

March 26, 2019

File: 4561-3-1463

Ms. Petrina Ferris  
Anglican Parish of Shediac  
3400 Route 134  
Shediac Cape, NB  
E4P 3J2

Dear Ms. Ferris:

**RE: (EIA) Registration #4561-3-1463: Shediac Camping**

The Technical Review Committee (TRC) has reviewed the additional information that was submitted to the Department of Environment and Local Government (DELG) on February 1, 2019. Upon completion of its review, the following questions/issues were identified that must be addressed prior to a decision on this project. Questions #1 to #96 were forwarded to you on June 27, 2017 and January 8, 2018. Please be advised that some members of the TRC were not able to provide comments at this time, therefore additional questions and concerns will be forwarded to you upon receipt.

97. Since there is a recognized watercourse on Geo NB Map Viewer in the area of proposed activities, Fisheries and Oceans Canada requests the following additional information: A detailed description of the fish and fish habitat found in the area of proposed activities, with emphasis on the months of April to June. The watercourse could be ephemeral (flowing water during a short duration) and may be fish habitat or areas, on which fish depend directly or indirectly to carry out their life processes in the spring season (e.g. rainbow smelt).
98. Follow up to Q#2: DELG looks forward to receiving the historical background and ethnohistoric research.
99. Follow up to Q#5: DELG looks forward to the communication plan and stresses that this must be submitted as soon as possible.
100. Follow up to Q#15: In addition to the original comment, the proponent should consider using crushed rock to build campsite pads located above 4.3 meters elevation. This would allow stormwater to more easily percolate into the ground, reduce the amount of overland flow, and reduce erosion and flood risk to installations within the campground. Can the proponent confirm that the campground, associated development and installations would provide a Zero-Net runoff regime where all stormwater is contained within the confines of the project and would not impact adjoining lands, infrastructure, properties, installations, etc.?
101. Follow up to Q#17: DELG has recently updated the report on *Sea-Level Rise and Flooding Estimates* for NB Coastal Sections. A copy of the updated Sea Level Rise report is attached. The proponent is advised to use the updated report in their Detailed Engineering Design Plans.

102. DELG is currently developing a coastal flood risk mapping visualization tool using the new 2017 Sea-Level Rise (SLR) and Flooding Estimates for NB Coastal Sections. The proponent is advised to contact DELG for the most recent maps on Coastal Flood Risk areas of NB to use the information for flood modelling to show the project area that will be impacted by SLR in their Detailed Engineering Design Plans.
103. Follow up to question #30: As per the *Clean Environment Act*, any site distributing above 50 cubic meters per day of drinking water to users must obtain an *Approval to Operate* from DELG. There are the two options listed below:
- The proponent would apply for an *Approval to Operate* for a Drinking Water Distribution System and comply with all conditions set in the *Approval to Operate*. OR
  - The proponent must have a written and signed agreement with the Town of Shediac to have the Town's operators maintain the distribution system in the park.
104. Follow up to question Q#49: it is stated that, *The campground layout will be designed to take into consideration natural features such as pockets of wetland areas that may be present. These areas will be maintained as green spaces.* Could the proponent identify on a map which field-delineated wetlands will be maintained as green spaces and which ones will be impacted? Could a map be provided with labels/identifiers for each wetland for reference purposes?

#### Wetland Functional Assessment

105. One WESP-AC assessment for all the field-delineated wetlands present on the properties was completed. Could the proponent clarify the results of the WESP-AC results for each field delineated wetland?
106. Please explain the avoidance and minimization measures that will be taken for each of the field-identified wetlands that would be impacted during project implementation? How will any impacts to the functions of these wetland(s) be mitigated?
107. According to the preliminary stormwater drainage plan the proposal includes perimeter ditches along the east and west side of the property and running to the northern limits of the property into a dissipation swale. Questions regarding this feature are as follows:
- Drainage will be directed into the swale, is it anticipated that there will be any increase or decrease in the quantity of water that will be entering the forested wetland and/or coastal marsh?
  - Does the proponent anticipate an increase in the water table in the wetland? If so, how would this change the existing vegetative communities?
  - How many outlets are anticipated to release from the swale and in to the wetland? What approximate distance would separate the outlets along the swale?
  - How will the proponent prevent scouring and sedimentation at the outlets releasing in to the wetland? Are the outlets likely to form or erode channels in to the wetland?
108. Could the proponent please indicate how watercourses on site would be impacted by the proposed Preliminary Stormwater Management Concept (PSMC)?

The following questions (#109 to 117) pertain to the Preliminary Stormwater Management Concept (PSMC).

109. There are features shown on Figure 1 on the last page of the PSMC which are not labeled. It is not clear what these features are. In addition, the legend is difficult to read. Please provide a plan that clearly identifies features on the diagram, and those identified in the legend, especially the two municipal storm outfalls. Can the legend be made more legible?
110. In the PSMC document (February 22, 2019), it is indicated that the design is based on the assumption that the two outfalls belonging to the Town of Shediac will remain unchanged. Would the drainage plan be modified if this is not the case?
111. In the PSMC document (February 22, 2019), it is indicated that the flow being conveyed by the two municipal outfalls is not known. When will this be known? The stormwater management plan can't be completed without this information, since the perimeter ditches are meant to convey this flow.
112. In the PSMC document (February 22, 2019), the use of check dams is mentioned. Please provide more details as to the intended function of these check dams. Check dams are typically considered and deployed as a temporary solution, not a permanent structure. Check dams also require regular maintenance – would a maintenance plan be implemented? Please provide details.
113. In the PSMC document (February 22, 2019), the use of French drains is indicated. Do these have the capacity to move flows from extreme events? What if the ground is frozen?
114. In the PSMC document (February 22, 2019), under “Wetland detention/retention”, it is noted that the groundwater table is shallow. Would this impact the drains (0.5m deep) or the ditches (1.0m deep)? With the anticipated sea level rise due to climate change, will this impact the water table, and subsequently the drainage plan?
115. In the PSMC document (February 22, 2019), under “Wetland detention/retention”, it is noted that the grades are very flat. How flat? Is there enough slope to move water?
116. Please describe the anticipated final grade for the campground. Would fill material be added to achieve this grade?
117. Follow up to question #9: Based on the PSMC document (February 22, 2019), it is understood that no retention/detention ponds will be constructed on the site. This would imply increased runoff and pollutants to the wetland. What will the impacts of this be, and how is the proponent planning on mitigating these impacts?
118. Follow up to question #8 – In this and several responses, the proponent states that a Detailed Engineering Design Plan will be submitted at a later date (i.e. post EIA approval). Please be advised that prior to completion of the EIA review, a detailed conceptual plan must be submitted for review. Please note that should the project receive EIA approval, the Detailed

Engineering Design Plan must be reviewed and approved prior to the commencement of construction.

119. Follow up to question #83: While it is likely that a campground will have less environmental impacts than something such as a subdivision, this is not what is being referred to in the classification system described in section 5.3 of the original proponent submission. Based on the definitions of “minor” and “medium” impacts, and given the projected life-span of the project (50-100 years), minor and medium impacts should be further analyzed along with potential “major” impacts.

120. In the Conceptual Site Plan dated October 15, 2018, why is the 4.2m contour line indicated, when the 4.3m elevation is referenced in the response document?

#### Air Quality Assessment (AQA)

##### **Construction**

The AQA concludes that construction activities will impact air quality such that the assessment criteria may be exceeded. However, considering the inherent limitations of the modelling, the relatively brief duration of the construction portion of the undertaking; and the range of mitigative options available to suppress fugitive emissions from construction, DELG agrees that mitigation of the construction-related air quality impacts is achievable, as proposed (conclusion #2, page 11 of the AQA).

121. Mitigation measures that will be implemented must be specified.

##### **Operation**

The AQA concludes that the ongoing operation of the facility (post construction) will impact air quality such that the assessment criteria will be exceeded, and by very large margins (10x to 20x). Further, it describes an area of impact that includes many homes and public areas.

In addition, NB has a regulated ambient air quality standard (under *Regulation 91-133*) for Total Suspended Particulate (TSP). TSP was not included as a contaminant of concern, but PM<sub>10</sub> and PM<sub>2.5</sub> are both subcomponents of TSP. Where the AQA modelling predicts PM<sub>10</sub> or PM<sub>2.5</sub> concentrations exceed the numeric value for NB’s regulated TSP limit, the TSP limit would also, by definition, be exceeded (i.e., if a subcomponent of TSP exceeds the standard, then TSP must also exceed). Whereas NB’s TSP limit is 120 ug/m<sup>3</sup> (24-hour average), the modelling suggests that the operation of the facility will result in values nearly 10x higher than that. As such, the AQA is suggesting that the facility will not only exceed non-binding federal standards, but also the regulated standard for TSP in NB. It is not clear that these impacts can be mitigated through the options presented in the AQA, and as previously noted, the proponent has not committed to any mitigation.

122. The proponent must revise their proposal to include air quality mitigation components (e.g., reducing the number of sites, reducing or eliminating firepits, etc). Once complete, the revised proposal should be modelled again to demonstrate the expected effectiveness of the proposed mitigation relative to the CAAQS, AAQC, and NB’s regulated TSP standard.

Several technical issues were also noted in the AQA (see below):

123. As referenced in item #41 of the TRC’s questions/comments to the proponent, portable stoves and barbeques (propane, kerosene, etc.) are a potential source of air pollutant emissions

from campgrounds, and it was recommended that these sources be included in emissions estimates. This has not been provided. Also, emissions from these sources were not included in the AQA.

124. Although DELG agrees with the use of the CAAQS and the AAQC as the basis for the assessment thresholds chosen for the AQA, there is a technical issue with how they have been used. The “averaging time” (24-hour average) for the threshold is not directly comparable to the PM<sub>2.5</sub> standards that are used as their basis. Both the CAAQS and the AAQC rely on the calculation of a more complex statistic (involving 98<sup>th</sup> percentile values) for PM<sub>2.5</sub>. Using a 24-hour average as an approximation of the CAAQS or AAQC statistics is not unreasonable. However, this discrepancy should be explained in the AQA and the impact on the interpretation of the results explained.
125. The AQA does not describe the assumptions used with respect to pre-existing ambient concentrations of the modelled contaminants. It appears that the model assumed normal background concentrations of 0, which would not be appropriate. This should be clarified. Please note that there is publicly available data for various locations in New Brunswick that can be accessed for this purpose. PM<sub>2.5</sub> data from the Saint Andrews, NB station would be a reasonable surrogate.
126. The AQA describes “worst case” and “typical case” scenarios with respect to the operation of the campground, but it does not provide information about the atmospheric/meteorological conditions being modelled. For instance, in table 3-1 where it indicates that the PM<sub>10</sub> threshold will be exceeded in the “typical” and “worst case” scenarios, “typical” and “worst case” refer only to the operation of the campground (the number of campfires burning). What is the assumed weather condition in each case? Does the model suggest that the threshold exceedances would be very common (occurring regardless of weather), or very rare (occurring only when specific weather conditions are met)? How the model treats/considers meteorology in this regard should be explained.
127. It is not clear if the modelling assumes multiple emissions points, a single emissions point, or the entire property is one homogeneous emissions point. This should be clarified for the following reasons:
  - a) Offsite impacts may be much higher than the modelled results if no consideration was given to emission points very close to the property boundary (because proximity has a large effect on contaminant concentrations achieved).
  - b) Most of the modelled area falls within the project boundaries. Thus, the model does not include very much of the neighbouring community, which limits our ability to understand the potential impacts to areas further away. A larger radius should be considered (≥2 kilometers).
128. The AQA assesses the impacts from only PM<sub>2.5</sub> and PM<sub>10</sub>, which is consistent with the TRC’s recommendations (item 41 c). However, now understanding the magnitude of predicted emissions, consideration should be given to other contaminants that are associated with the open-burning of wood: benzene, formaldehyde, acrolein, and polycyclic aromatic hydrocarbons.
129. Minor layout errors were noted on pages 3 and 7. There are three locations on these pages where automated/inserted reference points did not update correctly, and instead display

“Error!”. However, this does not appear to materially impact the content or conclusions of the document.

130. Traffic Impact Study Currently, there is a center lane designated for two-way left turns on Main Street for the majority of Main Street except at the lighted intersections. Can clarification be provided for the following statement “an eastbound left-turn lane on Main Street for traffic turning into the site driveway is expected to be warranted”. Perhaps a diagram that clearly shows what this would look like could be provided.
131. The Conceptual Site Plan – HH is labelled as an existing walking trail - This trail has been decommissioned and it no longer has access or exit to Parlee Beach Road.
132. Although details associated with decommissioning the campground are currently unknown, if the campground is constructed, at the time of decommissioning, proposed plans for decommissioning must be submitted to DELG for review and approval.
133. Follow up to Q#71: Emergency management measures must include how specific risks/hazards such as a fire in the campground would be handled. For example, where would firefighting equipment be kept/accessed; how would campers and staff be evacuated during busy times, etc.
134. Please specify sources of noise and mitigation measures that would be used while the campground is in operation including the criteria to be used to identify noise concerns and processes that will be in place to monitor noise impacts.

For your information, should the project be permitted to proceed, there would be a requirement to develop a detailed Environmental Management Plan (EMP). The plan would have to be submitted to DELG for review and approval. The EMP would contain mitigation measures, contingency plans, monitoring plans, and environmental protection plans.

If you have any questions regarding the above information, please feel free to contact me at (506) 444-5382. TRC comments that were not available at this time will be forwarded to you as soon as possible.

Sincerely,

Sheila Goucher  
Project Manager

Attachment

C. Technical Review Committee