001:0162 CALIB STANDHYD
17161>       *** WARNING: Storage Coefficient is smaller than DT!
17162>                    Use a smaller DT or a larger area.
17163>  001:0163 ROUTE RESERVOIR
17164>       *** WARNING: Outflow volume is less than inflow volume.
17165>  001:0167 CALIB STANDHYD
17166>       *** WARNING: Storage Coefficient is smaller than DT!
17167>                    Use a smaller DT or a larger area.
17168>  001:0171 CALIB STANDHYD
17169>       *** WARNING: Storage Coefficient is smaller than DT!
17170>                    Use a smaller DT or a larger area.
17171>  001:0174 CALIB STANDHYD
17172>       *** WARNING: Storage Coefficient is smaller than DT!
17173>                    Use a smaller DT or a larger area.
17174>  001:0187 ROUTE RESERVOIR
17175>       *** WARNING: STORAGE-Q values were extrapolated.
17176>                    Increase curve or use overflow option.
17177>       *** WARNING: Outflow volume is less than inflow volume.
17178>  001:0190 ROUTE RESERVOIR
17179>       *** WARNING: STORAGE-Q values were extrapolated.
17180>                    Increase curve or use overflow option.
17181>  001:0198 ROUTE RESERVOIR
17182>       *** WARNING: STORAGE-Q values were extrapolated.
17183>                    Increase curve or use overflow option.
17184>       *** WARNING: Outflow volume is less than inflow volume.
17185>  001:0202 ROUTE RESERVOIR
17186>       *** WARNING: STORAGE-Q values were extrapolated.
17187>                    Increase curve or use overflow option.
17188>       *** WARNING: Outflow volume is less than inflow volume.
17189>  001:0210 ROUTE RESERVOIR
17190>       *** WARNING: STORAGE-Q values were extrapolated.
17191>                    Increase curve or use overflow option.
17192>       *** WARNING: Outflow volume is less than inflow volume.
17193>  001:0214 ROUTE RESERVOIR
17194>       *** WARNING: STORAGE-Q values were extrapolated.
17195>                    Increase curve or use overflow option.
17196>  001:0227 ROUTE RESERVOIR
17197>       *** WARNING: STORAGE-Q values were extrapolated.
17198>                    Increase curve or use overflow option.
17199>  001:0232 ROUTE RESERVOIR
17200>       *** WARNING: STORAGE-Q values were extrapolated.
17201>                    Increase curve or use overflow option.
17202>       *** WARNING: Outflow volume is less than inflow volume.
17203>  001:0238 ROUTE RESERVOIR
17204>       *** WARNING: STORAGE-Q values were extrapolated.
17205>                    Increase curve or use overflow option.
17206>  001:0243 CALIB STANDHYD
17207>       *** WARNING: Storage Coefficient is smaller than DT!
17208>                    Use a smaller DT or a larger area.
17209>  001:0250 CALIB STANDHYD
17210>       *** WARNING: Storage Coefficient is smaller than DT!
17211>                    Use a smaller DT or a larger area.
17212>  001:0263 ROUTE RESERVOIR
17213>       *** WARNING: Inflow peak was not reduced!
17214>                    Check OUTFLOW/STORAGE table or reduce DT.
17215>  001:0265 ROUTE RESERVOIR
17216>       *** WARNING: Inflow peak was not reduced!
17217>                    Check OUTFLOW/STORAGE table or reduce DT.
17218>  001:0271 ROUTE RESERVOIR
17219>       *** WARNING: Inflow peak was not reduced!
17220>                    Check OUTFLOW/STORAGE table or reduce DT.
17221>  001:0280 ROUTE RESERVOIR
17222>       *** WARNING: Inflow peak was not reduced!
17223>                    Check OUTFLOW/STORAGE table or reduce DT.
17224>  001:0292 ROUTE RESERVOIR
17225>       *** WARNING: Inflow peak was not reduced!
17226>                    Check OUTFLOW/STORAGE table or reduce DT.
17227>  001:0296 ROUTE RESERVOIR
17228>       *** WARNING: Inflow peak was not reduced!
17229>                    Check OUTFLOW/STORAGE table or reduce DT.
17230>  001:0300 ROUTE RESERVOIR
17231>       *** WARNING: Inflow peak was not reduced!
17232>                    Check OUTFLOW/STORAGE table or reduce DT.
17233>  001:0307 READ HYD
17234>       *** NOTE: The hydrograph which was read is dry.
17235>  001:0311 CALIB STANDHYD
17236>       *** WARNING: Storage Coefficient is smaller than DT!
17237>                    Use a smaller DT or a larger area.
17238>  001:0316 CALIB NASHYD
17239>       *** WARNING: Time step is too large for value of TP.
17240>                    R.V. may be ok.  Peak flow could be off.
17241>  001:0323 CALIB STANDHYD
17242>       *** WARNING: Storage Coefficient is smaller than DT!
17243>                    Use a smaller DT or a larger area.
17244>  001:0324 ROUTE RESERVOIR
17245>       *** WARNING: STORAGE-Q values were extrapolated.
17246>                    Increase curve or use overflow option.
17247>       *** WARNING: Outflow volume is less than inflow volume.
17248>  001:0326 CALIB STANDHYD
17249>       *** WARNING: Storage Coefficient is smaller than DT!
17250>                    Use a smaller DT or a larger area.
17251>  001:0327 ROUTE RESERVOIR
17252>       *** WARNING: STORAGE-Q values were extrapolated.
17253>                    Increase curve or use overflow option.
17254>       *** WARNING: Outflow volume is less than inflow volume.
17255>  001:0334 CALIB STANDHYD
17256>       *** WARNING: Storage Coefficient is smaller than DT!
17257>                    Use a smaller DT or a larger area.
17258>  001:0335 ROUTE RESERVOIR
17259>       *** WARNING: STORAGE-Q values were extrapolated.
17260>                    Increase curve or use overflow option.
17261>       *** WARNING: Outflow volume is less than inflow volume.
17262>  001:0338 CALIB STANDHYD
17263>       *** WARNING: Storage Coefficient is smaller than DT!
17264>                    Use a smaller DT or a larger area.
17265>  001:0339 ROUTE RESERVOIR
17266>       *** WARNING: STORAGE-Q values were extrapolated.
17267>                    Increase curve or use overflow option.
17268>  001:0342 CALIB STANDHYD
17269>       *** WARNING: Storage Coefficient is smaller than DT!
17270>                    Use a smaller DT or a larger area.
17271>  001:0346 CALIB STANDHYD
17272>       *** WARNING: Storage Coefficient is smaller than DT!
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                    Use a smaller DT or a larger area.
 001:0347 ROUTE RESERVOIR
       *** WARNING: STORAGE-Q values were extrapolated.
                    Increase curve or use overflow option.
       *** WARNING: Outflow volume is less than inflow volume.
 001:0350 CALIB STANDHYD
       *** WARNING: Storage Coefficient is smaller than DT!
                    Use a smaller DT or a larger area.
 001:0351 ROUTE RESERVOIR
       *** WARNING: STORAGE-Q values were extrapolated.
                    Increase curve or use overflow option.
 001:0355 CALIB STANDHYD
       *** WARNING: Storage Coefficient is smaller than DT!
                    Use a smaller DT or a larger area.
 001:0362 CALIB STANDHYD
       *** WARNING: Storage Coefficient is smaller than DT!
                    Use a smaller DT or a larger area.
 001:0363 ROUTE RESERVOIR
       *** WARNING: Outflow volume is less than inflow volume.
 001:0367 CALIB STANDHYD
       *** WARNING: Storage Coefficient is smaller than DT!
                    Use a smaller DT or a larger area.
 001:0368 ROUTE RESERVOIR
       *** WARNING: STORAGE-Q values were extrapolated.
                    Increase curve or use overflow option.
       *** WARNING: Outflow volume is less than inflow volume.
 001:0373 CALIB STANDHYD
       *** WARNING: Storage Coefficient is smaller than DT!
                    Use a smaller DT or a larger area.
 001:0374 ROUTE RESERVOIR
       *** WARNING: STORAGE-Q values were extrapolated.
                    Increase curve or use overflow option.
       *** WARNING: Outflow volume is less than inflow volume.
 001:0379 CALIB STANDHYD
       *** WARNING: Storage Coefficient is smaller than DT!
                    Use a smaller DT or a larger area.
 001:0383 CALIB STANDHYD
       *** WARNING: Storage Coefficient is smaller than DT!
                    Use a smaller DT or a larger area.
 001:0386 CALIB STANDHYD
       *** WARNING: Storage Coefficient is smaller than DT!
                    Use a smaller DT or a larger area.
 001:0391 CALIB NASHYD
       *** WARNING: Time step is too large for value of TP.
                    R.V. may be ok.  Peak flow could be off.
 001:0398 CALIB STANDHYD
       *** WARNING: Storage Coefficient is smaller than DT!
                    Use a smaller DT or a larger area.
 001:0399 ROUTE RESERVOIR
       *** WARNING: STORAGE-Q values were extrapolated.
                    Increase curve or use overflow option.
       *** WARNING: Outflow volume is less than inflow volume.
 001:0400 CALIB STANDHYD
       *** WARNING: Storage Coefficient is smaller than DT!
                    Use a smaller DT or a larger area.
 001:0401 ROUTE RESERVOIR
       *** WARNING: STORAGE-Q values were extrapolated.
                    Increase curve or use overflow option.
       *** WARNING: Outflow volume is less than inflow volume.
 001:0404 ROUTE RESERVOIR
       *** WARNING: STORAGE-Q values were extrapolated.
                    Increase curve or use overflow option.
 001:0406 CALIB STANDHYD
       *** WARNING: Storage Coefficient is smaller than DT!
                    Use a smaller DT or a larger area.
 001:0407 ROUTE RESERVOIR
       *** WARNING: STORAGE-Q values were extrapolated.
                    Increase curve or use overflow option.
 001:0409 CALIB STANDHYD
       *** WARNING: Storage Coefficient is smaller than DT!
                    Use a smaller DT or a larger area.
 001:0410 ROUTE RESERVOIR
       *** WARNING: STORAGE-Q values were extrapolated.
                    Increase curve or use overflow option.
 001:0412 CALIB STANDHYD
       *** WARNING: Storage Coefficient is smaller than DT!
                    Use a smaller DT or a larger area.
 001:0413 ROUTE RESERVOIR
       *** WARNING: STORAGE-Q values were extrapolated.
                    Increase curve or use overflow option.
 001:0415 CALIB STANDHYD
       *** WARNING: Storage Coefficient is smaller than DT!
                    Use a smaller DT or a larger area.
 001:0416 ROUTE RESERVOIR
       *** WARNING: STORAGE-Q values were extrapolated.
                    Increase curve or use overflow option.
       *** WARNING: Outflow volume is less than inflow volume.
 001:0418 CALIB STANDHYD
       *** WARNING: Storage Coefficient is smaller than DT!
                    Use a smaller DT or a larger area.
 001:0419 ROUTE RESERVOIR
       *** WARNING: STORAGE-Q values were extrapolated.
                    Increase curve or use overflow option.
       *** WARNING: Outflow volume is less than inflow volume.
 001:0422 CALIB STANDHYD
       *** WARNING: Storage Coefficient is smaller than DT!
                    Use a smaller DT or a larger area.
 001:0423 ROUTE RESERVOIR
       *** WARNING: STORAGE-Q values were extrapolated.
                    Increase curve or use overflow option.
       *** WARNING: Outflow volume is less than inflow volume.
 001:0427 CALIB STANDHYD
       *** WARNING: Storage Coefficient is smaller than DT!
                    Use a smaller DT or a larger area.
 001:0428 ROUTE RESERVOIR
       *** WARNING: STORAGE-Q values were extrapolated.
                    Increase curve or use overflow option.
       *** WARNING: Outflow volume is less than inflow volume.
 001:0431 CALIB STANDHYD
       *** WARNING: Storage Coefficient is smaller than DT!
                    Use a smaller DT or a larger area.
 001:0432 ROUTE RESERVOIR
       *** WARNING: STORAGE-Q values were extrapolated.
                    Increase curve or use overflow option.
       *** WARNING: Outflow volume is less than inflow volume.
 001:0435 CALIB STANDHYD
       *** WARNING: Storage Coefficient is smaller than DT!
                    Use a smaller DT or a larger area.
 001:0436 ROUTE RESERVOIR
       *** WARNING: STORAGE-Q values were extrapolated.
                    Increase curve or use overflow option.
       *** WARNING: Outflow volume is less than inflow volume.
 001:0440 CALIB STANDHYD
       *** WARNING: Storage Coefficient is smaller than DT!
                    Use a smaller DT or a larger area.
 001:0444 CALIB STANDHYD
       *** WARNING: Storage Coefficient is smaller than DT!
                    Use a smaller DT or a larger area.
 001:0447 CALIB STANDHYD
       *** WARNING: Storage Coefficient is smaller than DT!
                    Use a smaller DT or a larger area.
 001:0452 CALIB NASHYD
       *** WARNING: Time step is too large for value of TP.
                    R.V. may be ok.  Peak flow could be off.
 001:0459 CALIB STANDHYD
       *** WARNING: Storage Coefficient is smaller than DT!
                    Use a smaller DT or a larger area.
 001:0460 ROUTE RESERVOIR
       *** WARNING: STORAGE-Q values were extrapolated.
                    Increase curve or use overflow option.
 001:0461 CALIB STANDHYD
       *** WARNING: Storage Coefficient is smaller than DT!
                    Use a smaller DT or a larger area.
 001:0462 ROUTE RESERVOIR
       *** WARNING: STORAGE-Q values were extrapolated.
                    Increase curve or use overflow option.
       *** WARNING: Outflow volume is less than inflow volume.
 001:0465 ROUTE RESERVOIR
       *** WARNING: STORAGE-Q values were extrapolated.
                    Increase curve or use overflow option.
 001:0467 CALIB STANDHYD
       *** WARNING: Storage Coefficient is smaller than DT!
                    Use a smaller DT or a larger area.
 001:0468 ROUTE RESERVOIR
       *** WARNING: STORAGE-Q values were extrapolated.
                    Increase curve or use overflow option.
       *** WARNING: Outflow volume is less than inflow volume.
 001:0470 CALIB STANDHYD
       *** WARNING: Storage Coefficient is smaller than DT!
                    Use a smaller DT or a larger area.
 001:0471 ROUTE RESERVOIR
       *** WARNING: STORAGE-Q values were extrapolated.
                    Increase curve or use overflow option.
 001:0473 CALIB STANDHYD
       *** WARNING: Storage Coefficient is smaller than DT!
                    Use a smaller DT or a larger area.
 001:0474 ROUTE RESERVOIR
       *** WARNING: STORAGE-Q values were extrapolated.
                    Increase curve or use overflow option.
 001:0476 CALIB STANDHYD
       *** WARNING: Storage Coefficient is smaller than DT!
                    Use a smaller DT or a larger area.
 001:0477 ROUTE RESERVOIR
       *** WARNING: STORAGE-Q values were extrapolated.
                    Increase curve or use overflow option.
 001:0479 CALIB STANDHYD
       *** WARNING: Storage Coefficient is smaller than DT!
                    Use a smaller DT or a larger area.
 001:0480 ROUTE RESERVOIR
       *** WARNING: STORAGE-Q values were extrapolated.
                    Increase curve or use overflow option.
 001:0483 CALIB STANDHYD
       *** WARNING: Storage Coefficient is smaller than DT!
                    Use a smaller DT or a larger area.
 001:0484 ROUTE RESERVOIR
       *** WARNING: STORAGE-Q values were extrapolated.
                    Increase curve or use overflow option.
       *** WARNING: Outflow volume is less than inflow volume.
 001:0488 CALIB STANDHYD
       *** WARNING: Storage Coefficient is smaller than DT!
                    Use a smaller DT or a larger area.
 001:0489 ROUTE RESERVOIR
       *** WARNING: STORAGE-Q values were extrapolated.
                    Increase curve or use overflow option.
       *** WARNING: Outflow volume is less than inflow volume.
 001:0492 CALIB STANDHYD
       *** WARNING: Storage Coefficient is smaller than DT!
                    Use a smaller DT or a larger area.
 001:0493 ROUTE RESERVOIR
       *** WARNING: STORAGE-Q values were extrapolated.
                    Increase curve or use overflow option.
       *** WARNING: Outflow volume is less than inflow volume.
 001:0496 CALIB STANDHYD
       *** WARNING: Storage Coefficient is smaller than DT!
                    Use a smaller DT or a larger area.
 001:0497 ROUTE RESERVOIR
       *** WARNING: STORAGE-Q values were extrapolated.
                    Increase curve or use overflow option.
       *** WARNING: Outflow volume is less than inflow volume.
 001:0501 CALIB STANDHYD
       *** WARNING: Storage Coefficient is smaller than DT!
                    Use a smaller DT or a larger area.
 001:0505 CALIB STANDHYD
       *** WARNING: Storage Coefficient is smaller than DT!
                    Use a smaller DT or a larger area.
 001:0508 CALIB STANDHYD
       *** WARNING: Storage Coefficient is smaller than DT!
                    Use a smaller DT or a larger area.
 001:0517 ROUTE RESERVOIR
       *** WARNING: STORAGE-Q values were extrapolated.
                    Increase curve or use overflow option.
   Simulation ended on 2018-01-30     at 11:17:23
 ================================================================================
```

# Appendix E

```
Input File : C:\Users\PDeir\Desktop\ISGAR XPSWMM\ISGAR-N4-20180130-JULY-79.XP
          *================================================*
          |                        XP-SWMM                 |
          |     Storm and Wastewater Management Model      |
          |                  Version 9.10                  |
          |================================================|
          |                Developed by                    |
          |================================================|
          |                                                |
          |                   XP Software                  |
          |                                                |
          |              Based on the U.S. EPA             |
          |   Storm Water Management Model Version 4.30    |
          |                                                |
          |            Originally Developed by             |
          |             Metcalf & Eddy, Inc.               |
          |            University of Florida               |
          |          Camp Dresser & McKee Inc.             |
          |             September 1970                     |
          |                                                |
          |            EPA-SWMM is maintained by           |
          |            Oregon State University             |
          |            Camp Dresser & McKee Inc.           |
          |================================================|
          |     XP Software      October, 2003             |
          |       Data File Version --->    11.7           |
          *================================================*


*=========================================================*
|       Input and Output file names by SWMM Layer         |
*=========================================================*

 Input File  to Layer #     1 JOT.US
 Output File to Layer #     1 JOT.US

*=========================================================*
|   Special command line arguments in XP-SWMM2000. This  |
|   now includes program defaults. $Keywords are the program|
|   defaults.  Other Keywords are from the SWMMCOM.CFG file.|
|   or the command line or any cfg file on the command line.|
|   Examples include these in the file xpswm.bat under the  |
|   section :solve or in the windows version XPSWMM32 in the|
|   file solve.bat                                        |
|                                                         |
|   Note: the cfg file should be in the subdirectory swmxp  |
|         or defined by the set variable in the xpswm.bat   |
|         file.  Some examples of the command lines possible|
|         are shown below:                                |
|                                                         |
|   swmmd swmmcom.cfg                                     |
|   swmmd my.cfg                                          |
|   swmmd nokeys nconv5 perv extranwq                     |
*=========================================================*

 $powerstation                        0.0000         1         2
 $perv                                0.0000         0         4
 $oldegg                              0.0000         0         7
 $as                                  0.0000         0        11
 $noflat                              0.0000         0        21
 $oldomega                            0.0000         0        24
 $oldvol                              0.0000         1        28
 $implicit                            0.0000         1        29
 $oldhot                              0.0000         1        31
 $oldscs                              0.0000         0        33
 $flood                               0.0000         1        40
 $nokeys                              0.0000         0        42
 $pzero                               0.0000         0        55
 $oldvol2                             0.0000         2        59
 $storage2                            0.0000         3        62
 $oldhot1                             0.0000         1        63
 $pumpwt                              0.0000         1        70
 $ecloss                              0.0000         1        77
 $exout                               0.0000         0        97
 $spatial = 0.90                      0.9000         5       124
 $djref = -1.0                       -0.1000         3       143
 $weirlen = 50                       50.0000         1       153
 $oldbnd                              0.0000         1       154
 $nogrelev                            0.0000         1       161
 $ncmid                               0.0000         0       164
 $new_nl_97                           0.0000         2       290
```

```
$best97                              0.0000         1       294
$newbound                            0.0000         1       295
$q_tol = 0.1                         0.0010         1       316
$new_storage                         0.0000         1       322
$old_iteration                       0.0000         1       333
$minlen=10.0                        10.0000         1       346
$review_elevation                    0.0000         1       383
$use_half_volume                     0.0000         1       385
$min_ts = 0.5                        0.5000         1       407
$design_restart = on                 0.0000         1       412
$zero_value=1.e-05                   0.0000         1       414

*=========================================================*
| Parameter Values on the Tapes Common Block.These are the |
| values read from the data file and dynamically allocated |
| by the model for this simulation.                        |
*=========================================================*

 Number of Subcatchments in the Runoff Block (NW)....     0
 Number of Channel/Pipes in the Runoff Block (NG)....     0
 Runoff Water quality constituents (NRQ).............     0
 Runoff Land Uses per Subcatchment (NLU).............     0
 Number of Elements in the Transport Block (NET).....     0
 Number of Storage Junctions in Transport (NTSE).....     0
 Number of Input Hydrographs in Transport (NTH)......     0
 Number of Elements in the Extran Block (NEE)........    34
 Number of Groundwater Subcatchments in Runoff (NGW).     0
 Number of Interface locations for all Blocks (NIE)..    34
 Number of Pumps in Extran (NEP).....................     0
 Number of Orifices in Extran (NEO)..................     0
 Number of Tide Gates/Free Outfalls in Extran (NTG)..     1
 Number of Extran Weirs (NEW)........................     1
 Number of scs hydrograph points.....................     1
 Number of Extran printout locations (NPO)...........     2
 Number of Tide elements in Extran (NTE).............     1
 Number of Natural channels (NNC)....................     0
 Number of Storage junctions in Extran (NVSE)........     1
 Number of Time history data points in Extran(NTVAL). 13221
 Number of Variable storage elements in Extran (NVST)     5
 Number of Input Hydrographs in Extran (NEH).........    14
 Number of Particle sizes in Transport Block (NPS)...     0
 Number of User defined conduits (NHW)...............    34
 Number of Connecting conduits in Extran (NECC)......    20
 Number of Upstream elements in Transport (NTCC).....    10
 Number of Storage/treatment plants (NSTU)...........     0
 Number of Values for R1 lines in Transport (NR1)....     0
 Number of Nodes to be allowed for (NNOD)............    34
 Number of Plugs in a Storage Treatment Unit.........     1


#########################################################
#    Entry made to the HYDRAULIC Layer(Block) of SWMM #
#    Last Updated October,2000 by XP Software         #
~~~ Extran - Get Cross Section

    29226 - Update to Avalon South Stormwater Facility Design Brief
    DYNAMIC MODEL (Trunks-Splitter-SWM Facility-Outlet)


*=========================================================*
|        HYDRAULICS TABLES IN THE OUTPUT FILE             |
|  These are the more important tables in the output file.  |
|  You can use your editor to find the table numbers,       |
|  for example: search for Table E20 to check continuity.   |
|  This output file can be imported into a Word Processor   |
|  and printed on US letter or A4 paper using portrait      |
|  mode, courier font, a size of 8 pt. and margins of 0.75  |
|                                                           |
| Table E1   - Basic Conduit Data                           |
| Table E2   - Conduit Factor Data                          |
| Table E3a  - Junction Data                                |
| Table E3b  - Junction Data                                |
| Table E4   - Conduit Connectivity Data                    |
| Table E4a  - Dry Weather Flow Data                        |
| Table E4b  - Real Time Control Data                       |
| Table E5   - Junction Time Step Limitation Summary        |
| Table E5a  - Conduit Explicit Condition Summary           |
| Table E6   - Final Model Condition                        |
| Table E7   - Iteration Summary                            |
| Table E8   - Junction Time Step Limitation Summary        |
| Table E9   - Junction  Summary  Statistics                |
```

```
| Table E10  - Conduit   Summary  Statistics                |
| Table E11  - Area assumptions used in the analysis        |
| Table E12  - Mean conduit information                     |
| Table E13  - Channel losses(H) and culvert info           |
| Table E13a - Culvert Analysis Classification              |
| Table E14  - Natural Channel Overbank Flow Information    |
| Table E14a - Natural Channel Encroachment Information     |
| Table E14b - Floodplain Mapping                           |
| Table E15  - Spreadsheet Info List                        |
| Table E15a - Spreadsheet Reach List                       |
| Table E16  - New Conduit Output Section                   |
| Table E17  - Pump Operation                               |
| Table E18  - Junction Continuity Error                    |
| Table E19  - Junction Inflow Sources                      |
| Table E20  - Junction Flooding and Volume List            |
| Table E21  - Continuity balance at simulation end         |
| Table E22  - Model Judgement Section                      |
*===========================================================*

Time Control from Hydraulics Job Control
Year.........    1997 Month.......       5
Day..........       1 Hour........       0
Minute.......       0 Second......       0


Control information for simulation
----------------------------------

Integration cycles.................     23040
Length of integration step is......      5.00 seconds
Simulation length..................     32.00 hours
Do not create equiv. pipes(NEQUAL).         0
Use metric units for I/O...........         1
Printing starts in cycle...........         1
Intermediate printout intervals of.       500 cycles
Intermediate printout intervals of.     41.67 minutes
Summary printout intervals of......       500 cycles
Summary printout time interval of..     41.67 minutes
Hot start file parameter (REDO)....         0
Initial time.......................      0.00 hours

Iteration variables: Flow Tolerance.   0.00010
                     Head Tolerance.   0.00005
    Minimum depth (m or ft).........   0.00001
    Underrelaxation parameter.......   0.80000
    Time weighting parameter........   0.90000
    Conduit roughness factor........   1.00000
    Flow adjustment factor..........   1.00000
    Initial Condition Smoothing.....         1
    Courant Time Step Factor........   2.00000
    Default Expansion/Contraction K.   0.00000
    Default Entrance/Exit K.........   0.00000
    Routing Method..................   Dynamic Wave
Default surface area of junctions...      1.22 square meters.
Minimum Junction/Conduit Depth......   0.00001 meter.
Ponding Area Coefficient............  50000.00
Ponding Area Exponent...............    5.0000
Minimum Orifice Length..............      5.00 meters.
NJSW input hydrograph junctions.....    14
     or user defined hydrographs....

Printed output for the following  1 Junctions

    POND

Printed output for the following  2 Conduits

    OUT 2     OUT 1

Water surface elevations will be plotted for the following   1 Junctions

    POND

Flow rate will be plotted for the following   2 Conduits

    OUT 2     OUT 1

*================================================*
|          Table E1 - Conduit Data               |
*================================================*
```

| Inp Num | Conduit Name | Length (mt) | Conduit Class | Area ( m^2) | Manning Coef. | Max Width (mt) | Depth (mt) | Trapezoid Side Slopes |
|---|---|---|---|---|---|---|---|---|
| 1 | OUT 2 | 530.5000 | Circular | 1.1310 | 0.0130 | 1.2000 | 1.2000 | |
| 2 | OUT 1 | 325.0000 | Circular | 1.1310 | 0.0130 | 1.2000 | 1.2000 | |
| 3 | P103 | 210.0000 | Circular | 3.9761 | 0.0130 | 2.2500 | 2.2500 | |
| 4 | P545 | 69.0000 | Circular | 2.9865 | 0.0130 | 1.9500 | 1.9500 | |
| 5 | P505 | 67.0000 | Circular | 0.8659 | 0.0130 | 1.0500 | 1.0500 | |
| 6 | P507 | 70.0000 | Circular | 0.8659 | 0.0130 | 1.0500 | 1.0500 | |
| 7 | P510 | 38.5000 | Circular | 0.8659 | 0.0130 | 1.0500 | 1.0500 | |
| 8 | P512 | 72.0000 | Circular | 1.1310 | 0.0130 | 1.2000 | 1.2000 | |
| 9 | P514 | 139.5000 | Circular | 1.1310 | 0.0130 | 1.2000 | 1.2000 | |
| 10 | P521 | 79.0000 | Circular | 1.1310 | 0.0130 | 1.2000 | 1.2000 | |
| 11 | P522 | 77.5000 | Circular | 1.1310 | 0.0130 | 1.2000 | 1.2000 | |
| 12 | P529 | 130.0000 | Circular | 1.1310 | 0.0130 | 1.2000 | 1.2000 | |
| 13 | P539 | 93.5000 | Circular | 2.1382 | 0.0130 | 1.6500 | 1.6500 | |
| 14 | P540 | 42.5000 | Circular | 2.1382 | 0.0130 | 1.6500 | 1.6500 | |
| 15 | P541 | 110.5000 | Circular | 2.1382 | 0.0130 | 1.6500 | 1.6500 | |
| 16 | P542 | 131.5000 | Circular | 2.5447 | 0.0130 | 1.8000 | 1.8000 | |
| 17 | P543 | 131.5000 | Circular | 2.9865 | 0.0130 | 1.9500 | 1.9500 | |
| 18 | P544 | 39.5000 | Circular | 2.9865 | 0.0130 | 1.9500 | 1.9500 | |
| 19 | P112 | 175.0000 | Circular | 1.7671 | 0.0130 | 1.5000 | 1.5000 | |
| 20 | P111 | 108.0000 | Circular | 2.5447 | 0.0130 | 1.8000 | 1.8000 | |
| 21 | P110 | 141.0000 | Circular | 2.5447 | 0.0130 | 1.8000 | 1.8000 | |
| 22 | P109 | 130.0000 | Circular | 2.9865 | 0.0130 | 1.9500 | 1.9500 | |
| 23 | P108 | 80.0000 | Circular | 2.9865 | 0.0130 | 1.9500 | 1.9500 | |
| 24 | P107 | 100.0000 | Circular | 3.9761 | 0.0130 | 2.2500 | 2.2500 | |
| 25 | P106 | 78.0000 | Circular | 3.9761 | 0.0130 | 2.2500 | 2.2500 | |
| 26 | P105 | 78.0000 | Circular | 3.9761 | 0.0130 | 2.2500 | 2.2500 | |
| 27 | P104 | 75.0000 | Circular | 3.9761 | 0.0130 | 2.2500 | 2.2500 | |
| 28 | SAN O/F | 600.0000 | Circular | 0.3578 | 0.0130 | 0.6750 | 0.6750 | |
| 29 | F.F.EAST | 42.0000 | Rectangle | 1.6200 | 0.0130 | 1.8000 | 0.9000 | |
| 30 | O/F EAST | 38.0000 | Rectangle | 2.1600 | 0.0130 | 1.8000 | 1.2000 | |
| 31 | F.F. WEST | 44.0000 | Rectangle | 1.6200 | 0.0130 | 1.8000 | 0.9000 | |
| 32 | O/F WEST | 82.0000 | Rectangle | 2.1600 | 0.0130 | 1.8000 | 1.2000 | |

Total length of all conduits .... 4128.0000 meters

*==========*
| Table E2 - Conduit Factor Data |
*==========*

| Conduit Name | Number of Barrels | Entrance Loss Coef | Exit Loss Coef | Exp/Contc Coefficnt | Time Weighting Parameter | Low Flow Roughness Factor | Depth at Which n Changes | Flow Routing |
|---|---|---|---|---|---|---|---|---|
| OUT 2 | 1.0000 | 0.6000 | 1.7500 | 1.2000 | 0.9000 | 1.0000 | 0.0000 | Standard - Dynamic Wave |
| OUT 1 | 1.0000 | 1.2000 | 1.1000 | 0.0000 | 0.9000 | 1.0000 | 0.0000 | Standard - Dynamic Wave |
| P103 | 1.0000 | 0.0500 | 0.2000 | 0.0000 | 0.9000 | 1.0000 | 0.0000 | Standard - Dynamic Wave |
| P545 | 1.0000 | 0.0500 | 0.2000 | 0.0000 | 0.9000 | 1.0000 | 0.0000 | Standard - Dynamic Wave |
| P505 | 1.0000 | 0.2000 | 0.6000 | 0.0000 | 0.9000 | 1.0000 | 0.0000 | Standard - Dynamic Wave |
| P507 | 1.0000 | 0.6000 | 0.0500 | 0.0000 | 0.9000 | 1.0000 | 0.0000 | Standard - Dynamic Wave |
| P510 | 1.0000 | 0.0500 | 0.6500 | 0.0000 | 0.9000 | 1.0000 | 0.0000 | Standard - Dynamic Wave |
| P512 | 1.0000 | 0.6500 | 0.0500 | 0.0000 | 0.9000 | 1.0000 | 0.0000 | Standard - Dynamic Wave |
| P514 | 1.0000 | 0.0500 | 0.6500 | 0.0000 | 0.9000 | 1.0000 | 0.0000 | Standard - Dynamic Wave |
| P521 | 1.0000 | 0.6500 | 0.0500 | 0.0000 | 0.9000 | 1.0000 | 0.0000 | Standard - Dynamic Wave |
| P522 | 1.0000 | 0.0500 | 0.0500 | 0.0000 | 0.9000 | 1.0000 | 0.0000 | Standard - Dynamic Wave |
| P529 | 1.0000 | 0.0500 | 0.6500 | 0.0000 | 0.9000 | 1.0000 | 0.0000 | Standard - Dynamic Wave |
| P539 | 1.0000 | 0.6500 | 0.0500 | 0.0000 | 0.9000 | 1.0000 | 0.0000 | Standard - Dynamic Wave |
| P540 | 1.0000 | 0.0500 | 0.0500 | 0.0000 | 0.9000 | 1.0000 | 0.0000 | Standard - Dynamic Wave |
| P541 | 1.0000 | 0.0500 | 0.0500 | 0.0000 | 0.9000 | 1.0000 | 0.0000 | Standard - Dynamic Wave |
| P542 | 1.0000 | 0.0500 | 0.0500 | 0.0000 | 0.9000 | 1.0000 | 0.0000 | Standard - Dynamic Wave |
| P543 | 1.0000 | 0.0500 | 0.0500 | 0.0000 | 0.9000 | 1.0000 | 0.0000 | Standard - Dynamic Wave |

```
            P544     1.0000    0.0500    0.0500    0.0000    0.9000    1.0000    0.0000 Standard -
Dynamic Wave
            P112     1.0000    0.0500    0.0500    0.0000    0.9000    1.0000    0.0000 Standard -
Dynamic Wave
            P111     1.0000    0.0500    0.0500    0.0000    0.9000    1.0000    0.0000 Standard -
Dynamic Wave
            P110     1.0000    0.0500    0.6500    0.0000    0.9000    1.0000    0.0000 Standard -
Dynamic Wave
            P109     1.0000   -1.0000    0.0000    0.0000    0.9000    1.0000    0.0000 Standard -
Dynamic Wave
            P108     1.0000    0.2000    0.6500    0.0000    0.9000    1.0000    0.0000 Standard -
Dynamic Wave
            P107     1.0000    0.6500    0.0500    0.0000    0.9000    1.0000    0.0000 Standard -
Dynamic Wave
            P106     1.0000    0.0500    0.0500    0.0000    0.9000    1.0000    0.0000 Standard -
Dynamic Wave
            P105     1.0000    0.0500    0.6500    0.0000    0.9000    1.0000    0.0000 Standard -
Dynamic Wave
            P104     1.0000    0.6500    0.0500    0.0000    0.9000    1.0000    0.0000 Standard -
Dynamic Wave
         SAN O/F     1.0000    0.0000    0.0000    0.0000    0.9000    1.0000    0.0000 Standard -
Dynamic Wave
        F.F.EAST     1.0000    0.6000    1.2000    0.0000    0.9000    1.0000    0.0000 Standard -
Dynamic Wave
        O/F EAST     1.0000    0.6000    1.2000    0.0000    0.9000    1.0000    0.0000 Standard -
Dynamic Wave
       F.F. WEST     1.0000    0.6000    1.2000    0.0000    0.9000    1.0000    0.0000 Standard -
Dynamic Wave
        O/F WEST     1.0000    0.6000    1.2000    0.0000    0.9000    1.0000    0.0000 Standard -
Dynamic Wave

 *================================================*
 | If there are messages about (sqrt(g*d)*dt/dx), or |
 | the sqrt(wave celerity)*time step/conduit length  |
 | in the output file all it means is that the       |
 | program will lower the internal time step to      |
 | satisfy this condition (explicit condition).      |
 | You control the actual internal time step by      |
 | using the minimum courant time step factor in the |
 | HYDRAULICS job control.  The message put in words |
 | states that the smallest conduit with the fastest |
 | velocity will control the time step selection.    |
 | You have further control by using the modify      |
 | conduit option in the HYDRAULICS Job Control.     |
 *================================================*


        Conduit     Courant
           Name       Ratio
 --------------   ---------
           OUT 2        0.03
           OUT 1        0.05
            P103        0.11
            P545        0.32
            P505        0.24
            P507        0.23
            P510        0.42
            P512        0.24
            P514        0.12
            P521        0.22
            P522        0.22
            P529        0.13
            P539        0.22
            P540        0.47
            P541        0.18
            P542        0.16
            P543        0.17
            P544        0.55
            P112        0.11
            P111        0.19
            P110        0.15
            P109        0.17
            P108        0.27
            P107        0.23
            P106        0.30
            P105        0.30
            P104        0.31
         SAN O/F        0.02
        F.F.EAST        0.35
        O/F EAST        0.45
       F.F. WEST        0.34
```

```
       O/F WEST        0.21

*==================*
|  Conduit Volume  |
*==================*

Full pipe or full open conduit volume
Input full depth volume.............    7.5955E+03 cubic meters

===> Warning !! The upstream and downstream junctions for the following conduits
                have been reversed to correspond to the positive flow and decreasing
                slope convention.  A negative flow in the output thus means
                the flow was from your original upstream junction to your original
                downstream junction.  Any initial flow has been multiplied by -1.

                1.  Conduit #...O/F EAST    has been changed.
                2.  Conduit #...O/F WEST    has been changed.


*================================================*
|           Table E3a - Junction Data            |
*================================================*
```

| Inp Num | Junction Name | Ground Elevation | Crown Elevation | Invert Elevation | Qinst cms | Initial Depth-m | Interface Flow (%) |
|---|---|---|---|---|---|---|---|
| 1 | POND | 100.0000 | 85.0500 | 82.0000 | 0.0000 | 1.5000 | 100.0000 |
| 2 | MH 11 | 100.0000 | 83.8600 | 82.6600 | 0.0000 | 0.0000 | 100.0000 |
| 3 | 102 | 100.0000 | 84.9000 | 82.5000 | 0.0000 | 1.0000 | 100.0000 |
| 4 | 546 | 100.0000 | 84.9000 | 82.7400 | 0.0000 | 0.7300 | 100.0000 |
| 5 | MH 4 | 100.0000 | 84.3800 | 83.1640 | 0.0000 | 0.0000 | 100.0000 |
| 6 | 103 | 100.0000 | 85.1080 | 82.8580 | 0.0000 | 0.6420 | 100.0000 |
| 7 | 545 | 100.0000 | 84.8600 | 82.9100 | 0.0000 | 0.5900 | 100.0000 |
| 8 | 544 | 100.0000 | 84.9200 | 82.9700 | 0.0000 | 0.5300 | 100.0000 |
| 9 | 543 | 100.0000 | 85.1200 | 83.1700 | 0.0000 | 0.3300 | 100.0000 |
| 10 | 542 | 100.0000 | 85.1700 | 83.3700 | 0.0000 | 0.1300 | 100.0000 |
| 11 | 541 | 100.0000 | 85.1900 | 83.5400 | 0.0000 | 0.0000 | 100.0000 |
| 12 | 539 | 100.0000 | 85.3900 | 83.7400 | 0.0000 | 0.0000 | 100.0000 |
| 13 | 529 | 100.0000 | 85.7200 | 84.5200 | 0.0000 | 0.0000 | 100.0000 |
| 14 | 510 | 100.0000 | 86.8300 | 85.7800 | 0.0000 | 0.0000 | 100.0000 |
| 15 | 505 | 100.0000 | 87.1600 | 86.1100 | 0.0000 | 0.0000 | 100.0000 |
| 16 | 507 | 100.0000 | 87.0300 | 85.9200 | 0.0000 | 0.0000 | 100.0000 |
| 17 | 522 | 100.0000 | 85.8800 | 84.6800 | 0.0000 | 0.0000 | 100.0000 |
| 18 | 521 | 100.0000 | 86.1900 | 84.8400 | 0.0000 | 0.0000 | 100.0000 |
| 19 | 514 | 100.0000 | 86.4700 | 85.2700 | 0.0000 | 0.0000 | 100.0000 |
| 20 | 512 | 100.0000 | 86.8400 | 85.6400 | 0.0000 | 0.0000 | 100.0000 |
| 21 | 104 | 100.0000 | 85.2430 | 82.9330 | 0.0000 | 0.5670 | 100.0000 |
| 22 | 105 | 100.0000 | 85.3210 | 83.0710 | 0.0000 | 0.4290 | 100.0000 |
| 23 | 106 | 100.0000 | 85.3990 | 83.1490 | 0.0000 | 0.3510 | 100.0000 |
| 24 | 107 | 100.0000 | 85.5030 | 83.2490 | 0.0000 | 0.2510 | 100.0000 |
| 25 | 108 | 100.0000 | 85.6290 | 83.6490 | 0.0000 | 0.0000 | 100.0000 |
| 26 | 109 | 100.0000 | 85.7880 | 83.8350 | 0.0000 | 0.0000 | 100.0000 |
| 27 | 110 | 100.0000 | 85.9290 | 84.1290 | 0.0000 | 0.0000 | 100.0000 |
| 28 | 111 | 100.0000 | 86.0420 | 84.2370 | 0.0000 | 0.0000 | 100.0000 |
| 29 | 112 | 100.0000 | 86.3040 | 84.8040 | 0.0000 | 0.0000 | 100.0000 |
| 30 | 540 | 100.0000 | 85.2500 | 83.6000 | 0.0000 | 0.0000 | 100.0000 |
| 31 | N5 P/S | 100.0000 | 84.4390 | 83.7640 | 0.0000 | 0.0000 | 100.0000 |
| 32 | WEIR | 100.0000 | 83.7640 | 83.7640 | 0.1090 | 0.0000 | 100.0000 |

```
*================================================*
|           Table E3b - Junction Data            |
*================================================*
```

| Inp Num | Junction Name | X Coord. | Y Coord. | Type of Manhole | Type of Inlet | Maximum Capacity | Pavement Shape | Pavement Slope |
|---|---|---|---|---|---|---|---|---|
| 1 | POND | 45.4975 | 448.1556 | No Ponding | Normal | | 0 | 0.0000 |
| 2 | MH 11 | 17.1369 | 440.8026 | No Ponding | Normal | | 0 | 0.0000 |
| 3 | 102 | 53.3178 | 460.3534 | No Ponding | Normal | | 0 | 0.0000 |
| 4 | 546 | 28.5901 | 458.1865 | No Ponding | Normal | | 0 | 0.0000 |
| 5 | MH 4 | 17.0047 | 448.1793 | No Ponding | Normal | | 0 | 0.0000 |
| 6 | 103 | 53.3949 | 468.7585 | No Ponding | Normal | | 0 | 0.0000 |
| 7 | 545 | 28.4112 | 464.2368 | No Ponding | Normal | | 0 | 0.0000 |
| 8 | 544 | 28.5497 | 470.3848 | No Ponding | Normal | | 0 | 0.0000 |
| 9 | 543 | 28.6564 | 476.8488 | No Ponding | Normal | | 0 | 0.0000 |
| 10 | 542 | 28.5536 | 483.7260 | No Ponding | Normal | | 0 | 0.0000 |
| 11 | 541 | 28.7446 | 489.5925 | No Ponding | Normal | | 0 | 0.0000 |
| 12 | 539 | 28.6945 | 502.6670 | No Ponding | Normal | | 0 | 0.0000 |
| 13 | 529 | 40.2092 | 502.5083 | No Ponding | Normal | | 0 | 0.0000 |
| 14 | 510 | 71.7679 | 514.8188 | No Ponding | Normal | | 0 | 0.0000 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 15 | 505 | 93.0914 | 510.6049 | No Ponding | Normal | 0 | 0.0000 |
| 16 | 507 | 84.1144 | 515.0134 | No Ponding | Normal | 0 | 0.0000 |
| 17 | 522 | 49.5114 | 502.3623 | No Ponding | Normal | 0 | 0.0000 |
| 18 | 521 | 62.2193 | 502.2242 | No Ponding | Normal | 0 | 0.0000 |
| 19 | 514 | 62.1098 | 507.6136 | No Ponding | Normal | 0 | 0.0000 |
| 20 | 512 | 62.1019 | 514.8186 | No Ponding | Normal | 0 | 0.0000 |
| 21 | 104 | 53.4956 | 478.7483 | No Ponding | Normal | 0 | 0.0000 |
| 22 | 105 | 65.4873 | 478.7030 | No Ponding | Normal | 0 | 0.0000 |
| 23 | 106 | 78.5528 | 478.9195 | No Ponding | Normal | 0 | 0.0000 |
| 24 | 107 | 92.8672 | 478.9889 | No Ponding | Normal | 0 | 0.0000 |
| 25 | 108 | 92.7524 | 488.6106 | No Ponding | Normal | 0 | 0.0000 |
| 26 | 109 | 92.6802 | 501.5341 | No Ponding | Normal | 0 | 0.0000 |
| 27 | 110 | 103.9812 | 501.5352 | No Ponding | Normal | 0 | 0.0000 |
| 28 | 111 | 114.5911 | 501.4040 | No Ponding | Normal | 0 | 0.0000 |
| 29 | 112 | 128.0974 | 501.4796 | No Ponding | Normal | 0 | 0.0000 |
| 30 | 540 | 28.8983 | 496.6827 | No Ponding | Normal | 0 | 0.0000 |
| 31 | N5 P/S | 16.9823 | 460.8665 | No Ponding | Normal | 0 | 0.0000 |
| 32 | WEIR | 16.7906 | 469.4218 | No Ponding | Normal | 0 | 0.0000 |

## Table E4 - Conduit Connectivity

| Input Number | Conduit Name | Upstream Node | Downstream Node | Upstream Elevation | Downstream Elevation | |
|---|---|---|---|---|---|---|
| 1 | OUT 2 | MH 4 | MH 11 | 83.1640 | 82.6600 | No Design |
| 2 | OUT 1 | POND | MH 4 | 83.5000 | 83.1800 | No Design |
| 3 | P103 | 103 | 102 | 82.8580 | 82.6480 | No Design |
| 4 | P545 | 545 | 546 | 82.9100 | 82.7700 | No Design |
| 5 | P505 | 505 | 507 | 86.1100 | 85.9800 | No Design |
| 6 | P507 | 507 | 510 | 85.9200 | 85.7800 | No Design |
| 7 | P510 | 510 | 512 | 85.7800 | 85.7000 | No Design |
| 8 | P512 | 512 | 514 | 85.6400 | 85.2700 | No Design |
| 9 | P514 | 514 | 521 | 85.2700 | 84.9900 | No Design |
| 10 | P521 | 521 | 522 | 84.8400 | 84.6800 | No Design |
| 11 | P522 | 522 | 529 | 84.6800 | 84.5200 | No Design |
| 12 | P529 | 529 | 539 | 84.5200 | 84.1900 | No Design |
| 13 | P539 | 539 | 540 | 83.7400 | 83.6000 | No Design |
| 14 | P540 | 540 | 541 | 83.6000 | 83.5400 | No Design |
| 15 | P541 | 541 | 542 | 83.5400 | 83.3700 | No Design |
| 16 | P542 | 542 | 543 | 83.3700 | 83.1700 | No Design |
| 17 | P543 | 543 | 544 | 83.1700 | 82.9700 | No Design |
| 18 | P544 | 544 | 545 | 82.9700 | 82.9100 | No Design |
| 19 | P112 | 112 | 111 | 84.8040 | 84.5420 | No Design |
| 20 | P111 | 111 | 110 | 84.2370 | 84.1290 | No Design |
| 21 | P110 | 110 | 109 | 84.1290 | 83.9880 | No Design |
| 22 | P109 | 109 | 108 | 83.8350 | 83.6790 | No Design |
| 23 | P108 | 108 | 107 | 83.6490 | 83.5530 | No Design |
| 24 | P107 | 107 | 106 | 83.2490 | 83.1490 | No Design |
| 25 | P106 | 106 | 105 | 83.1490 | 83.0710 | No Design |
| 26 | P105 | 105 | 104 | 83.0710 | 82.9930 | No Design |
| 27 | P104 | 104 | 103 | 82.9330 | 82.8580 | No Design |
| 28 | SAN O/F | N5 P/S | MH 4 | 83.7640 | 83.1640 | No Design |
| 29 | F.F.EAST | 102 | POND | 82.6400 | 82.5500 | No Design |
| 30 | O/F EAST | POND | 102 | 83.8500 | 83.7000 | No Design |
| 31 | F.F. WEST | 546 | POND | 82.7400 | 82.7000 | No Design |
| 32 | O/F WEST | POND | 546 | 83.8500 | 83.7000 | No Design |

## Storage Junction Data

| STORAGE JUNCTION NUMBER OR NAME | JUNCTION TYPE | MAXIMUM OR CONSTANT SURFACE AREA (M2) | PEAK OR CONSTANT VOLUME (CUBIC MET.) | CROWN ELEVATION (M) | DEPTH STARTS FROM |
|---|---|---|---|---|---|
| POND | Stage/Area | 76648.0000 | 142070.4977 | 100.0000 | Node Invert |

### Variable storage data for node POND

| Data Point | Elevation meters | Depth meters | Area m^2 | Volume m^3 |
|---|---|---|---|---|
| 1 | 82.0000 | 0.0000 | 300.0000 | 0.0000 |
| 2 | 82.1875 | 0.1875 | 7313.8750 | 568.4466 |
| 3 | 82.3750 | 0.3750 | 14327.7500 | 2560.8460 |
| 4 | 82.5625 | 0.5625 | 21341.6250 | 5883.0878 |

| | | | | |
|---|---|---|---|---|
| 5 | 82.7500 | 0.7500 | 28355.5000 | 10526.6485 |
| 6 | 82.9375 | 0.9375 | 35369.3750 | 16488.7566 |
| 7 | 83.1250 | 1.1250 | 42383.2500 | 23768.1590 |
| 8 | 83.3125 | 1.3125 | 49397.1250 | 32364.1819 |
| 9 | 83.5000 | 1.5000 | 56411.0000 | 42276.4209 |
| 10 | 83.5625 | 1.5625 | 57254.6250 | 45828.4391 |
| 11 | 83.6250 | 1.6250 | 58098.2500 | 49433.1843 |
| 12 | 83.6875 | 1.6875 | 58941.8750 | 53090.6565 |
| 13 | 83.7500 | 1.7500 | 59785.5000 | 56800.8558 |
| 14 | 83.8125 | 1.8125 | 60629.1250 | 60563.7820 |
| 15 | 83.8750 | 1.8750 | 61472.7500 | 64379.4352 |
| 16 | 83.9375 | 1.9375 | 62316.3750 | 68247.8154 |
| 17 | 84.0000 | 2.0000 | 63160.0000 | 72168.9226 |
| 18 | 84.0625 | 2.0625 | 64002.5000 | 76142.7217 |
| 19 | 84.1250 | 2.1250 | 64845.0000 | 80169.1774 |
| 20 | 84.1875 | 2.1875 | 65687.5000 | 84248.2897 |
| 21 | 84.2500 | 2.2500 | 66530.0000 | 88380.0586 |
| 22 | 84.3125 | 2.3125 | 67372.5000 | 92564.4841 |
| 23 | 84.3750 | 2.3750 | 68215.0000 | 96801.5662 |
| 24 | 84.4375 | 2.4375 | 69057.5000 | 101091.3049 |
| 25 | 84.5000 | 2.5000 | 69900.0000 | 105433.7002 |
| 26 | 84.5625 | 2.5625 | 70743.5000 | 109828.7832 |
| 27 | 84.6250 | 2.6250 | 71587.0000 | 114276.5853 |
| 28 | 84.6875 | 2.6875 | 72430.5000 | 118777.1064 |
| 29 | 84.7500 | 2.7500 | 73274.0000 | 123330.3466 |
| 30 | 84.8125 | 2.8125 | 74117.5000 | 127936.3058 |
| 31 | 84.8750 | 2.8750 | 74961.0000 | 132594.9841 |
| 32 | 84.9375 | 2.9375 | 75804.5000 | 137306.3814 |
| 33 | 85.0000 | 3.0000 | 76648.0000 | 142070.4977 |
| 34 | 100.0000 | 18.0000 | 76648.0000 | 142070.4977 |

```
 *==========================================*
 |                Weir Data                 |
 *==========================================*
```

| Weir Name | From Junction | To Junction | Type | Crest Height(ft) | Weir Top (m) | Weir Length (m) | Discharge Coefficient | Weir Power |
|---|---|---|---|---|---|---|---|---|
| weir 1 | WEIR | N5 P/S | 1 | 0.82 | 16.24 | 3.00 | 1.7000 | 1.5000 |

```
 *================================================*
 |          FREE OUTFALL DATA (DATA GROUP I1)     |
 |         BOUNDARY CONDITION ON DATA GROUP J1    |
 *================================================*

 Outfall at Junction....MH 11            has boundary condition number...         1


 *============================================*
 |               Weir Outfall Data            |
 |      Boundary Condition on data group J1   |
 *============================================*



 *================================================*
 |        INTERNAL CONNECTIVITY INFORMATION       |
 *================================================*
```

| CONDUIT | JUNCTION | JUNCTION |
|---|---|---|
| weir 1 | WEIR | N5 P/S |
| FREE # 1 | MH 11 | BOUNDARY |

```
 *================================================*
 |        Boundary Condition Information          |
 |                 Data Groups J1-J4              |
 *================================================*



 *================================*
 |   Conduit Convergence Criteria  |
 *================================*
```

| Conduit Name | Full Flow | Conduit Slope |
|---|---|---|
| OUT 2 | 1.2017 | 0.0010 |
| OUT 1 | 1.2234 | 0.0010 |
| P103 | 6.5906 | 0.0010 |
| P545 | 6.4097 | 0.0020 |
| P505 | 1.2029 | 0.0019 |
| P507 | 1.2212 | 0.0020 |
| P510 | 1.2448 | 0.0021 |
| P512 | 2.7948 | 0.0051 |
| P514 | 1.7467 | 0.0020 |
| P521 | 1.7546 | 0.0020 |
| P522 | 1.7715 | 0.0021 |
| P529 | 1.9643 | 0.0025 |
| P539 | 3.5269 | 0.0015 |
| P540 | 3.4246 | 0.0014 |
| P541 | 3.5750 | 0.0015 |
| P542 | 4.4828 | 0.0015 |
| P543 | 5.5495 | 0.0015 |
| P544 | 5.5459 | 0.0015 |
| P112 | 2.7352 | 0.0015 |
| P111 | 3.6350 | 0.0010 |
| P110 | 3.6350 | 0.0010 |
| P109 | 4.9293 | 0.0012 |
| P108 | 4.9293 | 0.0012 |
| P107 | 6.5906 | 0.0010 |
| P106 | 6.5906 | 0.0010 |
| P105 | 6.5906 | 0.0010 |
| P104 | 6.5906 | 0.0010 |
| SAN O/F | 0.2658 | 0.0010 |
| F.F.EAST | 2.5851 | 0.0021 |
| O/F EAST | 5.2828 | 0.0039 |
| F.F. WEST | 1.6838 | 0.0009 |
| O/F WEST | 3.5963 | 0.0018 |

```
 *================================*
 |    Initial Model Condition     |
 | Initial Time =     0.00 hours  |
 *================================*
```

Junction / Depth / Elevation ===> "*" Junction is Surcharged.

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| POND/ | 1.50 / | 83.50 | MH 11/ | 0.00 / | 82.66 | 102/ | 1.00 / 83.50 |
| 546/ | 0.73 / | 83.47 | MH 4/ | 0.00 / | 83.16 | 103/ | 0.64 / 83.50 |
| 545/ | 0.59 / | 83.50 | 544/ | 0.53 / | 83.50 | 543/ | 0.33 / 83.50 |
| 542/ | 0.13 / | 83.50 | 541/ | 0.00 / | 83.54 | 539/ | 0.00 / 83.74 |
| 529/ | 0.00 / | 84.52 | 510/ | 0.00 / | 85.78 | 505/ | 0.00 / 86.11 |
| 507/ | 0.00 / | 85.92 | 522/ | 0.00 / | 84.68 | 521/ | 0.00 / 84.84 |
| 514/ | 0.00 / | 85.27 | 512/ | 0.00 / | 85.64 | 104/ | 0.57 / 83.50 |
| 105/ | 0.43 / | 83.50 | 106/ | 0.35 / | 83.50 | 107/ | 0.25 / 83.50 |
| 108/ | 0.00 / | 83.65 | 109/ | 0.00 / | 83.83 | 110/ | 0.00 / 84.13 |
| 111/ | 0.00 / | 84.24 | 112/ | 0.00 / | 84.80 | 540/ | 0.00 / 83.60 |
| N5 P/S/ | 0.00 / | 83.76 | WEIR/ | 0.00 / | 83.76 | | |

Conduit/ FLOW ===> "*" Conduit uses the normal flow option.

| | | | | | |
|---|---|---|---|---|---|
| OUT 2/ | 0.00 | OUT 1/ | 0.00 | P103/ | 0.00 |
| P545/ | 0.00 | P505/ | 0.00 | P507/ | 0.00 |
| P510/ | 0.00 | P512/ | 0.00 | P514/ | 0.00 |
| P521/ | 0.00 | P522/ | 0.00 | P529/ | 0.00 |
| P539/ | 0.00 | P540/ | 0.00 | P541/ | 0.00 |
| P542/ | 0.00 | P543/ | 0.00 | P544/ | 0.00 |
| P112/ | 0.00 | P111/ | 0.00 | P110/ | 0.00 |
| P109/ | 0.00 | P108/ | 0.00 | P107/ | 0.00 |
| P106/ | 0.00 | P105/ | 0.00 | P104/ | 0.00 |
| SAN O/F/ | 0.00 | F.F.EAST/ | 0.00 | O/F EAST/ | 0.00 |
| F.F. WEST/ | 0.00 | O/F WEST/ | 0.00 | weir 1/ | 0.00 |
| FREE # 1/ | 0.00 | | | | |

Conduit/ Velocity

| | | | | | |
|---|---|---|---|---|---|
| OUT 2/ | 0.00 | OUT 1/ | 0.00 | P103/ | 0.00 |

```
            P545/       0.00             P505/       0.00             P507/       0.00
            P510/       0.00             P512/       0.00             P514/       0.00
            P521/       0.00             P522/       0.00             P529/       0.00
            P539/       0.00             P540/       0.00             P541/       0.00
            P542/       0.00             P543/       0.00             P544/       0.00
            P112/       0.00             P111/       0.00             P110/       0.00
            P109/       0.00             P108/       0.00             P107/       0.00
            P106/       0.00             P105/       0.00             P104/       0.00
          SAN O/F/      0.00         F.F.EAST/       0.00         O/F EAST/       0.00
        F.F. WEST/      0.00         O/F WEST/       0.00

          Conduit/ Cross Sectional Area
            OUT 2/      0.00            OUT 1/       0.00             P103/       0.98
            P545/       0.78             P505/       0.00             P507/       0.00
            P510/       0.00             P512/       0.00             P514/       0.00
            P521/       0.00             P522/       0.00             P529/       0.00
            P539/       0.00             P540/       0.00             P541/       0.01
            P542/       0.11             P543/       0.37             P544/       0.67
            P112/       0.00             P111/       0.00             P110/       0.00
            P109/       0.00             P108/       0.00             P107/       0.26
            P106/       0.41             P105/       0.54             P104/       0.80
          SAN O/F/      0.00         F.F.EAST/       1.56         O/F EAST/       0.00
        F.F. WEST/      1.33         O/F WEST/       0.00

          Conduit/ Hydraulic Radius
            OUT 2/      0.00            OUT 1/       0.00             P103/       0.38
            P545/       0.34             P505/       0.00             P507/       0.00
            P510/       0.00             P512/       0.00             P514/       0.00
            P521/       0.00             P522/       0.00             P529/       0.00
            P539/       0.00             P540/       0.00             P541/       0.01
            P542/       0.10             P543/       0.21             P544/       0.31
            P112/       0.00             P111/       0.00             P110/       0.00
            P109/       0.00             P108/       0.00             P107/       0.16
            P106/       0.22             P105/       0.26             P104/       0.34
          SAN O/F/      0.00         F.F.EAST/       0.34         O/F EAST/       0.00
        F.F. WEST/      0.41         O/F WEST/       0.00

          Conduit/ Upstream/ Downstream Elevation
            OUT 2/    82.66/    82.66           OUT 1/    83.16/    83.16            P103/    83.50/
83.50
             P545/    83.50/    83.47            P505/    85.92/    85.92            P507/    85.78/
85.78
             P510/    85.64/    85.64            P512/    85.27/    85.27            P514/    84.84/
84.84
             P521/    84.68/    84.68            P522/    84.52/    84.52            P529/    83.74/
83.74
             P539/    83.60/    83.60            P540/    83.54/    83.54            P541/    83.54/
83.50
             P542/    83.50/    83.50            P543/    83.50/    83.50            P544/    83.50/
83.50
             P112/    84.24/    84.24            P111/    84.13/    84.13            P110/    83.83/
83.83
             P109/    83.65/    83.65            P108/    83.50/    83.50            P107/    83.50/
83.50
             P106/    83.50/    83.50            P105/    83.50/    83.50            P104/    83.50/
83.50
          SAN O/F/    83.16/    83.16        F.F.EAST/    83.50/    83.50        O/F EAST/    83.50/
83.50
        F.F. WEST/    83.47/    83.50        O/F WEST/    83.47/    83.47
```

## EXTRACTED INFORMATION

```
 *=========================================================*
 |         Table E7 -  Iteration Summary                   |
 *=========================================================*

 Total number of time steps simulated.............      23040
 Total number of passes in the simulation........      24378
 Total number of time steps during simulation....      23111
 Ratio of actual # of time steps / NTCYC.........      1.003
 Average number of iterations per time step......      1.055
 Average  time step size(seconds)................      4.985
 Smallest time step size(seconds)................      0.500
 Largest  time step size(seconds)................      5.000
 Average minimum Conduit Courant time step (sec).      4.997
 Average minimum implicit time step (sec)........      2.002
 Average minimum junction time step (sec)........      2.002
 Average Courant Factor Tf.......................      2.002
 Number of times omega reduced...................          0
```

```
*=========================================================*
|     Table E8 - Junction Time Step Limitation Summary    |
*=========================================================*
|   Not Convr = Number of times this junction did not     |
|               converge during the simulation.           |
|   Avg Convr = Average junction iterations.              |
|   Conv err  = Mean convergence error.                   |
|   Omega Cng = Change of omega during iterations         |
|   Max Itern = Maximum number of iterations              |
*=========================================================*
```

| Junction | Not Convr | Avg Convr | Total Itt | Omega Cng | Max Itern | Ittrn >10 | Ittrn >25 | Ittrn >40 |
|---|---|---|---|---|---|---|---|---|
| POND | 0 | 1.32 | 30581 | 0 | 15 | 2 | 0 | 0 |
| MH 11 | 0 | 1.07 | 24709 | 0 | 5 | 0 | 0 | 0 |
| 102 | 0 | 1.27 | 29242 | 0 | 9 | 0 | 0 | 0 |
| 546 | 0 | 1.36 | 31408 | 0 | 12 | 2 | 0 | 0 |
| MH 4 | 0 | 1.06 | 24528 | 0 | 4 | 0 | 0 | 0 |
| 103 | 0 | 1.32 | 30392 | 0 | 9 | 0 | 0 | 0 |
| 545 | 0 | 1.49 | 34430 | 0 | 12 | 2 | 0 | 0 |
| 544 | 0 | 1.43 | 32955 | 0 | 8 | 0 | 0 | 0 |
| 543 | 0 | 1.25 | 28818 | 0 | 9 | 0 | 0 | 0 |
| 542 | 0 | 1.28 | 29468 | 0 | 5 | 0 | 0 | 0 |
| 541 | 0 | 1.70 | 39375 | 0 | 42 | 219 | 215 | 27 |
| 539 | 0 | 1.19 | 27430 | 0 | 12 | 1 | 0 | 0 |
| 529 | 0 | 1.16 | 26862 | 0 | 13 | 1 | 0 | 0 |
| 510 | 0 | 1.12 | 25987 | 0 | 6 | 0 | 0 | 0 |
| 505 | 0 | 1.08 | 24939 | 0 | 6 | 0 | 0 | 0 |
| 507 | 0 | 1.11 | 25570 | 0 | 6 | 0 | 0 | 0 |
| 522 | 0 | 1.14 | 26421 | 0 | 6 | 0 | 0 | 0 |
| 521 | 0 | 1.12 | 25870 | 0 | 8 | 0 | 0 | 0 |
| 514 | 0 | 1.11 | 25584 | 0 | 7 | 0 | 0 | 0 |
| 512 | 0 | 1.12 | 25787 | 0 | 6 | 0 | 0 | 0 |
| 104 | 0 | 1.35 | 31267 | 0 | 9 | 0 | 0 | 0 |
| 105 | 0 | 1.31 | 30226 | 0 | 8 | 0 | 0 | 0 |
| 106 | 0 | 1.31 | 30314 | 0 | 7 | 0 | 0 | 0 |
| 107 | 0 | 1.27 | 29393 | 0 | 9 | 0 | 0 | 0 |
| 108 | 0 | 1.23 | 28479 | 0 | 9 | 0 | 0 | 0 |
| 109 | 0 | 1.22 | 28153 | 0 | 10 | 1 | 0 | 0 |
| 110 | 0 | 1.20 | 27771 | 0 | 7 | 0 | 0 | 0 |
| 111 | 0 | 1.17 | 27123 | 0 | 17 | 1 | 0 | 0 |
| 112 | 0 | 1.08 | 25063 | 0 | 7 | 0 | 0 | 0 |
| 540 | 0 | 1.70 | 39367 | 0 | 48 | 238 | 227 | 218 |
| N5 P/S | 0 | 1.02 | 23552 | 0 | 17 | 4 | 0 | 0 |
| WEIR | 0 | 1.00 | 23111 | 0 | 1 | 0 | 0 | 0 |

```
Total number of iterations for all junctions..    914175
Minimum number of possible iterations.........    739552
Efficiency of the simulation..................      1.24
                                                  Good Efficiency

*=========================================================*
| Extran Efficiency is an indicator of the efficiency of  |
| the simulation.  Ideal efficiency is one iteration per  |
| time step.  Altering the underrelaxation parameter,     |
| lowering the time step, increasing the flow and head    |
| tolerance are good ways of improving the efficiency,    |
| another is lowering the internal time step. The lower the|
| efficiency generally the faster your model will run.    |
| If your efficiency is less than 1.5 then you may try    |
| increasing your time step so that your overall simulation|
| is faster.  Ideal efficiency would be around 2.0        |
|                                                         |
| Good Efficiency      < 1.5           mean iterations    |
| Excellent Efficiency < 2.5 and > 1.5 mean iterations    |
| Good      Efficiency < 4.0 and > 2.5 mean iterations    |
| Fair      Efficiency < 7.5 and > 4.0 mean iterations    |
| Poor Efficiency      > 7.5           mean iterations    |
*=========================================================*



*=========================================================*
|  T i m e  H i s t o r y  o f  t h e  H. G. L. (meters) |
*=========================================================*

          Max Ground Elevation:    100.00
   Time   Max Crown  Elevation:    100.00
          Junction:POND
 Hr:Mn:Sc  Elevation     Depth Totl Area Node Area    Volume    Inflow   Outflow
 --------  --------- --------- --------- --------- --------- --------- ---------

  0 41 40    83.5353    1.5353 57368.097 56887.514 44276.280    4.7897    0.0022
```

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 1 | 23 | 20 | 83.8959 | 1.8959 | 62122.091 | 61754.943 | 65667.552 | 8.2664 | 0.2464 |
| 2 | 5 | 0 | 84.4756 | 2.4756 | 69869.053 | 69558.960 | 103669.58 | 4.1301 | 1.0282 |
| 2 | 46 | 40 | 84.8091 | 2.8091 | 74420.382 | 74064.656 | 127646.21 | -0.9622 | 1.2085 |
| 3 | 28 | 20 | 84.9350 | 2.9350 | 75921.663 | 75770.822 | 137117.26 | -0.1687 | 1.2865 |
| 4 | 10 | 0 | 84.9090 | 2.9090 | 75578.610 | 75420.243 | 135153.57 | -0.0241 | 1.2758 |
| 4 | 51 | 40 | 84.8759 | 2.8759 | 75139.654 | 74973.348 | 132663.58 | -0.0157 | 1.2498 |
| 5 | 33 | 20 | 84.8437 | 2.8437 | 74711.774 | 74539.002 | 130257.70 | -0.0162 | 1.2234 |
| 6 | 15 | 0 | 84.8092 | 2.8092 | 74251.319 | 74072.960 | 127691.78 | -0.0208 | 1.1957 |
| 6 | 56 | 40 | 84.7744 | 2.7744 | 73785.080 | 73602.885 | 125119.97 | -0.0183 | 1.1720 |
| 7 | 38 | 20 | 84.7400 | 2.7400 | 73323.631 | 73139.331 | 122599.87 | -0.0139 | 1.1615 |
| 8 | 20 | 0 | 84.7060 | 2.7060 | 72864.903 | 72679.942 | 120118.12 | -0.0085 | 1.1521 |
| 9 | 1 | 40 | 84.6729 | 2.6729 | 72422.653 | 72234.718 | 117727.81 | -0.0066 | 1.1443 |
| 9 | 43 | 20 | 84.6400 | 2.6400 | 71988.532 | 71789.908 | 115354.40 | -0.0030 | 1.1283 |
| 10 | 25 | 0 | 84.6081 | 2.6081 | 71574.919 | 71359.614 | 113072.39 | -0.0017 | 1.1051 |
| 11 | 6 | 40 | 84.5775 | 2.5775 | 71174.578 | 70946.397 | 110893.86 | -0.0010 | 1.0773 |
| 11 | 48 | 20 | 84.5483 | 2.5483 | 70791.500 | 70552.491 | 108828.92 | 0.0003 | 1.0487 |
| 12 | 30 | 0 | 84.5201 | 2.5201 | 70419.477 | 70171.539 | 106842.82 | 0.0011 | 1.0186 |
| 13 | 11 | 40 | 84.4925 | 2.4925 | 70055.447 | 69799.671 | 104913.83 | 0.0020 | 0.9893 |
| 13 | 53 | 20 | 84.4657 | 2.4657 | 69700.978 | 69438.276 | 103047.38 | 0.0027 | 0.9591 |
| 14 | 35 | 0 | 84.4396 | 2.4396 | 69354.556 | 69085.987 | 101237.27 | 0.0033 | 0.9283 |
| 15 | 16 | 40 | 84.4142 | 2.4142 | 69017.737 | 68743.811 | 99487.961 | 0.0041 | 0.8977 |
| 15 | 58 | 20 | 84.3896 | 2.3896 | 68690.302 | 68411.936 | 97799.593 | 0.0046 | 0.8666 |
| 16 | 40 | 0 | 84.3657 | 2.3657 | 68372.195 | 68089.734 | 96168.255 | 0.0057 | 0.8364 |
| 17 | 21 | 40 | 84.3425 | 2.3425 | 68064.003 | 67778.148 | 94597.995 | 0.0052 | 0.8062 |
| 18 | 3 | 20 | 84.3202 | 2.3202 | 67765.314 | 67476.391 | 93084.126 | 0.0063 | 0.7771 |
| 18 | 45 | 0 | 84.2985 | 2.2985 | 67475.847 | 67184.287 | 91625.133 | 0.0063 | 0.7480 |
| 19 | 26 | 40 | 84.2776 | 2.2776 | 67195.771 | 66901.992 | 90221.142 | 0.0078 | 0.7199 |
| 20 | 8 | 20 | 84.2573 | 2.2573 | 66924.739 | 66628.968 | 88868.876 | 0.0070 | 0.6927 |
| 20 | 50 | 0 | 84.2377 | 2.2377 | 66661.966 | 66364.582 | 87564.673 | 0.0084 | 0.6660 |
| 21 | 31 | 40 | 84.2186 | 2.2186 | 66406.303 | 66107.539 | 86301.663 | 0.0075 | 0.6404 |
| 22 | 13 | 20 | 84.2001 | 2.2001 | 66157.865 | 65857.840 | 85079.427 | 0.0089 | 0.6152 |
| 22 | 55 | 0 | 84.1823 | 2.1823 | 65918.786 | 65617.839 | 83909.022 | 0.0070 | 0.5912 |
| 23 | 36 | 40 | 84.1651 | 2.1651 | 65688.206 | 65386.477 | 82784.797 | 0.0086 | 0.5682 |
| 24 | 18 | 20 | 84.1486 | 2.1486 | 65465.711 | 65163.358 | 81704.382 | 0.0072 | 0.5460 |
| 25 | 0 | 0 | 84.1326 | 2.1326 | 65251.038 | 64948.276 | 80666.377 | 0.0075 | 0.5247 |
| 25 | 41 | 40 | 84.1172 | 2.1172 | 65043.655 | 64740.597 | 79667.363 | 0.0091 | 0.5043 |
| 26 | 23 | 20 | 84.1023 | 2.1023 | 64842.806 | 64539.629 | 78703.685 | 0.0074 | 0.4845 |
| 27 | 5 | 0 | 84.0880 | 2.0880 | 64649.648 | 64346.343 | 77779.657 | 0.0086 | 0.4658 |
| 27 | 46 | 40 | 84.0742 | 2.0742 | 64463.763 | 64160.483 | 76893.746 | 0.0076 | 0.4479 |
| 28 | 28 | 20 | 84.0609 | 2.0609 | 64283.990 | 63980.885 | 76040.116 | 0.0072 | 0.4306 |
| 29 | 10 | 0 | 84.0480 | 2.0480 | 64109.914 | 63806.980 | 75215.837 | 0.0083 | 0.4141 |
| 29 | 51 | 40 | 84.0355 | 2.0355 | 63940.867 | 63638.217 | 74418.069 | 0.0089 | 0.3983 |
| 30 | 33 | 20 | 84.0233 | 2.0233 | 63777.159 | 63474.878 | 73647.946 | 0.0097 | 0.3831 |
| 31 | 15 | 0 | 84.0117 | 2.0117 | 63620.211 | 63318.379 | 72911.933 | 0.0084 | 0.3686 |
| 31 | 56 | 40 | 84.0006 | 2.0006 | 63469.191 | 63167.792 | 72205.432 | 0.0076 | 0.3549 |
| | Mean | | 84.36 | 2.36 | | | | | |
| | Maximum | | 84.93 | 2.93 | | | | | |
| | Minimum | | 83.5353 | 1.5353 | | | | | |

*=====================================================*
| Table E9 - JUNCTION SUMMARY STATISTICS |
| The Maximum area is only the area of the node, it |
| does not include the area of the surrounding conduits|
*=====================================================*

| Junction Name | Ground Elevation meters | Uppermost PipeCrown Elevation meters | Maximum Junction Elevation meters | Time of Occurence Hr. Min. | | Meters of Surcharge at Max Elevation meters | Freeboard of node meters | Maximum Junction Area m^2 | Maximum Gutter Depth meters | Maximum Gutter Width meters | Maximum Velocity m/s |
|---|---|---|---|---|---|---|---|---|---|---|---|
| POND | 100.0000 | 85.0500 | 84.9377 | 3 | 16 | 0.0000 | 15.0623 | 75806.628 | 0.0000 | 0.0000 | 0.0000 |
| MH 11 | 100.0000 | 83.8600 | 83.6200 | 2 | 59 | 0.0000 | 16.3800 | 1.2200 | 0.0000 | 0.0000 | 0.0000 |
| 102 | 100.0000 | 84.9000 | 85.0291 | 3 | 0 | 0.1291 | 14.9709 | 1.2200 | 0.0000 | 0.0000 | 0.0000 |
| 546 | 100.0000 | 84.9000 | 85.1653 | 3 | 0 | 0.2653 | 14.8347 | 1.2200 | 0.0000 | 0.0000 | 0.0000 |
| MH 4 | 100.0000 | 84.3800 | 84.4708 | 3 | 17 | 0.0908 | 15.5292 | 1.2200 | 0.0000 | 0.0000 | 0.0000 |
| 103 | 100.0000 | 85.1080 | 85.1205 | 3 | 0 | 0.0125 | 14.8795 | 1.2200 | 0.0000 | 0.0000 | 0.0000 |
| 545 | 100.0000 | 84.8600 | 85.2883 | 3 | 0 | 0.4283 | 14.7117 | 1.2200 | 0.0000 | 0.0000 | 0.0000 |

```
            544    100.0000   84.9200   85.3508      3    0      0.4308   14.6492    1.2200    0.0000
0.0000    0.0000
            543    100.0000   85.1200   85.4424      3    0      0.3224   14.5576    1.2200    0.0000
0.0000    0.0000
            542    100.0000   85.1700   85.5940      3    0      0.4240   14.4060    1.2200    0.0000
0.0000    0.0000
            541    100.0000   85.1900   85.7681      2   59      0.5781   14.2319    1.2200    0.0000
0.0000    0.0000
            539    100.0000   85.3900   86.0388      2   59      0.6488   13.9612    1.2200    0.0000
0.0000    0.0000
            529    100.0000   85.7200   86.3520      2   59      0.6320   13.6480    1.2200    0.0000
0.0000    0.0000
            510    100.0000   86.8300   86.9019      2   59      0.0719   13.0981    1.2200    0.0000
0.0000    0.0000
            505    100.0000   87.1600   87.1215      2   57      0.0000   12.8785    1.2200    0.0000
0.0000    0.0000
            507    100.0000   87.0300   87.0087      2   59      0.0000   12.9913    1.2200    0.0000
0.0000    0.0000
            522    100.0000   85.8800   86.4918      2   59      0.6118   13.5082    1.2200    0.0000
0.0000    0.0000
            521    100.0000   86.1900   86.6902      2   59      0.5002   13.3098    1.2200    0.0000
0.0000    0.0000
            514    100.0000   86.4700   86.7767      3    0      0.3067   13.2233    1.2200    0.0000
0.0000    0.0000
            512    100.0000   86.8400   86.8268      3    0      0.0000   13.1732    1.2200    0.0000
0.0000    0.0000
            104    100.0000   85.2430   85.2321      2   16      0.0000   14.7679    1.2200    0.0000
0.0000    0.0000
            105    100.0000   85.3210   85.3712      2   15      0.0502   14.6288    1.2200    0.0000
0.0000    0.0000
            106    100.0000   85.3990   85.4128      2   15      0.0138   14.5872    1.2200    0.0000
0.0000    0.0000
            107    100.0000   85.5030   85.5095      2    8      0.0065   14.4905    1.2200    0.0000
0.0000    0.0000
            108    100.0000   85.6290   85.6037      2    7      0.0000   14.3963    1.2200    0.0000
0.0000    0.0000
            109    100.0000   85.7880   85.5919      2    7      0.0000   14.4081    1.2200    0.0000
0.0000    0.0000
            110    100.0000   85.9290   85.7611      2    5      0.0000   14.2389    1.2200    0.0000
0.0000    0.0000
            111    100.0000   86.0420   85.7868      2    5      0.0000   14.2132    1.2200    0.0000
0.0000    0.0000
            112    100.0000   86.3040   85.8863      2    4      0.0000   14.1137    1.2200    0.0000
0.0000    0.0000
            540    100.0000   85.2500   85.8282      3    0      0.5782   14.1718    1.2200    0.0000
0.0000    0.0000
          N5 P/S   100.0000   84.4390   84.5665      3   20      0.1275   15.4335    1.2200    0.0000
0.0000    0.0000
            WEIR   100.0000   83.7640   84.6570      1   13      0.8930   15.3430    1.2200    0.0000
0.0000    0.0000


 *=========================================*
 |     Time History of Flow and Velocity     |
 |    Q(cms), Vel(m/s), Total(cubic meters)  |
 *=========================================*


   Time      Conduit:OUT 2
 Hr:Mn:Sc       Flow   Velocity     X-Area   H-Radius     Up HGL   Down HGL   Up Node  Down Node
Volume
 --------      -----   --------   --------   --------   --------  ---------  --------  ---------  ----
-----
   0 41 40 8.1755E-02 0.5337     0.1532     0.1397      83.40      82.81      83.40      82.81
18.64
   1 23 20 0.2477     0.7465     0.3318     0.2228      83.58      82.92      83.58      82.92
72.18
   2  5  0  1.006      1.090     0.9224     0.3620      84.09      83.45      84.09      83.45
457.7
   2 46 40  1.279      1.139      1.122     0.3065      84.38      83.61      84.38      83.61
557.1
   3 28 20  1.399      1.218      1.149     0.3063      84.47      83.58      84.47      83.58
555.5
   4 10  0  1.387      1.224      1.133     0.3052      84.45      83.48      84.45      83.48
524.4
   4 51 40  1.362      1.216      1.120     0.3039      84.43      83.41      84.43      83.41
500.2
   5 33 20  1.336      1.204      1.109     0.3030      84.42      83.37      84.42      83.37
485.9
   6 15  0  1.309      1.192      1.099     0.3026      84.39      83.35      84.39      83.35
478.0
```

```
   6 56 40  1.285      1.180      1.089      0.3025      84.37      83.35      84.37      83.35
474.0
   7 38 20  1.278      1.185      1.079      0.3215      84.34      83.36      84.34      83.36
473.6
   8 20  0  1.267      1.189      1.065      0.3418      84.30      83.36      84.30      83.36
469.5
   9  1 40  1.255      1.187      1.058      0.3445      84.29      83.34      84.29      83.34
462.9
   9 43 20  1.242      1.184      1.049      0.3471      84.28      83.32      84.28      83.32
454.9
  10 25  0  1.219      1.178      1.035      0.3507      84.26      83.30      84.26      83.30
444.0
  11  6 40  1.192      1.170      1.018      0.3531      84.24      83.28      84.24      83.28
433.4
  11 48 20  1.163      1.162      1.001      0.3551      84.21      83.26      84.21      83.26
421.4
  12 30  0  1.134      1.153     0.9830      0.3559      84.19      83.24      84.19      83.24
409.9
  13 11 40  1.105      1.145     0.9652      0.3571      84.17      83.23      84.17      83.23
402.6
  13 53 20  1.075      1.136     0.9462      0.3570      84.15      83.22      84.15      83.22
394.8
  14 35  0  1.044      1.126     0.9270      0.3570      84.13      83.21      84.13      83.21
386.9
  15 16 40  1.013      1.117     0.9072      0.3560      84.11      83.21      84.11      83.21
378.8
  15 58 20 0.9822      1.107     0.8873      0.3549      84.09      83.20      84.09      83.20
370.7
  16 40  0 0.9515      1.097     0.8675      0.3532      84.06      83.19      84.06      83.19
362.6
  17 21 40 0.9213      1.087     0.8478      0.3511      84.05      83.18      84.05      83.18
354.4
  18  3 20 0.8920      1.077     0.8284      0.3490      84.03      83.17      84.03      83.17
346.3
  18 45  0 0.8630      1.067     0.8089      0.3466      84.01      83.16      84.01      83.16
336.4
  19 26 40 0.8350      1.057     0.7899      0.3442      83.99      83.15      83.99      83.15
323.0
  20  8 20 0.8075      1.047     0.7711      0.3414      83.97      83.14      83.97      83.14
310.2
  20 50  0 0.7808      1.037     0.7528      0.3382      83.95      83.14      83.95      83.14
297.6
  21 31 40 0.7550      1.027     0.7349      0.3351      83.94      83.13      83.94      83.13
285.4
  22 13 20 0.7298      1.017     0.7172      0.3318      83.92      83.12      83.92      83.12
273.5
  22 55  0 0.7056      1.008     0.7001      0.3285      83.91      83.11      83.91      83.11
262.4
  23 36 40 0.6825     0.9986     0.6835      0.3253      83.89      83.10      83.89      83.10
251.9
  24 18 20 0.6600     0.9892     0.6672      0.3220      83.88      83.10      83.88      83.10
241.9
  25  0  0 0.6385     0.9800     0.6516      0.3186      83.86      83.09      83.86      83.09
232.3
  25 41 40 0.6180     0.9710     0.6365      0.3152      83.85      83.08      83.85      83.08
222.9
  26 23 20 0.5982     0.9622     0.6217      0.3119      83.84      83.07      83.84      83.07
214.0
  27  5  0 0.5792     0.9534     0.6076      0.3084      83.82      83.07      83.82      83.07
205.7
  27 46 40 0.5611     0.9448     0.5939      0.3051      83.81      83.06      83.81      83.06
197.8
  28 28 20 0.5437     0.9365     0.5806      0.3018      83.80      83.05      83.80      83.05
190.4
  29 10  0 0.5271     0.9284     0.5678      0.2986      83.79      83.05      83.79      83.05
183.4
  29 51 40 0.5111     0.9204     0.5553      0.2952      83.78      83.04      83.78      83.04
176.6
  30 33 20 0.4958     0.9124     0.5434      0.2920      83.77      83.04      83.77      83.04
169.9
  31 15  0 0.4812     0.9048     0.5318      0.2889      83.76      83.03      83.76      83.03
163.7
  31 56 40 0.4673     0.8974     0.5208      0.2859      83.75      83.02      83.75      83.02
157.8
     Mean     0.8971    1.0566
  Maximum     1.3988    1.2245
  Minimum     0.0818    0.5337
    Total  1.215E+05
```

```
 *==========================================*
 |     Time History of Flow and Velocity     |
 |    Q(cms), Vel(m/s), Total(cubic meters)  |
 *==========================================*


   Time      Conduit:OUT 1
 Hr:Mn:Sc       Flow   Velocity     X-Area   H-Radius     Up HGL   Down HGL   Up Node  Down Node
Volume
 --------      -----   --------   --------   --------   --------  ----------  --------  ----------  ----
-----
   0 41 40 2.2315E-03 9.0244E-02 2.4678E-02 3.5132E-02  83.54      83.40      83.54      83.40
15.03
   1 23 20 0.2464     0.7562     0.3260     0.2216      83.90      83.58      83.90      83.58
106.5
   2  5  0  1.028      1.051     0.9778     0.3647      84.48      84.09      84.48      84.09
309.5
   2 46 40  1.208      1.032      1.171     0.3000      84.81      84.38      84.81      84.38
374.9
   3 28 20  1.287      1.096      1.174     0.3000      84.94      84.47      84.93      84.47
380.4
   4 10  0  1.276      1.081      1.180     0.3000      84.91      84.45      84.91      84.45
380.2
   4 51 40  1.250      1.057      1.183     0.3000      84.88      84.43      84.88      84.43
379.6
   5 33 20  1.223      1.037      1.180     0.3000      84.84      84.42      84.84      84.42
378.1
   6 15  0  1.196      1.020      1.172     0.3000      84.81      84.39      84.81      84.39
375.7
   6 56 40  1.172      1.010      1.160     0.3006      84.77      84.37      84.77      84.37
372.5
   7 38 20  1.162      1.013      1.146     0.3034      84.74      84.34      84.74      84.34
368.4
   8 20  0  1.152      1.019      1.130     0.3048      84.71      84.30      84.71      84.30
362.8
   9  1 40  1.144      1.022      1.119     0.3252      84.67      84.29      84.67      84.29
359.9
   9 43 20  1.128      1.020      1.107     0.3442      84.64      84.28      84.64      84.28
356.5
  10 25  0  1.105      1.015      1.089     0.3527      84.61      84.26      84.61      84.26
351.2
  11  6 40  1.077      1.009      1.068     0.3579      84.58      84.24      84.58      84.24
345.1
  11 48 20  1.049      1.002      1.047     0.3616      84.55      84.21      84.55      84.21
338.7
  12 30  0  1.019     0.9950      1.024     0.3636      84.52      84.19      84.52      84.19
332.0
  13 11 40 0.9893     0.9895     0.9998     0.3647      84.49      84.17      84.49      84.17
324.8
  13 53 20 0.9591     0.9831     0.9756     0.3650      84.47      84.15      84.47      84.15
317.5
  14 35  0 0.9283     0.9767     0.9505     0.3642      84.44      84.13      84.44      84.13
309.9
  15 16 40 0.8977     0.9698     0.9256     0.3632      84.41      84.11      84.41      84.11
302.4
  15 58 20 0.8666     0.9625     0.9003     0.3609      84.39      84.09      84.39      84.09
294.8
  16 40  0 0.8364     0.9552     0.8756     0.3586      84.37      84.06      84.37      84.06
287.2
  17 21 40 0.8062     0.9477     0.8507     0.3558      84.34      84.05      84.34      84.05
279.7
  18  3 20 0.7771     0.9403     0.8264     0.3530      84.32      84.03      84.32      84.03
272.3
  18 45  0 0.7480     0.9323     0.8023     0.3494      84.30      84.01      84.30      84.01
264.9
  19 26 40 0.7199     0.9244     0.7788     0.3456      84.28      83.99      84.28      83.99
257.8
  20  8 20 0.6927     0.9164     0.7558     0.3416      84.26      83.97      84.26      83.97
250.7
  20 50  0 0.6660     0.9082     0.7333     0.3375      84.24      83.95      84.24      83.95
243.9
  21 31 40 0.6404     0.9001     0.7115     0.3335      84.22      83.94      84.22      83.94
237.2
  22 13 20 0.6152     0.8917     0.6899     0.3290      84.20      83.92      84.20      83.92
230.5
  22 55  0 0.5912     0.8835     0.6692     0.3247      84.18      83.91      84.18      83.91
224.2
  23 36 40 0.5682     0.8754     0.6491     0.3202      84.17      83.89      84.17      83.89
218.0
```

```
  24 18 20 0.5460     0.8673     0.6295     0.3156      84.15      83.88      84.15      83.88
212.0
  25  0  0 0.5247     0.8592     0.6107     0.3111      84.13      83.86      84.13      83.86
206.2
  25 41 40 0.5043     0.8511     0.5925     0.3066      84.12      83.85      84.12      83.85
200.6
  26 23 20 0.4845     0.8430     0.5748     0.3020      84.10      83.84      84.10      83.84
195.2
  27  5  0 0.4658     0.8350     0.5578     0.2976      84.09      83.82      84.09      83.82
189.9
  27 46 40 0.4479     0.8272     0.5415     0.2933      84.07      83.81      84.07      83.81
184.9
  28 28 20 0.4306     0.8192     0.5257     0.2887      84.06      83.80      84.06      83.80
180.0
  29 10  0 0.4141     0.8113     0.5105     0.2843      84.05      83.79      84.05      83.79
175.3
  29 51 40 0.3983     0.8035     0.4957     0.2800      84.04      83.78      84.04      83.78
170.7
  30 33 20 0.3831     0.7957     0.4814     0.2757      84.02      83.77      84.02      83.77
166.3
  31 15  0 0.3686     0.7879     0.4679     0.2715      84.01      83.76      84.01      83.76
162.1
  31 56 40 0.3549     0.7802     0.4549     0.2673      84.00      83.75      84.00      83.75
158.1
     Mean     0.7902    0.9166
  Maximum     1.2865    1.0959
  Minimum     0.0022    0.0902
    Total  1.054E+05
```

```
 *=====================================================*
 |        Table E10 - CONDUIT SUMMARY STATISTICS       |
 | Note: The peak flow may be less than the design flow |
 | and the conduit may still surcharge because of the  |
 | downstream boundary conditions.                     |
 |                                                     |
 | * denotes an open conduit that has been overtopped  |
 |   this is a potential source of severe errors       |
 *=====================================================*
```

| Conduit Name | Design Flow (cms) | Conduit Velocity (m/s) | Maximum Vertical Depth (mm) | Maximum Computed Flow (cms) | Time of Occurence Hr. | Time of Occurence Min. | Maximum Computed Velocity (m/s) | Time of Occurence Hr. | Time of Occurence Min. | Ratio of Max. to Design Flow | Maximum Depth at Pipe Ends US (m) | Maximum Depth at Pipe Ends DS (m) | Ratio d/D Upstrm | Ratio d/D Dwnstrm |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OUT 2 | 1.2017 | 1.0625 | 1200.000 | 1.3998 | 3 | 30 | 1.2246 | 4 | 1 | 1.1649 | 84.4708 | 83.6200 | 1.089 | .8000 |
| OUT 1 | 1.2234 | 1.0817 | 1200.000 | 1.2878 | 3 | 34 | 1.0965 | 3 | 32 | 1.0527 | 84.9377 | 84.4708 | 1.198 | 1.075 |
| P103 | 6.5906 | 1.6576 | 2250.000 | 6.0341 | 2 | 3 | 1.5787 | 1 | 32 | 0.9156 | 85.1205 | 85.0291 | 1.005 | 1.058 |
| P545 | 6.4097 | 2.1462 | 1950.000 | 5.4091 | 2 | 20 | 1.7551 | 1 | 28 | 0.8439 | 85.2881 | 85.1653 | 1.219 | 1.228 |
| P505 | 1.2029 | 1.3891 | 1050.000 | 0.9395 | 2 | 8 | 1.3744 | 1 | 41 | 0.7811 | 87.1215 | 87.0087 | .9634 | .9798 |
| P507 | 1.2212 | 1.4103 | 1050.000 | 0.9523 | 3 | 1 | 1.3965 | 1 | 35 | 0.7798 | 87.0087 | 86.9019 | 1.036 | 1.068 |
| P510 | 1.2448 | 1.4376 | 1050.000 | 1.0060 | 3 | 2 | 1.5348 | 1 | 34 | 0.8082 | 86.9019 | 86.8268 | 1.068 | 1.073 |
| P512 | 2.7948 | 2.4712 | 1200.000 | 1.1016 | 3 | 3 | 1.6348 | 1 | 19 | 0.3942 | 86.8268 | 86.7767 | .9890 | 1.255 |
| P514 | 1.7467 | 1.5444 | 1200.000 | 1.2508 | 3 | 3 | 1.3518 | 3 | 6 | 0.7161 | 86.7767 | 86.6902 | 1.255 | 1.416 |
| P521 | 1.7546 | 1.5514 | 1200.000 | 1.6952 | 2 | 25 | 1.5268 | 1 | 20 | 0.9662 | 86.6916 | 86.4918 | 1.543 | 1.509 |
| P522 | 1.7715 | 1.5663 | 1200.000 | 1.6934 | 2 | 27 | 1.5919 | 1 | 16 | 0.9559 | 86.4923 | 86.3511 | 1.510 | 1.525 |
| P529 | 1.9643 | 1.7368 | 1200.000 | 1.8537 | 3 | 3 | 1.6326 | 1 | 10 | 0.9437 | 86.3520 | 86.0332 | 1.526 | 1.536 |
| P539 | 3.5269 | 1.6494 | 1650.000 | 3.2748 | 2 | 26 | 1.5281 | 2 | 26 | 0.9285 | 86.0332 | 85.8210 | 1.389 | 1.346 |
| P540 | 3.4246 | 1.6016 | 1650.000 | 3.2658 | 2 | 25 | 1.5216 | 2 | 27 | 0.9536 | 85.8210 | 85.7681 | 1.346 | 1.350 |
| P541 | 3.5750 | 1.6719 | 1650.000 | 3.5908 | 2 | 22 | 1.6693 | 2 | 27 | 1.0044 | 85.7603 | 85.5940 | 1.345 | 1.347 |

```
           P542   4.4828   1.7616 1800.000   3.8294     2    22   1.4974     1   23   0.8542  85.5893
85.4425 1.233 1.262
           P543   5.5495   1.8582 1950.000   3.8164     2    20   1.2878     1   28   0.6877  85.4426
85.3508 1.165 1.220
           P544   5.5459   1.8570 1950.000   5.4123     2    20   1.7624     1   28   0.9759  85.3507
85.2883 1.220 1.219
           P112   2.7352   1.5478 1500.000   1.6521     1    37   1.5206     1   12   0.6040  85.8863
85.7868 .7215 .8299
           P111   3.6350   1.4284 1800.000   1.9222     1    54   0.9896     0   40   0.5288  85.7868
85.7611 .8610 .9067
           P110   3.6350   1.4284 1800.000   3.3230     1    54   1.6121     1   12   0.9142  85.7611
85.5919 .9067 .8911
           P109   4.9293   1.6506 1950.000   3.3038     2     4   1.6217     0   39   0.6702  85.5919
85.6037 .9010 .9870
           P108   4.9293   1.6506 1950.000   3.2962     2     5   1.3092     0   45   0.6687  85.6037
85.5095 1.002 1.003
           P107   6.5906   1.6576 2250.000   4.7505     1    55   1.2403     1   23   0.7208  85.5095
85.4128 1.004 1.006
           P106   6.5906   1.6576 2250.000   4.7380     1    55   1.2270     1   34   0.7189  85.4128
85.3712 1.006 1.022
           P105   6.5906   1.6576 2250.000   6.0600     2     2   1.5552     1   32   0.9195  85.3711
85.2321 1.022 .9952
           P104   6.5906   1.6576 2250.000   6.0514     2     2   1.5550     1   32   0.9182  85.2321
85.1205 1.021 1.005
         SAN O/F   0.2658   0.7428 675.0000   0.1138     1     6   0.7132     1    6   0.4281  84.5665
84.4708 1.188 1.936
        F.F.EAST   2.5851   1.5958 900.0000   3.6257     1    19   2.2272     1   19   1.4025  85.0290
84.9377 2.654 2.653
        O/F EAST   5.2828   2.4458 1200.000  -3.2530     2    11  -1.6487     1   19  -0.6158  85.0290
84.9377 .9825 1.031
       F.F. WEST   1.6838   1.0394 900.0000   3.6341     1    19   2.2334     1   19   2.1583  85.1653
84.9377 2.694 2.486
        O/F WEST   3.5963   1.6649 1200.000  -3.1484     2    37  -1.4740     1   19  -0.8755  85.1653
84.9377 1.096 1.031
          weir 1  Undefnd  Undefnd  Undefn    0.1090     1    14
        FREE # 1  Undefnd  Undefnd  Undefn    1.3998     3    30
```

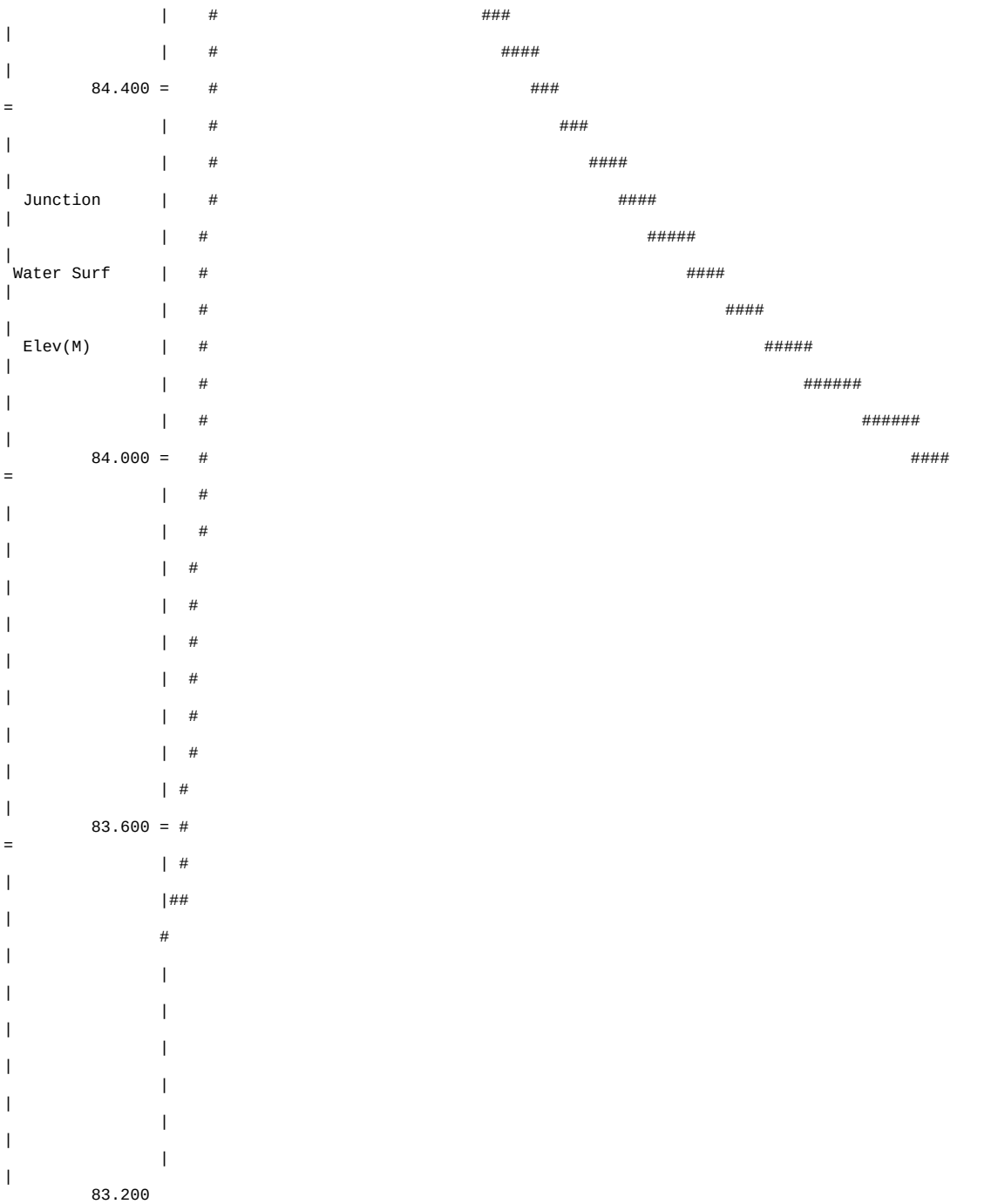
*Table E11. Area assumptions used in the analysis| Subcritical and Critical flow assumptions from | Subroutine Head. See manual for more information.|*

| Conduit Name | Duration of Dry Flow(min) | Duration of Sub-Critical Flow(min) | Durat. of Upstream Critical Flow(min) | Durat. of Downstream Critical Flow(min) | Maximum Hydraulic Radius-m | Maximum X-Sect Area(m^2) | Maximum Vel*D (m^2/s) |
|---|---|---|---|---|---|---|---|
| OUT 2 | 1.5000 | 1918.5000 | 0.0000 | 0.0000 | 0.3638 | 1.1528 | 1.3571 |
| OUT 1 | 15.5833 | 1904.4167 | 0.0000 | 0.0000 | 0.3651 | 1.1826 | 1.4936 |
| P103 | 0.0000 | 1920.0000 | 0.0000 | 0.0000 | 0.6845 | 3.9969 | 3.3803 |
| P545 | 0.0000 | 1920.0000 | 0.0000 | 0.0000 | 0.5932 | 3.1308 | 4.0302 |
| P505 | 15.0833 | 155.8333 | 0.0000 | 1749.0833 | 0.3194 | 0.8557 | 1.1048 |
| P507 | 1402.0833 | 517.9167 | 0.0000 | 0.0000 | 0.3194 | 0.8826 | 1.1568 |
| P510 | 19.5833 | 91.9167 | 0.0000 | 1808.5000 | 0.3194 | 0.8934 | 1.1845 |
| P512 | 1359.5833 | 560.4167 | 0.0000 | 0.0000 | 0.3593 | 1.1287 | 1.2237 |
| P514 | 25.1667 | 165.0833 | 0.0000 | 1729.7500 | 0.3647 | 1.1828 | 1.3501 |
| P521 | 15.0000 | 1905.0000 | 0.0000 | 0.0000 | 0.3651 | 1.1855 | 2.6348 |
| P522 | 1393.5833 | 526.4167 | 0.0000 | 0.0000 | 0.3651 | 1.1855 | 2.6000 |
| P529 | 1188.0833 | 695.5000 | 0.0000 | 36.4167 | 0.3650 | 1.1855 | 2.7739 |
| P539 | 15.0833 | 1904.9167 | 0.0000 | 0.0000 | 0.5019 | 2.2414 | 3.3195 |
| P540 | 15.1667 | 1904.8333 | 0.0000 | 0.0000 | 0.5020 | 2.2416 | 3.2509 |
| P541 | 15.1667 | 1904.8333 | 0.0000 | 0.0000 | 0.5019 | 2.2416 | 3.5520 |
| P542 | 0.0000 | 1920.0000 | 0.0000 | 0.0000 | 0.5473 | 2.6669 | 3.1616 |
| P543 | 0.0000 | 1920.0000 | 0.0000 | 0.0000 | 0.5928 | 3.1276 | 2.7094 |
| P544 | 0.0000 | 1920.0000 | 0.0000 | 0.0000 | 0.5933 | 3.1308 | 4.0245 |
| P112 | 1326.2500 | 570.0000 | 0.0000 | 23.7500 | 0.4488 | 1.3851 | 1.3821 |
| P111 | 666.7500 | 1253.2500 | 0.0000 | 0.0000 | 0.5475 | 2.3384 | 1.3012 |
| P110 | 408.9167 | 1480.8333 | 0.0000 | 30.2500 | 0.5476 | 2.4205 | 2.2146 |
| P109 | 15.1667 | 1886.8333 | 0.0000 | 18.0000 | 0.5922 | 2.8455 | 2.1353 |
| P108 | 18.5000 | 1889.2500 | 0.0000 | 12.2500 | 0.5933 | 2.9902 | 2.1533 |
| P107 | 0.0000 | 1920.0000 | 0.0000 | 0.0000 | 0.6845 | 3.9855 | 2.6783 |
| P106 | 0.0000 | 1920.0000 | 0.0000 | 0.0000 | 0.6845 | 3.9914 | 2.6914 |
| P105 | 0.0000 | 1920.0000 | 0.0000 | 0.0000 | 0.6845 | 4.0149 | 3.4029 |
| P104 | 0.0000 | 1920.0000 | 0.0000 | 0.0000 | 0.6845 | 4.0141 | 3.3911 |
| SAN O/F | 0.2750 | 1919.7250 | 0.0000 | 0.0000 | 0.2017 | 0.3736 | 0.3115 |
| F.F.EAST | 0.0000 | 1920.0000 | 0.0000 | 0.0000 | 0.3384 | 1.7741 | 3.8278 |
| O/F EAST | 48.0000 | 1788.2500 | 83.7500 | 0.0000 | 0.4875 | 2.3024 | 1.5048 |
| F.F. WEST | 0.0000 | 1920.0000 | 0.0000 | 0.0000 | 0.4260 | 1.7524 | 3.3702 |
| O/F WEST | 48.5000 | 1793.4167 | 78.0833 | 0.0000 | 0.4875 | 2.3233 | 1.7087 |

*==========================================*
| Table E12. Mean Conduit Flow Information |
*==========================================*

| Conduit Name | Mean Flow (cms) | Total Flow (m^3) | Mean Percent Change | Low Flow Weightng | Mean Froude Number | Mean Hydraulic Radius | Mean Cross Area | Mean Conduit Roughness |
|---|---|---|---|---|---|---|---|---|
| OUT 2 | 0.8916 | 102707.70 | 0.0020 | 0.9978 | 0.4671 | 0.3185 | 0.8136 | 0.0130 |
| OUT 1 | 0.7861 | 90559.771 | 0.0020 | 0.9906 | 0.3215 | 0.3119 | 0.8162 | 0.0130 |
| P103 | 0.4049 | 46640.947 | 0.0128 | 1.0000 | 0.0283 | 0.6328 | 2.8946 | 0.1190 |
| P545 | 0.3886 | 44767.947 | 0.0136 | 1.0000 | 0.0351 | 0.5507 | 2.3865 | 0.1190 |
| P505 | 0.0658 | 7585.8422 | 0.0022 | 0.2603 | 0.2953 | 0.0296 | 0.0567 | 0.0130 |
| P507 | 0.0658 | 7584.9397 | 0.0023 | 0.2705 | 0.1931 | 0.0288 | 0.0576 | 0.0130 |
| P510 | 0.0658 | 7579.2201 | 0.0026 | 0.2904 | 0.3139 | 0.0284 | 0.0561 | 0.0130 |
| P512 | 0.0658 | 7577.6783 | 0.0028 | 0.2923 | 0.2467 | 0.0296 | 0.0623 | 0.0130 |
| P514 | 0.0658 | 7575.5952 | 0.0031 | 0.4305 | 0.5671 | 0.0314 | 0.0743 | 0.0130 |
| P521 | 0.1175 | 13538.923 | 0.0041 | 0.4410 | 0.3034 | 0.0354 | 0.0876 | 0.0130 |
| P522 | 0.1175 | 13538.777 | 0.0044 | 0.2750 | 0.0637 | 0.0458 | 0.1007 | 0.0130 |
| P529 | 0.1330 | 15320.013 | 0.0050 | 0.3815 | 0.0694 | 0.0729 | 0.1438 | 0.0130 |
| P539 | 0.2334 | 26885.574 | 0.0098 | 0.9909 | 0.0423 | 0.3405 | 0.9001 | 0.0130 |
| P540 | 0.2332 | 26866.568 | 0.0113 | 0.9908 | 0.0397 | 0.3792 | 1.0696 | 0.0130 |
| P541 | 0.2564 | 29542.315 | 0.0107 | 0.9908 | 0.0405 | 0.3980 | 1.1703 | 0.0130 |
| P542 | 0.2746 | 31630.436 | 0.0099 | 1.0000 | 0.0346 | 0.4611 | 1.5376 | 0.1190 |
| P543 | 0.2736 | 31522.930 | 0.0097 | 1.0000 | 0.0274 | 0.5261 | 1.9938 | 0.1190 |
| P544 | 0.3891 | 44820.666 | 0.0143 | 1.0000 | 0.0357 | 0.5478 | 2.2883 | 0.1190 |
| P112 | 0.0922 | 10625.983 | 0.0036 | 0.3100 | 0.0509 | 0.0431 | 0.0926 | 0.0130 |
| P111 | 0.1177 | 13558.021 | 0.0055 | 0.6525 | 0.0326 | 0.1526 | 0.3566 | 0.0130 |
| P110 | 0.2178 | 25090.964 | 0.0073 | 0.7864 | 0.0555 | 0.1918 | 0.4561 | 0.0130 |
| P109 | 0.2180 | 25116.541 | 0.0099 | 0.9908 | 0.0462 | 0.3246 | 0.8683 | 0.0130 |
| P108 | 0.2177 | 25076.133 | 0.0086 | 0.9890 | 0.0402 | 0.3945 | 1.1669 | 0.0130 |
| P107 | 0.3169 | 36503.513 | 0.0114 | 1.0000 | 0.0248 | 0.5532 | 2.1170 | 0.1190 |
| P106 | 0.3161 | 36419.685 | 0.0117 | 1.0000 | 0.0237 | 0.5786 | 2.3113 | 0.1190 |
| P105 | 0.4070 | 46886.575 | 0.0134 | 1.0000 | 0.0296 | 0.5962 | 2.4676 | 0.1190 |
| P104 | 0.4063 | 46803.821 | 0.0137 | 1.0000 | 0.0285 | 0.6219 | 2.7334 | 0.1190 |
| SAN O/F | 0.1083 | 12471.445 | 0.0002 | 0.9988 | 0.2228 | 0.1803 | 0.2653 | 0.0142 |
| F.F.EAST | 0.2292 | 26406.088 | 0.0084 | 1.0000 | 0.0361 | 0.3005 | 1.6280 | 0.1190 |
| O/F EAST | -0.1742 | -20066.96 | 0.0077 | 0.9737 | 0.0000 | 0.3467 | 1.2055 | 0.0130 |
| F.F. WEST | 0.2362 | 27208.646 | 0.0096 | 1.0000 | 0.0391 | 0.3024 | 1.6229 | 0.1190 |
| O/F WEST | -0.1725 | -19870.83 | 0.0068 | 0.9735 | 0.0000 | 0.3448 | 1.2076 | 0.0130 |
| weir 1 | 0.1089 | 12548.929 | | | | | | |
| FREE # 1 | 0.8916 | 102709.13 | | | | | | |



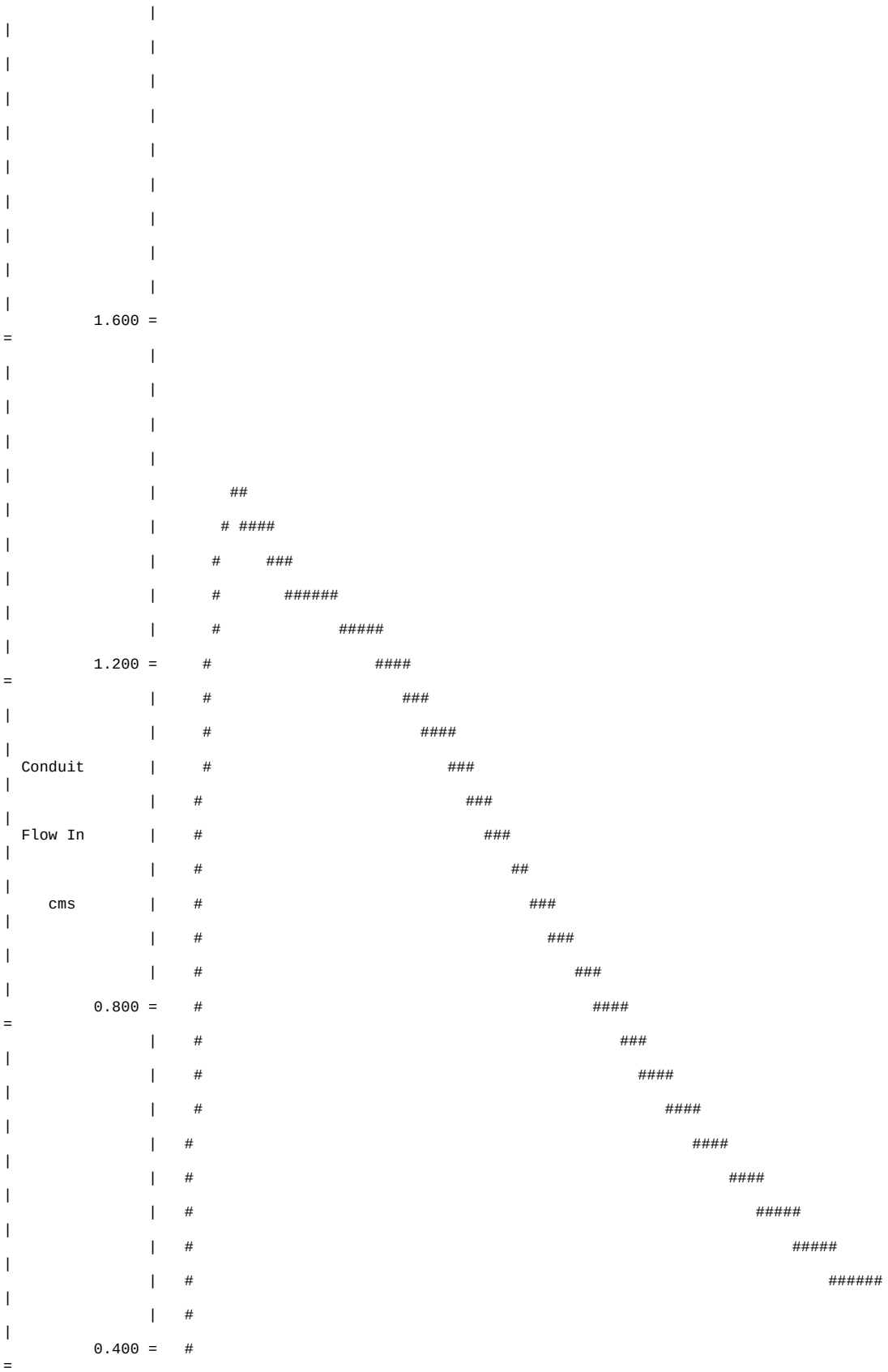


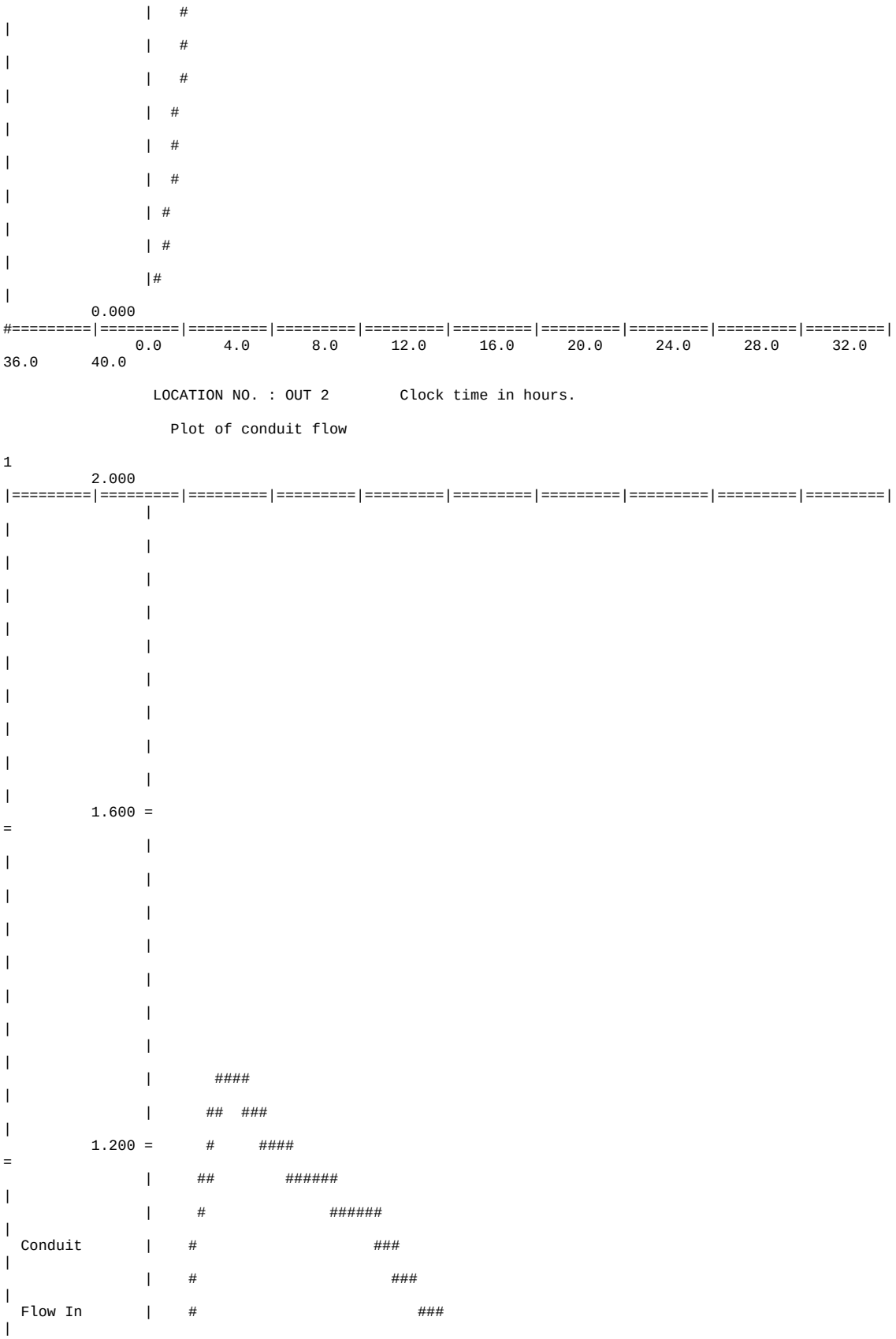

LOCATION NO. : POND  Clock time in hours.

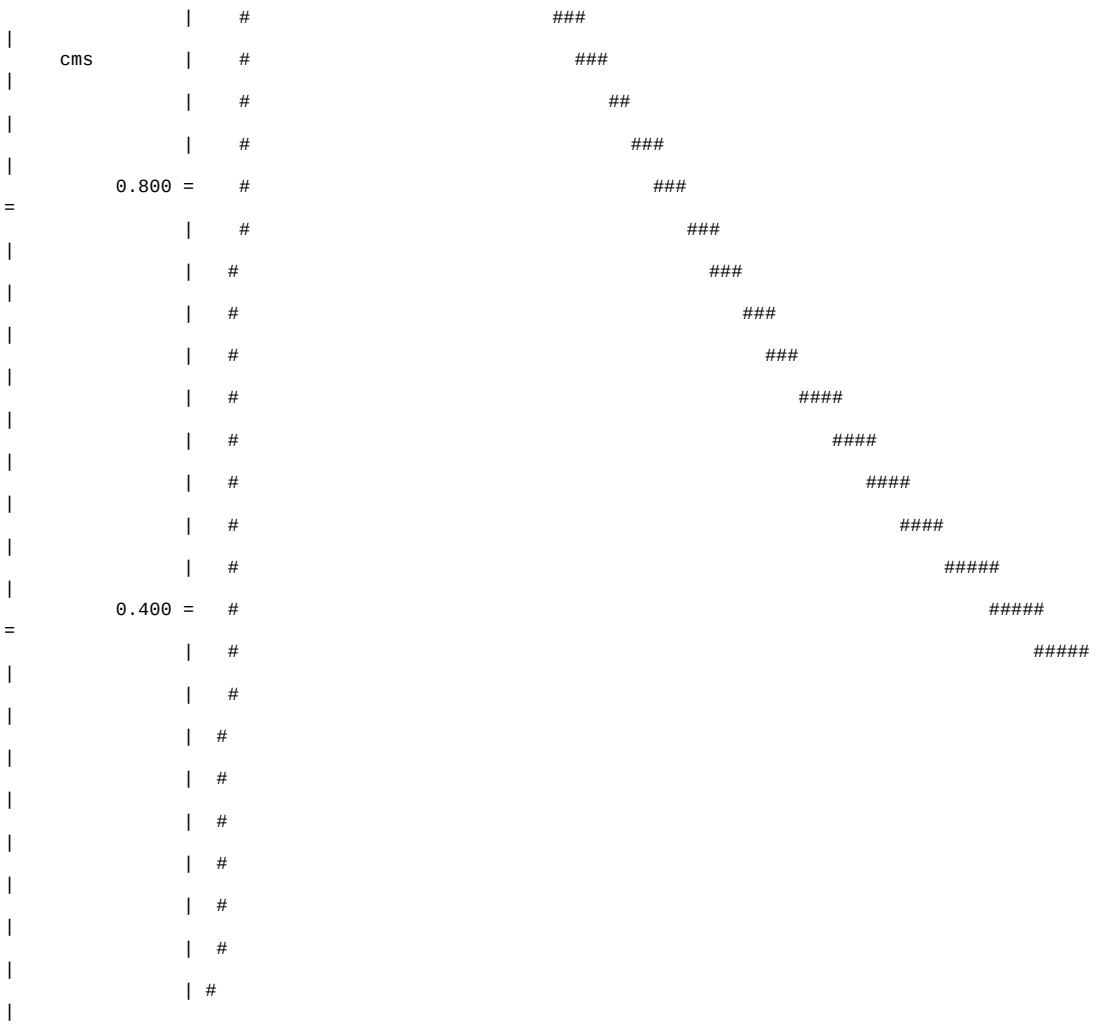
Plot of Junction Elevation

Invert Elev - 82.00 meters
Crown Elev - 85.05 meters
Ground Elev - 100.00 meters

1
2.000


1.600
1.200
0.800
0.400
Conduit
Flow In
cms


0.000
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
LOCATION NO. : OUT 2
Clock time in hours.
Plot of conduit flow
1
2.000
1.600
1.200
Conduit
Flow In




LOCATION NO. : OUT 1 Clock time in hours.

Plot of conduit flow

| Table E13. Channel losses(H), headwater depth (HW), tailwater depth (TW), critical and normal depth (Yc and Yn). Use this section for culvert comparisons |

| Conduit Name | Maximum Flow | Head Loss | Friction Loss | Critical Depth | Normal Depth | HW Elevat | TW Elevat | |
|---|---|---|---|---|---|---|---|---|
| OUT 2 | 1.3998 | 0.1895 | 0.6459 | 0.6456 | 1.2000 | 84.4650 | 83.5695 | Max Flow |
| OUT 1 | 1.2878 | 0.1402 | 0.3288 | 0.6182 | 1.0538 | 84.9328 | 84.4634 | Max Flow |
| P103 | 6.0341 | 0.0299 | 0.1612 | 1.1425 | 1.6941 | 85.0505 | 84.8579 | Max Flow |
| P545 | 5.4091 | 0.0382 | 0.0912 | 1.1277 | 1.3741 | 85.0860 | 84.9563 | Max Flow |
| P505 | 0.9395 | 0.0642 | 0.0823 | 0.5463 | 0.6984 | 86.9566 | 86.8045 | Max Flow |
| P507 | 0.9523 | 0.0436 | 0.0739 | 0.5501 | 0.6976 | 86.8938 | 86.7710 | Max Flow |
| P510 | 1.0060 | 0.0527 | 0.0456 | 0.5659 | 0.7156 | 86.7406 | 86.6323 | Max Flow |
| P512 | 1.1016 | 0.0747 | 0.0693 | 0.5697 | 0.5235 | 86.5240 | 86.4180 | Max Flow |
| P514 | 1.2508 | 0.0452 | 0.1262 | 0.6087 | 0.7516 | 86.4067 | 86.2166 | Max Flow |
| P521 | 1.6952 | 0.0796 | 0.1485 | 0.7139 | 0.9494 | 86.6069 | 86.3750 | Max Flow |
| P522 | 1.6934 | 0.0114 | 0.1454 | 0.7135 | 0.9399 | 86.3864 | 86.2257 | Max Flow |
| P529 | 1.8537 | 0.0873 | 0.2675 | 0.7478 | 0.9285 | 85.8955 | 85.5341 | Max Flow |
| P539 | 3.2748 | 0.0839 | 0.1202 | 0.9132 | 1.2574 | 85.8727 | 85.6550 | Max Flow |
| P540 | 3.2658 | 0.0118 | 0.0539 | 0.9119 | 1.2894 | 85.6556 | 85.5896 | Max Flow |
| P541 | 3.5908 | 0.0140 | 0.1659 | 0.9582 | 1.3608 | 85.5748 | 85.3986 | Max Flow |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| P542 | 3.8294 | 0.0105 | 0.1330 | 0.9647 | 1.2805 | 85.4019 | 85.2580 | Max Flow |
| P543 | 3.8164 | 0.0079 | 0.0889 | 0.9400 | 1.1886 | 85.2459 | 85.1512 | Max Flow |
| P544 | 5.4123 | 0.0153 | 0.0522 | 1.1281 | 1.5575 | 85.1527 | 85.0846 | Max Flow |
| P112 | 1.6521 | 0.0105 | 0.1697 | 0.6577 | 0.8410 | 85.7647 | 85.6029 | Max Flow |
| P111 | 1.9222 | 0.0039 | 0.0300 | 0.6727 | 0.9306 | 85.7139 | 85.6831 | Max Flow |
| P110 | 3.3230 | 0.0730 | 0.1095 | 0.8956 | 1.3535 | 85.6813 | 85.4922 | Max Flow |
| P109 | 3.3038 | -0.0756 | 0.0623 | 0.8715 | 1.1685 | 85.5858 | 85.5971 | Max Flow |
| P108 | 3.2962 | 0.0528 | 0.0429 | 0.8705 | 1.1668 | 85.5998 | 85.5037 | Max Flow |
| P107 | 4.7505 | 0.0520 | 0.0468 | 1.0083 | 1.4155 | 85.4323 | 85.3330 | Max Flow |
| P106 | 4.7380 | 0.0074 | 0.0366 | 1.0070 | 1.4130 | 85.3336 | 85.2890 | Max Flow |
| P105 | 6.0600 | 0.0824 | 0.0648 | 1.1451 | 1.7001 | 85.3426 | 85.1915 | Max Flow |
| P104 | 6.0514 | 0.0809 | 0.0623 | 1.1442 | 1.6981 | 85.1943 | 85.0467 | Max Flow |
| SAN O/F | 0.1138 | 0.0000 | 0.5985 | 0.2077 | 0.3084 | 84.0728 | 83.4735 | Max Flow |
| F.F.EAST | 3.6257 | 0.4547 | 0.1753 | 0.7451 | 0.9000 | 84.4833 | 83.8509 | Max Flow |
| O/F EAST | -0.0021 | 0.0000 | 0.0000 | 0.0017 | 0.0018 | 83.9997 | 83.9997 | Max Flow |
| F.F. WEST | 3.6341 | 0.4571 | 0.1847 | 0.7462 | 0.9000 | 84.4958 | 83.8490 | Max Flow |
| O/F WEST | -0.0013 | 0.0000 | 0.0000 | 0.0010 | 0.0016 | 83.9997 | 83.9996 | Max Flow |

| Table E13a. CULVERT ANALYSIS CLASSIFICATION, and the time the culvert was in a particular classification during the simulation. The time is in minutes. The Dynamic Wave Equation is used for all conduit analysis but the culvert flow classification condition is based on the HW and TW depths. |
|---|

| Conduit Name | Critical D Outlet Control | Mild Slope TW Control | Steep Slope TW Insignf Entrance | Slug Flow Outlet/ Entrance | Mild Slope TW > D Outlet | Mild Slope TW <= D Outlet | Outlet Control | Inlet Control | Inlet Configuration |
|---|---|---|---|---|---|---|---|---|---|
| OUT 2 | 61.0000 | 1857.3333 | 1.6667 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | None |
| OUT 1 | 0.0000 | 1669.7500 | 15.5833 | 0.0000 | 234.6667 | 0.0000 | 0.0000 | 0.0000 | None |
| P103 | 0.0000 | 1789.6667 | 0.0000 | 0.0833 | 130.2500 | 0.0000 | 0.0000 | 0.0000 | None |
| P545 | 0.0000 | 1546.0833 | 0.0000 | 0.0000 | 373.9167 | 0.0000 | 0.0000 | 0.0000 | None |
| P505 | 110.7500 | 387.1667 | 1422.0833 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | None |
| P507 | 13.4167 | 465.2500 | 1402.5833 | 0.0000 | 38.7500 | 0.0000 | 0.0000 | 0.0000 | None |
| P510 | 164.0000 | 354.0833 | 1364.1667 | 0.0000 | 37.7500 | 0.0000 | 0.0000 | 0.0000 | None |
| P512 | 6.2500 | 347.5000 | 1418.3333 | 81.4167 | 0.0000 | 0.0000 | 66.5000 | 0.0000 | None |
| P514 | 125.4167 | 629.0833 | 1094.1667 | 0.0000 | 71.3333 | 0.0000 | 0.0000 | 0.0000 | None |
| P521 | 330.0000 | 435.8333 | 1074.1667 | 0.0000 | 80.0000 | 0.0000 | 0.0000 | 0.0000 | None |
| P522 | 20.5000 | 423.2500 | 1393.7500 | 0.0000 | 82.5000 | 0.0000 | 0.0000 | 0.0000 | None |
| P529 | 18.7500 | 627.5833 | 1188.5833 | 0.0000 | 85.0833 | 0.0000 | 0.0000 | 0.0000 | None |
| P539 | 10.5833 | 1810.8333 | 15.0833 | 0.0000 | 83.5000 | 0.0000 | 0.0000 | 0.0000 | None |
| P540 | 0.0833 | 1820.0833 | 15.1667 | 0.0000 | 84.6667 | 0.0000 | 0.0000 | 0.0000 | None |
| P541 | 0.0000 | 1816.3333 | 15.1667 | 0.0000 | 88.5000 | 0.0000 | 0.0000 | 0.0000 | None |
| P542 | 0.0000 | 1836.3333 | 0.0000 | 0.2500 | 83.4167 | 0.0000 | 0.0000 | 0.0000 | None |
| P543 | 0.0000 | 1794.8333 | 0.0000 | 0.0000 | 125.1667 | 0.0000 | 0.0000 | 0.0000 | None |
| P544 | 0.0000 | 1717.5833 | 0.0000 | 0.0000 | 202.4167 | 0.0000 | 0.0000 | 0.0000 | None |
| P112 | 3.0833 | 590.6667 | 1326.2500 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | None |
| P111 | 3.5000 | 1249.7500 | 666.7500 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | None |
| P110 | 15.8333 | 1495.2500 | 408.9167 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | None |
| P109 | 10.0833 | 1894.7500 | 15.1667 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | None |
| P108 | 3.7500 | 1886.7500 | 18.6667 | 0.0000 | 10.8333 | 0.0000 | 0.0000 | 0.0000 | None |
| P107 | 0.0000 | 1904.9167 | 0.0000 | 1.7500 | 13.3333 | 0.0000 | 0.0000 | 0.0000 | None |
| P106 | 0.0000 | 1886.3333 | 0.0000 | 1.0833 | 32.5833 | 0.0000 | 0.0000 | 0.0000 | None |
| P105 | 0.0000 | 1919.2500 | 0.0000 | 0.7500 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | None |
| P104 | 0.0000 | 1911.3333 | 0.0000 | 0.4167 | 8.2500 | 0.0000 | 0.0000 | 0.0000 | None |
| SAN O/F | 30.9167 | 419.0833 | 0.2500 | 0.0000 | 1469.7500 | 0.0000 | 0.0000 | 0.0000 | None |
| F.F.EAST | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 1920.0000 | 0.0000 | 0.0000 | 0.0000 | None |
| O/F EAST | 0.0000 | 1666.2500 | 48.0000 | 171.5833 | 34.1667 | 0.0000 | 0.0000 | 0.0000 | None |
| F.F. WEST | 0.0000 | 52.4167 | 0.0000 | 0.0000 | 1867.5833 | 0.0000 | 0.0000 | 0.0000 | None |
| O/F WEST | 0.0000 | 1742.0833 | 48.5000 | 0.0000 | 129.4167 | 0.0000 | 0.0000 | 0.0000 | None |

| Kinematic Wave Approximations<br>Time in Minutes for Each Condition |
|---|

| Conduit Name | Duration of Normal Flow | Slope Criteria | Super-Critical | Roll Waves |
|---|---|---|---|---|
| OUT 2 | 0.0000 | 0.0000 | 1.6667 | 0.0000 |
| OUT 1 | 35.1667 | 1174.5000 | 0.0000 | 0.0000 |
| P103 | 0.0000 | 1838.6667 | 0.0000 | 0.0000 |
| P545 | 0.0000 | 1620.5833 | 0.0000 | 0.0000 |

| | | | | |
|---|---|---|---|---|
| P505 | 0.5833 | 41.5000 | 0.0000 | 0.0000 |
| P507 | 1654.6667 | 1721.3333 | 92.9167 | 0.0000 |
| P510 | 0.0000 | 0.0000 | 1623.9167 | 0.0000 |
| P512 | 1717.2500 | 1840.5000 | 142.4167 | 0.0000 |
| P514 | 1.0000 | 94.3333 | 2.5833 | 0.0000 |
| P521 | 199.4167 | 355.6667 | 0.4167 | 0.0000 |
| P522 | 0.0000 | 333.7500 | 6.6667 | 0.0000 |
| P529 | 0.0000 | 1748.3333 | 5.1667 | 0.0000 |
| P539 | 0.0000 | 1632.1667 | 0.0000 | 0.0000 |
| P540 | 0.8333 | 1799.0833 | 0.0000 | 0.0000 |
| P541 | 4.7500 | 1811.0000 | 0.0000 | 0.0000 |
| P542 | 0.0000 | 1832.3333 | 0.0000 | 0.0000 |
| P543 | 0.0000 | 1837.3333 | 0.0000 | 0.0000 |
| P544 | 0.0000 | 1761.4167 | 0.0000 | 0.0000 |
| P112 | 1538.9167 | 1816.2500 | 0.0000 | 0.0000 |
| P111 | 0.0000 | 1845.1667 | 0.0000 | 0.0000 |
| P110 | 0.0000 | 1728.0000 | 0.0000 | 0.0000 |
| P109 | 18.5833 | 1834.0000 | 0.9167 | 0.0000 |
| P108 | 0.0833 | 1734.7500 | 7.0000 | 0.0000 |
| P107 | 0.0000 | 1843.0833 | 0.0000 | 0.0000 |
| P106 | 0.0000 | 1862.9167 | 0.0000 | 0.0000 |
| P105 | 0.0000 | 1737.1667 | 0.0000 | 0.0000 |
| P104 | 0.0000 | 1732.8333 | 0.0000 | 0.0000 |
| SAN O/F | 2.0000 | 80.6667 | 6.0833 | 0.0000 |
| F.F.EAST | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| O/F EAST | 0.0000 | 31.6667 | 0.0000 | 0.0000 |
| F.F. WEST | 0.0000 | 23.5000 | 0.0000 | 0.0000 |
| O/F WEST | 0.0000 | 0.0000 | 0.0000 | 0.0000 |

*=========================================================*
| Table E15 - SPREADSHEET INFO LIST |
| Conduit Flow and Junction Depth Information for use in |
| spreadsheets. The maximum values in this table are the |
| true maximum values because they sample every time step.|
| The values in the review results may only be the |
| maximum of a subset of all the time steps in the run. |
| Note: These flows are only the flows in a single barrel.|
*=========================================================*

| Conduit Name | Maximum Flow (cms) | Total Flow (m^3) | Maximum Velocity (m/s) | Maximum Volume (m^3) | ## | Junction Name | Invert Elevation (m) | Maximum Elevation (m) |
|---|---|---|---|---|---|---|---|---|
| OUT 2 | 1.3998 | 102707.7016 | 1.2246 | 566.4869 | ## | POND | 82.0000 | 84.9377 |
| OUT 1 | 1.2878 | 90559.7711 | 1.0965 | 380.6416 | ## | MH 11 | 82.6600 | 83.6200 |
| P103 | 6.0341 | 46640.9467 | 1.5787 | 854.0196 | ## | 102 | 82.5000 | 85.0291 |
| P545 | 5.4091 | 44767.9471 | 1.7551 | 216.0248 | ## | 546 | 82.7400 | 85.1653 |
| P505 | 0.9395 | 7585.8422 | 1.3744 | 57.4587 | ## | MH 4 | 83.1640 | 84.4708 |
| P507 | 0.9523 | 7584.9397 | 1.3965 | 62.3241 | ## | 103 | 82.8580 | 85.1205 |
| P510 | 1.0060 | 7579.2201 | 1.5348 | 34.4492 | ## | 545 | 82.9100 | 85.2883 |
| P512 | 1.1016 | 7577.6783 | 1.6348 | 83.9051 | ## | 544 | 82.9700 | 85.3508 |
| P514 | 1.2508 | 7575.5952 | 1.3518 | 164.9444 | ## | 543 | 83.1700 | 85.4424 |
| P521 | 1.6952 | 13538.9233 | 1.5268 | 93.6644 | ## | 542 | 83.3700 | 85.5940 |
| P522 | 1.6934 | 13538.7768 | 1.5919 | 91.8859 | ## | 541 | 83.5400 | 85.7681 |
| P529 | 1.8537 | 15320.0130 | 1.6326 | 154.0924 | ## | 539 | 83.7400 | 86.0388 |
| P539 | 3.2748 | 26885.5738 | 1.5281 | 209.5872 | ## | 529 | 84.5200 | 86.3520 |
| P540 | 3.2658 | 26866.5678 | 1.5216 | 95.2669 | ## | 510 | 85.7800 | 86.9019 |
| P541 | 3.5908 | 29542.3153 | 1.6693 | 247.6940 | ## | 505 | 86.1100 | 87.1215 |
| P542 | 3.8294 | 31630.4364 | 1.4974 | 350.7971 | ## | 507 | 85.9200 | 87.0087 |
| P543 | 3.8164 | 31522.9301 | 1.2878 | 411.6995 | ## | 522 | 84.6800 | 86.4918 |

```
           P544      5.4123  44820.6656        1.7624      123.6664   ##              521    84.8400
86.6902
           P112      1.6521  10625.9830        1.5206      256.2187   ##              514    85.2700
86.7767
           P111      1.9222  13558.0210        0.9896      256.6150   ##              512    85.6400
86.8268
           P110      3.3230  25090.9641        1.6121      339.5412   ##              104    82.9330
85.2321
           P109      3.3038  25116.5406        1.6217      377.2750   ##              105    83.0710
85.3712
           P108      3.2962  25076.1330        1.3092      239.2625   ##              106    83.1490
85.4128
           P107      4.7505  36503.5129        1.2403      398.6299   ##              107    83.2490
85.5095
           P106      4.7380  36419.6847        1.2270      313.1138   ##              108    83.6490
85.6037
           P105      6.0600  46886.5747        1.5552      311.5859   ##              109    83.8350
85.5919
           P104      6.0514  46803.8213        1.5550      299.5746   ##              110    84.1290
85.7611
         SAN O/F      0.1138  12471.4447        0.7132      216.0770   ##              111    84.2370
85.7868
        F.F.EAST      3.6257  26406.0876        2.2272       74.6035   ##              112    84.8040
85.8863
        O/F EAST     -3.2530 -20066.9621       -1.6487       88.0040   ##              540    83.6000
85.8282
       F.F. WEST      3.6341  27208.6462        2.2334       78.1561   ##          N5 P/S    83.7640
84.5665
        O/F WEST     -3.1484 -19870.8323       -1.4740      194.2061   ##             WEIR    83.7640
84.6570
          weir 1      0.1090  12548.9293        0.0000        0.0000   ##
        FREE # 1      1.3998 102709.1287        0.0000        0.0000   ##

 *==================================================*
 |     Table E15a - SPREADSHEET REACH LIST          |
 | Peak flow and Total Flow listed by Reach or those |
 |      conduits or diversions having the same      |
 |      upstream and downstream nodes.              |
 *==================================================*

       Upstream       Downstream    Maximum           Total
           Node             Node       Flow            Flow
                                      (cms)           (m^3)
 --------------- ---------------- ----------       ---------
           MH 4            MH 11     1.3998      102707.702
           POND             MH 4     1.2878      90559.7711
            103              102     6.0341      46640.9467
            545              546     5.4091      44767.9471
            505              507     0.9395       7585.8422
            507              510     0.9523       7584.9397
            510              512     1.0060       7579.2201
            512              514     1.1016       7577.6783
            514              521     1.2508       7575.5952
            521              522     1.6952      13538.9233
            522              529     1.6934      13538.7768
            529              539     1.8537      15320.0130
            539              540     3.2748      26885.5738
            540              541     3.2658      26866.5678
            541              542     3.5908      29542.3153
            542              543     3.8294      31630.4364
            543              544     3.8164      31522.9301
            544              545     5.4123      44820.6656
            112              111     1.6521      10625.9830
            111              110     1.9222      13558.0210
            110              109     3.3230      25090.9641
            109              108     3.3038      25116.5406
            108              107     3.2962      25076.1330
            107              106     4.7505      36503.5129
            106              105     4.7380      36419.6847
            105              104     6.0600      46886.5747
            104              103     6.0514      46803.8213
         N5 P/S           MH 4      0.1138      12471.4447
            102           POND      6.0181      46473.0497
            546           POND      5.7020      47079.4785
           WEIR          N5 P/S     0.1090      12548.9293

 ##########################################################
 # Table E16. New Conduit Information Section             #
 #            Conduit Invert (IE) Elevation and Conduit   #
 #            Maximum Water Surface (WS) Elevations       #
 ##########################################################
```

| Conduit Name | Upstream Node | Downstream Node | IE Up | IE Dn | WS Up | WS Dn | Conduit Type |
|---|---|---|---|---|---|---|---|
| OUT 2 | MH 4 | MH 11 | 83.1640 | 82.6600 | 84.4708 | 83.6200 | Circular |
| OUT 1 | POND | MH 4 | 83.5000 | 83.1800 | 84.9377 | 84.4708 | Circular |
| P103 | 103 | 102 | 82.8580 | 82.6480 | 85.1205 | 85.0291 | Circular |
| P545 | 545 | 546 | 82.9100 | 82.7700 | 85.2881 | 85.1653 | Circular |
| P505 | 505 | 507 | 86.1100 | 85.9800 | 87.1215 | 87.0087 | Circular |
| P507 | 507 | 510 | 85.9200 | 85.7800 | 87.0087 | 86.9019 | Circular |
| P510 | 510 | 512 | 85.7800 | 85.7000 | 86.9019 | 86.8268 | Circular |
| P512 | 512 | 514 | 85.6400 | 85.2700 | 86.8268 | 86.7767 | Circular |
| P514 | 514 | 521 | 85.2700 | 84.9900 | 86.7767 | 86.6902 | Circular |
| P521 | 521 | 522 | 84.8400 | 84.6800 | 86.6916 | 86.4918 | Circular |
| P522 | 522 | 529 | 84.6800 | 84.5200 | 86.4923 | 86.3511 | Circular |
| P529 | 529 | 539 | 84.5200 | 84.1900 | 86.3520 | 86.0332 | Circular |
| P539 | 539 | 540 | 83.7400 | 83.6000 | 86.0332 | 85.8210 | Circular |
| P540 | 540 | 541 | 83.6000 | 83.5400 | 85.8210 | 85.7681 | Circular |
| P541 | 541 | 542 | 83.5400 | 83.3700 | 85.7603 | 85.5940 | Circular |
| P542 | 542 | 543 | 83.3700 | 83.1700 | 85.5893 | 85.4425 | Circular |
| P543 | 543 | 544 | 83.1700 | 82.9700 | 85.4426 | 85.3508 | Circular |
| P544 | 544 | 545 | 82.9700 | 82.9100 | 85.3507 | 85.2883 | Circular |
| P112 | 112 | 111 | 84.8040 | 84.5420 | 85.8863 | 85.7868 | Circular |
| P111 | 111 | 110 | 84.2370 | 84.1290 | 85.7868 | 85.7611 | Circular |
| P110 | 110 | 109 | 84.1290 | 83.9880 | 85.7611 | 85.5919 | Circular |
| P109 | 109 | 108 | 83.8350 | 83.6790 | 85.5919 | 85.6037 | Circular |
| P108 | 108 | 107 | 83.6490 | 83.5530 | 85.6037 | 85.5095 | Circular |
| P107 | 107 | 106 | 83.2490 | 83.1490 | 85.5095 | 85.4128 | Circular |
| P106 | 106 | 105 | 83.1490 | 83.0710 | 85.4128 | 85.3712 | Circular |
| P105 | 105 | 104 | 83.0710 | 82.9930 | 85.3711 | 85.2321 | Circular |
| P104 | 104 | 103 | 82.9330 | 82.8580 | 85.2321 | 85.1205 | Circular |
| SAN O/F | N5 P/S | MH 4 | 83.7640 | 83.1640 | 84.5665 | 84.4708 | Circular |
| F.F.EAST | 102 | POND | 82.6400 | 82.5500 | 85.0290 | 84.9377 | Rectangle |
| O/F EAST | POND | 102 | 83.8500 | 83.7000 | 84.9377 | 85.0290 | Rectangle |
| F.F. WEST | 546 | POND | 82.7400 | 82.7000 | 85.1653 | 84.9377 | Rectangle |
| O/F WEST | POND | 546 | 83.8500 | 83.7000 | 84.9377 | 85.1653 | Rectangle |

Table E18 - Junction Continuity Error. Division by Volume added 11/96

Continuity Error = Net Flow + Beginning Volume - Ending Volume
---
Total Flow + (Beginning Volume + Ending Volume)/2

Net Flow = Node Inflow - Node Outflow
Total Flow = absolute (Inflow + Outflow
Intermediate column is a judgement on the node continuity error.

Excellent < 1 percent Great 1 to 2 percent Good 2 to 5 percent
Fair 5 to 10 percent Poor 10 to 25 percent Bad 25 to 50 percent
Terrible > 50 percent

| Junction Name | <------Continuity Error -------> Volume | % of Node | % of Inflow | Remaining Volume | Beginning Volume | Net Flow Thru Node | Total Flow Thru Node | Failed to Converge |
|---|---|---|---|---|---|---|---|---|
| POND | 2684.0214 | 0.9900 | 1.9574 | 72323.4770 | 42340.8541 | 32666.6443 | 213783.2215 | 0 |
| MH 11 | -110.7113 | -0.0539 | 0.0807 | 109.4483 | 0.0000 | -1.2630 | 205416.8304 | 0 |
| 102 | 41.1246 | 0.0441 | 0.0300 | 280.3648 | 156.2467 | 165.2426 | 93113.9964 | 0 |
| 546 | 115.4800 | 0.1223 | 0.0842 | 117.2833 | 60.9094 | 171.8538 | 94330.3841 | 0 |
| MH 4 | 60.6565 | 0.0295 | 0.0442 | 262.3657 | 0.0000 | 323.0222 | 205738.9174 | 0 |
| 103 | 4.8258 | 0.0052 | 0.0035 | 311.0568 | 153.9260 | 161.9565 | 93444.7680 | 0 |
| 545 | 1.9309 | 0.0022 | 0.0014 | 97.8374 | 44.4671 | 55.3012 | 89588.6127 | 0 |
| 544 | 2.2805 | 0.0025 | 0.0017 | 126.0948 | 46.7000 | 81.6753 | 89720.5860 | 0 |
| 543 | -4.0193 | -0.0064 | 0.0029 | 156.5388 | 44.8816 | 107.6379 | 63153.3665 | 0 |
| 542 | -5.9945 | -0.0095 | 0.0044 | 98.1330 | 12.5965 | 79.5420 | 63340.4844 | 0 |

```
             541     -8.3197     -0.0141      0.0061     43.9068      0.0000     35.5871  59117.7200
0
             539    -34.7559     -0.0647      0.0253     14.5017      0.0000    -20.2542  53748.0621
0
             529     42.2943      0.1379      0.0308      0.0010      0.0000     42.2954  30677.6937
0
             510      9.9833      0.0658      0.0073      0.0006      0.0000      9.9839  15164.1598
0
             505      9.1395      0.0602      0.0067      0.0004      0.0000      9.1399  15179.3506
0
             507      3.3279      0.0219      0.0024      0.0007      0.0000      3.3286  15170.7819
0
             522      5.9584      0.0220      0.0043      0.0008      0.0000      5.9592  27077.7001
0
             521     23.3047      0.0860      0.0170      0.0011      0.0000     23.3058  27096.4131
0
             514      7.5779      0.0500      0.0055      0.0011      0.0000      7.5790  15153.2735
0
             512      6.5020      0.0429      0.0047      0.0006      0.0000      6.5025  15156.8984
0
             104     -1.7193     -0.0018      0.0013    137.8454     56.3348     79.7913  93690.3960
0
             105     -6.9433     -0.0074      0.0051    121.9386     41.9017     73.0937  93848.0909
0
             106     -5.5908     -0.0077      0.0041    121.5163     34.3112     81.6143  72923.1976
0
             107    -12.8106     -0.0175      0.0093     81.9285     16.1885     52.9295  73060.6083
0
             108     -2.3220     -0.0046      0.0017     31.9080      0.0000     29.5860  50192.6736
0
             109    -45.2870     -0.0902      0.0330     14.2404      0.0000    -31.0466  50207.5046
0
             110     84.3574      0.1678      0.0615      0.1370      0.0000     84.4944  50265.0191
0
             111    -31.7323     -0.1172      0.0231      0.0014      0.0000    -31.7309  27083.3198
0
             112     60.2550      0.2827      0.0439      0.0009      0.0000     60.2558  21311.5512
0
             540     -2.1438     -0.0040      0.0016     24.0807      0.0000     21.9369  53752.1415
0
          N5 P/S      3.3760      0.0135      0.0025     74.1592      0.0000     77.5352  25020.3740
0
            WEIR      7.3416      0.0292      0.0054      1.0895      0.0000      8.4310  25105.7293
0
 The total continuity error was   2901.4     cubic meters
 The remaining total volume was   74550.     cubic meters
 Your mean node continuity error was   Excellent
 Your worst node continuity error was  Great

   *==================================================*
   |  Table E19 - Junction Inflow Sources             |
   |              Units are either ft^3 or m^3        |
   |              depending on the units in your model.|
   *==================================================*

                  Constant       User       Interface       DWF         Inflow    RNF Layer
        Junction     Inflow      Inflow        Inflow       Inlow       through      Inflow
Outflow    Evaporation
           Name    to Node     to Node       to Node      to Node      Outfall      to Node    from
Node    from Node
 ---------------  ----------  -----------  -----------  -----------  -----------  -----------  -------
----  -----------
            POND      0.0000   29670.8284       0.0000       0.0000       0.0000       0.0000
0.0000       0.0000
          MH 11       0.0000       0.0000       0.0000       0.0000       0.0000       0.0000
102709.1287       0.0000
             546      0.0000    2482.9545       0.0000       0.0000       0.0000       0.0000
0.0000       0.0000
             544      0.0000   13376.9565       0.0000       0.0000       0.0000       0.0000
0.0000       0.0000
             542      0.0000    2167.7285       0.0000       0.0000       0.0000       0.0000
0.0000       0.0000
             541      0.0000    2708.8334       0.0000       0.0000       0.0000       0.0000
0.0000       0.0000
             539      0.0000   11542.3141       0.0000       0.0000       0.0000       0.0000
0.0000       0.0000
             529      0.0000    1818.9038       0.0000       0.0000       0.0000       0.0000
0.0000       0.0000
             505      0.0000    7593.4780       0.0000       0.0000       0.0000       0.0000
0.0000       0.0000
```

```
             521      0.0000    5981.8135       0.0000       0.0000       0.0000       0.0000
0.0000       0.0000
             105      0.0000   10541.6826       0.0000       0.0000       0.0000       0.0000
0.0000       0.0000
             107      0.0000   11480.9517       0.0000       0.0000       0.0000       0.0000
0.0000       0.0000
             110      0.0000   11615.8747       0.0000       0.0000       0.0000       0.0000
0.0000       0.0000
             111      0.0000    2899.3117       0.0000       0.0000       0.0000       0.0000
0.0000       0.0000
             112      0.0000   10685.5444       0.0000       0.0000       0.0000       0.0000
0.0000       0.0000
            WEIR  12556.8000       0.0000       0.0000       0.0000       0.0000       0.0000
0.0000       0.0000

   *=====================================================*
   | Table E20 - Junction Flooding and Volume Listing.   |
   |             The maximum volume is the total volume  |
   |             in the node including the volume in the |
   |             flooded storage area. This is the max   |
   |             volume at any time. The volume in the   |
   |             flooded storage area is the total volume|
   |             above the ground elevation, where the   |
   |             flooded pond storage area starts.       |
   | The fourth column is instantaneous, the fifth is the|
   | sum of the flooded volume over the entire simulation|
   | Units are either ft^3 or m^3 depending on the units.|
   *=====================================================*

                                                Out of
                                               System                Stored in System
       Junction    Surcharged   Flooded       Flooded     Maximum     Ponding Allowed
           Name    Time (min)  Time(min)        Volume      Volume   Flood Pond Volume
--------------    ----------  ---------    ---------   ---------   -----------------
           POND        0.0000     0.0000       0.0000 137318.3325              0.0000
          MH 11        0.0000     0.0000       0.0000      1.1712              0.0000
            102      126.9167     0.0000       0.0000      3.0855              0.0000
            546      129.3333     0.0000       0.0000      2.9589              0.0000
           MH 4      234.6667     0.0000       0.0000      1.5943              0.0000
            103        8.4167     0.0000       0.0000      2.7603              0.0000
            545      202.4167     0.0000       0.0000      2.9015              0.0000
            544      125.1667     0.0000       0.0000      2.9045              0.0000
            543       64.5833     0.0000       0.0000      2.7726              0.0000
            542       74.7500     0.0000       0.0000      2.7076              0.0000
            541       84.7500     0.0000       0.0000      2.7087              0.0000
            539       85.1667     0.0000       0.0000      2.7992              0.0000
            529       82.5000     0.0000       0.0000      2.2339              0.0000
            510       38.7500     0.0000       0.0000      1.3687              0.0000
            505        0.0000     0.0000       0.0000      1.2341              0.0000
            507        0.0000     0.0000       0.0000      1.3283              0.0000
            522       80.0000     0.0000       0.0000      2.2110              0.0000
            521       71.3333     0.0000       0.0000      2.2589              0.0000
            514       58.4167     0.0000       0.0000      1.8382              0.0000
            512        0.0000     0.0000       0.0000      1.4480              0.0000
            104        0.0000     0.0000       0.0000      2.8050              0.0000
            105       32.6667     0.0000       0.0000      2.8062              0.0000
            106       13.4167     0.0000       0.0000      2.7618              0.0000
            107       10.9167     0.0000       0.0000      2.7578              0.0000
            108        0.0000     0.0000       0.0000      2.3848              0.0000
            109        0.0000     0.0000       0.0000      2.1434              0.0000
            110        0.0000     0.0000       0.0000      1.9912              0.0000
            111        0.0000     0.0000       0.0000      1.8907              0.0000
            112        0.0000     0.0000       0.0000      1.3204              0.0000
            540       83.5833     0.0000       0.0000      2.7125              0.0000
         N5 P/S      297.9167     0.0000       0.0000      0.9790              0.0000
            WEIR    1920.0000     0.0000       0.0000      1.0895              0.0000

 *==================================*
 | Simulation Specific Information  |
 *==================================*
 Number of Input Conduits..........        32 Number of Simulated Conduits......        34
 Number of Natural Channels........         0 Number of Junctions...............        32
 Number of Storage Junctions.......         1 Number of Weirs...................         1
 Number of Orifices................         0 Number of Pumps...................         0
 Number of Free Outfalls...........         1 Number of Tide Gate Outfalls......         0


 *=======================================================*
 | Average % Change in Junction or Conduit is defined as:  |
 | Conduit  % Change ==> 100.0 ( Q(n+1) - Q(n) ) / Qfull   |
 | Junction % Change ==> 100.0 ( Y(n+1) - Y(n) ) / Yfull   |
```

```
*=========================================================*

The Conduit with the largest average change was..P544       with     0.014 percent
The Junction with the largest average change was.539        with     0.035 percent
The Conduit with the largest sinuosity was.......F.F. WEST  with     6.656


*==================================================================*
| Table E21. Continuity balance at the end of the simulation       |
|            Junction Inflow, Outflow or Street Flooding           |
| Error = Inflow  + Initial Volume - Outflow - Final   Volume      |
*==================================================================*

       Inflow          Inflow       Average
       Junction   Volume, m^3   Inflow, cms
---------------  ------------  -------------
           POND    29670.9223         0.2576
            546     2482.9586         0.0216
            544    13376.9903         0.1161
            542     2167.7327         0.0188
            541     2708.8369         0.0235
            539    11542.4753         0.1002
            529     1818.9039         0.0158
            505     7593.5084         0.0659
            521     5981.8946         0.0519
            105    10541.8315         0.0915
            107    11480.9623         0.0997
            110    11616.0340         0.1008
            111     2899.3158         0.0252
            112    10685.5682         0.0928
           WEIR    12556.8000         0.1090
         MH 11  -102709.1287        -0.8916

       Outflow      Outflow         Average
       Junction  Volume m^3    Outflow, cms
---------------  ------------  ------------
         MH 11   102709.1287         0.8916


*=====================================================*
| Initial system volume        =     43009.3177 Cu M  |
| Total system inflow volume   =    137123.9758 Cu M  |
| Inflow + Initial volume      =    180133.2935 Cu M  |
*=====================================================*
| Total system outflow         =    102709.1287 Cu M  |
| Volume left in system        =     74549.8606 Cu M  |
| Evaporation                  =         0.0000 Cu M  |
| Outflow + Final Volume       =    177258.9894 Cu M  |
*=====================================================*

*=============================================*
| Total Model Continuity Error                |
| Error in Continuity, Percent =         1.5957 |
| Error in Continuity, m^3     =       2874.304 |
| + Error means a continuity loss, - a gain     |
*=============================================*

#####################################################
# Table E22. Numerical Model judgement section    #
#####################################################

Your overall error was                                    1.5957 percent
Worst nodal error was in node POND             with       1.1424 percent
Of the total inflow this loss was                         1.9574 percent
Your overall continuity error was                 Great
                                                 Excellent Efficiency
Efficiency of the simulation                      1.24
Most Number of Non Convergences at one Node       0.
Total Number Non Convergences at all Nodes        0.
Total Number of Nodes with Non Convergences       0.

===> Hydraulic model simulation ended normally.
===> XP-SWMM Simulation ended normally.
===> Your input file was named  : C:\Users\PDeir\Desktop\ISGAR XPSWMM\ISGAR-N4-20180130-JULY-79.dat
===> Your output file was named : C:\Users\PDeir\Desktop\ISGAR XPSWMM\ISGAR-N4-20180130-JULY-79.out

*============================================================*
|             SWMM Simulation Date and Time Summary          |
*============================================================*
| Starting Date... January    30, 2018  Time...   16:58:11:81  |
|   Ending Date... January    30, 2018  Time...   16:58:41:56  |
```

```
 |  Elapsed Time...    0.49583 minutes or     29.75000 seconds  |
 *==============================================================*
```