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Old Victoria Area Plan Study RESPONSE TO REVIEW AGENCY COMMENTS ADDENDUM

1.0 Purpose of Addendum

This Addendum is prepared as the comprehensive response to the review agency circulation and comments on the Final Report of the Old Victoria Area Planning Study (OVAPS) dated September 2006. The main purpose of this document is to work toward agreement between the review agencies and the planning consulting team representing the seven (7) landowner stakeholders sponsoring the Area Plan study. In this way, City of London Planning staff will be able to prepare a positive recommendation and supporting report to the London Municipal Council and the requisite public meeting before Planning Committee, and subsequent adoption by Council. The Planning Division Recommendation Report approval will comprise the Old Victoria Area Plan (including accompanying Community Design Guidelines), and an Official Plan Amendment involving Schedule changes and special policies.

2.0 Background

This Addendum follows three milestones of Old Victoria Area Plan (OVAP) evolution; namely:

1. The Final Report for the Old Victoria Area Planning Study – September 2006.
2. The Draft Report for the Old Victoria Area Planning Study - March 2006.
3. The Terms of Reference adopted by Council in December 2005.

The OVAP process is accompanied by a parallel study known as the Old Victoria Area Plan Storm Drainage and Stormwater Management (SWM) Servicing Works Municipal Class Environmental Assessment (Class EA) to examine in more detail the water resources management alternatives and options for the proposed Old Victoria development area. The last public meeting for the EA was held on February 8, 2007, with positive results and the final report is being submitted to the City at the same time as this Addendum. The recommended “two retention pond alternative” is being used as a basis for the Old Victoria Area Plan Study, as has been the case throughout.

3.0 Approach and Interpretation

The consulting team and the seven (7) landowner stakeholder sponsors respectfully request that this Addendum be read with the following in mind:



a) The “policy” level of detail, appropriate for Area Plans, should be recognized together with the need for more detailed study (e.g. geotechnical engineering, environmental impact) that will necessarily be completed at the detailed subdivision planning and design stage (including zoning) for each individual property. It is recognized that there is always the question of where one draws the line in terms of how much work needs to be done at the Area Plan stage and how much work can be left to the later stages of subdivision and zoning for individual properties. It is hoped that the agencies will see that OVAPS has gone further with geotechnical, hydro-geological, natural heritage, and community planning and design in terms of both field work and analysis, than many other Area Plans. Additional geotechnical and environmental work has been carried out throughout January and February 2007. Any further detailed work cannot be done until the later stages of design and subdivision planning because detailed information regarding specific development proposals is not yet available.

Some of the agency comments want more study and detail which the Consulting Team believes to be outside of the terms of reference for the OVAP landowner agreement, and as well, it is typically beyond the level of detail required for an Official Plan Amendment (OPA). For example, Trow Engineering consultant has been involved in several Area Plans throughout the City over the last 10 years. Trow contends that they have done twice the amount of work on the OVAPS as on other Area Plans, in an attempt to satisfy the agencies on such matters as the “preliminary stable slope” along the Thames River valley. As stated above, within this Addendum, additional field work has been included which is normally associated with more detailed stages of development that would occur after the Area Plan was approved by the City Council.

b) The lands that have been referred to in past reports as the “Scott” or “Breau” lands, are now referred to in this Addendum as the “Sifton” lands, recognizing the new ownership.

c) Agency comments are copied and contained in Section 5.0, and a list of responding agencies are provided at the beginning of that section. Following each review agency comment requesting a reply is the (italicized) response from the Consulting Team and measures to acknowledge and/or accommodate the agency comment or the reasons why not.

4.0 New Preferred Land Use Area Plan (Figure A-1)

The most significant part of this Addendum is the new Preferred Area Plan which is termed, “Final Preferred Area Plan” (Final PAP for OVAP) as shown on [Figure A -1](#). To convenience the reader, the changes are set out from #1 through #11 below, with corresponding numbered captions



shown on Figure A-1. These captions summarize the changes from Figure 1.1, Preferred Area Plan of the Final OVAP Report. Figure A-2 shows the Final PAP without the numbered captions. The changes and policy additions are set out as follows.

Comment [BP1]: Insert A1 Land Use Plan

#1. The “preliminary stable slope”, identified by Trow Associates (geotechnical engineers) has been further studied in the field with boreholes and survey, particularly in response to the Upper Thames River Conservation Authority (UTRCA) comments. The UTRCA claimed that the development land use designations, such as the Low Density Residential and Medium Density Residential designations extending below the preliminary stable slope, could produce an “elevated expectation for development” on what at this point in the study it considers to be “hazard lands”. Trow’s further work has enabled the identification of an “approximate development setback line” to replace the “preliminary stable slope”. This new line is different in terms of location than the preliminary stable slope line as shown on Figure 4.1 of the September Final OVAPS. This further work completed for the Area Plan and the recognition that further work will be done at the subdivision and rezoning stage, combined with the notion that the Area Plan designation boundaries are approximate, validates the showing of developable land use designations as shown on the new Final PAP – Figure A-1. However, to offer even more assurance that development will not take place in hazard lands, a special policy is proposed as follows:

Special Policy #1

“The Area Plan identifies an “approximate development setback line” and further detailed geotechnical study to determine the exact extent of the developable limits of the lands, including access, will be carried out at the time of detailed applications for draft approval of plans of subdivision.”

In preparing the Official Plan Amendment, the large scale mapping of Schedule A could show an approximated line dividing the developable land use designations (eg. Low Density Residential) and the Open Space designation. This would recognize the fact that the development limit defined by Trow refers to the limit of house / building construction on the property. It is not intended to restrict or prohibit other uses such as stormwater management ponds, fencing, retaining walls, swimming pools, etc.

#2. There are three changes in this area, outlined as follows:



a) In the northwest area of the Sifton lands along the Thames River and the Meadowlily ESA, there exists an active agricultural field of approximately 1.1 ha in size. The southerly 0.6 ha is above the “approximate development setback line”, and is designated Low Density Residential. The northerly remaining 0.5 has is below the “approximate development setback line”, and is designated Open Space.

Discussions with City Staff have indicated that the 0.5 ha area is considered a high priority area for re-vegetation and enhancement of the ESA along the Thames River. Lands to the east toward and including the proposed storm water retention pond, along the Thames River are also considered a high priority for re-vegetation and as further enhancement of the ESA. In the more detailed design of development, rather than proposing non-structural private recreational facilities (tennis courts, putting greens and passive private parks associated with the residential development on the higher lands to the south), these lands could be re-vegetated. The intent would be to restore ecological functions and provide a net benefit for the east Meadowlily corridor ESA along the Thames River corridor.

In exchange, additional lands would be added to the developable lands designated Low Density Residential. The additional lands would be identified by an Environmental Impact Study (EIS) at the more detailed development stage. The additional lands would likely be to the west of the Low Density Residential designation. A red asterisk symbol has been shown on Figure A-1 to indicate this potential. Blue star symbols have been used to show the areas of re-vegetation and ESA enhancement potential on Figure A-1.

b) The “Enhanced Transition Zones”, shown previously in the September 2006 Final Area Plan, have been changed to an Open Space designation, reflecting their inclusion in the ESA.

c) Within the westerly extremity of the Sifton lands, the Preferred Area Plan of September 2006, showed a possible road connection from the north (low density residential area) to the south (through medium and high density) to intersect at Commissioners Road East. This proposed road connection has been removed. The Open Space designation has been increased substantially in this area.



The Final PAP on Figure 1-A, illustrates the elements proposed. The extent of this residential development opportunity will depend on the detailed conclusions and recommendations of an EIS to be completed at the detailed development design and approval stage. A corresponding special policy is proposed as follows:

Special Policy #2

"In the northwest area of the Area Plan along the east Meadowlily ESA and the Thames River corridor, re-vegetation and ESA enhancement opportunities on the active agricultural fields below the floodplain and stable slope should be considered. The intent would be to restore ecological functions and provide a net benefit for the east Meadowlily ESA and the Thames River corridor. In exchange, developable lands would be added to the adjacent Low Density Residential designated lands at a minimum ratio of 1:1, with access provided along the existing farm lane crossing at the north end of the existing farm pond. An Environmental Impact Study (EIS) shall determine the precise extent of the developable lands and be the basis for the design of the road crossing of watercourse #4."

#3. On the westerly Sifton lands at Commissioners Road East, the lands continue to be designated Medium and High Density Multi Family Residential. However, this area of development is not intended to be connected northerly to the low density residential designation that was previously proposed in Figure 1.1 – Preferred Area Plan of the September Final Report of OVAPS. At this time, only one access (from Commissioners Road) can be provided but there may be an opportunity to connect with the westerly (Walmsley) lands (outside of the OVAP area) that would ultimately provide for more than one access. It is expected that the development will be served by a private road, but the option for a local public street is maintained. The option for either is provided by a special policy as follows:

Special Policy #3

"In the southwest area of the Area Plan, west of tributary #4, the southerly developable lands fronting onto Commissioners Road East may be served by a private road or a public local street having direct access to Commissioners Road East. The exact intersection location of the road and Commissioners Road East shall be determined at the detailed subdivision, zoning and site plan approval stages. Development of the subject lands may provide for connection to the lands to the west, thereby providing a second access."



#4. In the southwesterly area along the east side of watercourse #4, the OVAP Natural Heritage study has indicated that the natural features of the small projection finger-shaped area extending easterly are not environmentally significant to the wooded valley ravine. The same conclusion was reached on a second linear shaped area along the south part of tributary #3 (Grenier property). It is intended that development of lands adjacent thereto for residential purposes should preserve the natural heritage features as much as possible. Therefore, a special policy is proposed as follows:

Special Policy #4

"In the two areas labeled "tree preservation zone" located east of tributary #4 within the Medium Density Residential designation, and in the southerly area of tributary #3 the dominant natural heritage features are encouraged to be preserved and integrated within the detailed subdivision and site plan approval design. These areas will be permitted to be in private ownership, including incorporation in rear yards or as outdoor amenity areas for multi-family developments"

#5. There are two changes with the Town Centre concept as follows:

a) The location of the Town Centre (westerly part of OVA) is proposed to be changed from the "internal" location to a "gateway" location at the intersection of the proposed primary collector and Commissioners Road East. The exact location of this intersection will be established at the detailed subdivision and zoning stages. This change is based on preliminary review and findings of commercial feasibility by a marketing and planning consultant retained by Sifton.

b) The Town Centre is shown symbolically and is intended to be in the range of 1500 m² of retail-office commercial floor space. This is slightly larger than the convenience commercial floor space maximum in the current City Official Plan. It is slightly smaller than the 2000 m² gross floor area of the neighbourhood centre in Cornell (Markham). Two to four storey height buildings are encouraged with residential and office uses on the upper 2nd to 4th floors. Assuming a typical 20% commercial lot coverage (building area), 7500 m² of land area would be required for the commercial floor space (with upper residential-office storeys) intended. This



land area would also contain off-street parking and landscaped open space. A public square is also intended which would be approximately 2500 m². Adding the public square area to the land area needed for commercial space (with upper residential storeys, totals a land area of 10000m² or 1 h for the Town Centre. The size and extent of the Town Centre has been based on general planning principles and policies with limited market analysis. As a result, the whole Town Centre concept (size, location, quadrants) will require sufficient flexibility at the more detailed planning stages. Final determination of the appropriate maximum limits of retail / office / commercial space in the Town Centre will be defined at the zoning stage. The corresponding special policy reads as follows:

Special Policy #5

"The Town Centre concept is intended to provide an identifiable centre and gateway for the westerly area of the Old Victoria community. The concept is encouraged to be "mixed use" with approximately 1000 to 2000 m² of ground floor commercial retail space in buildings that are generally 2 storeys or more with a public square and enhanced site and architectural design together with substantial landscaping that will produce an identifiable and pleasing focus and west gateway to the Old Victoria community. Community Design Guidelines will give further direction to the ultimate design. It is also recognized that some flexibility regarding the ultimate size, location and configuration of the Town Centre may be necessary to accommodate the recommendations of more detailed commercial and market analysis studies that may be undertaken. Consideration will also be given to innovative zoning approaches, permitted uses and regulations in order to implement the mixed use intent and principles of the Town Centre."

#6. The westerly (north to south) primary collector road has been slightly re-aligned and shifted westerly to accommodate the "gateway" Town Centre, and to keep it just beyond the hydro corridor. The collector road is intended to curve northerly and gently to a round-about located east of the existing woodlot 'pocket'. A local street would extend northerly providing a full view of the heritage Scott farm residence, using it as a "visual terminus". This design element helps to create uniqueness and community identity and will be further elaborated upon in the Community Design Guidelines. The location of the intersection of the primary collector road and Commissioners Road East is a minimum of 300 m from the access (public or private) to the west but its exact location shall be determined at the subdivision and zoning stages of development. The special policy reads as follows:



Special Policy #6

“The primary collector road through the OVAP area is to be designed as a residential street with direct access for adjacent lands use. Its intersections with arterial roads such as Commissioners and Hamilton Roads shall be spaced strategically to preserve function and safety. The west portion of the primary collector shall gently curve and extend northerly to a roundabout, to facilitate a visual terminus of the heritage farm residence along local street development ”

“Specific road design and collector intersection locations shall be studied in detail at the draft plan / zoning stage with respect to potential modifications of City standard road widths, design and cross-sections. Serious consideration is to be given to alternatives that strengthen the community vision such as on-street parking on collector streets at Town Centre locations, reduced building setbacks, reduced road widths, alternative utility servicing, medians with planting strips, reduced design speeds, municipally owned and maintained rear lanes, etc.”

#7. The Neighbourhood Park has been modified as a result of changes to the location of the Town Centre and collector road. It provides for linkages of the multi use trail system and encourages retention of small woodlot pockets. In the more detailed design of the park system, passive and active recreation facilities shall be provided. A special policy is set as follows:

Special Policy #7

“In the detailed planning of the parks and multi use trail system, equal consideration shall be given to the need for both passive and active recreation activities. Park land dedications shall include small woodlots and be configured to enhance linkages for multi-use trail systems. More detailed configuration and location of the neighbourhood park, multi-use trail system and access connection points will be determined at the plan of subdivision stage. Modifications to the configuration and precise location of the park and trail systems will be considered at the detail design stage to maintain flexibility for subdivision design so long as the inherent principles of visibility, functionality, connectivity and a relatively central park location are maintained. ”

The Old Victoria Area Plan identifies over 40% of the total land area as Open Space (not including proposed neighbourhood parks) to assist in the protection and preservation of ecological and natural heritage features. These Open Space areas will provide significant visual and functional amenity to the neighbourhood and the City as a whole, given the intent to integrate pedestrian and



cycling trails and extensions of the Thames Valley multi-use trail system. Where these Open Space areas are not retained in private ownership, appropriate parkland credit and/or compensation should be provided at the subdivision stage, given their contribution to meeting the passive and active recreation needs of the community at large.

#8. The designated Neighbourhood Commercial Centre at the northwest quadrant of the intersection of Hamilton Road at the future primary collector road, is intended to be approximately 1500 m2 of gross floor area in keeping with the smaller range of Neighbourhood Shopping Areas described in the Official Plan. There is argument that the arterial road location near Commissioners Road and the proximity of the City-initiated major “Innovation Park” would create additional commercial needs and opportunities. Therefore, a possible additional commercial site has been designated. The special policy that is proposed is as follows:

Special Policy #8

“Should an additional commercial Neighbourhood Centre be warranted by the verification of a Commercial Needs Study carried out by a professional marketing consulting agency, the expansion shall take place on the southwest quadrant of the Hamilton Road / future collector intersection, and as shown on the Final Preferred Area Plan. The design of site, buildings and landscaping shall have regard for the design guidelines for the Town Centre and the Hamilton Road Medium Density Infill designation in order to relate well to the overall Old Victoria community and the longer term future infill development opportunities along Hamilton Road.”

#9. The lands along Hamilton Road have been designated, “Infill Medium Density Residential”. Over the long term, development of lands along both sides of Hamilton Road shall be able to intensify and redevelop at intensities in-keeping with Medium Density Residential designation described in the London Official Plan. The refined designation focuses in on the retention of existing development and the intensification and infill of new development for primarily residential use. In addition, local commercial and office based uses on ground floors are proposed to enable development resembling the Wortley Road Village in Old South London. Minimum lot areas and frontages may be developed in the implementing zoning bylaw to ensure large land assemblies for comprehensive development utilizing front yard oriented building development, rear lanes and connected rear parking areas, in the long term create opportunities to resemble the Wortley Road Village. This special policy reads as follows:



Special Policy #9

“Along Hamilton Road the Infill Medium Density Residential designated lands shall enable, over the long term, intensification and infill development in-keeping with the City’s Official Plan. The refined designation focuses in on the retention of existing development and the intensification and infill of new development for primarily residential use. In addition, local commercial and office based uses may also be permitted to enable development that would resemble the Wortley Road Village. Minimum lot areas and frontages may be developed in the zoning bylaw to ensure large land assemblies to seek comprehensive development. Front yard building orientations, joint access, connected rear lanes and parking areas are suggested parameters of design that will be developed in the Community Design Guidelines.”

#10. To recognize the parallel study: “Old Victoria Area Plan Storm Drainage and Stormwater Management (SWM) Servicing Works Municipal Class EA” it should be noted that the proposed SWM potential stormwater facilities shown on Figure A-1 are symbolic and need to be confirmed by the said Class EA. The special policy reads as follows: IS THIS NECESSARY?

Special Policy #10

“The Storm Water Management Ponds shown on Figure A-1 are symbolic of location and number only. Reference should be made to the accompanying Storm Drainage and Stormwater Management (SWM) Servicing Works Municipal Class Environmental Assessment (Class EA) for details that will also direct future study at the more detailed subdivision and zoning development stages.”

#11. The two small areas along the east extremities of the Old Victoria Area were designated Office Business Park. These were remnant parcels that are expected to be developed along with the larger parcels of land east of the OVAP that are also designated Office Business Park. Upon further site visits with City staff and members of the Environmental and Ecological Advisory Committee (EEPAC) of Council, it has been agreed that these two small parcels be designated Open Space along with the westerly adjacent lands that are wooded and part of a tributary valley.

Figure A-1 shows the new Final Preferred Area Plan with changes from the September Final OVAPS report Figure 1-1 Preferred Area Plan. Table A-1 shows the revised population of approximately 4807 and 2000 housing units. Figure A-2 shows the Final PAP without the captions.

Comment [BP2]: Insert A-2 Final Preferred Area Plan



5.0 Review Agency Comments and Consulting Team Response

1. Parks Planning and Design
2. EEPAC
3. UTRCA
4. EESD - Transportation Planning & Design
5. EESD - Wastewater & Drainage Engineering
6. EESD - Development Services Division

Agency review comments are provided first and the consulting team's reply is provided immediately following in italics. Comments and responses are not presented in order of receipt or priority; rather based on multi-partner/consultant contribution availability and electronic file considerations. This addendum to the Old Victoria Area Plan (OVAP) is also organized similar to main binder report i.e. natural science at the beginning following through to servicing and land use. All agencies are reminded that the OVAP study and documentation are for an Official Plan Amendment land-use designation only. It should also be noted that future detailed work required for actual development approval will necessarily include completion of the Class EA for stormwater management (SWM), EIS on each development proposal for open space protection and enhancement, SWM functional design for both proposed facilities as well as any at-source controls decided to be incorporated, followed by detailed engineering design for the subdivision agreement. The "extra work" undertaken at this stage to prepare this addendum was completed for increased stakeholder confidence in the recommended OPA land use designations. This documentation, including the main binder report previously submitted, is intended to be used in the future as reliable background reference information to support the requisite future additional more detailed draft plan, zoning, EIS, subdivision design, contract administration, and subsequent environmental monitoring that will be required for development. .

1. Parks Planning and Design

Bruce Page - Planning Department Coordinator

Parks Planning and Design has reviewed the submitted Old Victoria Area Planning Study document and offer the following final comments.

Natural Heritage Issues

Figure 1.2 Open Space and Multi Use Trail Systems show primary and secondary trails going through the center of two ravines that are ESA. This is generally not a preferred primary and possibly secondary pathway routing without sufficient justification. We request that it be noted that, the proposed primary and secondary trails alignments are conceptual and will require future site specific studies to determine the best alignment at the draft plan stage.

AGREED - It should be well recognized that the locations of the multi-use trails shown on Figure 1.2 in an Area Plan Study, are approximate only as they should be within the context policy of London's Official Plan. Locations shown are not intended to be specific, but rather generalized to show links and connection of the trail system. The more detailed location routing plan will be done at the draft plan submission stage or as a special study by the City Parks Planning staff. No change is proposed to be made to the text or the Figures of the OVAP.



It is noted that within the Natural Environment section, no mention of patch 09031 is made in the text. It is the assumption of Parks Planning that issues surrounding patch 09031 were inadvertently amalgamated with neighbouring patch 09029. For the purposes of clarity and correctness, Parks Planning requests that this issue be rectified.

AGREED -Patch 09031 was considered, and recommendations are provided within the Final Preferred Area Plan (FPAP).

Figure 1.1 Preferred Area Plan identifies Office Business Park uses (along the eastern limit of the study area) completely and partially within vegetation patch 09031. These areas of vegetation patch 09031 are contiguous with other sections of vegetation patch 09031 identified on Official Plan Schedule B as ESA and as such must be clearly evaluated using the City of London ESA Boundary Delineation Guidelines.

AGREED -This concern is acknowledged In the FPAP, with the lands shown as part of the ESA on Figure A5 of this addendum (Application of ESA Criteria & Boundary Delineation Guidelines, Patch 09029 / 09031, Tributaries 1 & 2).

A section of the upstream east tributary of watercourse #4 is identified on OP Schedule B as potential ESA with associated erosion/hazard lines. Parks Planning request that this potential ESA be identified with the study and be evaluated according to current approved City policies/guidelines.

AGREED - This concern is acknowledged In the Area Plan revision.

Figure 2.2 shows vegetated land as agriculture and vacant. Typically, (and clearly in this site) old fields and shrub thickets can be very ecologically important components of a Natural Heritage System. Please address these areas appropriately.

AGREED - This concern has been acknowledged and a new Figure 2.2 is included.

Section 3.2.1 Hydrogeology – Where are the areas where groundwater seeps from the water table? This was requested to be added to a figure in our previous comments.

SUFFICIENT WORK HAS BEEN DONE - Observations of localized groundwater seepage occurrences are provided in Tables 4.2.4.1 and 4.2.4.2, as it relates to the slope inventory and assessment of slope instability. Groundwater recharge potential mapping has also been provided. Biologic has also provided comments regarding seepage locations, as it relates to vegetation communities. Typically, smaller intermittent areas of groundwater seepage are not mapped at the area plan stage, rather are left for EIS analysis, if necessary, or even further on in the approvals process to the SWM functional design stage, again if required, and are generally considered for detailed subdivision grading design only as most seepage areas do not represent slope stability concerns.

Section 3.2.3 – Contemporary Vegetation Communities. It is surprising that with a three season inventory some of the vegetation classifications were only made to the ELC level of Ecosite, not the Vegetation Type. Please explain. This information is required in order to answer questions on diversity of vegetation types present.

AGREED – Refinements are provided on Figures A3, A4 and A5 of this addendum.

Comment [BP4]: Insert Figure A3 – Application of ESA Criteria



Section 3.3.1 Provincial Parameters – The information is presented in the context of these parameters but there is no conclusion or recommendation given about whether the patches meet the criteria or not. Please complete this section.

AGREED - The area plan document (October 2006) acknowledges the presence of the provincially-significant wetland within the study area, and identifies another wetland 800 metres to the east within Patches 09-029 / -031. The municipal criteria for natural heritage significance were then applied to determine the extent of the expanded ESA, since in our opinion these are more tangible on a site-specific basis.

Section 3.3.2 Municipal Parameters – ESA Criteria

Criterion i) The area is an unusual landform in the City of London. It is comprised of much dissected north-facing terraces. The Thames River forms the northern boundary of the area. A steep slope rises approximately 10 m to the first terrace. A more gradual slope rises from there to the Ingersoll Moraine. Drainage of the higher areas to the south is by a number of small creeks which have cut gullies up to 10 m in depth giving the terraces their much-dissected character, unusual in London and satisfies Criterion i).

Criterion ii) We agree with the consultants that the study area does not contain high quality representative landform-vegetation communities.

Criterion iii) Area Sensitive species require large areas of suitable habitat in order to sustain their population numbers. Five area sensitive species were found in patch 09021, three of which were breeding. These were White-breasted Nuthatch, Savannah Sparrow and American Redstart. This satisfies Criterion iii).

Criterion iv) The presence of seepage areas and wetlands and tributaries meets this criterion. In particular, tributary 5 is identified as a natural watercourse with high ecological function and should be protected, satisfying Criterion iv).

Criterion v) As noted, there is a higher than average concentration of Conservation Priority birds on the Breau property. This meets the Criterion for diversity. Note that all the vegetation communities contributed to the high concentration of CP birds.

Criterion vi) We agree with the consultants that there is an important linkage function along the Thames River riparian corridor that satisfies this criterion.

Criterion vii) We agree with the consultants that this criterion is met by the presence of rare species.

Summary of the Application of the ESA criteria.

1. As outlined in the Terms of Reference and in our previous comments, the consultants have not applied City Guidelines correctly: The ESA Criteria are not applied to landscape units and each unit does not have to meet two criteria in order to be included in the ESA boundary. The Boundary Delineation Guidelines (BDG) are not to be applied community by community, or to individual landscape units. The proposed limits of development were determined by separating the ESA into parts which were each treated independently of the whole this is in direct contradiction of the intent of the BDG.
2. There is no rule that states any given landscape unit must meet 2 criterion in order to be considered part of an ESA. The potential ESA area includes the whole patch as shown on Official Plan Schedule B, and the outer boundaries of the patch are determined using the boundary delineation guidelines.
3. The consultants did not provide a figure with rationale depicting the recommended ESA boundary based on the studies completed.

Comment [BP5]: Insert Figure A4 – Application of ESA Criteria



4. The total area evaluated for ESA status met 6 criteria, therefore the patches are considered to be ESA.
5. Based on the information provided in the reports, and the proper application of City policies and guidelines, it is clear that the majority of the patch ranks as an ESA and is a natural extension of the Meadowlily Woods ESA. Consideration of a couple of minor modifications to the boundary proposed on a site walk on November 9, may be possible.

Figure 3.10b shows the proposed ESA boundary. It remains a question why with a 3 season inventory and application of the ESA guidelines to the patches, that there could still be areas of Potential ESA. The terms of reference clearly indicate that decisions be made regarding the significance of natural heritage features through the required studies. It is our understanding that consultant is recommending that the potential ESA areas are considered to be ESA, but the "Potential" designation is intended to relate only to the final boundary of the ESA after an EIS has been completed. The accepted process for this situation is to correctly identify and designate the feature and the normal EIS process will address the edge issues.

AGREED and SUFFICIENT WORK HAS BEEN DONE - The ESA criteria and boundary delineation guidelines have been applied to vegetation continuums and are illustrated on Figures A3, A4 and A5 of this addendum, along with the resulting specific ESA boundaries for the study area.

In addition to the application of the criteria and guidelines, the natural heritage strategy is guided by the following principles.

Some of the agricultural lands within Patch 09-021 (Sifton) and adjacent to it, along the river and currently in agricultural use, are potential sites for restoration to natural succession through both passive and active management practices. The PSW in Patch 09-021 will be maintained. Accommodation would be made for an internal road north of the wetland but south of this widened riparian corridor at that location where an embankment and existing farm road crossing has existed for about three decades. Part of the open space west of the wetland in Patch 09-021 currently in natural succession would designated through a special policy area to accommodate residential land use, subject to an EIS following the adoption of the area plan. Successional habitat that was identified in our work as serving specific breeding bird population life cycle functions, would be maintained adjacent to both the wetland noted above and the westerly portion of Patch 09-021.

Patch 09-028 (Grenier) would be maintained, primarily for its cultural rather than biological functions, with allowance being made for an internal road through this patch on an east-west axis, as long as this road centerline respected the presence of any atypical plant species

Patch 09-029 (Cline) would be maintained because of its biological functions, and enhanced by protecting in the FPAP both a wetland community west of the existing ESA boundary and a deciduous forest east of the existing ESA, with allowance being made for an internal road through this patch at that location where an embankment has existed for more than five decades.

Section 3.3.4 Natural Heritage Objective: Retention

BioLogic writes "the primary natural heritage goal established in this study is to *Maintain and enhance the existing ecological functions of the riparian corridor in the post-development setting.*"

Comment [BP6]: Insert Figure A5 – Application of ESA Criteria



Where and how was this primary goal established? It is not written in the Terms of Reference, or at the beginning of the natural heritage study. It was not determined at the scoping meeting. Stating this as the primary goal reinforces BioLogic's position that the ESA is limited to the floodplain areas along the Thames River.

AGREED IN PART and SUFFICIENT WORK HAS BEEN DONE - We agree with the municipality; the work plan for the project did not include a specific goal-setting exercise for the natural heritage component of the study.

The Meadowlily Woods ESA shown on the municipal official plan at the outset of the area plan exercise (Office Consolidation January 2005) has been enlarged as the result of the criteria and guideline application. The recommended ESA results in a wider riparian zone adjacent to the east-west corridor formed by the Thames, as well as a north-south projections that extend from the river to Commissioners Roads road in several locations.

Attachment C : Floral Reports

Can you explain better how cultural meadows (communities 1a, 1b) and cultural thicket (community 3a) could have experienced extensive diameter limit logging in the past 0-5 years as recorded on the ELC Management/Disturbance sheets. Is this relevant to the assessment?

AGREED -- We agree with the municipality that this data is not relevant to the assessment

Attachment D : Faunal Reports

It would appear that the hawthorn thickets provide much habitat for conservation priority breeding birds (Brown Thrasher, Blue-Winged Warbler, American Redstart, Eastern Towhee, Field Sparrow, Black-capped Chickadee, and Wood Thrush). It would follow that Community 3a is significant habitat and satisfies criteria for ESA designation.

AGREED and SUFFICIENT WORK HAS BEEN DONE - Based on the life science inventories that were undertaken we agree with the municipality that habitat for these species is present. Furthermore, based on the application of the ESA criteria and boundary delineation guidelines and our April 2007 discussions with staff, the open space designation on Final Preferred Area Plan (FPAP) has been revised to maintain the bulk of this habitat.

Parks and Open Space Issues

We have noted that proposed parkland dedication schedule (table 1.2) may not accurately reflect statutory parkland dedication requirements under Section 51 of the Planning Act. Parkland dedication requirements shall be applied to all lands – with the exception being existing City owned lands and existing City owned roads. Please revise the parkland dedication schedule to conform with the requirements of Section 51 of the Planning Act and current London Official Plan and other approved city policies.



The revised table follows.

Table 1.2 Parkland Dedication Calculations

LAND USE	AREA (hectares)	DENSITY (units per hectare) and YIELD	RATE OF PARK LAND DEDICATION	DEDICATION TO BE PROVIDED (hectares)
Low Density	30.6	20 612	5%	1.53
Medium Density	19.9	30 597	1 h per 300 dwelling units	1.99
Infill MDR Corridor	6.5	30 196	1 h per 300 dwelling units	0.65
High Density	5.3	125 662	1 h per 300 dwelling units	2.21
Town Centre (residential component only)	0.83*	30 61	1 h per 300 dwelling units	0.20
Commercial a) Town Centre b) Neighbourhood Commercial – one quadrant only	0.28** 0.5	N/A N/A	2% 2%	0.01 0.01
Other Lands Including Hazard Land	50.6 ***	N/A	5%	2.53
Lands Owned by City including Roads and Open Space	15.4	N/A		
Total lands	132			9.13 Ha +/-

* - denotes that 75% of land area for Town Centre was assigned to Residential land use for park land dedication purposes;
 ** - denotes that 25% of land area of Town Centre was assigned to Commercial land use for park land dedication purposes;
 *** - denotes literal standard and precludes negotiations with City on acquisition.

9.4.1 Current Official Plan policies allow for a 2% parkland dedication requirement on industrial developments. However another approved City Policy waives the parkland dedication requirement for the purposes of promoting new industrial development. Please revise accordingly.

AGREED -- The requested revision is unnecessary because the two small patches of Office Business Park land use designation (considered to be "industrial") on the easterly



extremity of the OVA Study Area are being deleted and removed from the final Preferred Area Plan that is part of this Addendum.

SWM / Water Resources Issues

We applaud the comprehensive manner in which stormwater management has been approached and the various management methods proposed, however we do have several comments as follows.

AGREED AND APPRECIATED -- *This comment is appreciated given the number of small existing watercourses and their functional/environmental variation that were studied in detail on behalf of the benefiting public at the expense of the landowners, including expected significant open space land dedication. The consultant team is confident that with the landowner and City input provided, a carefully derived and tailored approach to development of this area has been formulated that fully respects the existing natural environment as well as financial and other development considerations, for the long-term benefit of the community; notably environmental protection and enhancement.*

5.2.1 The document does not identify that all SWM facilities must comply with Section 17 of the Official Plan. The documented assessment does not seem to have been written in a way that clearly identifies how Official Plan policies have been met.

AGREED -- *Section 17.6 of the Official Plan sets out policies for Stormwater Management (SWM) with the introduction stating that the City will require SWM plans, based on a sub-catchment or tributary basis. This area plan project is setting the stage for this requirement, and fulfillment of related policy requirements are being carried out by a parallel study known as the OVAP SWM Class EA study. Both the OVAP and the parallel SWM Class EA meet the general OP provisions (Section 17.6.1) of managing stormwater on the basis of quality and quantity controls. Also, in accordance with Provincial policies, this plan is seeking to utilize "regional" sized facilities, and enhancement of the Natural Heritage System. The SWM plan within OVAPS has addressed: existing natural conditions; flooding control; erosion and sedimentation control; water quality management; and enhancement of the natural environment aesthetic, functional and recreational potential of the City's watercourses (Section 17.6.2). Detailed design of the proposed SWM facilities will be done at the more detailed application stages. This study has addressed SWM requirements in some detail, but SWM facilities are not shown in the OPA.*

The East SWM facility appears to be encroaching into lands that we believe to be ESA. In the absence of justification that no other location is possible, Parks Planning requests that the pond be illustrated on the plan fully outside Natural Heritage Areas.

AGREED IN PART and SUFFICIENT WORK HAS BEEN DONE - *The Final PAP in Figure A-1 has been changed to show approximate locations and extent of the two (2) proposed SWM facilities. The Class EA will improve the accuracy of such details followed by the requisite functional design work at the draft plan stage to confirm precise sizes and location. At this time, the east SWM pond has been shown encroaching on the ESA for a number of reasons summarized as follows.*

1. *Quality of ESA - this area was previously used as an agricultural SWM impoundment area and is therefore only marginal successive or desirable natural environmental area (not ESA by true definition). Instead of pending immediate direct sterilization/potential further neglect, this area would be better used for SWM construction including garbage and dead tree cleanup, failing slope stabilization, and stabilized stream re-naturalization of existing erosion areas. This would result in an enhanced ESA*



designation; with longer-term residual environmental and economic advantages as well as a valuable development amenity; notably with improved scientific area-respectful environmental planting to be included in the work. The existing dam structure including some trees, and slopes inside the ESA require remedial work anyway. The SWM Class EA will take this into account.

- 2. Grade, depth, and cost of development SWM servicing works - tableland construction of requisite SWM facility in this area will be too high for successful storm servicing. SWM facility locations within existing creek hazard land is lower, and that SWM facility location will allow for much improved overall development area drainage system design and construction characteristics and costs; including existing natural area environmental protection and enhancement; as explained above. Otherwise, significant upstream earthworks will be required, with sediment control risks and loss of development slope opportunities and amenities i.e. assessment revenues. Storm servicing costs could also be very high resulting in net revenues and longer-term larger infrastructure operation, maintenance, and renewal commitments to the City and land values (i.e. \$5,000 per acre for SWM in ESA/hazard land compared to \$75,000 per acre for SWM on tableland; plus loss of net development revenues to City, increased urban sprawl, and longer-term economic consequences). Details to be further addressed in SWM Class EA, and subsequent functional design and following detailed subdivision design reports. Proposed SWM facilities shown on tableland should be shown as development land in the OPA. Corresponding ESA status/boundary delineation notes are already on file in the main OVAP report.*

5.4.2 Given that table land options exist, Parks Planning is not supportive of any on-line flood control facilities within an ESA. Furthermore watercourse #2 was identified in the Airport Road Area Study as a Class 'A' Drain (cold/cool water system) with bait fish observed.

AGREED IN PART and SUFFICIENT WORK HAS BEEN DONE - *This concern will be more fully responded to in the SWM Class EA, but a partial comment is provided as follows. Tableland options for SWM facilities compare poorly with watercourse and potential ESA options. There are number of land areas in London where "ESA" land areas would better contribute to the environment if changed in character and function. Online flood control facilities should be preferred within regulatory hazard land and potential ESA, as noted above. Significant economic factors, including potential long-term financial considerations are at play here; which are typically underestimated. Water quality control components typically must be off-line, but such SWM facilities can often be much better implemented within the natural watercourse area e.g. enhanced wetland stream polishing. Clearly, those facilities should be inside the ESA in some cases. Water quantity control facilities might be better off-line, for various reasons, but they are more effective online in some cases. Locations should be decided based on maximum potential for successful flood and erosion control, land-use optimization, and environmental protection and enhancement; notably including financial considerations. In our view, respecting all environmental criteria, SWM controls should be at-source, on tableland, and in watercourse areas to optimize the system.*

Specifically regarding Watercourse #2; it is our understanding that the postulated cold water fishery was not confirmed in previous subwatershed studies for these important Thames River watercourses. Prior water resources study work in this area includes Vision London and the Area Plan study work for the City's new Airport Road business park; hence the limited Schedule B SWM Class EA level of analysis for that development. Notwithstanding, watercourse management proposals included with this area plan will



enhance the existing natural environment as is typically very much achievable in an urban setting.

5.4.5 We have noted that watercourse #5 has “not been examined for development” because it “presently serves important ecological functions contributing to the Meadowlily ESA”. However, it appears that at least a portion of the watercourse is contained within the proposed low density residential designation rather than ESA. We request that clarification be given on this matter.

AGREED IN PART and SUFFICIENT WORK HAS BEEN DONE - Watercourse #5 has been carefully examined for development to determine if this tributary serves any important ecological function contributing to the Meadowlily ESA. Our studies have confirmed that it does not i.e. it is only a small outlet for the adjacent buffer area; hence the proposal for development west of watercourse #4 which represents additional opportunities to maintain and enhance the wetland ESA area. The new Final PAP in Figure 1-A shows inclusion in the ESA.

5.4.6 Parks Planning request that confirmation be given that no negative impact will occur on the downstream ESA if surface water is diverted from watercourse # 6 as proposed.

AGREED IN PART and SUFFICIENT WORK HAS BEEN DONE - The vegetation community surrounding Watercourse #6 is a dry-fresh deciduous forest. Its functional contribution to the ESA is generally based upon riparian attributes connected with the east-west flow of the Thames, and not the north-south flow of the watercourse itself. This community does not exhibit any mapable wetland affinities, and the Final PAP does not contemplate any direct impacts to this community.

SUMMARY

Significant issues remain unresolved at this time. Based on the terms of reference, all features were to have been evaluated using City Policies and Guidelines and designated as appropriate this has not occurred. Open Space designations that seem appropriate from the background information have been deferred in order to present an excessively optimistic view of development potential, particularly with in the lands associated with Tributary 4 and westward. The recommended plan includes various land use designations for natural heritage components that do not exist within OP Policies.

Despite the Terms of Reference and clear City Policies and Guidelines, the approach of the sub-consultant to the assessment of the natural heritage lands in the Old Victoria Area Plan has made the review of the document more complicated and timely than necessary. I hope that with the transfer of the lands to Sifton, we can proceed to resolve the outstanding issues early in the new year.

AGREED IN PART and SUFFICIENT WORK HAS BEEN DONE - We believe that the concerns noted above have been addressed in site visits with the municipality and regulatory agencies since the release of the area plan document (October 2006), by the application of the applicable municipal natural heritage guidelines and criteria, and at the April 2007 meeting with municipal staff.

2. EEPAC

Current Land Uses



Recommendation 1: The statement of current land uses (pg 14) is at the least misleading, and at most incorrect. It is inappropriate to lump agricultural and vacant land together in the same category. Some of the vacant is in fact vegetated lands and should be reflected as such in the table.

AGREED -- The revised Table 2.1 is as follows.

Figure 2.2 illustrates the Existing Land Use.

Table 2.1 EXISTING LAND USE AREAS

EXISTING LAND USE	TOTAL AREA (ha)	% OF TOTAL AREA
Floodplain/Hazard Land	21.8	16.5
Agricultural Land	50.2	38.1
Other Rural Land	25.2	19.1
Vegetative valley land	7.4	5.6
Institutional	0.4	0.3
Rural Residential (including estate residential)	21.3	16.1
Existing Roads	5.7	4.3
TOTAL	132	100%

Land Use Designations

It is the very purpose of OVAPS to assign land use designations to properties with the Study Area. The fact that not all land areas are assigned an 'final' land use designation indicates the incompleteness of the report. For example, some areas are designated Potential ESA. It is EEPAC's understanding that these are areas which the proponent thinks may be eligible and appropriate for inclusion in the ESA. It is not acceptable for this decision not to be made within the OVAPS. Although it is acceptable to leave the final size determination of transition areas (buffers), it is not acceptable to leave entire blocks of land designated Potential ESA.

Recommendation 2: The only lands with no recommended final land use designation should be the transition/buffer lands. The City should not accept the OVAPS until all land use designations are specified, according to Municipal policies.

AGREED – The Final Preferred Area Plan that is part of this Addendum responds to this comment by creating definitive ESA boundaries through the application of municipal natural heritage guidelines /criteria and the development of Special Policy areas, as agreed at the April 2007 meeting with staff.

Significant Woodlands

For all treed vegetation patches which the NHS suggests do not qualify for ESA designation, the City of London Significant Woodland Evaluation Criteria must be applied. The NHS is incomplete

Comment [BP7]: Insert Figure 2.2 Existing Land Use



without these evaluations and should not be accepted by the City. The completed evaluations need to be included in the NHS as part of the land use designation process.

AGREED IN PART and SUFFICIENT WORK HAS BEEN DONE - In our opinion the application of the ESA criteria and ESA boundary delineation criteria are the applicable criteria in this situation, and as previously noted in the addendum, these have been applied to natural successional lands within the study area.

Habitat for Endangered or Threatened Species

Recommendation 3: (pg 26, A1) The NHS falsely excludes mention of an endangered species found within the OVA. The Butternut is found within Patch 09028 and is federally and provincially Endangered. The existing paragraph aims to convey the absence of Endangered species and must be corrected.

AGREED IN PART and SUFFICIENT WORK HAS BEEN DONE - This matter is addressed on Figure A4 of this addendum (Application of ESA Criteria & Boundary Delineation Guidelines , Patch 09028 , Tributary 3).

ESA Evaluation Criteria

ESA Criteria are incorrectly applied within the OVAPS and therefore the ESA inclusions /exclusions stated in the report are incorrect. The City of London ESA Evaluation Criteria clearly states that the word "area" within the Evaluation Criteria shall mean "patch or patch clusters (the combined area of contiguous patches)." This means that in the determination of whether any particular criteria is fulfilled or not, the characteristics of the entire patch shall be assessed.

The OVAPS report applies the ESA Evaluation Criteria to individual vegetation communities within each patch instead of applying the criteria to the entire patch as is required.

The report conclusions regarding whether lands fulfill the ESA criteria or not, are fully invalid due to faulty application of the process by the proponent.

Recommendation 4: The ESA evaluation process must be re-applied to the subject lands using each patch as the evaluation basis, not each individual vegetation community. The current OVAPS must not be accepted by the City until the ESA Evaluation Criteria are properly applied. EEPAC has at least partially completed the ESA Evaluation process for all three patches on the subject lands. Even a partial evaluation clearly shows that all three patches qualify as ESA's. See Appendix 1 for EEPAC's evaluation.

Transparency of ESA Evaluations

Recommendation 5: As the evaluation must be done on each patch individually, it is requested that the NHS clearly reflect 3 separate completed evaluations rather than presenting a mixed evaluation of all three patches as is done in the current report version.

AGREED IN PART and SUFFICIENT WORK HAS BEEN DONE – The criteria and guidelines have been applied to vegetation continuums within the study area, as previously noted in this addendum.

Provision of All Necessary Data

The report fails to provide details of the physical size of each of the three patches in question and also fails to provide details of the sizes of each patch's constituent communities. This information is necessary to complete a full and accurate assessment of the lands.

Recommendation 6: The missing data is critical to proper site assessment. The OVAPS must be revised to include all missing data. The City should not accept the OVAPS while data is missing.



AGREED IN PART – Patch 09021 is 129 ha in size; the natural successional component of the Sifton (formerly Breau) property occupies about 20 ha of this within the study area. Patch 09028 (Grenier) is 4 ha in size. Patches 09029 / 09031 (Cline) are 31 ha in size.

Evaluation of Patch 09021

Only a small portion of patch 09021 is within the subject lands. According to the ESA Evaluation Criteria Guidelines, the entire patch, not a portion thereof, must be judged when applying the ESA Evaluation Criteria. Accordingly, the off-site portion of Patch 09021 must also be included in the ESA evaluation.

Recommendation 7: If the application of ESA Evaluation Criteria, to the portion of patch 09021 which is the subject lands, shows that this patch portion on its own merits already fulfils 2 ESA criteria, according to the ESA Evaluation Criteria, it must be logically extrapolated that the entirety of Patch 09021 fulfills the ESA Criteria.

Alternatively, if the on-site portion of Patch 09021 does not fulfill 2 ESA Criteria, it must not be automatically considered to not qualify as an ESA. The ESA Evaluation Criteria must be applied at the patch level. Therefore, the off-site portion of Patch 09021 must also be considered before a conclusion can be reached regarding the on-site portion.

If it is not feasible at this time for the proponent to include the off-site portion of patch 09021 in the ESA Evaluation Criteria, the on-site portion of patch 09021 should continue to be designated potential ESA and left free of development until the ESA Evaluation Criteria can be properly applied to the entirety of patch 09021.

AGREED IN PART and SUFFICIENT WORK HAS BEEN DONE – Patch 09021 has been assessed according to the ESA criteria and boundary delineation guidelines. A graphic summary of this assessment is presented in Figure A3 of this addendum. Most of the lands within this vegetation patch have been included within the proposed ESA boundary, with the final determination to be made on the basis of a site-specific EIS as established in the special policy area recommendation contained in this addendum.

(Please note that most of Patch 09021 is west of the area plan boundary established by the municipality.)

Inclusion of J2 in the ESA

Recommendation 8: The area identified as J2 on Figs. 3.8 and 3.9 (north and east of the tributary and adjacent to the north-south road) should be incorporated into the ESA. In the Preferred Area Plan (Fig. 1.1) this area appears as Office/Business Park. EEPAC strongly recommends against this land use designation.

Rationale:

- The 250 year flood line shown on Fig 3.8 running either side of the tributary immediately to the west of J2 may need adjustment that will cause it to extend into the zone currently shown as J2.
- The land drops off sharply between J2 and J1, so that J1 is almost a ravine. There will need to be at least a 10m. setback from top of slope.
- Also there is the need to clarify the extent of the slope hazard.
- J2 is already narrow. The above 3 points suggest that the part of J2 available for development will be too small and narrow to make it feasible.



- Moreover, given its closeness to the tributary, J2 can be considered an extension of the South Thames River riparian corridor that provides a linkage function for the movement of wildlife.
- The vegetation communities (3b. Mineral Cultural Thicket Hydro Row; and 7. Dry Fresh White Ash Deciduous Forest – Fig. 3.7) that comprise J2 are part of Patch 09029. This Patch in its entirety should be assessed for its significance as Woodland.
- Monarch butterflies, considered of Special Concern by COSEWIC and by the OMNR, were observed in Patch 09029.
- The atypical species Evening Primrose, Regional Rank R3, is present in community 7/J2.

AGREED IN PART and SUFFICIENT WORK HAS BEEN DONE - This concern is acknowledged in the FPAP, with the lands shown as part of the ESA on Figure A5 of this addendum (Application of ESA Criteria & Boundary Delineation Guidelines , Patch 09029 / 09031 , Tributaries 1 & 2).

ESA Crossings

Recommendation 9: In two places, the Preferred Area Plan shows future road crossings across the ESA. It is not acceptable to disrupt the ESA in this way.

The Final Preferred Plan now shows one crossings in order to utilize land resources efficiently. If development opportunity exists, the crossing is needed for pedestrian and vehicular access to it. Ecological study has shown that the crossing is on the periphery and will not adversely affect the natural heritage of the area. The crossing is already established in part by a farm lane. The Preferred Plan does set out that appropriate environmental study is required as part of the detailed design at the subdivision and zoning stages.

Faunal Report Patch 09021 – Animal Movement Corridors

Section 2.4 falsely states that the portion of patch 09021 within the subject lands “is not an animal movement corridor in itself.” Yet the report also states “this site is part of the Thames River corridor.” These two statements, in the same paragraph are contradictory in nature and serves to offer misleading information regarding the true function of the site as a corridor.

Recommendation 10: The faunal report should most definitively state that the site is an animal movement corridor by the fact it is part of the Thames River corridor. The misleading statement “is not an animal movement corridor in itself” must be deleted to avoid misleading readers.

SUFFICIENT WORK HAS BEEN DONE - This concern is acknowledged in the FPAP, with the corridor functions within the ESA identified on Figure A3 of this addendum (Application of ESA Criteria & Boundary Delineation Guidelines , Patch 09021 , Tributary 4)

Appendix 1: EEPAC applies ESA Criteria to Patches 09021, 09028 and 09029 Patch 09021

CRITERION 1: The Area contains unusual landforms and/or rare to uncommon natural communities within the country, province or London subwatershed region.

Patch 09021 contains community 13, a Forb Mineral Shallow Marsh (MAS2-9). The general community type of MAS has a frequency occurrence of just 1.48% in the context of all vegetation communities within the City of London (DeYoung 2006), based on City of London Patch dB (Bergsma and DeYoung 2004). Accordingly, the specific community type of MAS2-9 has an even less frequent occurrence rate. Community 13 is considered “rare to uncommon” within London.



The unique landform on which Patch 09021 also fulfills criterion 1. Much of the northern portions of communities 1a and 3a are on strongly hilly terrain which is unusual landform.

Criterion Evaluation: **FULFILLED**

CRITERION 2: The Area contains high quality natural landform-vegetation communities that are representative of typical pre-settlement conditions of the dominant physiographic units within the London subwatershed region, and/or that have been classified as distinctive in the Province of Ontario.

CRITERION 3 : The Area, due to its large size, provides habitat for species intolerant of disturbance or for species that require extensive blocks of suitable habitat.

Only a portion of patch 09021 is present within the OVA. The TOTAL size of the patch must be considered in this criterion and not only the portion within the study area. The OVAPS fails to provide the size of the patch or the size of its communities.

The Faunal Report for this patch reports breeding evidence or suitable breeding habitat for two area sensitive species of Municipal (and Provincial) Conservation Priority:
American Redstart – Forest level 2
Savannah Sparrow – Open Meadow level 1

Application criteria 3b clearly states Criterion 3 can be fulfilled by the presence of one or more breeding birds which are area sensitive.

Criterion Evaluation: **FULFILLED**

CRITERION 4: The Area, due to its hydrologic characteristics, contributes significantly to the healthy maintenance (quality or quantity) of a natural system beyond its boundaries.

CRITERION 5: The Area has a high biodiversity of biological communities and/or associated plant and animal species within the context of the London subwatershed region.

The NHS concurs that several communities (A3, 3a, 4, 4a, 13 and 14) within Patch 09021 exhibit a higher than average concentration of Conservation Priority breeding birds (NHS pg. 29). The concentration is in fact 50% higher than the average London site.

Criterion Evaluation: **FULFILLED**

CRITERION 6: The Area serves an important wildlife habitat or linkage function.

There is no doubt, simply by looking at a map that Patch 09021 serves as an important linkage within the Thames River corridor. Patch 09021 is contiguous with the Thames River corridor and forms part of the single most natural corridor throughout London.

Even the OVA Natural Heritage Study prepared by Development Engineering (pg27) concurs that both patches 09021 and 09029 “are part of a wildlife movement corridor system. The Thames River corridor... serves an important linkage function within the municipal heritage system”



The Faunal Report for this patch also states that the patch is “part of the Thames River corridor.” (section 2.4)

Criterion Evaluation: **FULFILLED**

CRITERION 7: The Area provides significant habitat for rare, threatened, or endangered indigenous species of plants or animals that are rare within the country, province or county.

Community 4a contains Green Dragon (*Arisaema dracontium*) is federally ranked Special Concern and provincially ranked S3 - rare to uncommon.

Criterion Evaluation: **FULFILLED**

Patch 09021 ESA Evaluation Conclusion – At least 5 of 7 criteria are fulfilled whereas only 2 of 7 are required to be deemed an ESA. Patch 09021 is an ESA.

SUFFICIENT WORK HAS BEEN DONE - These concerns are addressed on Figure A3 of this addendum (Application of ESA Criteria & Boundary Delineation Guidelines , Patch 09021 , Tributary 4)

Patch 09028

CRITERION 1: The Area contains unusual landforms and/or rare to uncommon natural communities within the country, province or London subwatershed region.

Patch 09028 contains community 15, a Mineral Thicket Swamp (SWT2). The general community type of SWT has a frequency occurrence of just 7.76% in the context of all vegetation communities within the City of London (DeYoung 2006), based on City of London Patch dB (Bergsma and DeYoung 2004). Accordingly, the specific community type of SWT2 has an even less frequent occurrence rate.

Butternut (*Juglans cinerea*) located within Community 6b and is a federally and provincially Endangered species. The OVA Natural Heritage Study is false in its assertion that “no rare to uncommon” communities are present on the OVA (pg.28). As per the ESA Criteria Guidelines the Endangered species is mentioned in Criterion 1 assessment but will be counted only later as fulfilling Criterion 7.

Criterion Evaluation: **FULFILLED**

CRITERION 2: The Area contains high quality natural landform-vegetation communities that are representative of typical pre-settlement conditions of the dominant physiographic units within the London subwatershed region, and/or that have been classified as distinctive in the Province of Ontario.

CRITERION 3: The Area, due to its large size, provides habitat for species intolerant of disturbance or for species that require extensive blocks of suitable habitat.

The Natural Heritage Study does not provide data on the total size of Patch 09028 nor the size of the treed communities within the patch. Without this data, the NHS is incomplete and should not be accepted by the City.



CRITERION 4: The Area, due to its hydrologic characteristics, contributes significantly to the healthy maintenance (quality or quantity) of a natural system beyond its boundaries.

Community 15, a Mineral Thicket Swamp, is a wetland. All wetlands not considered provincially significant are considered locally significant due to their important function and decreasing occurrence.

Criterion Evaluation: **FULFILLED**

CRITERION 5: The Area has a high biodiversity of biological communities and/or associated plant and animal species within the context of the London subwatershed region.

CRITERION 6: The Area serves an important wildlife habitat or linkage function.

CRITERION 7: The Area provides significant habitat for rare, threatened, or endangered indigenous species of plants or animals that are rare within the country, province or county.

Patch 09028 provides habitat (Community 6b) for Butternut (*Juglans cinerea*) which is a federally and provincially Endangered species.

Criterion Evaluation: **FULFILLED**

Patch 09028 ESA Evaluation Conclusion – At least 3 of 7 criteria are fulfilled whereas only 2 of 7 are required to be deemed an ESA. Patch 09028 is an ESA.

SUFFICIENT WORK HAS BEEN DONE - These concerns are addressed on Figure A4 of this addendum (Application of ESA Criteria & Boundary Delineation Guidelines , Patch 09028 , Tributary 3)
Patch 09029

CRITERION 1: The Area contains unusual landforms and/or rare to uncommon natural communities within the country, province or London subwatershed region.

Community 12 is a Fresh-Moist Black Walnut Lowland Deciduous Forest which is provincially ranked as S2/S3 – very rare/rare to uncommon.

Criterion Evaluation: **FULFILLED**

CRITERION 2: The Area contains high quality natural landform-vegetation communities that are representative of typical pre-settlement conditions of the dominant physiographic units within the London subwatershed region, and/or that have been classified as distinctive in the Province of Ontario.

CRITERION 3 : The Area, due to its large size, provides habitat for species intolerant of disturbance or for species that require extensive blocks of suitable habitat.



Only a portion of patch 09029 is present within the OVA. The TOTAL size of the patch must be considered in this criterion and not only the portion within the study area. The OVAPS fails to provide the size of the patch or the size of its communities.

CRITERION 4: The Area, due to its hydrologic characteristics, contributes significantly to the healthy maintenance (quality or quantity) of a natural system beyond its boundaries.

Community 15b, a Mineral Thicket Swamp, is a wetland. All wetlands not considered provincially significant are considered locally significant due to their important function and decreasing occurrence.

Criterion Evaluation: **FULFILLED**

CRITERION 5: The Area has a high biodiversity of biological communities and/or associated plant and animal species within the context of the London subwatershed region.

CRITERION 6: The Area serves an important wildlife habitat or linkage function.

There is no doubt, simply by looking at a map that Patch 09021 serves as an important linkage within the Thames River corridor. Patch 09029 is contiguous with the Thames River corridor and forms part of the single most natural corridor throughout London.

Even the OVA Natural Heritage Study prepared by Development Engineering (pg27) concurs that both patches 09021 and 09029 "are part of a wildlife movement corridor system. The Thames River corridor... serves an important linkage function within the municipal heritage system"

Criterion Evaluation: **FULFILLED**

CRITERION 7: The Area provides significant habitat for rare, threatened, or endangered indigenous species of plants or animals that are rare within the country, province or county.

Patch 09029 provides habitat (Community 15b) for 2 regional rare to uncommon species. Downy Willow herb (*Epilobium strictum*) is ranked R2 and Riverbank Wild Rye (*Elymus riparius*) is ranked R4.

Patch 09029 also provides habitat (Community 7) for a regional rare species, Evening Primrose (*Oenothera biennis*), which is ranked R3. The NHS assertion that the ranking of R3 is invalid is not accepted.

Criterion Evaluation: **FULFILLED**

Patch 09029 ESA Evaluation Conclusion – At least 4 of 7 criteria are fulfilled whereas only 2 of 7 are required to be deemed an ESA. Patch 09029 is an ESA.

SUFFICIENT WORK HAS BEEN DONE - These concerns are addressed on Figure A5 of this addendum (Application of ESA Criteria & Boundary Delineation Guidelines , Patches 09-029/-031 , Tributaries 1 & 2)

Comment [BP8]: Insert Figure 4.1 (R1) Slope Inventory



3. UTRCA - Mark Snowsell

The Upper Thames River Conservation Authority acknowledges receipt of a copy of the report entitled "Old Victoria Area Planning Study - September 2006". Some key points were forwarded to you yesterday and the purpose of this letter is to elaborate on the contents of our November 9/06 communication. First, we would like to repeat that it has generally been a positive experience working with the City of London, the consulting team and the participating landowners over the course of the planning exercise. Everyone has worked hard to advance a community plan for the lands in question and you should be commended for your efforts to keep the process moving in a timely fashion. There are some issues which we believe still need to be brought to the attention of the City, however. These issues are presented below for your consideration.

UTRCA Mandate and the Generic Regulation

The Minister of Natural Resources formally delegated responsibility for reviewing and commenting on hazard land planning issues to Conservation Authorities in 1995. It is a primary objective and mandate of the UTRCA to protect life and property from the hazards of flooding and erosion. This is achieved through a variety of ways and we utilize the policies of the *Provincial Policy Statement* (PPS) to help guide our review of planning documents. In June of this year, our Board of Directors approved an updated *Environmental Planning Policy Manual* after a lengthy period of consultation with watershed stakeholders. Comments provided by UTRCA staff on planning matters and in the review of applications made pursuant to Section 28 of the *Conservation Authorities Act* are to be consistent with this policy document in addition to the PPS. One of the key principles contained in our policy manual (and a position adopted by the UTRCA for several years) is that new development will locate and avoid natural hazards. Certainly such an approach is to be applied to the future development within the Old Victoria Area Plan.

AGREED IN PART and ADDITIONAL WORK HAS BEEN DONE - Generally agreed, and the Preferred Plan does recognize and respect the need to ensure any new development will avoid natural hazards. The OVAP from the outset has made every effort to comply with the PPS of 1997 as well as the 2005 version, and will continue to work to comply with the generic regulations of the UTRCA, notwithstanding that the OVAP project was officially commenced in December 2005 before the Generic Regulations came into effect. For certain, the OVAP project needs to be considered within the "policy" level of planning which would lead to the understanding by approval agencies that all issues cannot be resolved within the policy context and must await the implementation of policy through rezoning and subdivision planning and design work for individual property holdings. OVAPS is responsible for setting out the detailed policy stage for implementation of zoning and subdivision development. Inherent within the policy formulation is the need for some flexibility because in the future more studies to determine such matters in detail such as the edge of development and the extent of natural buffers.

The consultants' report makes reference to the *Generic Regulation* which came into effect in the UTRCA watershed in May of 2006. We wish to make it clear that effective May 2006, the Conservation Authority is obligated to implement a program of administration and enforcement of this new regulation, having regard for our mandated responsibility of protecting life and property from natural hazards associated with flooding and erosion. We cannot administer or enforce provisions under the "old" regulation (170/90, made pursuant to Section 28 of the CA Act). Proposed development within the study area will be subject to the new local regulation – Ontario Regulation 157/06. Policies and procedures are in place to determine if activity will be subject to a permit or simply a "letter of clearance". More information regarding the regulation can be obtained from the undersigned if necessary.

AGREED IN PART and SUFFICIENT WORK HAS BEEN DONE - It is recognized that any proposed development plans within the study area, including new land use designations



near or adjacent to the site slopes will be subject to the Generic Regulation. UTRCA will have ample opportunity to review site specific development proposals along with the requisite geotechnical analyses as well as provide feedback and comments during their formerly circulated review at the draft plan/subdivision design stage of individual development proposals at this site. Further information is provided in this regard, in sections 4.2.6 and 4.2.7 of the main binder within the Report, and is believed to be sufficient at the “policy” level of study.

Geotechnical Concerns

The geotechnical consultants have utilized a methodology for slope stability rating endorsed by the Province of Ontario and referenced by Conservation Authorities. There are a number of general and specific concerns that remain with the information presented in Section 4 of the Area Planning Study, however.

Perhaps most troubling is that an “approximate” stable slope line appears on Figure 4.1 but various aspects of development proposed in the preferred area plan (Figure 1.1) disregard the limit of this basic natural hazard constraint. Examples of development within this hazard include a portion of the low density residential development proposed within the Breau lands near the northwestern limit of the study is an area, a proposed stormwater management facility west of Hamilton Road and a portion of low density residential development shown on the Cline property east of Hamilton Road. We repeat the comment made in the previous section that, consistent with UTRCA policy and the Provincial Policy Statement, for new development areas, the natural hazards shall be located and avoided. To suggest in the planning study report that development can proceed within the slope hazard is inappropriate and may lead to elevated expectations for development in advance of the more detailed geotechnical investigations prescribed by the consultants. Further, the suggestion to mitigate or manage (erosion hazard) risk through engineered pipe systems is not likely to be deemed an acceptable approach by any of the environmental approval agencies. While we acknowledge and accept the statements on page 46 of the report which indicate the need for additional site-specific analysis, the proposed limits of development should be located outside of the stable slope line until such time that further investigation is completed.

The proposed land use designations have been applied broadly over various areas at this Official Plan stage. This is compared to detailed lot and block layout, actual legal survey and subsequent servicing design information for actual proposed land use at the draft plan stage, and subsequently including actual site plans for approval of structure prior to any actual development proceeding. The Final PAP – Figure A-1 has been changed to show the “approximate development setback line”. A special policy has been added to ensure that development will avoid this area of it is determined to be a natural hazard at more detailed study and design stages.

Notwithstanding the above, the geotechnical engineering response is as follows.

Land-use designations are applied broadly over an area, compared to detailed layout and design information for proposed structures and actual development proceeding. At this scale of the subject area and at this stage of the development approvals process, it would be premature to refer to the stable slope line being in a final definitive location. The text of the report identifies the limitations of this study at this stage, and provides detailed recommendations for additional more detailed analysis which will most certainly lead to a refinement of the stable slope line and appropriate development setback being applied at this time.

Slope hazard setbacks for the site were assessed based on certified professional qualifications and experience using a variety of data, including review of historical and



current aerial photographs, review of topographic mapping for the study area, limited site specific soils and groundwater information from boreholes drilled within Trow's OPA scope of work. The ultimate location of the stable slope line will be based on site conditions at the time of the development, the existing condition of and plan/anticipated changes in the watercourses (relating to flood control structures and water flow volumes), and the site-specific engineered and approved development grading plans.

Section 3.1.6 of the 2005 Provincial Policy Statement "development and site alteration may be permitted in those portions of hazardous lands and hazardous sites where the effects and risk to public safety are minor so as to be managed or mitigated in accordance with provincial standards" (as well as managed or mitigated by site-specific engineering design and approval).

Within the City of London there are a number of water flow control structures already located along the Thames River and related tributaries, including weirs, pooling areas, controlled overflow structures, and retaining structures to stabilize, reinforce, and otherwise protect lands adjacent to existing waterways. It is reasonable to anticipate that design of such works and approval by various agencies in the City of London will occur in this area as well. Engineering, stabilization, or site improvement works (ie: improvements to water flow control structures, reconstruction of the pond outlet on the Sifton lands, installation of erosion control measures, localized infiltration of overland flows) will alter and may improve current site conditions. The 2005 PPS does not preclude carrying out such works to mitigate the level of risk prior to development. In the event that such changes are carried out or incorporated into the design of the development, site-specific review will be required to determine a suitable development location and/or the appropriate setback from the final field legal survey of the OPA hazard land designation. This is discussed in Section 4.2.5. of the report.

Additional and more detailed site-specific geotechnical investigation was carried out at the Sifton (formerly Breau) and Cline lands in January 2007. The fieldwork was comprised of a series of additional boreholes on the subject properties, to further assess the overall slope stability of the Thames River valley slope, and the watercourses which extend north-south across these lands. Based on the additional information from this supplemental field program, a more detailed examination of the stable slope conditions was examined. Detailed Slope Assessment reports will be provided to each of the landowners, providing a detailed description of the scope of work, summarized conditions, and review of the slope assessment and additional allowances in determining the approximate development setback limit.

For the purposes of this addendum, a brief summary of the development setback line location is provided: an 'approximate development setback line' is shown on the attached Slope Inventory Plan – Figure 4.1 (R1). From a geotechnical standpoint, this is a structural development setback line, which identifies the limit for construction of permanent structures (such as houses and buildings) in proximity to the site slopes. The location of the line shown on the drawing is based on a stable slope configuration of 26 degrees measured upward from horizontal (approximately 2H:1V), an access allowance of 6 m, a 8 m erosion allowance adjacent to the Thames River, and a 2 to 4 m erosion allowance adjacent to north-south tributaries. The details regarding these allowances are available in the report. The ultimate location of the development setback line may still vary, following more detailed analysis which is able to include more detailed topographic survey information and a review of proposed development and layout plans.

The Conservation Authority is also concerned that the primary constraint line identified in the geotechnical assessment section is the 1:250-year floodline and not the slope hazard line. It is



incorrect to suggest on page 46 that “structures associated with proposed development should stay outside the flooding hazard limit”. Generally, the limiting hazard constraint line is the slope hazard and not the flood line.

AGREED IN PART and SUFFICIENT WORK HAS BEEN DONE - This comment was included in the Section 4.2.5 specifically addressing Regulatory Floodlines. The ultimate set-back for any development work will depend on the type of structure and corresponding detailed slope stability analysis which will take a number of factors into account including the slope hazard line and the regulatory floodline. In addition, the type of structure also has a role in determining an appropriate setback. As you are aware, the locational appropriateness and level of risk of locating a parking space or a retaining wall or fence structure is different from a building. Therefore we acknowledge that both the slope hazard and the flood lines are potential development constraints to be considered, but the limiting constraint will depend on the type of structure, its precise location, and its detailed design requirements.

We are also concerned with the repeated use of the term “minor” to describe evidence of active erosion and seepage zones. It would be beneficial to have an indication of the criteria used to distinguish between **minor** and **major** seepage and erosion areas. While the slope stability rating chart is correctly applied in the report, these other descriptive terms tend to diminish the significance of observed unstable problem areas.

SUFFICIENT WORK HAS BEEN DONE - ‘Minor’ and ‘Major’ are relative terms, applied to the representative slope sections. The language is consistent throughout the report, and supporting photographs have also been included with the report. In addition, the significance of the level of groundwater seepage varies with seasonal changes, as does the level of surficial erosion. The amount of vegetative cover can also assist in minimizing surface erosion during summer months compared to relatively bare conditions during the winter. For reference and clarification, in the OVAP report ‘minor’ generally denotes that no immediate/significant concern was identified from a geotechnical standpoint even though there might have been evidence of seepage and/or erosion. ‘Major’ suggests possible further review to the seepage or erosion location documented in terms of possible development constraints or limitations to the and/or related special design requirements. It is acknowledged that these are somewhat interpretive terms, but they should be sufficient to provide general guidance throughout the development process based on the site observations made at this time, which could also change. If required at the appropriate time, more detailed and clarification will be provided by the developers’ consultant to ensure that these comments and recommendations are interpreted and acted upon correctly by those reviewing and relying on this the document for site-specific development design and approval.

We found it to be a bit confusing to suggest in Section 4.2.6 that site reconnaissance be undertaken to examine existing site conditions – presumably for the purpose of establishing development limits. While the scale of the mapping contained in the study report makes it impossible to be too site-specific, we felt it was a primary objective of the geotechnical consultants to help identify the natural hazard constraints for the purpose of defining areas generally suitable for new development.

SUFFICIENT WORK HAS BEEN DONE - The recommendation for additional site reconnaissance corresponds to the section heading: “Future Slope Stability Studies and Analyses”. It was a primary objective for Trow to help define land areas in this Area Plan generally suitable for development. This was done through the identification of existing natural hazard constraints, making adequate reference to slope stability, erosion and



access allowances, filled slopes, existing water control structures, and applying preliminary development setback criteria.

Identification of the natural hazard constraints for the future development of this site was completed assessed using a variety of data including review of historical and current aerial photographs, review of topographic mapping for the study area, and examining site specific soils and groundwater information from boreholes drilled within Trow's OPA scope of work, and supplemental works carried out for the landowners in January 2007. The revised drawing provided with this document Figure 4.1 (R1) shows an approximate location of the 'development setback limit', which identifies the structural development setback limit, based on information available at this time. It is recommended that the ultimate location of this setback limit be reviewed with further site specific assessments incorporating actual design layout and site grading, to confirm the actual extent of future development; as specifically recommended in this section of the main binder and report. Ultimately, a detailed site reconnaissance, including additional subsurface investigation, should be completed at the time of the proposed development to consider the actual specifics of the development proposal as well as identify if there were any changes to the site conditions which would impact the site-specific stability assessment. The report states "These comments are considered to be preliminary in nature, and have been made based on Trow's interpretation of the factual information gathered during the background review and site reconnaissance observations. The following information should not be considered as a detailed slope stability analysis. Additional site specific analysis is required for future development in the study area."

A couple of other points are also offered at this time. There appears to be a typographical error on page 49, under section 4.2.6 – Future Slope Stability Studies and Analyses, which should probably read "Where existing **steep** slopes are present onsite..." Finally, there should be additional explanation for the very limited erosion allowance of 1 to 2 metres applied to watercourses on the west side of Hamilton Road.

SUFFICIENT WORK HAS BEEN DONE - *The line in the report is correct. Determination of the slope inclination or 'steepness' is part of the recommended site review. For the watercourses on the west side of Hamilton Road, those Thames River tributaries are relatively flat and subject to far less intermittent base, routine, and heavier storm flows from much smaller internal and external drainage areas than the watercourses to the east receiving outlet flows from the new City of London SWM facilities for the new industrial park. The lesser water flows experienced on the west side of Hamilton Road will result in a much lower erosion potential. On the east side of Hamilton Road the watercourses are generally located immediately adjacent to or in closer proximity to the base of the slopes. West of Hamilton Road, the watercourses generally have sufficient room between the watercourse and the base of the slopes to accommodate some toe erosion as well as access for slope stabilization and revetment protection as might be required. Toe erosion has been allowed for in all areas where stable slope conditions were assessed and confirmed. Ultimately, site specific slope stability analyses will be required during the design stages of development to confirm toe erosion and slope stabilization requirements.*

Development of Land West of Watercourse #4

Significant consideration has been given to the potential for development of the Breaux land west of watercourse #4. Biological investigations suggest that very little of this landscape meets criteria for inclusion within an expanded ESA boundary. In our comments to you yesterday, we suggested that this area presents a topography which will be extremely difficult, if not impractical to service for development. In reviewing the City of London's criteria for ESA boundary delineation, we believe that the landforms of this section of the study area are sufficiently unique



in the watershed to warrant protection - especially given the proximity to existing ESA lands and opportunities for linkages. Bear in mind our earlier submission to the City that in the Middlesex Natural Heritage Study, all of the woodland patches in the study area are significant. No stable slope lines have been plotted in this area by the geotechnical consultants and again, in the absence of detailed slope analysis, the expectation for development may be unreasonably elevated.

AGREED IN PART and SUFFICIENT WORK HAS BEEN DONE - While we might agree with some of this input, UTRCA's position to comment on natural science details relative to development practicality or expectation is unclear. Notwithstanding, the overall concept of the proposed development in this area has also been addressed in the special policies introduced at the beginning of this addendum. Yes, the site topography presents some challenges, which may not be typical for developments in the City of London; however, the site topography is not considered to be an absolute development constraint from a geotechnical standpoint. The current topography is steep on the upper part of the filled slope, however this situation was artificially created to accommodate the grading requirements for the adjacent (Walmsley) site. The lower part of the slope which is in its natural state is much more gently inclined, with a low potential for slope stability. The available soils information confirms that the soils are well compacted and in a generally stable condition. There is no evidence of existing slope failures in this area. Ultimately, the site grading and proposed development plans in the area of the existing filled slope will determine the economic feasibility of development in this area. Engineered structures such as retaining walls, and appropriate building design, grading and landscaping design can be utilized to facilitate development in a sloped environment. In addition, servicing along the upper or lower portions of the slope may be carried out using conventional open cut excavations or boring methods, depending on the design depth of services, site orientation, size of development, financial considerations, etc.. Additional works were carried out on the Sifton lands to further confirm the condition of the fill material placed along the remnant valley slope adjacent to the Walmsley site. In speaking with the tenant at the Sifton lands, he was further able to confirm that the fill placement in this area occurred 30 to 40 years ago. This supplemental field program carried out by Trow has further confirmed the overall suitability and competent condition of the fill material, identifies the approximate limits of the fill, and re-affirms the comments made above. Additional comments regarding development in this area respecting the Meadowlily ESA are provided above.

In response to the comments relating to the application of ESA Criteria on Patch 09-021 that are made in the paragraphs above please refer to Figure A3 of this addendum (Application of ESA Criteria & Boundary Delineation Guidelines , Patch 09021 , Tributary 4)

Please note that much of the topography within this patch on the subject lands is man-made, resulting from a municipal servicing project several decades ago that created an extensive engineered backslope on the lands that are referred to by the UTRCA.

Other Natural Heritage Comments

It was very helpful to the UTRCA to be invited onto the Breau and Cline properties to investigate site conditions more closely. The biological sections of the planning report seem to deal with individual landscape units in an effort to apply criteria for ESA boundary delineation. The UTRCA believes the area should be considered as a whole – on an ecosystem level. We suspect that if the area as a whole satisfied at least 2 criteria for ESA determination, we would find that more lands would be so him and designated.



SUFFICIENT WORK HAS BEEN DONE - In response to the comments relating to the application of ESA Criteria in general please refer to the Figures A3 & A5 of this addendum document, which graphically summarizes both the ESA criteria and boundary delineation guidelines application to the vegetation continuum within the study area.

In walking the Cline property, it was apparent that an error had been made in the area identified as J2. Given the relative maturity of the woodland both north and south of the hydro corridor, we believe that the suggested "Office Business Park" at the eastern edge of the Cline property should instead be open space.

AGREED -- The Final Preferred Area Plan within this Addendum has deleted the Office Business park land use designations on the east side of the OVAP in accordance with the above comment. Please refer to Figure A5 of this addendum (Application of ESA Criteria & Boundary Delineation Guidelines , Patch 09029 / 09031 , Tributaries 1 & 2), where these lands have been shown within the proposed ESA.

Stormwater Management Facilities

The UTRCA has appreciated the opportunity to attend public meetings held concurrently thus far for consideration of stormwater management opportunities and constraints within the study area. We applaud efforts by the consultants to explore the feasibility of BMP's for source control but we understand that the City has expressed concerns over design and maintenance of such measures. It is extremely important that the consultants realize that several environmental approval agencies may have serious concerns with closed pipe solutions for mitigating or resolving existing erosion and drainage problems. While we will continue to follow progress of the EA underway, we wish to repeat our concern that on-line facilities, enclosure of watercourses into tiled systems and construction of SWM facilities within natural hazard areas are contrary to UTRCA policy – and presumably policies of other approval agencies. Outlets for both SWM facilities shown conceptually on the land use plan (Figure 1.1) would appear to be within hazard lands as well – with a potential to increase existing erosion and slope stability concerns. These concerns must be discussed more comprehensively with the consultants, the City and with other approval agencies.

AGREED IN PART and SUFFICIENT WORK HAS BEEN DONE - Generally yes. UTRCA will and should continue to participate in the SWM class EA underway for this Area Plan, and some of these issues, as well as additional details will be provided through that parallel planning process and subsequent formal reporting. Additionally, the comments or questions regarding the future of some of the smaller intermittent watercourses have been echoed by the City of London Wastewater & Drainage Engineering Division who have asked for an inventory of those watercourses which is provided at the end of this addendum. Specifically our response to these comments here is as follows:

Closed pipe solutions - cannot be avoided in some development areas, and will be in accordance with City of London design standards along with other environmental maintenance, enhancement, public health and safety, and development financing considerations.

Enclosure of watercourses - will not occur where significant vegetation exists as described and proposed in detail for each of the tributaries in the area plan binder report as well as the SWM Class EA.

Existing erosion and drainage problems - will be addressed in more detail with the SWM Class EA and during development storm servicing design. Some slope re-grading and rip rap/armour stone revetment is expected to be used along some of the watercourses,



including inside the ESA's to the minimum extent possible to address current geomorphology concerns regarding watercourse, slope, and development stabilization.

Outlets for both SWM facilities within hazard lands - this comment is not clear. The outlets for both SWM facilities must reach the Thames River which is inside the hazard land. If the outlets are not located at some depth relative to the development land, and if the connecting SWM system does not generally follow existing drainage patterns, site grading and storm servicing to achieve the required grades to keep the outlet about the 1:250-year floodline or the stable slope line would be cost-prohibitive. Furthermore significant additional tableland could be rendered not developable for reasons that are again unclear. The present City of London standard for SWM facility locations is water quantity control structures above the 1:25-year storm level, and water quality facilities above the 1:50-year floodline which makes a great deal of practical sense. Also presently, there are hundreds of SWM control structures within City of London floodplain areas out of practical necessity. These structures can be designed to accommodate potential hazard land risks as well as provide complementary aesthetics in addition to public health & safety requirements and financial considerations. Existing erosion and slope stability concerns will also be addressed with the detailed design of each outlet at the subdivision stage.

4. EESD Transportation Planning & Design - A. Couvillon

Date: October 20, 2006

Re: Old Victoria Area Planning Study Final Report

File: 220 021 05001



Below are our comments regarding the Old Victoria Area Planning Study final report.

1. No functional planning studies have been done, thus no dimensions have been established. As previously requested this street should intersect the collector roads in the central area of the plan. As indicated in the study this is possible provided an EIS is undertaken to cross the proposed natural heritage corridor. Since subdivisions greater than 80 dwelling units in size typically require more than one public road access we would not oppose this option. Another possibility would be to hold development to 80 units until lands to the west develop and additional access can be provided. We are not in favour of any temporary public access to serve these lands.

AGREED IN PART and SUFFICIENT WORK HAS BEEN DONE - Special policies #2 and #3 respond in agreement to the concerns.

With respect to the intersection of Commissioners Road and Hamilton Road, functional planning studies have been done, thus no actual dimensions have been established. As a basis of comparison, attached is a photograph of a roundabout/traffic circle on Ira Needles Boulevard in Kitchener, one of six planned for this four lane arterial. The diameter of the circle is 55 metres. The right-of-way diameter would be in the order of 120 metres.

2. As noted above we support the primary collector road designation due to traffic volume that is projected for this street. However, we also recognize that this designation will create access challenges for residential development and require upgraded road construction. Since the projected traffic volume for this street is in the lower range for a primary collector and the proposed road pattern is limited to the immediate area, allowances for access should be provided through Official Plan or zoning by-law amendments to permit access similar to a secondary collector street.

AGREED - From north of the mixed use area to west of the commercial area, the central portion of the primary collector will meet the definition of a secondary collector in terms of traffic volume. Relaxation of the access policy in this section would be appropriate and provision will be set out in the Community Design Guidelines.

3. There is no mention of unique road design elements for the town centre area including street widths, on street parking, side walks, pedestrian access, building setbacks, street lighting, street furniture, etc. that typically accompany these type of place making proposals. Therefore we will assume that the town centre will be developed using existing City right-of-way and development standards.

AGREED -- The Community Design Guidelines will make appropriate provisions.

4. As indicated in previous comments sufficient sight lines may not exist on Commissioners Rd at the intersection of the primary collector street. We note that this intersection has been relocated further east from its original location which has helped to increase sight distance. The location of this intersection may need to be adjusted further to provide adequate sight distance. Alternatively road work could be undertaken on Commissioners Rd by the developers to provide adequate sight distance. This issue can be addressed during the plan of subdivision process.

AGREED IN PART and SUFFICIENT WORK HAS BEEN DONE - The location shown in the plan was selected as being the optimum location based on site observations and a review of the plan and profile of Commissioners Road. The final location should be confirmed at the design stage.



5. The study references in Section 7.5.1, trips being assigned from each sub-area to obtain the total trip assignment. We previously requested these sub-areas be identified in mapping or described in tables. Neither of these is included in this report.

AGREED IN PART and SUFFICIENT WORK HAS BEEN DONE - Specific boundaries of sub-areas used for trip generation and assignment purposes were removed from the final version of the report since the overall plan is still conceptual and it was felt that detailed definition of the sub-areas could be misleading.

6. Section 7.8 indicates that Commissioner Rd and Hamilton Rd will require four lanes each to accommodate traffic anticipated by the full build-out of this area plus the City's Innovation Industrial Park. Traffic volume will need to be monitored closely over time to determine if and when these requirements will be necessary.

AGREED IN PART and SUFFICIENT WORK HAS BEEN DONE - It is anticipated that, as the Innovation Industrial Park develops, the City will monitor traffic flows on Hamilton Road and Commissioners Road.

7. Section 7.8 recommends traffic signals be installed on Hamilton Rd at Oriole Dr and Commissioners Rd at Primary Collector. In previous correspondence we indicated traffic signals must be justified using the method detailed in OTM Book 12, Traffic Signals. This study used a variation of this method which we do not support. Prior to installing traffic signals at any intersection within the area a traffic analysis will be required that uses OTM book 12 traffic signal warrants to justify installation. This will be discussed in greater detail during the plan of subdivision process.

AGREED IN PART and SUFFICIENT WORK HAS BEEN DONE - The methodology used to justify the need for traffic signals is approved by the MTO and is included in Book 12.

8. Section 7.10 indicates that no specific traffic calming measures are required due to the alignment of the collector road network. As indicated in previous correspondence traffic calming measures are required in all new plans of subdivision to reduce vehicle speed and the possibility of through traffic. Therefore specific traffic calming measures will be required on all collector streets within the area. This issue will be addressed through the plan of subdivision processes.

AGREED IN PART and SUFFICIENT WORK HAS BEEN DONE - It will be appropriate and necessary to review and conform traffic calming measures in the plan of subdivision process.

As noted in our comments there are a number of issues that were not addressed in the traffic impact study and will require additional review during the plan of subdivision stage.

Agreed. Approval agencies should be reminded that this is an Official Plan Amendment for land-use designation only. A number of detailed analysis, design, and corresponding planning/engineering decisions will be deferred to a future time.



5. EESD Wastewater & Drainage Engineering Division (WADE) - Doug Harron

Following are Wastewater & Drainage Engineering's comments, both as requested by Planning with a due date of Oct. 30, and as comments to the minutes from the steering committee meeting.

1. The proponents have identified the Hamilton Road Trunk Sanitary sewer as the outlet for this property and have stated that it has been designed to accommodate the entire parcel and a population of 10,000, which is agreed.
2. The proponents have identified the conveyance facility and treatment facility of the East Park PS and the Pottersburg PCP as integral to the sewage flow and treatment, which is agreed.
3. The proponents have noted that both facilities may require expansion and upgrading beyond the currently planned in 2018~2024, depending on a variety of reasons, which is agreed. Pottersburg currently has a reserve capacity of ± 1.3 MGD. Gross flows from this development will contribute a total of ± 1.8 MGD. Once ESA's and floodplains etc. are netted out, then the flow would be reduced probably to about 1.3 MGD. That is not to say other developments will not come on line before this development is maxed out, so depending upon actual growth, the expansion may have to happen sooner than 2018. The City will monitor the flows to the plant and will fund expansion through some DC funding and mostly IORF funding, timing it so as not to limit or delay growth.
4. As for the East Park PS, in 2004 there was ± 0.7 MGD reserve capacity. It's upgrading, currently time indeterminate, would also be based on the City's monitoring of flows and would also be funded through some DC funding and mostly IORF funding.
5. Flows from this development (assuming it would be done in phases) would be reserved for both pumping station and plant at the time of subdivision agreement preparation with the requirement it be registered within one year, then committed at the time of subdivision registration.

No detailed reply comments required. EESD has well anticipated development servicing and approval requirements in this area including their express written support of the work completed for this important OPA submission for the Old Victoria planning area. As expected, EESD's infrastructure planning for the City as a whole and this particular area especially are ahead of schedule to facilitate this proposed new development as planned for some time to take place within London's urban growth boundary.

WADE SWM department has also provided helpful input to this area plan on the various watercourses including special consideration of ESA protection, management, and enhancement options in accordance with prevailing SWM functional design criteria. Those important additional requirements are being addressed through the OVAP SWM EA as well as through these reply comments to Parks Planning, EEPAC, and UTRCA. ESA SWM infrastructure issues require improved financial and technical criteria analysis respecting urban land-use designation opportunities and constraints; rather than relying on natural environmental analysis only for open-space designation typically trying to preclude development SWM functions which is often not practical, sustainable, or affordable.

In this regard, as part of their review of this Area Plan as well as the SWM Class EA, EESD WADE has requested additional inventory on those shallow watercourse tributaries that will be eliminated with the proposed land use, and otherwise replaced by new local storm sewers connecting to the proposed SWM facilities. That inventory work is presented as follows.



Proposed Watercourse Tributary Adjustments

The treatment of the existing watercourse tributaries in this Area Plan is related to the existing and proposed storm conveyance system. Treatment is defined in terms of preservation, modification, or removal. The proposed treatment of the existing OVAP watercourse tributaries is shown on Figure 4. In general, the primary watercourses within the current valley system will remain preserved and enhanced with some minor revetments measures and additional planting. Changes in flow regime due to development of the Old Victoria area are not anticipated based on the hydrologic modelling completed. However, there are several upper reach tributaries that will be removed as a result of urbanization. Tributaries 2b, 2c, 2d, 4b, and 4c will all be removed. Additional details for each watercourse is provided below.

Watercourse 1

The primary tributary within this watercourse will remain preserved and unchanged. There will be a very small reduction in the area contributing to Watercourse #1 from the OVAP development area. The area that is affected will not be developed, and has been identified to remain as Open Space. The HECRAS modeling from previous work will still apply. In our review of that previous work, the peak flows identified should remain similar to those conditions under post-development upstream in the new industrial park as well as post-development in OVAP. There are no secondary tributaries for this watercourse within the OVAP development area.

Watercourse 2

The primary tributary within this watercourse will remain preserved and unchanged. However, several of the secondary tributaries will be removed i.e. 2b, 2c, and 2d. These three tributaries are shown in the photographs below. Currently all three tributaries are represented by a shallow defined intermittent overland flow path. The largest – 2d – falls within a tilled field. There is no remedial measures proposed for the loss of these three tributaries as their form and function will be replaced by the proposed storm conveyance system.





Tributary 2d –looking south toward Commissioners Rd.



Tributary 2d – looking north from Commissioners Road

While there will be an increase in the area contributing to this watercourse, all minor system flows will be conveyed to the SWM facility Pond 1 and released at a controlled rate to manage and mitigate erosion potential.

While the pre- to post-development contribution to peak flow from the OVAP area will remain essentially unchanged, there will be an increase in peak flow contribution from the upstream contributing area that will effect this watercourse. Upstream of the OVAP development, the new London Airport Road Industrial Park contributes to Watercourse No. 2 including lands both upstream and downstream of the SWM facility identified as Pond 7 within that development.

The HECRAS modelling completed during the subwatershed study work was revised to reflect this increase in peak flow. As a result, the 250 Year flood elevation increased approximately 0.5 m throughout the OVAP development area. This increase should have minimal effect on development area within the OVAP study area as the increase will be accommodated within the watercourse valley.

Watercourse 3

The primary tributary within this watercourse will remain preserved and unchanged. This entire tributary system falls within a proposed open space corridor although not in ESA. As well, at the lower limit, a private pond will remain. The proposed development will maintain inflow characteristics to this pond. The existing outlet of Watercourse No. 3 is poorly defined. Runoff from the existing pond flows through a swale towards the Thames



River. In post-development conditions, all minor and major flows from this watercourse system will be conveyed to the proposed SWM facility Pond 2. The existing swale will no longer be needed resulting in reduced erosion potential near Hamilton Road, with no negative impacts on any proposed open space.

Watercourse 4

The primary wetland tributary within this watercourse will remain preserved and unchanged. Minor storm runoff from the adjacent development areas A2.2 and A2.4 will be conveyed to Pond 2, reducing the post-development storm direct contribution to the primary tributary. Some surface and groundwater discharge to the wetland will have to be provided from the adjacent development. Adequate storage will be provided within Pond 2 for both quality and quantity purposes, with a direct outlet to the Thames River. There are two secondary tributaries that will be removed – 4b and 4c. Similar to the above described watercourses, these two tributaries to be removed these tributaries are presently represented as poorly defined intermittent overland flow paths through pasture lands. There is no remedial measures proposed for the loss of these tributaries as their form and function will be replaced by the proposed storm conveyance system.



Tributary 4c – From Hamilton Road

Watercourse 5

There is no change anticipated for Watercourse 5 other than a small reduction in flow if limited development is permitted in this area. Most of this watercourse is expected to remain within the proposed open space designation in this area regardless of development.

Watercourse 6

The primary tributary within this watercourse will remain essentially preserved and unchanged. Some of the upstream area will be diverted to the proposed SWM Pond 1 on watercourse #2 as part of the development storm sewer system. The downstream part of this watercourse will only be affected if some of the single-family homes along the east side of Hamilton are to redevelop, and in that case, at-source controls should be required to maintain the existing form and function of this downstream tributary through the existing forest along the Thames River to remain.





Tributary 6 – From Hamilton Road

6. **EESD - Development Services Division** - Rico Kuehr

Further to our meeting on Tuesday October 24, please provide Development Services with an update to the financial information included in the above study as soon as possible. The Planning Department has requested our input on this information by October 30th so they can finalize their report to the Planning Committee on this Area Plan. As you may recall, the information we are requesting from you is a breakdown and rationale of the servicing costs and development charges (DC) claims that have been identified in the study; additional items and costs/claims that were not originally considered (e.g. sidewalks, street lighting, Hamilton Road/Commissioners Road intersection improvements, primary collector costs/claims, EA costs/claims); Capital Works/CSRF costs/claims; and Industrial Oversizing costs/claims (if any). The anticipated revenues should also be reviewed and updated. In addition, the DC revenues and claims should be shown for the anticipated phasing of development in this area. This updated information should be included in the text and on the spreadsheets in the final version of the Area Plan report.

As noted at the beginning of this addendum, some of the detail requested here is beyond the scope of work required for an Official Plan Amendment and our terms of reference for this Area Plan study. Similarly, the cost estimates provided must be considered very preliminary (e.g. Class E estimate; i.e. Class A being a tender price), as no servicing design has been completed. Notwithstanding, Tables 8.1, 8.2, and 8.3 in the Area Plan binder report have been reviewed and revised a number of times since our October 2nd meeting, on the above items and comments. Some minor adjustments to the assumptions and calculations in the tables have also been made accordingly, and additional notes have been added where appropriate. The newest land use plan is also reflected in the revised development unit projections and DC revenues, and the estimated DC's have also been updated to the new 2007 rates. The revised tables have been recalculated again and included in this addendum, and our response to EESD's very good review comments is summarized as follows.

Urban Works Reserve Fund (UWRF)

Sanitary – this UWRF claim estimate has been increased to provide additional confidence that the total estimated cost and claim will be reliable for financial planning purposes, including engineering and contingencies. Depending on the internal and external sanitary servicing design for the potential tributary land to the east of Old Victoria, and to the south of Commissioners Road, this claim could be slightly larger, however it is more likely to be smaller. Recently, we have held a meeting with EESD – WADE to review sanitary servicing options for external lands. Previous sanitary drainage area studies for this area include UMA East Park PS/sanitary trunk design circa 1994; and RVA Hamilton Rd. sewer design circa 2004. Those EA-level studies and design work indicated potential development areas west of OVAP Watercourse 4 and



north of Commissioners Road to be serviced by the new trunk sanitary sewer on Hamilton Rd. That external drainage area of approximately 60 ha has been allowed in the design of the Hamilton Road trunk sanitary sewer at a specific manhole near the proposed internal collector road intersection with Hamilton Road. This suggested that servicing opportunities for that external land through OVAP should be examined as part of this addendum for internal sewer routing, future hydraulic design, and potential oversizing/UWRF cost-sharing.

The Area Plan land use analysis work has confirmed that sanitary servicing of the external land to the west through OVAP will involve a number of servicing constraints. That review along with the storm drainage study work has also suggested that depending on grading and other servicing factors, there could be an additional external sanitary service area south of Commissioners Road which was not included in the previous design work. However, the 60 ha west of OVAP includes some potential ESA areas which are likely to remain undeveloped. Also, the extra and likely much smaller potential external drainage area south of Commissioners Road could be serviced along Commissioners to Hamilton Rd.; i.e. not necessarily through OVAP. Therefore, at this stage, it is felt that the possible future external design allowance through OVAP can remain at 60 ha with a maximum design criteria of medium density residential. As well, there are ravines through the 60 ha, and the land slopes towards the Thames River. This means that pumping of some land back up to Commissioners Road or to an OVAP sewer connection might be required. Consideration of these issues leads to four (4) different sanitary servicing options within OVAP that might best accommodate two (2) likely external drainage areas with a number of external servicing options available. Servicing of all potential external drainage areas through OVAP could involve the use of one, two, or possibly even three of the sanitary subtrunks within OVAP. This will depend on internal and external final subdivision plans and sewer design details. Accordingly, the accompanying summary of estimated development charge claims and revenues have allowed for an internal servicing and oversizing/cost-sharing option that is not the least economical or most expensive but provides our best guesstimate given the current information on the ESA limits. Table 8.3 has therefore been revised to include an internal sewer oversizing UWRF claim of \$650,000 that allows for 1500 m of 450 dia. sewer as shown on Table 8.2. In this regard, it is also noted that estimated UWRF sanitary and total net DC revenues could therefore be higher by allowing those external sanitary revenues to be allocated to this higher estimated oversizing claim.

Storm - as for sanitary, unit prices have been increased from the previous Area Plan report to provide for improved reliability, reflect price increases in 2007 and beyond, and for additional confidence that the total cost will also cover engineering and contingencies. Note estimated SWM facility land and per-unit construction cost estimates are above current rates to be conservative. As now noted on Table 8.2, these costs are very preliminary in nature as noted above.

Roads - the City has reminded us that minor road improvements costs/claims should be included in the estimated claims. Additional line items have therefore been added to the bottom of Table 8.3 to cover street lighting, secondary collector road widenings at Hamilton Road and Commissioners Road, upgrading of that arterial road intersection, and the typically standard UWRF claims for boulevard grading and sidewalk installation along arterial roads. Net revenues are still however expected to be positive in this area; also given the significant UWRF increases proposed for March 2007 which have been included in the revised calculations.

City Services Reserve Fund (CSRF)

General - Total DC estimated costs and claims are difficult to calculate at the Official Plan stage. Final land use approvals are uncertain as is the timing and phasing of development. Therefore, actual costs, claims, net revenues, and perhaps more importantly, the required/estimated cash flow is not known. City standards and cost-sharing details are also adjusted from time to time, and so does the position of any arterial road widening work in the capital budget. This renders these cost estimates having to be provided in present value terms at a very preliminary/uncertain



level; too early in the planning process for much confidence. Compounding this, there is a local claimable UWRF component as well as a possible City Services (CSRf) component to some of the work; with development timing typically different from City capital works timing. On top of that, there is a non-growth component to benefit from and help finance rebuilding of the existing arterial roads to maintain infrastructure capability for existing development. Accordingly, these estimates should be considered preliminary.

Notwithstanding all of this potential uncertainty, significant net CSRf, DC and UWRF net revenues to the City of London are still expected from this development in all development and servicing categories, as shown on Table 8.3. This is mostly because:

- the trunk sanitary sewer for this development was installed along Hamilton Road by the City largely using the industrial oversizing reserve fund for the new Airport Road business park; and
- the development is divided into two (2) areas with only small claims for local storm and sanitary sewers with relatively smaller SWM facilities due to the limited size of the external drainage areas required to be serviced.

Sanitary - as noted above, net CSRf revenues are expected to be significant for this development area; notably with the City having paid for the construction of the new sanitary trunk sewer along Hamilton Road. Of course, there will be CSRf costs/expenditures for upgrading and expanding the Pottersburg PCP and the connecting infrastructure; some of which would be attributable to this development as estimated in Table 8.3.

Water - as for sanitary, much of the trunk watermain work required for this area plan has already been installed by the City which again results in net revenues even with the allocation of some of the work to this development, notably the proposed Southeast pumping station and reservoir.

Roads - there are no current plans in the City's capital budget or in the road DC master plan for widening Commissioners Road or Hamilton Road in this area. This also results in net revenues to the City.

Other Services - in these categories, we would expect DC costs and revenues to be neutral.

Overall regarding total and net DC revenues, while it would be interesting and potentially valuable to calculate the allocation of past and future CSRf costs to this development to estimate total net revenues. This is not a particularly straightforward assignment, and is beyond the scope of work for this study. However, even if we might assume that as much as two thirds of the CSRf revenues from this development should be allocated to OVA to cover costs, the total net UWRF and CSRf DC revenues for this area plan could be as high as \$10.7 million, with the net UWRF revenues could be as high as \$4.7 million. We believe this to be a good selling feature for approval of this development as soon as possible at a time when the City is struggling with the "notional deficit" under the UWRF along with pressure for additional CSRf/capital budget spending on arterial road widenings to service other new developments which is not required in this area.

