

Environmental Impact Study (EIS) Addendum Report

**28 HIGH STREET,
TOWN OF CARLETON PLACE,
LANARK COUNTY**

November 23, 2022

Prepared By:



**BCH Environmental Consulting Inc.
20373 Bethune Street,
South Lancaster, On
K0C 2C0**

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1.0. Introduction

As requested by Inverness Homes Inc, an addendum to the Environmental Impact Study (EIS) produced by McIntosh Perry Consulting Engineers Ltd. and dated June 27, 2022 was completed in response to comments received from Mississippi Conservation Authority.

The following information has been requested to be collected, as response to comments received;

- Provide a discussion regarding Impacts to all fish and fish habitat, in addition to those provided for SAR and American Eel;
- Impacts to benthic habitat and aquatic vegetation communities;
- Pollution impacts; how the proposed trees along the edge of the boardwalk provide effective buffering against potential environmental impacts; and floodplain impacts/mitigation;
- Provide further discussion about the construction activities to accomplish the development (dock and boardwalk installation, retaining wall rehabilitation, etc.)

Of note as of September 27, 2022, the boardwalk, docking system, along with portions of the pathway have been removed from the current plans, and no in-water work are currently being proposed (Appendix A). The amount of work completed and the discussion has been scoped to reflect these changes.

2.0. Methodology

This report is prepared in accordance with the Official Plan for the Lanark County (2012) with guidance from the Natural Heritage Reference Manual (OMNR, 2010). This addendum includes an assessment of the identified and potential environmental constraints and the potential for Aquatic Species at Risk as pertaining to the comments received.

This report will provide the methodology to mitigate, as required, negative impacts on significant features and functions. Potential Aquatic Species at Risk in the general area were identified from McIntosh Perry Consulting Engineers Ltd. EIS report dated June 27, 2022.

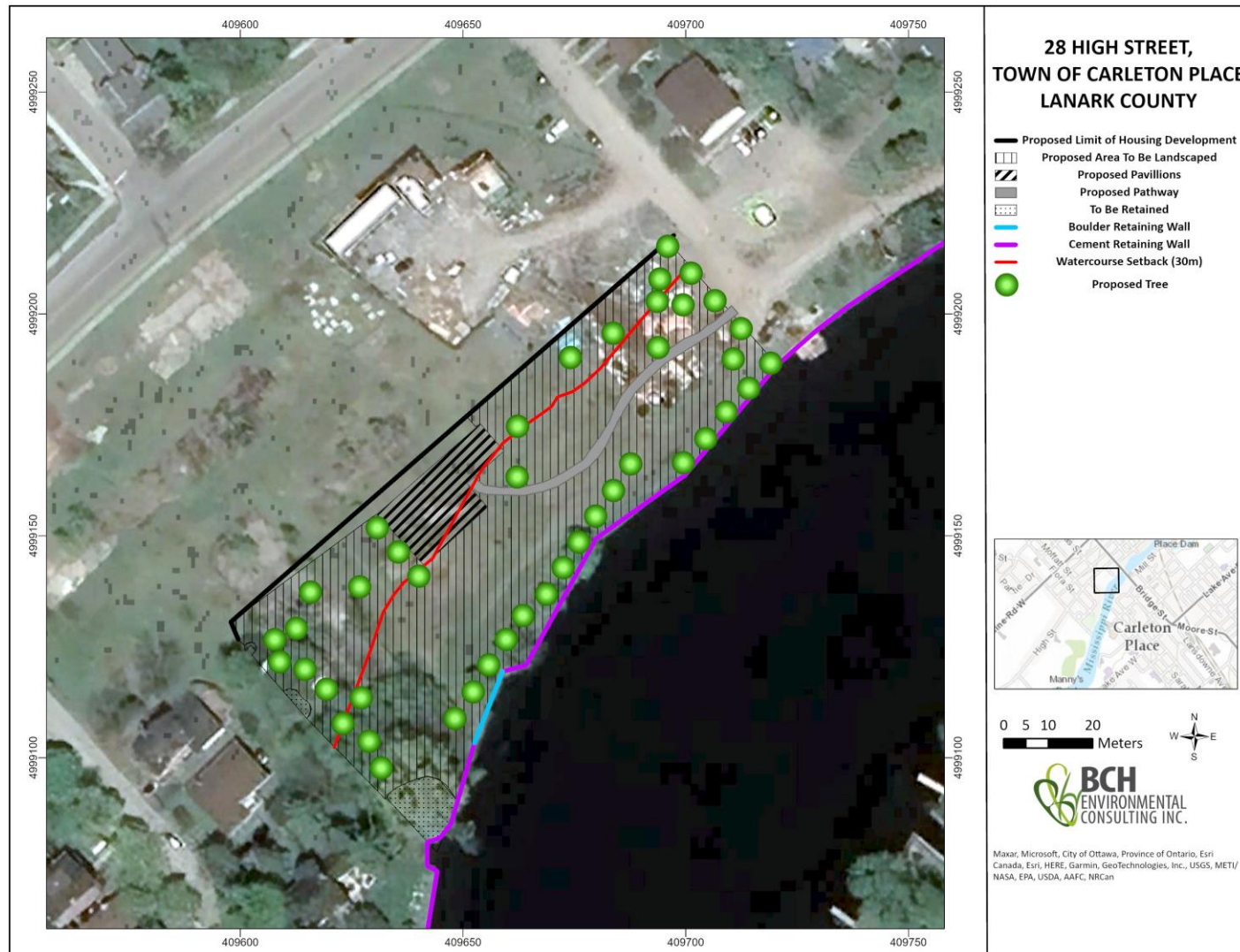
Colour aerial photography was used to assess the natural environment features in the general vicinity of the proposed building.

A field survey of the subject and adjacent lands was completed by BCH Environmental (S.St.Pierre) on October 6, 2022 from 1100h to 1300h (air temperature was 16°C, with a light air and overcast skies).

The area was extensively walked and surveyed for significant natural areas, potential aquatic species at risk and their associated habitat.

Observed plants were recorded for each individual community, the plants utilized in the descriptions are the most abundant specimens observed. A complete observed species list is provided in Appendix B. Plants that could not be identified in the field were collected for a more detailed examination. Nomenclature used in this report follows the Southern Ontario Vascular Plant List (Bradley, 2013) which aligns with the Integrated Taxonomic Information System (ITIS).

FIGURE 1: NEAR SHORE WORKS



3.0. Field Surveys

3.1. Existing Conditions

As described in the McIntosh Perry Consulting Engineers Ltd. EIS report the subject lands consisted of Dry - Fresh Mixed Meadow with a small Dry - Fresh Deciduous Shrub Thicket present within the south-west corner. Within the meadow, the entire eastern portion is currently being utilised as a laydown area related to ongoing construction activities. Three metres from the shoreline running the length of the laydowns yard was a small gravel access road. Within the western portion of the meadow, there were multiple asphalt and cement pads related to previous lands uses. Soils within the subject lands are highly compacted from past land uses.

The shoreline was predominantly a cement retaining wall which was approximately 1.5 to 2m from the height of the water, there was a small 6-8m section where the wall was not present and boulders were. These boulders were approximately 0.5m from the height of the water. The occasional tree was present along the retaining wall (Manitoba maple, white ash, and black walnut). Within the Mississippi River the substrate was very flat and was composed mainly of bedrock, with the occasional boulder and cobble, some areas with shallow fines were noted. Aquatic vegetation was very limited, often restricted to algae on top of the bedrock, there was the occasional patch of tapegrass and pondweed. Water depth along the retaining wall was 0.5-0.75m deep, gradually dropping to 1m approximately 2-3m out.



Photo 1: Looking Upstream from Downstream Edge of Project- Note gravel access (October 3, 2022).



Photo 2: Laydown Yard (October 3, 2022).

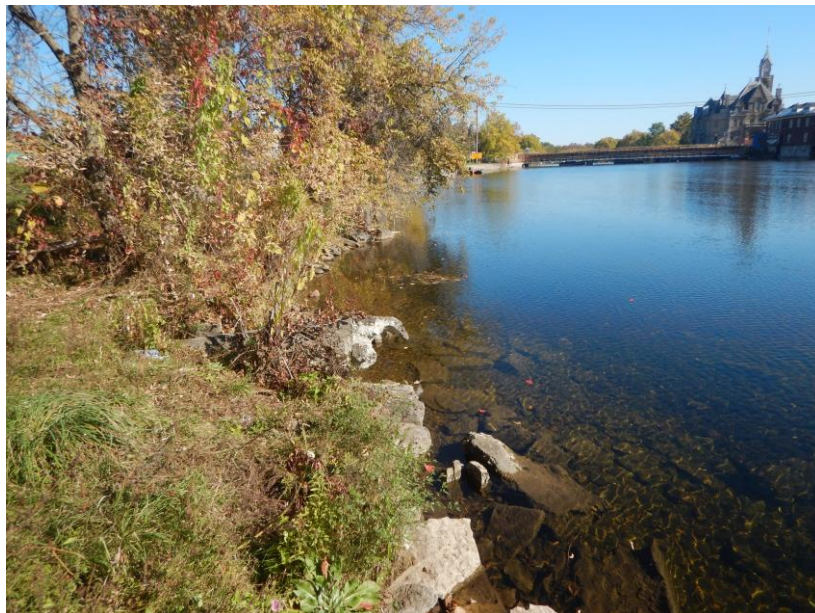


Photo 3: Boulder Retaining Wall (October 3, 2022).



Photo 4: Looking East from the Western Edge (October 3, 2022).



Photo 5: Concrete Pad (October 3, 2022).

4.0. Potential Aquatic Species at Risk

The following aquatic species at risk were identified by McIntosh Perry Consulting Engineers Ltd as potentially occurring within the subject lands and adjacent lands:

- Eastern Musk Turtle (Special Concern)
- Snapping Turtle (Special Concern)
- Blanding's Turtle (Threatened)
- Northern Map Turtle (Special Concern)
- American Eel (Endangered)

4.1. Fish

Habitat for the American Eel may exist directly adjacent to the study area in the form of the Mississippi River. This species is listed as 'endangered' under the ESA; thus, individuals and their habitat are afforded protection. See impact discussion in section 5.0. No in-water works are currently being proposed.

No direct impacts on American eels are anticipated, indirect impacts on these species as a result of the proposed development can be mitigated provided the mitigation measures in this report and the ones present in McIntosh Perry Consulting Engineers Ltd report are implemented.

4.2. Turtles and Reptiles

Snapping turtles, Eastern musk turtle and Northern map turtle are all designated as special concern under the Ontario Endangered Species Act (ESA). The habitat of species of special concern is not regulated under the Ontario ESA. Blanding's turtles have been designated as threatened and their habitat is provincially regulated.

Blanding's turtles are often observed within clear water eutrophic wetlands and have a strong site fidelity but may use several connected water bodies during the active season. Blanding's turtles were identified in the EIS as potentially occurring within the subject lands. This addendum will recognize the Mississippi River to contain suitable Blanding's Turtle habitat (no study was conducted).

The Ontario Ministry of Natural Resources developed the general habitat description for the Blanding's Turtle (habitat provincially regulated), dividing habitat into three categories:

- **Category 1:** the nest and the area within 30 m of overwintering sites and the area within 30 m. Suitable nesting habitat occurs in sun-exposed areas with low vegetation cover and loose soils. They may overwinter in permanent or temporary waterbodies (young are also known to hibernate terrestrially), with the reported water depth varying from 0 to >100 cm and often show a high site fidelity. No evidence of this habitat was noted or is present within the Mississippi River at this

location, and so Category 1 habitat is not considered to be present on or adjacent to the subject lands.

- **Category 2:** the wetland complex that extends up to 2 km from an occurrence, and the area within 30 m around those suitable wetlands or waterbodies. As noted, Blanding's turtle was documented within the EIS. For the purpose of this report, the open water present within the Mississippi River and the 30m surrounding this area will be considered to be Category 2 habitat. Although the 30m area will be considered Category 2 habitat it is very likely the retaining wall present makes turtle access to the subject lands fairly impossible.
- **Category 3:** the area between 30m and 250m around suitable wetlands or waterbodies identified in Category 2, within 2 km of an occurrence. As demonstrated in figure 2, the subject lands are within 250m of the Category 2 habitat, therefore these lands will be considered Category 3 habitat. Category 3 habitat provides essential movement corridors of up to 500m between wetlands, a function which is essential for carrying out life processes associated with the Category 1 and 2 habitats. Again although this area will be considered Category 3 habitat it is very unlikely that turtles are utilising the area as the retaining wall present makes turtle access to the subject lands fairly impossible.

The subject lands occur within Category 2 and 3 Blanding's turtle habitat. Construction and clearing activities are within of the Category 2 and 3 Blanding's turtle habitat present within the subject lands.

Although turtle access is limited and unlikely at this location it is still recommended that an IGF and AAF form be completed for Blanding's Turtle and submitted to MECP for review to determine if additional approvals may be required.

No direct impacts on turtles are anticipated, indirect impacts on these species as a result of the proposed can be mitigated provided the mitigation measures present within the EIS are implemented.

4.3. Aquatic Species at Risk Summary

In summary, based on the habitat present within the subject lands, no Aquatic Species at Risk are anticipated to be present. The most likely Aquatic Species at Risk would Blanding's Turtle. Any potential indirect impacts on any aquatic species as a result of the proposed development can be mitigated provided the mitigation measures in this report are properly implemented.

FIGURE 2: Blanding Turtle Habitat Categorization



5.0. Impacts

As mentioned previously in the report, the site is a heavily disturbed meadow. The proponent is requesting to create a path and build a portion of the pavilion within 30m from the watercourse and landscape the area immediately adjacent to the retaining wall and watercourse. The pavilion is 25m away from the watercourse while the path is within 14m.

As mentioned in the EIS the proposed pathway, landscaping and grading may result in changes to water retention, species composition, wildlife habitat, and surface water contamination. But as demonstrated below these changes are expected to be on the beneficial side of things.

The existing conditions have been described as Mississippi River, bordered by retaining wall, gravel access road (to be removed) followed by heavily disturbed meadow. The current conditions are not natural and if anything contribute to sediment and pollution loading of the river (although very minutely). Infiltration is limited due to hardened surfaces (laydown yard, asphalt and cement pads), lack of continuous vegetation, and soil compaction. The present conditions of this community would not be altered and ecological functionality would not be compromised considering the impact of the proposed developments. In fact, the shoreline conditions will be greatly improved by the prescribed works. The addition of trees along the shoreline will aid in infiltration, soil stability and reducing the amount of sediment/contamination entering the watercourse, and additionally the trees provide shade to the river which provides cover and aid in thermoregulating the river. Soils preparation will de-compact the compacted soil aiding with infiltration.

Once revegetation is completed it will aid with reducing the amount of sediment/contaminates entering the Mississippi River, and increase the rate of infiltration. As mentioned in the EIS:

- Creation of a buffer zone within the riparian area using native plant species allows for soil stabilization which assists in reducing sediment particle detachment and will prevent overall erosion of the shoreline into the Mississippi River;
- Vegetated buffer zones within riparian areas act as a natural filter for sediments and pollutants (i.e., fertilizers and pesticides) introduced by stormwater/melt runoff before entering the watercourse; and
- Canopy of vegetated buffer zones in riparian areas create shaded areas which provide cooled areas within the watercourse which benefit various aquatic species and vegetation reduces the risk of localized flooding.

All prescribed works will improve the current conditions of the site, and shoreline, which will aid in improving water quality. The area of proposed works is relatively flat and any potential runoff would be maintained by mitigation measures outlined in this report and the EIS.

The pathway and the pavilions are approximately 14m and 25m away from the shoreline and remains the only features to be constructed within 30m of the river. The pathways and pavilions construction will not have any significant impact on anything given the state of the current site.

No impacts to fish, fish habitat, aquatic vegetation (which was very limited) or the benthic community are anticipated as no in-water works are currently being proposed, and as mentioned above, the current conditions are anticipated to be improved on, which will aid in protecting aquatic life.

No negative impacts are anticipated by the proposed landscaping plan and pathway. Indirect impacts as a result of the proposed works can be mitigated provided the mitigation measures in this report are implemented.

6.0. Recommendations and Conclusion

This reports recommendations are intended as an addendum to the original EIS and aids in mitigating potential negative impacts due to the proposed development and along with the original EIS should be implemented through a development agreement between the owners and the municipality in order to control development of the site. Properly implemented controls within this agreement are deemed sufficient to mitigate the potential impacts of the proposed development.

- 1- All works will be limited to the shore, no in-water works are to be conducted
- 2- A request for review (RFR) will no longer be need to be submitted to the Department of Fisheries and Oceans Canada (DFO), no in-water works are to occur.
- 3- As in-water work are no longer required an IGF and AAF (MECP) form is no longer required for American Eel.
- 4- Although turtle access is limited and unlikely at this location it is still recommended that an IGF and AAF form be completed for Blanding's Turtle and submitted to MECP for review to determine if additional approvals may be required. Mitigation measures present within the EIS are sufficient to mitigate any negative effect on turtles.
- 5- Due to the elimination of all-in-water work, providing a more in depth impact analysis to fish, fish habitat, aquatic vegetation and benthic community then already presented in the EIS and this report is unnecessary, as mitigation measures present in the EIS are sufficient to address all potential impacts.

To conclude this addendum, it is the professional opinion of the author that with proper implementation and maintenance of the mitigation measures (see this report and the EIS), the proposed development will not negatively impact the Mississippi River, or any habitat of aquatic species at risk. Furthermore the prescribed works are intended and will most likely improve the quality of the near shore habitat.

Thank you for the opportunity to work with you. If you have any questions or comments please do not hesitate to contact our office.



Shaun St.Pierre, B.Sc. Biology

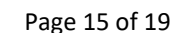
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20373 Bethune Street
South Lancaster, On
K0C 2C0
613.571.8883
shaun@bchenviro.ca

APPENDIX A: PLANS



APPENDIX B: MVCA COMMENTS



22-CP-DPA

July 13, 2022

Niki Dwyer
Planning Department
Town of Carleton Place
175 Bridge Street
Carleton Place, ON K7C 2V8

Re: Development Permit Application (DP3-02-2022)
28 High St., Town of Carleton Place
Krumac Holdings Inc.

Mississippi Valley Conservation Authority (MVCA) has been circulated the above noted application to conduct a review in terms of MVCA Regulations and Provincial Planning Policy for Natural Heritage and Natural Hazard issues. Specifically, the purpose of this review is to assess potential impacts of the proposed development on known natural heritage features on and adjacent to the subject property. These features could include wetlands, wildlife habitat and areas of natural and scientific interest. This review also includes an evaluation of the subject property for natural hazards such as unstable slopes and areas prone to flooding and erosion.

PROPOSAL

According to the information provided, the purpose of the subject application is to *recognize the following uses on the property:*

- 2 residential apartment buildings (5 storeys and 7 storeys) containing 213 residential units;
- 1 commercial building (2 storeys) with a total commercial gross floor area of 970m²
- 330 parking spaces (200 underground and 130 surface spaces);
- Greenspace along the waterfront including a boardwalk, floating dock, and pavilion

The proposal is compliant with all provisions of the Development Permit By-law with the exception of the minimum provided parking spaces, to which a variation of 63 spaces is requested.

PROPERTY CHARACTERISTICS

According to the information provided with the application, the subject property has frontage on the Mississippi River. According to a review of MVCA's Regulation Mapping, the 1:100-year flood plain of the river occupies a portion of the SW corner of the subject property.

REVIEW**Natural Heritage Features**

We understand that the preparation of an Environmental Impact Statement (EIS) is underway. MVCA has not yet received this EIA for review. Therefore, the following preliminary comments are based on a review of the Planning Rationale (May 2022), Waterfront Concept Plan (Jan 2022), and Landscape Plan (Jan 2022).

As per the Planning Rationale, *A primary focus of the development is its connectivity with the Mississippi River waterfront.* As per the plans provided, the following structures/works are proposed in relation to the waterfront:

- **Shoreline Boardwalk** along the entire river frontage (estimated to be roughly 145m). We understand that part of the shoreline is already "hardened" while the remainder is natural.
 - Details are required with respect to design, materials, dimensions, and location relative to the shoreline;
 - A permit is required from MVCA. Additional details are required to assess conformity;
 - The Ministry of Natural Resources and Forestry, as well as the Department of Fisheries and Oceans Canada, should be contacted to assess approval requirements.
- **Riverfront Pavilion and Boat Docking**
 - Details are required with respect to design, materials, and dimensions;
 - A permit is required from MVCA. Additional details are required to assess conformity;
 - The Ministry of Natural Resources and Forestry, as well as the Department of Fisheries and Oceans Canada, should be contacted to assess approval requirements.
- **Upland Patio and Pavilion**
 - Part of the upland patio and pavilion are within the Regulation Limit (i.e. within 15 m) of the flood plain. Therefore, a permit is required from MVCA. The proposal is compliant with MVCA Regulation Policies.

- **System of 2m wide pathways**

- The pathway system is largely within MVCA's Regulation Limit and partially within the flood plain. Therefore, a permit is required from MVCA for the pathways;
- Particularly in the flood plain, there should be no change in grade proposed for the pathway (i.e. extract native material and replace with new material to the pre-existing grade);
- Material should be permeable while also being able to withstand movement during a flood (to the best extent possible without having to "harden" it)

General comments for consideration:

- From an advisory perspective and the preservation of the near shore area, the proposed degree of shoreline alteration, particularly for the boardwalk, riverfront pavilion and boat docking, is considered extensive. Therefore, the EIS should clearly assess potential impacts to the riparian area and fish habitat given the following:
 - The Mississippi River is fish habitat;
 - Studies have shown that up to 80% of all wildlife is dependent upon riparian zones (near shore area);
 - It is important to preserve the near shore area with native plant species, as a buffer to potential impacts; and
 - Buffers planted along waterways can help to stabilize soils, thereby mitigating erosion; filter sediment and other pollutants (such as fertilizers and pesticides) from runoff before it enters the water; provide shading and cool the water; reduce the risk of flooding. The effectiveness of the proposed trees, as shown on the Landscape plan adjacent to the boardwalk should be discussed.
- Further review will be provided once we receive the EIS.

Natural Hazards

- We note that all proposed buildings are located outside of MVCA Regulation Limits associated with the 1:100-year flood plain;
- We assume no change in grade is proposed in the flood plain, as part of the subject proposal. However, if any change in grade is proposed, details are required in addition to a site-specific topographic survey to precisely determine the location of the flood line. Conformity to MVCA Regulation Policies will then be assessed.
- High flows can be anticipated along the subject shoreline due to the flood plain and the proximity of the dam and bridge. Therefore, impacts to the stability of the pathway, boardwalk, and riverfront pavilion and docking must be discussed and considered. Considerations from a safety perspective are also recommended (outside the scope of MVCA's review).

Stormwater Management

As per the Planning Rationale, *Stormwater is proposed to be collected privately and directed from the site to the Mississippi River.*

MVCA has not been requested to review the stormwater management plan for the subject property. However, due to the proximity to the Mississippi River and proposed river outlet, we note the following:

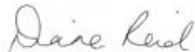
- Quality control should be enhanced (80% TSS removal);
- A permit is required from MVCA for the stormwater outlet to the river.

RECOMMENDATIONS

All proposed residential and commercial buildings are located beyond the minimum waterbody setback requirements and outside of MVCA Regulation Limits. Therefore, MVCA's review of the subject application is largely focused on the Waterfront Concept Plan.

- Please refer to the *Natural Heritage Features* section above for feedback regarding the EIS and proposed shoreline work.
- Please refer to the *Natural Hazards* section above for recommendations concerning the flood plain and the proposed waterfront concept plan.
- Additional comments will be provided upon receipt of the EIS.

Yours truly,



Diane Reid
Environmental Planner