Fisheries and Oceans Canada | Pêches et Océans Canada

PATH No.: 18-HCAA-00311

Other DFO File No.:

PARAGRAPH 34.4(2)(*B*) AND 35(2)(*B*) *FISHERIES ACT* AUTHORIZATION ISSUED UNDER THE AMENDED FISHERIES ACT

Authorization issued to
McClung Properties Limited *(hereafter referred to as the "Proponent")*

Attention to: John Castro
McClung Properties Limited
125 Villarboit Crescent
Vaughan, Ontario
L4K 4K2

Location of Proposed Project

Nearest community (city, town, village): Caledonia
Municipality, district, township, county: Haldimand County
Province: Ontario
Name of watercourse, waterbody: Seneca Creek and an unnamed tributary
Longitude and latitude, UTM Coordinates: 43.084958°, -79.926020°; 17T 587418 m E, 4770809 m N (upstream); 43.079826°, -79.927092°; 17T 587338 m E, 4770238 m N (downstream)

Description of Proposed Project

The proposed project of which the work, undertaking or activity authorized is a part involves:

Floodplain modifications, channel restoration and realignment of two reaches of Seneca Creek and an unnamed tributary downstream of Highway 66 to accommodate a proposed greenfield residential subdivision located in Haldimand County, Ontario. Reach SN01 of Seneca Creek extends from Highway 66 to the confluence with the unnamed tributary of Seneca Creek approximately 600 m downstream, while Reach SN02 of Seneca Creek extends from the confluence with the unnamed tributary to a woodlot located approximately 350 m downstream.

Description of Authorized work(s), undertaking(s) or activity(ies) likely to result in serious harm to fish
The work(s), undertaking(s), or activity(ies) associated with the proposed project described above, that are likely to result in serious harm to fish, are:

- Removal of sediment and aquatic vegetation in Reach SN01 of Seneca Creek.
- Re-grading of an inside meander bend at 10:1 slope above a channel depth of 700 mm in Reach SN01 of Seneca Creek.
- Realignment of Reach SN02 of Seneca Creek.
- Realignment of the unnamed tributary of Seneca Creek.

The serious harm to fish likely to result from the proposed work(s), undertaking(s), or activity(ies), and covered by this authorization are

- The permanent alteration of 1,702 m^2 of average fish habitat associated with removal of sediment and aquatic vegetation required to construct habitat enhancement features and realignment of a meander bend near the downstream limit of Reach SN01 of Seneca Creek to create a point bar to stabilize the meander bend.
- The destruction of 3,830 m^2 of average fish habitat due to infilling of the existing channel required to accommodate realignment of Reach SN02 of Seneca Creek.
- The destruction of 280 m^2 of contributing fish habitat due to infilling of the existing channel required to accommodate realignment of the unnamed tributary of Seneca Creek
- The incidental death of fish.

Conditions of Authorization

The above described work, undertaking or activity must be carried on in accordance with the following conditions.

1. **Conditions that relate to the period during which the work, undertaking or activity can be carried on**

   The work, undertaking or activity is/are authorized to be carried on during the following period:

   From Date of Issuance to **December 31, 2021**.

   If the Proponent cannot complete the work, undertaking or activity during this period, Fisheries and Oceans Canada (DFO) must be notified in advance of the expiration of the above time period.

   The periods during which other conditions of this authorization must be complied with are provided in their respective sections below.

2. **Conditions that relate to measures and standards to avoid and mitigate impacts to fish and fish habitat**

2.1 Sediment and erosion control: Sediment and erosion control measures must be in place and shall be upgraded and maintained, such that release of sediment is avoided at the location of the authorized work, undertaking, or activity.

2.1.1 Effective erosion and sediment control measures shall be in place prior to, during, and after construction activities and until revegetation or other mitigation measures are sufficient to control erosion. Erosion and sediment control measures and structures shall be inspected and maintained on a regular basis during the course of construction by an experienced/qualified erosion and sediment control onsite inspector.

2.1.2 Measures for managing water flowing onto the site shall be implemented such that sediment is filtered out prior to the water entering a waterbody.

2.1.3 Waste material (e.g., dredging spoils, construction waste and materials, commercial logging waste, uprooted or cut aquatic plants, accumulated debris) shall be stored above the high water level, and located and stabilized so that it cannot enter the watercourse.

2.1.4 Work that could result in sedimentation shall stop during periods of heavy or persistent rainfall.

2.2 List of measures and standards to avoid and mitigate impacts to fish and fish habitat:

2.2.1 To protect spawning fish, their incubating eggs and larval life stages, no in-water works shall occur during the restricted activity timing window of March 15 to June 15 of any given year.

2.2.2 All in-water activities shall be undertaken in isolation (i.e., cofferdam) of open or flowing water to maintain the natural flow of water downstream and avoid introducing sediment into the watercourse.

2.2.3 Temporary cofferdams shall consist of non-permeable material and only materials free of silt and other fine particles shall be used; earthen cofferdams shall not be used for this purpose.

2.2.4 Prior to any in-water works and/or dewatering activities, a fish rescue shall be completed within all isolated areas.

2.2.5 A qualified fisheries professional shall be on site at the onset of in-water work activities and for the duration of the fish rescue and relocation activities. The qualified fisheries professional shall keep a record of the days and times they are onsite. They shall have the authority to provide direction to the contractor during the in-water works and shall temporarily stop work if the potential for serious harm to fish goes beyond the allowable serious harm to fish that is authorized herein.

2.2.6 Fish rescues shall be conducted by a qualified fisheries professional using appropriate and effective capture and handling procedures designed to minimize mortality (e.g., electrofishing, seine netting, minnow trapping), and with a level of effort to effectively mitigate the death of fish by stranding. All fish shall be released unharmed to the watercourse outside of the isolation.

2.2.7 Where water is pumped from the waterbody for any purpose, pump intakes shall be screened in accordance with *DFO's Freshwater Intake End-of-Pipe Fish Screen Guideline, 1995*. The outlet shall have a diffuser to dissipate energy or be placed in a location that is not subject to erosion from the outflow.

2.2.8 Clearing of riparian vegetation shall be minimized and vegetation shall be replanted where required upon project completion in accordance with tender drawings *McClung Community Residential Subdivision – Seneca Creek Modifications and Enhancements* prepared by WSP Canada Group Limited, dated September 2018.

2.2.9 Any excavated or stockpiled material shall be stored above the high water mark, and located and stabilized so that it cannot enter the watercourse.

2.2.10 All spoil material and construction debris shall be removed from the site upon project completion and properly disposed of in a manner that it cannot enter the watercourse.

2.2.11 Removal of natural woody debris, rocks, sand or other materials from the banks, the shoreline or the bed of the waterbody below the ordinary high water mark shall be minimized. Any material removed from the waterbody shall be set aside and returned to the original location upon project completion.

2.2.12 Appropriately-sized, clean rock shall be used to stabilize eroding or exposed areas, and shall be installed at a similar slope to maintain a uniform bank/shoreline and natural stream/shoreline alignment. Any rip rap, cobble and gravel used for the project must be clean and free of fine sediments and not be taken from below the normal high water line of any waterbody.

2.2.13 Equipment shall arrive on site in a clean condition and be maintained free of fluid leaks, invasive species, deleterious diseases to aquatic flora and fauna, and noxious weeds.

2.2.14 Equipment operating in or near fish-frequented waters shall be operated, refuelled, and serviced in a manner that prevents spills, leaks, or wash water from entering fish-frequented waters.

2.2.15 Activities near water shall be planned such that materials such as paint, primers, blasting abrasives, rust solvents, degreasers, grout, poured concrete or other chemicals do not enter the watercourse. Any building material used in the watercourse shall be handled and treated in a manner to prevent the release or leaching of substances into the water that may be deleterious to fish.

2.2.16 A response plan shall be in place in the event of a sediment release or spill of a deleterious substance. A spill kit and spill containment provisions shall be kept on site at all times. Appropriate personnel at the worksite shall be familiar with the location and use of the spill kit and spill response plan.

2.3 Contingency measures: Contingency measures shall be put in place if monitoring required in section 3 below indicates that the measures and standards to avoid and mitigate impacts to fish and fish habitat are not successful.

2.4 Dates by which these measures and standards shall be implemented: Measures and standards to avoid and mitigate impacts to fish and fish habitat shall be implemented prior to, during, and following in-water work.

3. **Conditions that relate to monitoring and reporting of measures and standards to avoid and mitigate impacts to fish and fish habitat**

3.1 Monitoring of avoidance and mitigation measures: The Proponent shall monitor the implementation of avoidance and mitigation measures referred to in section 2 of this authorization and report to DFO with annual construction monitoring reports. Construction monitoring shall commence at the onset of in-water work activities and shall continue until all in-water works are complete. A copy of each construction monitoring report shall be submitted to DFO by December 31 of the year in which monitoring is undertaken, and indicate whether the measures and standards to avoid and mitigate impacts to fish and fish habitat were conducted according to the conditions of this authorization. This shall be done, by:

3.1.1 Demonstration of effective implementation and functioning: Providing dated photographs and inspection reports to demonstrate effective implementation and functioning of mitigation measures and standards described above to limit the impacts to fish and fish habitat to what is covered by this authorization.

3.1.2 Contingency measures: Providing details of any contingency measures that were followed, to prevent impacts greater than those covered by this authorization in the event that mitigation measures did not function as described.

4. **Conditions that relate to offsetting**

4.1 Letter of credit: DFO may draw upon funds available to DFO as the beneficiary of the letter of credit provided to DFO as part of the application for this authorization (letter of credit numbers SBGT107807 and SBGT107808), to cover the costs of implementing and maintaining the offsetting measures required to be implemented under this authorization, including the associated monitoring measures included in section 5 of this authorization, in instances where the Proponent fails to implement these required measures.

4.2 Scale and description of offsetting measures: Offsetting measures shall be undertaken at Seneca Creek and an unnamed tributary, and shall be carried out in accordance with the measures set out in the Proponent's offsetting plan *McClung Properties – Seneca Creek Realignment Fisheries Act Offsetting Plan* dated May 2019, approved by DFO. Measures shall include:

4.2.1 Removal of a barrier to flow at an informal farm crossing in Reach SN01 of Seneca Creek.

4.2.2 Removal of instream emergent vegetation (cattails) and associated sediment deposits in Reach SN01 of Seneca Creek to facilitate construction of downstream pools and connecting riffle feature;

4.2.3 Construction of three (3) pools, each with a bankfull depth of 0.7 m, within the existing channel of Reach SN01.

4.2.4 Construction of two (2) riffle features within the existing channel of Reach SN01. The channel bed of each riffle feature will be lined with a 150 mm thick layer of washed riverstone with sizes ranging from 5 mm to 50 mm and a median grain size of 25 mm.

4.2.5 Construction of a riffle feature and continuous low flow channel between the two downstream pools within Reach SN01 of Seneca Creek. The channel bed of the riffle feature will be lined with a 150 mm thick layer of washed riverstone with sizes ranging from 5 mm to 50 mm and a median grain size of 25 mm.

4.2.6 Realignment of the inside of an existing meander bend near the downstream limit of Reach SN01 of Seneca Creek to create a point bar to stabilize the meander bend.

4.2.7 Construction of a new, realigned channel within Reach SN02 of Seneca Creek. The realigned channel reach will incorporate a meandering pattern and will feature riffle/pool sequences with a meander length of 100 m. The channel bed will be lined with a 150 mm thick layer of washed riverstone with sizes ranging from 5 mm to 50 mm and a median grain size of 25 mm.

4.2.8 Construction of six (6) pools, each with a bankfull depth of 1.4 m, on the outside of meander bends within the new, realigned channel of Reach SN02 of Seneca Creek.

4.2.9 Construction of seven (7) riffle features within the new, realigned channel of Reach SN02 of Seneca Creek. The channel bed of each riffle will feature a continuous low flow channel and will be lined with a 75 mm thick layer of washed riverstone with sizes ranging from 5 mm to 50 mm and a median grain size of 25 mm.

4.2.10 Construction of a new, realigned channel within the unnamed tributary of Seneca Creek to create an additional 140 m of new channel. The realigned reach will incorporate natural channel design techniques, and will feature a uniform channel profile (run/flat) with riffle/pool sequences with a bankfull depth of 0.7 m and width of 5.3 m. The channel bed will be lined with a 75 mm thick layer of washed riverstone with sizes ranging from 5 mm to 50 mm and a median grain size of 25 mm.

4.2.11 Planting of riparian vegetation, consisting of deciduous and coniferous trees, shrubs, native grasses, wetland emergent plug plantings, and live staking adjacent to Seneca Creek as per the Restoration Planting Plans, drawings LP-0 to LP-6, prepared by MMM Group, dated December 2015.

4.3 Offsetting criteria to assess the implementation and effectiveness of the offsetting measures: All fish habitat offsetting measures shall be completed and functioning according to the criteria set out in the Proponent's offsetting plan *McClung Properties – Seneca Creek Realignment Fisheries Act Offsetting Plan* dated May 2019, approved by DFO.

4.4 Contingency measures: If the results of monitoring as required in section 5 indicate that the offsetting measures are not completed by the date specified and/or are not functioning according to the above criteria in 4.3, the Proponent shall give written notice to DFO and shall implement the contingency measures and associated monitoring measures, as contained within the approved offsetting plan referenced in section 4.2, and as set out in section 5 of his authorization, to ensure the implementation of the offsetting measures is completed and/or functioning as required by this authorization.

4.4.1 Scale and description of contingency measures: The Proponent shall conduct necessary works, undertakings, or activities to ensure the structural stability and ongoing functionality of any contingency offsetting habitat to the satisfaction of DFO, should the initial offsetting plan not meet the requirements for offsetting associated with this authorization.

4.4.2 Monitoring measures to ensure offsetting contingency is completed and/or functioning as required: All fish habitat offsetting contingency measures shall be completed and functioning according to the criteria set out in the Proponent's offsetting plan *McClung Properties – Seneca Creek Realignment Fisheries Act Offsetting Plan* dated May 2019, approved by DFO.

4.5 The Proponent shall not carry on any work, undertaking or activity that will adversely impact the offsetting measures.

4.6 The Proponent shall obtain written permission for the Proponent, DFO, and anyone authorized to act on behalf of DFO, to access lands, water sources, or water bodies that are not owned by or under the care, control, or administration of the Proponent that must be accessed in order to implement the offsetting measures in this section and the monitoring of said measures.

4.7 The Proponent shall provide the written permission to DFO prior to the commencement of the authorized work(s), undertakings(s) or activity(ies) that are likely to result in impacts to fish and fish habitat described herein, and prior to the commencement of the implementation of the Proponent's offsetting plan referred to in condition 4.2 and dated May 2019 that is to take place on lands or in water sources or water bodies not owned by or under the care, control, or administration of the Proponent.

5. **Conditions that relate to monitoring and reporting of implementation of offsetting measures (described in section 4):**

5.1 Schedule(s) and criteria: The Proponent shall conduct monitoring of the implementation of offsetting measures according to the timeline and criteria set out in the Proponent's offsetting plan *McClung Properties – Seneca Creek Realignment Fisheries Act Offsetting Plan* dated May 2019, approved by DFO, which are the following:

5.1.1 List of timeline(s) and monitoring and reporting criteria:

5.1.1.1 The Proponent shall provide annual reports to DFO prior to the end of each post-construction monitoring year following implementation of the offsetting measures. These reports are due no later than **December 31, 2020** and **December 31, 2021**.

5.1.1.2 A digital photographic record of pre-construction, during construction and post-construction conditions shall be compiled using the same vantage points and direction to show that the approved works have been completed in accordance with the offsetting plan. This information shall be provided as part of the final construction monitoring report due no later than **December 31, 2021**.

5.1.1.3 An as-built survey of the constructed offsetting measures conducted as per the Proponent's offsetting plan *McClung Properties – Seneca Creek Realignment Fisheries Act Offsetting Plan* dated May 2019, approved by DFO, shall be provided as past of the final construction monitoring report due no later than **December 31, 2021**.

5.1.1.4 The success of the offsetting measures shall be assessed as per the Proponent's offsetting plan *McClung Properties – Seneca Creek Realignment Fisheries Act Offsetting Plan* dated May 2019, approved by DFO, and shall include the following:

- Assessment of post-construction channel conditions: Monitoring of post-construction channel conditions shall be undertaken in Reach SN01, Reach SN02 and the unnamed tributary of Seneca Creek annually during each year of the monitoring period to assess the functionality of channel morphological features, constructed instream habitat features, and channel stability over time. Areas of erosion, deposition, and/or siltation shall be identified to ensure the offsetting measures have been constructed as designed and are functioning as intended.
- Verification of habitat utilization: Monitoring shall be conducted in Reach SN01, Reach SN02 and the unnamed tributary of Seneca Creek in the spring and fall of each year of the monitoring period to determine fish species presence and to verify utilization of the stream reach by at least one species. Fish species presence and habitat utilization shall be confirmed via fish sampling and visual observation. In Reach SN02, monitoring shall also be conducted in the spring of each year of the monitoring period to verify utilization of the reach downstream of the current crossing by adult Rainbow Trout. Habitat utilization shall be confirmed via spawning surveys and visual observations.
- Vegetation/landscape monitoring: Monitoring shall be conducted annually during each year of the monitoring period to verify species, size and condition of newly planted vegetation and to assess the health and condition of transplanted/salvaged shrub stock in the riparian zone of Seneca Creek. After one year, planted vegetation that is dead or in poor condition will be reported and recommendations made as to any replacements, pruning, weeding, mulching and/or watering that will be required to ensure the continued success of planted vegetation. After two years, planted vegetation that is dead or in poor condition will be reported and recommendations made as to any repairs or replacement required to ensure a minimum target of 80% survival of planted vegetation.

5.2 List of reports to be provided to DFO: The Proponent shall report to DFO on whether the offsetting measures were conducted according to the conditions of this authorization by providing the following:

5.2.1 The results of the post-construction monitoring measures (as described in 5.1.1.4 above) shall be submitted in an annual report to DFO prior to the end of each post-construction monitoring year, with reports due to DFO on or before **December 31, 2020 and December 31, 2021**. The final report due on **December 31, 2021** shall include a compiled summary of the monitoring efforts completed over the monitoring period and a summary of the overall effectiveness of the offsetting measures carried out as part of this authorization.

Authorization Limitations and Application Conditions

The Proponent is solely responsible for plans and specifications relating to this authorization and for all design, safety and workmanship aspects of all the works associated with this authorization.

The holder of this authorization is hereby authorized under the authority of Paragraph 35(2)(*b*) of the *Fisheries Act*. R.S.C., 1985, c.F-14, to carry on the work(s), undertaking(s) and/or activity(ies) that are likely to result in serious harm to fish as described herein.

This authorization does not purport to release the applicant from any obligation to obtain permission from or to comply with the requirements of any other regulatory agencies.

This authorization does not permit the deposit of a deleterious substance in water frequented by fish. Subsection 36(3) of the *Fisheries Act* prohibits the deposit of any deleterious substances into waters frequented by fish unless authorized by regulations made by Governor in Council.

At the date of issuance of this authorization, no individuals of aquatic species listed under the *Species at Risk Act* (SARA) were identified in the vicinity of the authorized works, undertakings or activities.

In accordance with *An Act to amend the Fisheries Act and other Acts in consequence*, this authorization is deemed to have been issued under the authority of paragraphs 34.4(2)(b) and 35(2)(b) of the *Fisheries Act* as those paragraphs read after the day on which section 22 of *An Act to amend the Fisheries Act and other Acts in consequence* came into force.

The failure to comply with any condition of this authorization constitutes an offence under Paragraph 40(3)(*a*) of the *Fisheries Act*, and may result in charges being laid under said Act.

This authorization must be held on site and work crews must be made familiar with the conditions attached.

This authorization cannot be transferred or assigned to another party. If the work(s), undertaking(s) or activity(ies) authorized to be conducted pursuant to this authorization are expected to be sold or transferred, or other circumstances arise that are expected to result in a new Proponent taking over the work(s), undertaking(s) or activity(ies), the Proponent named in this authorization shall advise DFO in advance.

Date of Issuance: Oct 16, 2019

Approved by: _____

David Nanang
Regional Director General
Central and Arctic Region
Fisheries and Oceans Canada