

4. Presentation – Natural Heritage System Buffers – April Souwand, City of Cambridge

April Souwand, Senior Environmental Planner, City of Cambridge gave a presentation on Natural Heritage System Buffers (attached). John Vasiga asked if a human use includes trails. April Souwand responded that it depends on the circumstances. Trails are a human use which are sometimes allowed in buffers and sometimes not. John Vasiga asked who decides whether a natural area should be protected. April Souwand responded that various agencies are involved, depending on the feature. Cathy Murphy wondered if the vegetation around a wetland could act as the wetland buffer. Ken Cornelisse responded that the wetland starts where wetland plants start, not where standing water is found.

Wendy Wright added that infiltration to maintain the water table for wetlands is an important function of buffers. Chris Gosselin outlined the importance of buffers for water quality protection. He spoke of farm programs where farmers are planting buffer strips along streams for water quality improvement. John Vasiga questioned the application to farmland. It was clarified that these are voluntary farm programs.

There was discussion about the minimum buffer of 7 metres from an ESPA. Chris Gosselin explained this standard goes back to 1980s in the City of Waterloo West Side where they measured the buffer in the field and 7 metres seemed to work well. On relatively flat areas, 7 metres is about the minimum that would have allowance for a 3 metre wide trail and a bit of vegetation on either side. This allows the trails to run through the buffers instead of woodlot. When dealing with steep slopes, the buffers can be considerably wider.

Cathy Murphy wondered if there was no trail, could the buffer be less than 7 metres. Chris Gosselin thought not, as there is always encroachment when rear lot lines abut ESPAs. Cathy Murphy queried if buffers are more a policing issue, and Chris Gosselin responded that the issue is both prevention and protection. There was discussion about the surface material used on trails in buffers and April Souwand added that trails proposed in buffers go through environmental impact statements that help determine location and materials to be used. In some cases, there may be recommendations that no trails be placed in the buffer because of the sensitivity of the natural feature.

There was discussion about the difference between warmwater, coolwater and coldwater streams. Ken Cornelisse explained that these categories relate to the fish species that inhabit the watercourses. Fish species that can tolerate warm water are generally less sensitive, more resilient and tolerant of higher nutrient level, hence the buffers along warmwater watercourses (15 metres) are less than those required for coldwater, which supports more sensitive fish species. Ken Cornelisse explained that when you have a coolwater situation, you err on the side of caution and apply coldwater buffers.

There was discussion about the economic implications of applying buffers. Wendy Wright explained that without buffers, we have a degraded natural system that is costly to try to rehabilitate, but we must balance this with the economics of land development needs. It is emerging that 30 metre buffers from PSWs across the province still gives good development but protects the function of wetlands. Wendy Wright added that nothing is done about buffers unless there is a community plan when you go about implementing them. Nancy Davy added that the Conservation Authority is involved in subwatershed plans in rural areas where there is no major development planned, but the subwatershed study helps to determine what the water management issues are and how to protect the Grand River's natural system in rural areas.

John Vasiga questioned why there were not buffers on the Regional Police Headquarters and Operations Yard adjacent to a wetland. April Souwand explained that approvals for that development were granted about 15 years ago, when buffers were just starting to be implemented. Timing of development approvals reflects the standards in place at the time. With respect to the recent development application for Challenger Truck Lines, buffers of 15 metres from the top of bank of Freeport Creek and a 3 metre buffer from the woodlot are being applied. Wendy Wright explained that there is no subwatershed study in that area to determine buffers on a system wide basis and we are dealing with a natural area that has degraded, likely due to the development that has occurred in the area. The City is planning to do a Class EA to investigate solutions to the problem, which may not have occurred if we had had a subwatersheds study to guide us

There was also discussion about a recent development application in the Hespeler East area for residences in a woodlot. Wendy Wright explained that there was not a subwatershed plan in that area either and this woodlot was protected without buffers, which has probably led to its degraded state. Rick Cowsill explained the development application process and that no decisions have been made on this particular application.

There was discussion about the Hespeler West Subwatersheds Study and concern with the application of a 30 metre buffer across the board, without any site specific, context sensitive situations taken into account. Ian Rawlings agreed with Erich Ritzmann that buffers should be context sensitive. Erich Ritzmann pointed out that 7 metres (as shown in the presentation for ESPAs) seems reasonable as a buffer, not 30 metres. Wendy Wright indicated it would be Chris Gosselin's call to reduce buffers for ESPAs. She explained that the subwatersheds study conducted a high level analysis, setting out recommendations for 30 metre buffers adjacent to wetlands. There was no refinement to look at roads or existing development. This would occur at the community plan stage. Ian Rawlings offered that this is a process that is going to evolve and this discussion could occur at the community plan stage. Wendy Wright agreed that the maps are problematic and we could look at ways to clarify them. She indicated that she would like to discuss this with agency representatives. How the information is presented is important.

Charlene Schiedel asked for clarification of the term “development”. For instance, construction of a gazebo or a shed that does not require a rezoning would not be considered development, but severing a lot, which required a severance application, would. Wendy Wright explained that development is a defined term and she will get the definition to the committee. There was also discussion about consideration of buffers taking place at the time of a comprehensive zoning by-law.

5. Other Business

- a) Follow-up List – Wendy Wright went over the list with the committee and explained that she has tried to slot follow-up items in the upcoming topics list.
- b) List of Topics for Upcoming Meetings – Wendy Wright distributed an update of the list of topics for upcoming meetings.
- c) Future Meeting Dates – Wendy Wright discussed the need for meeting dates beyond June. July 8 and July 24 were recommended to be added to the schedule. Also an Open House sometime in June to report on where we are at that point is planned.
- d) Landowners’ Permission – April Souwand reviewed with the committee a draft of the letter to be sent to landowners requesting their permission for PEIL and the City’s Consulting Water Resources Engineer to access their properties for land surveying related to the floodline corrections. Charlene Schiedel offered to call landowners wishing to be contacted before anyone comes on their property if the City does not have the resources to do this.

Brian Cunningham and Ken Cornelisse left the meeting at 5:35.

An offer to call people before the crews come out, if desired will be added to the letter. Chris Gosselin mentioned that he will have to be sending out landowner permission letters when he does his ESPA investigations and he hoped they would not feel overly imposed upon.

Rick Cowsill motioned to adjourn.

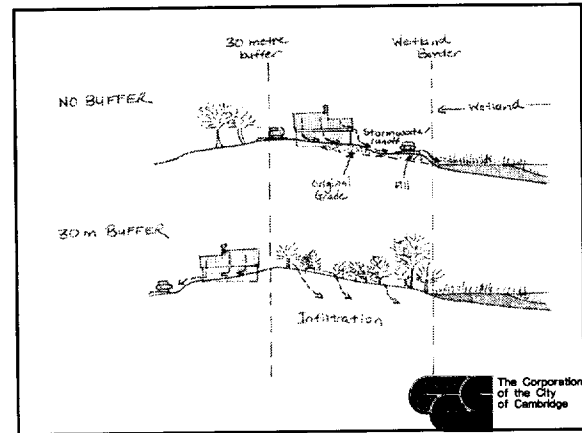
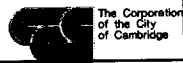
Meeting adjourned at 5:45 p.m.

Next meeting – Allan Reuter Seniors’ Centre – 3:30 to 5:30 pm, April 15, 2004

Natural Heritage System Buffers

Presentation
April 1, 2004

April Souwand, Sr. Env'l Planner, City of Cambridge



What are Buffers?

- Buffers are a human instrument by which we separate a natural feature from a human use.
- They are an area of land set aside from disturbance during urban development.



What else do buffers do?

Examples include:

- Protect significant natural areas from people dumping debris like lawn clippings and leaves in them
- Separate significant natural areas from invasive species found in urban settings
- Provide upland habitat to species like frogs, toads and salamanders adjacent to wetlands

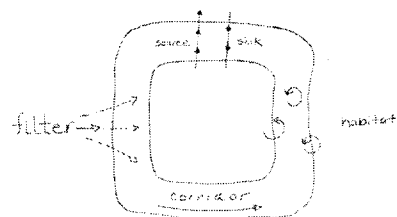


Why Buffers?

- Intent is to help natural areas:
 - a) adapt to physical changes associated with development; and
 - b) maintain their ecological integrity in the longer term under altered land uses (i.e. from agricultural to urban).



What are Buffer Functions?



When Did Buffers Come In?

- Late 1980s
 - Originally, buffers were included in individual lots, with "split" zoning on the lot
 - More recently, buffers are set aside from development and are considered non-developable
 - Buffers are in effect a requirement of the Provincial Policy Statement – "Natural heritage features and areas will be protected from incompatible development"



General Buffer Standards (cont'd)

- Coldwater (perennial) stream: 30 m from top of bank, both sides
- Warmwater (intermittent) stream: 15 m from top of bank, both sides
- Hedgerows: Drip line buffer, 7 m.



When to Identify Buffers?

- At the sub-watershed plan stage, set minimum buffers that cannot be reduced on the site-specific level.
- This takes a systems approach up front so that buffers do not have to be determined with each and every development application.



What are Typical Buffer Widths in SWS Studies?

- Moffat Creek Subwatershed Plan (1996) set 30 metre buffers from wetlands – S/E Galt Community Plan carried this through
- Blair Bechtel Bauman Subwatersheds Study (1997) required buffers - Blair Area Special Study required EIS – EEAC is looking for 30 m



General Buffer Standards (Province, RMOW, GRCA)

- ESPA: 1.5x the crown radius (trunk to drip line) measured outwards from the drip line, minimum 7 m with no significant, vulnerable or threatened species
- PSW: 30 m from boundary edge



What Are Typical Buffer Widths in SWS Studies? (cont'd)

- Summerside (City of London – 1991) buffers ranged from 20m to 100m.
- Oak Ridges Moraine Conservation Act (2002) – protects all wetlands absolutely and provides for a mandatory 30 m buffer, regardless of whether buffer performs any significant ecological function.



What Are Typical Buffer Widths in SWS Studies? (cont'd)

- City of Waterloo Official Plan (mid-90s)
– minimum 30 metre buffers from Constraint Level 1 Areas (includes Provincially Significant Wetlands).



What are Aquatic Buffers?

- Similar to natural area buffers, streams and creeks benefit from buffers
- Shrubs, trees and other vegetation along streams remove sediment moving off fields to watercourses
- Other benefits include shade which reduces solar heating, bank stability, cover and food for invertebrates.



What Are Typical Buffer Widths in SWS Studies? (cont'd)

- Forbes Creek Subwatershed Study – 50 m buffer from PSW with a provision to reduce to 30 m with an EIS (also includes provision for enhancement area for creek corridor)



What are Typical Aquatic Buffer Widths?

- The Hespeler West Subwatersheds Study recommends 15 metre aquatic buffers.
- This would be measured from the top of bank on both sides of the watercourse or water body.
- In many cases, this is within the floodplain or a scheduled area.



HWSS Buffers

- Hespeler West Subwatersheds Study – 30 m buffer from Significant Natural Heritage Features (incl. PSW, LSW, pot'l ESPAs) with a provision to reduce to 15 metres adjacent to upland habitat with successional cover (also includes provision for enhancement areas for creek corridors).



How to Implement Buffers

- Buffer widths are firm'd up at the Community Plan stage
- Public ownership and/or conservation easements can be negotiated at CP stage



How to Implement Buffers (cont'd)

- Also implemented through development approvals process on individual applications
- Existing land uses not affected, but landowners could be encouraged to establish their own naturalized buffers through stewardship initiatives



HWSS Buffers

- Discussion

