

Oliver Landfill

2024 Annual Report

Operational Certificate: 15280



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Regional District of Okanagan-Similkameen

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CONTENTS

1. INTRODUCTION	1
2. LANDFILL OPERATION AND MANAGEMENT	4
1.1 OLIVER LANDFILL OPERATIONS	4
2.1 OLF FACILITIES	8
3.1 WASTE DIVERSION ACTIVITIES	8
4.1 WASTE DISPOSAL	8
5.1 PER CAPITA WASTE DISPOSAL RATES	13
6.1 LANDFILL VOLUME CONSUMED	13
7.1 APPROVED DESIGN VOLUME	13
8.1 REMAINING FACILITY LIFE CAPACITY	14
9.1 2025 OPERATION PLAN	14
10.1 OPERATION AND MAINTENANCE EXPENDITURES	14
11.1 LEACHATE MANAGEMENT	15
12.1 LANDFILL GAS COLLECTION	16
3. CONCLUSIONS AND RECOMMENDATIONS	17
13.1 OPERATIONAL CONCLUSIONS	17
14.1 OPERATIONAL RECOMMENDATIONS	17
15.1 ENVIRONMENTAL CONCLUSIONS AND RECOMMENDATIONS	17
4. REFERENCES	17

List of Tables

Table 1: Operational Certificate 15280 Concordance Table	2
Table 2: Summary of Waste and Diverted Materials at the OLF	9
Table 3: Recorded Vehicle per Month at Scale 2024	12
Table 4: Financial Summary for OLF in 2024	14

List of Figures

Figure 1: 2024 Oliver Landfill Site Layout.....	6
Figure 2: 2024 Oliver Landfill Topographic Map	7

Appendices

Appendix I – 2024 Environmental Monitoring Report

1. INTRODUCTION

The Regional District of Okanagan-Similkameen (RDOS) operates a solid waste landfill facility near the Town of Oliver. The Oliver Landfill (OLF) currently operates under Operational Certificate (OC) No. 15280 issued to the RDOS by the British Columbia Ministry of Environment and Climate Change Strategy (MoE). EcoScape Environmental Consultants Ltd. (EECL) was retained by the RDOS to prepare the environmental monitoring section of the 2024 Environmental Monitoring Report for the Oliver Landfill (OLF); their report is attached. The RDOS compiled the operational information for this landfill. This report presents the monitoring and operational activities for the 2024 reporting period from January 1 to December 31, 2024.

The OLF is located in the RDOS, approximately six (6) kilometers southeast of the Town of Oliver, B.C. and has an estimated total area of 16.2 hectares. Landfilling operations reportedly commenced in 1979 at the southeast corner of the site. The placement of waste reportedly commenced at an elevation consistent with the OLF bedrock/overburden interface. Cover material was historically excavated from the northwest portion of the OLF. After commencing in the southeast, landfilling progressed in a northerly and westerly direction. Scrap metal and other inert materials were stockpiled. Concrete and asphalt were reportedly placed along the bedrock overburden interface at the southeast quadrant of the landfill. The maximum waste depth, located in the west central portion of the active area, is reported to be approximately 15 meters.

This report was prepared in accordance with the annual landfill reporting requirements outlined in Section 4.4 of the OC. To aid the regulator in the assessment of compliance, we provide a concordance table (Table 1), which outlines the Operational Certificate 15280 section requirement and the corresponding report information section.

Table 1: Operational Certificate 15280 Concordance Table

Operational Certificate Section	Corresponding Report Information Section
Section 4.1 Municipal Solid Waste Management	
4.1.1 - Provide and maintain a weigh scale and record the weight of refuse discharged to the landfill over a 24-hour period	2.4 Waste Disposal Table 2
4.1.2 - Record the weight or volume of recyclable and reusable materials not being discharged and that are being separated, stored or processed at the landfill over a 24-hour period.	2.3 Waste Diversion Activities Table 2
4.1.3 - If possible, density tests should be performed utilizing a known scaled volume of representative compacted refuse at a frequency of at least once per year and reported in kg per m3.	2.5 Per Capita Waste Disposal Rates 2.6 Landfill Volume Consumed
Section 4.2 - Vegetation Monitoring	
4.2 - 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.	2024 Environmental Monitoring Report
Section 4.3 - Monitoring Program	
4.3.1 - Monitoring Program	2024 Environmental Monitoring Report
4.3.3 - Sampling Techniques	2024 Environmental Monitoring Report
4.3.4 – Analyses	2024 Environmental Monitoring Report, Water Quality analysis was completed by CARO Analytical in Kelowna, BC a CALA accredited laboratory.
Section 4.4 - Annual Report	
4.4.1 (a) - Type and tonnage of waste received, recycled and landfilled	2.3 Waste Diversion Activities 2.4 Waste Disposal 2.6 Landfill Volume Consumed Table 2
4.4.1 (b) - Current topographic map detailing airspace consumption, on-site borrow pit changes and future developments	Figure I and Figure II
4.4.1 (c) - Updated estimates for the remaining capacity, closure for the current phase and closure date for the current landfill report	2.8 Remaining Facility Life Capacity
4.4.1 (d) - Any new information or proposed changes relating to the facilities and Design and Operation Plan	2.9 2025 Operation Plan

Section 4.4 - Annual Report (Continued)	
4.4.1 (e) - Open burning activity, if applicable, including amount of material received for burning, number of burns and updates from a wood waste audit	None
4.4.1 (f) - Occurrences or observations of wildlife (medium and large carnivores) at the facility	None
4.4.1 (g) - A statement regarding progress in reducing the waste stream, in accordance with the hierarchy of reduce, reuse and recycle principles; and	2.3 Waste Diversion Activities 2.4 Waste Disposal Table 2
4.4.1 (h) - The results of all monitoring programs as specified in this Operational Certificate. Data interpretation and trend analysis, as well as an evaluation of the impacts of the discharges on the receiving environment in the previous year shall be carried out by a qualified professional.	2024 Environmental Monitoring Report
4.4.1 (i) - The methods and amounts of leachate collection, treatment and disposal, if applicable	Not Applicable

2. LANDFILL OPERATION AND MANAGEMENT

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

1.1 OLIVER LANDFILL OPERATIONS

The Oliver Landfill is administrated by the RDOS. RDOS staff operate the scale and scale house. Landfilling operations were conducted by the RDOS. OLF currently accepts residential, commercial and light industrial waste from the Town of Oliver, RDOS Electoral Area C and the Osoyoos Indian Band. Wastes that are prohibited from disposal at the OLF, according to Section 4.12 of the OC, include the following:

- Hazardous Wastes other than those specifically authorized in the Hazardous Waste Regulation;
- Bulk liquids, semisolid sludge's which contain free liquid;
- Liquid or semisolid wastes (septage, black water, and sewage treatment sludge);
- Automobiles, white goods, other large metallic objects.
- Biomedical waste; and
- Dead animals and slaughter house, fish hatchery wastes, and farming wastes or cannery wastes and by products.

The equipment required for completion of the daily tasks and for other maintenance at the OLF includes the following:

- 350 Rex Trash master;
- 966 D Cat Loader;
- 790ELC John Deere Excavator;
- 850B John Deere Dozer;
- Freightliner 1000 Gal. Water Truck;
- Ford 9000 Dump Truck.
- John Deere 544 Loader.
- Caterpillar 814F compactor.

The landfill hours of operations was as follows:

- 10:00 am to 3:45pm, Monday to Saturday (March to November);
- 12:00 pm to 3:45 pm, Monday to Friday (December to February); and
- 10:00 am to 3:45 pm, Saturday (December to February).

Closed on Sundays and statutory holidays.

Alternative daily cover (ADC), in the form of mats made of heavy strips of conveyor belt chained together, and commercial glass is used at the facility. Addition ADC is imported from the Okanagan Falls Landfill Demolition Sort Facility. This materials is a mix of fines and unsortable mixed demolition material. Intermediate cover is applied weekly.

Operational Notes for 2024:

- As indicated on the site layout, the old borrow pit along the southern boundary of the site continued to be filled with aggregate. This area will continue to be filled throughout 2025.
- A fill plan was developed in 2024 for the remaining Phase 2. Landfilling will continue at this phase throughout 2025.
- A game fence was installed on the Eastern end of the landfill to keep the large animals out of the landfill.
- Construction of compost facility was completed in 2024. Ground green waste was composted using aerated windrow. The compost was utilized on landfill side slopes. Food and yard waste composting will continue throughout 2025.
- Ground wood waste continues to be a challenge to move offsite. Co-generation plants are less willing to take ground wood waste due to contaminants, clean wood fiber when approved is expected to be used in relatively high quantities for the new compost site once complete.
- Sperling Hansen and Associates completed the development of a Master Plan, combining a Design, Operations and Closure Plan with the design of the compost site and other onsite improvements in 2022.
- Alternative daily cover (ADC), in the form of mats made of heavy strips of conveyor belt chained together, and commercial glass is used at the facility. Addition ADC was imported from the Okanagan Falls Landfill Demolition Sort Facility. This materials is a mix of fines and unsortable mixed demolition material. Intermediate cover was applied weekly.

Figure 1: 2024 Oliver Landfill Site Layout

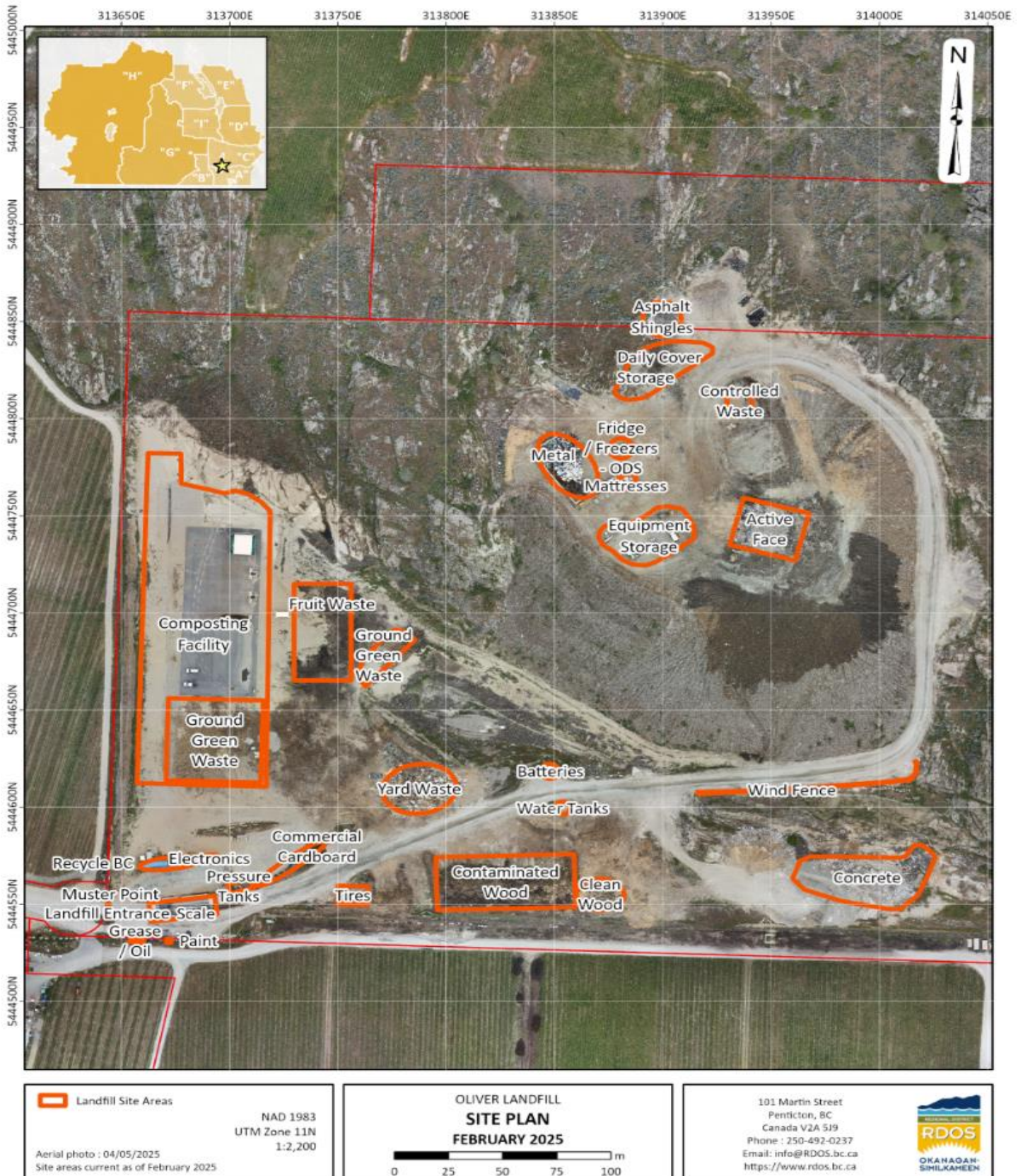


Figure 2: 2024 Oliver Landfill Topographic Map



2.1 OLF FACILITIES

The OLF is accessed from Black Sage Road via the newly named Saddle Ridge Road (formerly Sibco Landfill Road). An access gate controls entrance and/or exit. The gate is locked when the Site is closed to prevent unauthorized vehicle entry and uncontrolled waste disposal. The scale house was installed in 1998 and is located in the southwest quadrant of the Site (Figure 1). During operating hours, the quantity of waste received is weighed and recorded by the Scale Attendant. Household recyclable materials brought to the OLF, such as residential cardboard, mixed paper, containers, glass, film plastic and polystyrene packaging are placed in Recycle BC Containers located north of the scale house. Commercial cardboard is placed in containers inside the Site. The facility also operates a mattress and box spring reduction program.

3.1 WASTE DIVERSION ACTIVITIES

During the reporting period, approximately 4,735 tonnes of recyclable materials were collected through Landfill Recycling Programs and consequently diverted from burial at the landfill. The following materials were reported to have been diverted from the landfill:

- Asphalt Roofing
- Batteries and Alarms
- Recycle BC (Landfill Entrance)
- Commercial Cardboard
- Concrete, Asphalt Ceramic Fixtures (used operationally)
- Electronic waste and Appliances including Ozone Depleting Substance (ODS)
- Fruit Waste
- Metal
- Tree Stumps
- White Wood
- Yard Waste
- Pressurized Tanks
- Tires
- Used Oil
- Paint

Converted Cargo Containers are used to collect household recyclables under Recycle BC program. A summary of recovered materials associated with landfill recycling activities is presented in Table 2.

4.1 WASTE DISPOSAL

The quantity of waste received at the OLF is weighed at the scale and recorded by the scale attendant. Excluding composted/recycled materials/ clean fill/ contaminated soil (below Hazardous Waste level) which were used for cover/ construction or operationally, 7,154 tonnes were landfilled in 2024. This is a 9.84% decrease over 2023. A waste disposal summary is presented in Table 2.

Table 2: Summary of Waste and Diverted Materials at the OLF**Waste Material Landfilled**

Waste Material (tonnes)	2016	2017	2018	2019	2020	2021	2022	2023	2024
Agricultural Plastics	127.19	73.84	85.69	120.24	99.46	116.85	87.8	124.51	148.46
Asbestos	18.73	29.86	6.925	13.23	16.71	19.68	103.1	41.99	203.57
Bulky Waste	0	6.03	1.61	1.23	3.48	3.72	2.6	1.79	1.24
Burnt material	13.9	90.31	31.85	43.11	115.13	172.41	54.4	32.46	13.95
Carcasses	7.315	7.97	8.28	7.15	0.77	.57	2	0.78	0
Carcasses - Highways					1.63	2.26	-	0.13	0.12
Construction Mixed	17.79	7.75	7.035	7.89	0	0	-	-	0
Controlled Waste	6.98	16.1	12.84	24.71	57.5	70.35	7.6	35.41	0.58
Curbside – Out of Service Area					7.85	21.75	-	-	-
Curbside Area 'C'	559.8	566.95	549.33	555.84	585.27	598.48	607.6	607.72	600.52
Curbside Area 'C' Bulky Waste	9.11	14.93	9.58	3.38	18.11	10.82	10.25	10.93	10.90
Curbside Oliver	743.34	679.2	662.15	709.19	765.41	800.71	796.6	-	815.20
Curbside Oliver Bulky Waste	12.89	10.12	13	17.79	13.67	3.25	4	11.63	10.53
Demolition/ Renovation Mixed Assessed	4.74	0	6.23	0	1.81	0	-	-	27.19
Demolition/ Renovation Mixed Non-Assessed	38.89	74.42	13.39	9.87	25.75	0	-	32.38	11.52
Garbage – Commercial Account	2201.9	2349.3	2384	2925	3243.0	3521.04	3763.5	3636.3	3023.52
Garbage – Refuse Non-Commercial	1421.1	1413.2	1656.5	1732.4	1783.6	2011.72	2064.1	1848.4	1701.87
Garbage – Out of Service Area					91.89	0	5.8	254.37	20.18
Gypsum		18.9	221.73	157.2	113.29	131.03	197.5	138	85.79
Highway Refuse	32.69	35.16	38.99	11.87	1.25	1.37	0.3	0.3	0.32
Illegal Dumping	0.43	10.42	2.59	1.66	0.07	4.92	0.9	0.9	0.22
Infested Vegetation/ Noxious Weeds	89.95	98.3	100.37	106.43	108.53	135.97	130	111.64	8.64
Lead Painted Material			0.14	0.53	3.86	8.28	1.5	1.1	1.01

Preserved Wood	369.94	240.51	167.09	267	298.23	167.06	148	351.09	468.55
Prohibited Waste							0.4	0.72	
DRC Material									
Noxious Weeds									
TOTAL LANDFILLED (tonnes)	5677	5743	5979	6715	7356	7802	7982	7935	7154

Cover Material (tonnes)	2016	2017	2018	2019	2020	2021	2022	2023	2024
Clean Earth Fill	2582.5	1151.55	2068.7	579.8	558.89	1159.47	658.9	886.4	434.03
Contaminated Soil	0	19.54	9.7	97.21	142.8	6.98	4.9	2.76	85.43
Sod									
Commercial Glass	127.7	95.7	66.7	88.33	71.83	0	96.6	57.58	63.92
Operationally Beneficial Cover				721.31		.35	32		
Tar and Gravel Roofing	93.42	120.92	94.5	172.05	38.82	48.62	293.4	81.05	74.95
TOTAL Contributed for Cover Material	2804	1388	2240	1659	812.34	1215.42	1085.8	1027.79	658.33
Additional Cover from OK Falls									1043
Recycled Material (tonnes)	2016	2017	2018	2019	2020	2021	2022	2023	2024
Asphalt Roofing	374.01	305.6	81.5	238.7	0	329.16	0.3	259.58	313.71
Batteries	1.5	5.43	3.98	5.01	8.05	4.091	2.7	0	5.70
Commercial Cardboard	36.82	17.04	11.995	8.43	7.16	6.66	42.3	8.74	12.25
Concrete, Asphalt, Ceramic, Rock	621.69	802.45	1125.77	614.61	773.9	748.32	530.4	437.80	337.20
Concrete Bulky				50.36	13.77	35.88	11.5	95.23	46.11
Fruit Waste	116.07	419.36	1003.3	864.4	1030	361.39	721.1	374.27	818.33
Gyproc	276.04	178	0	0	0	0	0	0	0
Metal	286.43	216	225.24	208.9	194.2	355.82	233.3	297.20	368.75
Wood Salvaged				5.13	0	0	0	0	0
Tree Stumps (m3 converted)	0	0	0	87	65.16	74.14	36.2	36.76	34.50
White Wood (m3 converted)	2010.2	1905.32	1561.3	1188.7	742.16	2263	2098	850.24	726.51
Processed Organics - White	844.32	0	0	0	0	0	0	0	0

Wood Product (painted)						.08	0	5.46	0
Yard Waste Small Dimension	34.27	201.68	249.65	243.18	166.86	150.24	556.2	133.05	177.16
Organics (m ³ converted) Yard Waste	1848.7	1729	2371.2	2284.9	2621.8	1308	1210.5	1357.41	1145.73
Small Pressurized Tanks (units converted)	0.32	0.40	0.44	0.30	0.245	1.08	0	0	0
Large Pressurized Tanks (units converted) 5lbs and up	4.71	8.00	2.50	16	2.50	6.77	53.06	54.13	44.66
Wood Waste Industrial		9.62	0	0	0	823.64	871.25	0	0
Tires	12.089	10.813	8.07	16.04	25.68	18.80	480.9	581.87	589.75
Tires on rims (units converted)	3.938	3.817	0.781	4.19	3.95	.492	3.5	4.33	4.43
Tires Oversized	0.33	0.85	3.18	0.5	0.67	.25	3.33	0.51	1.01
Residential Recycling Depot (tonnes)	2016	2017	2018	2019	2020	2021	2022	2023	2024
Blue Bag Commercial	22.25	22.33	0	0	0	0	0	0	0
RecycleBC Fibre	14.5	10.9	9.5	7.8	5.37	4.825	4.557	3.788	4.403
RecycleBC Containers	2.8	1.84	1.5	1.7	1.57	1.322	1.076	0.904	0.699
RecycleBC Film Plastic	1.5	1.18	1.2	.5	0.38	.292	.182	0	0
RecycleBC Poly - Coloured	0	0.01	0.0	0	0.03	.028	.02	.016	0.005
RecycleBC Poly - White	0.7	0.88	1.0	0.9	0.62	.552	.613	.393	0.407
RecycleBC Glass	3.3	3.2	0.7	0.8	3.69	3.090	2.52	2.28	1.949
RecycleBC Other Flexible Plastic				0.8	0.51	.376	.40	.603	0.521
Total Depot	45.05	40.34	13.9	12.5	12.17	10.485	9.368	7.984	7.984
PRODUCT CARE / BCUOMA (tonnes)	2016	2017	2018	2019	2020	2021	2022	2023	2024
Paint	2.9483	2.5	3.4	2.5	2.72	9.0	0	7	1.8
Aerosol	0.1587	0.16	0	0	0.2	.25	0	1	0
Oil	0.0096		8.976	7.3	0.88	2.03	0.918	2.30	5.46
Oil Filters	0.39				0	0	0	1 drum	0.09
Antifreeze	0.615		0.615	.416	0	.21	0.14	0	0.6
Plastic Oil Containers		0.42			0	0	0	65	0

Plastic Oil Pails								80	93.5
TOTAL Diverted from the Landfill (tonnes)	6521	5857	6689	5859	5672	6509.79	6865	770.85	4736
Supplemental Information (tonnes included elsewhere)	2016	2017	2018	2019	2020	2021	2022	2023	2024
Agricultural Organics	136.98	463.4	219.03	240.32	217.19	211.08	154.22	662.45	549.59
Curbside Area 'C' Yard Waste		39.45	44.79	55.44	50.61	69.91	-	64.91	64
Curbside Oliver Yard Waste		209.61	219.09	332.37	426.35	356.76	-	366.57	367.85
Electronic Waste (included in CMLF)	9.895	10.96	8.15	5.5	5.08	0	0	0	0
Mattress / Box spring Diversion (units)	1014	999	1038	1041	1106	1057	1247	583.03	1237
Refrigeration Units (units)	526	560	451	408	738	613	447	478	361
Compost Soil Amendment sold (tonnage)	0	0	0	0	0	0	0	0	0
Yearly Loads at Scale (Number)	24856	24560	27151	26371	27583	28284	26753	28654	25253

Table 3: Vehicle Recorded Per Month in 2024

Oliver Landfill	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
2021	1445	1100	3251	3128	2968	2597	1921	2738	2580	3013	2480	1063	28,284
2022	988	1264	2786	2848	3030	2686	2618	2620	2571	2844	1691	807	26,753
2023	1459	1502	2742	2684	3148	2975	2564	2568	2523	2953	2269	1264	28,654
2024	1008	1279	2077	2557	2671	2401	2165	2148	1808	2597	1788	996	23,495

Notes:

The tonnage data from recycled Asphalt Roofing, Batteries, Metal, Tree Stumps, White Wood, Organics, Propane Tanks, Tires, RecycleBC and Product Care 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 is weighted with Asphalt Roofing but is used to establish and maintain onsite roads. (Recyclable).

Conversion estimates to tonnage used

AVERAGE White Wood	0.23	tonnes/m ³
AVERAGE Organics	0.35	tonnes/m ³
AVERAGE Tree Stumps	0.3	tonnes/m ³
Small Pressurized Tanks	0.00045	tonnes/unit
Large Pressurized Tanks	0.0136	tonnes/unit
Tires (no longer used)	0.011	tonnes/unit
Rims from Tires	0.014	tonnes/unit
Used Motor Oil	0.00088	tonnes/L
Glycol	0.001	tonnes/L
Paint	0.225	tonnes/tub
Drum	208 L	

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.

5.1 PER CAPITA WASTE DISPOSAL RATES

Based on an estimated population of 9,842 people (Statistics Canada 2021Census) in the OLF service area (Electoral Area C, Town of Oliver and Osoyoos Indian Band), the average daily mass of waste disposed per capita is approximately 1.99 kg per day.

6.1 LANDFILL VOLUME CONSUMED

Excluding composted/recycled materials which were diverted, 7,154 tonnes were landfilled at the OLF during the reporting period. This is a 9.84% decrease over 2023.

Refuse compaction rates are a function of the type and size of compaction equipment utilized and the nature of the refuse. As indicated in Section 2.1, CAT 816F compactor is currently used to compact the refuse and is estimated to yield an in-situ refuse density of approximately 0.6 tonnes/m³ but higher compaction density of 0.65 tonnes/m³ has been realized.

Based on the above compaction rate and a 4:1 cover ratio determined in the Oliver Landfill Life-Cycle Cost Analysis prepared by Sperling Hansen Associates (DOCP 2022), the estimated landfill volume consumed by the placement of refuse during the reporting period is about 13,558m³ in 2024.

7.1 APPROVED DESIGN VOLUME

It has been estimated that the total remaining OLF capacity as of December 2021 was approximately 336,115 m³ based on a final top refuse elevation of 415 m AMSL, calculated as part of the Design, Operation and Closure Plan.

8.1 REMAINING FACILITY LIFE CAPACITY

Based on the 2022 lifespan analysis prepared by SHA, the estimated closure date is 2065. This estimate is based on the reduced waste disposal per capita of 0.857 tonnes/person/year due to organic diversion.

9.1 2025 OPERATION PLAN

OLF operations, including operating hours, will remain unchanged.

The Design, Operations and Closure Plan was updated in 2023.

The construction of compost facility at the Oliver Landfill was completed in 2023. The Oliver Landfill had received funding through the Organics Infrastructure Program. The intent of the compost site will be to treat existing fruit waste, organics, yard waste and green waste and residentially collected food waste from Oliver, Osoyoos, Electoral Areas 'A' and 'C' and the Osoyoos Indian Band. Mixed food and yard waste composting will commence on April 2025. The facility will be an OMRR compliant turned windrow system. It will not receive commercial food waste or wastewater sludge.

10.1 OPERATION AND MAINTENANCE EXPENDITURES

The operational and maintenance expenditures for the OLF during 2024 are reported below. These expenditures include Contractor costs, RDOS salaries and other miscellaneous expenses. A summary of the 2024 financials and budget for the landfill is presented in Table 4.

Table 4: Financial Summary for OLF in 2024

GL Account	2024 Actual	2024 Budget
Revenues		
1-3000-1000 - TAX REQUISITION	(123,186)	(123,186)
1-3000-1800 - GRANT IN LIEU OF TAXES	469	-
1-3000-2700 – INTEREST INCOME	-	-
1-3000-3070 - AGREEMENT - OSOYOOS INDIAN BAND	-	(2,920)
1-3000-4600 - FEES - REFUSE DISPOSAL	(1,079,634)	(1,130,600)
1-3000-4630 - SCRAP METAL RECYCLING	(113,323)	(75,000)
1-3000-4640 - MMBC REVENUE	(1,330)	(3,000)
1-3000-6000 - TRANSFER FROM OPERATING RESERVE	-	113,000
1-3000-9000 - MISCELLANEOUS REVENUE	(3,266)	-
1-3000-9990 - PRIOR YEARS SURPLUS	342	-
TOTAL REVENUE	(1,320,868)	(1,448,706)

GL Account	2024 Actual	2024 Budget
Expenses		
2-3000-1001 – SALARIES AND WAGES	391,732	419,373
2-3000-1010 – OLIVER COMPOST WAGES	11,209	-
2-3000-1400 - ADMINISTRATION CHARGES	60,029	60,029
2-3000-1422 – IT SUPPORT COSTS	3,348	3,348
2-3000-2230 – EQUIPMENT MAINTENANCE	38,000	30,000
2-3000-2500 - OPERATIONS	99,032	120,000
2-3000-2510- OPERATIONS- COMPOSTING	2,701	30,000
2-3000-3000 - CONSULTANTS	5,063	50,000
2-3000-3520 - CONTRACT SERVICES	1,762	-
2-3000-3521 - CONTRACT SERVICES - OPERATIONS	13,446	5,000
2-3000-3522 - CONTRACT SERVICES - RECYCLING	42,632	40,000
2-3000-3525 - CONTRACT SERVICES WOOD WASTE	152,701	120,000
2-3000-3526 - CONTRACT SERVICES - E WASTE	-	15,000
2-3000-4000 - EDUCATION & TRAINING	4,520	5,000
2-3000-4100 - MEMBERSHIP & DUES	85	2,000
2-3000-5000 - ENVIRONMENTAL CONTROL	5,016	7,700
2-3000-5100 - ENVIRONMENTAL MONITORING	18,511	3,800
2-3000-5502- CAPITAL EXPENDITURE- COMPOST FACILITY (GRANT)	-	-
2-3000-6000 - INSURANCE – PROPERTY	147	160
2-3000-6050 - INSURANCE – LIABILITY	3,512	4,601
2-3000-6100 – INSURANCE VEHICLE	871	191
2-3000-6150 - INSURANCE – ENVIRONMENTAL	12,668	10,577
2-3000-6200 - LEGAL FEES	-	-
2-3000-7000 – SUPPLIES	1,675	1,077
2-3000-8010 - ADVERTISING - PUBLIC EDUCATION	-	1,350
2-3000-8200 - TRAVEL/LEASING	75,738	69,000
2-3000-8500 – UTILITIES	17,537	13,000
2-3000-8510- UTILITIES- COMPOST ELECTRIC & WATER	1,530	20,000
2-3000-9200 - TRANSFER TO RESERVE CAPITAL	260,900	316,000
2-3000-9202-TRANSFER TO VEHICLE REPLACEMENT RESERVE	75,000	-
2-3000-9290 – TRANSFER INTEREST TO RESERVES	-	-
2-3000-9290 - TRANSFER TO OPERATING RESERVE	21,514	21,500
TOTAL	1,320,868	1,448,706

11.1 LEACHATE MANAGEMENT

The OLF is operated as a natural control landfill; therefore, a leachate collection system has not been implemented. Leachate generated from precipitation infiltrating into the refuse mass may be attenuated by the overburden below the landfill. The depth (up to 85 meters) and nature of the overburden indicate significant attenuation potential at the OLF.

12.1 LANDFILL GAS COLLECTION

Landfill gas is not currently managed at the OLF. A Landfill Gas Generation Assessment Report (LFG Report) was completed for the Site in 2010 in accordance with the MoE Landfill Gas Generation Assessment Procedure Guidelines (CRA, 2009). A Supplemental Landfill Gas Generation Assessment for the Oliver Landfill was completed by GHD in 2018 (GHD, 2018) and Sperling Hansen Associates in 2024.

Based on the findings of the 2024 LFG Report, the estimated methane released from the Oliver Landfill in 2024 was 311 tonnes. As this amount is less than 1000 tonnes per year, the RDOS is not required to submit a Landfill Gas Management Design Plan to the MoE, as per the Landfill Gas Management Regulation, for the Oliver Landfill. Organics diversion has the potential to reduce this estimated amount of methane produced by the landfill.

3. CONCLUSIONS AND RECOMMENDATIONS

13.1 OPERATIONAL CONCLUSIONS

C1 7,154 tonnes of garbage was landfilled in 2024; a 9.84% decrease over 2023.

14.1 OPERATIONAL RECOMMENDATIONS

Based on the progress of activities at the OLF, the following operational recommendations are provided:

R1 The residential organic composting operation is to commence on April 2025.

15.1 ENVIRONMENTAL CONCLUSIONS AND RECOMMENDATIONS

The attached 2024 Environmental Monitoring Report by EcoScape Environmental Consultants Ltd. contains additional Environmental Conclusions and Recommendations in their report.

4. REFERENCES

Conestoga Rovers & Associates (CRA), 2010. Landfill Gas Generation Assessment Report, Oliver Landfill Site, Oliver B.C.

Conestoga Rovers & Associates (CRA), 2010. Operational/Closure Plan for the Oliver Landfill Site, Oliver B.C. Ref No. 049846(04).

GHD Limited (GHD), 2018. Supplemental Landfill Gas Generation Assessment Oliver Landfill, Ref No. 11139565(02).

Sperling Hansen Associates, 2022 Draft. Oliver Landfill Design, Operations and Closure Plan. PRJ20064

Sperling Hansen Associates, 2024. Oliver Landfill Supplementary LFG Report. PRJ 24069

Appendix I – 2024 Environmental Monitoring Report