



Muncaster
Environmental
Planning Inc.

January 31, 2014

Mr. Peter Van Grootheest
West Capital Developments
c/o Sheldon Creek Developments Inc.
75 First Street, Suite 14
Orangeville, Ontario
L9W 2E7

Dear Mr. Van Grootheest:

**RE: Tailwind Estates, Carp Airport, City of Ottawa
Conservation Handbook - Revised**

Please find attached a Conservation Handbook for Tailwind Estates at the Carp Airport. This handbook is designed to fulfil Condition 50 of the draft approval for the residential subdivision.

Thank you for the opportunity to complete this work and please call if you have any questions on the attached Conservation Handbook.

Yours Sincerely,
MUNCASTER ENVIRONMENTAL PLANNING INC.

Bernie Muncaster, M.Sc.
Principal

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Conservation Handbook

This Conservation Handbook is designed to provide the homeowners of Tailwind Estates with information on the important and sensitive natural environment features in the airport subdivision. Portions of the site and adjacent lands are part of the Carp Airport Natural Area and thus have special conditions in recognition of the natural attributes of the area. Therefore it is important to foster good stewardship practices for overall protection and enhancement of the natural environment.

The objective of this Conservation Handbook is to identify the natural attributes in your neighbourhood and to provide advice on how homeowners can be good environmental stewards to ensure that these important natural features, including Carp Creek and the retained woodlots portions of the Natural Area, remain healthy over the years to come.

The natural environment features of your subdivision include retention of upland forests of white pine, white spruce, sugar maple, basswood, eastern hemlock, white birch and ironwood. Many mature maple trees are the largest trees in the forest. The corridor of Carp Creek is another important natural environment feature of your site, with many small areas of wetlands along the creek. Carp Creek supports many fish species including the more sensitive molted sculpin which has been noted in the creek to the north of March Road. The treatment of stormwater from your subdivision has been designed to avoid impacts on the water quality and quantity in Carp Creek, including not raising the water temperature in the creek.

The natural features found on many of the lots in your subdivision include trees and shrubs that have been retained at the rear and sides of the rural lots, along with a good diversity of young regenerating tree stems. Trembling aspen, large-tooth aspen, sugar maple, white birch, white pine, basswood, red ash, balsam fir, white spruce, eastern hemlock, tamarack and white cedar trees are common in many of these areas.

What Residents Can Do to Retain the Natural Habitat

The recommendations below are very important to help protect the integrity of the remnant features and functions of natural areas on the un-developed portion of each lot.

Retain the Existing Trees and Shrubs and Avoid Intrusions into these Areas

Areas of forests and other trees have been retained where possible in the non-development portion of your lot as well as the northwest and southwest portions of the subdivision. The extent of retained forests is large enough to support breeding birds such as ovenbird, veery, wood thrush, American redstart, pileated woodpecker and black and white warbler which were observed breeding in the forests and rely on core forested areas for successful nesting. See <http://www.allaboutbirds.org/guide/search> for a description of these birds.

Landowners are greatly encouraged to minimize any further tree clearing on their lots. It is recommended that understorey and ground vegetation not be cleared or tidied in these natural

areas. Natural deadfall, as fallen trees and their branches are called, should be left in place providing wildlife habitat and soil nourishment. It is important that homeowners avoid depositing yard waste in the natural areas, as yard waste can be a major disturbance by allowing the spread of non-native invasive plants such as goutweed, ground ivy and periwinkle into the natural area thereby displacing native habitats and native species. These disturbances reduce the wildlife habitat available and accelerate the spread of non-native vegetation into the natural area. In addition garden waste dumping can compromise the natural chemical processes of the ecosystems as the nutrients from decomposition of garden waste are excessively concentrated in small areas. In contrast natural decomposition (from leaves and fallen branches) is more evenly distributed throughout a forest or ecosystem.

Glossy buckthorn, an abundant non-native invasive species in many areas of the forest, appears to be out competing and replacing native shrubs and woodland plants in many areas. This lowers the diversity of vegetation, affecting the integrity of the forest and reducing the variety of food, shelter and other habitat considerations available to wildlife. Compounding the problem many non-native plants provide fewer resources to wildlife than native species.

However, see if you can find some of the woodland plants, such as foamflower, starflower, Canada mayflower, monkey-flower (do you know why it is called this?) and lady fern that are representative of the plants where the forest is less disturbed. See <http://www.ontariowildflowers.com/> for a description of these interesting plants. Along the Carp Creek corridor see if you can see wetland plants such as swamp milkweed, spotted touch-me-not and royal fern.

Plant Native Trees, Shrubs & Wildflowers

Homeowners are encouraged to plant native trees and shrubs in portions of their property that have been disturbed during site preparation. This will enhance the protection for the adjacent natural area, reduce the potential for erosion and expand the extent of habitat associated with the naturalized buffer, including providing food, cover and space for birds and other wildlife.

Examples of native shrubs to plant include nannyberry, red-osier dogwood, meadowsweet and red-berried elder. Recommended native tree species are sugar maple, red maple, tamarack, balsam fir, bur oak, white pine, white spruce, red oak and basswood. Blue-eyed grass, dutchman's-breeches, brown-eyed susan, joe-pye-weed, golden corydalis, bloodroot, meadow-rue, Solomon's-seal and false Solomon's-seal are good examples of native wildflowers available at local nurseries. The booklet found at <http://www.landscapeontario.com/grow-me-instead> has excellent suggestions of alternative native plants for gardens and discusses the impacts associated with invasive plants. Please discuss the seed source of native plants with nursery staff. It is best to use local seed sources to ensure they can survive local conditions.

To help the planted trees become established, the root balls should be placed in big enough holes and the exposed surface soil covered with 5 – 10 cm of mulch around the base of the trees. This will keep the soil moist and at stable temperatures, limit competition from grasses and limit damage from mowers and other power equipment. Compost from leaves and grass clippings can be used to mulch trees. Rodent guards and stakes are also important. Trees should be inspected

once a year for damage. They should be carefully pruned as necessary. Remember to remove tree guards and stakes once the tree has outgrown them because they can be damaging as the tree matures.

Homeowners are encouraged to use the following recommendations to provide additional protection for the natural habitats:

- Organic methods of pest control are extremely important in areas like this and the use of chemical herbicides and pesticides is to be avoided wherever possible;
- For the protection of native wildlife, domestic pets should be kept on leashes and under control at all times. This is especially important for domestic cats which have a major impact on bird populations. Remember to scoop all pet waste, even in more remote areas;
- Do not remove wildlife, plants or soil from the natural environment areas and do not feed wild animals, ducks and geese;
- Native flowers and plants can be obtained from some local seed suppliers and nurseries. Plants taken from the wild rarely survive in household gardens and can quickly deplete the beauty and functions of our natural areas;
- No dumping of yard waste or other material is permitted within the natural areas; and,
- Planting of non-native trees, shrubs and other plants should be avoided to reduce the potential for invasive non-native species spreading to the natural environment areas and impacting on the native plants and wildlife. See http://www.ontarionature.org/discover/resources/PDFs/id_guides/natural_invaders.pdf for a good discussion on the potential impacts of non-natives plants. The spread of non-native plants can be controlled by removing them, or pruning during or just after flowering to prevent seed production.

Protecting Water Quality

Homeowners can assist in protecting the quality of surface and groundwater by ensuring all hazardous substances, such as detergents, solvents, oil or gasoline are disposed off via the hazardous waste depot or proper recycling avenues. Another important way of helping to protect the aquatic resources is sweeping driveways and other hard surfaces to minimize the grit and other fine material that may enter the environment. Contaminants are typically picked up during the first few minutes of a rainstorm. This is known as the *First Flush* phenomenon. Remember the dust and other debris that is swept needs to be collected and placed in the green bin or residual waste and not swept into the street. To provide maximum protection for the environment, consider washing your car on a grassed area or take it to a commercial car wash so the pollution-laden runoff does not enter the stormwater system.

With planes being an integral component of Tailwinds Estates, it is very important to protect the water quality of Carp Creek and other surface flows from aviation related activities such as refuelling and deicing. These activities must all take place in controlled areas at the central airport facilities and not at individual private hangars. This will ensure the wastes are properly managed and there are no impacts on surface water quality. All fuel and glycol will be restricted to the central airport facilities, rather than being stored at individual private hangars.

Homeowners should consider using surface materials that allow rainwater to seep into the ground quickly on surfaces such as patios. Rain gardens are another excellent example of improving our local environment through recharging our groundwater supply and improving water quality. Rain gardens are designed with a dip at the centre to collect rain and snow melt. Shrubs are planted near the centre, surrounded by wildflowers, sedges and grasses. Avoid traditional lawn turfs to minimize maintenance and maximize the benefit to wildlife. Strategic placement next to hard surfaces such as alleys, sidewalks, driveways and under gutters makes rain gardens thrive.

Mosquitoes

The key to controlling mosquitoes is controlling the places they breed:

- Keep drains, culverts and gutters clear of debris so that water will drain properly;
- Empty standing water from potted plants, bird baths, pet dishes, wading pools and old tires;
- Repair torn screens; and,
- Keep tight lids on rain barrels.

Living with Wildlife

Bears, coyotes and other wild animals sometimes come into conflict with humans. Black bears have been reported in portions of west Ottawa. The following recommendations for living with wildlife come from the Ministry of Natural Resources (see www.ontario.ca/bearwise and http://www.mnr.gov.on.ca/en/Business/FW/2ColumnSubPage/STDPROD_088694.html for more information).

Do not approach or feed wildlife

- Bears and other wildlife are usually wary of humans and avoid people whenever possible. However, they are wild animals and should not be approached;
- People should NOT feed wildlife. Feeding them makes the animals less fearful of humans and habituates them to foods provided by humans;
- Aggressive behaviour towards people is unusual for wildlife, but people should always exercise caution around wildlife.

If you encounter wildlife

- Do not turn your back on, or run from, a bear or coyote. Back away from the animal while remaining calm; and,
- Use whistles and personal alarm devices to frighten an approaching or threatening animal.

Secure garbage and minimize attractants on your property

- Properly store and maintain garbage containers to help prevent bears and other animals from becoming a problem;
- Place trash bins inside an enclosed structure to discourage the presence of small rodents, which are an important food source for wildlife;
- Put garbage at curbside the morning of the scheduled pickup, rather than the night before;
- Use enclosed composting bins rather than exposed piles. Coyotes are attracted to dog or cat waste as well as products containing meat, milk and eggs;
- Pick ripe fruit from fruit trees and remove fallen fruit from the ground and keep bird feeders from overflowing as bears and other wildlife are attracted to foods like seed, suet and nectar used to feed birds;
- Protect vegetable gardens with heavy-duty garden fences or place vegetable plants in a greenhouse. Check with your local nursery to see what deterrent products are available;
- Consider eliminating artificial water sources such as koi ponds; and,
- Keep pet food indoors.

Using deterrents and fences can keep coyotes and other animals away from your property

- Use motion-sensitive lighting to make your property less attractive to coyotes and other nocturnal wildlife;
- Fence your property or yard. It is recommended the fence be at least six feet tall with the bottom extending at least six inches below the ground and/or a foot outward. A roller system that can be attached to the top of the fence preventing animals from gaining the foothold they need to pull themselves up and over the top of a fence;
- Electric fencing can also help deter wildlife from properties or gardens in some circumstances;
- Clear away bushes and dense weeds near your home where wildlife may find cover and small animals to feed upon; and,
- Close off crawl spaces under porches, decks and sheds. Coyotes, racoons and skunks use such areas for denning and raising young.

Keep all pets on leashes or confined to a yard

- Cats and small dogs may be seen as prey by coyotes and other wildlife, while larger dogs may be injured in a confrontation. These situations may be avoided with installation of proper fencing;
- As coyotes are primarily nocturnal, pets should be kept inside at night;
- Keep cats indoors and do not allow pets to roam from home;
- Walk your dog on a leash at all times. If your yard does not have a fence, use a leash while on your property to keep your dog close to you; and,
- Spay or neuter your dogs. Coyotes are attracted to, and can mate with, domestic dogs that have not been spayed or neutered.

Conclusion

The Tailwind Estates are within and adjacent to the Carp Airport Natural Area. Residents are fortunate to have the opportunity to appreciate and enjoy these natural environment features right in their backyard. We hope that this Conservation Handbook helps you to understand the importance of the natural environment resources and provides you with the tools to protect these valuable and sensitive features. With good environmental stewardship we can be assured that the natural area can be enjoyed for many years to come.

For More Information

Additional information is available on many of the topics discussed. For example:

- The Royal Ontario Museum's site, <http://www.rom.on.ca/ontario/fieldguides.html>, can be accessed to create a 'field guide' and provide details of the animals that can be found in this area. Another useful site for wildlife information is the Canadian Wildlife Service's Hinterlands Who's Who (<http://www.hww.ca/en/species/>);
- The Native Plant Resource Guide for Ontario produced by the Ontario Society for Ecological Restoration (<http://www.serontario.org>) provides information on native species and methods to discourage invasive exotic plants, including suggestions for alternative native species that provide better wildlife habitat;
- More information on what can be done for wildlife is provided on one of Canadian Wildlife Service's web sites at <http://www.hww.ca/en/things-you-can-do/> ;
- The Landowners Resource Centre, <http://www.lrconline.com/>, from the Rideau Valley Conservation Authority has lots of helpful hints on tree, wildlife, soil and water management issues; and,
- Check the City of Ottawa's web site, http://www.ottawa.ca/en/env_water/index.html for loads of information on the environment, including details on yard waste, composting, the hazardous waste disposal program, pesticides and tree planting.

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