

Missezula Lake Water Treatment Plant Project: Community Questions and Responses

The Regional District of Okanagan-Similkameen (RDOS) has received questions and feedback from residents regarding the proposed Missezula Lake Water Treatment Plant project. The questions reflect community interest in areas such as landscaping, environmental impacts, project design, construction activities, visual appearance, costs, and long-term operations.

The following responses provide information based on the current stage of project planning and design. As design work continues and procurement is completed, some details may be refined. The RDOS appreciates the community's interest and input, which helps inform ongoing project development and communication.

Section 1: Landscaping

Q1) Can the trees that look unhealthy also be removed?

A1) Hazard trees may be removed on a case-by-case basis following assessment of their condition.

Q2) Can the trees be replaced?

A2) A selection of suitable replacement trees can be provided for community review and preference.

Q3) Can the trees be planted further down the beach area away from the water treatment area

A3) Potential locations for replacement tree planting can be identified and reviewed with the community.

Q4) Are there other options for replacing trees, i.e., lilac bushes

A4) Invasive species would not be considered. Other suitable non-invasive shrubs or vegetation may be considered, subject to site conditions and project requirements.

For more information on invasive listing: <https://www2.gov.bc.ca/gov/content/environment/plants-animals-ecosystems/invasive-species/management/plants/terrestrial>

Section 2: Drawings

Q5) What does "by others" mean on the plans?

A5) The drawings are currently in draft form and were prepared for approval purposes only. Many of the "by others" notes will either be removed or further defined as the design package is finalized.

Q6) Who will be responsible for those scopes of work, contract 1 or contract 2 or does RDOS carry out the work with their own forces?

A6) RDOS does not have its own forces that are tasked with constructing infrastructure. An RFP process will identify the best contractor to complete the works.

Q7) Is drawing M8 available to allow us to see what the backwash water disposal system looks like?

A7) M8 is not available.

Q8) What will be above ground, and can we get a 3d drawing or picture to be produced to give a better perspective of the finished beach area?

A8) A 3D rendering is currently being prepared and will be shared once available.

Q9) The drawings attached don't include all the details on the impact of the overall land use. Perhaps a short description of how the system will operate would help. What is the water path through the system?

A9) See answer A11.

Q10) Looking at drawings C1 and C2, I don't see where the existing water line ties into the 50dia CTS tubing (1972) on the road?

A10) The existing waterline ties in further south after the chlorine contact tank. The tie-in shown to the sea can is for eyewash/sanitary station usage.

Q11) Is the plan to terminate the chlorine contact tank and have the new treated water come only from the proposed water treatment plant, as indicated by the blue line?

A11) Water that currently flows directly into the chlorine contact tank will instead be diverted through the treatment plant, where it will undergo filtration, UV treatment, and chlorination before being returned to the existing flow path and reservoir. The current chlorine system will be maintained as a backup system.

Section 3: Structure

Q12) Are the buildings going to follow FireSmart requirements?

A12) FireSmart principles are considered during the design and construction of new infrastructure wherever applicable.

Q13) Are there any concerns by RDOS with leaving the existing chlorine contact tank in place?

A13) The condition and suitability of the tank will continue to be evaluated on an ongoing basis.

Q14) Would it ever become a safety issue in the future?

A14) There are no known safety issues at this time. As with any infrastructure asset, future issues are possible; however, ongoing inspections and maintenance are intended to minimize potential risks.

Q15) What is the final cladding for the treatment plant? How noticeable will it be?

A15) The treatment plant is currently anticipated to have a regular sea can exterior, finished in a colour selected to blend with the surrounding environment, likely green or blue. While the structure will be visible as a building, the extent to which it is noticeable will vary depending on the viewer's location, perspective, and sensitivity to visual changes in the landscape.

Q16) Could the water treatment containers please match the dark green metal of the other watersheds?

A16) While an exact colour match cannot be guaranteed, a dark green exterior could be requested if that is the community's preference.

Q17) Can the buildings be located parallel to the North Fence line instead of parallel to the road in order to reduce the amount of trees needing to be removed? If the building is able to be located parallel to the North Fence, would this not provide easy access to the building via the road?

A17) The orientation of the proposed treatment plant was selected based on several factors, including site constraints, access requirements, utility connections, operational needs, and minimizing impacts to existing infrastructure. While orienting the building parallel to the north property line could potentially reduce the number of trees affected, any change in orientation would need to be evaluated against these other design

considerations. Vehicle and maintenance access from Missezula Lake Road is an important design requirement. The current layout provides direct access to the facility while accommodating equipment installation, operation, and future maintenance activities. Opportunities to further reduce tree removal will continue to be considered as the design is refined, provided that operational and access requirements can still be met.

Q18) Will the chlorine be stored to WCB requirements?

A18) Yes. Any chlorine/chemical/general storage and operating space associated with the treatment plant will be designed, installed, and operated in compliance with all applicable WorkSafe BC (WCB) requirements, as well as relevant provincial and industry regulations. Appropriate safety measures, containment systems, ventilation, signage, and handling procedures will be incorporated to ensure the safe storage and use of chlorine.

Section 4: Questions on Cost

Q19) What is the overall cost projection on this project and at what percentage are the owners expected to pay in increases in the next 5 to 10 years?

A19) Current engineers' budgetary estimate for works to supply and install is within grant program requirements, and a final cost is not known until the project is awarded for both contracts 1 and 2. Funding of 1.6 million is provided by the ICIP Green Infrastructure grant. More details are available: [Investing in Canada Infrastructure Program - British Columbia - Green Infrastructure - Environmental Quality - Province of British Columbia](#)

Q20) Is there going to be an increase to the annual water bill?

A20) While no specific future rate increases have been established, increases to annual water bills are generally expected over time as the costs of operating, maintaining, and upgrading water infrastructure continue to rise. Any future rate adjustments would be considered through the Regional District's annual budgeting process.

Q21) What is the total cost of the complete plan and how is it being paid for?

A21) The final project cost is not yet known, as the procurement process has not been completed and contract pricing has not been received. At this stage, only the engineer's budgetary estimate is available.

The project is to be funded through a combination of ICIP Green Infrastructure grant funding and Missezula Lake Service Area funding sources. The proportion of each funding source will depend on the final project costs. Once the procurement process is complete, additional information regarding project costs and funding allocations will be available.

Section 5: Miscellaneous Questions

Q22) How much of the old water system will be used, and what is not used will it be removed?

A22) None of the 'old' or current system is being removed at this time. The system is being tied into prior to the chlorine contact tank.

Q23) It seems like contract 2 is a considerably larger scope of work/dollar value than contract 1. If all the work identified as by others is taken into account, it seems that by dealing with that as a change order to contract 1, our costs could increase significantly; can it not be defined better and included in contract 1?

A23) Contracts are not split based on dollar value; they have been split based on deliverables. Contract 1 is the supply of a treatment plant; Contract 2 is installation/upgrading onsite.

Q24) The email references this as a next step. Is there a complete plan available to understand the full impact on the beach area?

A24) The full scope and extent of the proposed works can be reviewed in the project drawing package. The drawings identify both the above-ground and below-ground components of the project, including the location of proposed infrastructure and associated construction activities. Reviewing the complete drawing package will provide the best understanding of the anticipated impacts within the beach area and surrounding site. Any temporary impacts associated with construction will also be identified through the project documentation and construction planning process. A 3d rendering is being undertaken at present and will be forwarded when available.

Q25) Is this type of upgrade being done in other communities?

A25) Many communities undertake upgrades to their water treatment systems to meet current drinking water quality standards and accommodate changing operational needs. Each community's water system is unique and requires solutions tailored to its specific source water, infrastructure, and local conditions. All systems are required to meet the same Interior Health Authority (IHA) drinking water quality standards and regulatory requirements. As a result, treatment upgrades such as this are occurring across the province.

Q26) How many of the control points actually require an above-ground access?

A26) Six or seven access points for the backwash and one for the pumps.

Q27) I have a concern regarding the loss of beach access and grassy areas. How can we protect as much of the grass area as possible?

A27) The orientation of the proposed treatment plant was selected based on several factors, including site constraints, access requirements, utility connections, operational needs, and minimizing impacts to existing infrastructure. While orienting the building parallel to the north property line could potentially reduce the number of trees affected, any change in orientation would need to be evaluated against these other design considerations.

Q28) I have always been concerned with the impacts that occur because of the access required to the chlorine injection building and shed. In the winter, there is snow clearing, and summertime traffic on the grass, which also causes damage. By the boat launch roadside, there are a series of backwash tank accesses that will require access by a vacuum truck. Will this cause damage to the grass?

A28) Some localized impacts to grassed areas may occur; however, the design aims to use designated access routes wherever possible to minimize disturbance. Any areas affected during maintenance activities would be restored as required.

Q29) Why has the vacuum truck come through the gate to do the work? If the tanks were closer to the road, the work could be done directly from the road behind the tank access points.

A29) The location of the backwash tanks was selected based on site constraints, servicing requirements, operational considerations, and overall site layout. Access through the site provides a safe and controlled means for maintenance vehicles to reach the tanks while avoiding disruption to road traffic. The configuration was chosen to balance operational needs with the available site footprint.

Q30) Also, an option if the tanks were moved, perhaps the trail could be moved to the other side of the treatment building and then move the building closer to the tank fence. Then the ancillary pumping equipment at the front could also move closer to the existing manhole access.

A30) Alternative site layouts were evaluated during the design process. The proposed arrangement reflects a balance between operational requirements, utility connections, site access, equipment clearances,

environmental considerations, and available space. Suggestions regarding relocation of facilities and pathways will be reviewed as part of the ongoing design refinement process. As with moving the plant to the boat launch road area, this can be a consideration as well.

Q31) There is no mention of where the chlorine shed will be relocated. It should also be in such an area that it can be accessed directly from the road, like the tanks.

A31) The location of the chlorine storage and dosing equipment will be inside the sea cans. Direct access for deliveries and maintenance activities was considered during the layout of the design. The current system will become a redundant backup.

Q32) Why are they splitting the contract into two parts and making allowances for a change order?

A32) The project has been divided into two contracts to improve project delivery, scheduling, and cost management. Separating components of the work allows certain portions to proceed while detailed design of other elements is being finalized. Allowances and contingency provisions are standard project management tools used to address unforeseen site conditions or design refinements without delaying construction.

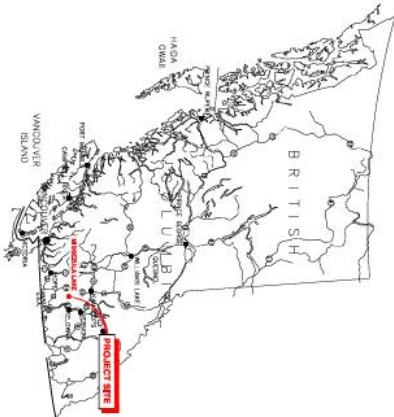
Q33) Would the installation of water meters reduce costs?

A33) Water meters can help improve water conservation by allowing consumption to be measured and providing customers with better information about their water use. In some systems, metering can provide more information on daily/annual usage and aid residents in reducing overall water usage by knowing the amount being used, as well as aid in making decisions on future infrastructure needs.

Water meters can result in some residents paying lower water bills and others paying higher bills, depending on their actual water consumption. Unlike a flat-rate system, where costs are distributed more evenly among all users, metering allocates costs based on individual water use. Metering can encourage water conservation and provide customers with greater control over their water costs; however, the impact on each household's bill would depend on their specific water usage patterns.

For further information, please contact RDOS Public Works at 250-490-4135 or email utilities@rdos.bc.ca.

REGIONAL DISTRICT OF OKANAGAN-SIMILKAMEEN MISSEZULA WATER TREATMENT UPGRADE CONTRACT 1: CONTAINERIZED WATER TREATMENT PLANT



PROVINCIAL LOCATION PLAN
DOCS-012



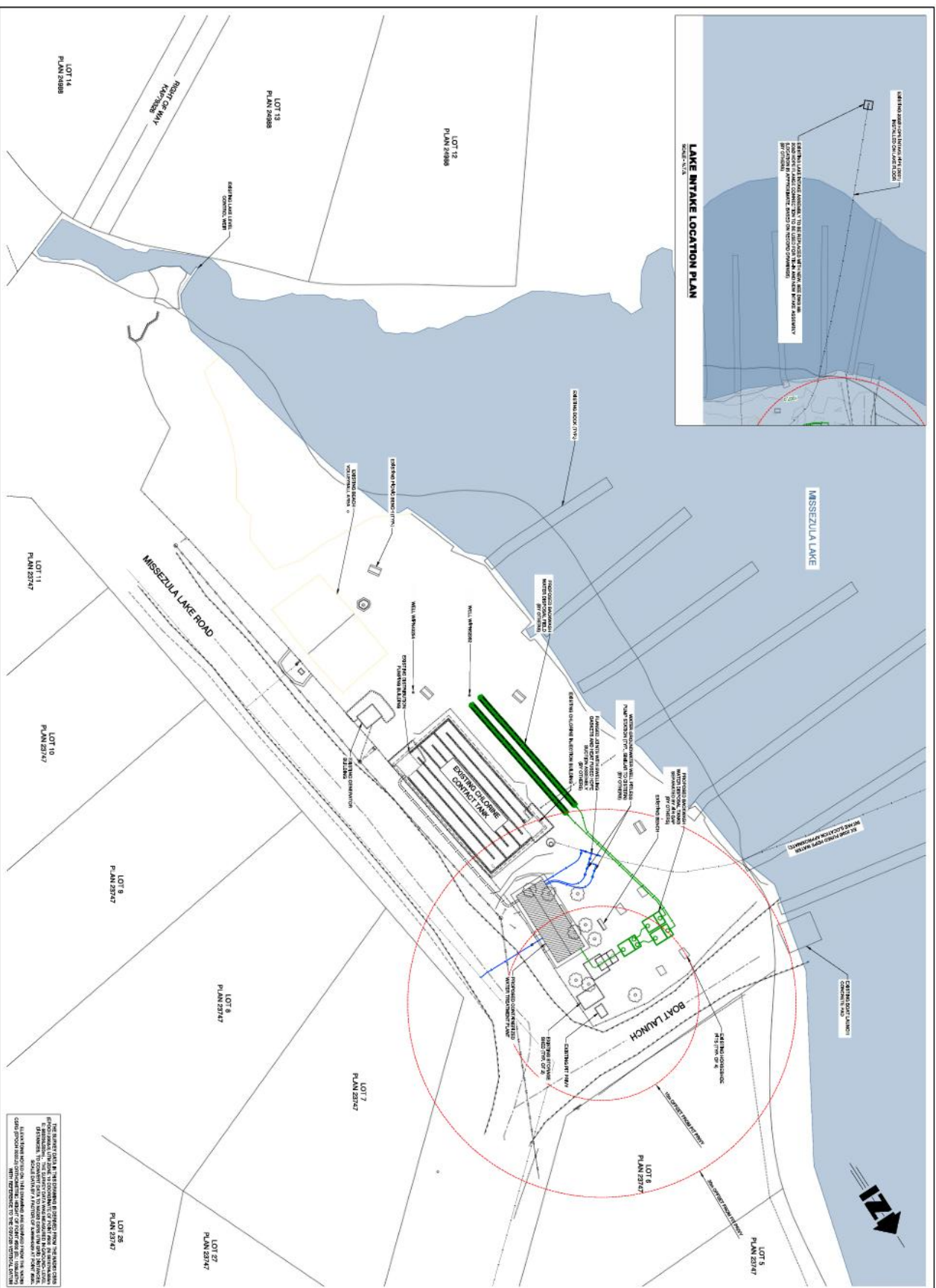
LOCATION PLAN
DOCS-013

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3000-011	GENERAL SITE PLAN	1
3000-012	PROPOSED SITE PLAN	1
3000-013	PROPOSED GRADING PLAN AND ELEVATIONS	1
MECHANICAL		
3000-014	WATER TREATMENT PLANT - CONTAINERIZED WATER TREATMENT PLANT	1
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TRUE PROJECT NO. 3000



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2009 Indian Road to Knowledge DC is VSC 4.02
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RDOS
 OKALOOSA
 SHELBYVILLE

**CONTRACT 1
CONTAINER**

**OVERALL
SITE
PLAN**

SCALE	1" = 2'-0"	10'
DATE	01/24/11	DR
DESIGNER	SA	
SITE	ALBERTA 2001	
PROJECT INFORMATION No.	308-291	
308-291-10		
	2 OF 4	8-107
308-291-C1	2	8-107

