

February 25, 2021

Natural Resources Conservation Board

Attn: Laura Friend

Manager, Board Reviews

laura.friend@nrcb.ca



Re: Springbank Off-Stream Reservoir Project NRCB Hearing

Laura,

Since the prehearing on December 2, 2020 Calalta Amusements Ltd./ Calalta Waterworks Ltd. has had further dialogue with Alberta Transportation (letter January 20, 2021; response February 19, 2021, see appendix) and phone calls on January 29, 2021 and February 19, 2021. We appreciate the continued correspondence. Regarding the NRCB hearing concerning the Springbank Off-Stream Reservoir Project (SR1), below are Calalta Amusements Ltd. and Calalta Waterworks Ltd. objections, with the requested resolutions by NRCB:

Air Quality/Ambient Air (Atmospheric Environment):

Background: Calalta Amusements Ltd. (Calaway Park) is Western Canada's Largest Outdoor Family Amusement Park and one of Alberta's Top Family Tourism Attractions. Calaway operates annually from May long weekend to Thanksgiving long weekend, welcoming hundreds of thousands of Guests and employing over 600 Team Members seasonally in an outdoor environment.

Objection: SR1 will take 3 summer seasons to construct. Calaway will experience consequences and negative impacts of construction dust and/or ambient air (guest experience, mechanical/electrical and computerized equipment). The sensitivity extends beyond the construction of the damn, for the foreseeable future. See reference material in appendix: Federal Government Environmental Study.

Resolution: NRCB Board implementing a condition of air quality meter(s) that measure dust and ambient air in which either Calalta/Calaway Park has access to, or that are reported to, on a weekly basis over the summer season and on a monthly basis over the winter period. If the readings of the meter(s) exceed acceptable levels the government will mediate the situation with solution that is agreed on by the affected parties.

Surface Water/Sediment back into the Elbow River:

Background: Calalta Waterworks Ltd. has provided safe potable drinking water to the Springbank Community (Springbank Elementary/Middle/High School, Edge School, Springbank Park for All Seasons, Heritage Club, Commercial Court and soon to be developments of Bingham Crossing, Pradera Springs and Rivers Edge as well as Calaway Park) for the last 40 years

Objection: A significant sediment dump can cause damage to both the Calalta intake system and the newly commissioned high technology ultra-membrane filtration plant. See reference material in Appendix 2.

Resolution:

1. NRCB Board implementing a condition of metering mechanisms to monitor the river, to ensure the sediment residue level does not exceed a reasonable amount during construction (amount to be determined)
2. Metering mechanisms implemented to monitor the river, that measure sediment when damn is used and when water is released back into the river, not to exceed 150 m³ ppm

3. A third party will access any damages caused by the SR1 construction and/or implementation of the damn. Any damages will be the responsibility of Alberta Transportation/Alberta Environment. (third party chosen by Alberta Transportation, Alberta Environment and Calalta Waterworks Ltd.)
4. A condition that Alberta Transportation/Alberta Environment will provide emergency potable water to all Calalta water users on the system for any disruption of service caused by the construction or implementation of SR1.

Calalta Waterworks Ltd. Franchise Area:

Background: Calalta Waterworks Ltd. has operated and provided safe drinking potable water to the Springbank Community (Springbank Elementary/Middle/High School, Edge School, Springbank Park for All Seasons, Heritage Club, Commercial Court and soon to be developments of Bingham Crossing, Pradera Springs and Rivers Edge as well as Calaway Park) for the last 40 years. Calalta was forced to construct a 10inch waterline to facilitate future growth and to tie-on the community schools and Park for All Seasons. The infrastructure and operation costs have been borne by Calalta. In 2006, Alberta Environment requested all water treatment plants be upgraded, Calalta commissioned the upgraded high technology water treatment plant in 2015, with costs exceeding \$6,000,000 and was built for the next 100 years.

In 2009, Rocky View County engaged with Calalta Amusements/Waterworks to establish a water utility franchise agreement; considerable management time and legal costs were incurred in this process. In the Franchise negotiation Calalta Waterworks was given an exclusive area to provide potable water to. This franchise area was agreed to by the Alberta Utilities Commission, Alberta Environment, and Rocky View County.

Objection: The SR1 area sterilizes 14 quarter sections of this Franchise Area (map included in Appendix 3). Alberta Transportation compensated Rocky View County for lost tax revenue on 6,800 acres; this land was sterilized for future tax revenue. In comparison, Calalta Waterworks exclusive land sterilized by SR1 will be 2,240 acres (or 32%) of the county's 6,800 acres of tax revenue area lost. Calalta Waterworks has borne the cost of this utility for the past 40 years, serving the community of Springbank. SR1 directly eliminates this opportunity that has been worked hard on to achieve. Calalta is requesting compensation for this sterilized 14 quarter section lost revenue, to be determined.

Resolution: NRCB issues a condition that Alberta Transportation negotiates in good faith to compensate Calalta Amusements/Calalta Waterworks Ltd.

Sincerely,



Bob Williams
General Manager

c.c Gordon Dixon; President, Calalta Amusements Ltd.; Calaway Park; Calalta Waterworks Ltd.
c.c Dena Dixon; Vice President, Calalta Amusements Ltd.; Calaway Park; Calalta Waterworks Ltd.
c.c Paul Seo; Director of Finance, Calalta Amusements Ltd.; Calaway Park; Calalta Waterworks Ltd.

/sb

Appendices



Matthew Hebert, Executive
Director Transportation Policy
Branch

Main Floor, 4999 - 98
Avenue Edmonton AB T6B
2X3 Phone: (780) 554-6358

January 20, 2021

Bob Williams
General Manager
Calalta Amusements Ltd.
245033 Range Road 33
Calgary, Alberta
T3Z 2E9

Bob,

I am pleased to provide you with additional information about monitoring plans for air quality and water quality, as well as understanding the impact of the reservoir on the Elbow River channel downstream of the Springbank Off-stream Reservoir (SR1).

Monitoring Plans for Air and Water Quality

Alberta Transportation assessed the Project construction impacts to air quality as part of the Environmental Impact Assessment (EIA). Alberta Transportation has developed a draft Air Quality Management Plan which includes mitigation measures to help reduce the impact of construction activities on the surrounding community's air quality. The attached summarizes information found within the draft Air Quality Management Plan.

During operations, if a flood occurs that results in a substantial deposition of sediment within the reservoir, once water is released and sediment begins to dry, ambient monitoring may be deployed to monitor potential effects associated with windblown sediment. Whether it is necessary to employ monitoring will be determined in consultation with stakeholders, such as yourself, and regulatory agencies and will depend on the quantity, location and moisture of deposited sediment, time of year and whether mitigation to limit erosion has been applied. If required, monitoring at a location near the east Project Development Area (PDA) boundary would facilitate the timely application of additional mitigation measures for fugitive dust if excessive levels (of TSP or PM_{2.5}) are measured.

If there is interest, data from the proposed monitoring stations described in the Air Quality Management Plan can be made available to you to assist in your operations. Your feedback on these proposed locations and any suggestions that you may have regarding appropriate locations for air quality monitoring locations can be provided to us through Ron Kruhlak Q.C. at McLennan Ross LLP rkruhlak@mross.com.

In order to maintain communication, Alberta Transportation will appoint a Community Liaison (a representative from Alberta Transportation during construction and from Alberta Environment and Parks (AEP) during operations) who will serve as the point of contact with stakeholders such as yourselves. The Community Liaison will provide updates on Project construction activities including air quality information and will be available to answer questions and listen to concerns.

Surface Water

When SR1 is not in operation, it will have no effect on the water quality or quantity in the Elbow River. SR1 will only operate when flows in the Elbow River exceed $160 \text{ m}^3/\text{s}$, roughly equivalent to a 1 in 7-year flood event. This flow threshold has been exceeded 10 times in the last 110 years.

Should SR1 need to operate, it will divert highly turbid floodwater to the off-stream reservoir. While the floodwater is held in the reservoir, sediment present in the floodwater will settle out, thus reducing the amount of sediment downstream in the Elbow River. Consequently, this will reduce the sediment concentration in the water withdrawn by downstream water users during flood events. As the stored floodwater is released there will be some suspended sediment in the water that will be too fine to settle out during the retention period. There is also the potential to remobilize some fine sediment at the end of the drawdown period when the last of the water is drained.

Should SR1 need to operate, Calalta Waterworks could experience longer periods of slightly elevated suspended sediment concentration in the Elbow River as the stored floodwater release from the reservoir is managed, particularly at the end of the drawdown period. The amount of suspended fine sediment in the river water should be less than that which is experienced during the annual freshet (spring melt period). While the modeling of SR1 suggests that water released from the reservoir may have a quality that is defined as 'turbid', the concentrations of suspended sediment must be compared to those in an uncontrolled flood (i.e., without the Project), whereby water with a very high sediment load would be present in the river. As discussed on August 8, 2019, comparable sediment conditions were observed that spring for 2-3 weeks. It is our understanding that Calalta's wells did not experience supply issues and that turbidity was not an issue with the raw water supply at that time.

Water quality monitoring will be conducted in the Elbow River upstream of the SR1 diversion inlet and in the off-stream reservoir when the project has been initiated for a flood and prior to the release of water back to the Elbow River. Results of the water quality monitoring can be shared with Calalta to assist in your operations. Should Calalta's infrastructure or operation be negatively impacted by the operation of SR1, and such that it cannot meet the "Standards and Guidelines for Municipal Waterworks, Wastewater and Storm Drainage Systems", the Government of Alberta will provide the users who are serviced by Calalta with potable water hauled to either the point of distribution, or delivery, as selected by Calalta.

Please see the attached Table 1 for a summary of the water quality program.

Impact on the Elbow River channel downstream of SR1

SR1 reduces downstream flood risk and will reduce flood damage and erosion risk at the Calalta Waterworks wellsite. While SR1 allows the flows that maintain downstream channel processes to continue, it can remove up to $600 \text{ m}^3/\text{s}$ of water resulting from the large floods that cause rapid

change in the downstream channel. In 1932, 1995, 2005 and 2013, flood events caused significant change to the channel and damaged downstream infrastructure. Links to details of sediment transportation can be found in the attached.

Alberta Transportation understands that Calalta has groundwater wells that are hydraulically connected to the Elbow River. Given their position in the floodplain, these wells are currently susceptible to erosion and avulsion from floodwaters and damage from debris. SR1 would reduce the likelihood of major channel changes that could compromise Calalta's infrastructure or operations.

Franchise Area

Alberta Transportation has undertaken a preliminary review (relying on publicly available information) of the franchise area including those users which Calalta currently provides water and its current water licenses and volumes. Based on that information, the extent of this Project's impact on Calalta's future operations is uncertain. We would welcome an opportunity to review this issue further with you to ensure we have a complete understanding of this item.

We look forward to an opportunity of discussing all of these items with you as soon as it can reasonably be arranged.

Regards,



Matthew Hebert
Executive Director, Transportation
Policy Alberta Transportation

Attachment

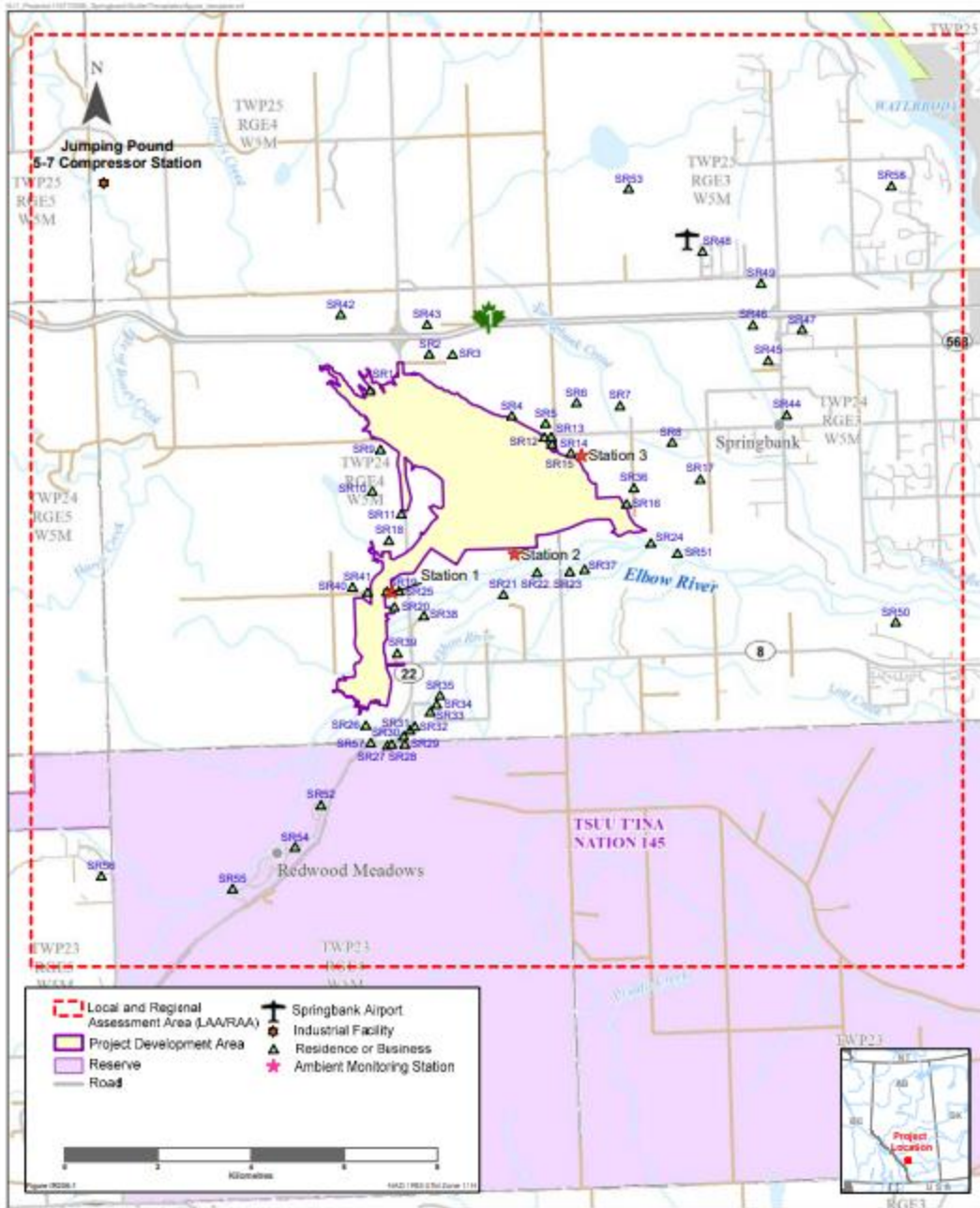
Attachment

Information from Air Quality Management Plan

Potential changes in ambient air quality during construction will be managed through mitigation measures including proper maintenance of equipment, suspension of dust generating construction activities during periods of excessive winds, application of water to haul roads, silt fences and other erosion control methods such as mulching to prevent soil loss from stockpiles due to wind erosion. Monitoring will also be implemented to determine the effectiveness and need for additional mitigation.

Alberta Transportation has proposed air quality monitoring for particulate matter at three locations near the Project to evaluate effectiveness of Project mitigation and one monitoring station in the Springbank community area to evaluate effects on air quality for residential, community and recreational receptors. The proposed locations of three particulate matter monitoring stations near the Project are identified in the following Figure from the Draft Air Quality Management Plan (Round 2 IAAC Package 4, Appendix 4-1) available at: <https://www.alberta.ca/assets/documents/trans-springbank-reservoir-ir-response-package-4-round-2.pdf>. Two monitoring locations (Station 1 and Station 2) are proposed between the haul road from the diversion channel excavation work to the dam construction site and nearby residences. The other monitoring location (Station 3) is proposed between the borrow source area and nearby residences. This monitoring location (Station 3) would be between the Project and Calaway Park and would allow for the identification of potential dust issues that may arise to the east. Siting Station 3 on the east side of the PDA also places it downwind (i.e. prevailing wind direction) of the area with greatest probability of deposited sediment.

The exact locations of the monitoring stations will be determined during the development of the Environmental Construction Operations (ECO) Plan by the construction contractor. The Springbank monitoring station will be located in the Springbank community area but the precise location has not yet been determined. The proposed Springbank monitoring station will be located in a similar direction and at a similar distance from the Project as Calaway Park. Air quality concentration measurements at the Springbank monitoring station are expected to be representative of the Project's potential effects on air quality during construction at Calaway Park.



Updated Preliminary Locations of Ambient Monitoring Stations during Construction



Figure 7-1

For more information on mitigation measures to address construction impacts please see:

- the EIA, Volume 4, Appendix C, available at: https://open.alberta.ca/dataset/ed520427-3b66-41c5-b36a-33fbdeaea9aa/resource/6c2dc653-faf0-47d7-b8c9-d8a67c9cc2dc/download/vol_4_apcc_mitigation_measures.pdf

- Response to Round 1 information request (IR) 206, available at:
https://open.alberta.ca/dataset/c7b52cd4-2adc-4f14-8a3e-02255afca154/resource/6da66f48-6863-42e2-9d2d-098764cad2aa/download/sr1_nrcb_aep_ir1_sec4_air.pdf
- Response to Round 2 IAAC IR4-04 and the draft Air Quality Management Plan is available at:
<https://www.alberta.ca/assets/documents/trans-springbank-reservoir-ir-response-package-4-round-2.pdf> (Appendix 4-1)

Surface Water

The water quality program is summarized in Table 1.

Table 1 Water Quality Parameter Frequency and Location Monitoring

Monitoring Parameter	Unit	Frequency	Location ¹
Total Suspended Sediments (TSS) and Turbidity	mg/L; NTU	Daily during operation	Res, O-C and u/s
Temperature	°C	Daily during operation	O-C and u/s
Dissolved Oxygen	mg/L; % saturation	Daily during operation	O-C and u/s
Conductivity	µS/cm	Daily during operation	O-C and u/s
pH	-	Daily during operation	O-C and u/s
Discharge (Flows in the channel)	m ³ /s	Daily during operation	O-C and u/s
Major ions	mg/L	Weekly during operation	Res, O-C
Total and Dissolved Metals	µg/L	Weekly during operation	Res, O-C
Nutrients	mg/L	Weekly during operation	Res, O-C
Methyl Mercury	µg/L	Weekly during operation	Res, O-C
Hydrocarbons	mg/L	Weekly during operation	Res, O-C

NOTE:

1 O-C – outlet channel (includes the Unnamed Creek) between the reservoir and Elbow River; u/s – in Elbow River upstream of the intake structure and diversion channel; Res – within the off-stream reservoir.

Impact on the Elbow River channel downstream of SR1 - Details of Sediment Transportation

Details of sediment transportation are available in Volume 3B, Section 6.4.3 of the EIA, available at https://open.alberta.ca/dataset/ed520427-3b66-41c5-b36a-33fbdeaea9aa/resource/0e02ab10-fc3b-4970-90b7-fcef282bba0f/download/vol_3b_s06_hydrology.pdf as well as in the responses to NRCB and AEP Supplemental Information Request 2 Questions 14, 22, and 73, which can be found at <https://open.alberta.ca/dataset/f2af0973-5660-4cc3-afe0-60182f4bfeca/resource/82c22854-ba21-4e81-8612-fce160e4c821/download/20200623-at-sir-to-aep-re-sir2-response.pdf>

Appendix 1b- Calalta to AT

February 19, 2021

Alberta Transportation

Attn: Matthew Hebert, Executive Director

Transportation Policy Branch

Main Floor, 4999 – 98 Avenue

Edmonton, AB T6B 2X3



Re: Springbank Off-Stream Reservoir Project

Matthew,

In response to both your letter (January 20, 2021) and our phone call (January 29, 2021) we have the following feedback to further our resolution to our objections of the Springbank Off-Stream Reservoir Project (SR1):

Air Quality/Ambient Air (Atmospheric Environment):

As discussed, the SR1 project will take 3 summer seasons to construct. Calaway Park (Western Canada's Largest Outdoor Amusement Family Amusement Park; one of Alberta's Top Family Tourism Attraction) will experience consequences and negative impacts of construction dust and/or ambient air. The sensitivity extends beyond the construction of the damn, for the foreseeable future.

A resolution is the NRCB Board implementing a condition of air quality meter(s) that measure dust and ambient air in which either Calalta/Calaway Park has access to, or that are reported to, on a weekly basis over the summer season and on a monthly basis over the winter period. (Reference, see Federal government). If the readings of the meter(s) exceed acceptable levels the government will mediate the situation to agreement of the affected parties.

Surface Water/Sediment back into the Elbow River:

Calalta Waterworks Ltd. has provided safe potable drinking water to the Springbank Community (Springbank Elementary/Middle/High School, Edge School, Springbank Park for All Seasons, Heritage Club, Commercial Court and soon to be developments of Bingham Crossing, Pradera Springs and Rivers Edge as well as Calaway Park) for the last 40 years. As a significant sediment dump can cause damage to both the Calalta intake system and the newly commissioned high technology ultra-membrane filtration plant, Calalta Waterworks Ltd. requests the NRCB implements the following conditions:

1. A condition of construction being a metering mechanism to monitor the river level to ensure it does not exceed 150 m³ and that the sediment residual does not exceed a reasonable amount when the water is put back into the river (to be determined)
2. Metering Mechanisms that measure sediment dump, not to exceed a determined amount, during construction/post construction
3. An assessment of the existing Calalta Waterworks Ltd. intake and water treatment plant systems by Alberta Transportation with Calalta Waterworks Ltd. be completed at the cost of Alberta Transportation. This will serve as an existing benchmark of the condition of the systems and any deviation from the benchmark caused by the SR1 construction and/or implementation of the damn will be the responsibility of Alberta Transportation. In addition, for any disruption of service, the Province will provide emergency potable water to all water users on the system.

Note: References in the appendix of this letter (Federal Government Environmental Study) were used to validate our concerns in relation to Air Quality/Ambient Air & Surface Water/Sediment into the Elbow River.

Calalta Waterworks Ltd. Franchise Area:

Calalta Waterworks Ltd. has operated and provided safe drinking potable water to the Springbank Community (Springbank Elementary/Middle/High School, Edge School, Springbank Park for All Seasons, Heritage Club, Commercial Court and soon to be developments of Bingham Crossing, Pradera Springs and Rivers Edge as well as Calaway Park) for the last 40 years. Calalta was forced to construct a 10inch waterline to facilitate future growth and to tie-on the community schools and Park for All Seasons. The infrastructure and operation costs have been borne by Calalta. In 2009, Rocky View County engaged with Calalta Amusements/Waterworks to establish a water utility franchise agreement. Considerable management time and legal costs were incurred in this process. Calalta Amusements/Waterworks were also forced at this time to upgrade the water utility. This high technology water treatment plant costs exceeded \$6,000,000 and was built for the next hundred years. In this Franchise negotiation, Calalta Waterworks was given an exclusive area to provide potable water to. This franchise area was agreed on by the Alberta Utility Commission, Alberta Environment, and Rocky View County. The SR1 area sterilizes 14 quarter sections of this Franchise Area (see attached map). Alberta Transportation has set a precedent by paying the Rocky View County \$10,000,000 for lost tax revenue. This represented 6800 acres that was determined to be purchased and sterilized from the county tax revenue. In comparison, Calalta Waterworks exclusive land sterilized by SR1 will be 2240 acres (or 32%) of the county's 6800 tax revenue area lost. Calalta Waterworks has borne the cost of this utility for the past 40 years, serving the community of Springbank. SR1 directly eliminates an opportunity that we have worked hard to achieve. Calalta is requesting compensation for this sterilized 14 quarter section lost revenue, to be determined.

The resolution Calalta Waterworks requests is that the NRCB issues a condition that Alberta Transportation negotiates in good faith to compensate Calalta Amusements Ltd.

Matthew, thank you again for the continued dialogue. We will await your response to the resolutions that we have identified.

Sincerely,



Bob Williams
General Manager

c.c Gordon Dixon; President, Calalta Amusements Ltd.; Calaway Park; Calalta Waterworks Ltd.
c.c Dena Dixon; Vice President, Calalta Amusements Ltd.; Calaway Park; Calalta Waterworks Ltd.
c.c Paul Seo; Director of Finance, Calalta Amusements Ltd.; Calaway Park; Calalta Waterworks Ltd.

/sb

Atmospheric Environment

Potential Residual Effects:

- Residual effects of fugitive dust are anticipated to be moderate to high in magnitude during construction; however, the effects would be local in extent and reversible in the long-term.
- The Agency acknowledges that there would be a low recurrence of floods that result in extensive sediment deposition and based on the proposed mitigation measures and adaptive management, effects would be local in extent and reversible in the long-term for both flood and post-flood phases.

Atmospheric Environment

Key Mitigation and Follow Up Measures:

- Limitations on discharges of atmospheric contaminants.
- Maintenance and best management practices for engines and exhaust systems.
- Re-vegetation post-construction.
- Application of water or other suppressants for dust.
- Erosion control methods.
- Noise limits for blasting.
- Use of tackifiers when revegetation is slow or unsuccessful.
- Air quality monitoring will include:
 - continuous construction nitrogen dioxide (NO₂) monitoring;
 - continuous total suspended particles monitoring throughout all project phases;
 - continuous fine particulate matter (PM_{2.5}) monitoring throughout all project phases; and
 - continuous meteorology monitoring for wind speed, wind direction, temperature and other variables throughout all project phases.
- Monitoring details and results will be made available to nearby residents and reported to the Environmental Coordinator.

Atmospheric Environment

Key Mitigation and Follow Up Measures:

- Finalization of an air quality management plan in consultation with Environment and Climate Change Canada and Health Canada.
 - Use of Canadian Ambient Air Quality Standards as targets.
 - It will describe mitigation measures that will be implemented, monitoring methods, and adaptive management methods if criteria air contaminants exceed targets.
 - Include a monitoring location within the community of Springbank.
- Implementation of a formalized complaint-response protocol with monitoring and mitigation measures defined in the event of complaints.
- Throughout construction, flood, and post flood operations, applicable measured pollutant concentrations will be evaluated monthly against the 2020 Canadian Ambient Air Quality Standards to trigger investigation and reporting.
- If exceedances in Canadian Ambient Air Quality Standards are noted, additional mitigations to reduce air emissions will be implemented. These include the suspension of construction activity, increased watering of access roads or the spraying of surfactants, during the construction phase; and the spraying of surfactants during the post-flood phase.

Groundwater and Hydrogeology

Potential and Residual Effects:

- The Project has the potential to result in changes to hydrogeology and groundwater that may impact groundwater-dependent traditional uses and culturally sensitive areas, drinking water, and water used for domestic purposes.
- Changes to groundwater resulting from the project are low magnitude, local, intermittent, short-term, and reversible, with the application of the mitigation, monitoring, and follow-up measures.

Groundwater and Hydrogeology

Key Mitigation and Follow Up Measures:

- Construction dewatering will be in accordance with regulatory terms and conditions.
- A Care of Water Plan will be developed for use of cofferdams, pumping systems, sumps, pipelines, channels, flumes, drains, and other dewatering work.
- Existing water wells within the reservoir footprint will be decommissioned and plugged off.
- Finalization of a Groundwater Monitoring Plan prior to construction
 - Water well monitoring locations:
 - in between the Project and Tsuut'ina IR 145
 - within or immediately adjacent to Project infrastructure, around the perimeter of the reservoir, outside the Project footprint, and between the Project and potential receptors
 - Steps and follow-up actions for exceedances in *Canadian Drinking Water Quality Guidelines*

Surface Water and Hydrology

Potential and Residual Effects:

- The Agency acknowledges that the Project will cause residual effects to surface water quality and modify the hydrology of the Elbow River during high flows by temporarily diverting and retaining water.
- The Agency understands that depending on the size of the flood and time retained within the reservoir, potential residual effects to aquatic life exist.

Surface Water and Hydrology

Key Mitigation and Follow Up Measures:

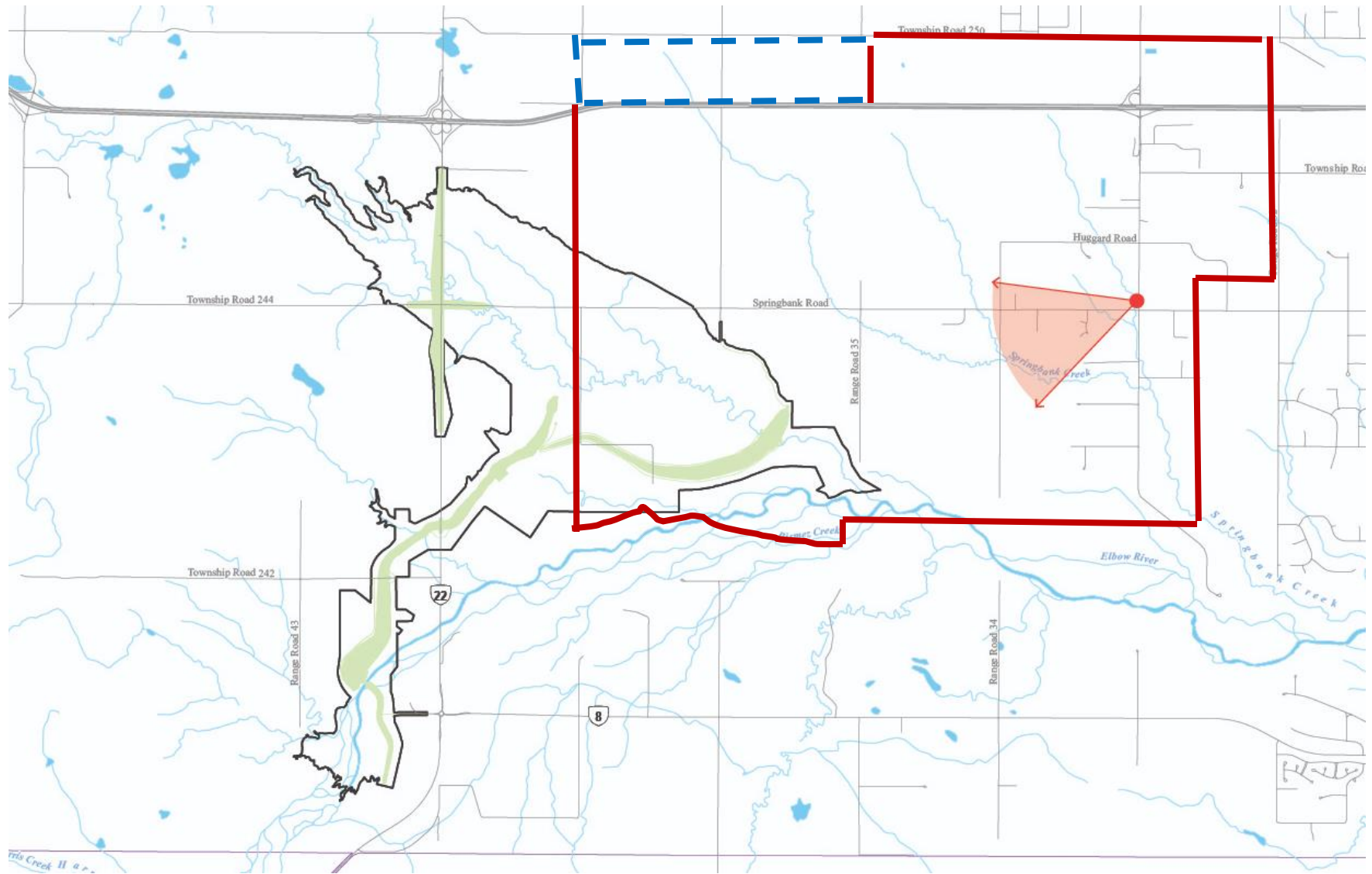
- Insolation of any instream work areas.
- Control of total suspended solids by using erosion and silt control measures and turbidity barriers.
- Transportation of hazardous material in accordance with regulatory requirements.
- Construction vehicle cleaning and maintenance requirements
- Fuel storage requirements.
- Re-establishment of surface drainage patterns after construction.
- Reclamation and re-vegetation of disturbed bank and riparian areas after construction
- Sediment laden dewatering discharge will be pumped into a vegetated area or settling basin prior to returning into a waterbody.

Surface Water and Hydrology

Key Mitigation and Follow Up Measures:

- Diversion channel outfall and low-level outlet will include erosion protection and energy dissipation blocks to control flows
- Baseline mercury and methylmercury sampling will be conducted prior to construction.
- During reservoir operation, monitoring of water quality will be conducted in the reservoir, in the low-level outlet, and in the Elbow River both upstream and downstream of the Project.
- Monitoring of effects to the Elbow River will be conducted post-flood. Advisories and information will be provided to downstream users.
- Adaptive management measures for water quality will be implemented as additional settling during drawdown may be necessary.

Appendix 4: Calalta Waterworks Ltd. Franchise Area



Calalta Exclusive Franchise Area



Calalta Non- Exclusive Franchise Area



SR1 boundary (as per:
<https://www.alberta.ca/maps/locations-springbank-off-stream-reservoir.aspx>)