

**Mattamy Homes Richmond Official Plan Application
Response to City of Ottawa June 8, 2009 Technical Circulation & Additional Comments
February 22, 2010**

#	Comment	From	Date	Mattamy Response	Action Taken
NATURAL ENVIRONMENT & IMPACT ASSESSMENT STUDY					
1.	<p>Study Area Several figures do not include the Mattamy land south of the Jock River. Please include them or indicate they are not part of the planning area.</p> <p>For consistency, Figure 3 on Page 10 should show all f the Mattamy lands under consideration. This figure does not indicate the Mattamy lands between the Jock River and the railway line at the south end of the site.</p>	<p>City - Natural Systems Unit, July 2, 2009 Letter</p> <p>RVCA</p>	<p>July 10, 2009</p> <p>August 25, 2009 (Pg 2, Para. 2)</p>	<p>Applicable Figures have been revised to include lands south of the Jock River (3, 6, 10, 26, 28)</p> <p>City & RVCA September 23, 2009 Meeting: <i>Comment addressed</i></p>	<p>Applicable Figures have been revised to show lands south of Jock River within Mattamy/ Future Development lands boundary</p>
2.	<p>Watercourse Setbacks Your May 14, 2009 email states that "...aquatic setbacks for the Jock River and Arbuckle/Van Gaal system are based on the greater of: 30 m from normal high water mark. (in this case larger than the 15m from normal high water mark (sic)); meander belt width and floodplain."</p> <p>Schedule K of the Official Plan identifies the Jock River as a watercourse with unstable slopes. The watercourse setback must include consideration of the geotechnical hazard. This should be established by a site specific analysis following the Slope Stability Guidelines.</p> <p>Section 4.1 on page 75 describes the development constraints. Has a geotechnical assessment been conducted on this reach of the Jock River, the Van Gaal Drain and the tributary watercourses? The 180m meander belt width on the Jock River would exceed the geotechnical setback limit estimated conservatively using the guidelines contained in the MNR Natural Hazard Manual. However confirmation is required on whether or not the geotechnical limit of hazard land on the Van Gaal Drain and the tributary watercourses is the predominant constraint for the determination of the development setback</p>	<p>City - Natural Systems Unit, July 2, 2009 Letter</p> <p>RVCA</p>	<p>July 10, 2009</p> <p>August 25, 2009 (Pg. 4, Para. 1)</p>	<p>City requesting geotechnical limit on Jock River. RVCA requesting geotechnical limit on Van Gaal and tributaries.</p> <p>Need to discuss to determine where and when geotechnical hazard to be determined.</p> <p>City & RVCA September 23, 2009 Meeting: <i>Report to describe channel structure for Van Gaal and Jock River thus determining no geotechnical hazard associated with these systems Erosion problems downstream on Arbuckle Drain to be identified and discussed based on works undertaken through the drainage petition (Muncaster).</i></p> <p><i>Clarification – the revised report does not include identification of erosion problems downstream as Drainage Report not a public document.</i></p> <p>October 7, 2009 City and RVCA meeting: <i>Bruce Kilgour to prepare rationale for demonstrating a lower setback through concept of net gain for Moore Tributary. Sue compared to Barrhaven South where a smaller setback was accepted because the channel was reengineered. Mattamy does not believe a 60m setback for sections 6,7,8 on VG-R3-2 as it constitutes a minor tributary.</i></p> <p>January 27, 2010 Moore Tributary Rationale: <i>Bruce Kilgour engaged in dialogue with City and RVCA staff on this matter. Kilgour & Associates provided the Moore tributary setback rationale to the City and RVCA for review on January 27, 2010. It was agreed that this matter would be reviewed as part of the resubmission of the final report.</i></p>	<p>Geotechnical hazard and setback table contained in Section 4.12 of the revised report.</p> <p>The setback rationale for the Moore Tributary is contained in Section 6.2.4.4</p>
3.	<p>It would be helpful if a table was included showing the setback in metres from each retained watercourse. Where Mattamy is proposing a setback of less than 15m, a rationale is required that addresses Official Plan policies. Otherwise, a minimum setback of 15m is required on all minor tributaries.</p>	<p>City - Natural Systems Unit, July 2, 2009 Letter</p>	<p>July 10, 2009</p>	<p>Please see attached revised Table which will be included in the revised report. None of the setbacks, for watercourses proposed to be retained, are < 15 m.</p>	<p>Setback Table is included in Section 4.12 of the revised report. It has been updated based on the outcome of the floodplain mapping north of</p>

**Mattamy Homes Richmond Official Plan Application
Response to City of Ottawa June 8, 2009 Technical Circulation & Additional Comments
February 22, 2010**

#	Comment	From	Date	Mattamy Response	Action Taken
	... The development setbacks are one of the several constraints that should be clearly determined in support of the OPA that will endorse the concept plan	RVCA	August 25, 2009 (Pg 1, Part of Para. 2)	<p>City & RVCA September 23, 2009 Meeting:</p> <ul style="list-style-type: none"> • There are setbacks less than 30m normal high water mark for intermittent watercourses • Rationale required that supports OP policy (flow, habitat, enhancements, etc) • For those sections of tributaries where meanderbelt defining constraint, distance from normal high water mark (= meanderbelt) will be included 	Perth Street. As well, the Moore setback is based on the rationale contained in Section 6.2.4.4 of the revised report.
4.	The legend on Figure 23 currently refers to a 30m setback from stream centre, rather than the agreed upon 30m from normal high water mark. Natural Systems would like the stream fabric, 30m from normal high water mark, meander belt width and regulatory floodplain shown together on Figure 23. Please remove the 30m buffer from stream centre, and also show where suggesting to pipe watercourses.	City - Natural Systems Unit, July 2, 2009 Letter	July 10, 2009	<p>Stream Fabric - Figure 22 (old Figure 23) has been revised to read – <i>30m buffer from normal high water</i></p> <p>Figure 25 is the overall legislated constraint area based on the greatest aquatic, floodplain and terrestrial constraint.</p> <p>The setback table identifies the greatest constraint and setback distance.</p> <p>None of the watercourses will be piped. JED-1 will be filled in within the development area south of Ottawa Street. Please refer to revised Figure 36.</p> <p>City & RVCA September 23, 2009 Meeting: <i>Comment addressed</i></p>	<p>See Figure 22 and 25</p> <p>See Figure 36 – <i>SWM Option 3 and resulting Fish Habitats</i> for ultimate watercourse classification and status under post development conditions</p>
5.	The Natural Environment & Impact Assessment Study should address the potential effects associated with road crossings and infrastructure pipes crossing watercourses on the Mattamy lands. The only reference is to the updating of the culvert currently on the Van Gaal Drain. The information included in the Water & Sanitary Master Servicing Study on where the crossings will be for the water and sanitary infrastructure should be integrated with the Natural Environment & Impact Assessment Study and impacts to fisheries communities and mitigation measures discussed.	City - Natural Systems Unit, July 2, 2009 Letter	July 10, 2009	<p>There are only three water crossings proposed for the Mattamy lands. They are:</p> <ul style="list-style-type: none"> • North of Perth – road and pipe crossing of the Van Gaal • Martin Street extension – pedestrian and sanitary connection • Village Collector Crossing of VG-R3-2 <p>The crossing north of Perth Street is an existing tractor crossing (undersized corrugated steel pipe). That structure would be replaced with a larger structure more capable of properly conveying high flow events. There is no critical spawning habitat for fish in that area, so no concerns with regard to potential impacts to sensitive habitat. The structure would be designed according to current and best practices. A pedestrian crossing is proposed for Martin Street. The structure will be designed to respect the identified fish habitats in that area (potential pike spawning), with a structure that does not alter spring flows to that area. The footprint of the structure would be minimized. The sanitary crossing at Martin Street will involve laying the pipe beneath waterways which will have to comply with permits, timing, required environmental safeguards and mitigating construction impacts per the OMT's Environmental Standards and Practices and the RVCA.</p>	<p>The response is found in Section 4.9 (pg 86) of the revised 2010 report.</p> <p>Figure 30 shows the infrastructure/servicing locations</p>

**Mattamy Homes Richmond Official Plan Application
Response to City of Ottawa June 8, 2009 Technical Circulation & Additional Comments
February 22, 2010**

#	Comment	From	Date	Mattamy Response	Action Taken
				<p>A village collector is proposed to cross an intermittent section of the Moore Branch (VG-R3-2). The crossing will be designed to convey spring flows as per the existing condition. There is no critical fish habitat spawning in the area, while spawning by cyprinids and other species can be expected to be carried out as usual with the crossing in place. The culvert structure can be anticipated to provide a refuge during periods of low water.</p> <p>City & RVCA September 23, 2009 Meeting: <i>Response satisfactory. On Figure 27a – circles around infrastructure/ servicing locations will be identified</i></p>	
6.	<p>Impacts to the Jock River</p> <p>While natural systems agrees with the conclusion that “the proposed project has no direct impact on the Jock River with the exception of a possible SWM outlet”, please document the rationale that was used to reach this conclusion.</p>	City - Natural Systems Unit, July 2, 2009 Letter	July 10, 2009	<p>We will revise the report to add the following rationale: Apart from the footprint of the SWM outlet at the end of Ottawa Street, there is no physical footprint of any Mattamy-related infrastructure proposed for the Jock River. The proposed development will have indirect influences on the Jock River including changes to flow routing (more storm flows to the Jock River, see DSEL report), and changes to runoff water quality (reduced TSS and nutrients; see AECOM report). Thus, indirect impacts of the proposed development on the Jock River are anticipated to have no net negative impact.</p> <p>At detailed design, the stormwater outlet will be designed in consultation with an aquatic and fluvial geomorphology consultants to minimize impacts to the Jock River and associated aquatic habitat. The outlet design will be subject to approval from the City of Ottawa, Rideau Valley Conservation Authority and Ministry of Environment.</p> <p>City & RVCA September 23, 2009 Meeting: <i>Response satisfactory</i></p>	The response is found in Section 6.2.4.6 (pg ~124) of the revised 2010 report.
7.	<p>Terrestrial Setbacks</p> <p>Your May 14, 2009 email states that the setbacks from the Communities 11, 12 and 13 will be addressed at the plan of subdivision stage. The Natural Environment & Impact Assessment Study should provide more guidance on how to protect interior bird habitat and the health of the woodlot for the further analysis that will be done at the plan of subdivision stage.</p>	City - Natural Systems Unit, July 2, 2009 Letter	July 10, 2009	<p>The following text will be included in the revised report to address the comment:</p> <p>The analysis of the impact of the proposed development on interior forest birds will be carried out within the EIS. The analysis will consider the “area” requirements of each of the interior forest birds observed in the woodland (Black-and-White-Warbler, Black-Throated Green Warbler, Ovenbird, Veery, Woodthrush), the area available to them, and the mitigations that will minimize/avoid risks to these species. The EIS will also consider the influence of the local significant woodlands adjacent and near the Mattamy land holding, as they are generally larger, and more significant to the local avian ecology.</p> <p>City & RVCA September 23, 2009 Meeting: <i>Response satisfactory</i></p>	The response is found in Section 4.5 (pg 81) of the revised 2010 report.
8.	Section 4.78 of the City’s new Official Plan states that an Environmental Impact Statement (EIS) is required for development proposed within 120m of significant woodlands. The	City - Natural Systems Unit, July	July 10, 2009	Figure 22 shows the boundaries of the significant woodland. Figure 25 will also be revised to show the 120m EIS trigger for the	Figure 23 – Terrestrial Constraints (old Figure 22) has added the EIS

Mattamy Homes Richmond Official Plan Application
Response to City of Ottawa June 8, 2009 Technical Circulation & Additional Comments
February 22, 2010

#	Comment	From	Date	Mattamy Response	Action Taken
	<p>boundary of the significant feature must be defined in the Natural Environment & Impact Assessment Study to help determine the need for an EIS at a later stage.</p> <p>.... In the interim the adjacent lands should be identified as a constraint on the mapping with text included in the report to note that although the adjacent lands have been identified as a constraint, development may be permitted on these adjacent lands subject to recommendations of an EIS (i.e. the final development may be set back less than 120 metres from the boundary of the significant woodlands).</p>	<p>2, 2009 Letter</p> <p>RVCA</p>	<p>August 25, 2009 (Pg 1, Para. 4)</p>	<p>significant woodland (please see attached).</p> <p>City & RVCA September 23, 2009 Meeting: <i>Meeting to take place October 1st to discuss woodlot evaluation and boundary</i></p> <p>City & RVCA October 7, 2009 Meeting: <i>City agreed that the boundary of the significant woodland had been defined adequately in the report. However, the Jock River corridor has been identified as a significant corridor and therefore, the EIS adjacent lands trigger applies to the entire length of the Jock River from the vegetation edge (communities 4,5,6,7,8,9 and 11). An EIS Table of Contents will be submitted to the City and RVCA for input prior to submitting the EIS.</i></p>	<p>120m trigger distance.</p> <p>Figure 25 – Overall Legislated Constraints shows the EIS 120m trigger distance as well.</p> <p>Section 4.5 (page 82) of the revised 2010 Report includes text on the EIS requirements.</p>
<p>9.</p>	<p>The Study should also include broad guidelines to protect the significant woodland and make recommendations for adjacent land uses such as a single loaded road or open space. No site alteration of other development related activities within 120m of the significant woodlands until Natural Systems has approved the EIS establishing the final setback distance and appropriate mitigation measures to protect the significant woodlands during and after the development of the property.</p> <p>... It would be also useful if the current report contained some recommendations for mitigative measures that would be considered in more detail during the preparation of the EIS.</p>	<p>City - Natural Systems Unit, July 2, 2009 Letter</p>	<p>July 10, 2009</p>	<p>Response to be included in revised report: Lands adjacent to the significant woodland have been farmed for many years, and provide a minimal ecological function. Considering that, the report will present these additional guidelines for ensuring the integrity and ecological function of the woodland is sustained:</p> <ul style="list-style-type: none"> • No works will be conducted within 120 m of the significant woodland until an EIS has determined an appropriate site-specific setback. • Setback developed in the EIS is to consider; <ul style="list-style-type: none"> ○ Ecological function of the significant woodland in relation to other local environmental features, ○ Potential for adjacent residential property damage due to windthrow and wildlife; ○ Potential damage to the woodland vegetation and wildlife as a result of increased access by persons and their pets; ○ Potential for designing a natural buffer that creates a transition of the woodland to residential areas, and that minimizes access by persons and their pets. ○ Potential for posting or distribution of educational materials targeting local residents, and communicating ways to minimize ecological damage. ○ Developments adjacent to the significant woodland and its buffer to be consistent with the “design-with-nature” approach ○ Development near or adjacent to the significant woodland along the Jock River should be sensitive to the features and functions of the woods when designing the orientation and layout of roadways and residential lots. <p>City & RVCA September 23, 2009 Meeting: <i>Response satisfactory but check OPA No. 76 to ensure response</i></p>	<p>Section 4.5 (page 82) of the revised 2010 Report includes text on the EIS requirements.</p>

Mattamy Homes Richmond Official Plan Application
Response to City of Ottawa June 8, 2009 Technical Circulation & Additional Comments
February 22, 2010

#	Comment	From	Date	Mattamy Response	Action Taken
10.	<p>Similar to the reports prepared to support the Minto Mahogany Official Plan Amendment, an EIS will be required to determine what development can occur without impacting its features/functions, as a significant woodland under the Provincial Policy Statement. Community 10 should be included in the EIS.</p> <p>The Natural Environment & Impact Assessment Study should address:</p> <ul style="list-style-type: none"> • The evaluation of the natural features: small woodlot behind Queen Charlotte and Burke intersection (W2), hedgerows and good quality trees along boundary of the site, woodland pond and rock outcrop in Jock River Floodplain • Page 84 states that the woodlot south of Ottawa Street (W2) will be only partially maintained. It should be noted that this woodlot is shown on aerial photographs from 1946, it has been undisturbed for 63 years and for it to show up on the 1946 photograph must have had trees of a good size at that time. The Natural Environment Impact & Assessment Study should explain why this woodlot is only partially maintained. • The impact of the development on the regionally significant plant species that are located in the study area: large duckweed, beaked sedge, broom sedge along Jock River Community, water speedwell in the channel of the Van Gaal drain. Please extend this analysis and mapping to include all the significant plant species that are listed in the appendix (i.e. Goldie's fern and Crawford's sedge). • The potential effects associated with road crossings and infrastructure pipes crossing vegetation and watercourses on the Mattamy lands. • How the hedgerow along the western boundary and hedgerow 3 will be protected if that portion of the Van Gaal Drain is piped as the Stormwater Management and Drainage Plan for the Mattamy Lands (page 41) states that the watercourse runs through the hedgerow. 	City - Natural Systems Unit, July 2, 2009 Letter	July 10, 2009	<p><i>complete</i></p> <p>The ecological function of community 10, as it relates to the significant woodland, will be evaluated within the EIS.</p> <p><u>Bullet 1 & 2</u> W2, at the time the inventories were carried out, was not considered part of Mattamy's land holding, and was described on the basis of observation from the western edge. In response to comments, an inventory was conducted in September 2009, with the results of that inventory provided as a separate attachment to this document. Based on the inventory conducted, the woodlot is not ecologically significant. There are several large trees (mostly White Ash and Bur Oaks) within the woodland.</p> <p>The proposed concept maintains the majority of the woodland. The road to the north may require some removal of trees along the northern edge depending on roadway right-of-way and design requirements. The concept includes new development on three sides of the woodland including housing and three roadways. A pedestrian pathway is also proposed to go through the woodland but will be confirmed through the Tree Conservation Plan. A number of mitigation measures are recommended in the attached woodlot description.</p> <p>The fieldwork and impact analysis for the hedgerows is complete. Further assessment will be undertaken in terms of health and good quality trees as part of the Tree Conservation Plan Report to be submitted with the Plan of Subdivision application.</p> <p>Two woodland ponds are contained within the Significant Woodlands and their value was discussed in the Natural Environment Report. Impact assessment will occur at the time of EIS. No direct impacts are anticipated because the Significant Woodlands will be maintained, but the potential for indirect impacts due to grading and/or groundwater changes will be examined.</p> <p>Limestone rock outcrop is very small and along shoreline of Jock River; it is well within Significant Woodland and no impacts are anticipated.</p> <p>Bullet 3: The mapping (Figure 7) correctly shows the only vegetation species in the study that are considered regionally significant. Goldie's Fern and Crawford's Sedge were confirmed to not be present. The Appendix was not updated at the time of printing, and will be updated for the final report. No direct impacts are anticipated to regionally significant plant species because they are situated in the Significant Woodland that will be maintained and in the Jock River and Van Gaal</p>	<p>September 2009 inventory summary of W2 is provided in Section 3.1.2.6.2 of the revised 2010 report.</p> <p>Guidelines for W2 contained in Section 4.6 (pg 83) of the revised 2010 report..</p> <p>Bullet 3 – Appendix 2 has been updated.</p> <p>Bullet 4 – addressed in Section 4.9, Water Crossings (pg 84) of the revised 2010 report.</p> <p>Bullet 5 – addressed in Section 6.1, Terrestrial Environmental Impacts (pg ~99)</p>

Mattamy Homes Richmond Official Plan Application
Response to City of Ottawa June 8, 2009 Technical Circulation & Additional Comments
February 22, 2010

#	Comment	From	Date	Mattamy Response	Action Taken
				<p>setbacks where no development is permitted.</p> <p>Bullet 4: The potential effects of road and infrastructure crossings on vegetation will be form part of forthcoming servicing/transportation reports/design. Potential effects of road and infrastructure crossings on watercourses (fish) will be provided in the revised Environment report. The concept proposes a single road crossing of the Van Gaal drain upstream of Perth Street, in a location with an existing culvert crossing. Guidelines will be provided for the upgrade of that crossing to minimize impacts to fish, fish habitat, and adjacent terrestrial/riparian vegetation. Where there are impacts to fish habitat, Mattamy will compensate for those impacts as per requirements under the Fisheries Act, assuming that DFO Authorizes the upgraded crossing.</p> <p>Bullet 5: The grading plan requires that hedgerow 3 be initially removed, re-graded, then re-instated. Initial inventories of H3 have indicated that there are no butternut, and no individual trees performing a significant ecological function. H3, after full re-instatement, will retain its function as a watercourse, and a localized wildlife corridor. Its main function in the concept design is as a green corridor and aesthetic buffer.</p> <p>The hedgerow along the western side of the property is present as part of the drainage ditches that are proposed to be retained under the existing plan. Some grading of the ditches may be required in order to convey surface flows, particularly through Section 8 of the Moore Branch. The western hedgerow will be maintained under the proposed concept. Some trees may need to be removed to assist with re-grading.</p>	
11.	Given that the property was used for agricultural purposes and there are not many trees on the property, Natural Systems would like to see all hedgerows (including hedgerow 4), the good quality trees above hedgerow 3 and the small poplar woodlot at Perth Street retained. Page 36 of the Stormwater Management and Drainage Plan states "It has been identified by the client that efforts be made to maintain the existing hedgerows along the western boundary and internal to the site".	City - Natural Systems Unit, July 2, 2009 Letter	July 10, 2009	<p>Revised Figure 25 (attached in this package) provides the updated constraint map that shows which natural features are proposed for retention based on: 1) PPS/environmental significant; 2) local feature, not deemed significant but proposed for retention by Mattamy in the concept plan.</p> <p>The hedgerows, woodlot W2 and the small popular woodlot were not deemed ecologically significant. However, Mattamy's Concept Plan proposes to retain 5 of the 6 hedgerows (H4 not to be protected), W2 and a large portion of the poplar woodlot within the creek setback limit. Further assessment will be undertaken in terms of health and good quality trees within hedgerow 4 as part of the Tree Conservation Plan Report to be submitted with the Plan of Subdivision application. In addition, the landscape plan for the Plan of Subdivision will be</p>	<p>Please refer to Figure 31 in the revised 2010 report.</p> <p>Comprehensive hedgerow response is contained in Section 6.1, Terrestrial Environmental Impacts (pg ~99).</p>

**Mattamy Homes Richmond Official Plan Application
Response to City of Ottawa June 8, 2009 Technical Circulation & Additional Comments
February 22, 2010**

#	Comment	From	Date	Mattamy Response	Action Taken
				<p>introducing new trees that will increase the amount of vegetation cover over existing conditions.</p> <p>A comprehensive response on the hedgerows is attached. As stated in Section 4.3 of the report, hedgerows provide minor ecological function.</p> <p>Page 36 of the Stormwater Management and Drainage Plan is referring to Hedgerow 3 (Moore Tributary) not Hedgerow 4.</p> <p>City & RVCA September 23, 2009 Meeting: <i>Response satisfactory</i></p>	
12.	<p>Recreation and Path Network The Natural Environment & Impact Assessment Study should address:</p> <ul style="list-style-type: none"> • The impact of the paths on the natural features needs to be accounted for/evaluated. Paths will preferably be located on the edge of the hazard land. The concept plan shows multiple paths through the woodlots and riparian vegetation at Jock River, Van Gaal Drain and the woodlot W2. • The impact on natural features of the pedestrian bridge that crosses the Van Gaal Drain and the floodplain. • The role of the hydro easement in providing linkages between green spaces. 	City - Natural Systems Unit, July 2, 2009 Letter	July 10, 2009	<p>TRAILS: We will remove the multiple pathways in the natural pathways in the concept plan. We will show general pathways at the edge of the hazard area. General guidelines will be provided in the revised report:</p> <ul style="list-style-type: none"> • Appropriate location/layout of the trail system being respectful to sensitive features and functions that should not be exposed/disturbed • Low impact footpaths (width and materials) should be encourage • Pathway materials, width of pathway considering both upland and wetland conditions • Identification of areas to locate pedestrian-friendly barriers (e.g. placement of dead logs, rocks, etc) to discourage public access • Decommissioning existing trails that do not form part of the recommended trail system • Interpretative sign locations <p>PEDESTRIAN BRIDGE – EXTENSION OF MARTIN STREET The pedestrian bridge is conceptual at this point. However, the following guidelines will be included in the revised report to assist at the draft plan stage when details of the bridge crossing will be undertaken:</p> <ol style="list-style-type: none"> a. Pedestrian bridge is to be designed is such a way as to not impact spring flows and water levels of the Arbuckle Drain. b. Footprint of the bridge to be outside of the 2-year event, or to have a width not less than ~ 1.2x bankfull. <p>These measures will protect the aquatic habitat including pike spawning in the Arbuckle Drain.</p> <p>HYDRO EASEMENT</p>	<p>Response found in Section 4.4, Pathway and Trails of the Environmental Management Guidelines (pg 80)</p> <p>Concept Plan (Section 5) now shows the hydro corridor as lands owned by others with no proposed pedestrian linkage.</p> <p>Section 4.4 and Table 21, Section 7 stated that pathway locations will be confirmed through the EIS or Tree Conservation Report.</p>

**Mattamy Homes Richmond Official Plan Application
Response to City of Ottawa June 8, 2009 Technical Circulation & Additional Comments
February 22, 2010**

#	Comment	From	Date	Mattamy Response	Action Taken
				<p>The hydro corridor is vacant lands will no structures. Mattamy Homes is pursuing purchasing the hydro lands as the corridor is isolated on our lands (no extension to the east or west). As such, we will amend the concept plan to not include the hydro lands as "green" linkage.</p> <p>City & RVCA September 23, 2009 Meeting: <i>Response satisfactory – ensure reports notes that the pathway locations will be confirmed through the EIS or Tree Conservation Report</i></p>	
13.	<p>Fill Issues Your email states that at this stage only a high level assessment of the impacts of the fill can be conducted and that once the preliminary grading plan is confirmed further description on feasibility can be provided at the draft subdivision plan stage. Although further information may be provided at the subdivision plan stage, Section 4.3 does not adequately address the issue of the grading on woodlot (W3) and the feasibility of retaining the hedgerow and other vegetation. Natural Systems would like clarification on the potential impact of how the placement of the fill will be coordinated with the preservation of hedgerows, woodlots, and good quality trees and at the boundary of Mattamy's property.</p> <p>The Stormwater Management and Drainage Plan discuss the grading strategy (Page 69) and its impact on the boundary implications and maintaining hedgerows. This information should be integrated with the Natural Environment & Impact Assessment Study.</p>	City - Natural Systems Unit, July 2, 2009 Letter	July 10, 2009	<p>The placement of fill on the site plays a significant role on which trees and natural features can be incorporated into the development. However, the amount of fill required is dictated by the servicing requirements. Based on the recommended preliminary grading plan in the Stormwater Management and Drainage Plan, 1.2m of fill is required to service the site. Where fill is to be placed adjacent to trees and natural features, the following guidelines will apply and be added to the report:</p> <ul style="list-style-type: none"> • Grading and fill required for stormwater management and other servicing infrastructure will be minimized and where required, will be managed to protect the significant woodland, retained hedgerows and treed areas on and adjacent to the site. <p>Woodlot 3 is on an adjacent property. Fill/grading guidelines require that grading on Mattamy land respect existing grades on neighbouring properties. Further, there is a drainage ditch (Section 8 of the Moore Branch) that flows on the property line. The SWDMP uses that drainage ditch to convey overland flows (in large part from W3) to and through the Moore Branch.</p> <p>Hedgerow 3 will be highly modified. That section of the Moore Branch is to be regraded, then re-instated to retain a green aesthetic corridor through the development.</p> <p>City & RVCA September 23, 2009 Meeting: <i>Response satisfactory – add cross-section in report to show general tapering down of grading to match existing.</i></p> <p>City & RVCA October 7, 2009 meeting: <i>Grading guidelines contingent on sump pump strategy being approved. Finalize once preliminary grading plan approved.</i></p> <p>Mattamy February 19, 2010 response: <i>Sump pump strategy and preliminary grading plan being updated to reflect comments received January 29, 2010 and February 2, 2010 from city staff. Based on comments and meeting with city staff,</i></p>	Response found in Section 4.7, Grading of the Environmental Management Guidelines (pg 83).

**Mattamy Homes Richmond Official Plan Application
Response to City of Ottawa June 8, 2009 Technical Circulation & Additional Comments
February 22, 2010**

#	Comment	From	Date	Mattamy Response	Action Taken
				<i>grading guidelines appropriate.</i>	
14.	<p>Development in the Floodplain</p> <p>Natural Systems will consider the sections of the Natural Environment & Impact Assessment Study pertaining to development in the floodplain to be as draft until the Rideau Valley Conservation Authority has reviewed and approved the considerations for keeping development out of the floodplain north of Perth Street, adjacent to the Van Gaal Drain and south of Ottawa Street.</p> <p>The second paragraph of Section 3.2 on page 32 is not entirely accurate with respect to the floodplain south of Ottawa Street. The works authorized by the Conservation Authority's letter of permission issued on March 3, 2009 will not re-establish the 1:100 yr floodplain limit to the originally approved berm locations. The berm as originally approved will be removed and new berms will be constructed to the east and southwest of the high point of land, thereby eliminating the spill areas that occur on either side of this high point. Figure 10 correctly shows the approximate extent of the revised floodplain if the berm work is implemented as approved by the Conservation Authority. However, it is to be noted that these modifications are completely depended on the design and implementation of an alternative drainage scheme for the lands north of the berm.</p> <p>Figure 24 (1:100 year Floodplain) and Figure 25 (combined environmental constraints) will require revision when the floodplain mapping exercise has been completed. This could also have implications for the development concept plan (Figure 26) such that development does not encroach into the floodplain.</p>	<p>City - Natural Systems Unit, July 2, 2009 Letter</p> <p>RVCA</p> <p>RVCA</p>	<p>July 10, 2009</p> <p>August 25, 2009 (Pg 2, Para. 2)</p> <p>(Pg 4, Part of Para. 4)</p>	<p>The area north of Perth Street is hatched indicating that this area is subject to updated floodplain mapping. Once the mapping is finalized, the relevant Figures including the concept plan will be revised.</p> <p>For the area south of Ottawa Street, the wording of the text in Section 3.2 will be revised as per the RVCA comments to clearly indicate that the new berm location as per Figure 10 is the new 100 yr floodplain elevation conditional on the berm and alternate drainage scheme being approved by the RVCA.</p> <p>City & RVCA September 23, 2009 Meeting: <i>Response satisfactory</i></p>	Response found in Section 3.2.2, Drainage (pg 36) of the revised 2010 report.
15.	The Official Plan policy 4.8.1 quoted on Page 56 of the Stormwater Management Drainage Report (DSEL, March 2009) is now out of date. The City's new Official Plan policies approved by Council on June 10, 2009 state the City will not permit site alteration, or the construction of buildings and structure in the flood plain except for facilities that must locate in the floodplain such as bridges, erosion control structures, minor additions, passive non-structural uses, uses permitted in accordance with two-zone flood plain policy areas.	City - Natural Systems Unit, July 2, 2009 Letter	July 10, 2009	<p>Mattamy's Official Plan Amendment was deemed complete on May 26, 2009. As such, the 2003 Official Plan policies apply to this application.</p> <p>City & RVCA September 23, 2009 Meeting: <i>Response satisfactory</i></p>	No Action Required.
16.	<p>Communal Well in the Floodplain</p> <p>An email sent on May 14, 2009 to Sean Moore states that the well is not in floodplain. There is conflicting information on the location of the well in the Village of Richmond Water & Sanitary Master Servicing Study and in Figure 26 of the Natural Environment & Impact Assessment Study. Figure 4.3 in the Servicing Study shows location TBD but Figure 26 (Proposed Development Concept) shows the communal well area in the floodplain. Natural Systems would like to see the communal well out of the floodplain in all figures in the reports.</p>	City - Natural Systems Unit, July 2, 2009 Letter	July 10, 2009	<p>The communal well is not located in the floodplain. This is accurately reflected on the concept plan.</p> <p>New Figure 27 (attached) will be added to the report that has the constraint map over the concept plan to clearly show which features are being incorporated into the concept plan and the communal well is situated outside the floodplain.</p> <p>The concept plan fully respects the constraint layer.</p> <p>City & RVCA September 23, 2009 Meeting:</p>	Please refer to Figure 30 and 31 of the revised 2010 report.

Mattamy Homes Richmond Official Plan Application
Response to City of Ottawa June 8, 2009 Technical Circulation & Additional Comments
February 22, 2010

#	Comment	From	Date	Mattamy Response	Action Taken
	It would be useful to have an overlay of the constraints map on the development concept plan.	RVCA	August 25, 2009 (Pg 4, part of Para. 4)	<p><i>Response satisfactory but add that the development is in the existing well head protection area and proposed communal well would require a well head protection area study in the future. Sean Moore to check with Michel Kearney about timing of WHPA for proposed communal wells in Mattamy lands.</i></p> <p>City & Mattamy November 19, 2009 Meeting: <i>Meeting with City staff, Mattamy and Golder to discuss timing of Well Head Protection Study. General agreement that the study would not be required prior to an OPA. The WPP would probably be required prior to registration of a subdivision.</i></p>	
17.	<p>Fisheries Enhancements</p> <p>Natural Systems will consider the sections of the report pertaining to fisheries as draft until the Rideau Valley Conservation Authority has reviewed and approved the Natural Environment & Impact Assessment Study's conclusions on fisheries.</p>	City - Natural Systems Unit, July 2, 2009 Letter	July 10, 2009	Ok	Please refer to RVCA comments
18.	There is a discrepancy in the report on the loss of reaches of the Moore Branch that Natural Systems would like clarified. On Page 81 it is stated "The Moore Branch would be left in place, potentially with enhancements in upper sections." On Page 96, it is stated "The loss of section 8 of the Moore Branch is also considered to be minor..."	City - Natural Systems Unit, July 2, 2009 Letter	July 10, 2009	<p>Under the preferred SWM Option 3, the upper Section 8 of the Moore Branch is proposed to be retained in its current form for the purpose of conveying stormwater (revised Figure 32). Some grading of the ditch may be required in order to convey surface flows. Lower Sections of the Moore Branch are also to be left in place for that purpose. The proposed enhancement of the Moore Branch was to Section 2 where continuous baseflow would be maintained from the adjacent SWM pond. There has been no consideration for the enhancement of pike spawning in the lower reaches of the Moore Branch because those lands are not part of the Mattamy land holding, and because there has been some uncertainty whether the Arbuckle Drain would be classified as a Municipal Drain. If the Arbuckle receives such as classification, DFO has indicated that enhancements to the Moore Branch would be at future risk of destruction through drain-maintenance activities.</p> <p>Additional potential enhancement measures will be included in revised report, reflecting the suggestions by the City, and as discussed previously above.</p> <p>Please see Figure 32 which shows which portions of the Moore Branch to be retained and those sections proposed for fill or entombment.</p> <p>City & RVCA September 23, 2009 Meeting: <i>Response satisfactory</i> <i>Add fisheries enhancement opportunities (pike spawning) on the Arbuckle Drain (off Mattamy lands) and potential implementation</i></p>	<p>For pike spawning enhancements, please refer to Sections 3.2.6.3, 4.3, 5.2.3, 6.2.4.4 and Figure 28 of the revised 2010 Report.</p> <p>See Figure 36 – <i>SWM Option 3 and resulting Fish Habitats</i> for ultimate watercourse classification and status under post development conditions (old Figure 32).</p>

Mattamy Homes Richmond Official Plan Application
Response to City of Ottawa June 8, 2009 Technical Circulation & Additional Comments
February 22, 2010

#	Comment	From	Date	Mattamy Response	Action Taken
				<p><i>options.</i></p> <p>City and RVCA October 7, 2009 Meeting: <i>Pike spawning opportunities in the Design with Nature Guidelines. Table illustrating implementation triggers to be prepared and submitted for next meeting (TBD).</i></p> <p>Mattamy February 19, 2010 Response: <i>The trigger table was not prepared as the preferred stormwater management plan now includes the pike spawning enhancements as part of the new outlet channel from the stormwater management pond situated in the floodplain.</i></p>	
19.	<p>The report does not include much information on enhancements. Here are some of the enhancements Natural Systems would like to see:</p> <ul style="list-style-type: none"> • Evaluate potential for better spawning for pike. • Bio-engineering enhancements where erosion is occurring. • Improve riparian belt shading on remaining watercourses. • Evaluate opportunities for natural channel design. 	City - Natural Systems Unit, July 2, 2009 Letter	July 10, 2009	<p>The revised report will consider some of these additional enhancements. The major opportunity for Mattamy is in the vicinity of the proposed SWM pond situated adjacent to the Moore Branch. The enhancement suggested in the Environment report was one of maintaining baseflow to Section 2 of the Moore Branch. Given that the site will be graded, further planform (and other) enhancements to the Moore Branch are possible, and could be used as additional "offsets" to losses elsewhere on the property.</p> <p>The tractor crossing of the Van Gaal Drain currently causes a localized velocity barrier to upstream fish migrations during high-water events. Upgrading of that crossing for use by cars would involve increasing culvert length. Those losses to fish habitat could be offset locally by an improved conveyance through the culvert, eliminating excessive velocities during high-water events.</p> <p>City & RVCA September 23, 2009 Meeting: <i>Response satisfactory. Add section with summary of enhancements and triggers for implementation including natural channel design for VC-R3-2, for improvements in Moore Branch and other enhancements. Determine if any limitations due to municipal drain status.</i></p>	For enhancements, please refer to Sections 3.2.6.3, 4.3, 5.2.3, 6.2.4.4 and Figure 28 of the revised 2010 Report.
20.	<p>Recharge Area</p> <p>The southern area of Mattamy's property is identified as a groundwater recharge area in the Wellhead Protection Study prepared by Golder in 2003 (Figure 2.17). The Natural Environment & Impact Assessment Study should address the impact the development could have on the groundwater recharge area.</p>	City - Natural Systems Unit, July 2, 2009 Letter	July 10, 2009	<p>The Golder 2003 study identifies much of the City of Ottawa area as a groundwater "recharge" area, in the sense that precipitation moves downward through the ground as opposed to moving upward (discharge). The amount of discharge in a given area is a function of precipitation and the permeability of the geological materials that infiltrating precipitation must pass through.</p> <p>Figure 2.17 of the 2003 report illustrates the amount of recharge that was applied to the groundwater flow model. Recharge was applied to the entire model, based on soil types. The majority of the model domain was underlain by clay, and was assigned a low recharge value of 5 mm/year. Areas underlain by till were assigned a somewhat greater recharge value of 15mm/year. The granular deposit located</p>	Response found in Section 3.1.2.1 (pg 10) of the revised 2010 report

Mattamy Homes Richmond Official Plan Application
Response to City of Ottawa June 8, 2009 Technical Circulation & Additional Comments
February 22, 2010

#	Comment	From	Date	Mattamy Response	Action Taken
				<p>to the northeast of Richmond was assigned a recharge value of 200mm/year.</p> <p>The area in question is not a significant source of recharge to the local aquifers and, as such, an assessment is not warranted.</p> <p>There are two potential sensitivities that relate to the change in groundwater in the southern portion of Mattamy's land holding. First, the significant woodland in the southwest of the property has relatively dry soil (see page 85 of the NE study), and likely would be minimally impacted if there were further changes to groundwater levels.</p> <p>Second, drainage from the property south of Ottawa Street is currently conveyed via JED1. The Jock River in the vicinity of the berm is a high quality habitat consisting of pickerel weed and other emergent macrophytes. Water levels in the macrophyte bed are maintained by the Jock River, and not by flows from JED1. Further, the drainage pattern prior to construction of JED1 had surface waters from the property south of Ottawa Street being conveyed north to the Moore Branch. As summarized on page 94 of the NE report, there should therefore be no net negative impact of re-routing surface drainage.</p> <p>City & RVCA September 23, 2009 Meeting: <i>Response satisfactory</i></p>	
21.	Page 49 of the Natural Environment & Impact Assessment Study states that the sample collected from the Moore Branch reflects the quality of groundwater contributions to the watercourse. The Stormwater Management and Drainage Plan states that the "groundwater is seeping from a tile drain at a hedgerow separating sections 2 and 3". Please include in the Natural Environment & Impact Assessment Study what measures will be taken to ensure that groundwater discharge areas won't be altered by development on the land.	City - Natural Systems Unit, July 2, 2009 Letter	July 10, 2009	<p>The comment on "poor water quality" is related to the presence of tile drainage in Section 5 of the Moore Branch, a conclusion reached by a Fluvial Geomorphologist conducting a site inspection. Measurement of metals and nutrients in surface water at that location (see Kilgour report, page 51) indicated that the water is of relatively high quality. The sentence will be removed from revised SWM (DSEL) and Environment (Kilgour) reports.</p> <p>City & RVCA September 23, 2009 Meeting: <i>Response satisfactory</i></p>	Comment removed – See Section 3.2.3.5.4. (pg 48) of the revised 2010 report
22.	Owner Awareness The Natural Environment & Impact Assessment Study should include a recommendation to prepare owner awareness packages with information on environmental issues for new residents.	City - Natural Systems Unit, July 2, 2009 Letter	July 10, 2009	<p>Ok – recommendation will be included in revised report under guidelines</p> <p>City & RVCA September 23, 2009 Meeting: <i>Response satisfactory</i></p>	Guideline contained in Section 4.10, Environmental Management Guidelines (pg 85)
23.	Comments on Figures Figure 22 showing the terrestrial constraints to development should show the woodlots and hedgerows to be retained on the concept plan and features outside the Mattamy land holding but shown in the concept plan. In addition, the regionally significant plants should be shown as a constraint. In addition, until the setback to the significant woodland is defined through the completion of the EIS, the vegetation adjacent to the significant	City - Natural Systems Unit, July 2, 2009 Letter	July 10, 2009	<p>A new Terrestrial Figure (see attached, new Figure 27) has been prepared that shows:</p> <ul style="list-style-type: none"> • Terrestrial areas deem provincially significant/protected through legislation (significant woodlands) • Areas of local interest not legislated for protection but 	Please refer to Figures 30 & 31 of the revised 2010 Report

**Mattamy Homes Richmond Official Plan Application
Response to City of Ottawa June 8, 2009 Technical Circulation & Additional Comments
February 22, 2010**

#	Comment	From	Date	Mattamy Response	Action Taken
	<p>woodland should be shown as an environmental constraint.</p> <p>...It would be useful to have a summary section or table to define all constraints (setbacks, meanderbelts, floodplain, adjacent lands, etc) that have been taken into consideration.</p>	RVCA		<ul style="list-style-type: none"> • voluntarily retained (hedgerows, W2) • EIS trigger Area (120m adjacent to significant woodland) <p>The regional significant plants are captured in the environment constraint areas (Jock River and Van Gaal setbacks). The water speedwell is considered regionally significant, and was observed in the vicinity of the existing tractor crossing. Any works related to the crossing will consider this species, despite that it is not tracked provincially (it is an exotic species).</p> <p>Figure 25 – Constraints has been revised (see new Figure in attachment) that breaks down the constraints into the following categories:</p> <ul style="list-style-type: none"> • Floodplain/Creek Setbacks • Significant Woodland • EIS 120m Trigger • Voluntarily retained Terrestrial Features <p>Overall the Concept Plan is proposing to remove:</p> <ul style="list-style-type: none"> • A portion of Community 1 – Popular Woodlot • Hedgerow 4 • Removal and reinstatement of Hedgerow 3 • Filling of JED-1 • Potential tree removal along the northern edge of W2 may result due to road alignment/right-of-way requirements <p>City & RVCA September 23, 2009 Meeting: <i>Response satisfactory</i> For Figure 25 – change to two different colours – 1) legislated; 2) voluntary</p>	
24.	All vegetation shown on Figure 22, should be retained and shown on Figure 25, combined environmental constraints. Figure 25 should show the existing regulatory flood plain, vegetation adjacent to the significant woodland and the woodlots and hedgerows to be retained. All drains should be marked, and drains proposed for closure should be highlighted.	City - Natural Systems Unit, July 2, 2009 Letter	July 10, 2009	<p>New Figures (27, revised 25, see comment above) showing constraint lands recommended from natural environment assessment based on regulatory framework; and, those features being proposed for retention by Mattamy Homes although only local features of interest.</p> <p>Relevant figures will be revised to include both names and identification numbers of all drains.</p> <p>City & RVCA September 23, 2009 Meeting: <i>Response satisfactory</i></p>	Please refer to Figure 31 of the revised 2010 report
25.	Figure 26 showing the proposed development concept plan should show the remaining drains and connections off site to VG-R2-2.	City - Natural Systems Unit, July 2, 2009 Letter	July 10, 2009	<p>This is shown in the Concept Plan at the northern boundary as Park & Open Space.</p> <p>City & RVCA September 23, 2009 Meeting: <i>Response satisfactory</i></p>	No Action Required
26.	Map needed to identify all drains – couldn't find Jockvale Estates Drain (Section 3.6.4), nor	City	July 10, 2009	Added numeric labeling of drains to text to enable cross referencing.	Text updated to reference both

Mattamy Homes Richmond Official Plan Application
Response to City of Ottawa June 8, 2009 Technical Circulation & Additional Comments
February 22, 2010

#	Comment	From	Date	Mattamy Response	Action Taken
	East and West Main Drains.			City & RVCA September 23, 2009 Meeting: <i>Response satisfactory – show off-site drain along Ottawa Street coming from the west</i>	numeric identification number and name of watercourse. Figure 36 shows the off-site drain along Ottawa Street
27.	Possibly revise Figure 2? to incorporate all drain names.	City	July 10, 2009	Yes – Figure two will be updated to include drain names City & RVCA September 23, 2009 Meeting: <i>Response satisfactory</i>	Figure 2 (pg 5) has been updated to include all names of drains
28.	The red lines delineating Mattamy’s land are not always consistent on the Figures. Sometimes lands south of the Jock River are included and other times they are not.	City	July 10, 2009	See comment 1 (NEAS) – figures to be revised to be consistent to show Mattamy lands north of railway corridor City & RVCA September 23, 2009 Meeting: <i>Response satisfactory</i>	See Response to Comment #1
29.	All guidelines for development should be gathered in one spot in the report including: <ul style="list-style-type: none"> • development setbacks • meander belts for all relevant watercourses (p. 74, 75, Figure 23) • Significant Woodlands (OPA) • How future management of streams to be undertaken (Sec. 3.3.7) • terrestrial constraints to development (Fig. 22) 	City	July 10, 2009	Agree – see attached new section that summarizes all guidelines being recommended City & RVCA September 23, 2009 Meeting: <i>Response satisfactory – Natural Systems has included comments on the guidelines. Kilgour & Associates to review and provide final guidelines at October 7th meeting.</i> City & RVCA October 7, 2009 Meeting: <i>Kilgour & Associates provided revised guidelines. These guidelines were revised based on input from the meeting. Guidelines dated October 9, 2009 submitted to City and RVCA for approval.</i>	Please refer to Section 4 - Environmental Management Guidelines of the revised 2010 Report
30.	Page 84 - Reference in 1 st sentence should be to Figure 6 and not the one shown.	City	July 10, 2009	Figure reference will be added to Section 4.3 City & RVCA September 23, 2009 Meeting: <i>Response satisfactory</i>	Correct reference to Figure 6 in Section 6.1 (now page ~98) of the revised 2010 report
31	In Section 1.1, page 1 it is noted that the final natural environment report will be submitted in 2009 that “will propose the natural environment recommendations for the Mattamy lands including areas to be protected and setbacks from sensitive areas”. There needs to be clear understanding of the purpose and expectations regarding the current report and the subsequent final report with respect to the OPA.	RVCA	August 25, 2009	The report has determined which areas to protect and setbacks for watercourses. Geotechnical hazard still needs to be addressed to confirm Van Gaal setback (along with floodplain mapping). We will have this information available in the final report. Setback from the significant woodland will be undertaken at draft plan stage through preparation of EIS. The report will be revised to include additional figures, tables, text and guidelines section to clearly address this comment. City & RVCA September 23, 2009 Meeting: <i>Response satisfactory – see response to Comment #2 on setbacks</i>	Comment addressed in Section 1.1 and Section 7 of the revised 2010 Report
32.	Section 2.2.2 on page 9 notes there are six wetland vegetation community types (totaling 5ha) on the Mattamy lands adjacent to the Jock River. It is also noted that these wetlands have not been identified as significant. Is this because they were not evaluated by MNR, or were they evaluated and found not to be significant. Would these wetlands likely be significant if they were fully evaluated in accordance with the MNR protocol?	RVCA	August 25, 2009	Wetlands evaluation was not undertaken as they are being protected as part of the Significant woodland and Jock River setback. Floodplain buffer and EIS will determine the appropriate buffer considering the upland and wetland features	No action required

**Mattamy Homes Richmond Official Plan Application
Response to City of Ottawa June 8, 2009 Technical Circulation & Additional Comments
February 22, 2010**

#	Comment	From	Date	Mattamy Response	Action Taken
				<p>City & RVCA September 23, 2009 Meeting: <i>Response satisfactory – no further action required</i></p>	
33.	It would be useful if Figure 4 on page 11 indicated the 120 metre adjacent lands boundary to the Provincially Significant Richmond Fen to clearly demonstrate that the Mattamy lands are not affected by this boundary.	RVCA	August 25, 2009	<p>New Figure 27 has the 120m trigger for EIS</p> <p>City & RVCA September 23, 2009 Meeting: <i>Response satisfactory</i></p>	No action required
34.	The second paragraph of Section 2.2.3 on page 12 states that the woodlands north and south of the Jock River are likely “significant woodland” based on the definition contained in the City’s OP (2008). Through further discussions with the City, we need to move beyond “likely” and a clear statement is required regarding the status of these woodlands and their exact boundary.	RVCA	August 25, 2009	<p>This was based on status of “draft significant woodland” criteria. We will remove “likely” and state that the woodland meets the definition of significant woodland as per criteria.</p> <p>City & RVCA September 23, 2009 Meeting: <i>Response satisfactory but will discuss text recommendation at the October 7th meeting</i></p> <p>City & RVCA October 7th Meeting: <i>Clarity provided – report wording satisfactory but remove “likely” and state it is significant woodland.</i></p>	Please refer to Section 3.1.2.3 (pg 14) of the revised 2010 report.
35.	One butternut tree has been identified in each of the vegetation communities 11 and 13. Their condition is described as “fair”. Are they providing a viable seed source? Is there any regeneration?	RVCA	August 25, 2009	<p>The condition of the butternut trees was not determined since, at the time of the inventory we knew that they were likely to be within an ecological constraint area.</p> <p>City & RVCA September 23, 2009 Meeting: <i>Response satisfactory</i></p>	No action required
36.	Section 2.2.12 on pg. 28 describes the presence of interior forest bird habitat within the forested lands adjacent to the Jock River on the south portion of the site. It is noted that interior forest is a component of significant woodlands and significant wildlife habitat. It is further noted that the two woodland pools within vegetation community 12 are a component of significant wildlife habitat. In addition, it is noted that the mature forests on the south portion of the site are likely more than 80 years of age. It is also noted that the “most valuable ecological linkage areas on the Mattamy lands are the natural areas to the north and south of the Jock River.” These lands are likely part of a wildlife movement corridor along the Jock River to the larger areas of the Marlborough Forest and the Richmond Fen, thereby a component of a Natural Heritage System. All of these characteristics and functions support the designation of significant woodlands and significant wildlife habitat within the context of the PPS and the City’s new OP. Again through further discussion with the City, definitive statements are required in this regard to formally identify significant woodlands and significant wildlife habitat on these lands.	RVCA	August 25, 2009	<p>Add statement to revised report</p> <p>City & RVCA September 23, 2009 Meeting: <i>Response satisfactory</i></p>	Statement added to Section 3.1.2.14 – Ecological Linkages (pg 35)
37.	Section 3.3.5 contains the geomorphological summary of all of the watercourse reaches. Section 3.3.6 characterizes the erosion threshold assessment and Table 6 on page 46 summarizes the various parameters for the Van Gaal Drain and JED-1. Why have these parameters not been provided for all of the watercourse reaches?	RVCA	August 25, 2009	<p>The statistics for the four reaches can be applied to generally long sections of watercourse. VG-R2 applies to all portions of the Van Gaal and “Arbuckle” Drains that are adjacent to Mattamy land. VG-R3-2 is the Moore Branch, and all sections of it. JED-1 is the Jock River Estates Drain, and so those statistics apply to all portions of that drainage feature.</p>	Section 3.2.3.6 provides the clarification on methodology in the revised 2010 report
38.	The last sentence of Section 3.3.7 on pg. 47 requires some clarification. This sentence states that “ <i>The future management of the streams within this study area needs to account for the straightening of these channels in order for the improvement offish</i> ”	RVCA	August 25, 2009	<p>We will make recommendations in the revised report on enhancements for the middle sections of the Moore Drain, as well as the mainstem Van Gaal and Arbuckle Drains in areas that Mattamy</p>	Response provided in Section 4.3 – Fisheries Enhancements (pg 80) of the revised 2010 Report

Mattamy Homes Richmond Official Plan Application
Response to City of Ottawa June 8, 2009 Technical Circulation & Additional Comments
February 22, 2010

#	Comment	From	Date	Mattamy Response	Action Taken
	<p><i>habitat, water quality and geomorphic processes</i>". We assume this means that there are opportunities to restore the natural processes and habitats on these streams while at the same time achieving the objectives for stormwater management. Presumably the actions required to accomplish this restoration have been brought forward in the stormwater management report. However, it would be useful if the Natural Environment and Impact Assessment Study included some recommendations for the types of remedial actions that should be considered in this regard.</p>			<p>owns access. Specific details will be provided in the revised Neighbourhood Concept Plan. These works could be undertaken by Mattamy, RVCA, City or through stewardship initiatives.</p> <p>Examples of possible works include:</p> <ul style="list-style-type: none"> a. Riparian plantings in the mainstem Van Gaal and Arbuckle drains within the corridor setbacks. b. Upgrade of tractor crossing over Van Gaal (increase culvert to 1.2 bankfull to reduce constriction and velocities during high-flow events) c. Enhancement of baseflows to Section 2 of Moore Branch from the adjacent SWM pond. d. Re-grading of Sections 7 and 6 of the Moore Branch to provide proper conveyance during periods of low flow ensuring that fish do not continue to be stranded in the upper Section 7. <p>City & RVCA September 23, 2009 Meeting: <i>Response satisfactory – pike spawning enhancement opportunities offsite will be added</i></p>	
39.	<p>Section 3.4 on pg. 49 indicates that phosphorus concentrations at all monitoring sites (with the exception of the Moore Branch) exceed the Provincial Water Quality Guideline for the prevention of nuisance algae growth. This section of the report should include some discussion on the implications of this finding for the design/operation of the stormwater management system.</p>	RVCA	August 25, 2009	<p>Work carried out by AECOM has demonstrated that post-development phosphorus loads to the Van Gaal Drain will be 58% lower than the existing condition, as a result of the land conversion. The analysis determined that a stormwater management pond was not required to achieve Policy 2 phosphorus objectives for the Van Gaal Drain.</p> <p>City & RVCA September 23, 2009 Meeting: <i>Response satisfactory but advised to consult with MOE</i></p>	<p>Ministry of Environment has been sent the phosphorus analysis.</p> <p>No Action Required in the report.</p>
40.	<p>Section 3.5 on pg. 53 characterizes the thermal regime of the watercourses and specifically notes that the Van Gaal Drain <i>"appears to be one of the sources of cooler water to Jock River. J)</i> The Van Gaal Drain is a cool to warm water system, the Moore Branch is cool water and the Jockvale Estates stormwater outlet is cool water. As noted in Section 4.4.3.3 on pg. 94, the stormwater design will have to include mitigative measures to ensure that there are no thermal impacts. The stormwater management report should contain sufficient detail to demonstrate that potential thermal impacts will be mitigated in accordance with the recommendations provided in this section.</p>	RVCA	August 25, 2009	<p>Mitigation of temperature increases will be achieved via a bottom-draw outlet. The outlet utilized will be a subsurface trench (commonly referred to as a French Drain) designed to meet temperature requirements. The length of the trench should be maximized to increase the opportunity for heat transfer. The trench will be designed as per the MOE SWM Planning and Design Manual, March 2003).</p> <p>City & RVCA September 23, 2009 Meeting: <i>Response satisfactory</i></p>	Response contained in Sections 5.2.1 and 6.2.3.3
41.	<p>Section 3.6 on pg. 57 in the second paragraph on the 9th line there is a typo "GV-R2-2" should be "VG-R2-2".</p>	RVCA	August 25, 2009	Ok – will correct	Typo corrected
42.	<p>Section 3.6.2 on pg. 62 discusses pike spawning and that water levels may not be high enough for an appropriate length of time to allow pike eggs to hatch. There will be loss of flow as outlined in section 4.4.4 on page 95 which states that there will be a loss of</p>	RVCA	August 25, 2009	<p>At the time of writing the draft report there was a misinterpretation of impacts to upper reaches of the Moore Branch. Stream length of the Moore Tributary will not be reduced under the SWMDP, whereas</p>	Response contained in Section 6.2.4, Risk to Fish Habitat

**Mattamy Homes Richmond Official Plan Application
Response to City of Ottawa June 8, 2009 Technical Circulation & Additional Comments
February 22, 2010**

#	Comment	From	Date	Mattamy Response	Action Taken
	tributary length (Section 8 of the Moore Branch) and reduction in flows to Sections 4 and 5. These cannot be considered minor in light of the fact that further reduction in flows will further compromise successful pike spawning downstream in the one reach that is considered sensitive and potential pike spawning/rearing habitat. The report states that pike spawning habitat is limited and that Figure 21 highlights the most likely pike spawning habitat in the Van Gaal/ Arbuckle Drain system. Recommendation should be made about how to enhance flows to maintain water levels during the critical spawning			<p>regrading will result in more of the Moore Branch being classified as Direct Fish Habitat.</p> <p>Sections 4 and 5 “may” sustain a reduction of intermittent flows. Section 5 is considered Indirect Fish Habitat because of barriers. Impacts to Section 4 are easily offset by regrading and converting Sections 7 and 8 of the Moore Branch from Indirect to Direct fish habitat.</p> <p>Flow in the vicinity of the pike spawning area will be unchanged during spring spawning periods. Flows to that area, via the Moore Branch will be, overall, increased during other times of the year because surface flows from JED-1 are to be re-routed to the SWM pond adjacent to the Moore Branch.</p> <p>City & RVCA September 23, 2009 Meeting: <i>Response satisfactory</i></p>	
43.	Section 3.6.4 on page 71 refers to the Jockvale Estates Drain as “artificial fish habitat” however, it is fish habitat and should not be referred to as artificial.	RVCA	August 25, 2009	<p>We will revise the wording from “artificial” to “constructed”</p> <p>City & RVCA September 23, 2009 Meeting: <i>Response satisfactory</i></p>	Referenced changed – see section 6.2.1.5 and Figure 22
44.	Section 3.7 provides the aquatic environment summary on pgs. 73 and 74. Based on the available information, is not possible to make a more conclusive statement about the status of pike spawning habitat at the confluence of the Moore Branch with the Arbuckle Drain (6 th bullet)? Also, the in bullet notes that although the Moore Branch is used by several species of forage fish for spring spawning, it cannot contribute significantly to the productive capacity of the Arbuckle Drain because a high point isolates the fish community during periods of low flow. Is there an opportunity here to improve productive capacity by removing the high point such that young of the year do not become stranded? It is important to note that this exercise is to identify both constraints to development and opportunities for enhancement of natural systems. Also the 8th bullet seems somewhat contradictory by noting that five fish species are using the Jockvale Estates Drain for spring spawning but then goes on to state that the drain does not contribute significantly to productive capacity of the Jock River. If the drain is being used for spawning by five species, how is it not contributing to productive capacity downstream? The term "ephemeral" is used a number of times to describe the watercourses in this report. Should "ephemeral" be changed to "intermittent"? Ephemeral watercourse would be defined as flow that occurs for a short time after a storm event, the watercourse channel is poorly defined and often densely vegetated (an example would be a grassed swale). Intermittent watercourses have a well defined channel that will contain water for much longer periods during the spring season (an example would be a drainage ditch).	RVCA	August 25, 2009	<p>Additional inventory work was conducted this spring at the confluence of the Moore Branch with the Arbuckle Drain. Flows were lower this year than last, making the confluence area less suitable as pike spawning habitat. Very little riparian vegetation was flooded, contrasting with conditions in 2008. As a result, we conclude that the confluence area is less likely to support viable pike spawning, than was concluded after the 2008 field season.</p> <p>The high point between Sections 6 and 7 of the Moore Branch is proposed to be regraded to provide better conveyance of water (and fish) during periods of low flow. This action will effectively convert the Indirect Fish habitats of Sections 7 and 8 into Direct fish habitat in the development scenario.</p> <p>As part of the construction and landscaping of the SWM pond adjacent to the Moore Branch, and associated with the re-instatement of hedgerow 3, the concept allows for enhancements to the riparian cover of the Arbuckle and Moore Branch. Further, additional enhancements to the morphology of the Moore Branch in the vicinity of Sections 6 and 7 is possible, given that the channel will be regraded. As reported previously, the SWM pond will be designed to convey flows continuously to Section 3 of the Moore Branch: flows will be conveyed via French Drain, ensuring cool water temperatures, and potentially extending the cool-water habitat of the system.</p> <p>City & RVCA September 23, 2009 Meeting:</p>	<p>Section 3.2.6.3 updated to include 2009 investigation results.</p> <p>Please refer to Section 6.2.4.4 under Risk to Fish Habitat in revised 2010 report</p>

**Mattamy Homes Richmond Official Plan Application
Response to City of Ottawa June 8, 2009 Technical Circulation & Additional Comments
February 22, 2010**

#	Comment	From	Date	Mattamy Response	Action Taken
				<i>Response satisfactory</i>	
45.	Section 4.1 on page 75 describes the development constraints. Development setbacks adjacent to the Jock River and the Van Gaal Drain have been identified as the greater of the meander belt width, the 1:100 floodplain or 30 metres from the normal high water mark. However the Official Plan policy 4.7.3 also requires consideration of the geotechnical limit of hazard land for the determination of the development setback. Has a geotechnical assessment been conducted on this reach of the Jock River, the Van Gaal Drain and the tributary watercourses? The 180 metre meander belt width on the Jock River would exceed the geotechnical setback limit estimated conservatively using the guidelines contained in the MNR Natural Hazards Manual. However, confirmation is required whether or not the geotechnical limit of hazard land on the Van Gaal Drain and the tributary watercourses is the predominant constraint for the determination of the development setback.	RVCA	August 25, 2009	See response to Comment #2	Geotechnical hazard and setback table contained in Section 4.12 of the revised report. The setback rationale for the Moore Tributary is contained in Section 6.2.4.4
46.	The last paragraph on pg. 75 characterizes the Moore Branch and the Jockvale Estates Drain as "minor tributaries" and the justification for doing so is unclear. The text references Section 4.7.3 policy 6 in the Official Plan whereby exceptions to the standard setbacks can be considered for minor tributaries " <i>that serve primarily a surface water function and that may have only an intermittent flow...</i> ". This appears to be only applicable to the upper reach of the Moore Branch (VG-R3-1). The lower reach of the Moore Branch (VG-R3), upper reach VG-R3-2 and the Jockvale Estates Drains (JED-1) provide a fish habitat function and as such we would not describe them as minor tributaries. Therefore these reaches do not qualify for consideration of a reduced development setback.	RVCA	August 25, 2009	Most of the Moore Branch is intermittent (sections 8, 7, 6, 5, 4). As such, it does meet the definition of "minor tributary" and OPA policy 4.7.3 policy 6 applies. In addition, the channel will need to be modified as part of the drainage and grading scheme. The setback for this minor tributary is the meanderbelt width which is 30 metres. Most of JED-1 is intermittent. Approximately the lower 100 m of JED-1 is generally wet as a result of its connection to the Jock River. City & RVCA September 23, 2009 Meeting: <i>Further discussion required on setback justification for Moore Tributary</i>	Please refer to the setback rationale for the Moore Tributary is contained in Section 6.2.4.4
47.	Figure 23 will require revision to illustrate the above comments. A suggested categorization for the watercourses would be "direct fish habitat" and "indirect fish habitat". A reduced setback may be considered for "indirect fish habitat".			We prefer the classification provided in the report because it conveys more information about the ecological function of the drainage network. We propose to maintain the existing classification: a. Permanent Direct b. Intermittent Direct c. Intermittent Indirect City & RVCA September 23, 2009 Meeting: <i>Response satisfactory</i>	No Action Required
48.	It is also noted that the Jockvale Estates Drain (JED-I) will be abandoned. Although this is a constructed drainage outlet for the plan of subdivision, it has been identified as intermittent direct fish habitat. Therefore its abandonment could constitute a Harmful Alteration, Disruption or Destruction of Fish Habitat (HADD). The option to maintain fish habitat in the lower reach of the drain (i.e. that portion that could be retained in the floodplain) should be explored because this area would likely continue to function as fish habitat during periodic high water levels on the Jock River	RVCA	August 25, 2009	Agreed. The connection between the lower portion of JED-1 with the Jock River can be maintained under the future development plan. The value of that connection may, however, be limited because it may act as a "blind" alley. Surface flows to that feature will be limited, and it is likely to become stagnant as it fills over time with vegetation and detritus. City & RVCA September 23, 2009 Meeting: <i>Response satisfactory</i>	Response provided in Section 6.2.4.1 and Figure 36
49.	Section 4.4.1 Classification of Fish Habitat Sensitivities, each of the attributes requires a	RVCA	August 25, 2009	Agreed. See attached revised text. for Section 4.4.1	See revised text in Section 6.2.1 (old

**Mattamy Homes Richmond Official Plan Application
Response to City of Ottawa June 8, 2009 Technical Circulation & Additional Comments
February 22, 2010**

#	Comment	From	Date	Mattamy Response	Action Taken
	general qualifier i.e. low, moderate or high plus rationale to justify the qualifier. We would agree that the Jock River is moderately sensitive. We need to see the rationale for Section 4.4.1.2 Van Gaal/Arbuckle Drain, it may be moderately sensitive but we need the appropriate qualifiers. For Section 4.4.1.3 Moore Branch and Section 4.4.1.4 Jockvale Estates Drain, we need to see a habitat and fish species sensitivity summary, as per the above sections. The reach by reach breakdown (Section 1 to 8) will be acceptable for the Moore Branch.			<p>City & RVCA September 23, 2009 Meeting: <i>Mike Yee to review and provide comments at October 7th meeting</i></p> <p>City and RVCA October 7th Meeting: <i>Comments still outstanding. Glen McDonald to follow up with Mike Yee.</i></p>	Section 4.4.1) of revised 2010 report
50.	Section 4.4.1.2 on page 86 repeats the same information that is cited in 4.4.1..1 on Page 85. Section 4.4.1.1. refers to Table 11, should this be Table 9.	RVCA	August 25, 2009	Edits will be made	Edits completed in revised 2010 report
51.	In Figure 28, identifying the watercourses by name would be helpful; the fish sampling points from Figure 20 could be useful reference points. According to the information in the report, Section 3 on the map should be blue not green.	RVCA	August 25, 2009	<p>Figure will be changed to add names. Section 3 – text error – not permanent – change text – map to be revised to show Section 3 green to tile drain and then blue</p> <p>City & RVCA September 23, 2009 Meeting: <i>Response satisfactory</i></p>	See Figure 32 in the revised 2010 Report
52.	In table 17, on pg. 90, there is an addition error in the "Direct, Intermittent"; it should be "3,055" not 3,052. The "Total Direct" will change to 19,581.	RVCA	August 25, 2009	We double-checked the numbers and found those in the table to be correct.	No changes.
53.	4.4.2 Pathways of Effects, on pg. 91, we would agree that the three pathways are correct. We cannot interpret the diagrams without an understanding of the abbreviations along the path. For example, what does "M-Veg" and "M-ExM" mean in L2 Grading pathway on page 91? The pathways need better explanation or a legend/key to identify each of the abbreviations.	RVCA	August 25, 2009	ok	Legend provided in Figures 33, 34, 35
54.	Section 4.4.3.3, on pg. 94, how will the storm pond neutralize the nutrients (phosphorus and nitrogen)?	RVCA	August 25, 2009	<p>The conversion of the landscape from rural to urban will result in a direct reduction in the amount of phosphorus and nitrogen that runs off into watercourses. Further reduction of nutrient loads will occur as a result of the adsorption of nutrients to suspended particulates, and the precipitation of sediments in the stormwater management ponds.</p> <p>City & RVCA September 23, 2009 Meeting: <i>Response satisfactory</i></p>	Please refer to Section 6.2.3.3 of the revised 2010 Report
55.	Section 4.4.4 refers to Table 19; this should be changed to Table 18. The first paragraph refers to Residual Effects that could be or will be HADDs, these will have to be referred to DFO to assess if they are acceptable HADDs and, if so, a compensation plan will have to be developed.	RVCA	August 25, 2009	<p>Table # will be changed. Comment will be added to revised report.</p> <p>City & RVCA September 23, 2009 Meeting: <i>Response satisfactory</i></p>	Correct Table reference provided in Section 6.2.3 of revised 2010 Report
56.	In the second paragraph, the report creates some confusion over the ultimate status of the Moore Branch. It is noted that there will be an increase in fish habitat resulting from the provision of permanent flows to section 3 of the drain. It is also proposed to enhance sections 6 and 7 of the Moore Branch to provide for conveyance of water from the upper sections to the lower sections. It is also noted that the loss of section 8 is considered to	RVCA	August 25, 2009	<p>There were some errors and inconsistencies in the report that will be addressed in the final report.</p> <p>None of the sections of the Moore Branch will be filled. Sections 4 and 5 may sustain some reduction in flows: but would probably have</p>	Please refer to Figure 36 and Section 6.2.4.4 of the revised 2010 Report

Mattamy Homes Richmond Official Plan Application
Response to City of Ottawa June 8, 2009 Technical Circulation & Additional Comments
February 22, 2010

#	Comment	From	Date	Mattamy Response	Action Taken
	<p>be minor. Would this loss be minor if the downstream high point was removed such that fish are not stranded when water levels recede? Then in Section 4.4.5 on pg. 95, the report states that are uncertainties with respect to the impacts on sections 4 and 5 of Moore Branch due to potential loss of base flow, but that the magnitude of that loss is unknown. When will this loss be quantified? If baseflow to Sections 4 and 5 is lost, does that not result in a loss of base flow to sections 1 and 2? Also see above comments about pike spawning habitat.</p>			<p>a remaining function as spawning habitat in the spring, as per the present condition. Regardless, the proposed improvements to Sections 7 and 8 of the Moore Branch are considered to offset potential losses in Section 5.</p> <p>Sections 6, 7 and 8 will be regarded to improve conveyance of flows during low-flow events. Sections 7 and 8, thus will become Direct Fish Habitats (not indirect), improving the overall productive potential of fish habitat on the property.</p> <p>Please refer to revised Figure 32</p> <p>City & RVCA September 23, 2009 Meeting: <i>Response satisfactory</i></p>	
PUBLIC COMMENTS - NATURAL ENVIRONMENT & IMPACT ASSESSMENT STUDY					
31.	<p>There appears to be a few errors in the Environmental Impact Study regarding land classification. Community 2 is listed as a Moist Old Field north of Ottawa Street and Community 3 is listed as a Dry-Fresh Old Field south of Ottawa Street. These two communities seem to be reversed. The land south of Ottawa Street has very poor drainage and stays wet most of the year which is evident by the water loving plants such as Purple Loosestrife (<i>Lythrum salicaria</i>), Dogwoods (<i>Cornus spp.</i>), and others. The wetness observed in this area is not specific to the 2008 season as it persists in average moisture seasons. Only very dry years does this land dry up properly.</p> <p>The area north of Ottawa Street is drier and does not contain as many of those plants. This land is presently planted with what appears to be a soybean crop while the south-side land has been left fallow.</p> <p>Many references are made to the dry areas south of Ottawa street regarding the potential development, in particular Environmental Impact Section 4.3 Terrestrial Effects Assessment refers to the dry areas on the southwest corner of the property which "should not be sensitive to drainage changes resulting in development". The presence of wet loving plants and standing water in the fields after a rainfall seem to contradict those statements.</p>	Public	July 10, 2009	<p>Natural Environment studies reflect the conditions in summer 2008.</p> <p>Field notes from Community 2 (the Moist Old Field) north of Ottawa street, 6 August 2008) showed a number of moisture-loving plants: Red-osier dogwood (<i>Cornus stolonifera</i>), Slender Willow (<i>Salix petiolaris</i>), abundant Purple Loosestrife (<i>Lythrum salicaria</i>), Hairy Willow-herb (<i>Epilobium hirsutum</i>), Spotted Joe-pye Weed (<i>Eupatorium maculatum</i>), Boneset (<i>Eupatorium perfoliatum</i>).</p> <p>Field notes from Community 3 did indeed reflect a dry old-field, with the exception of the drainage that runs through the centre of the field (and possibly because of it). Dominant species in the dry field included (25 June 2008): Smooth Brome (<i>Bromus inermis</i>), Timothy (<i>Phleum pratense</i>), Bluegrass (<i>Poa pratensis</i>), Ragweed, Lamb's Quarters (<i>Chenopodium album</i>), and Red clover (<i>Trifolium hybridum</i>). There were certainly large wet patches of standing water in this field in mid-April at the first visit. However, by early summer, there were also many nesting Bobolinks, American Woodcock, and Savannah Sparrows and Song Sparrows, and these are species that prefer more mesic to upland fields (i.e. not in wetlands or areas of standing water). The drain in the centre of the area south of Ottawa Street contained many riparian/wetland species such as Black Bulrush (<i>Scirpus atrovirens</i>), cattails (<i>Typha angustifolia</i>), <i>Carex hystericina</i>, <i>Carex retrorsa</i>, <i>Lycopodium americanum</i>, <i>Rumex crispus</i>, and others—perhaps that's the basis of this observation.</p>	No Action Required
57.	<p>I'm not sure if there's an oversight or some missing documentation, but there seems to be a contradiction between the Environmental Impact Study and Stormwater Site Management Plan. Environmental Impact Section 4.4.1.4 Jockvale Estates Drain states that fish entering the drain (JED-1) are unintended and are restricted by means of a one-</p>	Public	July 10, 2009	<p>The Natural Environment & Impact Study reports on conditions at the time of field inspections. The drains and fish inventories were conducted in April and August 2008 when the flap gate was present. Since this time, the flap gate was removed in spring of 2009 as per the</p>	Revised 2010 Report has changed the reference from Jockvale Estate Drain to Jock River Estate Drain

**Mattamy Homes Richmond Official Plan Application
 Response to City of Ottawa June 8, 2009 Technical Circulation & Additional Comments
 February 22, 2010**

#	Comment	From	Date	Mattamy Response	Action Taken
	<p>way flapper valve. The water level on the river side of the berm is often above the level of the culvert/flapgate during the spring closing the flapper valve preventing fish access. However, in the Stormwater Site Management Plan, Section 3.2, it states that the flapgate is to be removed along with the existing berm thus raising the water level in the drain and allowing fish direct access to the drain during the spring. The Environmental Impact Study also states that JED-1 is to be filled and would have little impact, though it is the only source of drainage for Jockvale Estates and would be required to remain open until the stormware facilities are functional. Should the flapgate be removed as directed by RVCA, the open drain will quickly become a fish habitat connected directly to the Jock River prior to the stormwater management infrastructure being built (Incidentally, should that not be Jock River Estates Drain? Jockvale is an area between Manotick and Barrhaven).</p>			<p>RVCA permit.</p> <p>The Jock River Estates Drain (correct reference) will be filled in within the development area and storm drainage from this subdivision will be incorporated into the storm drainage system for the area south of Ottawa Street. The easement will remain open and in place until the development south of Ottawa Street is approved and constructed. The section of the drain in the floodplain will remain open.</p>	