

Review of: **Medway Valley Heritage Forest ESA Natural Heritage Inventory and Evaluation, January 2015**

Reviewers: N. Bergman, S. Levin, Prof. K. Moser, S. Peirce, Prof. C. Smart, N. St. Amour, J. Stinziano, submitted to March 19, 2015 EEPAC meeting

CHANGES BETWEEN THE TWO VERSIONS

EEPAC would like to know what changes were made between version 3.0 dated December 3, 2014 and version 4.0 dated January 8, 2015 based on the comments of City staff (see p. iv – Report History). We speculate that it is related to changes in Management Zones (see page 53) and we want to know what the changes were and why they were made. EEPAC is concerned about the changes to the management zones and boundaries from the first version. The new designations have implications for future management decisions that could potentially affect ecosystems. Further details appear below.

To assess the changes and assure ourselves that the changes are in the right direction, we need to see an explanation for the changes and feel there should be continued access to the first version released to the public (it no longer is available on the City's web site) for comparative purposes.

- 1. RECOMMENDATION: Staff provide rationale for changes in management zone designations and boundaries in its upcoming report on the CMP to Planning and Environment Committee.**
- 2. RECOMMENDATION: Make the original version released to the public available again on the City's web site.**

EEPAC also notes that there were changes between versions to the "The ecological indicators with the highest sensitivity that formed the basis for the Management Zone designation are highlighted using bold text." (Starting on page 55 of the 2015 version).

- 3. RECOMMENDATION – Staff clarify and explain the changes made and the reason(s) for them and report back to EEPAC.**

In the 2013 report in Figure 11 near the west side of Western's property, there was an area highlighted as 'Habitat for Rare Species (White-Haired Panic Grass)' which was removed for the 2015 report. Similarly, White-Haired Panic Grass is no longer listed on pg.21 or in Table 4 on page 34 with the other significant fauna.

- 4. RECOMMENDATION: Staff or the consultants explain to EEPAC the reason for this change between versions.**

MANAGEMENT ZONES

Ultimately, the purpose of the Conservation Master Plan is to provide a way to conserve and protect the ecological features and functions of the ESA while providing an opportunity for people to enjoy nature. There is a clear and present need for ongoing funding to manage the facilities and trails. Some trails in most ESAs are not suitable for large numbers of visitors. Features and functions are subject to damage when a trail is not properly located or constructed.

- 5. RECOMMENDATION: City staff revise its 10 year capital plan to provide an acceleration of the recommendations of this (and other) CMPs.**

Application of Trail Standards

We believe that the Trails Standards have been misapplied and/or applied inconsistently for NA 1 G through to K in the report. This is because the report seems to limit its consideration of the S1 and S3 species to Criterion 7 of the Standards which is the habitat for these species and can be either NR or NA, while ignoring Criterion 1 which is “Area contains unusual landforms; rare to uncommon natural communities.” The third sub-criterion noted in the Trail Standards document, page 18 is “Rare natural communities: Provincially rare communities (S1-S3).” This sub-criterion can only be NR.

In each case, the tables indicate that NA 1 G to K contain assemblages of S1-S3 species. Therefore, they must be delineated as NR according to Criterion 1 of the Standards.

6. RECOMMENDATION: The proposed Management Zones be changed to be consistent with the Trail Standards.

As an example, NA 1 H (p. 64) indicates the presence of an S3 species, but only in Criterion 2 where either NR or NA can be selected, **not** in Criterion 1 where NR is mandated.

Criterion	NA 1 H 2015
1	Contains floodplain forest with high abundances of Sycamore
2	Contains representative native plant species in moderate to high concentrations (Sycamore CC - 8, Striped Cream Violet CC – 8, American Gromwell CC - 9). <i>Ed: Striped Cream Violet is listed as S3 in MNR's Southern Ontario Vascular Plant Species List 3rd ed.</i>
3	Doesn't meet any of the indicators for this criterion
4	Bottomland/ floodplain area
5	Contributes to the high biodiversity of the MVHF with an abundance of native terrestrial species
6	Contributes to the overall refuge for migratory wildlife, in particular birds. Linkage to watercourse/ riparian zone within 30 m.
7	Habitat area for a provincially rare/ regionally uncommon species (Striped Cream Violet – S3, American Gromwell – S3, and Slender Satin Grass – S2)
Comments	Boundary Rationale – Boundary follows the Significant Wildlife Habitat limit that was delineated by 5 m contours and presence/distribution of rare species. Also delineated by defining bottomland/floodplain area using 5 m contours, ELC community boundaries.

EEPAC has other disagreements with the conclusions of the study, in particular where changes were made between versions, without explanation. Two prominent examples are the disappearance of NRZ 9 to form a larger NA1G (which is still noted as an NRZ

in Table 11, page 74) and the removal of NRZ 6 which connected NRZ 8 and NRZ9, in order to form a larger NA1 F zone.

Criterion	NRZ 9 2013	NA 1 G 2013	NA 1 G 2015
1	Unique geology: steep, north facing slope that contains two Uncommon Natural Communities for the London Region. Mixed forest with Eastern Hemlock on the slope with Sycamore floodplain forest along the shoreline	Doesn't meet any of the indicators for this criterion	Unique geology: steep, north facing slope that contains two Uncommon Natural Communities for the London Region. Mixed forest with Eastern Hemlock on the slope with Sycamore floodplain forest along the shoreline
2	Contains population of conservative native plant species, Sycamore (CC of 8)	Contains representative native plant species in moderate to high concentrations (Sycamore CC - 8, Tulip Tree CC – 8, Cream Violet CC - 8). <i>Ed: Striped Cream Violet is listed as S3 in MNR's Southern Ontario Vascular Plant Species List 3rd ed.</i>	Contains representative native plant species in moderate to high concentrations (Sycamore CC - 8, Tulip Tree CC – 8, Striped Cream Violet CC - 8). <i>Ed: Striped Cream Violet is listed as S3 in MNR's Southern Ontario Vascular Plant Species List 3rd ed.</i>
3	Doesn't meet any of the indicators for this criterion	Doesn't meet any of the indicators for this criterion	Doesn't meet any of the indicators for this criterion
4	Contains bottomland/ floodplain habitat	Contains bottomland/ floodplain habitat	Contains bottomland/ floodplain habitat
5	Contributes to the high biodiversity of the MVHF with an abundance of native species.	Contributes to the high biodiversity of the MVHF with an abundance of native terrestrial species	Contributes to the high biodiversity of the MVHF with an abundance of native terrestrial species
6	Linkage to watercourse/ riparian zone within 30 m. Contributes to the overall refuge for migratory wildlife, in particular birds.	Contributes to the overall refuge for migratory wildlife, in particular birds. Linkage to watercourse/ riparian zone within 30 m. Provides a linkage between two Nature Reserve Zones. <i>(ed: ?)</i>	Contributes to the overall refuge for migratory wildlife, in particular birds. Linkage to watercourse/ riparian zone within 30 m. Provides a linkage between two Nature Reserve Zones.
7	Doesn't meet any of the indicators for this criterion	Habitat area for a provincially rare/ regionally uncommon species (Cream Violet – S2) <i>Ed: Striped Cream Violet is listed as S3 in MNR's Southern Ontario Vascular Plant Species List 3rd ed.</i>	Habitat area for a provincially rare/ regionally uncommon species (Striped Cream Violet – S3)
Comments	Boundary Rationale – delineated by contours and ELC community boundary	Boundary Rationale – Significant Wildlife Habitat limit delineated by contours and presence of rare species	Boundary Rationale – Boundary follows the Significant Wildlife Habitat limit that was delineated by 5 m contours and presence/ distribution of rare species. Also delineated by defining bottomland/floodplain area using 5 m contours, ELC community boundaries.

Criterion	NRZ 6 2013	NA 1 F 2013	NA 1 F 2015
1	Doesn't meet any of the indicators for this criterion	Doesn't meet any of the indicators for this criterion	Doesn't meet any of the indicators for this criterion
2	Contains populations of conservative native plant species, Cream Violet (CC of 8) and one that is also a Species at Risk (CC of 10). <i>Ed: Striped Cream Violet is listed as S3 in MNR's Southern Ontario Vascular Plant Species List 3rd ed.</i>	Doesn't meet any of the indicators for this criterion	Doesn't meet any of the indicators for this criterion
3	Doesn't meet any of the indicators for this criterion	Doesn't meet any of the indicators for this criterion	Doesn't meet any of the indicators for this criterion
4	Contains bottomland/ floodplain areas	Contains bottomland/ floodplain areas	Contains bottomland/ floodplain areas
5	Contributes to the high biodiversity of the MVHF with an abundance of native species.	Contributes to the high biodiversity of the MVHF with an abundance of native terrestrial and occasional wetland species	Contributes to the high biodiversity of the MVHF with an abundance of native terrestrial and occasional wetland species
6	Linkage to watercourse/ riparian zone within 30 m. Contributes to the overall refuge for migratory wildlife, in particular birds.	Contributes to the overall refuge for migratory wildlife, in particular birds. Supports non-significant Woodland Amphibian Breeding Habitat. Linkage to watercourse/ riparian zone within 30 m.	Contributes to the overall refuge for migratory wildlife, in particular birds. Supports non-significant Woodland Amphibian Breeding Habitat. Linkage to watercourse/ riparian zone within 30 m. Provides a linkage between two Nature Reserve Zones
7	Habitat areas for a federally and provincially listed Species at Risk (listed as Threatened) and provincially rare/ regionally uncommon species (American Gromwell – S3)	Doesn't meet any of the indicators for this criterion	Habitat areas for a provincially rare/ regionally uncommon species (American Gromwell – S3)
Comment	Boundary Rationale – Significant Wildlife Habitat limit delineated by contours and presence of rare species	Boundary Rationale – delineated by contours, ELC community boundary Notes - Transition area between upland and riparian zone	Boundary Rationale – Boundary follows the Significant Wildlife Habitat limit that was delineated by 5 m contours and presence/distribution of rare species. Also delineated by defining bottomland/floodplain area using 5 m contours, ELC community boundaries. Note - Transition area between upland and riparian zone.

NA1 A (amphibian breeding habitat) is noted in the Report as meeting provincial criteria for Significant Wildlife Habitat (SWH). Unfortunately, the Trail Standards do not contain any reference to SWH in the Tables. This reinforces EEPAC's call for a review of the Standards.

It is impossible for EEPAC to comment on the validity of the extent of the NA2 zones because no information appears in table form to justify the Recommendation.

7. RECOMMENDATION: As a Significant Wildlife Habitat, NA 1 A should be NR

8. RECOMMENDATION: An explanation for the NA2 zoning be provided in a table similar to the ones used for the NR and NA1 zones.

EEPAC regrets not commenting on this omission in the first version of the report.

DATA COLLECTION

It is unclear as to why a five season inventory was not carried out and why an early summer floral survey was not undertaken. EEPAC regrets not commenting on this earlier.

It was also surprising not to see any light trap surveys for moths and other nocturnal insects.

9. RECOMMENDATION – Staff or the consultants explain to EEPAC the rationale for these protocols.

10. RECOMMENDATION – Staff or the consultants explain to EEPAC the reason for no light trap surveys given both were made aware of SAR bats in the Valley.

Given the various changes in the landscape as noted on Figures 5 and 6 (ELCs), an opinion on the changes and the trajectory of the changes would have been helpful in guiding the next stage of the CMP.

11. RECOMMENDATION – During the next phase of this CMP, consideration be given to including an analysis and protection of the changes in the landscape.

SPECIES AT RISK

EEPAC points out that as per 2.1.7 of the PPS, no development or site alteration in habitat of endangered or threatened species is permitted except in accordance with provincial and federal regulations.

EEPAC assumes that the NHIC and the Ministry were notified of the existence of Threatened and Endangered Species in this ESA.

12. RECOMMENDATION – If not already done, the NHIC and the Species at Risk Biologist at the MNR be notified of the findings of this study.

Given the existence of Threatened and Endangered Species, EEPAC supports that this information be kept from public documents. However, this raises the question about how the LAC will do its work particularly on trail closures and creation. If you don't know where these species are, nor the habitat location, it will be difficult to avoid them and their habitat. Ostensibly, the proposed Management Zones already apply a Nature Reserve Zone to these areas.

13. RECOMMENDATION – Before the LAC begins its work, staff should clearly delineate areas, using the precautionary principle, that will require either trail removal or trail avoidance.

Despite noting the existence of two Endangered Bat species, there is no recommendation dealing with protecting their habitat. While the ESA regulations for these species have not been developed, the Act is clear that both the bats and their habitat are protected. The Little Brown Myotis maternal colonies are considered Significant Wildlife Habitat. No effort seems to have been made to identify colonies which generally are in areas greater than 10 hectares with wildlife tree greater than 25 cm dbh. All sites with confirmed hibernating bats are considered Significant Wildlife Habitat and it appears none were looked for. Page 2 indicates that “field studies included a; record of snags that may support bat maternity colonies; ...”

14. RECOMMENDATION – Staff or the consultant explain how the SAR Act and 2.1.7 of the PPS, will be followed in order to protect the endangered bats and their habitat prior to any site alteration taking place.

15. RECOMMENDATION - Wildlife trees are potential roosting or maternal colony habitat for the SAR bats. Therefore, a NR zone of 25 m from the drip line be applied to such trees noted in the record of snags. This zone could be changed after a cavity tree assessment.

Spiny Softshell (Threatened) Turtles have been photographed and reported to the UTRCA in the reach of the Medway off Windermere Road. It does not appear that this has been taken into account in the report based on the proposed Management Zone. Travel routes are also part of Significant Wildlife Habitat. According to the Ontario Species at Risk web site:

The most significant threat to Canadian populations of Spiny softshell is habitat degradation, particularly due to riverbank stabilization, development along shorelines, changes in water levels, dams and recreation. Nest mortality can be very high due to human recreational activities at nest sites and nest predation by raccoons and foxes. Development and recreation may also be blocking access to nesting, hibernation, feeding and basking sites.

According to the Species at Risk biologist at the UTRCA (personal communication, 2014 which was also copied to City Ecologist and consultant):

We received new information and photos to suggest that there is likely softshell use throughout the Medway, from the mouth at the Thames to Arva. This has changed our thoughts on softshells in the area and the importance of this tributary for reptiles at risk. The Medway also contains mudpuppies, an aquatic salamander. Though not at risk, this species is locally rare. Northern Map Turtles have also been located in parts of the Medway, along with Midland Painted, and Snapping Turtles. Along the terrestrial areas, Milksnake, N. brownsnake and eastern gartersnake are also found. A very diverse assortment of species for a partially urban tributary.

16. RECOMMENDATION: Appropriate zoning for this species based on sightings by the public be included.

ESA BOUNDARY CHANGES

It should be clearly noted that the SWM facilities in the northern part of the ESA were placed within the then current boundary of the ESA. Now this section is proposed to be removed from the ESA. Unfortunately, the present wording of Section 3.0 starting on page 41 could be interpreted in such a way to suggest that the original boundaries were drawn around the facilities and that this “error” has been fixed by the present revision to the boundaries.

17. RECOMMENDATION: Section 3.0 be reworded to better explain the rationale for the boundary change.

In Figure 15B Map A, there is an area between Box B and D that has a boundary change but no explanation on page 45. The explanation for the changes in box B and in box D are different, so it is not clear what the reason is for the change in the area between the two boxes. In the area between B and D, the boundary is proposed to be further from the houses, reducing the size of the ESA. Guideline 10b does not really apply here whereas it clearly does in the southeast part of Box D where the boundary has been moved. Clarification is required.

18. RECOMMENDATION: The report explain the changes in the boundary at this location and make a correction if necessary. EEPAC requests it be informed of the action taken.

It is puzzling that the boundary decision ignores the backyards of the houses on Gloucester which clearly are connected vegetatively to the ESA (the area north of box G in Figure 15B). EEPAC would appreciate knowing whether the residents were approached to have the survey done? If this has not be already done, approach residents to consider being stewards.

19. RECOMMENDATION: Even before the completion of the CMP, the city begin to make contact with residents in the stewardship sites listed in the report. EEPAC is willing to participate with the city and any other public body (UTRCA?) in developing a communication plan as well as the desired actions the new stewards should undertake. (Some discussions have taken place between land owners and the UTRCA related to the slope slumping in the area. Per comm. M. Snowsell, 2015). The outreach should include information on, and support for, applying late in 2015 for 2016-17 funding under the Provincial Species at Risk Stewardship Fund. (The deadline to submit an application for the 2015-16 Species at Risk Stewardship Fund has now passed. Application form and guidelines for 2016/17 will be posted in late 2015.)

In the December 2013 report, there was a boundary adjustment on Figure 15C in the area of Corley Drive. This boundary adjustment is no longer shown in the current version. We are puzzled by the inconsistency. We can only assume it is related to the habitat for the Endangered Species observed near this location. If this is the case, then the NR overlay (NRZ 16) in this area should be overlaid on the Western lands as well, which is not shown in Figure 16 of the 2015 version of the report.

20. RECOMMENDATION: The NRZ 16 overlay on Figure 16 be shown in its entirety as the entire habitat is protected under the SAR Act.

21. RECOMMENDATION: All of the Western and Huron lands be shown as an NR Zone until data collection is undertaken.

It should be noted that the very back of 1400 Corley Drive has a different owner. According to the City's on line Original Map, there is a triangle of property that spans the Creek in this location. IBI did a study of Huron lands between 2008 and 2009 (personal knowledge, S. Levin was CAO at Huron at the time), and noted this triangular parcel belongs to Huron.

22.RECOMMENDATION: Huron be reminded by the City of its ownership and be asked what action it will take to comply with the Endangered Species Act as its lands at this location are within the protected habitat of an Endangered Species.

AQUATIC HABIT (p. 37)

The report ignores a lower order stream, locally called Rollingwood Creek. This is the watercourse which runs under the bridge noted in Figure 12. This gully has a unique cold water habitat and provides shelter for fish during flood events on the Medway. It holds potential for the reintroduction of native brook trout into the Creek.

23.RECOMMENDATION – The existence and sensitivity of this lower order watercourse be noted in the report and shown more clearly in the Figures.

It is noted that the beaver dam south of Fanshawe Park Road is away from property and likely poses no risk to life or property. This is a natural occurrence in this ecosystem and should be allowed to continue.

24.RECOMMENDATION – The beaver activity be conserved due to the lack of risk to life or property.

Because the health of the terrestrial and aquatic ecosystems are inter-related, additional work must be undertaken if any impacts to the Creek or its tributaries are possible with, for example, new trails or bridges. There are SAR species of fish and mussels in the Creek and any impacts on them must be avoided.

25.RECOMMENDATION – A scoped EIS be required prior to any site alteration in the ESA.

26.RECOMMENDATION – Change the wording on page 37 as follows (highlighting retained for clarity and explanation):

In general, the Medway Creek in this area is a ~~wide, shallow meandering watercourse with a substrate dominated by gravel and cobble.~~ **non-evenly spaced pool-riffle-run bedform habitat, incised into the till, in some cases, poorly connected to the floodplain.** **Alternating width/depth ratios signify shallow and deep bedform channel features.** The creek is located within a **glacial** valley and has various point and non-point inputs (i.e. seeps and areas of overland run-off into the valley) contributing to its flow, **especially during high-intensity rainstorms or spring melt.** ~~This type of system is generally sensitive to bank erosion and disturbances such as increased flows~~ **(highly doubtful - there is no scientific evidence of this).** Medway Creek has numerous points of active **till** erosion, as described in the next section. In particular, on the outer bends of the meander belts signs of erosion scarring and undercut banks were observed. Numerous point bars were observed in the inner bends of the meander belt. **This channel morphology is typical for a meandering stream.** ~~Alternating width/depth ratio erosion is natural from meanders~~ **(not correct - see above).** Although these undercut bank features may pose a hazard for slope stability, they often provide habitat for aquatic species. Overall, the diversity of available aquatic habitat in the Creek in this portion of the MVHF ESA was high, with both in-stream and overhanging vegetation, in-stream cover from boulders and woody debris and a mix of available substrate. Portions of the creek are well shaded **by** surrounding vegetation, while other areas are exposed with little to no cover. Areas of informal crossings were noted as trail access across the creek.

According to the City's Environmental Management Guidelines, aquatic communities and habitats survey should include a fisheries inventory, benthic survey and stream analysis. Will the stream analysis be completed for the final conservation plan?

Pg. 38 Confluence of Medway Creek and Thames River - Misuse of the term 'braided channel' which refers to a channel network of small channels separated by usually ephemeral islands.

27. RECOMMENDATION: This error should be corrected in the final version.

The state of the river needs to be considered and monitored if there are additional disturbances.

28. RECOMMENDATION: EEPAC believes the benthic and fish surveys completed should be included, at least in summary, in the final Conservation Master Plan.

NON-NATIVE INVASIVE SPECIES

EEPAC appreciates the quick action taken by City staff to address the invasive species problem and its spread to communities of native species. It is noted in the report that there are a number of areas in the Snake Creek Valley and various other places in the southern portion of the Medway Creek Valley where invasive species seem to be the predominant plant (p. 24-25).

29. Recommendation: The City immediately begin an invasive species management plan including priorities for this portion of the ESA. This should begin immediately or not later than concurrent with the LAC's work.

30. Recommendation: The City apply for funding through the Provincial Species at Risk Stewardship Fund, TD Friends of the Environment, and the London Community Foundation.

RESTORATION AREAS

In reviewing the proposed restoration areas, EEPAC considered the challenges of natural regeneration. Because of invasive species such as Buckthorn, Goutweed and others, natural regeneration without intervention is not recommended. Consideration will also have to be given in the next part of this process to areas such as the Cultural Meadow (RO11). For example, would this be better maintained as a meadow or should it succeed naturally (with invasive species control measures)? What is its current function to the rest of the system?

31. RECOMMENDATION – The second phase of the CMP include a discussion of what the ESAs features and functions should be in 50 years.

PUBLIC EDUCATION

EEPAC agrees that additional signage about the unique features of this ESA should be included at various points. Recognizing information is not the same as education or behaviour change, EEPAC provides the following recommendations:

32. RECOMMENDATION – Signage appear at various locations indicating the Creek is polluted and fish should not be eaten. (This type of information may indeed get people to consider changes that would improve water quality.)

33. RECOMMENDATION - The city avoid signage near to unique species assemblages, in particular, SAR species. (EEPAC is concerned that if you tell people where a rare species is, you will find plants being taken or habitats disturbed.) Or where there are nests in a bluff, we suggest avoiding tempting people into a closer look. (p. 65, NA1 J comment).

Another example is regarding ABH 1. Information about amphibian breeding habitat can be signed at the water body at the bottom of the storm outlet just south of the bridge over the Medway where the city has already constructed a trail and paved pathway.

This water body in the spring is home to frogs which will serve the same educational purpose without tempting people into the SWH.

USE OF SPECIAL OVERLAY ZONES

We are concerned that the Study has presupposed the location of some trails. On page 57 in the comments about NRZ 5, the Report recommends a Special Feature Overlay. This would require cutting through NRZ 9 as well where there is no managed trail presently. We believe this recommendation should be presented to the LAC for its review without it being included in a Figure. The Figures should reflect the “facts on the ground.” For example, the consultants have simply listed the Access Zones on page 67 without any commentary on their present state or continued use.

Another similar concern is for NRZ8 where the trail has been closed for safety reasons (the use of this as a trail has also resulted in the loss of a Blue Beech at the top of the bluff, S.Levin, personal observation). To recommend a Lookout at this location is premature.

34. RECOMMENDATION: The proposed Special Feature Overlays be removed as this decision should be left to the LAC in its review of the entire ESA and its recommendations regarding the trail system.

SUPPORTING INFORMATION FOR ESA CRITERIA (TABLE 7)

EEPAC is unclear if the entire area of the ESA is 119 ha or larger as it states “North of Fanshawe Park Road, the size of the Medway Valley is an additional > 100 ha.” However, on page 41, the total area of land included within the proposed new ESA boundary, on both sides of Fanshawe Park Rd, is given as 181.24 ha.

35. RECOMMENDATION: Revise the wording as necessary to avoid confusion.

Criterion 3 is met based on size and providing habitat. It is unclear why the revision relating to the unfortunate placement of infrastructure and the possible future restoration is necessary. It is also unclear if the lands owned by Western University and Huron University College are included in the calculations. If not, they should be included as they are clearly part of the ESA.

36. RECOMMENDATION: Revise the wording in support of Criterion 3 as follows (p. C2 and 51) subject to clarification of the size of the ESA.

The size of the study area is approximately 119 ha. This is more than twice as large as the size criterion suggested by Hiltz and Cook (1982) for a Significant Natural Area. In addition, the upstream and downstream boundaries of the study site ~~are quite arbitrary and the site itself~~ represents only a portion of the entire Medway Valley system. North of Fanshawe Park Road to the City Boundary the size of the Medway Valley is an additional >100 ha. The entire area supports species that require large blocks of suitable habitat.

~~Revision - While the area of the ESA (both north and south) is still a large contiguous block, the woodland in the north has been fragmented by the recent placement of a utility corridor resulting in a reduction of interior forest habitat and the separation of woodland communities due to a gap of 20 m or greater. This has resulted in less interior forest habitat within the ESA. It is expected that this fragmentation is temporary as restoration efforts are starting to fill in the gap(s) created by the corridor. Once the forest edge is restored, the utility corridor gap(s) should be < 20 m and the woodland would again be considered continuous. The ESA continues to support forest interior breeding birds such as Yellow-bellied Sapsucker (*Sphyrapicus varius*) and a number of interior migrant species during the spring and fall periods.~~

OTHER CONCERNS

Using different colours for the ELCs in Figures 5 and 6 made comparisons difficult. The same colours should have been used for greater consistency and ease of analysis.

It is hoped that the existence of unmanaged trails on Western and Huron lands will be investigated during the next step of the Plan (assuming Western and Huron participate in the next phase). Ignoring both the flora and fauna and human behaviour seems inconsistent with the goal of conserving the ESA and protecting its natural features and ecological functions.

Page 14 – we disagree with the rationale for changing the BLT1 polygon south of the Snake Creek Valley. According to H. Lee (per. communication with S. Levin, 2015), height is not what makes a bluff - it is the presence of active erosion.

Take away the erosion events that are resetting the successional clock on an active and dynamic bluff, and it will succeed to a forest...and no longer be a bluff. It would become a forest on a historical bluff landform. If a slope currently has enough trees on it, > 25%, and would be considered a woodland or forest...and there is no big open spots where erosion has recently taken place to set it back to bare sand again...then it's not a bluff.

p. 22 – It is unclear from this page which rankings were used in the management zones decisions and how decisions were made.

37.RECOMMENDATION: It be made clear how the floral rankings were applied.

P. 28 suggests Figure 8 shows either occurrences of reptiles or appropriate habitat for same. Figure 8 does not appear to show any key related to reptiles.

38.RECOMMENDATION: This section of the report be clarified and reptile habitat, where appropriate, be noted in the appropriate Figure.

Pg. 38, 1st line: there is a word missing after “has”, making the meaning of the sentence unclear. Please revise.

In the tables for the NR and NA1 rationales, there is a * by Criteria 7. This is also the case in Table 12 “Defining Criteria” on p. 77. There is no note anywhere to explain the asterisk. Is this an artifact or were the notes removed and if so, what did they say?

39.RECOMMENDATION: EEPAC be advised when this matter is clarified.

If neither the Museum nor the EPW are included as Cultural Heritage Zones, then the reference to CHZ on page 66 should be removed.

On page 76 it states that wildlife habitats (shouldn't this say Significant Wildlife Habitats?) are mapped along with the existing trail system on Figure 19. Unfortunately, the Habitats are only on Figure 19 while the trail system is on Figure 18. In the December 2013 version, Figure 19 showed both.

40.RECOMMENDATION: The habitats mapped on Figure 19 be included in one map for the LAC that also shows the proposed Management Zones and existing trails, both managed and unmanaged.

MISC

EEPAC looks forward to participating in the next step in the CMP where the naturalization and restoration projects will be costed and prioritized. We look forward to the City actually budgeting sufficient funds to take on these and other naturalization and restoration projects for all ESAs.

Page 6 highlights the significant impact the sewer and SWM pond construction had on the features of the northern portion of the ESA, including the loss of interior forest habitat. Hopefully, the City will avoid placing infrastructure in an ESA again.

Pg 19: Barn swallow species name is missing. It is likely that they are nesting in the chimneys at Huron University College where they have been seen previously (per communication with W. Wake)

Pg. 21 Twinleaf species name missing

Pg. 29 For tri-coloured bat, Srank should be SRank

Table 6 – it would be helpful to label the North and South Sections differently since letters A-F are listed in the Table twice and on two different maps but do not refer to the same thing. This could be easily fixed by starting with 'A' in the North and continuing from 'G' in the south

P. 35 last line of table – we assume the species referred to is Green Dragon (from the 2013 version). If not, we hope the actual species will be noted or at least its S ranking.

p. 74, both 51 and 53 Doncaster Gate have a bluff feature.

Figure 12 some errors exist. These are 1) a large green letter 'A' near centre of the map needs to be removed, and 2) add acronym (shown in map) beside the name in legend.

City On-Line Map - It is unclear why the City's new on line map shows parts of this ESA as Park and not ESA. (e.g. Gainsborough Valley Park).