Sewage & Utility Services

This Sewage & Utility Services Sheet was developed for presentation to the Okanagan Falls Incorporation Study Committee at its meeting on April 16, 2024. The sheet was prepared using information available at the time of writing. Changes will be made if new information becomes available.

Information presented on the Okanagan Falls Incorporation Scenario is based on the assumptions that:

> *The Okanagan Falls municipality would own and operate the Okanagan Falls sewer service using municipal staff*

> *The Okanagan Falls municipality would contract Septage Disposal service directly with the City of Penticton*

> *The Okanagan Falls municipality would assume responsibility for funding the FortisBC-owned street lights within the municipal boundary*

THE PRESENT

➤ **What service is provided?**

Sewage and utility services in Okanagan Falls Incorporation Study area include:

- operation of a sewage collection and treatment system in the Okanagan Falls area
- septic disposal services provided in Penticton at the City's Wastewater Treatment Plant
- administration of the streetlights within Okanagan Falls

Okanagan Falls Sewer

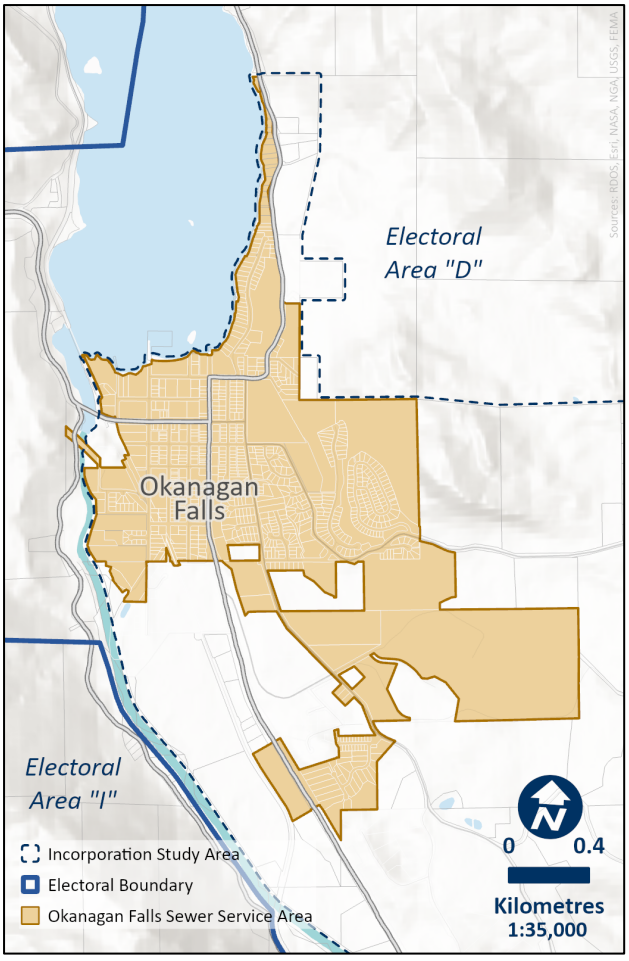
The Okanagan Falls sewage collection, treatment, and disposal works were originally built in the late 1970's. In 2010, a federal/provincial infrastructure grant assisted in funding the construction of a new Level IV biological nutrient removal Wastewater Treatment Plant (WWTP) south of the original treatment facility. The new WWTP began operations in 2013. The sewage collection system consists of three lift stations, pressurized forcemains and gravity sewer mains that deliver sewage to a fourth lift station located at the old facility at 1440 Cedar Street. The Cedar Street lift station pumps the sewage into a forcemain, which travels to the new WWTP along Rail Road. The biological nutrient removal WWTP has an outfall diffuser into the Okanagan River for the treated effluent. The system currently services approximately 1,424 connections within the service area shown in Figure 1.

The WWTP removes the organics and nutrients from the wastewater through biological nutrient removal processes before the effluent is released into the Okanagan River Channel. The treated effluent is also used for treatment plant operations, in toilets at the plant, and for landscape irrigation. The heating and cooling system uses the treated effluent in various ways and during times of the year can provide up to 95 percent of the heating/cooling needs for the building.

As a condition of the grant, the plant was built with the capacity to handle expansion to the Kaleden Lakeshore and Skaha Estates communities. Work has been completed on predesigns for extensions of the system to these two communities:

- In 2017 the RDOS received grant funding to extend the sewer system to Skaha Estates community. A preliminary engineering design and associated cost estimate for extending sewer lines along Eastside Road to Skaha Estates identified a cost of

Figure 1: Okanagan Falls Sewer Service Area



$14.2 million, of which more than $8 million would be needed from residents. The cost was considered prohibitive at that time for the community of fewer than 200 properties, and was not pursued further.

- Grant funds were then used to prepare a preliminary design, complete with Class 'B' cost estimates, to replace the existing and septic systems in the Kaleden lakeshore area with a community sewage collection system and connect into the wastewater system in Okanagan Falls. A referendum in June 2021 was unsuccessful, with 58% of those who cast ballots voting against the proposed sewer service and associated borrowing for the infrastructure extension. No further action is planned at this time.

In 2022 a sewer master plan for the sewer service was initiated, and is expected to be completed in 2024. The new plan will identify infrastructure upgrades needed to accommodate the medium density land uses contemplated in the Okanagan Falls Town Centre Zone, as introduced in the Electoral Area "D" Official Community Plan and zoning bylaw.

Septage Disposal

The RDOS helps fund the disposal facility for receiving septic waste located at the Penticton sewage treatment plant. The plant serves the City of Penticton as well as residents of RDOS. The Okanagan Falls treatment plant does not offer a septage receiving station.

Street Lights

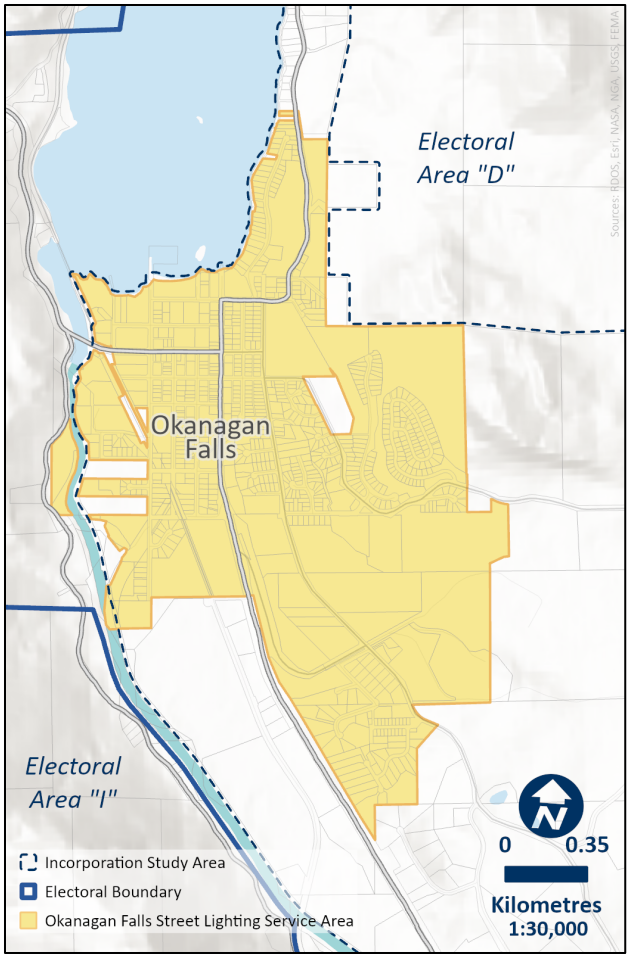
On January 1, 2023, the Okanagan Falls Irrigation District dissolved. At that time, four services were transferred to the RDOS, including the administration of street lighting in Okanagan Falls. FortisBC owns, operates and maintains all street lights within the Okanagan Falls street lighting service area. Approximately 110 lights are within the service area and study boundary. RDOS is responsible for collecting the taxes to operate these lights and has service contracts with FortisBC to maintain this infrastructure. Residents contact RDOS when a light is out; the Regional District passes that information on to Fortis. The Street Light service area is shown in Figure 2.

➤ Who makes decisions?

Okanagan Falls Sewer

The entire RDOS Board makes decisions regarding the Okanagan Falls sewer service, due to the fact that one Electoral Area Director cannot make decisions on a service alone. Decisions are made on the advice of staff, policies and regulations, and in accordance with the approved Liquid Waste Management Plan and applicable legislation.

Figure 2: Street Light Service Area



Septage Disposal

Only the directors from the participating areas — Area "D," "E," "F," and "I" — make decisions regarding the septic disposal facility, with the exception of budget decisions, which are made by the full Board.

Okanagan Falls Street Lighting

As with the sewer service, the Okanagan Street Lighting service decisions are made by all the directors on the RDOS Board, because the service area represents only a portion of one electoral area.

Figure 3: Service Decision-making

SERVICE	DECISION-MAKERS
Okanagan Falls Sewer	Decisions made by the entire RDOS Board because the service is provided to one electoral area only
Septage Disposal	Operating decisions made by the participating Directors (Area D, E, F and I), with the full Board making budget decisions
Okanagan Falls Street Lighting	Decisions made by the entire RDOS Board because the service is provided to one electoral area only

➤ Who delivers the service?

The RDOS owns and operates the Okanagan Falls sewer system and WWTP. The RDOS has three (3) sewer operators directly associated with the OK Falls sewage disposal service that includes operations, maintenance, and 24-hour standby and emergency response service. Several other RDOS staff also spend time on the delivery of both the operations and capital projects related to the service, including the senior Manager of Utilities, engineering technologist, environmental technologist, administration assistant and information services and utility billing clerk. In addition, consultants are hired as required to assist in designs, master plans, or areas that require specific expertise, including services such as maintaining HVAC, electrical and instrumentation equipment, or construction of capital projects.

The septic disposal facility at the City of Penticton's advanced wastewater treatment plant is operated by the City of Penticton. The RDOS has a 22-year contract with the City to deliver the service to RDOS that ends in July 2027.

Street lights, and maintenance of them, are provided by Fortis BC. The RDOS administers the service and refers calls to Fortis regarding outages.

➤ What is spent by RDOS on the service?

The 2023 budgeted service operating costs are shown in Figure 4. Capital items for 2023 and 2024 are highlighted in Figure 5. In addition to the annual service costs, there are operating and capital reserve accounts created for the services, shown in Figure 6. The DCC Reserve account must be used for WWTP DCC projects only.

Okanagan Falls Sew

Annually, the operations of the Okanagan Falls sewer service costs approximately $1.27 million, including debt financing for the construction of the treatment plant. In 2023 the service included $385,000 in staff salaries and wages, and $49,569 in RDOS administrative costs allocated to the service.

The $1.27 million amount does not include any capital works. In 2023, $120,000 in capital works were planned, including an upgrade to a lift station as well as a master sewer plan, both of which were funded from the Community Works Fund (gas tax). In addition a $2 million dewatering solids processing upgrade was completed at the wastewater treatment plant in 2023, as well as a $1 million polishing wetland project in 2022.

In 2024, about $1.1 million in capital upgrades are planned, including an upgrade to the WWTP Ultraviolet disinfection system, back-up generator for a lift station and design and construction of priority sewer projects in the town centre area. Funding for the projects is from a combination of provincial grants (Growing Communities Fund), Community Works Fund (gas tax), and development cost charge reserves.

Septage Disposal

The septage disposal service is in a surplus situation, so no funds are required through tax requisition. Those who use the service pay tipping fees at the time of use. Tipping fees are $36/m^3.

Okanagan Falls Street Lighting

The cost of the street lighting service was $27,846 in 2023, not including the associated administration allocation of $741.

Figure 4: Service Operating Costs (2023)

SERVICE	COST[1]	USER/TAX
OK Falls Sewer	$1,270,150	$1,184,153
Septage Disposal	N/A	N/A
Ok Falls Street Lighting	$27,846	$27,846
Total	**$1,297,996**	**$1,211,999**

[1] *Cost and tax requisition figures are from RDOS 2023 budget). Administration allocation is included for OK Falls Sewer, but not for Street Lighting.*

Figure 5: Service Capital Costs (2023)

SERVICE	CAPITAL ITEMS	COST
OK Falls Sewer (2023)	Master Plan and Lift Station #3 upgrades	$120,000
OK Falls Sewer (2024)	Lift Station #3 Generator	$250,000
	WWTP UV system upgrade	$210,000
	Valve actuator upgrades	$100,000
	Priority sewer upgrades	$500,000

Figure 6: Service Reserves (2022)

SERVICE/RESERVE	TOTAL[1]
OK Falls Sewer	$103
OK Falls DCC Reserve	$317,079
OK Falls Sewer Capital Reserve	$963
OK Falls Sewer Operating	$200
Septage Disposal	$99,105

[1] *Reserve totals are as at the end of 2022*

➤ How are the costs recovered?

The cost of the Okanagan Falls sewer is primarily recovered through user fees, and to a lesser extent extension, installation and connection fees. In 2023 user fees paid for approximately 93% of the service costs. The service also receives an annual Sewage Facilities Assistance grant from the Okanagan Basin Water Board. The annual user fee for a single-family residential property is $957, as shown in Figure 7.

The RDOS has a development cost charge (DCC) for the Okanagan Falls sewer treatment plant, which is paid by anyone constructing new residential or non-residential buildings or creating new residential lots through a subdivision. The DCC allows development to contribute to the capital costs of WWTP projects that benefit growth. The DCC for every new single-family lot created in the sewer area is $5,900. Apartment units pay $4,200 per unit, commercial and industrial development pay $19 per square metre of gross floor area, institutional $17 per square metre, and RV parks pay $2,400 per site or lot. The DCCs accrue in a reserve account and are used to contribute to capital costs of the WWTP. At the end of 2022 the DCC reserve was $317,079. The DCC funds were planned to be used for upgrades in 2024.

Septage Disposal
This service is recovered in part through tipping fees provided by the users at the time of disposal ($36 per m^3 at the time of disposal). A portion of the cost was previously recovered by tax requisition; however, the service is in a surplus position and therefore no longer needs to recover funds through taxation.

Street Lighting
The streetlighting costs are recovered through a parcel tax. At the time the service was transferred to the RDOS, BC Assessment had not yet completed the parcel tax roll, so the cost shown in Figure 7 represents a rough estimate based on approximately 1,000 parcels. The 2023 amount will therefore be collected in 2024 (making the amount almost double in that year), but the annual operating parcel tax is shown here. The service area is based on the previous Okanagan Falls Irrigation District boundaries.

➤ What is the cost to a typical residence?

The cost of the Okanagan Falls sewer service is recovered from taxpayers that own properties connected to the sewer system through a $957 user fee ($813 for an apartment). This user fee includes a portion allocated to capital projects, and a portion for operating costs. Properties not serviced by the OK Falls sewer system would only pay fees associated with septic disposal as needed. The costs to a typical residential property assessed at $500,000 are shown in Figure 7.

Figure 7: Cost Impact on a Typical Residence (2023)

SERVICE	RES RATE	OWING[1]
OK Falls Sewer	n/a	$957.00
Septage Disposal	n/a	n/a
OK Falls Street Lights [2]	n/a	$27.85

[1] *Impact is calculated on a home assessed at $500,000. Amount excludes 5.25% Surveyor of Taxes fee charged in unincorporated areas*

[2] *OK Falls Street Lights is recovered through a parcel tax. The total parcels has not yet been confirmed, but is estimated at 1,000 parcels.*

INCORPORATION

➤ What impact would incorporation have on these services?

Incorporation would transfer the ownership of, and authority and responsibility for, the sewer system, along with the responsibility for the street lighting and septage disposal services. There would not be any requirement, as a result of incorporation, to extend sewer services beyond the current service area. The service would continue to be funded by the users of the system.

At the conclusion of the contract between the RDOS and the City of Penticton for septage disposal (ends in 2027), septage disposal services for the Okanagan Falls

Figure 8: Changes in Authority due to Incorporation

SERVICE	BEFORE INCORPORATION (CURRENT)	AFTER INCORPORATION
OK Falls Sewer System	RDOS	Municipality
Septage Disposal	RDOS (Agreement with City of Penticton)	Municipality
OK Falls Street Lighting	RDOS (Owned and maintained by FortisBC)	Municipality (Owned and maintained by FortisBC)

municipality would be negotiated directly between the new municipality and the City of Penticton. Since the majority of the properties withn the municipality are connected to the municipal sewer system, any contribution beyond tipping fees is expected to be minimal.

Street light service in Okanagan Falls would be administered by the new municipality; the lights would continue to be owned and maintained by FortisBC.

➤ How would decision-making change?

Decisions regarding the three services would be made by the municipal council of an Okanagan Falls municipality.

➤ How would incorporation impact service delivery?

A new municipality could choose to have its own municipal staff deliver the sewer service through a public works or engineering department. Alternatives to this approach are to contract with an engineering firm to provide some or all of the maintenance and operations of the service, or to contract the regional district to continue providing the service. Typically, municipalities provide the infrastructure themselves if there is sufficient work to warrant full-time employees. Where a municipality does not have a need for full-time sewage treatment utility operators, it may be more cost-effective to have either a consultant or contract through the regional district.

The RDOS currently has three (3) certified operators involved in the operations of the OK Falls sewer service. The RDOS does not operate any other sewage treatment plants, although it does own and operate a collection system servicing the Gallagher Lake area. It is assumed, therefore, that the Okanagan Falls municipality would want its own dedicated engineering/utility staff to plan, maintain and operate its sewage treatment plant, and that there would be no obvious economies of scale to having the system operated by RDOS.

Upon incorporation, a total of three (3) municipal operators are assumed to be associated with this service, as well as the support of a utility clerk, engineering technologist, part-time manager of capital projects and the Director of Engineering (each shared with water, roads and sewer divisions). The inclusion of the supporting positions is estimated to reflect a similar service level to the support and redundancy currently provided at the RDOS. The assumed FTE at the municipality, with support positions included, totals 4.15. These positions can be accommodated in the same budget, assuming the existing amount that recovered for RDOS administration allocation ($50,000 recovered through the service) would instead be associated with service-related staffing costs. Where the municipality lacked relevant in-house expertise or capacity, the municipality would contract out those elements — examples are long-term planning, and asset management. It is anticipated that with the transfer of the service to the new municipality, all existing equipment associated with, and purchased through the service, would transfer to the municipality.

The administration of any contract with the City of Penticton regarding septage, as well as the monitoring of any outages or referring calls to Fortis BC regarding street lighting would be captured in overall administration costs. Such tasks would not impact staffing capacity significantly.

➤ How would service costs change?

The cost of operating the OK Falls sewer service, particularly given the addition of $50,000 in administration allocation towards staffiing, would not be expected to result in significant changes as a result of the transfer of responsibility to the municipality. The RDOS currently attributes the costs of operating the service to the service area; those costs, given that the service is entirely contained within the municipal boundary, are not expected to change significantly due to a change in the operator. Where cost increases may occur is in capital cost estimates associated with the delivery and management of capital projects, given the need to rely upon contractors and consultants for that work, and the reduced capacity within the smaller municipal department relative to that of the RDOS. The estimated staff complement of 4.15 FTE includes an engineering technologist and capital projects manager, shared among the sewer, water and roads services. The combined 2023 salary and wages allocation of $435,000 (including $50,000 from the administration costs), based on competitive salary and union rates should be sufficient to accommodate the added FTE.

While the RDOS has applied for and received many grants for the OK Falls system, the municipality may also benefit from having the authority to apply for infrastructure grants directly, or apply eligible Gas Tax funds to capital upgrades, in accordance with the municipality's infrastructure priorities, without having to consider other priorities within the broader region. The sewer service would continue to be paid through user fees paid by those who are connected to the system. Generally, utilities such as water and sewer are funded through self-financed utilities, in which user fees are designed to pay for the service, including operations and capital costs, with funds for growth-related projects funded in part through DCCs.

It is assumed that the new municipality would negotiate a septage disposal arrangement with the City of Penticton directly after the 2027 expiry of the current agreement through the RDOS. Given that the service was in a surplus position, and that the residents of Okanagan Falls (as part of Area D) already contributed to that surplus, no costs would be associated with the service until the 2027 conclusion of that contract. Beyond 2027, however, the municipality could have its own contract with the City of Penticton (or conversely, could provide a septage disposal option at the municipal sewage treatment facility). Because the majority of the municipality is connected to the sewer system, any contract cost for the municipality would be expected to be minimal.

The street lighting service, because it provides a service to the core of the municipality, would likely be funded through general revenues, rather than as a local service area.

SUMMARY OF TAX IMPACTS

Figure 9 presents the tax impact of the two scenarios – the current situation (RDOS) and incorporation (MUNICIPAL). It is useful to note that the OK Falls street light amount referenced in the RDOS scenario currently only applies to properties within the service boundary. In the Municipal scenario, the reduced amount would apply to the entire municipality — a change that would result in a reduction for most Okanagan Falls residents, but an increase of $13.38 for those who do not currently contribute.

Figure 9: Tax Comparison of Regional District and Incorporation Scenarios

SERVICE	RDOS[1]	MUNICIPAL[1]
OK Falls Sewer	$957.00	$957.00
Septage Disposal	n/a	n/a
OK Falls Street Lights	$27.85	$13.38
Total	**$984.85**	**$970.38**

[1] *Impact is calculated on a home assessed at $500,000.*