

23 February 2024

Mr. John Southwell
Southwell Homes Ltd.
195 Julie Anne Crescent
Carleton Place (Ontario) K7C 4M5

Subject: EIS Addendum and Response to December 13, 2023 Comments on Environmental Impact Statement for the Appleton Shores Subdivision CIMA+ File A001267

Mr. Southwell,

As requested, we have reviewed the consolidated comments from the December 13, 2023 letter and have identified those related to the Environmental Impact Statement (EIS) completed by Bowfin/CIMA+. Our responses are included herein, and any updated figures are appended to this letter. The list of avoidance and mitigation measures from the EIS is also appended. Moving forward, if there is any conflict between the August 2022 EIS document and this EIS addendum, this addendum is to take precedence. Following the draft plan approval for the subdivision, it is the intent that a Wetland Compensation Plan be created. A Natural Heritage Environmental Protection Plan would then be completed to consolidate and update avoidance and mitigation measures prior to construction.

Mississippi valley Conservation Authority – Dated October 25, 2023 Diane Reid

MVCA noted that they no longer provide review for Natural Heritage Features as defined under Section 2.1 of the Provincial Policy Statement (PPS) (2020) and that Ministry of Environment, Conservation and Parks (MECP) are responsible for SAR. MVCA's review is in terms of flooding and erosion hazards.

- 1. A permit will be required from MVCA under Ontario Regulation 153/06 for the stormwater outlet to the northern PSW and Mississippi River**

Response: Noted

- 2. Recommendation #4: Discussion of the impacts of altering the hydrologic balance in the wetland by reducing the post-development flows for the 5 and 100-year storm events. Mitigation measures should be included as necessary.**

Response: Is addressed by Novatech.



Mississippi valley Conservation Authority – Dated October 25, 2023 Kelly Stiles

The memo outlines 4 development design considerations:

- 1. MVCA recommends that a permanent fence be erected to delineate the end of maintained yard area, and the commencement of the buffer zone which is to be unaltered.**

Response: It is understood that fencing is not feasible as the lots are single ownership and extend to the wetland. However, the edge of the buffer will be delineated with the turtle exclusion fencing (or 0.6m tall armour stone wall). The owners will not be able to move these stones. To further help in preventing encroachment, the development of a landscaping plan is proposed. The landscaping plan would include planting of native and rapid growing shrubs (and trees) along with seed mixes for herbaceous vegetation. The shrubs could include species with thorns and those with a compact growing form to discourage encroachment into the buffer. In addition, a landowner awareness package would outline the area's sensitivities, as well as their roles and responsibilities, including information on the *Endangered Species Act*.

- 2. MVCA recommends the incorporation of LID features into the site's drainage design to help maintain pre to post surface drainage to the wetlands.**

Response: Is addressed by Novatech

- 3. MVCA concurs with the 30 m setback to the northern and southern PSW, provided the limit is clearly delineated so rear yard impacts do not extend into the buffer zone.**

Response: Noted

- 4. MVCA concurs with the EIS recommendation for an offsetting plan that evaluates the proposed loss of 0.04 ha of unevaluated southern wetland, prior to development.**

- a. This plan shall be prepared by the proponent, to the satisfaction of MVCA.**

Response: Noted, draft offsetting plan will be submitted to MVCA.

- b. MVCA further recommends that the impacts to the southern PSW be addressed as part of the offsetting agreement.**

Response: Noted, draft offsetting plan will be submitted to MVCA.

- c. A permit is required from MVCA for alterations within the 30 m buffer to the southern PSW.**

Response: Noted



The MVCA memo also notes additional information requirements:

- 1. Discussion, in the EIS and SWMP, on the impacts of altering the hydrologic balance in the wetland by reducing the post-development flows for the 5 and 100-year storm events.**

Response: Is addressed by Novatech

- 2. How does outletting storm water to the wetland influence the wetland's condition? What are the potential impacts of adding storm water flows to the northern PSW while it is in a saturated, flooded, or dry season condition? If there are impacts, can they be mitigated?**

Response: During the site investigations it was noted that the northern wetland, closest to the proposed development, was mostly dry. This wetland is hydrologically connected and controlled by the Mississippi River, which is a controlled river (dammed).

As per discussions with Novatech, the volume pre- and post-development will remain the same but the peak flow rate will be slightly reduced by 10-20% in some circumstances. This only occurs during storm events for the duration of the event and shortly thereafter. Further, flow rate reduction would only occur during large storm events (i.e., consisting of 2-year or larger). The detention period will be reviewed further at the detailed design stage but is anticipated to be marginal (i.e., a few hours).

- 3. Provide recommended mitigation measures to prevent yard creep into the wetlands and the steep river shoreline.**

Response: See response related to fencing above.

- 4. The EIS indicates that the southern PSW has a minimal buffer between it and the proposed road extension. It also highlights the threat of road salt run off but that the majority will be captured and processed in the stormwater swales.**
 - a. It is not clear if there will be roadside ditches on both sides of this east-west road to direct the snow and salt run off away from the wetland and into the storm water swales. It is also not clear how road run off, grading etc. directly beside the southern wetland will be mitigated.**

Response: Novatech indicated that there will be road ditches on both sides to collect road drainage. These ditches are being constructed to provide an enhanced level of water quality control and are upstream of the stormwater management facilities. As such, the



runoff will not be directed into the adjacent southern wetland but through these road ditches and into the stormwater management swales before reaching the north wetland.

- b. The EIS also mentioned that, under current site conditions, functional habitat becomes present in the southern PSW, greater than 5 m south of the road allowance. Please discuss if this zone will be pushed further south once there is an active roadway at the north end of the wetland? If so, please recommend suitable mitigation measures.***

Response: No, the functional habitat will not be impacted further. The RoW is wider than the active roadway (see the Novatech transportation response). There is little to no clearing of vegetation and none past the RoW. And as discussed above, the runoff from the road will be collected and treated through the road ditches (and not directly inputted into the southern wetland).

Jp2g Consultants Inc. – Dated October 12, 2023

The comments from Jp2g are summarized below. Please note that Jp2g likely did not have access to emails from the Ministry of Natural Resources and Forestry (MNRF) with the last one being dated August 28, 2018 in which they were asked to comment on the EIS in terms of all provincial policies. They responded that they were comfortable with the Bowfin EIS having met their provincial interests, and specifically noted that the appropriate SAR surveys were completed to their satisfaction.

Section 3.0 Background Information – description of the proposed development

Response: As noted in the introduction, the development includes construction of residential units with private services on the former old wooden mill. In addition, there will be an extension to Apple Street as shown on Figure 2. As an update, the final number of lots is now fourteen.

Bird Surveys – Whip-poor-will survey station were missing from Figure 5

Response: Noted, new Figure 5 is appended to this letter.

Section 3.2. – Comment on significant valley lands, and significant wildlife habitat on / in proximity to the site along with any additional mitigation measures necessary to protect these

Response: Generally, we respect the decisions made by the authors of the OP to ensure that we are not undermining what the County or Municipality has established to be “significant” in their area. Provided that the OP has been adopted and approved, following their policies is intended to meet the requirements of the PPS.



Valleylands: In this case, the Community Official Plan (as adopted by Council in 2018 and approved with modifications on December 4, 2019, after a five-year review) states *“There are no significant valleylands identified within the Municipality at the time of approval of this Plan. Appendix A1 Natural Features will be amended as an update when significant valleyland information becomes available”* (Section 3.1.4.7, page 34). No amendments to Appendix A1 have since been made to identify significant valleylands.

Significant Wildlife Habitat: Significant wildlife habitat (SWH), aside from deeryards, is not specifically mapped or identified on any Schedules or Appendices. The Community Official Plan (as adopted by Council in 2018 and approved with modifications on December 4, 2019, after a five-year review) indicates that SWH is to be identified based on appropriate provincial guidance: *“Criteria for identifying these and other forms of SWH are provided by MNRF guidance documents”* (Section 3.1.4.6, page 33). The OP indicates that no development or site alteration is permitted within significant wildlife habitat unless it has been demonstrated that there will be no negative impacts on the natural feature or its ecological functions (Section 3.1.4.6, page 34). The PPS defines wildlife habitat as:

“Areas where plants, animals and other organisms live and find adequate amounts of food, water, shelter, and space needed to sustain their populations. Specific wildlife habitat of concern may include areas where species concentrate at a vulnerable point in their annual or life cycle; and areas which are important to migratory or non-migratory species.”

To clarify the EIS, the ELC communities on Site and in adjacent lands were assessed as per the MNRF’s *Significant Wildlife Habitat Criteria Schedules 6E* (2015). The Appleton Swamp PSW has potential to offer SWH in terms of waterfowl stopover and staging area, turtle wintering area, waterfowl nesting, bald eagle and osprey nesting and perching habitat, turtle nesting areas, and marsh breeding bird habitat. With respect to the birds of prey nesting, no nests were present. The candidate SWH features of the Appleton Swamp PSW and Mississippi River are outside of the areas to be directly impacted by the construction of the subdivision. These habitats were identified as important early on in the process and the 30-m buffer was included in the design with the purpose of protecting all ecological functions, including any candidate SWH. The RoW of Apple Street will not negatively impact the ecological function of that habitat. No additional mitigation measures are required. Again, the EIS was already reviewed by MNRF from a provincial policy perspective, which would include SWH; they had no comments on the EIS. MNRF’s guidelines did not change between 2018 and 2022.

Site Investigations – All three Eastern Whip-poor-will surveys were completed in June. Rational and whether guidance was sought from the Ministry.

Response: In addition to the general email from MNRF from 2018, Bowfin contacted MNRF in 2016 to discuss the timing of the EWPW surveys and our methods were approved.



Section 5.3.1. – New Timing Windows from MECP

Response: Acknowledged that there are now new timing windows for the species listed (Blanding’s, Bats and birds). However, the timing window for Eastern Small-footed Myotis only applies to areas with potential rocky maternity habitat for this species. That habitat is lacking and only the timing windows for the woodland breeding bats is required for this site which is April 1 to September 30. The combined timing window for vegetation clearing is to clear between October 1 to March 31, inclusive. This is supported by the advice provided by MECP for this project.

Section 5.3.1. – Blanding’s Turtle

Response: We used to include figures with the categories for SAR in our EIS; however, we have stopped this practice to avoid inconsistencies as some species information is too sensitive for inclusion and is inappropriate to incorporate it in documents available to the public. As such, we no longer include detailed information on species at risk in the EIS. These figures are instead circulated to MECP for their review as a separate process, and their recommendations are included in the avoidance and mitigation measures. MECP has reviewed this file, and their response letter is included with this submission.

With respect to the request to include the website for the turtle exclusion fencing, we have opted to keep the current information from our EIS, as it was shared and approved by MECP for their review. However, a note will be added about the website, indicating that more information may be available and is to be consulted at detailed design.

Section 5.3.1. – Birds

Response: Acknowledged, though the recommendation from Environment Canada is 2 days. See appended measures.

Section 5.3.1. – Bats

Response: Acknowledged, added no earlier than 5 days beforehand and by a qualified biologist or wildlife technician in the appended measures.

Section 5.3.2 PSW/ANSIs

Southern Wetland

Response: Acknowledged, that was a typo.

Offsetting Measures

Response: Noted



Section 5.3.4 Fish Habitat

ESC

Response: Acknowledged, but with respect we will leave our wording as is. This is done on purpose to ensure that the reader is going to the most up to date geotechnical report applicable for the project and to minimize any confusion should they issue a new report.

Contaminant and Spill Management

Response: Acknowledged – “or wetland boundary” will be added to both bullets. See appended measures.

Figure 17

Response: acknowledged. See appended Figure 17.

We trust that this meets your requirements. Should you have questions please contact Michelle Lavictoire at michelle.Lavictoire@cima.ca.

Al Quinsey (B.Sc.)
Biologist

Michelle Lavictoire (B.Sc., M.Sc.)
Associate Partner, Senior Biologist/Project Manager

Encl. Communications pdf.

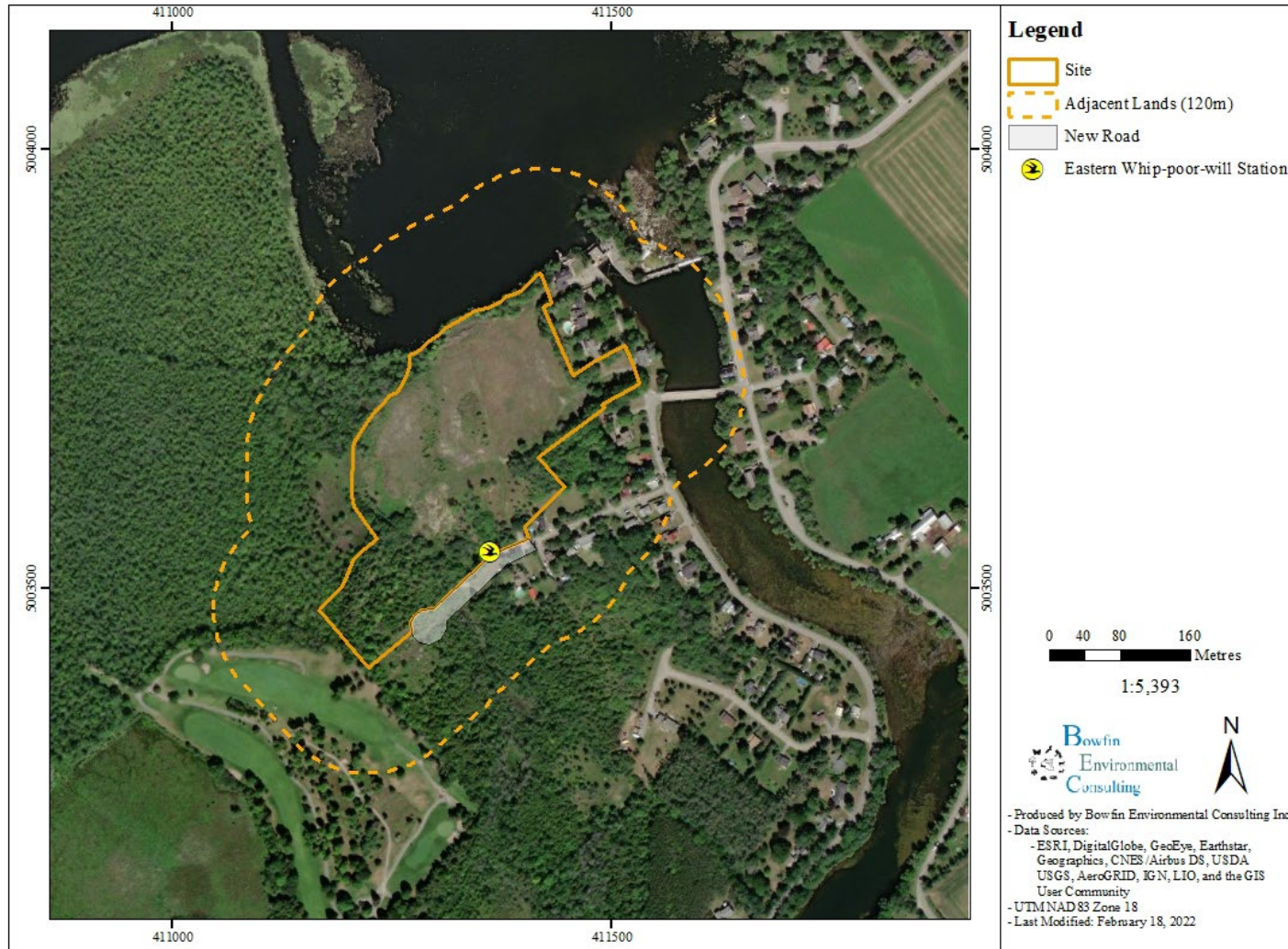


Figure 5: Updated Figure 5 from EIS (Bowfin/CIMA+, August 2022 Report)

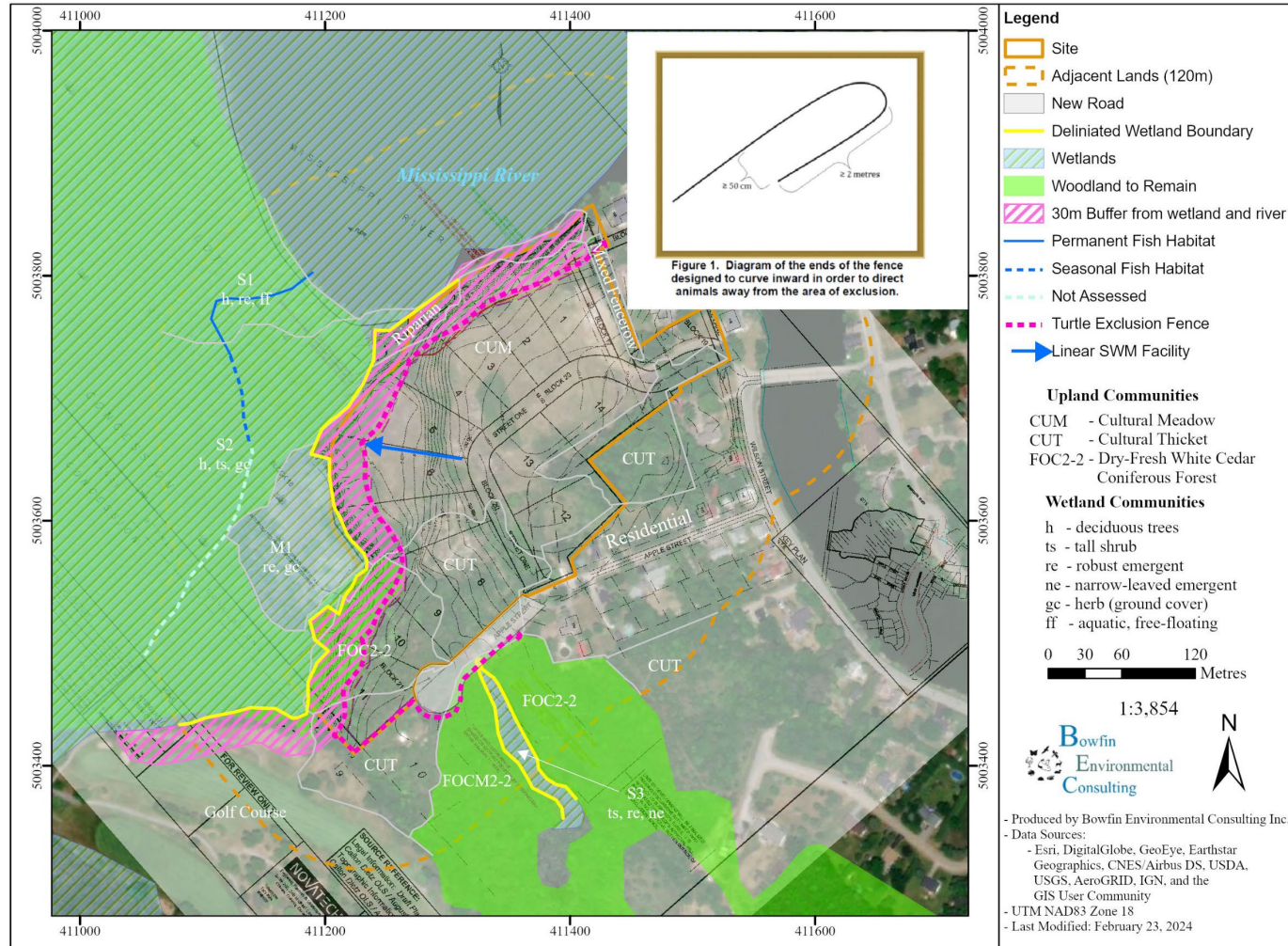


Figure 17: Updated Figure 17 from EIS (Bowfin/CIMA+, August 2022 Report)



Updated Avoidance and Mitigation Measures

SAR Mitigation Measures

General:

- + Endangered and threatened species are protected and cannot be harmed, harassed, or killed and in some cases their habitats are also protected. These individuals will only be handled by qualified person and only if the individual is in imminent threat of harm. An authorization under the ESA 2007 would be required to handle individuals that are not in imminent threat of harm.
- + If a SAR enters the work area during the construction period, any work that may harm the individual is to stop immediately and the supervisor will be contacted. No work will continue until the individual has left the area.
- + Should an individual be harmed or killed then work will stop, and the Ministry of Environment, Conservation and Parks (MECP) will be contacted immediately (sarontario@ontario.ca).
- + Educate staff and contractors on the potential for SAR to be in the area and their significance.
- + Mitigation measures listed elsewhere in this report are also applicable to this section.
- + If a SAR is encountered, this information will be provided to the Natural Heritage Information Centre ([Report rare species \(animals and plants\) | ontario.ca](https://www.ontario.ca/en/conservation-and-parks/report-rare-species)).

SAR Turtles:

Construction:

- + During construction, temporary turtle exclusion fencing will be installed around the west, north and south sides with turn-arounds along both ends. *Reptile and Amphibian Exclusion Fencing: Best Practices* (OMNR, 2013d) will be followed for exclusion fence design. Note that the following website is updated from time to time and can be consulted at detailed design [Reptile and amphibian exclusion fencing | ontario.ca](https://www.ontario.ca/en/conservation-and-parks/reptile-and-amphibian-exclusion-fencing).
- + The temporary fencing can consist of sediment fencing that is properly countersunk and maintained.
- + Install the exclusion fence and clearing vegetation outside of the active turtle season [i.e., clear after October 31 (or freeze up) and before April 1 (or spring thaw)]. **Note that the timing constraint for tree removal is more restrictive as it follows the bat window (no clearing between April 1 and September 30, inclusive).**
- + Educate construction workers of the potential for Blanding's Turtle to be present and is a species protected from harm and injury under the provincial *Endangered Species Act*. Ensure to inform workers that there is a high potential for the species to occur in this area and that it is known to migrate long-distances over land.
- + A speed limit of 15 km/h is recommended for vehicles used during construction or to access the stormwater management facility. The speed limit is to be posted.



- + Additional fencing is recommended around any stockpiles that might provide suitable nesting substrate (i.e., gravel, soil) to help prevent turtles from nesting in the work area. Note that should suspected Blanding's Turtle nesting occur, the work that could impact this habitat is to be shut down and consultation with a biologist with experience with this species or with MECP would be required for guidance. It is imperative that the temporary exclusion fence and this additional fencing be maintained to prevent use of areas disturbed by construction, for nesting.
- + If a turtle is observed, then all work that may harm the individual must stop and the worker should notify their supervisor. Try to take a photograph but do not chase the turtle in order to do so.
- + Turtles encountered on-site cannot be harmed or harassed.
- + Turtles should be allowed to leave the area on their own.
- + It is also important that the individual be watched, from afar, to ensure that it does not enter an area where it may come to harm.
- + If an individual has been impacted, the supervisor should contact MECP (and if applicable the project biologist) immediately.

Operations:

- + Following construction, a permanent turtle exclusion will be installed around the west, north and south sides with turn-arounds along both ends. *Reptile and Amphibian Exclusion Fencing: Best Practices* (OMNR, 2013d) and/or the website will be consulted at detailed design [Reptile and amphibian exclusion fencing | ontario.ca](https://www.ontario.ca/reptile-and-amphibian-exclusion-fencing). In some areas a retaining wall may be used. The wall is to have a minimum vertical face of 60 cm. A cross-section of its design would be provided to MECP for review by the time of registration.

SAR Birds:

- + Should a nest be discovered, stop all work that may disturb the birds (i.e., that cause the adults to fly off the nest) and contact a biologist or MECP or Environment Canada, as appropriate for the species.
- + No impacts to federal SAR bird nests, or their eggs is permitted under the federal Species at Risk Act. If a federally listed bird species at risk nest is encountered, then work must stop until the young have fledged. If the nest/young have been harmed, then Environment Canada must be notified immediately for guidance.
- + No impacts to provincial SAR bird nests or their eggs is permitted under the provincial Endangered Species Act. If a provincially listed bird species at risk is encountered, then work must stop and MECP contacted (sarontario@ontario.ca).
- + For birds, vegetation should be cleared after August 31 and prior to March 31. However, note that the restrictions for removal of trees due to bat is more conservation (see below). If the timing window cannot be adhered to for the removal of the cultural meadow, then nesting surveys could be completed no earlier than 2-days prior to clearing. This is not recommended for trees other than windrows where it is reasonable to confirm lack of nests



(without having a false positive). These surveys would be performed by a fish and wildlife technician, or biologist experienced with birds.

Bats: It is understood that most vegetation will be removed from the site. The potential to impact SAR bats would be restricted to day-roosts for most species, with a higher potential for little brown myotis in the forest. Recent discussions with MECP on these species indicate that they do not need to be approached if the timing window below can be adhered to.

- + Educate contractors by informing them that most bats in Ontario are protected.
- + **Remove all trees that are 10 cm in diameter at breast height or larger (in the fencerows or forest) between October 1 and March 31 (Bat active season is currently assumed to be April 1 to September 30).** If this is not possible, conduct exit survey no earlier than 5-days prior to cutting them down. If the exit survey identifies bats, contact MECP or biologist for additional guidance.

SAR Plants: No SAR (Endangered or threatened) were present in or within 50 m from the site. However, the butternut inventory is only valid until August 31, 2023. After that date, a new survey would need to be undertaken.

- + SAR Plant surveys will need to be completed no earlier than 2-years prior to the clearing of vegetation. In particular, surveys for Butternut and Black Ash will be needed.
- + Note that if a butternut was missed, then it would need to be assessed prior to working within 50 m of that individual.
- + No Black Ash were noted during the surveys, however if present, those that are 8cm in diameter at breast height and their 30 m buffer is protected.
- + Should SAR flora be identified then these will need to be assessed and the appropriate actions taken.

Wetlands (PSWs and Unevaluated)

Northern PSW

- + A MVCA permit is required before any works take place within 30m of the wetland or river.
- + A 30 m setback has been established for the northern PSW.
- + No direct impact to the northern PSW will occur, unless as part of an approved offsetting plan.
- + The water quantity going to each wetland will remain similar pre and post-construction. That going to the northern wetland may have a slightly different release rate during peak 2-year events or larger.
- + Water quality is to have an enhanced water treatment level (80% TSS removal).
- + The outlets from the stormwater management are to be designed to prevent erosion and the transport of suspended sediments into the wetland.
- + Grading in areas that drain towards the wetland or river should be timed to avoid periods of high runoff volumes (such as the periods of heavy rainfall associated with spring and



fall periods). Contractor is to be cognizant of the potential for large areas of bare soil to result in negative impacts through the transportation of sediment to the wetland and river, and employ additional preventative measures as required.

- + Any stockpiles of soil or fill material would be stored at least 30 m from the slope and protected by silt fencing.
- + Erosion and sediment control measures need to be maintained and will require daily inspection to ensure that they are working as intended. Additional inspections will be required after rainfall or storm events.
- + Additional materials (i.e., rip rap, filter cloth and silt fencing) should be readily available in case they are needed promptly for erosion and/or sediment control.
- + The erosion control measures are to remain in place until the site is stable (i.e., <20% bare soil).
- + Any outlet or drains will be constructed to ensure that no erosion of the soil occurs (to prevent erosion and the transportation of sediments into the wetland).
- + The current lands within the 30 m buffer will be graded to remove the berm and revegetated with native vegetation (including trees and shrubs). Landscaping plan to be developed as part of the Wetland Compensation Plan for the Southern Wetland.
- + No additional access to the wetland will be created (no trails). The turtle exclusion measures, and dense plantings will assist in preventing encroachment.
- + Landowners' awareness package will be created explaining roles and responsibilities of the landowners with lots that abut the PSW and river.

Southern Unevalua2018,Wetland (0.04 ha)

- + A MVCA permit is required before any works take place within 30m of the wetland or river.
- + The construction of the road extension is to be cognizant of the southern wetland and look for ways to minimize the footprint of direct impact. The maximum impact is estimated at 0.04 ha.
- + Grading in areas that drain towards the wetland is to be timed to avoid periods of high runoff volumes (such as the periods of heavy rainfall associated with spring and fall periods). Contractor is to be cognizant of the potential for large areas of bare soil to result in negative impacts through the transportation of sediment to the wetland, and employ additional preventative measures as required.
- + The water quality and quantity going to the south wetland will remain similar pre- and post-construction.
- + During construction, an appropriate erosion and sediment control strategy will be developed, installed, monitored, and maintained. This will include, at a minimum, the installation of sediment fence (countersunk) along the edge of the limit of disturbance.
- + Erosion and sediment control measures need to be maintained and will require daily inspection to ensure that they are working as intended. Additional inspections will be required after rainfall or storm events.
- + Any stockpiles of soil or fill material would be stored at least 30 m from the slope and protected by silt fencing.



- + Additional materials (*i.e.*, rip rap, filter cloth and silt fencing) should be readily available in case they are needed promptly for erosion and/or sediment control.
- + The erosion control measures are to remain in place until the site is stable (*i.e.*, <20% bare soil).

Offsetting Measures

- + A Wetland Compensation Plan for the removal of the 0.04ha of wetland along the disturbed edge of the Southern Wetland will be created during the detailed design stage and circulated to MVCA. Some examples of items to be included are:
 - o The length of adjacent lands to the northern wetland and the Mississippi River within the subdivision site is roughly 320 m. Of which most is impacted from fill. Portions of this area could be revegetated with native trees, shrubs and herbaceous species. The elevation could be lowered to be more favorable for view points. This would also help discourage landowners from removing trees to create vantage points.
 - o The marsh habitat next to the berm is impacted with terrestrial species and did not contain surface water. Pools could be built here in the range of 0.03-0.06 ha. These could be designed to be offline but sufficient in depth (*i.e.*, >50cm) to create amphibian and overwintering habitat for turtles. Keeping the pools offline would prevent fish from accessing them.
 - o Dense landscaping with shrubs to discourage landowners from encroaching into the buffer.

Woodlands

- + The edge of the lands to be cleared of vegetation will be clearly delineated on the site plans and in the field. In the field, the edge should be placed outside of the drip line of the outer row of trees;
- + To protect the individual trees from harm:
 - o Sturdy fencing will be installed outside of the drip line of the trunk of the closest trees to the work area.
 - o No grading or activities that may cause soil compaction (such as heavy machinery and stockpiling of materials) will be allowed within the fenced area.
 - o Furthermore, no machinery maintenance or refueling or stockpiling is permitted within 5 m of the outer edge of this fencing.
 - o Exhaust fumes from all equipment will be directed away from the canopy of the trees to be retained.
 - o If roots of trees, on adjacent lands become exposed during site alterations, they will be buried immediately with soil or covered with filter cloth or woodchips and kept moist until the roots can be buried permanently.
 - o Any roots that must be cut will be cut cleanly to allow for healing.
- + No signs, notices or posters should be attached to any trees;



- + **The removal of trees is to occur between October 1 and March 31, inclusive. This is to avoid both the active bat season and the breeding bird season (see timing and measures from sections above and below).**
- + The landscaping plan will include the planting of native species as much as possible various species could be used (i.e., sugar maple, basswood, white cedar, red maple, bur oak, white spruce, white pine).
- + Landowners will be made aware that the trees within the 30 m setback serve an important function in terms of bank stability and are not to be removed.

Fish Habitat

Planning

- + The minimum setback of 30 m from the direct fish habitat of the northern wetland and Mississippi River has been established. It is important that any future landowners be made aware that they are not to disturb this buffer.
- + If grading or disturbances to the soil is needed within this 30 m buffer, the appropriate erosion and sediment control measures will be implemented to prevent turbid runoff from reaching downstream fish habitat.
- + The stormwater management facility design consists of narrow ponds that lead towards the wetland, but that do not encroach into the 30 m buffer. It is understood that the flow will consist of sheet flow directed into the marsh community.
- + Any private septic treatment systems are to be designed and installed as appropriate, outside of the setbacks.
- + Clearly demarcate work areas and the geotechnical setback, to be provided by others, in the field.
- + The fish habitat setbacks will be vegetated. Where possible, leave existing vegetation, add native woody shrub, and tree species (where woody vegetation is lacking) and use native vegetation for the re-naturalizations.

Erosion and Sediment Control

- + To protect the valley bank, sturdy fencing will be placed to the north of the geotechnical setback prior to any work in the area. Refer to the geotechnical report for this subdivision for the details on the setback.
- + An erosion and sediment control plan will be developed by contractor and implemented prior to any work within 30 m of any valley/aquatic feature.
 - o Provide regular maintenance to the erosion and sediment control measures during construction. Contractor shall be responsible for ensuring that the erosion and sediment control measures are maintained and will monitor the water clarity downstream of the work site throughout the day and during rain events. Water quality is to meet the *Canadian Water Quality Guidelines for the Protection of Aquatic Life*. Monitoring for visible plumes outside of the work area is to be



- undertaken.
- At a minimum, the erosion and sediment control plan will include the installation of sediment fencing along the top of banks where vegetation clearing and/or soil disturbance will occur within 30 m of any channel prior to the removal of vegetation and measures to prevent turbid water from entering downstream fish habitat. It is noted that this fence is also to serve as the temporary turtle exclusion fence.
 - Additional materials (*i.e.*, rip rap, filter cloth and silt fencing) will be readily available in case they are needed promptly for erosion and/or sediment control.
- + The proper erosion and sediment control measures are installed and maintained prior to any clearing of vegetation within **30 m** of the watercourse and until the banks are stabilized (>80% revegetated).
 - + Any stockpiles of soil or fill material will be stored as far as possible from the channel and protected by silt fencing (minimum 30 m).
 - + The sediment fencing will not be removed until the bank is stabilized (*i.e.*, >80% revegetated or covered with an erosion control blanket).
 - + All equipment working within 30 m of the water will be well maintained, clean and free of leaks.
 - + Suspend any activities that cause muddy environments during periods of heavy rains.

Fish and Fish Habitat Protection

- + At this time, it is understood that there will be no work below the high-water mark. As such, unlikely to cause death of fish. It is noted that the American Eel can travel on land and contractors should be made aware. The sediment fence can also serve to keep American Eels out of the work area.

Contaminant and Spill Management

- + Machinery entering the work area should be free of mud to minimize the introduction of invasive plant species.
- + All equipment working in or near the water should be well maintained, clean and free of leaks. Maintenance on construction equipment such as refueling, oil changes or lubrication would only be permitted in designated area located at a minimum of 30 m from the shoreline in an area where sediment erosion control measures and all precautions have been made to prevent oil, grease, antifreeze, or other materials from inadvertently entering the ground or the surface water flow.
- + Emergency spill kits will be located on site. The crew will be fully trained on the use of clean-up materials to minimize impacts of any accidental spills. The area would be monitored for leakage and in the unlikely event of a minor spillage the project manager would halt the activity and corrective measures would be implemented. Any spills would be immediately reported to the MECP Spills Action Centre (1800 268-6060).
- + No construction debris will be allowed to enter the watercourse.
- + Following the completion of construction, all construction materials will be removed from



site.

Other

- + Almost all breeding birds are protected under the MBCA and/or FWCA. The only species not protected are: American crow, brown-headed cowbird, common grackle, house sparrow, red-winged blackbird, and starling. It is prohibited to destroy or disturb an active nest of other birds, or to take or handle nests, eggs, or nestlings. See the timelines under SAR birds (and bats). Note, there are some birds (birds of prey, herons etc.) that do begin nesting earlier in the year, any active nest are protected even if outside of the dates provide in the guidelines.
- + During construction, there is a potential for suitable habitat for ground nesting birds (i.e. killdeer) to be created. These include bare soil or gravel areas. Perform regular walks of the cleared areas looking for ground nesters. If any are present, then contact a biologist for guidance.
- + Work during the daytime hours to prevent light disturbances.
- + Ensure that all equipment have the appropriate mufflers to reduce noise disturbances.
- + If a turtle nest is suspected, then flag a 10 m buffer to protect the nest. Contact MECP (for SAR) and MNRF (all other species).

Invasive Species

- + Machinery should be cleaned prior to arriving on-site to prevent the potential spread of invasive species (i.e., mud and vegetation matter from other sites should be removed from machinery).