



## FREQUENTLY ASKED QUESTIONS

April 2020

### PROJECT BACKGROUND

#### Q: What is the project?

**A:** The North Okanagan Wastewater Recovery Project is a partnership launched in 2015 by the Regional District of North Okanagan (RDNO), Township of Spallumcheen, and Okanagan Indian Band (OKIB) to provide sewer service to residents and businesses in portions of the RDNO Electoral Areas B and C, the Township of Spallumcheen's south-east sector, and parts of OKIB IR#4 at the north end of Swan Lake.

This collaborative approach will:

- Protect Swan Lake water quality
- Support local agriculture with reclaimed water
- Provide development opportunities for residential and commercial/industrial properties within the proposed service area (with supportive zoning)
- Enable appropriate and sustainable economic development in all three jurisdictions
- Enhance recreational use of the corridor

Also in 2015, the partners commissioned Urban Systems Ltd. to explore technical aspects of the project. The resulting feasibility studies outlined collective objectives and potential land uses, service levels, engineering approaches, costs, governance models, and financial frameworks. It also summarized project components, including:

- Wastewater collection and transmission system
- Wastewater treatment and recovery facility
- Treated water storage ponds
- Irrigation and water-reuse distribution lines
- Biosolids composting

Project partners agreed from the beginning that for the project to be viable, user fees for potential residential, commercial, and industrial customers must be comparable with what other jurisdictions are charging for similar services.

Thanks to provincial and federal grants, more than 80% of the project costs are covered.

- \$24.3 million from the federal/provincial Investing in Canada Infrastructure Program
- \$5.9 million from the Okanagan Basin Water Board
- \$5.2 in long-term RDNO borrowing approved by petition of Electoral Areas B and C property owners within the proposed service area
- \$1.5 million from Township of Spallumcheen reserves

With funding approved, the project is moving on to the design phase where engineering and construction details will be finalized with input from the volunteer Wastewater Recovery Community Working Group to provide community input.

## PROJECT BENEFITS

### **Q: What are the benefits for residents?**

**A:** RDNO heard loud and clear at the Swan Lake Commercial Area & Neighbourhood Plan open houses that area residents are interested in the opportunities a community sewer system would bring. Survey results from the June 2018 Open House event indicate that 76 percent of respondents support a sewer system, primarily for environmental and economic reasons.

More specifically, connecting to community sewer would:

- Increase property values and market appeal
- Avoid costly septic system malfunctions
- Provide opportunities to subdivide larger lots in non-ALR areas
- Allow for wider range of commercial and industrial uses
- Allow for the development of secondary suites and carriage homes (with zoning amendments)

### **Q: What are the benefits for businesses?**

**A:** The RDNO's *Regional Growth Strategy* predicts that more than one-third of existing businesses will expand over the next ten years, and that serviced land is a key factor. With sewer, commercial and industrial property owners would have more development and subdivision opportunities. And those businesses currently pumping and hauling waste would have a reliable and practical alternative.

### **Q: What would this mean for the environment?**

**A:** Historically, septic systems have been used to treat residential, commercial, and industrial wastewater in the Swan Lake corridor. Water quality assessments in 2015 and 2016 showed that many aging septic systems are leaking contaminants into Swan Lake, thereby contributing to the degradation of water quality and bird habitat.

### **Q: How would the project support agriculture?**

**A:** A *Regional Growth Strategy* goal is to “explore opportunities to expand the use of reclaimed water for agriculture in a safe, cost effective, and efficient manner.” The proposed wastewater recovery system would provide much-needed irrigation water for area growers during the hot summer months. The plant would also produce biosolids that could be composted at a nearby facility in keeping with provincial regulations to ensure the highest quality product, and then used on agricultural land. Serviced land could enable and encourage increased agritourism, which is also a *Regional Growth Strategy* goal.

All members of the Regional Agricultural Advisory Committee support the project and welcome the benefits it would bring.

### **Q: How would the project enhance recreational use of the corridor?**

**A:** The water quality of Swan Lake directly impacts its use as a recreational amenity for both residents and visitors alike. Cleaner water would encourage more rowers, kayakers, and paddlers to enjoy the lake's many unique features. Enhanced fish and wildlife habitat would attract birdwatchers and people who enjoy fishing.

**Q: How about the overall economic advantages?**

**A:** As called for in the *Regional Growth Strategy*, the three project partners are eager to collaborate on economic development and business attraction. However, economic development in RDNO Electoral Areas B and C, the Township of Spallumcheen’s south-east sector, and OKIB IR4 are all hindered by the corridor’s lack of sewer. Ideal for commercial and light industrial uses, with its proximity to major highways, the corridor requires a wastewater treatment plant and reclaimed water storage sites to optimize opportunities for existing businesses and provide practical and affordable infrastructure for new businesses.

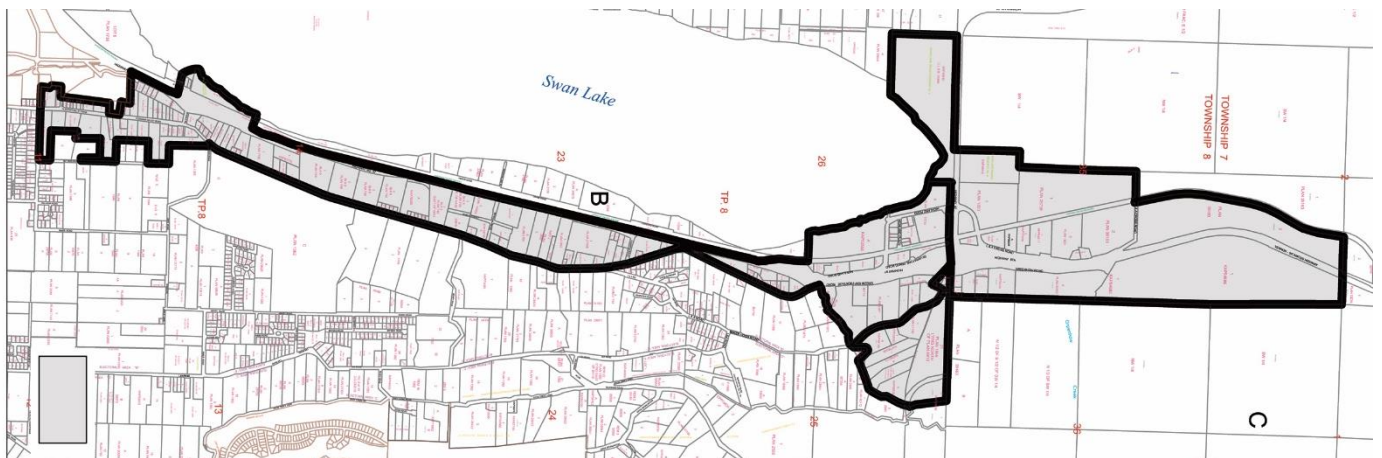
**Q: Is this a good time to build the project?**

**A:** Given that Swan Lake and area residents and businesses are calling for sewer service, and that grant funding will cover more than 80 percent of total project costs, this is an ideal time to build the project. This historic opportunity would bring wastewater treatment to the area at a reasonable cost to both residential and commercial/industrial property owners.

**TECHNICAL CONSIDERATIONS**

**Q: Where is the proposed service area?**

**A:** The proposed service area includes portions of RDNO Electoral Areas B and C, the Township of Spallumcheen’s south-east sector, and parts of OKIB IR4 north of Swan Lake.



**Q: Where would the treatment plant be located?**

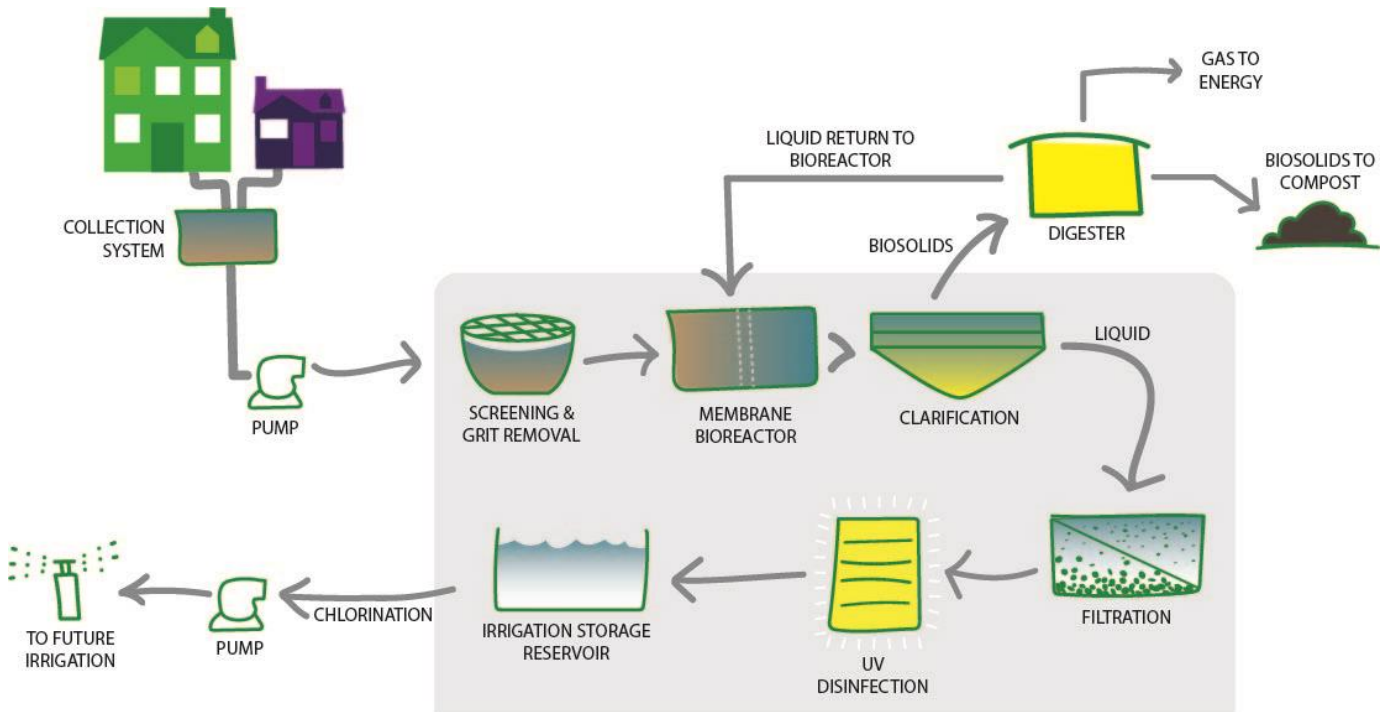
**A:** The treatment plant would be built on a 2.5-acre site recently purchased by the Township of Spallumcheen. Zoned for industrial use, and with no residential zoning nearby, the property is located at 67B L&A Cross Road. The Township also secured a 99-year lease for reclaimed water storage from a nearby property owner and arranged a partnership with an existing biosolids composting facility near the project site.

**Q: What would the wastewater recovery system include?**

**A:** The wastewater recovery system would include sewer collection and transmission infrastructure, a wastewater recovery facility, effluent storage ponds, an irrigation and water re-use network, and biosolids composting.

**Q: What type of plant would be built?**

**A:** The wastewater treatment plant would use conventional screening and grit-removal technology, followed by membrane bio-reactors. These types of reactors have come into widespread use over the last 20 years. Extremely fine-pore membranes are used to filter out the smallest of particles, resulting in very clear contaminant-free effluent. The water would then be disinfected with ultraviolet light, making it safe for public exposure and suitable for agricultural irrigation, meeting the standards set by the Ministry of Environment.



**Q: Will the wastewater recovery system produce any odours?**

**A:** While wastewater treatment plants do generate odours, this project would have a high level of wastewater treatment, including the latest in indoor air filtration systems to minimize any potential odours. The system would be designed to reduce odours by having process reactors in enclosed buildings, using gas sensors to activate fans and gas oxidation systems and filtering the exhaust air before it leaves the building.

**Q: What about biosolids?**

**A:** The treatment plant would also produce biosolids using ‘digestion’ technology. The digested biosolids would be taken to an existing nearby biosolids composting facility that meets the highest and best standards in accordance with provincial regulations. It would be mixed with wood chips and the finished compost applied to agricultural operations in the region as is currently done.

**Q: How long would it take to build the system?**

**A:** Now that we’ve received funding from the *Investing in Canada Infrastructure Program*, the project will enter the detailed design phase in 2021. Next comes tendering, construction and start-up. It is estimated that construction and commissioning will be complete by 2024.

**Q: If the project proceeds, how long would it take before Swan Lake water quality improves?**

**A:** As determined by water quality assessments conducted in 2015 and 2016, malfunctioning septic systems are contributing to the degradation of Swan Lake water quality. Because water circulates fairly quickly in the lake, water quality would likely improve within five years after the wastewater recovery system starts operation.

**CONNECTION OPTIONS & REQUIREMENTS**

**Q: As a residential property owner, would I be required to connect?**

**A:** Residential property owners within the service area will not be required to connect. Residential properties will be encouraged to tie in through reasonable fees and other incentives, but the three participating local governments have agreed that connection will be voluntary.

**Q: Will businesses have to connect to the wastewater system?**

**A:** Yes, all commercial and industrial operations within the proposed service area will be required to connect.

**Q: Can properties abutting the proposed service area be included in the initial phase?**

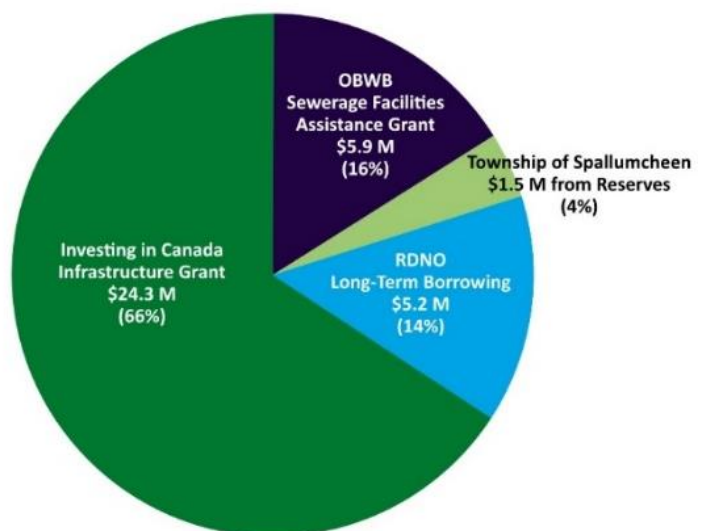
**A:** The service area for Phase 1 is fixed at this time. If, however, nearby property owners would like to connect to the system, they would need to follow a similar, but separate, petition process for their properties and surrounding neighbours who want to join. For more information, interested property owners should contact their local government office.

**COSTS & RATES**

**Q: How much would the system cost?**

**A:** A feasibility study prepared by Urban Systems estimated the total project cost at \$36.9 million. Grant funding from the *Investing in Canada Infrastructure Program* will cover \$24.3 million, or about 66 percent of the total cost. The remaining amount will be funded by RDNO borrowing (\$5.2 million), an Okanagan Basin Water Board grant (\$5.9 million), and Township of Spallumcheen reserves (\$1.5 million).

The RDNO Local Service Area petition for borrowing its \$5.2 million share of the total project was successful in early 2019. The petition passed the two required tests, with 63% of the parcels, and 78% percent of the value voting in favour.



**Total Estimated Project Cost  
\$36.9 M**



## PROJECT PARTNERS

### **Q: Who are the project partners?**

**A:** Partner organizations include the Regional District of North Okanagan, Township of Spallumcheen, and Okanagan Indian Band. Collaborative and cost-sharing Memorandums of Understanding were developed in 2015 and updated in 2018 to formalize factors such as administrative functions, ownership of sewer works, decision-making authority, operations and system management, allocation of plant capacity, capital costs recovery, and wastewater recovery regulations.

### **Q: Why is the partnership so important?**

**A:** The partnership offers four significant benefits:

- It provides an opportunity to turn wastewater into a valuable resource with positive environmental, agricultural, recreational, and economic impacts for all three jurisdictions.
- It ensures ownership, operations, and costing flexibility to meet each jurisdiction's needs.
- It is best suited for senior government funding opportunities that recommend local government collaboration.
- It guarantees input from all jurisdictions through the Wastewater Recovery Community Working Group, thereby ensuring diverse community wants and needs are reflected in project outcomes.

### **Q: What are the benefits of the project to each partner?**

**A:** All jurisdictions will benefit from the overall environmental, agricultural, recreational, and economic improvements and the opportunities the project provides. Project outcomes support guiding principles outlined in the *Regional Growth Strategy*, including the protection of environment and natural lands and the promotion of water stewardship, agriculture and food systems, sustainable economic development, and collaborative service delivery on a regional scale.

**RDNO Electoral Areas B and C:** Project outcomes reflect objectives laid out in the new *Swan Lake Commercial Area & Neighbourhood Plan*. The project will support appropriate residential and commercial development through infilling, while helping to improve environmental integrity and maintain the rural feel of the area. Other potential positive impacts are increased economic activity and recreational use of the corridor. Future zoning amendments could enable the development of more affordable housing units such as secondary suites and carriage houses on properties with a sewer.

**Township of Spallumcheen:** The project supports goals outlined in the Township's *Official Community Plan*, which are to encourage sustainable economic development while preserving the agricultural land base, rural character, and environmental attributes. Wastewater recovery will enable existing businesses to grow and new businesses to locate in the area, thereby increasing the types of business and numbers of jobs available. Increased commercial/industrial taxation from these expanded and new businesses will help support the delivery of other important community services.

**Okanagan Indian Band:** OKIB has undeveloped land in IR#4 within the proposed service area that would be well served by the Wastewater Recovery Project. While Electoral Areas B and C and the Township of Spallumcheen would be serviced initially, OKIB would connect in the future.

## OWNERSHIP & GOVERNANCE

### Q: Who would own the system?

**A:** As outlined in the 2018 Memorandum of Understanding, system ownership would be divided into two categories: common works and attributable works.

**Common works** would include the:

- Wastewater recovery plant
- Lines from the plant to the storage ponds
- Storage ponds
- Supply lines to Swan Lake and irrigation fields
- Railway and highway crossings and short stubs of major collection systems trunks leading into the wastewater recovery plant

Initially, only the RDNO and the Township of Spallumcheen would connect to the common works, with each paying 50 percent of net costs at the time of construction. OKIB plans to connect in the future, and would then pay one-third of net costs.

**Attributable works** would include wastewater collection lines, lift stations, pump stations, and force mains owned by and located in each jurisdiction. Each party can decide if it wants to operate and maintain the system with its own staff, contract with RDNO, or contract with another entity.

## PUBLIC INFORMATION & ENGAGEMENT

### Q: What's being done to inform and engage the community?

**A:** Community awareness and input are key to a successful project. To that end, the project features:

- An open house January 22, 2019 to inform Electoral Areas B and C property owners about the project in general and the RDNO petition in particular.
- A webpage at [www.rdno.ca](http://www.rdno.ca) (Wastewater Recovery Project) with all project information...please share this with anyone you think might be interested in the project!
- A **Wastewater Recovery Community Working Group** to help guide the process. The group's first task was to build community awareness of the RDNO petition. The group reflects a good mix of volunteers from all sectors, interests, and service area locations, and includes:
  - Alan Short (Avenue Machinery Corp)
  - Anita Rea (Spallumcheen Stepping Stones)
  - Betty Holtskog (Registered Onsite Wastewater Practitioner)
  - Douglas Neden (Former Wastewater Professional)
  - Leith Skinner (Outdoorsman/Environmentalist)
  - Marnie Williamson (North Okanagan Naturalist Club)
  - Mike Broersma (Dairy Farmer)
  - Ray Ivey (Electoral Area C Advisory Planning Committee)
- Frequent news releases and ads to increase awareness...check the website regularly and/or sign up for Project Update emails by subscribing to [www.rdno.ca](http://www.rdno.ca) (Mailing Lists).

For more information:

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