Environment and Parks

Operations Division Suite #1, 250 Diamond Avenue PO Box 4240 (T7X 3B4) Spruce Grove, Alberta T7X 4C7 Telephone: 780-960-8600

www.aep.alberta.ca

December 20, 2019

File No.: 006-1137 Approval No.: 1137-02-03

Rudolf Liebenberg <u>rudolf@epms.ca</u> Chief Administrative Officer Summer Village of Sandy Beach RR1 Site 1 Comp 63 Onoway AB T0E 1V0

Dear Mr. Liebenberg:

RE: Letter of Authorization No. 1137-02-03 Project: One-time Treated Wastewater Discharge of <u>Summer Village of Sandy Beach lagoon on Forested Land at 02-056-01-W5M</u>

A Letter of Authorization was issued on July 16, 2019 for a one-time discharge of Sandy Beach Lagoon wastewater until September 2019. Due to the wet conditions that discharge was implemented to release only one tenth of the proposed discharge volume. The July 16, 2019 Letter is hereby cancelled and this new letter is issued to allow for a one-time discharge of the Sandy Beach lagoon wastewater between June 1, 2020 and September 30, 2020.

This letter enables the Summer Village of Sandy Beach to implement a one-time discharge of treated wastewater from its wastewater lagoon for fixing the lagoon structure. The works shall be conducted as per the plan received on February 20, 2019 and shall follow the conditions of the Appendix attached to this letter.

Please note that follow-up soil and groundwater sampling is required by this letter. If sampling results show negative impacts on the discharge area or downstream of the discharge area, Summer Village of Sandy Beach may be required to take actions for reversing the impacts.

According to Environment and Park's Standards, a wastewater lagoon facility is required to be operated by maintaining a minimum 0.6 metre of freeboard between the high water level and the top of berm. Please note that not being able to keep the required minimum freeboard shows under-capacity issue and facility owner will be required to expand or upgrade the lagoon facility.

If you have any questions regarding this Letter of Authorization, please contact Yaming He at 780-960-8646.

Yours truly,

Muhammad Aziz, P. Eng. Designated Director under the Act

cc: Yaming He, AEP Chad Newton, Morrison Hershfield Ltd., <u>cnewton@morrisonhershfield.com</u> Regulatory Approvals Centre, Tanya Berube

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APPENDIX

One-time discharge of treated wastewater at the Summer Village of Sandy Beach lagoon shall occur only if all of the following conditions are satisfied:

- 1. This one-time discharge of treated wastewater shall be done between June 1, 2020 and September 30, 2020.
- 2. Treated wastewater released from the lagoon shall be controlled so that the flow reaches the Summer Village owned forested land within 02-056-01 W5M as described in the application.
- 3. Treated wastewater shall be released only from Cell #3 of the Summer Village of Sandy Beach lagoon.
- 4. Treated wastewater released from the lagoon shall not flow to any of the surrounding lakes.
- 5. Boundary of the discharge area should meet the following setback requirements:
 - (a) At least 15 metres between the boundary of the discharge area and all adjacent properties;
 - (b) At least 60 metres between the boundary of the discharge area and all occupied dwellings or water wells;
 - (c) At least 30 metres between the boundary of the discharge area and all watercourse, public roads and railway;
- 6. Field survey shall be implemented to make sure no groundwater well is located within the discharge area or within the required setback area.
- 7. Landowners adjacent to the discharge area have been notified that treated wastewater effluent is being discharged to the forested land area.
- 8. Signs shall be posted around the discharge area indicating that treated wastewater effluent is being discharged over the forested land.
- 9. There shall be no direct or potential cross-connection between the treated wastewater release system and any waterworks system.
- 10. Discharge must not occur if temperatures drop below freezing, or if ground surface freezes, or if wind speeds are in excess of 30 km/hr, or during periods of precipitation.
- 11. Ensure effective uniform application of the wastewater to prevent any surface runoff or prolonged surface ponding to occur during application.
- 12. Follow up soil samples shall be taken:
 - (a) At the same ten (10) sampling spots as those described in the 2019 application;
 - (b) Once in October 2020 and once in August 2021 and;

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APPENDIX

- (c) Sampled for detailed salinity package including at least the following parameters:
 - i) pH, Electrical Conductivity (EC) and Sodium Adsorption Ratio (SAR) by saturated paste extract;
 - ii) soluble Sodium, Calcium, Magnesium, Potassium, Sulphate, Chloride and Bicarbonate;
 - iii) Percentage of Saturation; and
 - iv) Theoretical Gypsum Requirement (TGR).
- 13. Follow up groundwater samples shall be taken:
 - (a) At the same downstream residential well(s) as that described in the 2019 application;
 - (b) Once in October 2020 and once in August 2021; and
 - (c) Sampled for parameters listed in the Routine Analysis section on Page 10 of the Guide to Groundwater Authorization.
- 14. Summer Village of Sandy Beach shall:
 - (a) prepare a report and provide it to the Director before December 31, 2020, which summarize the one-time discharge program and shall include the total volumes discharged, dates when the discharge starts and ends, soil and groundwater analytical test results as required in item 12 and 13 of this appendix for 2020 follow up testing and any problems in respect of the one-time treated wastewater discharge; and
 - (b) Provide to the Director before November 1, 2021, follow up soil and groundwater analytical test results as required in item 12 and 13 of this appendix for 2021 follow up testing.

December 20, 2019 Date Signed

Muhammad Aziz, P.Eng Designated Director under the Act