



REGIONAL DISTRICT NORTH OKANAGAN

2020 Annual Report: Kingfisher Diversion and Disposal Facility

Ministry of Environment & Climate Change Strategy
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1 INTRODUCTION

The Kingfisher Diversion and Disposal Facility (KDDF) is located within Electoral Area F in the Regional District of North Okanagan (RDNO) at 150 Beattie Road, approximately 35 km north of the City of Enderby.

The legal description of the property on which the KDDF is located is the south-west quarter, Section 23, Township 19, R.6, W.6, Kamloops Division of Yale Land District. The site, owned by the RDNO, is 0.65 hectares and serves the community of Kingfisher and surrounding Electoral Area (F). The location plan is presented as part of the 20120 Environmental Monitoring Report, Attachment A.

The transfer station facility was operated by Dan's Bobcat Services under a contract with the RDNO during 2020.

The works authorized are a modified sanitary landfill and related appurtenances.

2 BACKGROUND

Since 2003 the KDDF has operated as a transfer station. The KDDF was open Sundays from 9:00 a.m. to 4:00 p.m. throughout the year and on Wednesdays and Sundays from 9:00 a.m. to 4:00 p.m. between April 1 and October 31.

The KDDF includes a lockable entrance gate and gate house. The facility is surrounded by a chain link fence. Customers entering the facility are required to check in with the Facility Attendant and pay the specified disposal fee based on the type and volume of material disposed.

The Regional District of North Okanagan Municipal Solid Waste Management Bylaw No. 2832, 2019 establishes fees and sets standards for the use of diversion and disposal facilities owned and operated by the regional district. The Bylaw was originally adopted in April 2010 and took effect July 5, 2010. The bylaw has been amended on a number of occasions since 2010. A copy of the version of the Bylaw that took effect in 2019 is provided as Attachment B.

Prior to 2012, the RDNO solid waste management program operated on a 100 percent user pay system, with no financial contribution from taxation. However, in 2012 the RDNO implemented a region wide tax levy in the amount of \$420,000 to provide additional funding for solid waste management.

3 FACILITY OPERATIONS: 2020

This section describes on-site activities during 2020 including disposal methods and recycling initiatives.

3.1 DISPOSAL METHOD AND QUANTITIES

Landfilling of Municipal Solid Waste at the KDDF ceased in April 2003. In December 2002 construction of a one bay lock block transfer station took place in an area away from the former filling area. The transfer station opened for use in April 2003. A 40 cubic yard lidded container is filled by facility customers and once full, the bin is hauled to the Armstrong/Spallumcheen Diversion and Disposal Facility (ASDDF) or the Greater Vernon Diversion and Disposal Facility (GVDDF) for disposal. A second lock block bay was constructed in 2008 to improve operational efficiency.

The quantity of Municipal Solid Waste (MSW) transported from the KDDF to the ASDDF and GVDDF during 2020 was 193 tonnes. This was a significant increase from 2019.

Based on an estimated average annual service population in the Kingfisher area of approximately 300, the per capita disposal rate was approximately 0.64 tonnes per capita per year in 2020. Waste generation in the Kingfisher area is significantly higher in the summer months when there are significant numbers of tourists in the area, therefore it is difficult to accurately determine the service population of the facility.

In 1990, the province of British Columbia implemented a 10-year strategy with the goal of reducing that amount municipal solid waste disposed per capita by 50% by the year 2000. When compared to the 1991 regional filling rate of 0.61 tonnes per capita per, this goal was not achieved at the KDDF, indicating that there is room for improvement in waste reduction programs in the Kingfisher area.

The province of British Columbia has recently set a provincial waste disposal target to lower the municipal solid waste disposal rate to 350 kg per capita. This target was included in the most recent RDNO Solid Waste Management Plan and the RDNO is working to meet this target on a region wide basis.

The landfill at the KDDF was closed in April 2003 and capped in the summer of 2003 in accordance with the design by Bel MK Engineering (qualified professionals). The area has been seeded and graded to drain to the perimeter of the site. The cap continues to function well.

3.2 RECYCLING

The following commodities are segregated at the KDDF and shipped off-site for recycling or used on-site:

- Tires: Recycled under the Provincial Tire Recycling Program.
- Yard and Garden and Wood Waste: Stockpiled material were transferred to the Armstrong/Spallumcheen Diversion and Disposal Facility in the spring of 2020 to mitigate the fire risk.
- Propane Tanks: Removed by a contractor to be refurbished or recycled.
- White Goods and Other Metals: Refrigeration units were decommissioned and refrigerant removed by a qualified contractor under contract. Metal sold to a recycling contractor.
- Old corrugated cardboard (OCC): Was collected in a 40 cubic yard lidded container and transported to a processing facility.
- Electronic Waste: Collected and transported to an Encorp E-waste collection depot as required.
- Waste Gypsum Drywall: This material is collected in a low rise bin at the transfer station and when full is hauled to the Greater Vernon DDF.

3.3 OPERATION AND MAINTENANCE EXPENDITURES

Total operation and maintenance expenditures at the KDDF during 2020 were \$54,904.

4 OPERATIONAL MONITORING/INSPECTIONS

RDNO staff monitored all aspects of KDDF operations and met with the facility operator on a number of occasions during 2020 to ensure that operations were carried out in compliance with all Ministry of Environment and Regional District of North Okanagan requirements. Any operational issues were noted and addressed as necessary.

5 ENVIRONMENTAL MONITORING

5.1 2020 ANNUAL ENVIRONMENTAL MONITORING REPORT

The Kingfisher Diversion and Disposal Facility, 2020 Environmental Monitoring Report, dated February 2021, prepared by Regional District of North Okanagan Staff, is provided as Attachment A. The monitoring program is described and monitoring results are provided including the status of sampling points and recommendations for monitoring program improvements, where necessary.

5.2 GROUND AND SURFACE WATER MONITORING RECOMMENDATIONS

- a) Continue with the currently established sampling program, and assess trends of exceedances.
- b) Evaluate potential trends in Cadmium, Copper, Dissolved Oxygen, and Zinc in 2021.
- c) Conduct the annual post-closure inspection and continue to monitor the standing water on the west edge of the site.

5.3 LANDFILL GAS

No odour complaints were received in 2020. The passive gas vent that is incorporated into the cap at the peak is inspected annually.

5.4 EROSION

No erosion was detected on-site in 2020.

5.5 LITTER, DUST AND VECTOR CONTROL

Litter was picked by the KDDF contractor when necessary especially after wind events. The operator is required to collect litter on a regular basis.

Dust was not a significant issue at the KDDF in 2020, nor were bears or other vectors.

Bears have not been observed at the facility since 2002 after installation of the fence and transfer station. No bears were noticed at the facility during the 2020 bear season. The refuse and recycling containers, when not in use, are closed (lidded containers) and the site is enclosed with a chain link fence.

6 FINANCIAL

Approximately \$385 was spent on post closure environmental monitoring at the Kingfisher Diversion and Disposal Facility in 2020.

A Statutory Closure Reserve was established in 2010 for closure and post closure costs at all RDNO Diversion and Disposal Facilities. The balance in the Statutory Closure Reserve at the end of 2020 was approximately \$11,681,000. It is projected that the annual contribution to the Statutory Closure Reserve for 2021 will be approximately \$1,360,000.

7 DESIGN, OPERATIONS AND CLOSURE PLAN

The KDDF Operating and Closure Plan is still in draft as it has not been formally approved after it was submitted to the Ministry of Environment in 2000. The landfill was closed as per the approved closure design. The Plan will be reviewed and updated if necessary, to better reflect the post-closure activities on-site for the next 20 years.