

TIMELINE: HANLON CREEK BUSINESS PARK

SUMMARY

In 1993, Guelph annexed 1489 ha of land from Puslinch. A portion of that land (271 ha/671 acres) would later become the business park. Also in 1993 an extensive study called the Hanlon Creek Watershed Plan was completed. It evaluated the natural area and recommended strategies to protect it from degradation. In 1998 the province approved the City's Official Plan amendment giving the subject lands Corporate and Industrial designation.



In 2004, the State of the Watershed Study was done to determine how effective protections recommended in the 1993 HCW Plan had been. It found that species and habitats were being lost and that Environmental Impact Statements (including the one for the business park) were deficient. Also in 2004 the Environmental Impact Statement for the business park was finalized (there was an earlier version in 2000); and in early 2005 the city council of the day approved the Draft Plan of Subdivision for the area.

It was at this point that manufacturing and warehousing uses were added to the business park "in order to make it more successful and acceptable." Other permitted uses include print shops, malls, dry cleaners, and hotels. Originally, HCBP had been planned as a corporate business park, mostly containing office uses, but it was decided that this type of development "may be difficult to achieve."

In 2006, the approval of the development was challenged at the Ontario Municipal Board and a number of conditions were imposed that had to be met as the site was developed.

In January 2008, the Environmental Implementation Report (EIR) was released. It contained more details about how development would occur on the site. In June of 2008, a second draft of the EIR was released which added information based on comments to the first draft. One of the major issues addressed in Draft 2 was the strategy for mitigating the warming of the cold-water stream caused by storm water runoff.

Further comments were made to this draft, and a third draft is expected to be released in February 2009.

1993: Guelph annexes 1489 ha of land along its southern boundary

\$1,000,000 Hanlon Creek Watershed Plan is completed after a 2-year study. The intent of the plan is to determine the measures necessary to protect and enhance the valued natural resources of the watershed and to define the level of development which could proceed within the constraints established for this protection. The development of the Watershed Plan was based upon the premise that damage to the ecosystem was unacceptable (page 26).

Participants on the project were the City of Guelph, University of Guelph, Ministry of the Environment, Ministry of Municipal Affairs, Puslinch Township, Grand River Conservation Authority, and Ministry of Natural Resources.



The study found that "A striking feature of the terrestrial environment of the Hanlon Creek Watershed is the large diversity in biological habitat types within such a small area... Over 500 discrete vegetation aggregates have been identified in the watershed..."

The study concluded that in addition to protection of Provincially Significant Wetlands (PSWs), **protection of related buffers, linkages and corridors was essential for the long-term health of**

the watershed. "The boundaries indicated in the final watershed plan, including key buffer areas and linkage corridors, [should] be considered hard boundaries for no development zones, and . . . they [should] be recognized as such by the Official Plan (O.P. amendment required) and in zoning by-law." (page 65)

The study further stated that "Future development however, will be located in areas which have a higher potential to cause impacts. It will be prudent, therefore, to adopt a cautious approach to assessment (i.e. allow for margins of error; not assume 100% effectiveness of protective measures) because we cannot expect the surface/groundwater flow system to naturally assist in the mitigation of impacts." at page 14 (Note: **The HCWP never evaluated or envisioned industrial development on these lands.**)

2004: The Hanlon Creek State of the Watershed Study is completed

This study evaluated how well recommendations in the 1993 study succeeded in achieving sustainable development in the watershed. It found that between 1991 and 2000 natural and semi-natural cover had declined by 10% from 51% to 41% (a loss of 208 ha). It found that a number of primary and secondary linkage features (key to connecting fragmented habitats) had been compromised through reductions in width and conversion of natural cover to urban landscapes. And it found that breeding bird species declined from 116 to 81 when comparing pre-1991 records to 1991-2000 records, representing a drop of 31%. **"Significant" (i.e. uncommon) breeding bird species declined by 51% in that same time period.**

Further, the study stated that:

While the wetland habitats are the only ones that are officially protected under provincial legislation, the upland habitats (both forest and meadow) also contribute greatly to the diversity of the HCW and are important to sustaining the diversity of flora and fauna that has persisted there into the 21st century. The upland habitats in the HCW provide supportive functions to the wetland areas. In an urban setting, cultural meadows and savannas, which are typically considered 'low quality' habitats, also provide important ecological functions by providing habitat for grassland bird species and other wildlife. . . . **The incremental habitat loss and fragmentation which has accelerated in the HCW over the last decade is likely a major contributor to the observed decline in breeding bird diversity.** (p. B-68)

The study implicated the EIS process in systematically reducing the size of protected areas: "Notably, encroachments have typically occurred in areas where the buffers to the Type 1 lands [i.e. wetlands] were reduced or removed through the EIS process." (p. B-70). "Despite their compliance with City EIS guidelines, close to 75% of the studies conducted to date have contributed to the incremental loss of Type 2 [buffer] lands in contravention of the overall intention of the adopted Natural Heritage Strategy." (p. B-71)

This is precisely what happened in the EIS for the Hanlon Creek Business Park. The State of the Watershed Study gave the EIS for the Business Park a grade of "fair" for the completeness and quality of environmental information and a **grade of "poor" for the treatment of Type 2 buffers, corridors and linkages (protection vs. encroachment).**

The State of the Watershed Study recommended, among other things, that "implementation of the maximum recommended buffers around remaining natural areas should help prevent further decline" and that **"buffers, linkages and corridors have suffered significant encroachments and need to be better protected through future zoning and during development."** at page B-78

Significant development has occurred in the Hanlon Creek Watershed since the completion of the State of the Watershed Report in 2004. **It is highly likely that if an updated assessment of the watershed were done today, even further damage and degradation would be evident.**

2004 (continued)

The Environmental Impact Statement for the Hanlon Creek Business Park is finalized

Much of the area of the HCBP is generally flat with small, gently rolling hills along Forestell Road in the south and southeast limits of the area. The main wetlands lie roughly in the centre of the study area.. The area encompasses a headwater tributary of Hanlon Creek (Tributary A). The study area is located on the northern base of the Paris Moraine. The Moraine forms a local ridge running east-west at the south limit of the study area.

COMMENTS AND CONCERNS ABOUT THE EIS:

1) Removal of small wetlands. The EIS recommends removing 11 small, seasonal wetlands--which are critical habitats for some salamander and frog species--totaling 2.3 ha (5.7 acres).

2) Impaired function of larger wetlands and Tributary A. The retained wetlands and creek will be surrounded by high-impact industrial development (estimated 85% impervious surface) with narrow buffers that will also carry storm water, encompass stormwater ponds and contain service roads for the stormwater ponds. The Hanlon Creek Watershed Study indicated that Hanlon Creek is dependent upon infiltrating precipitation and local shallow groundwater supplies that flow into the creek. (EIR Groundwater appendix at page 8) As stated in the groundwater report: "This confirms the infiltrative capacity of the medium to coarse grained deposits in this part of the site (the Core PSW) and the inherent relationship of the wetlands to the shallow groundwater system." at page 18

Storm water swales (vegetated areas to carry runoff) would surround almost the entire wetland. Large storm water ponds would be placed within the buffer areas of the wetlands. Any miscalculation in the construction of the storm water ponds, or the formulas for how much storm water will filter into the ground after the entire site is graded and paved, will result in impacts to the shallow groundwater system that is critical to the health of the wetlands and the cold-water creek.

3) Reduction in size of buffers. Numerous buffers, linkages and corridors recommended in the Hanlon Creek Watershed Study of 1993 were reduced in size. This means that foraging areas for wildlife will be greatly reduced, the movement of wildlife between natural areas will be impaired, and negative impacts on the wetlands and creek will be more likely because of the incompatible industrial development adjacent to them.

4) Road impacts. The EIS recommended that emphasis be placed on preserving the central area of the wetlands and woods. A key component of this protection would be to close and remove Laird Road, which runs through the centre of the wetland. The city's Environmental Advisory Committee supported the EIS on the basis that "the closure of Laird Road is implemented, which the Environmental Advisory Committee sees as an integral part of the proposal." However, later the City decided that the road removal would not be possible, so Laird Road will remain.

In addition a NEW road will be built across the cold-water stream. Another road will intrude into a high-quality woodland in the core wetland area. This new road construction will have significant impacts on these important features; and more roads means more polluted run-off, wildlife deaths and loss of habitat.

5) Rough grading of entire site. It is planned that the site will be graded at the time the roads and utilities are installed on the site. This grading will, of course, destroy the Moraine features on the site, the small wetlands, the trees and all natural plant cover.

2005: The City Council approves the Draft Plan of Subdivision for the HCBP

The Draft Plan of Subdivision provides the general layout of the roads, development blocks and buffer areas, and the city's Official Plan is amended to designate the lands commercial/industrial.

The land use designations for the 271 ha (671 acre) site are: business park 54.5% (149 ha/367 acres); storm water management 11% (30 ha/74 acres); roads 10% (28 ha/69 acres); and open space (includes provincially-significant wetlands) 23.5% (64 ha/157 acres).

2006: A challenge at the Ontario Municipal Board results in conditions being imposed on the development.

Some of those conditions include preserving the single hop hornbeam tree within the Heritage Maple Grove off Forestell Road, requiring the developers to demonstrate that the cold-water stream will not be harmed and requiring the developers to show that precipitation will still infiltrate into the groundwater at pre-development rates.

January, 2008: Draft 1 of the Environmental Implementation Report is released.

The City of Guelph, Grand River Conservation Authority, Environmental Advisory Committee, and members of the public provide comment.

June, 2008: Draft 2 of the Environmental Implementation Report is released.

COMMENTS AND CONCERNS ABOUT THE EIR:

1) Tree loss. A minimum of 1700 mature trees (including large bur oaks, black cherry, elm and many other species) and 60 hedgerows will be lost, amounting to 33 acres of canopy loss. Average diameter of non-hedgerow trees is 30 cm. (Hedgerow trees, many of which are high quality and large, were not measured.)

2) Inadequate protection of Heritage Maple Grove. The Heritage Maple Grove along Forestell Road is designated for protection. One large beech tree is outside the protected zone, and the buffer around the dripline of the trees shrinks to 5 metres in some areas. (Note: the roots of many tree species extend three times the width of

the tree canopy) The cultural meadow surrounding the grove will be excavated to a depth of 3 metres or more to provide fill for other, lower, areas of the development. Hedgerows around the grove, which provide protection from prevailing winds, will be removed, as will a kettle pond immediately to the west of the grove.

Bruce Kershner, an old growth specialist who discovered and studied this grove, recommended that the meadow, kettle pond and hedgerows surrounding the grove be protected. Guelph's own Draft Natural Heritage Study also recommends that these areas around the grove be protected.

3) Warming of Tributary A, a cold-water stream. Computer modeling for the storm water ponds showed that the water exiting the ponds would warm the cold water stream and make it unsuitable for brook trout. To try to mitigate this negative impact, the EIR proposes to dig large "cooling trenches" at the outlet of the storm water ponds that will allow the water to further cool before it enters the stream.

4) Ground water concerns. The site is composed of coarse-grained soils with high infiltration capacity. Study data show that groundwater is recharged by rainwater in the higher portions of the site and that groundwater feeds the wetlands and stream in the lower portions of the site. (at page 20) The area of the Paris Moraine on the southern part of the site is an area of particularly high infiltration to groundwater. (at page 21) The EIR acknowledges "that the change in land use of this site from predominantly agriculture to a business park could potentially affect groundwater quality." (at page 24)

Recent studies completed for the City of Guelph have also shown that the HCBP site is located within the capture zone of the Downey Road municipal well. (at page 28)

Developers' engineering teams have been given recharge target rates for consideration during the preparation of conceptual designs. They have confirmed the potential to meet the target rates "within an accuracy of +/- 10 per cent." The fact remains that highly-engineered solutions to try to replicate natural processes have no guarantee of success. Even minor persistent changes to the water levels on the site could have significant impacts on the retained wetlands and trees and on groundwater quality and quantity.

One of the most troubling aspects of the EIR is that there are numerous statements that make assumptions about the success of protecting the natural features on the site. For example, "Assuming that recommendations with respect to sediment control and infiltration opportunities are maximized; no impacts on the wetlands or creek are anticipated." at page 21 Given the enormous impact this development will have upon the land, a more accurate assumption would be that the natural features will be significantly degraded.

2009

The third draft of the EIR was released in mid-February, for discussion at the Environmental Advisory Committee (EAC) in mid-March. Unless major environmental concerns are raised by EAC and other agencies, construction could begin by late spring or early summer.