Campbell Mountain Landfill

2025 Annual Report

Operational Certificate: 15274

Prepared by: Regional District of Okanagan-Similkameen

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1. EXECUTIVE SUMMARY

In 2025, a total of 27,152 tonnes of waste were disposed of at the Campbell Mountain Landfill, compared to 27,115 tonnes in 2024—an increase of approximately 0.1%. Overall, waste volumes remained essentially consistent year over year. A few notable shifts occurred within specific waste streams. Most significantly, burnt materials containing asbestos decreased from 99.26 tonnes in 2024 to zero in 2025. Demolition waste volumes continued to remain negligible, as these materials are being directed to the Okanagan Falls facility. In contrast, the landfill experienced a substantial increase in plate glass, a rise in illegal dumping, and a modest increase in gypsum, bringing that stream back in line with historical norms.

The Campbell Mountain Landfill remains a Contaminated Site under the Contaminated Site Regulation due to leachate exiting the property. Leachate generation is partly due to the City of Penticton Biosolids Compost operation on the property, a closed septage receiving facility and landfilled garbage. The leachate containment pond, commissioned in 2018, has received groundwater pumped from a series of wells at the base of the property and from onsite surface water. Leachate is now being conveyed from the north ravine area to the pond. Information on 2025 environmental monitoring and recommendations by EcoScape Environmental Consulting Ltd has been attached as an appendix.

The Regional District of Okanagan-Similkameen requested substituting requirements for the use of a biocover in place of Active Landfill gas capture to mitigate methane emissions from Campbell Mountain Landfill. The request was approved by the Ministry of Environment and Climate Change Strategy in 2023. The RDOS performed Baseline Methane Measurement and UBCI Model Calibration in 2024.

2. INTRODUCTION AND SITE BACKGROUND

The Campbell Mountain Landfill (CMLF) is presently operated as a natural attenuation site under Operational Certificate (OC) 15274. The OC was updated January 8, 2015. Table 1 provides the concordance between sections in the OC and their locations in this document. EcoScape Environmental Consultants Ltd (EECL) was retained by the Regional District of Okanagan-Similkameen (RDOS) to prepare the environmental monitoring section of the 2025 Annual Operations and Monitoring Report for the Campbell Mountain Landfill (CML); their report is provided in the attached Appendix I. The Regional District of Okanagan-Similkameen compiled the operation and management information for this landfill.

CMLF is located on District Lot 368, Similkameen Division of Yale District (S.D.Y.D.) and is situated within the City of Penticton, B.C. The Site has an estimated total area of 59.5 hectares and a landfill footprint of approximately 10 hectares. The landfill is located on a bench east of Okanagan Lake between Spiller Road to the east and a dominant north-south oriented bedrock ridge, directly to the west.

The landfill services the City of Penticton, Village of Keremeos, Penticton Indian Band, RDOS Electoral Areas 'B', 'D', 'E', 'G' and 'I' and part of Electoral Area 'F' (West Bench area). The population serviced in 2021 as per Statistics Canada (2021 Census) is 52,545.

Table 1: Operational Certificate 15274 Concordance Table

Approved Schedule Condition	Corresponding Report Information Section
Section 3 Monitoring and Reporting Requirements	
3.1 Municipal Solid Waste Measurement	
3.1.1 Provide and maintain a weigh scale and record the weight of refuse discharged to the landfill over a 24-hour period.	3.4 Waste Disposal, 2.5 Per Capital Waste Disposal Rates Table 2
3.2.1 Record the weight of recyclable and reusable materials not being discharged and that are being separated, stored or processed at the landfill over a 24-hour period.	3.4 Waste Disposal Table 2
3.2 Groundwater Monitoring Program	
3.2 The Regional District must implement and maintain a groundwater and surface water monitoring program prepared by a qualified professional.	2025 Environmental Monitoring Report
3.3 Vegetation Monitoring	
3.3 Inspect vegetation during the growing season in the vicinity of the landfill at least once per year to determine if any environmental impacts are occurring, and take appropriate remedial action if necessary.	2025 Environmental Monitoring Report
3.4 Sampling and Analyses	

3.4.1 Sampling is to be carried out in accordance with the procedures described in the 'British Columbia Field Sampling Manual for Continuous Monitoring and the Collection of Air, Air-Emission, Water, Wastewater, Soil, Sediment and Biological Samples, 2003 Edition'	2025 Environmental Monitoring Report
3.4.2 Analyses are to be carried out in accordance with procedures described in the 'British Columbia Laboratory Manual (2009 Permittee Edition)'	Analyses completed by CARO Analytical in Kelowna, BC a CALA Accredited Laboratory
3.5 Quality Assurance	
3.5 Quality Assurance	2025 Environmental Monitoring Report
3.6 Changes to the Sampling and Monitoring Program	
3.6 Changes to the Sampling and Monitoring Program	2025 Environmental Monitoring Report
3.7 Annual Report	
3.7 (a) Executive Summary	1. Executive Summary
3.7 (b) The type and tonnage of waste received, recycled, stored on site and discharged / landfilled for the year	3.3 Waste Diversion Activities 3.4 Waste Disposal 3.5 Per Capita Disposal Rates Table 2
3.7 (c) Any proposed changes to the Design, Operations and Closure Plan and the environmental monitoring program	3.9 2026 Operation Plan 2025 Environmental Monitoring Report
3.7 (d) Review of the preceding year of an operations update which summarizes landfill development work and airspace filled, work completed in the subject reporting year and work planned for the subsequent year. A summary of any new information or changes to the facilities and plans, assessments, surveys, programs and reports.	3.9 2026 Operation Plan 3.11 Leachate Management 4.2 Landfill Operation and Management 5. Recommendations
3.7 (e) Occurrences or observations of wildlife (medium and large carnivores) at the facility;	2025 Environmental Monitoring Report
3.7 (f) A statement regarding the facility's progress in reducing the regional solid waste stream being landfilled and the objectives of the Regional Solid Waste Management Plan	3.3 Waste Diversion Activities 3.4 Waste Disposal 3.5 Per Capita Disposal Rates 3.6 Landfill Volume Consumed Table 2

3.7 (g) An outline of the current Environmental Monitoring Program and a compendium of all environmental monitoring data in accordance with the Guidelines for Environmental Monitoring at Municipal Solid Waste Landfills and Landfill Criteria for Municipal Solid Waste. Must document any effect of the discharge on the quality of the receiving environment using appropriate statistical and graphical analysis. Trend analyses, as well as an evaluation of the impacts of the discharges on the receiving environment	2025 Environmental Monitoring Report
3.7 (h) A list of training programs completed for landfill operators during the previous year.	MOLO training

2.1 SITE HISTORY

Landfilling operations were initiated at the Site in 1972 by the RDOS. In 1975, the RDOS began waste disposal within the North Ravine. The waste deposited within this area is reported to be composed of municipal and industrial solid waste, in addition to liquid waste. In 1998, a landfill fire occurred within the refuse mass located in the North Ravine.

A liquid waste facility was constructed at the Site in the mid-1980s, for receiving septic and holding tank waste generated within the service area; the facility was decommissioned in 2008-09.

Compostable materials are sent to the City of Penticton's Bio-Solids Composting Facility, located on-site (Figure 2 – City Composting). In 1994, The City of Penticton initiated bio-solids composting and until the year 2000 materials were mixed in static piles, in 2000, upgrades were completed to add aeration to the composting windrows. The cured compost is sold from the landfill for use off-site. Although unlined there is a leachate capture system for the bio-solids composting operation that collects surface water to prevent infiltration and from within the composting area. Upgrades were completed in 2020. The collected liquids are reused in the composting process.

Leachate has been determined to have left the Campbell Mountain property, and the landfill is deemed a Contaminated Site under the Contaminated Site Regulation.

The Campbell Mountain Landfill has been deemed a 'regulated landfill' as per Section 4(5) of the Landfill Gas Management Regulation. The RDOS has made an application for substituting requirements under Section 20 of the Regulation to allow for the use of a passive bio cover instead of active landfill gas extraction.

3. LANDFILL OPERATION AND MANAGEMENT

The following section details the operation and management of the Site.

3.1 SITE OPERATIONS

The site contractor is Green for Life (GFL) having won the most recent tender procurement for operations to May 31, 2027. The Site, operated during the report period by GFL personnel, currently accepts residential, commercial, and light industrial waste from the following RDOS communities:

- Penticton
- Penticton I.B.
- Upper and Lower Similkameen Bands
- Naramata
- West Bench/Sage Mesa
- Westwood/Husula
- Redwing
- Kaleden
- Lakeshore Highlands/Heritage Hills
- Skaha Estates
- Okanagan Falls
- Twin Lakes
- Olalla
- Keremeos
- Hedley
- Cawston

Wastes that are prohibited from the disposal at the Site without the authorization of the MoE Director, according to Section 1.1.3 of the OC 15274 January 8, 2015, include the following:

- Hazardous Wastes other than those specifically authorized in the Hazardous Waste Regulation;
- Bulk liquids, semi-solid sludge's which contain free liquid;
- Liquid or semisolid wastes (septage, black water, sewage treatment sludge);
- Automobiles, white goods, other large recyclable metallic objects and tires;
- Hog fuel, log yard debris and chipped wood waste (The reuse of these materials for temporary roads, dust control or a component of alternative daily cover is permitted);
- Biomedical waste; and
- Dead animals and slaughterhouses, fish hatchery waste, and farming wastes or cannery wastes and byproducts (carcass disposed by CO's Road Maintenance, SPCA and Veterinary Clinics is allowed).

The equipment in use for the completion of daily tasks and for other maintenance at the Site include the following:

- Aljon 500, Compactor;
- CAT 826-C Compactor (spare);
- CAT 980 Loader;
- Mack G4813 (4,000 Gallon Capacity) Water Truck;
- 200 komatsu excavator
- Volvo rock truck
- Freightliner FL80 Roll-off Truck; and
- CAT D250B Rock Truck.

The landfill hours of operation are as follows:

- March to end of November – Open 8:30 am to 4:45 pm, Monday through Sunday – Open BC Statutory holidays.
- December to end of February – Open 8:30 am to 4:45 pm, Monday through Saturday – Closed BC Statutory holidays, Boxing Day and Sundays.

The placement of daily cover and alternative daily cover fulfills several functions, which include the following:

- reduce erosion
- minimize odour impacts
- reduce quantity of blowing litter
- discourage vermin and vector activity
- improving vehicular access to the active disposal area
- maintain a more aesthetic site appearance

Refuse landfilled on the working face is covered daily with an Iron Grizzly or daily cover. Once a week, the working face is covered with 0.15 m of soil.

In 2025 loads of yard waste were diverted through the City of Penticton compost yard entrance at specific times where an RDOS employee allowed access to the facility. This was scheduled to reduce pressure on the scale during seasonal rushes of yard waste.

3.2 SITE FACILITIES

The perimeter of the landfill is secured with an electrified-wire fence. The Site entrance is located on Reservoir Road. An access gate controls entrance and/or exit from the Site. The entrance gate is locked when the Site is closed to prevent unauthorized vehicle entry and uncontrolled waste disposal. The City of Penticton has a separate entrance off Spiller Rd which they control but provides an alternative access point to the facility.

A scale house and scale are located near the entrance to the Site. During operating hours, the quantity of waste received at the Site is weighed and recorded by the Scale attendant. Household recyclable materials brought to the Site, in compliance with RecycleBC depot requirements, are placed in the recycle bins located south of the scale house.

In addition to the scale house and recycling station, the following facilities are maintained at the Site:

- Small Vehicle Transfer station 3 bays - 40yd. containers
- Cover soil quarry area
- Residential and Commercial Yard Waste areas
- Residential and Commercial Wood Waste areas
- Commercial cardboard and recycling transfer station
- Pressurized tank area
- Tire area
- Lead acid and household battery area
- Refrigeration Unit area
- Electronic waste facility
- Scrap metal area
- Household hazardous waste facility
- Gypsum Recycling Stockpile
- Asphalt Shingle Recycling Stockpile
- Mattress and Box Spring Reduction Area

In 2018 a leachate collection pond was commissioned on the property at the southwest corner.

Compostable materials are diverted to the City of Penticton Bio-Solids Composting Facility as required to support their operations, located on-site. Alternatively composted materials are chipped and sold through the landfill, on behalf of the City of Penticton, and then taken off-site. The City of Penticton has conducted annual compost give away events. The City of Penticton used their own entry from Spiller Rd for vehicles that collected free compost as part of this event and these vehicles weights were visually estimated.

Figure 1: 2025 Campbell Mountain Landfill Site Plan

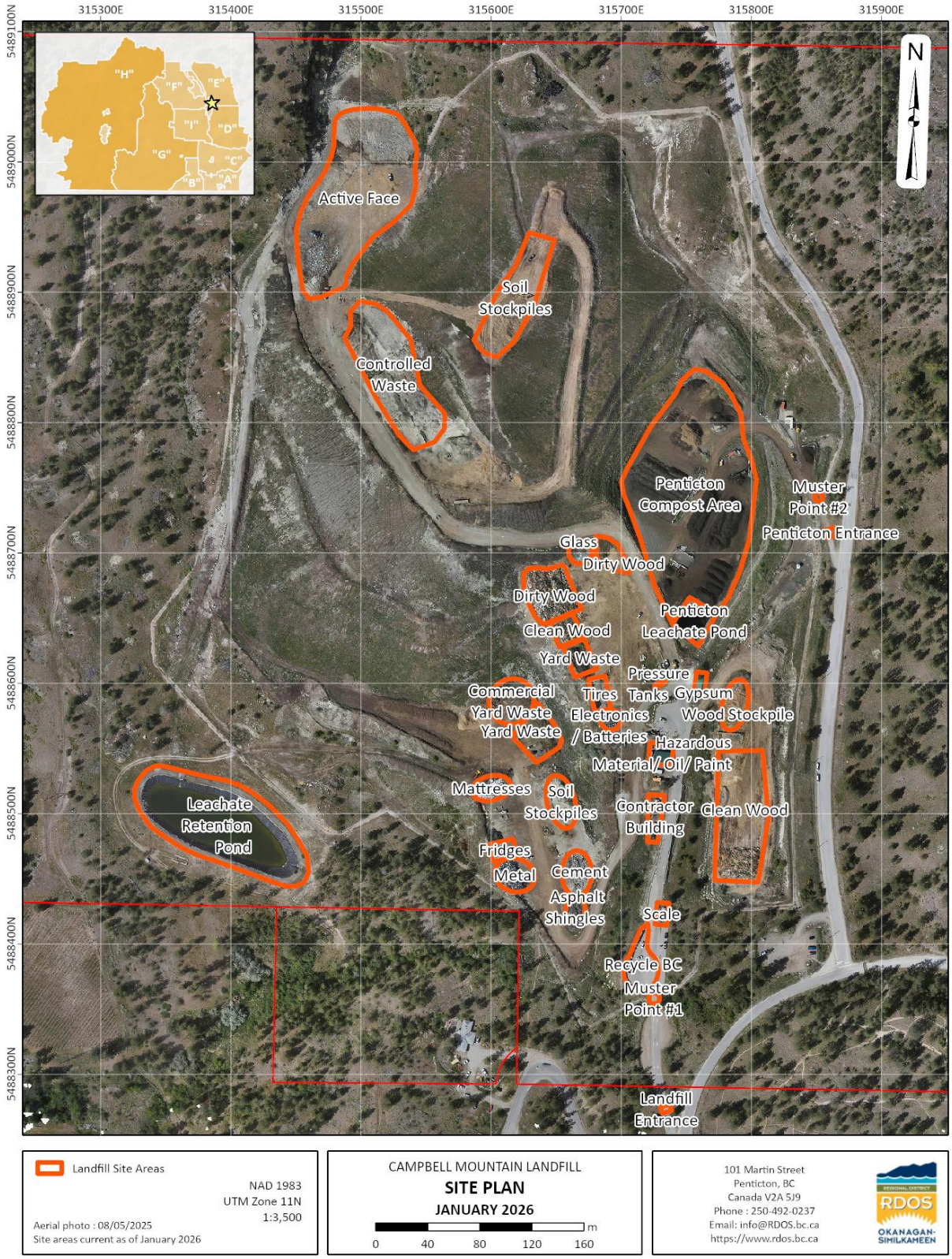

Figure 2: 2025 Campbell Mountain Landfill Topographic Map

3.3 WASTE DIVERSION ACTIVITIES

Table 2 below, specifies the specific tonnage of materials diverted from landfilling along with the tonnage of waste materials landfilled at the site in 2025.

During the reporting period, recyclables and compostable's were collected in the landfill. These include:

- Asphalt Roofing
- Batteries
- Residential Recycling
- Commercial Cardboard
- Concrete
- Electronics and small appliances
- Gyproc
- Household Hazardous Waste (including EPR programs and additional products)
- Metal
- Tires
- Tree Stumps, Yard Waste
- Pressurized tanks
- White Wood
- Light Bulbs
- Smoke and CO detectors

Electronics, small appliances, light bulbs and smoke detectors were received from the Oliver and Okanagan Falls Landfills and Keremeos Transfer Station to the Campbell Mountain Landfill for collection and ultimate diversion.

Wood waste is chipped on-site and diverted for other uses or utilized operationally as required. Composted green waste (yard and garden waste) is used for erosion control purposes.

Other programs that are diverting waste at the landfill but were not recorded by weight include the following:

- Books, hard and soft cover

3.4 WASTE DISPOSAL

All waste received at the Campbell Mountain Landfill is weighed at the scale house, and the total quantities for 2025 are summarized below. Overall waste disposal increased by 0.1% in 2025 compared to 2024. Waste received under commercial accounts remained generally consistent year over year.

Curbside garbage tonnages continued their steady upward trend in both urban and rural service areas. Most other waste categories either increased slightly or remained similar to 2024 levels. One notable

exception was Controlled Waste and contaminated soil, which experienced a significant decrease in 2025.

Table 2: Tonnage of Waste and Diverted Materials Summary

Disposed (tonnes)	2018	2019	2020	2021	2022	2023	2024	2025
Agricultural Plastics	0.39	10.25	2.47	28.30	6.08	21.44	18.18	21.43
Asbestos	237.89	207.22	141.77	227.30	254.52	312.77	213.49	198.76
Bulky Waste	5.77	3.02	9.23	72.55	20.13	1.01	7.10	11.55
Burnt material	204.34	440.57	64.36	183.76	373.89	101.15	114.11	150.95
Burnt material containing asbestos			5.53	100.41	0	7.59	99.26	0
Carcasses	6.26	5.88	3.18	2.21	1.61	2.27	1.26	1.13
Carcasses - Highways			1.63	1.66	0.40	0.02	0	0
Concrete Non-Recyclable	0	0	0	0	0	0	0	0
Construction Mixed	2.24	0	0	1.13	2.21	0.94	0	0
Controlled Waste	219.75	174.58	152.68	105.21	95.63	150.80	115.23	83.09
Curbside Non-Service Area			3.5	2.91	5.91	4.17	6.02	0
Curbside Area B, G, Keremeos	852.99	882.93	912.03	961.28	1056.59	1050.06	1067.61	929.88
Curbside Area B, G, Keremeos Large Item	12.22	7.88	6.92	14.84	32.42			28.48
Curbside E, F, Carmi	524.56	754.7	832.35	833.47	797.79	801	808.60	782
Curbside D,E,F Carmi Large Item*	18.72	15.67	16.46	6.60	9.89		11.69	10.72
Curbside Area D,I	667.15	963.19	1072	1095.68	938.22	952	946.49	1065.43
City of Penticton Residential	4107.2	4108.5	4441	4471.47	4564	4388	4399.09	4593.09
City of Penticton Large Item	66.84	57.34	61.9	66.96	7.21	64.93	67.44	67.24
Demolition/Renovation Mixed Assessed	16.21	22.73	0	43.19	1.15		0	0
Demolition/Renovation Mixed Non-Assessed	11.03	0	6.08	6.63	12.75	3.82	16.40	6.79
Foundry Dust (Industrial)	418.34	442.59	294.68	377.47	424.12	428.40	321.43	266.99

Garbage – Commercial Accounts	14649	14934	12488	12650.43	12950	13953	13060.90	12375.50
Garbage - Refuse Non-Commercial	3973.6	3885.9	4452	5405.87	4614	4567	4244.63	4773.61
Gypsum	1144.1	1140.9	995.84	882.17	0.34	865	649.55	877.85
Highway Refuse	1.9	1.62	2.17	9.77	1.12	0.02	0	2.35
Illegal Dumping	12.77	7.55	5.56	3.56	61.75	2.01	11.18	17.30
Invasive/ Infested Vegetation	9.4	16.42	9.04	22.19	16	9.12	11.22	29.28
Keremeos Transfer Bin	537.4	577.9	564.06	567.24	542.58	596.76	582.11	613.69
Lead Painted Material		26.89	14.44	49.92	46.74	84.47	101.53	34.48
Plate Glass		0.35	0	1.69	0	3.01	1.78	23.23
Preserved Wood	177.77	202.2	203.65	186.55	222.99	150.00	238	187.05
Sewage Screening	0	0	3.56	0	0	0	0	0.56
TOTAL Disposed	**28422**	**28891**	**26766**	**28383**	**27061**	**26711**	**27115**	**27152**

Cover Material (tonnes)	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**
Clean Earth Fill	23511	42363	47231	30033.30	32391.9	41509.4	23845.4	32016.10
Contaminated Soil	817.1	87.63	818.61	166.75	414.19	449.82	6357.87	763.02
Commercial Glass	15.65	3.55	7.15	80.64	10.70	0	0	0
Tar and Gravel and Asphalt Roofing	926.14	733.12	863	769.9	260.14	1011.62	366.89	387.07
TOTAL Contributed for Cover Material	**25270**	**43187**	**48920**	**31051**	**33077**	**42971**	**30571**	**33166**

Recycled Material (tonnes)	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**
Asphalt Shingles	290.46	305.64	289.99	136.12	574.55	576.83	638.35	508.82
Batteries	2.97	6.93	9.73	9.67	5.1	19	16	7.4
Commercial Cardboard	41.33	54.87	87.3	82.25	121.37	1.93	18.59	30.98
Concrete, Asphalt, Ceramic, Rock	2835	3780	3453.6	3299.87	3594.26	4058.35	3816.67	3648.41
Concrete Bulky		46.28	235.99	371.22	154.49	73.84	176.31	67.24
Fruit Waste	657.74	4.51	2.12	1.12	0.86	0.49	0.15	18.69
Gyprock	0	0	0	0	1078.69	865	649.55	877.85

Metal	731.46	493.6	990.1	479.86	396.82	433.40	396.45	404.33
Tree Stumps*	0	0	481.4	350	138.21	128.53	128.42	104.35
Wood Product* - Contaminated	7268.6	10253	8146.3	4127	2730	10067.14	15575.04	25202.23
Wood* - Clean			1558.2	6068	4385.57	3946.02	3692.85	2183.69
Wood Salvage	0	2.32	1.06	0	0	0.14	0	0
Yard Waste Small Dimension	1725.7	3397.5	1226.1	979.57	5948	908.64	915.96	1130.75
Wood Clean Small Dimension	0	10.27	39.56	68.52	138.03	42.22	19.05	23.59
Pressurized Tanks Small* one pound	0.4041	0.7443	0.765	2.57	0	0	0	0
Pressurized Tanks Large* 10lbs & up	8.2552	43.17	7.9968	15.50	56.8	109.49	110.25	77.41
Tires no rims*	30.6	34.15	39.06	32.70	361.9	441.46	507.23	462.71
Tires with rims*	5.698	4.55	9.394	14.70	14.28	18.09	7.41	13.70
Tires Oversized	2.28	6.61	0.64	1.37	0.47	0.40	0.23	0.07
Total	**19471**	**24318**	**26310**	**27327**	**30736**	**29136**	**29738**	**34762**

Residential Recycling Depot (tonnes)	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**
Blue Bag Recycling	2.64	0	0	0	0	0	0	0
RecycleBC Fibre	303.77	244.13	258.67	369.43	312.0	275.0	250.88	257.468
RecycleBC Containers	19.615	2.89	20.428	32.680	21.735	24.300	17.407	6.489
RecycleBC Film Plastic	4.922	2.44	5.177	5.133	6.87	0	0	0
RecycleBC Polystyrene Coloured	0.126	0.11	0.24	.264	.137	0.152	0.17	0.153
RecycleBC Polystyrene White	5.462	5.66	6.249	7.272	6.503	6.211	6.02	6.231
RecycleBC Glass	2.686	1.82	8.569	11.310	9.13	7.67	8.67	10.039
RecycleBC Other Flexible Plastic Packaging		2.93	5.014	7.488	2.732	10.63	10.40	10.488
+Total Depot	**339.2**	**259.9**	**304.3**	**433.6**	**359.2**	**323.9**	**293.6**	**290.9**

Other Stewardship Programs (tonnes)	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**
Paint	16.78	15.66	22.473	22.50	2.23	20.88	16.88	19.23
Aerosol	1.27	0.994	1.59	1.27	0.33	0.039	0.953	0.953

Solvents	0.68	0.681	0.454	1.589	7.08	0.908	0.091	0.907
Oil	12.056	12.584	11.44	11.14	18.0	16.2	12.17	14.46
Oil Filters			0	0	0.22	0.46	0.38	0.36
Antifreeze	1.435	1.664	0.955	.41	1.3	0.77	1.58	2.0
Plastic Oil/Antifreeze Containers			0	0	0.9	1.64	0.044	1.22
Alarms			0.033	.06	.02	.055	0	0.045
Lightbulbs			1.731	1.90	0.9	2.4	0.27	0.118
Electronic Waste	119.35	108.25	107.3	68.99		110.402	97.136	181.60

Other Stewardship Programs (tonnes)	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**
Household Hazardous Waste	13.73	16.95	9.94	19.12	18.55	21.31	20.18	25.98
TOTAL Landfill Diverted	**19976**	**24780**	**26816**	**27941**	**31095**	**29460**	**30181**	**35300**

Additional Information – (Weights Included Above)	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**
Agricultural Organics (organics)	347	398.11	357.47	103.80	155.11	134.898	200.94	33.40
Christmas Trees (organics)	9.9	8.6	7.24	7.73	0.61	1.16	2.67	0.37
Curbside B, G, Keremeos Yard Waste (organics)	85.62	105.35	108.84	116.51	106.52		112.57	186.24
Curbside D,E,F Yard Waste (organics)	312.26	370.84	467.48	420.46	379.92		444.64	501.82
Curbside Area D I Yard Waste (organics)	357.9	309	274.65	214.15	279.16		231.94	297.29
Curbside City of Penticton Yard Waste (organics)	1997.3	1938.0	2313.3	2088.41	2012.8	2120.6	2077.75	2029.64
Mattress / Boxspring Reduction (units)	3631	3886	4569	4802	4920	2504	4021	2583.18
ODS Removal (units)	1974	1577	2138	2125	1742	1641	1813	1459
Loads Received at Scale (number)	89697	89636	92532	97597	89943	95508	90058	93573

Table 3: Loads Recorded Per Month

Loads	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual	Avg Daily
2021	5580	4790	10606	9932	9542	8739	8976	9318	9158	9059	7901	3996	97,597	280
2022	4334	4856	8793	9672	9753	9169	9085	8781	8711	9030	5394	3397	89,943	258
2023	5217	5244	8979	9636	10056	9280	8879	8857	8410	9040	7434	4476	95,508	286
2024	3425	4167	7818	8339	8918	8276	7944	7796	7613	7918	7099	4303	83,616	229
2025	4522	3203	7421	9168	9356	8803	8909	8492	7837	8242	7392	4609	87,954	252

Notes:
The tonnage data from recycled Asphalt Roofing, Batteries, Household Hazardous Waste, Metal, Tree Stumps, White Wood, Organics, Propane Tanks, Tires, Rims on Tires, RecycleBC and Stewardship materials supplied by contractors.

'Tar and Gravel and Asphalt Roofing' under the Cover Material is determined by taking the total materials received as Asphalt Roofing less the amount recycled plus Tar and Gravel roofing received. Tar and Gravel roofing weights (non-recyclable but good for cover) is weighted with Asphalt Roofing (recyclable).

[+] 'City of Penticton Compost sold' does not represent the amount of compost produced by the City of Penticton. In 2025, Penticton conducted several free compost days using a separate entrance at the landfill. These amounts were not recorded as the scale was not used.

***Conversion Estimates to Tonnage**

AVERAGE White Wood	0.23	tonnes/m3
AVERAGE Organics	0.35	tonnes/m3
AVERAGE Tree Stumps	0.3	tonnes/m3
Small Pressuruzed Tanks	0.00045	tonnes/unit
Large Pressurized Tanks	0.0136	tonnes/unit
Tires (no longer used)	0.011	tonnes/unit
Rims on Tires	0.014	tonnes/unit
Used motor oil	0.00088	tonnes/L
Gycol	0.001	tonnes/L
Paint	0.225	tonnes/tub
Terrapure HHW Volume Conversion	0.488	L/kg
Drum	208	L

3.5 PER CAPITA WASTE DISPOSAL RATES

Based on an estimated population of 54,750 (Statistics Canada 2021 Census) in the Site Service Area, and reported waste diversion activities, the average daily mass of waste landfilled in 2025 is 1.36 kg per capita per day, which is consistent with 2024 which is 1.36kg per capita per day.

3.6 LANDFILL VOLUME CONSUMED

Excluding the diverted recycled/composted materials, 27,152 tonnes were landfilled at the Site during the 2025 report period. 33,166 tonnes of material was accepted and stockpiled to be used for cover material.

Refuse compaction rates or waste densities achieved are a function of the type and size of compaction equipment utilized; further, the organic content and characteristics of the waste and the number of passes the compactor makes over the waste. A detailed compaction analysis was undertaken during the DOCP update process and a relative waste density of 0.85 tonnes per cubic meter was achieved. The relative waste density represents the mass of the waste that can be disposed in each cubic meter of landfill air space. Soil used as daily cover is excluded from consideration since an increase in soil usage can increase the true density and provide a skewed representation of landfilling efficiency.

Based on a conservative compaction rate of 0.8 tonnes/m^3, the estimated landfill volume consumed by refuse during the 2025 report period is 33,940 m^3 (not including estimated daily cover). The 2021 DOCP, with calculations from Drone Surveys states, “Based on tonnage provided by the 2019 and 2020 Landfill annual reports, from 2012 to 2020 an average of 25,717 tonnes of waste were disposed at the CML annually. This correlates to an average airspace consumption of 33,000 m3/year using the approximated waste density of 0.80 tonnes/m3 from the detailed airspace analysis SHA completed in late 2021.”

3.7 APPROVED DESIGN VOLUME

The Site Design Operations and Closure Plan (DOCP) as provided by Sperling Hansen Associates (2021). From Table 7-2 of the DOCP the total remaining capacity of the Site is estimated at 3,283,697m^3.

3.8 REMAINING SITE LIFE CAPACITY

From the Design, Operations and Closure Plan (SHA 2021), the estimated life remaining for the Site is approximately 86 years (until 2107). An additional conceptual phase 6 could extend the life to 2148 (41 years beyond).

3.9 2025 OPERATION PLAN

In the first half of 2025, the active filling continued on the face of Phase 2 proceeding from the bottom of the existing garbage area, in the southwest of the slope, following Phase 2 of the DOCP. Landfilling was moved to North Ravine on the southwest corner of the property midway into 2024. Controlled waste continued to be buried at the midpoint of the slope created by the existing area of garbage. Active landfilling will continue to take place at North Ravine throughout 2025.

Upgrades and maintenance of drainage and leachate works were completed in 2022.

The RDOS continues to work with the City of Penticton to determine the best location for a combined wastewater treatment and green waste composting facility. Depending on the site, this may be combined

with a compost site for food waste. The RDOS has purchased the neighboring property at 1313 Greyback Mtn Rd and applied to the Agricultural Land Commission for permission to place a food waste and wastewater treatment sludge compost site. This is the preferred location for the joint compost facility.

The RDOS will update the Design, Operation and Closure Plan in 2025-2026. This includes updated lifecycle costing and a Master Plan to optimize the operation of the landfill, compost site and other activities conducted on the property.

The RDOS is working on its biocover initiative. Methane emission rates were captured in 2024 and Biocover Management Plan was developed in 2025. The implementation of biocover will take place in 2027. The RDOS plans to communicate its plan to the Ministry once the Biocover Management Plan is finalized.

3.10 OPERATION AND MAINTENANCE EXPENDITURES

The Site operates on a joint budget with Okanagan Falls Landfill (Operational Certificate 15279). The financial summary for the two landfills for 2025 is presented below. These expenditures included site operator costs, contracted costs, labour costs for the scale house attendant, and other miscellaneous expenses.

Table 4: Financial Summary for 2025 for CMLF and OKLF

GL Account	Actual	Budget
Revenues		
1-3500-4600 - FEES - REFUSE DISPOSAL	(3,908,006)	(3,653,602)
1-3500-4601 – FEES WAIVED – PIB (ILLEGAL DUMPING)	-	-
1-3500-4605 - REFUSE DISPOSAL - OK FALLS	(461,191)	(524,138)
1-3500-4610 - GYPSUM DISP. FEES	(105,565)	(81,446)
1-3500-4620 - ORGANIC DISPOSAL FEES	(428,093)	(284,340)
1-3500-4630 - SCRAP METAL RECYCLING	(169,493)	(161,000)
1-3500-4640 – RECYCLE BC REVENUE	-	(47,000)
1-3500-4650 – RECYCLING DEPOT REVENUE	(11,132)	(9,038)
1-3500-6000 - TRANSFER FROM RESERVE	-	-
1-3500-6080 - TRANSFER FROM CLOSURE RESERVE FUND	-	-
1-3500-6290 - TRANSFER FROM OPERATING RESERVE	-	(1,000)
1-3500-9000 – MISCELLANEOUS REVENUE	(52,231)	(46,229)
1-3500-9990 - PRIOR YEARS SURPLUS	-	-
1-3500-9001-WOOD CHIPPING RECOVERABLE	-	-
TOTAL REVENUE	(**5,135,711**)	(**4,807,793**)

GL Account	Actual	Budget
Expenses		
2-3500-1000 – PENTICTON/D3 REFUSE DISPOSAL WAGES	846,221	918,941
2-3500-1050 – OK FALLS LANDFILL WAGES	83,755	84,870
2-3500-1001 – SALARIES & WAGES – NEW FTE	-	-
2-3500-1400 – ADMINISTRATION CHARGES	250,335	250,335
2-3500-1422 – IT SUPPORT COSTS	10,503	10,503
2-3500-2500 - OPERATIONS	206,735	125,000
2-3500-2501 – OPERATIONS-OKFL	46,975	25,875
2-3500-3000 – COSULTANTS - CML	19,071	18,000
2-3500-3001 – CONSULTANTS - OKF	-	8,000
2-3500-3520 - CONTRACT SERVICES - OPS OK FALLS	452,326	559,969
2-3500-3521 - CONTRACT SERVICES - OPS CMLS	870,470	874,161
2-3500-3522 - CONTRACT SERVICES - RECYCLING	266,364	181,125
2-3500-3523 - CONTRACT SERVICES - RECYCLING – OK FALLS	20,814	20,700
2-3500-3525 - CONTRACT SERVICES - WOOD WASTE CHIP	487,738	569,250
2-3500-3526 - CONTRACT SERVICES - WOOD WASTE CHIP OK FALLS	184,773	93,150

2-3500-3527 - CONTRACT SERVICES - SHINGLE RECYCLE	-	-
2-3500-3528 CONTRACT SERVICES – CONCRET CRUSHING	54,602	93,150
2-3500-3529 - CONTRACT SERVICES – SHINGLE RECYCLE OK FALLS	-	-
2-3500-3530 - HHW DISPOSAL CONTRACTOR	103,353	87,975
2-3500-4000 - EDUCATION & TRAINING CMLF	4,987	3,830
2-3500-4001 - EDUCATION & TRAINING OKLF	450	788
2-3500-5000 - ENVIRONMENTAL CONTROL CMLF	16,695	23,288
2-3500-5001 - ENVIRONMENTAL CONTROL OKLF	2,448	2,174
2-3500-5100 - ENVIRONMENTAL MONITORING CMLF	33,832	50,715
2-3500-5101 - ENVIRONMENTAL MONITORING OKLF	7,441	25,000
2-3500-5400 – DEPRECIATION	-	-
2-3500-6000 - INSURANCE – PROPERTY	8,332	6,876
2-3500-6050 - INSURANCE – LIABILITY	16,404	16,827
2-2-3500-6100 – INSURANCE VEHICLES	319	-
2-3500-6150 - INSURANCE - ENVIRONMENTAL	42,149	34,155
2-3500-6200 - LEGAL FEES CMLF	165	15,000
2-3500-6210 – LEGAL FEES OKFL	-	1,035
2-3500-7000 – SUPPLIES	4,806	2,588
2-3500-8010 - ADVERTISING - PUBLIC EDUCATION CMLF	9,180	10,350
2-3500-8011 - ADVERTISING - PUBLIC EDUCATION OKFL	493	631
2-3500-8200 - TRAVEL/LEASING CMLF	44,791	39,750
2-3500-8250 - TRAVEL/LEASING OKFL	430	4,000
2-3500-8500 – UTILITIES CMLF	50,686	45,968
2-3500-8510 - UTILITIES OKFL	1,379	3,209
2-3500-8700 - LANDFILL LEASE	192,949	194,641
2-3500-9200 - TRANSFER TO CLOSURE RESERVE CMLF	-	72,260
2-3500-9201 - TRANSFER TO CLOSURE RESERVE OKLF	-	-
2-3500-9202 – TRANSFER TO VEHICLE REPLACEMENT RESERVE	-	13,442
2-3500-9270 - TRANSFER TO CAPITAL RESERVE CMLF	-	216,762
2-3500-9271 - TRANSFER TO CAPITAL RESERVES OKLF	-	103,500
2-3500-9290-TRANSFER TO OPERATING RESERVE	-	-
2-3500-9650-BAD DEBTS EXPENSE CMLF	-	-
2-3500-9655-BAD DEBTS EXPENSE OKLF	-	-
TOTAL EXPENSES	**$4,341,971**	**$4,807,793**

3.11 LEACHATE MANAGEMENT

In 2015 off-site migration of leachate was confirmed. The Campbell Mountain Landfill is a natural control landfill; however, the components for leachate management (extraction wells and leachate pond) were constructed in 2017. The installation of conveyance lines to further capture leachate from the north ravine was completed as of 2022.

More information on leachate management is included in the attached 2025 Environmental Monitoring Report.

3.12 LANDFILL GAS MANAGEMENT

As required by Section 4(5) of the MoE's Landfill Gas Management Regulation (Regulation), a landfill gas generation assessment was completed on the Site in 2010 by CRA.

The Regulation applies to landfills that accept MSW on or after January 1, 2009. A landfill is termed a regulated landfill site under the Regulation if it has 100,000 tonnes or more MSW in place or receives 10,000 or more tonnes of MSW in any calendar year after 2008. The landfill is considered a 'regulated landfill' as per Section 4(5) of the Regulation.

The RDOS received a substitution approval from MOE to implement biocover as an alternative to landfill gas capture. The RDOS mapped out methane emission rates at the landfill in 2024 to identify high concentration zones. A comprehensive Biocover Management Plan was developed in 2025. The biocover blend will be placed on the intermediate and final slopes in 2027.

4. CONCLUSIONS

4.1 LANDFILL OPERATION CONCLUSIONS

C1 Excluding the diverted composted/recycled materials from the landfill, 27,152 tonnes were landfilled at the Site in 2025. Total waste disposal increased by 0.1% from 2024 to 2025.

4.2 LANDFILL OPERATION RECOMMENDATIONS

R1 A topographic survey of the site should be completed annually to verify void-space consumption. A high-definition drone survey was completed in 2025, in depth analysis was completed and data is stored with RDOS GIS. Further drone surveys will be completed annually each spring.

R2 In accordance with recommendations made in the DOCP, the current bio-solids composting area operated by the City of Penticton should to be upgraded to be in compliance with Organic Matter

Recycling Regulation (OMRR). Specifically, in the DOCP SHA recommends the composting area be lined with an environmental containment system or be paved with asphalt. (SHA 2016)

4.3 ENVIRONMENTAL CONCLUSIONS AND RECOMMENDATIONS

The attached 2025 Environmental Monitoring Report by EcoScape Environmental Consultants Ltd contains additional Environmental conclusions and recommendations within their report.

5. REFERENCES

British Columbia Ministry of Environment (MoE). 2016. Landfill Criteria for Municipal Solid Waste, Draft Second Edition. June 2016.

Conestoga-Rovers & Associates (CRA). 2012. 2011 Operations and Monitoring Report Campbell Mountain Sanitary Landfill – Regional District of Okanagan – Similkameen, British Columbia. Ref. No. 033765(18) annual report prepared for the RDOS March 2012.

Sperling Hansen and Associates (SHA). 2016. Campbell Mountain Landfill Design Operations and Closure Plan, Final Report Prepared for the RDOS, July 2016, report number PRJ15061.

Appendix I – 2025 Environmental Monitoring Report

Separate Attachment