

**Regional District of
Central Okanagan**

Collection System Annual Report 2025



Collection System Annual Report 2025

Collection System Summary

The Regional District of Central Okanagan (RDCO) provides sewer service to the City of West Kelowna (CWK), the District of Peachland, Westbank First Nation (WFN) Reserves 9 and 10, and Ellison.

The RDCO owns, operates, and maintains the regional collection trunk mains and associated lift stations which includes approximately 28 km of trunk mains and two lift stations that collect wastewater for treatment at the Westside Regional Wastewater Treatment Plant (WRWTP). The RDCO operates and maintains:

- » District of Peachland's wastewater collection system
- » Westbank First Nation Reserves (WFN) 9 and 10 wastewater collection system
- » Ellison collection system

Operator Certification

The RDCO has an established training program that follows the BC Environmental Operators Certification Program (EOCP) and includes additional training such as, First Aid, Transportation of Dangerous Goods (TDG) and Confined Space Entry. In 2025, there was a total of six staff working in the utilities department with varying degrees of qualifications and EOCP certifications as listed below in **Table 1**.

Table 1 – RDCO Water Systems and EOCB information

Operator Name	EOCP Number	EOCP Certificates
Kevin Trottier (Chief Operator)	4607	WWC-3,WD-3,WT-3,CH
Shane Dorey	9216	WWC-2, MWWT-1,WD-1,WT-2
Douglas Murray	8918	MWWT-3,WD-1,WT-1,WWC-1
Peter Meersma	8244	WD-2,MWWT-1,WWC-2,WT-2,Plumber
Angela Lambrecht (Lab)	6468	MWWT-1, WD-1,WT-1,CH
Greg Beloin (Lab)	7787	MWWT-2, WWC-1, WT-1,WD-1,CH

Westside Regional Wastewater Treatment Plant (WRWTP)

The British Columbia Environmental Operators Certification Program (EOCP) classes the Westside Regional Wastewater Treatment Plant as a Level IV facility, EOCB # 157.

The Plant (**Figure 1**) is in West Kelowna, British Columbia and is owned and operated by the RDCO. The WRWTP receives wastewater from the CWK, the District of Peachland and WFN Reserves 9 and 10.

The WRWTP operates the Westbank Process that uses biological nutrient removal (BNR) in sequential anaerobic, anoxic, and aerobic zones. The three-stage activated sludge process removes both nitrogen and phosphorus from the wastewater and achieves a high carbonaceous biochemical oxygen demand (BOD) removal. Aluminum Sulphate is used for supplemental Phosphorus removal. This, along with clarifiers, Aqua Cloth Media filters and an ultraviolet disinfection system reduce the pathogens, solids and nutrients that discharge into Okanagan Lake.

Figure 1 – Westside Regional Wastewater Treatment Plant



Odor Control Program

An odor control program is in place and RDCO staff monitor continuous Hydrogen Sulphide (H₂S) levels at select locations along the trunk mains using Acrulog portable gas detectors (**Figure 2**) and the data is collected weekly.

Figure 2 - Acrulog



H₂S is noticeable at extremely low concentrations and offensive to certain people at 3 – 5 parts per million (ppm). It is commonly referred to as the “rotten egg” smell. It is released from the wastewater in the collection system as a direct result of sulfide production.

A proprietary nitrate-based additive is being utilized in the collection system to help keep the H₂S production to a minimum. H₂S, when combined with water can form sulfuric acid which aggressively attacks and corrodes certain types of sewage pipe and other surfaces. The nitrate-based product helps to eliminate this problem as well as decrease the H₂S formed in the system.

The additive is environmentally friendly, non-toxic, and requires no special handling or storage procedures. It has been utilized at several lift stations throughout the collection system, including:

- » RDCO Lift Stations – East Trunk, Casa Loma, Hitchner (owned by CWK)
- » WFN Lift Stations – IR10, Ferry Wharf, Westside Road, Shelter Bay
- » Peachland Lift Stations – Sixth Street, Peachland Main, Robinson, Renfrew

Flow Monitoring Program

The RDCO operates and maintains seven flow monitoring sites (Carrington, Sonoma Pines, East Boundary, Two Eagles, Boucherie, Glenrosa and Louie Drive) within the collection system. These sites are used to collect flow data to apply a flow-based cost recovery program to each authority. Louie Drive, Boucherie and Two Eagles are back-up sites which help with data correlation, justification, and interpretation. Each site is visited weekly - data is collected and maintenance on equipment is performed as required.

In 2025 the RDCO continues to improve the Flow monitoring equipment capabilities by way of satellite remote monitoring. Several units have been installed parallel to the existing monitors to validate flow data and over the next few years all flow monitoring equipment will be replaced with the updated satellite technology.

An example of a typical satellite flow monitor installation is pictured below (**Figure 3**).

Figure 3 -Flow system technology



Maintenance

Collection system cleaning is performed yearly on each system. Typically, each system is broken up into three sections, and one section is cleaned annually. Specific areas within the collection systems are done more frequently due to known odor issues (Campbell Road Siphon and Gellatly Road).

Generators are serviced annually and test-run every month to ensure smooth operation during a power outage or emergency. RDCO Backflow preventers are tested and serviced annually by qualified RDCO staff.

A Preventative Maintenance Management Program is currently utilized by operations staff.

Area/ Lift stations cleaned in 2025 are as follows:

RDCO

- » Areas – East Trunk sanitary main from CN Wharf to East Trunk Lift Station (May), Campbell Road to Casa Loma Lift Station (June and November), East Trunk sanitary main from Ogden Road to corner of Montigny and Ogden (November), Trunk main from Powers Creek to the RDCO WWTP (November)
- » Lift Stations – East Trunk (October), Casa Loma (December)

District of Peachland

- » Areas - All sanitary lines south of Princeton Avenue and all sanitary mains above Highway 97 (May and June)
- » Lift Stations – Sixth Street, Main, Hardy, Renfrew, Robinson (October)

WFN

- » Areas – All sanitary lines above Hwy 97 on IR#9 (May and June)
- » Lift Stations – Old Ferry Wharf, Dosing Chamber, Westside Road, Westbrook, Shelter Bay (November), Elk Road (March, June, September, December)

Sunset Ranch

- » Areas – All sanitary main above the 4- way stop

Improvements 2025

RDCO

- » East Trunk capacity upgrade (ongoing)
- » Casa Loma capacity upgrades (ongoing)
- » Casa Loma pump rebuilds
- » Sewer video inspections
- » Security system upgrades
- » Replacement of odour control manhole carbon inserts
- » Manhole assessments
- » Easement maintenance
- » Major Development Cost Charge (DCC) review (ongoing)

City of West Kelowna

- » Collaborative odor control monitoring with RDCO staff

City of Peachland

- » Easement maintenance
- » Security system upgrades

WFN

- » Odor control monitoring ongoing
- » Security system upgrades
- » Easement maintenance

Sunset Ranch

- » None

Future Plans 2026

RDCO

- » Continue flushing collection system – Westbank Trunk and East Trunk will be cleaned monthly throughout the summer
- » Replacement of older flow monitoring meters
- » East Trunk capacity upgrades (ongoing)
- » Casa Loma capacity upgrades (ongoing)
- » Casa Loma pump rebuilds
- » Manhole condition assessments and rehabilitation
- » Continue video inspection
- » Continue with odor control efforts
- » Development Cost Charges major review (ongoing)
- » Replacement of odour control manhole carbon inserts

District of West Kelowna

- » Collaborative odor control monitoring with RDCO Staff

District of Peachland

- » Continue flushing collection system – all sanitary lines north of Princeton and low side of Hwy 97
- » Continue with odor control efforts
- » Security updates
- » Communications updates
- » Diving inspection of submarine forcemain

WFN

- » Continue flushing of collection system
- » Continue with odor control efforts
- » Security updates
- » Communication updates

Sunset Ranch

- » Continue flushing of collection system

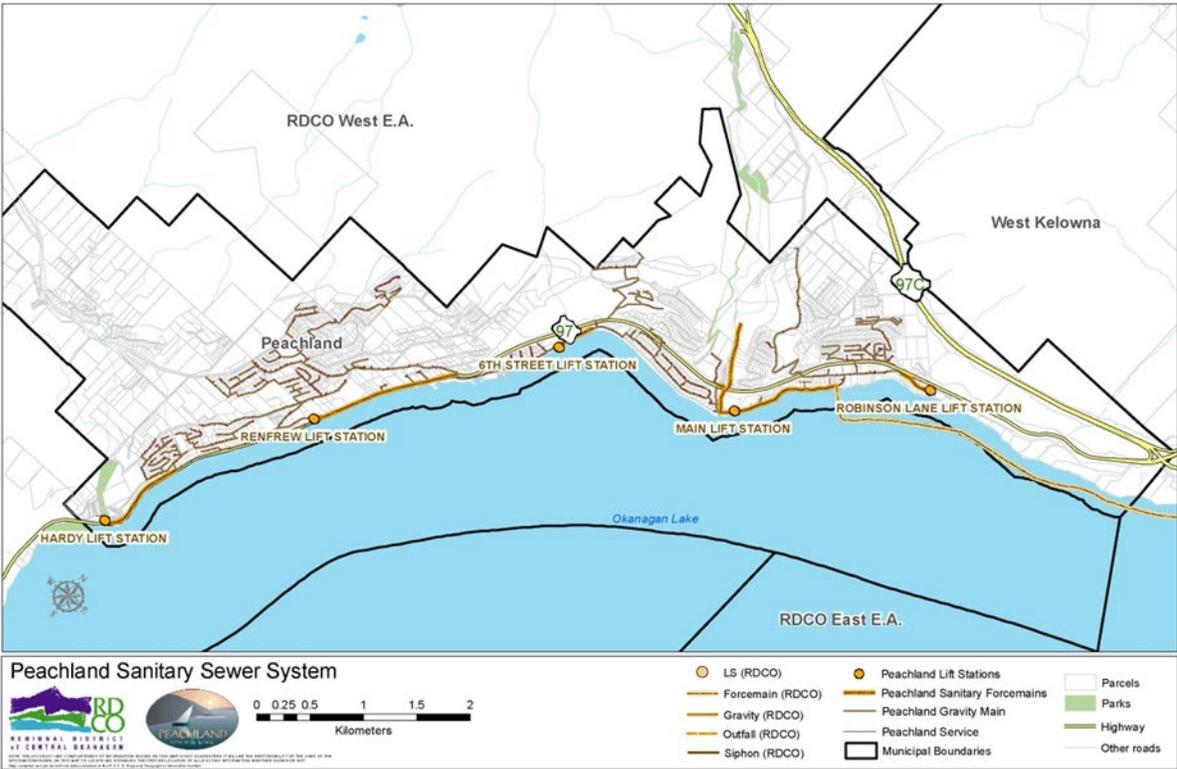
Conclusion

The RDCO is committed to its stakeholders to provide exceptional operation and maintenance of the collection system by encompassing monitoring programs by trained operators and delivering the best possible service to our end users.

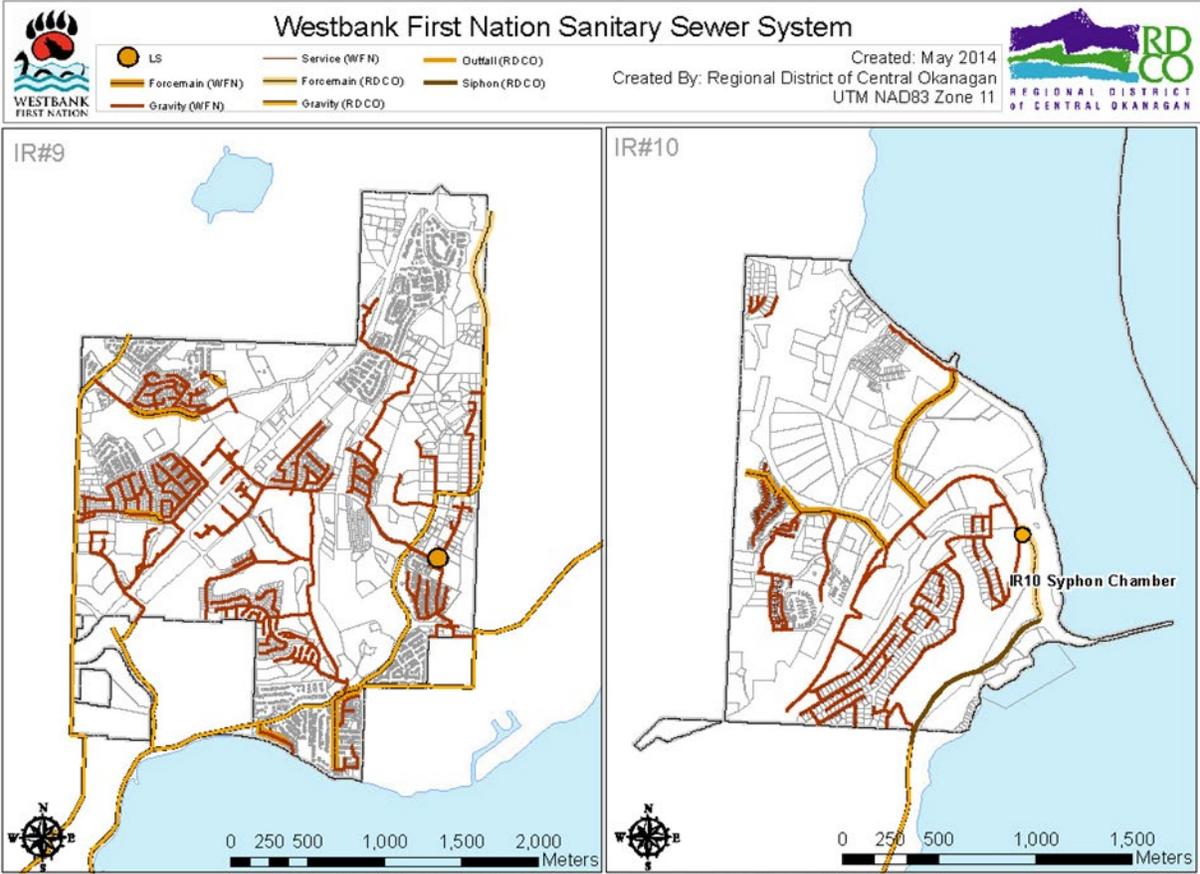
Appendix 1

Collection System Maps for the City of Peachland, WFN, DWK and Ellison

District of Peachland



Westbank First Nation (WFN)



City of West Kelowna (DWK)



Ellison

