



MINISTRY OF WATER, LAND
AND AIR PROTECTION

**OPERATIONAL CERTIFICATE
MR-16913**

Under the Provisions of the Waste Management Act

**THE REGIONAL DISTRICT OF CENTRAL KOOTENAY
BOX 590
202 LAKESIDE DRIVE
NELSON, BRITISH COLUMBIA
V1L 5R4**

is authorized to discharge refuse to the land and to store recyclable material from MUNICIPAL, COMMERCIAL AND LIGHT INDUSTRIAL SOURCES located in Electoral Areas A, B and C, of the Regional District of Central Kootenay, including the municipality of Creston, British Columbia, subject to the conditions listed below. Contravention of any of these conditions is a violation of the Waste Management Act and may result in prosecution.

This Operational Certificate supersedes and amends all previous versions of Permit **PR-01416** issued under Part 2, Section 10 of the Waste Management Act.

1. AUTHORIZED WASTE MANAGEMENT FACILITIES

1.1 This subsection applies to the landfilling of residual waste that cannot be recycled.

The authorization is restricted to residual waste originating from the Town of Creston, Electoral Area A, Electoral Area B and Electoral Area C of the Regional District of Central Kootenay. The site reference number for this discharge is E211933.

1.1.1 The average rate of discharge is 1.14 kg/person/day.

- 1.1.2** The characteristics of landfilled wastes shall be typical residential, commercial, institutional and light industrial waste but excluding:
- Special Waste, unless accompanied by written authorization of the Regional Waste Manager.
 - Waste oils
 - *Rubber tires
 - Vehicle hulks
 - Automobile batteries
 - Septic tank effluent
 - ODS containing appliances
 - **Dead animals and slaughter house, or fish hatchery wastes, and by-products.
 - Bulk liquids and semisolid sludges which contain free liquid.
 - Human anatomical and animal waste components of biomedical waste and the untreated non-anatomical waste component of biomedical waste.
- * Medium and off-road truck tires may be incorporated into the landfill if it can be demonstrated that they hold intrinsic value as a substitute for a product and that they are:
- free of contaminants; and
 - will not cause pollution.
- ** Discharge of carcasses shall be limited to animal road kills and those of a domestic nature that have received veterinary certification as being clear of communicable diseases. Carcasses are to be covered immediately with a minimum of one (1) meter of suitable soil cover.
- 1.1.3** Notwithstanding the requirements of subsection 1.1.2., the disposal of waste asbestos in compliance with the requirements of the Special Waste Regulation under the Waste Management Act (B.C. Reg. 63/88, O.C. 268/88) is hereby approved.
- 1.1.4** The authorized works are sanitary landfill, recycling/storage area, and related appurtenances approximately located as shown on attached Site Plan A.
- 1.1.5** The authorized works must be complete and in operation on and from the date of this operational certificate.

1.1.6 The location of the discharge is that land located on Part of the Northwest Quarter of the Unsurveyed Portion of Section 13, Township 7, and DL 10772, Section 24, PID 014-586-932, Kootenay District.

1.2 This subsection applies to the storage of recyclable waste.

Recyclable waste is defined as a product or substance that has been diverted from disposal, has no reuse value in its present form and satisfies at least one of the following criteria:

- is organic material that has been diverted from residential, commercial or institutional sources and is capable of being composted, or is being composted on-site;
- is managed as a marketable commodity with an established market by the owner or operator of the site;
- is being used in the manufacture of a new product that has an established market or is being processed as an intermediate stage of an existing manufacturing process;
- has been identified as a recyclable material in the Plan.

1.2.1 The recyclable wastes authorized for on-site storage shall include:

- Rubber tires
- **Automobile batteries
- Glass containers
- Ferrous and non-ferrous metals
- Auto hulks
- Paper
- Cardboard
- Plastics
- Compostables
- Construction/deconstruction debris

**To be stored in accordance with the Special Waste Regulations.

1.2.2 The designated area must be identified, complete and in operation on and from the date of this operational certificate.

2. SANITARY LANDFILL OPERATIONAL REQUIREMENTS

2.1 Landfill Operation

The Regional District of Central Kootenay shall maintain the landfill authorized in Subsection 1.1. as a Sanitary Landfill operation in accordance with the Landfill Criteria for Municipal Solid Waste (1993), except as specified herein.

2.2 Landfill Site Development

Discharge of municipal solid waste into water is prohibited. The Regional District of Central Kootenay shall construct adequate surface water and groundwater diversion works to minimize surface water run-off and groundwater seepage from entering the landfill.

The site will be developed as an area fill landfill. Each cell must be constructed to final contour and each cell covered to final cover specifications upon completion.

2.3 Waste Deposition and Compaction

Waste shall be spread in thin layers, of approximately 0.6 meters in thickness, or less, on the working face and compacted. The working face area shall not exceed a vertical height of 3 meters and shall be maintained at a slope of between 25 and 30 degrees.

2.4 Daily Cover

Suitable soil cover material shall be applied to a compacted depth of at least 0.15 meters on all exposed solid waste at the end of each day that municipal solid waste is discharged to the landfill site. Alternate daily cover may be applied if approved in writing by the Regional Waste Manager.

2.5 Final Cover

Final cover shall consist of a minimum of 1 meter of low permeability ($<1 \times 10^{-5}$ cm/s) compacted soil or equivalent, plus a minimum of 0.15 meter of topsoil with approved vegetation established. Final cover is to be constructed with slopes between 4% and 33% with appropriate run-on/run-off drainage controls and erosion controls. An assessment of the need for gas collection and recovery systems shall be made so that, in the event such systems are required, cover can be appropriately designed and constructed. Final cover shall be installed within 150 days of cell completion or on any formerly active trench which will not receive additional refuse within the next year. Completed portions of the landfill are to progressively receive final cover during the active life of the landfill.

2.6 Cover During Extreme Weather Conditions

During periods of extreme weather conditions, such as those that cause the ground to freeze, an exemption to the daily cover requirement may be approved by the Regional Waste Manager upon written request.

2.7 Scavenging and Salvaging

Uncontrolled scavenging of waste is prohibited. The controlled salvaging of waste by the landfill operator or persons authorized by the Regional District of Central Kootenay is encouraged if areas or facilities for separation and storage of recyclable or reusable materials are provided.

3. DESIGN AND PERFORMANCE REQUIREMENTS

3.1 Ground and Surface Water Quality Impairment

The authorized landfill shall be operated in such a manner such that ground or surface water quality in existing or potential future water supply aquifers or surface waters, does not decrease beyond that allowed by the Approved and Working Criteria for Water Quality prepared by the Water Management Division of the Ministry of Sustainable Resource Management, or other appropriate criteria, at or beyond the Landfill property boundary. The appropriate water quality criteria for this site may be specified by the Regional Waste Manager after reviewing existing and potential future uses of the ground and surface water resource.

In the event that contaminants discharged from the landfill result in excursions from the established groundwater criteria, the Regional District of Central Kootenay shall submit a leachate management plan to the Regional Waste Manager for approval.

3.2 Public Health, Safety and Nuisance

This landfill shall be operated in a manner such that it will not become a significant threat to public health or safety, or a public nuisance is created with respect to unauthorized access, roads, traffic, noise, dust, litter, vectors, or wildlife attraction.

3.3 Dust Control

Dust created within the landfill property shall be controlled, using methods and materials acceptable to the Regional Waste Manager, such that it does not cause a public nuisance.

3.4 Litter Control

Litter shall be controlled by compacting the waste, minimizing the work face area, applying cover at the required frequencies, providing litter control fences and instituting a regular litter pickup and general good housekeeping program or as specified by the Regional Waste Manager.

3.5 Vector and Wildlife Control

Vectors (carriers capable of transmitting a pathogen from one organism to another including, but not limited to flies and other insects, rodents, and birds) shall be controlled by the application of cover material at the required frequency or by such additional methods as specified by the Regional Waste Manager.

This landfill shall be operated so as to minimize the attraction of wildlife such as bears and birds by applying cover at required frequencies and instituting a good housekeeping program.

3.6 Site Access

Appropriately constructed and maintained access roads capable of supporting all vehicles hauling waste, are required during the operating life of the landfill.

3.7 Waste Reduction and Alternate Disposal

The Ministry of Water, Land and Air Protection has developed a policy to reduce, recycle and reuse solid wastes. The certificate holder is encouraged to segregate for recycling and reuse, where possible, materials destined for disposal at this site.

In certain landfill environments, some construction and demolition debris may create air and water quality concerns. If problems arise at this site that are attributable to specific wastes, the Regional Waste Manager may require that alternate disposal/storage procedures be implemented.

3.8 Signs

A sign or signs shall be posted at the main entrance gate with the following current information:

- Site name
- Owner and Operator
- Contact phone number and address for owner and operator
- Phone number in case of emergency

- Hours of operation
- Materials/waste banned
- Tipping fees

3.9 Site Security

Locking gates shall be installed at all access routes to the landfill site. Gates, perimeter fencing and/or barriers shall be installed where necessary to prevent unauthorized access to the site by vehicles. Gates shall be locked during non-operating hours.

A site attendant shall be present when the gates are open.

3.10 Closure Plan

A closure plan for the present landfill cell is to be submitted for the approval of the Regional Waste Manager on or before January 31, 2005. The closure plan shall include:

- Anticipated total waste tonnage, and anticipated closure date.
- A topographic plan showing the final elevation contours of the landfill and surface water diversion and drainage controls.
- Final cover design.
- Ongoing rodent and nuisance wildlife control procedures.
- Proposed end use of property.
- An assessment of the potential for emission of landfill gas.
- A post-closure groundwater monitoring plan.
- A plan for operation of leachate collection and treatment systems (if required), for a minimum post-closure period of 25 years.
- An estimated cost to carry out closure and post-closure activities for a minimum period of 25 years.

4. **MONITORING AND REPORTING REQUIREMENTS**

4.1 **Environmental Impact**

Inspections of the landfill will be carried out by the Environmental Protection Division of the Ministry of Water, Land and Air Protection as part of the routine inspection procedure. Based on these inspections and any other information available to the Regional Waste Manager on the effect of the operation on the receiving environment, the certificate holder may be required to undertake additional monitoring and/or install additional pollution abatement works.

4.2 **Process Monitoring**

4.2.1 **Measurements of Refuse and Recyclables**

The quantity of all wastes entering the landfill shall be measured using methods approved by the Regional Waste Manager.

The quantity of waste material diverted and removed from the waste stream shall be measured using methods approved by the Regional Waste Manager.

4.2.2 **Reporting**

Records of the above shall be suitably tabulated and be made available to the Regional Waste Manager upon request.

4.3 **Groundwater Monitoring**

The Regional District of Central Kootenay shall institute a groundwater monitoring program that is designed to assess and identify:

- the impact of the approved works on groundwater quality and the potential impact of identified contamination on adjacent Kootenay River wetlands, Kootenay River and the Kutenai Band's potable water supply.

4.3.1 Monitoring Parameters and Frequency

The Regional District of Central Kootenay shall carry out the following groundwater monitoring program:

Monitoring Wells		TYPE OF PROGRAM	FREQUENCY	<u>GROUNDWATER PARAMETERS</u>
MW-2	E221707	ASSESSMENT	Q	Table B.
MW-3	E221708	ASSESSMENT	Q	Table B.
MW-4	E221709	ASSESSMENT	Q	Table B.
MW-6	E234710	ASSESSMENT	Q	Table B.
MW-7	E234712	ASSESSMENT	Q	Table B.
MW-8	E234713	ASSESSMENT	Q	Table B.
MW-9	E234714	ASSESSMENT	Q	Table B.
MW-10	E234711	ASSESSMENT	Q	Table B.
SURFACE DRAINAGE				
E243769		ASSESSMENT	A	Table B(1).
KUTENAI WATER SUPPLY				
E243770		ASSESSMENT	A	Table B.

**Table A. DETECTION MONITORING
Groundwater Parameters**

<u>Parameters</u>	<u>Freq</u>	<u>Background mg/l</u>	<u>BCE Drinking mg/l</u>	<u>BCE Aquatic mg/l</u>	<u>Analytical results mg/l</u>	<u>Detection limits mg/l</u>
<u>GENERAL</u>						
Static Water Level	Q					
Total Alkalinity	Q					0.1
Chloride	Q		250 mg/l	0.1		0.01
Sulphate	Q		500	100		0.01
Turbidity	Q		1 NTU			1 NTU
Conductivity	Q		700uS/cm			2uS/cm
Hardness	Q		100			1
pH	Q		6.5-8.5	6.5-9.0		
Chemical Oxygen Demand	Q					
Ammonia	Q		N	0.01		0.01
Nitrate	Q		10	200		10
Nitrite	Q		1.0	0.06		0.06
Total Kjeldahl Nitrogen (N)	Q					0.05
<u>DISSOLVED METALS**</u>						
Aluminium	A		0.2	0.1		0.1
Antimony	A		0.006			0.006
Arsenic	A		0.025			0.025
Barium	A		1.0			0.1
Boron	A		5.0			0.2
Cadmium	A		0.005	0.00001		0.005
Calcium	A		N			0.02
Chromium	A			0.001		0.001
Copper	A		0.5	.09 X hardness+2		0.002
Iron	A		0.03			0.03
Lead	A		0.01	0.003		0.003
Magnesium	A		100			0.05
Manganese	A		0.05			0.05
Molybdenum	A		0.25	2.0		0.20
Nickel	A		0.025			0.020
Phosphorus	A		0.01	N		0.01
Potassium	A		N			0.01
Selenium	A		0.01			0.01
Sodium	A		200			0.1
Zinc	A			0.03		0.03

M = MONTHLY
A = ANNUAL
Q = QUARTERLY

**Table B. ASSESSMENT MONITORING
Groundwater Parameters**

<u>Parameters</u>	<u>Freq</u>	<u>Backgrnd mg/l</u>	<u>BCE Drinking mg/l</u>	<u>BCE Aquatic mg/l</u>	<u>Analytical Results mg/l</u>	<u>Detection Limit (mg/L)</u>
GENERAL						
Static Water Level	Q					
Temperature	Q					
Total Alkalinity	Q					0.1
Chloride	Q		250	0.1		0.01
Sulphate	Q		500	100		0.01
Total Hardness	Q		100	N		1
Non Filterable Residue	Q					5
Conductivity	Q		700uS/cm			2uS/cm
pH	Q		6.5-8.5	6.5-9.0		
DISSOLVED METALS**						
Aluminium	Q		0.2	0.1		0.1
Antimony	Q		0.006	N		0.006
Arsenic	Q		0.025	N		0.025
Barium	Q		1.0	N		0.1
Boron	Q		5.0	N		0.2
Cadmium	Q		0.005	0.00001		0.005
Calcium	Q		N	N		0.02
Chromium	Q		N	0.001		0.001
Copper	Q		0.5	.09 X hardness+2		0.01
Iron	Q		0.03	N		0.03
Lead	Q		0.01	0.003		0.001
Magnesium	Q		100	N		0.1
Manganese	Q		0.05	N		0.05
Molybdenum	Q		0.25	2.0		0.02
Nickel	Q		0.025	N		0.02
Phosphorus	Q		0.01	N		0.02
Potassium	Q		N	N		0.01
Selenium	Q		0.01	N		0.001
Sodium	Q		200	N		2
Zinc	Q		N	0.03		0.03
Mercury	Q					
Total Organic Carbon	Q					0.5
VOCs	A					
Ammonia	Q		N	0.01		0.01
Nitrate	Q		10	200		10
Nitrite	Q		1.0	0.06		0.06
Total Kjeldahl Nitrogen (N)	Q					0.05
LANDFILL GAS Methane	Q					

M = MONTHLY
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Q = QUARTERLY

Table B (1). SURFACE WATER ASSESSMENT MONITORING

<u>Parameters</u>	<u>Freq</u>	<u>Backgrnd mg/l</u>	<u>BCE Drinking mg/l</u>	<u>BCE Aquatic mg/l</u>	<u>Analytical Results</u>	<u>Detection Limit (mg/l)</u>
GENERAL						
Temperature	A					
Total Alkalinity	A					0.1
Chloride	A		250	0.1		0.01
Sulphate	A		500	100		0.1
Total Hardness	A		100			1
Conductivity	A		700uS/cm			2uS/cm
pH	A		6.5-8.5	6.5-9.0		
DISSOLVED METALS**						
Aluminium	A		0.2	0.1		0.1
Antimony	A		0.006	N		0.006
Arsenic	A		0.025	N		0.025
Barium	A		1.0	N		0.1
Boron	A		5.0	N		0.2
Cadmium	A		0.005	0.00001		0.005
Calcium	A		N	N		0.02
Chromium	A		N	0.001		0.001
Copper	A		0.5	.09 X hardness+2		0.01
Iron	A		0.03	N		0.03
Lead	A		0.01	0.003		0.001
Magnesium	A		100	N		0.1
Manganese	A		0.05	N		0.05
Molybdenum	A		0.25	2.0		0.02
Nickel	A		0.025	N		0.02
Phosphorus	A		0.01	N		0.02
Potassium	A		N	N		0.01
Selenium	A		0.01	N		0.001
Sodium	A		200	N		2
Zinc	A		N	0.03		0.03
NITROGEN						
Nitrate	A		10	200		0.1

M = MONTHLY
A = ANNUAL
Q = QUARTERLY

NOTE: Sediment analysis may be required if surface water quality is degraded (i.e. doesn't meet WQ guidelines).

** Total metals should also be measured once/year as means for quality assurance.
Note: pH and conductivity should be measured in situ.

4.4 Analyses

Analyses are to be carried out in accordance with procedures described in the "British Columbia Environmental Laboratory Manual for the Analysis of Water, Wastewater, Sediment and Biological Materials, (March 1994 Permittee Edition)" or by suitable alternative procedures as authorized by the Regional Waste Manager.

A copy of the above manual may be purchased from the Queen's Printer Publication Centre, P. O. Box 9452, Stn. Prov. Govt. Victoria, British Columbia, V8W 9V7 (1-800-663-6105 or (250) 387-6409). A copy of the manual is also available for inspection at all Environmental Protection offices.

4.5 Sampling Location and Techniques

Sampling and flow measurement shall be carried out in accordance with the procedures described in the "British Columbia Field Sampling Manual for Continuous Monitoring Plus the Collection of Air, Air-Emission, Water, Wastewater, Soil, Sediment, and Biological Samples, (November 1996 Permittee Edition)" or by suitable alternative procedures as authorized by the Regional Waste Manager.

A copy of the above manual may be purchased from the Queen's Printer Publication Centre, P. O. Box 9452, Stn. Prov. Govt. Victoria, British Columbia, V8W 9V7 (1-800-663-6105 or (250) 387-6409). A copy of the manual is also available for inspection at all Environmental Protection offices.

4.6 Record Keeping

The Regional District of Central Kootenay shall record and maintain the following information both on-site and at their legal address:

- a copy of the operational certificate.
- contingency plan and notification procedures.

Data generated from the groundwater monitoring program shall be stored in chronological files. Data shall be stored in computerised data bases that have the facilities for performing statistical analysis of the data, and for creating time base plots of selected data.

4.7 Reporting

The discharger must prepare and submit a quarterly "Exception Report", comparing water quality analysis with the appropriate criteria as listed in Subsection 4.3.1. The report format shall be suitable for release to the public.

The first quarterly report shall be submitted for review of the Regional Waste Manager by September 30, 2003.

The discharger must prepare and submit an annual report, which must include a compendium of the all required monitoring data. The annual report must document any effect of the discharge on the quality of the receiving environment using appropriate statistical and graphical analysis.

All reports must be submitted, suitably formatted (EMS) and tabulated on a computer storage media, or by prior arrangement, electronically transmitted directly to the B.C. Environment central computer system.

The first annual report shall be submitted for review of the Regional Waste Manager by March 31, 2004. The annual report shall also contain:

- Total tonnage of waste discharged into the landfill for the year as well as the calculated per capita waste generation rate.
- Approved design volume.
- Remaining site life and capacity.
- Operational Plan for the next 12 months.
- Operational and maintenance expenditures.

4.8 Annual Review of Operational Certificate Conditions

The conditions of this Operational Certificate are to be reviewed annually by the Environmental Protection Division of the Ministry of Water, Land and Air Protection in concert with the Regional District of Central Kootenay on or before March 31, 2004. The need for increased or decreased monitoring or the need to upgrade existing works will be based on this review.



August 26, 2011

Tracking Number: 184494

Authorization Number: 16519

REGISTERED MAIL

Regional District of Central Kootenay
Box 590
202 Lakeside Drive
Nelson, BC V1L 5R4

Dear Operational Certificate Holder:

Enclosed is Amended Operational Certificate 16519 issued under the provisions of the *Environmental Management Act*. Your attention is respectfully directed to the terms and conditions outlined in the operational certificate. An annual fee will be determined according to the Permit Fees Regulation.

This operational certificate does not authorize entry upon, crossing over, or use for any purpose of private or Crown lands or works, unless and except as authorized by the owner of such lands or works. The responsibility for obtaining such authority rests with the operational certificate holder. It is also the responsibility of the operational certificate holder to ensure that all activities conducted under this authorization are carried out with regard to the rights of third parties, and comply with other applicable legislation that may be in force.

This decision may be appealed to the Environmental Appeal Board in accordance with Part 8 of the *Environmental Management Act*. An appeal must be delivered within 30 days from the date that notice of this decision is given. For further information, please contact the Environmental Appeal Board at (250) 387-3464.

.../2

Administration of this operational certificate will be carried out by staff from the Kootenay Region. Plans, data and reports pertinent to the operational certificate are to be submitted to the Regional Manager, Environmental Protection, at Ministry of Environment, Regional Operations, Kootenay Region, 401 - 333 Victoria St., Nelson, BC V1L 4K3.

Yours truly,

A handwritten signature in black ink, appearing to read 'Chris Stroich', with a stylized flourish at the end.

Chris Stroich, M.Sc., P.Ag.
for Director, *Environmental Management Act*
Kootenay Region

Enclosure

cc: Environment Canada



MINISTRY OF
ENVIRONMENT

OPERATIONAL CERTIFICATE

16519

Under the Provisions of the Environmental Management Act

Regional District of Central Kootenay

Box 590

202 Lakeside Drive

Nelson, BC V1L 5R4

is authorized to manage municipal solid waste and discharge waste as specified in this authorization to the ground in accordance with the Regional District of Central Kootenay's Solid Waste Management Plan. Contravention of any of these terms and conditions is a violation of the *Environmental Management Act (EMA)* and may result in prosecution.

This Operational Certificate supersedes previous versions of Operational Certificate MR-16519, issued under Section 28, of the *Environmental Management Act (EMA)*. All ministry policies and guidelines specified in this document refer to the most current version of these policies and guidelines.

1. **AUTHORIZED DISCHARGES & FACILITIES**

1.1 **Authorized Discharge**

This section applies to the discharge of municipal solid waste to a SANITARY LANDFILL, treatment of contaminated soil at a SOIL TREATMENT AREA and discharge of septage to DRYING BEDS at a site known as the Central Landfill in Salmo, BC. The site reference number for this discharge is E211946.

1.1.1 The authorized discharge is:

- a. Municipal solid waste and other waste as may be authorized by the Director in writing.
- b. Septage in designated drying beds as per the Design & Operations Plan.

Date issued: November 27, 2000
Date amended: August 23, 2011
(most recent)

Chris Stroich, M.Sc., P.Ag.
for Director, *Environmental Management Act*
Kootenay Region

For the purpose of this section “Septage” refers to typical septic tank contents.

- 1.1.2 All solid waste discharged to this landfill must meet the requirements of the Regional District of Central Kootenay Solid Waste Management Plan and applicable by-laws of the Regional District.

The controlled discharge of septage must occur only in beds located as specified in the Design & Operation Plan.

- 1.1.3 The authorized works are a sanitary landfill and Septage Drying Beds. The authorized works include berms, cover soil or cover material, surface water diversionary works and are inclusive of any related appurtenances pertaining to the works and discharges specified in this section.

The authorized works referred to in this section must be maintained and operable while municipal solid waste, contaminated soil and septage is being actively managed i.e., disposed, transferred and/or recycled at the site. Post closure requirements for the site are specified in Section 5.

The authorized works are located approximately as shown on the attached Site Plan A.

- 1.1.4 The legal description for the location of the point of discharge is Lot A, District Lot 1236, Sublot 36, Plan 14234, Kootenay District, PID #010-013-911, as shown on attached Site Plan A.

- 1.1.5 The following waste types and materials are prohibited from being landfilled:

- Hazardous Wastes other than those specifically approved for disposal to authorized landfills in the Hazardous Waste Regulation.
- Human anatomical and animal waste components of biomedical waste and the untreated non-anatomical waste component of biomedical waste. Biomedical wastes is defined in the Guidelines for the Management of Biomedical Wastes in Canada (Canadian Council of Ministers of the Environment, February 1992).

Date issued: November 27, 2000
Date amended: August 23, 2011
(most recent)



Chris Stroich, M.Sc., P.Ag.
for Director, *Environmental Management Act*
Kootenay Region

- Bulk liquids and semi-solid wastes, which contain free liquids, as determined by US EPA Method 9095A Paint Filter Liquids Test, Test Methods for Evaluating Solid Wastes -Physical/Chemical Methods (EPA Publication No. Sw-846).
- Waste oil.
- Vehicle hulks.
- Automobile batteries.
- Wastes that are specifically prohibited by applicable by-laws or waste bans of the Regional District.

1.1.6 The disposal of animal carcasses is not allowed, an exception being those of a domestic nature, the result of animal road kills or animal control activities of the Ministry of Environment's Conservation Officer Service (COS). Disposal of other animal carcasses is allowed if authorized by the Director.

Mortalities from agricultural operations may be discharged where the generator has demonstrated to the satisfaction of the Director that the carcasses cannot be disposed of in accordance with the Agricultural Waste Control Regulation under the *Environmental Management Act*.

1.1.7 The total waste discharged during any operational period of the operational site life must not exceed that calculated for the period based on the fill rate specified in the Design & Operations Plan.

1.1.8 Storage of recyclable material must be in accordance with the Design & Operations Plan and applicable regulations.

1.1.9 Composting of material from septage drying beds is permitted provided that compost is utilized onsite only.

1.1.10 Contaminated soil that contains contaminants in concentrations less than that qualifying the material hazardous waste as defined in the Hazardous Waste Regulation under the *Environmental Management Act* may be disposed at the landfill. Disposal includes but is not limited to monofilling, co-disposal with other wastes, and use as daily or intermediate cover material. The use of these soils as final cover material is prohibited if contaminants exceed commercial / industrial land use standards as specified in the Contaminated Sites Regulation under the *Environmental Management Act*.

Date issued: November 27, 2000
Date amended: August 23, 2011
(most recent)



Chris Stroich, M.Sc., P.Ag.
for Director, *Environmental Management Act*
Kootenay Region

1.1.11 The disposal of waste asbestos in compliance with the requirements of Section 40 of the Hazardous Waste Regulation under the *Environmental Management Act* is permitted. In accordance with section 40 “Management of Waste Asbestos”, under part 6 “Management of Specific Hazardous Wastes” of the Hazardous Waste Regulation, the waste asbestos disposed at a landfill other than a secure landfill must be immediately covered with a minimum of 0.5 metre of cover material.

2. DESIGN & OPERATIONS PLAN

2.1 The Operational Certificate holder must ensure that a Qualified Professional prepares and maintains a Design and Operations (D & O) Plan for the landfill which is acceptable to the Director. The Plan must be reviewed at least once every five years. The Plan must address, but not be limited to, each of the subsections in the Landfill Criteria for Municipal Solid Waste including performance, siting, design, operational, closure and post-closure criteria. The facilities must be developed, operated and closed in accordance with the Plan. Should there be any inconsistency between this Operational Certificate and the Plan, this Operational Certificate must take precedence.

Written authorization from the Director must be obtained prior to implementing any changes to the approved plans. Based on any information obtained in connection with this facility, the Director may require revision of, or addition to, the design, operating and closure plans.

“As built” drawings certified correct and sealed by a Qualified Professional must be submitted electronically within 60 days of the completion of engineered construction activities required as per the Design & Operations Plan.

3. LANDFILL OPERATIONS

3.1 Inspections

3.1.1 Waste Inspections

The waste acceptance policies and procedures for the landfill must include a program to detect a prohibited waste so that it is prevented from being disposed of in a landfill cell. The Operational Certificate holder must also establish procedures for addressing such non-compliance to prevent recurrence of the same.

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3.1.2 Inspections of Authorized Works

The Operational Certificate holder must inspect the authorized works at least once every three months to ensure compliance with this Operational Certificate and the BC Landfill Criteria. A record of the inspections and actions recommended or action items must be maintained in the operating record at the site office and made available to the Director upon request. During such inspections, the Operational Certificate holder must also inspect the property boundaries and immediately notify the Regional Manager Environmental Protection of:

- any visual or physical evidence of concerns pertaining to the authorized works such as leachate breaks, damage to monitoring wells;
- any visual or physical evidence of concerns of potential environmental impacts including but not limited to significant litter beyond the property boundary.

3.2 Site Access & Supervision

Locking gates must be maintained at all access routes to the landfill site. Gates, perimeter fencing and/or barriers must be installed where necessary to prevent unauthorized access to the site by vehicles. Gates must be locked during non-operating hours. Signs onsite must be in accordance with the BC Landfill Criteria.

The Operational Certificate holder must ensure that any person(s) authorized to work within the landfill boundary and directly involved in the landfilling of waste is fully cognizant of this Operational Certificate and applicable sections of the BC Landfill Criteria for Municipal Solid Waste and must take all reasonable measures to ensure that the person(s) complies with all requirements of the same. A landfill operator that has received BC Qualified Landfill Operator training, is familiar with the requirements of the Operational Certificate and the specifications of the Design and Operations Plan, must be present at all times during operating hours. Training records for staff must be maintained and made available to the Director upon request.

3.3 Scavenging & Salvaging

Uncontrolled scavenging of waste is prohibited. The controlled separation of salvageable waste stream components by persons authorized by the Operational

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Certificate holder is permitted in areas designated for separation and storage of these materials.

3.4 **Public Health Safety & Nuisance**

Operation of the landfill must be carried out in a manner that ensures that the facility does not pose a threat to public health or safety. The Operation Certificate holder must manage accumulations of litter within the site and prevent litter escaping from the fill area.

3.5 **Waste Deposition, Compaction & Cover**

The Operational Certificate holder must ensure that waste deposition and compaction meets or exceeds the requirements of the BC Landfill Criteria or its most current version. Control must be exercised to ensure keeping freshly deposited refuse in a well defined and small/manageable working face.

3.5.1 **Daily Cover**

Application of daily cover must be in accordance with requirements of the BC Landfill Criteria. Alternate Daily Cover (ADC) that is functionally equivalent to daily soil cover may be used.

3.5.2 **Intermediate Cover**

Application of intermediate cover must be in accordance with requirements of the BC Landfill Criteria or its most current version. The Director must be notified in writing of the use of functionally equivalent intermediate cover material.

3.5.3 **Final Cover**

Final cover must be installed and maintained in accordance with the requirements of the BC Landfill Criteria. Completed portions of the landfill are to progressively receive final cover during the active life of the landfill as specified in the Design & Operations Plan.

3.6 **Litter, Wildlife & Vector Control**

The Operational Certificate holder must ensure that vector and wildlife attractants are minimized as a result of routine landfilling operations. Such

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measures include but are not limited to:

- a. Application of cover material in a timely and consistent manner in compliance with the requirements of the BC Landfill Criteria.
- b. Installation and maintenance of electrified wildlife control fencing where deemed necessary. The active landfill cell must be enclosed by a bear resistant electrified fence. The fence must be energized during the active bear season.
- c. Ensuring that the public drop off area is used in a manner that does not contribute to wildlife attraction. This includes the timely transfer of waste from public drop off areas to the tipping face or beyond the wildlife control fence, maintaining adequate bin capacity for public drop-off and addressing improper bin usage through awareness raising measures for the public or site users.

Litter must be controlled and minimized by compacting the waste, minimizing the work face area, applying cover at the required frequencies and good housekeeping practices. A regular litter pick-up program to target windblown litter must be established as part of routine site operations. Litter prevention measures including provision of litter control fences must be under taken, if necessary. Controls must prevent the accumulation, or off-site migration, of litter in quantities that create a nuisance or cause other problems.

For the purpose of this section, a “vector” is defined as an organism or carrier capable of transmitting a pathogen from one organism to another including, but not limited to flies and other insects, rodents, and birds.

For the purpose of this section an “attractant” is defined as waste, municipal solid waste, refuse, organic matter, compost, garbage, food or food waste that attracts bears or other wildlife.

3.7 **Operations, Maintenance & Emergency Procedures Manual**

The Operational Certificate holder must prepare an Operations, Maintenance and Emergency Procedures Manual. This manual must be reviewed and kept updated to reflect current site conditions. A copy of the manual must be available at the site office and must be made available to the Director upon request.

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3.8 **Fire Prevention & Control**

The Operational Certificate Holder must take all reasonable measures to prevent fires from occurring at the site and is responsible for complying with all local fire safety requirements. The Operational Certificate holder must provide and maintain firefighting equipment and materials as required for the site.

In the event of a landfill fire the following must be notified immediately:

- The Fire Department
- Provincial Emergency Program (PEP)
- The Regional Manager Environmental Protection

3.9 **Maintenance of Works & Emergency Procedures**

The Operational Certificate holder must maintain the authorized works in good working order. In the event of an emergency or condition beyond the control of the Operational Certificate holder which prevents continuing operation of the authorized works and/or the continued performance of the prescribed methods of operation, the Operational Certificate holder must immediately notify the Regional Manager Environmental Protection and take appropriate remedial action in consultation with a Qualified Professional if specified by the Director.

Any activity or construction at the disposal site must be carried out in a manner that protects the integrity of the areas under final cover and without compromising landfill stability or without damage to the authorized works and related appurtenances.

Any settlement of areas under final cover or differential settlement that prevents the authorized works and appurtenances mentioned in Section 1 from functioning as intended in the Design & Operations plan must be addressed/remedied accordingly to the satisfaction of the Director.

All access roads, within the landfill boundary, used for transporting waste to the tipping area for disposal must be maintained as necessary to assure safe and reliable all-weather access to the tipping face.

3.10 **Qualified Professionals**

Information pertaining to the landfill including details of works, plans, assessments, investigations, surveys, programs and reports, must be prepared by a Qualified Professional unless specified otherwise by the Director.

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3.11 Additional Facilities or Works

The Director may require additional investigations, surveys, and the construction of additional facilities or works related to the landfill operation. The Director may also revise the requirements of any of the information required by this Operational Certificate including plans, programs, assessments and reports.

3.12 Groundwater & Surfacewater Quality Protection

The Operational Certificate holder must take appropriate measures to ensure that ground water and surface water quality does not decrease beyond that specified by the British Columbia Water Quality Guidelines or other appropriate criteria as may be specified by the Director at and beyond the landfill property boundary.

These measures include but are not limited to:

- a. Prohibiting the discharge of municipal solid waste into water.
- b. Ensuring that no new waste is landfilled within 1.2 m of the highest groundwater level.
- c. Ensuring that adequate surface water and groundwater diversion works are constructed and maintained to minimize surface water run-off and groundwater seepage from entering the landfill.
- d. Ensuring that the management systems for surface water that has not come in contact with waste are hydraulically separate from those for managing impacted surface water.
- e. Ensuring that the landfill is operated in a manner that prevents the exceedance in surface water and groundwater, of anticipated leachate indicators or parameters distinctive of leachate or those specified by the Director at the landfill boundary.
- f. Ensuring that the indicators in e) above, at specified groundwater monitoring wells within the property boundary are in accordance with those predicted by design and that suitable measures are taken to address the cause of any exceedances above the trigger levels identified in the design.
- g. Ensuring that the landfill is operated in accordance with a Design & Operations Plan which specifies measures to prevent decreases in groundwater and surface water quality at and beyond the property boundary.

If exceedances to the specified water quality criteria occur at the landfill boundary as a result of landfill operations, suitable corrective measures

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including but not limited to leachate management control measures or works acceptable to the Director must be undertaken.

3.13 Additional Facilities or Works

The Operational Certificate holder must ensure that operation of the landfill must not cause combustible gas concentrations to exceed the lower explosive limit in soils at the property boundary or 25% of the lower explosive limit at or in on-site or off-site structures.

The Operational Certificate holder must ensure that the facility is in compliance with the requirements of the *Landfill Gas Management Regulation* on or before applicable dates specified in the regulation. The requirements of the regulation and its guideline documents must be incorporated by the Operational Certificate holder into the Design and Operation Plan revisions as they come into effect and as applicable.

4. MONITORING & REPORTING REQUIREMENTS

4.1 Environmental Monitoring

4.1.1 Environmental Monitoring Program

The Operational Certificate holder must ensure that a Qualified Professional develops, maintains, conducts and reports to the Regional Manager, Environmental Protection a monitoring program to identify potential impacts to the environment and public health from the facility. The program must be designed to assess and identify:

- The design performance of the landfill including but not limited to compliance with Water Quality performance standards at the property boundary.
- Landfill leachate as a contaminant source.
- Residential well water quality.
- Surface Water Quality.

The monitoring program must address, but not be limited to relevant sections of the Landfill Criteria for Municipal Solid Waste and the Guidelines for Environmental Monitoring at Municipal Solid Waste Landfills. The Environmental Monitoring Program must take into consideration results from previous monitoring programs and any other investigations conducted at the site to ensure that early detection of potential impacts is possible.

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The Environmental Monitoring Program must be reviewed and reported on annually. The need for subsequent increased or decreased monitoring must be assessed annually by the Operational Certificate Holder on the basis of available monitoring data. Based on the results of the monitoring program, or any other information relevant to the site, the Director may vary the frequency, location and analyses of environmental monitoring as warranted.

The Operational Certificate holder must ensure that groundwater monitoring wells and ambient locations are established and maintained to allow for uninterrupted monitoring as specified by the Environmental Monitoring Program. The location and installation of the monitoring well(s) must be specified and supervised by a Qualified Professional who is knowledgeable in the fields of Hydrogeology and Landfill Impact Assessment. The Operational Certificate holder must ensure that monitoring wells and other equipment are adequately secured and maintained, including provisions to ensure protection from damage due to weather, vehicles or vandalism. In the event of damage to the wells or monitoring equipment which could affect/compromise the integrity of monitoring data, the Operational Certificate holder must take immediate and necessary measures to ensure that conditions for uninterrupted monitoring are restored.

The Operational Certificate holder must maintain records of all monitoring program data and analyses and make these available for inspection upon request.

4.1.2 **Biological / Ecological Impact Assessment for Sheep Creek**

The Operational Certificate holder must ensure that an ecological impact assessment must be carried out on Sheep Creek by a Qualified Professional to assess the impact of groundwater discharging to the creek from the Landfill property. The ecological impact assessment must be completed during the fifth year following the last assessment. The assessment must characterize the aquatic community of Sheep Creek and determine any impact to the community by the Landfill. The Operational Certificate holder must ensure that the recommendations of the Qualified Professional arising from such an assessment must be taken into account in future reviews of the Design & Operations Plan and Environmental Monitoring Plan or changes to operational practices at the site.

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4.1.3 Field Sampling Techniques

Sampling must be carried out in accordance with the procedures described in the most recent edition of the "British Columbia Field Sampling Manual for Continuous Monitoring Plus the Collection of Air, Air-Emission, Water, Wastewater, Soil, Sediment, and Biological Samples", or by suitable alternative procedures as authorized by the Director. A copy of the above manual may be purchased from the Queen's Printer Publications Centre, P. O. Box 9452, Stn. Prov. Gov't. Victoria, British Columbia, V8W 9V7 (1-800-663-6105 or (250) 387-6409).

Proper care should be taken in sampling, storing and transporting the samples to adequately control temperature and avoid contamination and breakage.

4.1.4 Laboratory Analysis

Analyses are to be carried out in accordance with procedures described in the most recent edition of the "British Columbia Environmental Laboratory Manual for the Analysis of Water, Wastewater, Sediment and Biological Materials", or by suitable alternative procedures as authorized by the Director. A copy of the above manual may be purchased from the Queen's Printer Publication Centre, P. O. Box 9452, Stn. Prov. Govt. Victoria, British Columbia, V8W 9V7 (1-800-663-6105 or (250) 387-6409).

4.2 Reporting

4.2.1 Monitoring Event Reporting

The Operational Certificate Holder must notify the Regional Manager Environmental Protection of the completion of a monitoring event at the landfill through a memorandum within 60 days of the end of each event. The memorandum must identify exceedances to the water quality criteria for surface and ground water and observed non-compliance with operational certificate requirements.

4.2.2 Non-Compliance Reporting

The Operational Certificate holder must notify the Regional Manager Environmental Protection by facsimile or email of any non-compliance with the requirements of this Operational Certificate. The Operational Certificate holder must identify the non-compliance, the cause of non-compliance and any

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remedial action to address the non-compliance.

4.2.3 Five Year Report

The Operational Certificate holder must submit to the Director a report every five years by April 30 of the respective fifth year after the last report. This report must be prepared by a qualified professional and must include but not be limited to:

- a. an executive summary;
- b. A current topographic map detailing airspace consumption, on-site borrow pit changes and future developments;
- c. Volume and density analysis or an in-place material summary, updated estimates for the remaining capacity, site life, revised closure date for the current phase or sequence and revised closure date for the current landfill footprint;
- d. An update on the financial assurance mechanism including a statement of the current dollar value of the Closure Fund and the amount earmarked for the Landfill site;
- e. A detailed hydrogeological assessment of the site based on the previous five years monitoring data and other relevant information. The hydrogeological review must provide an update on the assimilative capacity of the site for contaminants of concern;
- f. Any proposed changes to the Design and Operations Plan and the Environmental Monitoring Program (EMP), with rationale for the changes and any changes to the closure or post-closure plans;
- g. A review of the preceding five years of operation or an operations update which summarizes landfill development work completed in the subject reporting years and work planned for the subsequent five years;
- h. A summary of any new information that could affect the facilities, plans, assessments, surveys, programs and reports;
- i. A statement regarding the facility's compliance with the objectives of the Regional Solid Waste Management Plan.
- j. Any additional information requested by the Director.

4.2.4 Design & Operations Plan Review

The Design and Operations plan must be reviewed every five years throughout the operating life of the landfill and updated to include at least the next five years of landfill operations. Updated plans must be prepared by a Qualified Professional. The review must take into account the information from the hydrogeological assessment specified in Section 4.2.3e. The Regional Manager,

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Environmental Protection may request additional reviews of the design based on the compliance history and design performance of the site.

4.2.4 Annual Report

The Operational Certificate holder must submit to the Director an Annual Report for the facility by April 30 each year. The report must include memorandum summarizing operational information and results of monitoring as per the Environmental Monitoring Program for the site. The report must include sample data sheet and the results of laboratory analysis.

This report must be prepared by a qualified professional and must include but not be limited to:

- a. an executive summary
- b. the type and tonnage of waste received, recycled, stored on-site and discharged/landfilled for the years reported;
- c. A review of the preceding year of operation or an operations update which summarizes landfill development work completed in the subject reporting year and work planned for the subsequent year.
- d. A summary of any new information that could affect the facilities, plans, assessments, surveys, programs and reports
- e. An outline of the current Environmental Monitoring Program and a compendium of all environmental monitoring data in accordance with requirements specified in the most recent version of Guidelines for Environmental Monitoring at Municipal Solid Waste Landfills and Landfill Criteria for Municipal Solid Waste. The annual report must document any effect of the discharge on the quality of the receiving environment using appropriate statistical and graphical analysis and include trend analyses, as well as an evaluation of the impacts of the discharges on the receiving environment must be included;
- f. Significant occurrences or observations of wildlife (medium and large carnivores) at the landfill;
- g. A list of training programs completed for landfill operators during the previous year;
- h. Any additional information requested by the Director.

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4.2.5 Sheep Creek Embankment Slope Stability Assessment Report

The Operational Certificate holder must provide to the Ministry by December 31st 2012, a slope stability assessment prepared by a qualified professional identifying the factors contributing to any previous or potential slope failures at the embankment.

4.2.6 Reporting Format & Records Retention

All reports must be submitted, suitably formatted in both print and electronic format. The Operational Certificate Holder must maintain records of all monitoring data in perpetuity and must ensure that the results of monitoring and analysis are submitted in electronic format suitable for entry into applicable provincial databases.

5. CLOSURE & POST CLOSURE REQUIREMENTS

5.1 Closure & Post Closure Plan

A Closure Plan and Final Cover Design that meets or exceeds the requirements of the BC Landfill Criteria should be submitted to the Director at least 12 months prior to the closure of the landfill. The plan must also include a Post Closure Plan or Aftercare measures to be taken at the landfill. The post closure plan must be reviewed every five years throughout the post closure period.

Completion of closure works in accordance with the Closure Plan and Final Cover Design must be certified by a Qualified Professional within sixty days of the implementation of the Final Cover Design.

5.2 Closure Fund

The Operational Certificate holder must provide for the funding of progressive closure operations, final closure and operations beyond closure by maintaining a closure fund. The value of the closure fund must meet or exceed the estimated closure and post-closure costs as established in the approved Design and Operations Plan and updated in the annual report, plus a reasonable contingency for any remediation which may be required. Reported costs must be adjusted for inflation annually. Alternately, a closure and post-closure financial security acceptable to the Director may be built over time.

The Operational Certificate holder must determine and ensure that the closure

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fund is adequate by preparing annually a financial statement of the fund which must be made available to the Director upon request. The financial statement must report the accrued capital, interest and additions to the fund for the previous year and review the sufficiency of the fund and the rate of accrual in consideration of the projected costs of closure and post-closure obligations.

The Operations Certificate holder must take measures to ensure that the closure and post-closure funds will ultimately meet or exceed the estimated closure and post-closure costs and include a reasonable contingency for any remediation that may be required.

5.3 **Site Decommissioning**

In accordance with Section 40 of the *Environmental Management Act* and Part 2 of the Contaminated Sites Regulation, the Operational Certificate holder must submit a site profile to the manager at least 10 days prior to decommissioning the facilities authorized in Section 1.

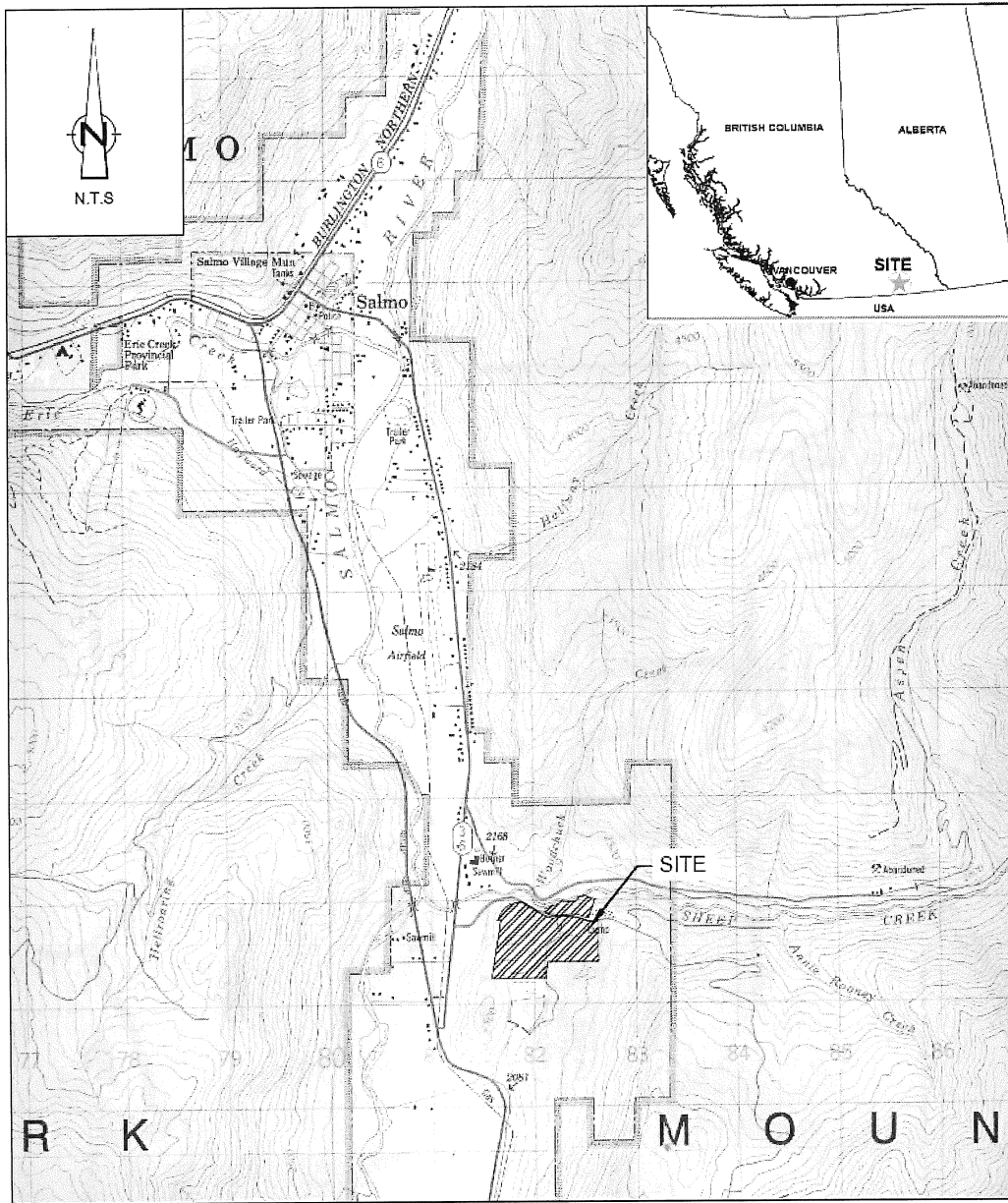
5.4 **Declaration of Landfill**

Landfills sited on titled land must register a covenant that the property was used for the purpose of waste disposal as a charge against the title to the property as provided for under Section 215.1 of the *Land Title Act*. Landfills located on crown land are to have a "notation on file" registered that the property was used for the purpose of waste disposal. The Operational Certificate holder must comply with these requirements and notify the Director as applicable.

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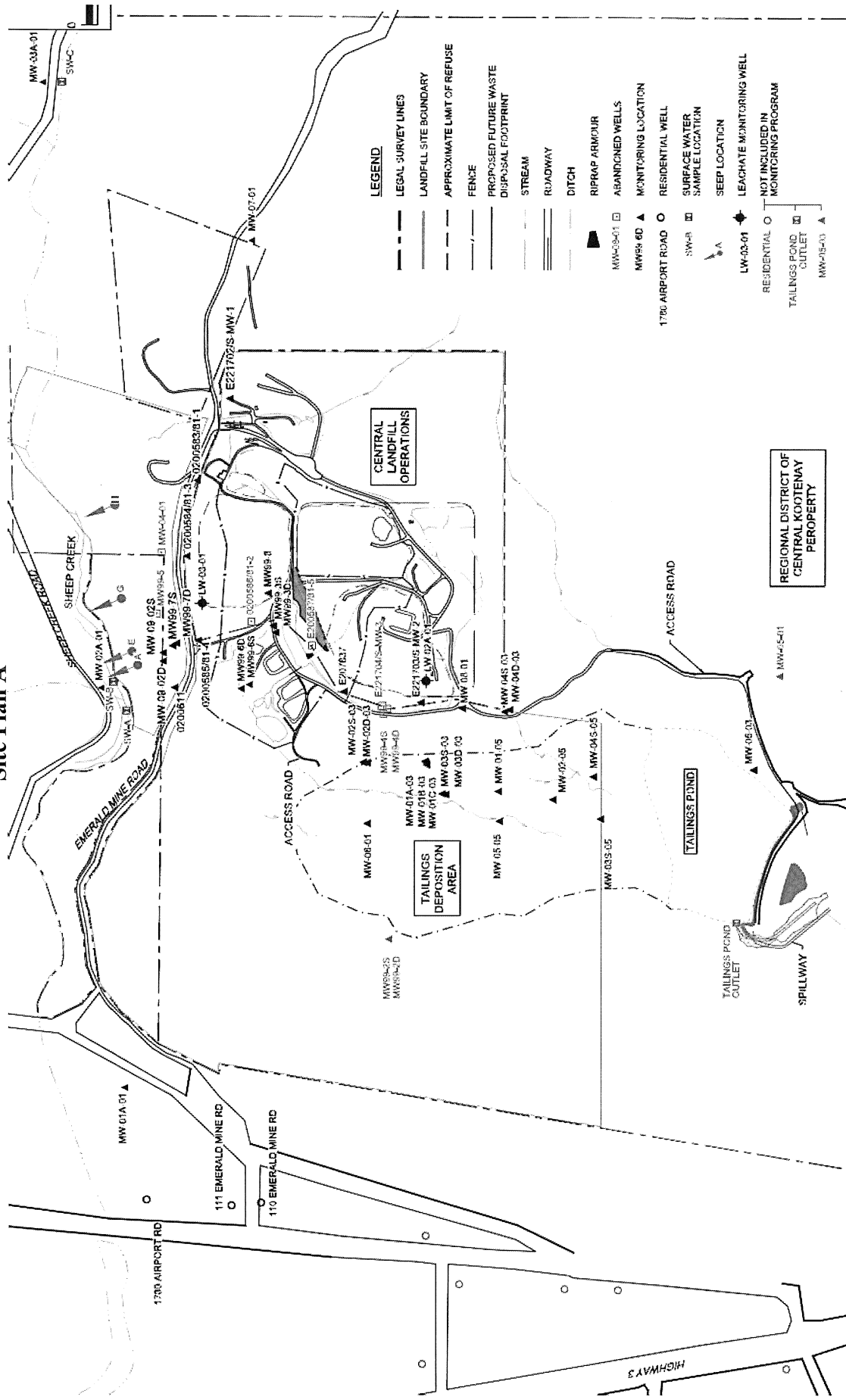


Location: Lot A, District Lot 1236, Sublot 36, Plan 14234, Kootenay District, PID #010-013-911, as shown on attached Site Plan A.

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Site Plan A



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MINISTRY OF
ENVIRONMENT

OPERATIONAL CERTIFICATE

16521

Under the Provisions of the Environmental Management Act

REGIONAL DISTRICT OF CENTRAL KOOTENAY

BOX 590

202 LAKESIDE DRIVE

NELSON, BRITISH COLUMBIA

V1L 5R4

is authorized to manage waste and recyclable material from the Regional District of Central Kootenay and environs at the Nakusp landfill located near Nakusp, British Columbia, subject to the conditions listed below. Contravention of any of these conditions is a violation of the *Environmental Management Act* and may result in prosecution.

This Operational Certificate supersedes all previous versions of the Operational Certificate MR-16521 issued under the authority of the *Environmental Management Act*.

1. **AUTHORIZED DISCHARGES**

This authorization applies to the discharge of municipal solid waste, commercial and light industrial refuse to a sanitary landfill known as the Nakusp landfill. The site reference number for this discharge is E211814.

- 1.1 The authorized works are a sanitary landfill and related appurtenances approximately located as shown on Site Plan A.
- 1.2 The maximum quantity of waste discharges must not exceed the design capacity of the landfill as specified in the approved Design and Operations Plan. The final footprint and profile of the discharges waste must be within that specified in the Design and Operations Plan, and roughly as shown on the attached Site Plan A.

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- 1.3 The authorized discharge is municipal solid waste as defined in the *Environmental Management Act* and other waste as may be authorized by the Director.
- 1.4 The legal description of the location of the authorized landfill facility is an unsurveyed part of District Lot 863, Kootenay District.
- 1.5 The site is located approximately 1.2 km northeast of the Nakusp Municipal Airport.

2. DESIGN AND PERFORMANCE REQUIREMENTS

2.1 Design and Operating Plan

The Operational Certificate holder must prepare and maintain a current Design and Operations Plan prepared by a qualified professional. The Plan must be reviewed and updated as needed at least once every five years. The Plan must address, but not be limited to, each of the subsections in the Landfill Criteria for Municipal Solid Waste including performance, siting, design, operational, closure and post-closure criteria. The facilities must be developed, operated and closed in accordance with the Plan. Should there be any inconsistency between this Operational Certificate and the Plan, this Operational Certificate must take precedence.

Written authorization from the Director must be obtained prior to implementing any changes to the approved plans. Based on any information obtained in connection with this facility, the Director may require revision of, or addition to, the design, operating and closure plans.


2.2 Qualified Professionals

All facilities and information, including works, plans, assessments, investigations, surveys, programs and reports, must be certified by Qualified Professionals.

2.3 Maintenance of Works and Emergency Procedures

The authorized works must be inspected regularly and maintained in good working order. In the event of an emergency or condition beyond the control of the Regional District of Central Kootenay including, but not limited to,

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unauthorized fires arising from spontaneous combustion or other causes, or detection of leachate on the property, the Regional District of Central Kootenay must take appropriate remedial action and notify the Director immediately. The Director may reduce or suspend operations to protect the environment until the authorized works has been restored, and/or corrective steps taken to prevent unauthorized discharges.

2.4 Additional Facilities or Works

The Director may require investigations, surveys, and the construction of additional facilities or works. The Director may also amend any information requirements of this Operational Certificate including plans, programs, assessments and reports.

2.5 Public Health, Safety and Nuisance

The landfill must be operated in a manner such that it will not create a public nuisance or become a significant threat to public health or safety with respect to landfill gas, unauthorized access, roads, traffic, airport activity, noise, dust, litter, vectors, or wildlife attraction.

2.6 Ground and Surface Water Quality Impairment

The landfill must be operated in a manner such that ground or surface water quality does not decrease beyond that specified by the British Columbia Water Quality Guidelines, or other appropriate criteria as may be specified by the Director, at or beyond the landfill property boundary.

These measures include but are not limited to:

- a) Prohibiting the discharge of municipal solid waste into water.
- b) Ensuring that no new waste is landfilled within 1.2 m of the highest groundwater level.
- c) Ensuring that adequate surface water and groundwater diversion works are constructed and maintained to minimize surface water run-off and groundwater seepage from entering the landfill.
- d) Ensuring that the management systems for surface water that has not come

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in contact with waste are hydraulically separate from those for managing impacted surface water.

- e) Ensuring that the landfill is operated in a manner that prevents the exceedance in surface water and groundwater of anticipated leachate indicators or parameters distinctive of leachate or those specified by the Director at the landfill boundary.
- f) Ensuring that the indicators in e) above, at specified groundwater monitoring wells within the property boundary are in accordance with those predicted by design and that suitable measures are taken to address the cause of any exceedances.
- g) Ensuring that the landfill is operated in accordance with a Design & Operations Plan which specifies measures to prevent decreases in groundwater and surface water quality at and beyond the property boundary.

If exceedances to the specified water quality criteria occur as a result of landfill operations, the Director may require that leachate management control measures or works be undertaken. Terms of reference for any leachate management study and/or design work must be submitted to the Director for review prior to conducting the work.

2.7 Landfill Gas Management

The Landfill must not cause combustible gas concentrations to exceed the lower explosive limit in soils at the property boundary or 25% of the lower explosive limit at or in on-site or off-site structures.

The Operational Certificate holder must ensure that the facility is in compliance with the requirements of the Landfill Gas Management Regulation under the Greenhouse Gas Reduction (Emissions Standards) Statutes Amendment Act, 2008 on or before applicable dates specified in the regulation. The requirements of the regulation and its guideline documents must be incorporated by the Operational Certificate holder into the Design and Operation Plan revisions as they come into effect and as applicable.

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2.8 **Buffer Zone**

No material must be landfilled within 50 metres of the property boundary. Any new facilities or extension of the landfill will be subject to this revised buffer requirement.

3. **OPERATIONAL REQUIREMENTS**

3.1 **Waste Compaction and Coverage**

The Operational Certificate holder must ensure that waste deposition and compaction meets or exceeds the requirements of the BC Landfill Criteria or its most current version for daily, intermediate and final cover. Control must be exercised to ensure keeping freshly deposited refuse in a well defined and small / manageable working face.

3.2 **Prohibited Wastes**

The disposal of the following types of wastes is strictly prohibited:

- (a) Hazardous Wastes other than those specifically approved for disposal to authorized landfills in the Hazardous Waste Regulation under the Environmental Management Act.
- (b) Biomedical wastes as defined in the Guidelines for the Management of Biomedical Wastes in Canada (Canadian Council of Ministers of the Environment, February 1992),
- (c) Bulk liquids and semi-solid wastes, which contain free liquids, as determined by US EPA Method 90954 Paint Filter Liquids Test, Test Methods for Evaluating Solid Wastes-Physical/Chemical Methods (EPA Publication No. Sw-846),

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- (d) Release of ozone depleting substances from the storage, handling and disposal of used appliances, equipment, or any material containing ozone depleting substances is prohibited in accordance with the requirements of the Ozone Depleting Substances Regulation. Onsite removal or evacuation of Ozone Depleting Substances (ODS) from appliances and the subsequent storage of appliances on site is permitted subject to both activities being in compliance with the Ozone Depleting Substances Regulation

- (e) Additional waste types may be deposited with the Director's approval.

3.3 Waste Asbestos

Waste asbestos is authorized for disposal subject to compliance with the requirements of section 40 of the Hazardous Waste Regulation and the following conditions:

- (a) The asbestos waste may not be mixed with any other hazardous waste.
- (b) The Regional District must approve the disposal before disposal takes place.
- (c) All other applicable requirements of the Hazardous Waste Regulation, including but limited to manifesting and waste record keeping, must also be complied with.

3.4 Contaminated Soil

Soil that contains contaminants in concentrations less than "hazardous waste" as defined by the Hazardous Waste Regulation may be disposed of at the landfill site. Disposal includes monofilling, co-disposal with other wastes, use as a refuse cell berm material and use as a refuse cell cover material. Disposal does not include use as final cover material.

3.5 Wildlife and Vector Control

Vectors (carriers capable of transmitting a pathogen from one organism to another

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including, but not limited to flies and other insects, rodents, and birds) must be controlled by the application of cover material at the required frequency or by such additional methods as specified by the Director. Wildlife control fencing must be maintained around the perimeter of the landfill site and must be electrified for at least the active bear season of each year.

This landfill must be operated so as to minimize the attraction of wildlife such as bears and birds by applying cover at required frequencies and instituting a good housekeeping program.

3.6 Site Access and Supervision

A landfill operator that has received BC Qualified Landfill Operator training, is familiar with the requirements of the Operational Certificate and the specifications of the Design and Operations Plan, must be present at all times during operating hours.

Locking gates must be maintained at all access routes to the landfill site. Gates, perimeter fencing and/or barriers must be installed where necessary to prevent unauthorized access to the site by vehicles. Gates must be locked during non-operating hours.

3.7 Dust Control

Dust created within the landfill property must be controlled, using methods and materials acceptable to the Director, such that it does not cause a public nuisance.

3.8 Litter Control

The best practical means must be used to prevent the scatter of litter. Any litter scattered into the neighbouring property, along access roads, in drainage ditches, along litter-control fences, into surrounding trees or elsewhere on the landfill site must be cleaned up. The frequency of clean-up and other additional requirements for refuse scatter control must be determined by the Director.

3.9 Waste Reduction and Alternate Disposal

The Provincial Government has developed policies to promote the reduction,

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reuse and recycling of wastes. The Operational Certificate holder is encouraged to segregate for recycling and reuse, where possible, materials destined for disposal at this site.

Public scavenging must not be permitted at the landfill. The controlled salvaging of waste by the landfill operator or persons authorized by the Operational Certificate holder is encouraged if areas or facilities for separation and storage of recyclable or reusable materials are provided.

In certain landfill environments, some construction and demolition debris or other wastes may create specific air and water quality concerns. If problems arise at this site that is attributable to specific wastes, the Director may require that alternate disposal/storage procedures be implemented

3.10 **Fire Prevention & Control**

The Operational Certificate holder must take all reasonable measures to prevent fires from occurring at the site and is responsible for complying with all local fire safety requirements. The Operational Certificate holder must provide and maintain firefighting equipment and materials as required for the site.

In the event of a landfill fire the following must be notified immediately:

- The Fire Department
- Provincial Emergency Program (PEP)
- The Regional Manager Environmental Protection

3.11 **Operations and Maintenance Manual**

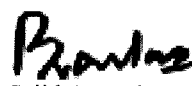
The Operational Certificate holder must prepare an Operations and Maintenance Manual to be reviewed and updated annually.

3.12 **Sign Requirements**

A sign must be posted at each entrance gate with the following current information;

- a. Site name;
- b. Contact phone number and address for owner;
- c. Phone number in case of emergency;
- d. Hours and days of operation;
- e. Materials/waste accepted for landfill; and
- f. Tipping fees.

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Additional signs which clearly indicate the directions to the active tipping face, public disposal area, recycling and waste separation areas, etc. should also be displayed within the landfill site as deemed necessary.

4. MONITORING AND REPORTING REQUIREMENTS

4.1 Landfill Monitoring

A monitoring program must be developed by a Qualified Professional and identify potential environmental impacts of the authorized facility and must address but not be limited to the Landfill Criteria for Municipal Solid Waste and Guidelines for Environmental Monitoring. The monitoring program must be submitted to the satisfaction of the Director. Monitoring must be conducted in accordance with the monitoring program.

The program must be designed to assess and identify:

- The design performance of the landfill as per the Design & Operations Plan including but not limited to compliance with water quality performance standards at the landfill boundary.
- Landfill leachate as a contaminant source.
- Residential well water quality.
- Surface water quality.

The Environmental Monitoring Program must take into consideration results from previous monitoring programs and any other investigations conducted at the site to ensure that early detection of potential impacts is possible.

4.2 Sampling Techniques

Sampling must be carried out in accordance with the procedures described in the most recent edition of the "British Columbia Field Sampling Manual for Continuous Monitoring Plus the Collection of Air, Air-Emission, Water, Wastewater, Soil, Sediment, and Biological Samples", or by suitable alternative procedures as authorized by the Director. A copy of the above manual may be purchased from the Queen's Printer Publications Centre, P.O. Box 9452, Stn. Prov. Gov't., Victoria, British Columbia, V8W 9V7.

4.3 Analysis

Analyses are to be carried out in accordance with procedures described in the

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most recent edition of the “British Columbia Environmental Laboratory Manual for the Analysis of Water, Wastewater, Sediment and Biological Materials”, or by suitable alternative procedures as authorized by the Director. A copy of the above manual may be purchased from the Queen’s Printer Publication Centre, P.O. Box 9452, Stn. Prov. Govt., Victoria, British Columbia, V8W 9V7 (1-800-663-6105 or (250) 387-6409).

4.4 Quality Assurance

The Operational Certificate holder must produce, within 60 days on the request of the Regional Manager Environmental Protection, ‘Field and Laboratory Quality Protocols and Quality Assurance Criteria’ acceptable to the Director. The ‘Laboratory Quality Protocols’ must include the procedures used to assess precision, accuracy and blank quality, including frequency of application of those procedures, the procedures for sampling, handling (e.g. preservation, hold times) and corrective measures to be initiated when deficiencies are indicated. The ‘Quality Assurance Criteria’ must include the acceptance criteria for accuracy (based on recoveries for reference samples/spikes), for precision (based on deviation in field and lab duplicates) and method blanks (designed to indicate false positives).


5. LANDFILL REPORTING

5.1 Annual Report

The Operation Certificate holder must submit an Annual Report to the Director on or before April 30th each year for the previous calendar year. The report must contain at least the following information:

- (a) an executive summary;
- (b) the type and tonnage of waste received, recycled, stored on-site and discharged / landfilled for the year;
- (c) Any proposed changes to the Design and Operations Plan and the environmental monitoring program (EMP), with rationale for the changes; a description of unanticipated occurrences and any changes to the closure or post-closure plans and funds;
- (d) A review of the preceding year of operation or an operations update which summarizes landfill development work completed in the subject reporting

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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;

- (e) Occurrences or observations of wildlife (medium and large carnivores) at the facility;
- (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;
- (g) An outline of the current Environmental Monitoring Program and a compendium of all environmental monitoring data in accordance with requirements specified in the most recent version of Guidelines for Environmental Monitoring at Municipal Solid Waste Landfills and Landfill Criteria for Municipal Solid Waste. The annual report 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 must be included;
- (h) A list of training programs completed for landfill operators during the previous year; and
- (i) Any additional information requested by the Director.

All reports must be submitted, suitably formatted and tabulated in both print and electronic format (portable document format).

5.2 Five Year Report

The Operation Certificate holder must submit a Five Year Report to the Director on or before April 30th on the five year anniversary of the last submission. The report must contain at least the following information:

- (a) An executive summary;
- (b) An updated Design and Operations Plan;
- (c) A detailed hydrogeological assessment;

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- (d) The type and tonnage of waste received, recycled, stored on-site and discharged / landfilled for the year;
- (e) A current topographic map detailing airspace consumption, on-site borrow pit changes and future developments;
- (f) Volume and density analysis or an in-place material summary, updated estimates for the remaining capacity, site life, revised closure date (for the current phase or sequence and revised closure date for the current landfill footprint);
- (g) An outline of the current Environmental Monitoring Program and a compendium of all environmental monitoring data in accordance with requirements specified in the most recent version of Guidelines for Environmental Monitoring at Municipal Solid Waste Landfills and Landfill Criteria for Municipal Solid Waste. The annual report 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 must be included;
- (h) An update on the financial assurance mechanism including a statement of the current dollar value of the Closure Fund and the amount earmarked for the Landfill site; and
- (i) Any additional information requested by the Director.


6. LANDFILL CLOSURE PLAN

6.1 Closure Plan and Post Closure

The Operational Certificate holder must perform closure and post-closure care in accordance with all applicable requirements of the BC Landfill Criteria for Municipal Solid Waste. This Operational Certificate is issued on the condition that a Closure Plan and Final Cover Design that meets or exceeds the requirements of the criteria will be submitted to the Director during the operating life of the landfill. The Closure Plan must be reviewed every five years throughout the operating life of the landfill.

A certification by a Qualified Professional attesting that all closure works have

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been completed in accordance with the Closure Plan and Final Cover Design is to be submitted to the Director no later than 60 days after the implementation of the Final Cover Design.

The Operational Certificate Holder must submit a Post Closure or Aftercare Plan to the Ministry at least one year prior to the anticipated closure date of the landfill.

6.2 Closure Fund

The Operational Certificate holder must provide for the funding of progressive closure operations, final closure and operations beyond closure by maintaining a closure fund. The value of the closure fund must meet or exceed the estimated closure and post-closure costs as established in the approved Design and Operations Plan and updated in the annual report, plus a reasonable contingency for any remediation which may be required. Reported costs must be adjusted for inflation annually. Alternately, a closure and post-closure financial security acceptable to the Director may be built over time.

The Operational Certificate holder must determine and ensure that the closure fund is adequate by preparing annually a financial statement of the fund which must be made available to the Director upon request. The financial statement must report the accrued capital, interest and additions to the fund for the previous year and review the sufficiency of the fund and the rate of accrual in consideration of the projected costs of closure and post-closure obligations.

6.3 Site Decommissioning

In accordance with Section 40 of the Environmental Management Act and Part 2 of the Contaminated Sites Regulation, the Operational Certificate holder must submit a site profile to the manager at least ten days prior to decommissioning the facilities authorized in Section 1.

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6.4 **Declaration of Landfill**

Landfills sited on titled land must register a covenant that the property was used for the purpose of waste disposal as a charge against the title to the property as provided for under Section 215.1 of the Land Title Act. Landfills located on crown land are to have a “notation on file” registered that the property was used for the purpose of waste disposal.

The Operational Certificate holder must, upon closure of the landfill, register a charge against the property title, or provide other legal notification acceptable to the Director that the property described in Section 1 was used for the purpose of waste disposal. The Director must be notified of the charge or legal notification.

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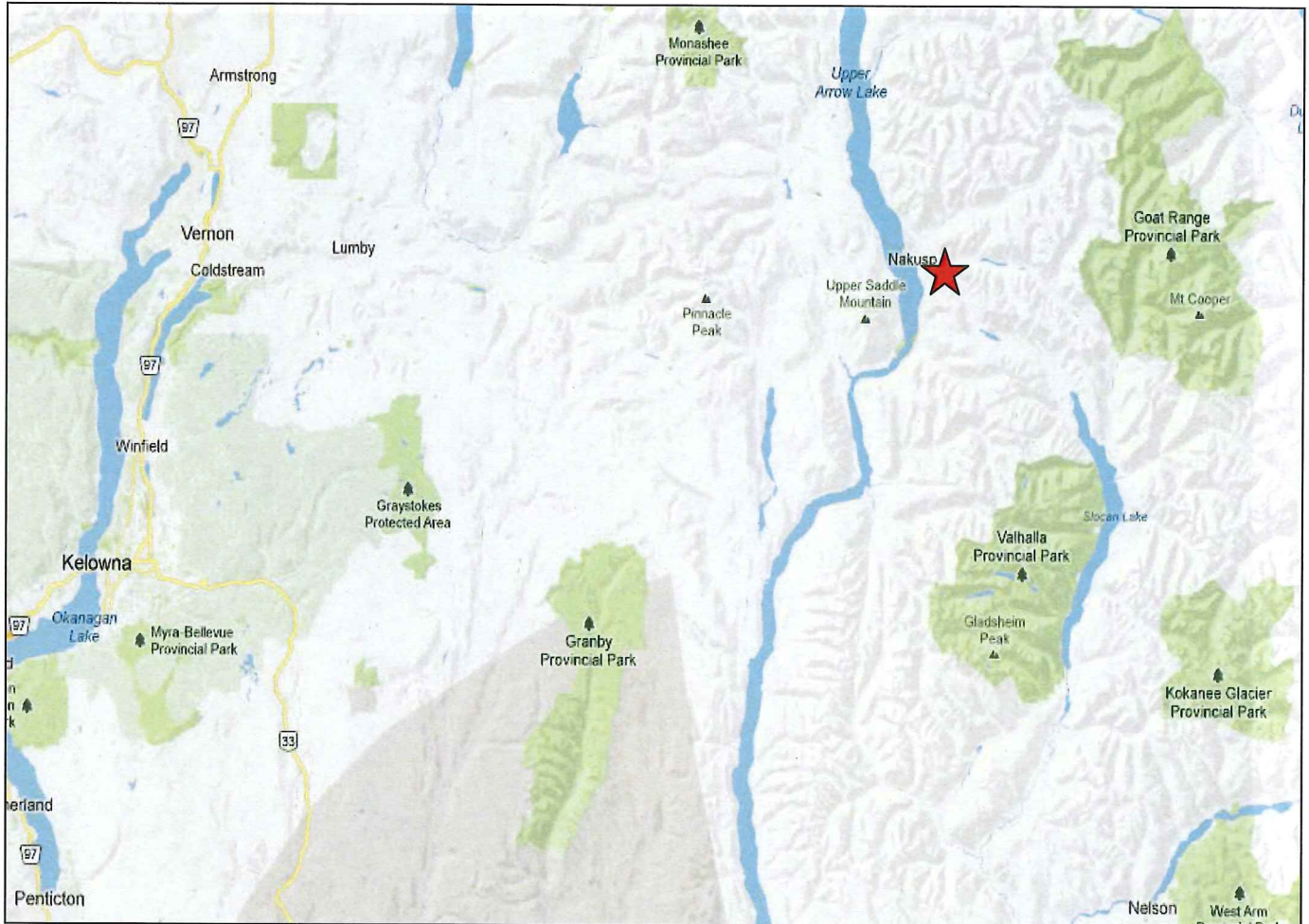
Site Plan A



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Location Map



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for Director, *Environmental Management Act*
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December 15, 2014

Tracking Number: 155

Authorization Number: 17126

REGISTERED MAIL

REGIONAL DISTRICT OF CENTRAL KOOTENAY
BOX 590
202 LAKESIDE DRIVE
NELSON, BC
V1L 5R4

Dear Operational Certificate Holder:

Enclosed is Operational Certificate 17126 issued under the provisions of the *Environmental Management Act*. This Operational Certificate supersedes Permit PR – 501 which is cancelled in accordance with Section 24(10) of the *Environmental Management Act*. Your attention is respectfully directed to the terms and conditions outlined in the operational certificate.

This operational certificate does not authorize entry upon, crossing over, or use for any purpose of private or Crown lands or works, unless and except as authorized by the owner of such lands or works. The responsibility for obtaining such authority rests with the operational certificate holder. It is also the responsibility of the operational certificate holder to ensure that all activities conducted under this authorization are carried out with regard to the rights of third parties, and comply with other applicable legislation that may be in force.

This decision may be appealed to the Environmental Appeal Board in accordance with Part 8 of the *Environmental Management Act*. An appeal must be delivered within 30 days from the date that notice of this decision is given. For further information, please contact the Environmental Appeal Board at (250) 387-3464.

Administration of this operational certificate will be carried out by staff from the Southern Interior Region - Kootenay. Plans, data and reports pertinent to the operational certificate are to be submitted to the Regional Manager, Environmental Protection, at Ministry of Environment, Regional Operations, Southern Interior Region - Kootenay, 401 - 333 Victoria St., Nelson, BC V1L 4K3.

Yours truly,

A handwritten signature in black ink, appearing to read 'Carol Danyluk', written in a cursive style.

Carol Danyluk, P.Eng.
for Director, *Environmental Management Act*
Southern Interior Region

Enclosure

cc: Environment Canada



Ministry of Environment

OPERATIONAL CERTIFICATE

17126

Under the Provisions of the Environmental Management Act

REGIONAL DISTRICT OF CENTRAL KOOTENAY

**BOX 590
202 LAKESIDE DRIVE
NELSON, BC
V1L 5R4**

is authorized to manage municipal solid waste and discharge waste as specified in this authorization to the ground in accordance with the Regional District of Central Kootenay's Solid Waste Management Plan. Contravention of any of these terms and conditions is a violation of the *Environmental Management Act (EMA)* and may result in prosecution.

This Operational Certificate supersedes all versions of Permit PR 501, issued under Section 28, of the *Environmental Management Act (EMA)*. All ministry policies and guidelines specified in this document refer to the most current version of these policies and guidelines.

1. **AUTHORIZED DISCHARGES & FACILITIES**

1.1 **Authorized Discharge**

This section applies to the discharge of municipal solid waste to a SANITARY LANDFILL, treatment of contaminated soil at a SOIL TREATMENT AREA and discharge of septage to DRYING BEDS at a site known as the Ootischenia Landfill in Castlegar, BC. The site reference number for this discharge is E211662.

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for Director, *Environmental Management Act*
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- 1.1.1 The authorized discharge is:
- a. Municipal solid waste and other waste as may be authorized by the Director in writing.
 - b. Septage in designated drying beds as per the Design & Operations Plan.

For the purpose of this section “Septage” refers to typical septic tank contents.

- 1.1.2 All solid waste discharged to this landfill must meet the requirements of the Regional District of Central Kootenay Solid Waste Management Plan and applicable by-laws of the Regional District.

The controlled discharge of septage must occur only in beds located as specified in the Design & Operation Plan.

- 1.1.3 The authorized works are a sanitary landfill and Septage Drying Beds. The authorized works include berms, cover soil or cover material, surface water diversionary works and are inclusive of any related appurtenances pertaining to the works and discharges specified in this section.

The authorized works referred to in this section must be maintained and operable while municipal solid waste, contaminated soil and septage is being actively managed i.e., disposed, transferred and/or recycled at the site. Post closure requirements for the site are specified in Section 5.

The authorized works are located approximately as shown on the attached Site Plan A.

- 1.1.4 The legal description for the location of the point of discharge is Lot 1, Sublot 23, D.L. 4598, Kootenay District, Plan 6599, plus a portion of Sublot 4598, Kootenay District, Plan X-34 as shown on attached Site Plan A.

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- 1.1.5 The following waste types and materials are prohibited from being landfilled:
- Hazardous Wastes as defined in the Hazardous Waste Regulation, other than those specifically approved within the Hazardous Waste Regulation for disposal to authorized landfills.
 - Human anatomical and animal waste components of biomedical waste and the untreated non-anatomical waste component of biomedical waste. Biomedical wastes are defined in the Guidelines for the Management of Biomedical Wastes in Canada (Canadian Council of Ministers of the Environment, February 1992).
 - Bulk liquids and semi-solid wastes, which contain free liquids, as determined by US EPA Method 9095A Paint Filter Liquids Test, Test Methods for Evaluating Solid Wastes -Physical/Chemical Methods (EPA Publication No. Sw-846).
 - Waste oil.
 - Vehicle hulks.
 - Automobile batteries.
 - Wastes that are specifically prohibited by applicable by-laws or waste bans of the Regional District.
- 1.1.6 The disposal of animal carcasses is not allowed, an exception being those of a domestic nature, the result of animal road kills or animal control activities of the Ministry of Environment's Conservation Officer Service (COS). Disposal of other animal carcasses is allowed if authorized by the Director.
- Mortalities from agricultural operations may be discharged where the generator has demonstrated to the satisfaction of the Director that the carcasses cannot be disposed of in accordance with the Agricultural Waste Control Regulation under the *Environmental Management Act*.
- 1.1.7 The total waste discharged during any operational period of the operational site life must not exceed that calculated for the period based on the fill rate specified in the Design & Operations Plan.
- 1.1.8 Storage of recyclable material must be in accordance with the Design & Operations Plan and applicable regulations.

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- 1.1.9 Composting of material from septage drying beds is permitted provided that compost is utilized onsite only.
- 1.1.10 Contaminated soil that contains contaminants in concentrations less than hazardous waste as defined in the Hazardous Waste Regulation under the *Environmental Management Act* may be disposed at the landfill. Disposal includes but is not limited to monofilling, co-disposal with other wastes, and use as daily or intermediate cover material. The use of these soils as final cover material is prohibited if contaminants exceed commercial / industrial land use standards as specified in the Contaminated Sites Regulation under the *Environmental Management Act*.
- 1.1.11 The disposal of waste asbestos in compliance with the requirements of Section 40 of the Hazardous Waste Regulation under the *Environmental Management Act* is permitted. In accordance with Section 40 “Management of Waste Asbestos”, under part 6 “Management of Specific Hazardous Wastes” of the Hazardous Waste Regulation, the waste asbestos disposed at a landfill other than a secure landfill must be immediately covered with a minimum of 0.5 metre of cover material.

2. DESIGN & OPERATIONS PLAN

- 2.1 The Operational Certificate holder must ensure that a Qualified Professional prepares and maintains a Design and Operations (D & O) Plan for the landfill which is acceptable to the Director. The current Plan must be reviewed within twenty four months of the completion of consolidation of landfilling operations at Ootischenia as specified by the Regional District of Central Kootenay’s Resource Recovery Plan (RRP). Further to this initial review and update within twenty four months, the D & O Plan should be reviewed and updated at least once every five years.

The D & O Plan must address, but not be limited to, each of the subsections in the Landfill Criteria for Municipal Solid Waste including performance, siting, design, operational, closure and post-closure criteria. The facilities must be developed, operated and closed in accordance with the Plan. Should there be any inconsistency between this Operational Certificate and the Plan, this Operational Certificate must take precedence.

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Written authorization from the Director must be obtained prior to implementing any changes to the approved plans. Based on any information obtained in connection with this facility, the Director may require revision of, or addition to, the design, operating and closure plans.

“As built” drawings certified correct and sealed by a Qualified Professional must be submitted electronically within 60 days of the completion of engineered construction activities required as per the Design & Operations Plan.

3. **LANDFILL OPERATIONS**

3.1 **Inspections**

3.1.1 **Waste Inspections**

The waste acceptance policies and procedures for the landfill must include a program to detect a prohibited waste so that it is prevented from being disposed of in a landfill cell. The Operational Certificate holder must also establish procedures for addressing such non-compliance to prevent recurrence of the same.

3.1.2 **Inspections of Authorized Works**

The Operational Certificate holder must inspect the authorized works at least once every three months to ensure compliance with this Operational Certificate and the BC Landfill Criteria. A record of the inspections and actions recommended or action items must be maintained in the operating record at the site office and made available to the Director upon request. During such inspections, the Operational Certificate holder must also inspect the property boundaries and immediately notify the Regional Manager Environmental Protection of:

- any visual or physical evidence of concerns pertaining to the authorized works such as leachate breaks, damage to monitoring wells;
- any visual or physical evidence of concerns of potential environmental impacts including but not limited to significant litter beyond the property boundary.

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3.2 **Site Access & Supervision**

Locking gates must be maintained at all access routes to the landfill site. Gates, perimeter fencing and/or barriers must be installed where necessary to prevent unauthorized access to the site by vehicles. Gates must be locked during non-operating hours. Onsite signage onsite must be in accordance with the BC Landfill Criteria.

The Operational Certificate holder must ensure that any person(s) authorized to work within the landfill boundary and directly involved in the landfilling of waste is fully cognizant of this Operational Certificate and applicable sections of the BC Landfill Criteria for Municipal Solid Waste and must take all reasonable measures to ensure that the person(s) complies with all requirements of the same. A landfill operator that has received BC Qualified Landfill Operator training, is familiar with the requirements of the Operational Certificate and the specifications of the Design and Operations Plan, must be present at all times during operating hours. Training records for staff must be maintained and made available to the Director upon request.

3.3 **Scavenging & Salvaging**

Uncontrolled scavenging of waste is prohibited. The controlled separation of salvageable waste stream components by persons authorized by the Operational Certificate holder is permitted in areas designated for separation and storage of these materials.

3.4 **Public Health Safety & Nuisance**

Operation of the landfill must be carried out in a manner that ensures that the facility does not pose a threat to public health or safety. The Operational Certificate holder must manage accumulations of litter within the site and prevent litter escaping from the fill area.

3.5 **Waste Deposition, Compaction & Cover**

The Operational Certificate holder must ensure that waste deposition and compaction meets or exceeds the requirements of the BC Landfill Criteria or its most current version. Control must be exercised to ensure keeping freshly deposited refuse in a well defined and small/manageable working face.

3.5.1 **Daily Cover**

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Application of daily cover must be in accordance with requirements of the BC Landfill Criteria. Alternate Daily Cover (ADC) that is functionally equivalent to daily soil cover may be used.

3.5.2 Intermediate Cover

Application of intermediate cover must be in accordance with requirements of the BC Landfill Criteria or its most current version. The Director must be notified in writing of the use of functionally equivalent intermediate cover material.

3.5.3 Final Cover

Final cover must be installed and maintained in accordance with the requirements of the BC Landfill Criteria. Completed portions of the landfill are to progressively receive final cover during the active life of the landfill as specified in the Design & Operations Plan.

3.6 Litter, Wildlife & Vector Control

The Operational Certificate holder must ensure that vector and wildlife attractants are minimized as a result of routine landfilling operations. Such measures include but are not limited to:

- a. Application of cover material in a timely and consistent manner in compliance with the requirements of the BC Landfill Criteria. Installation and maintenance of electrified wildlife control fencing where deemed necessary. The active landfill cell must be enclosed by a bear resistant electrified fence. The fence must be energized during the active bear season and Bear Warning Signs must be posted along the fence.
- b. Ensuring that the public drop off area is used in a manner that does not contribute to wildlife attraction. This includes the timely transfer of waste from public drop off areas to the tipping face or beyond the wildlife control fence, maintaining adequate bin capacity for public drop-off and addressing improper bin usage through awareness raising measures for the public or site users.
- c. Implementing a bird control strategy and bird control measures at the site if required by the Director.

Litter must be controlled and minimized by compacting the waste, minimizing the work face area, applying cover at the required frequencies and good

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housekeeping practices. A regular litter pick-up program to target windblown litter must be established as part of routine site operations. Litter prevention measures including provision of litter control fences must be under taken, if necessary. Controls must prevent the accumulation, or off-site migration, of litter in quantities that create a nuisance or cause other problems.

For the purpose of this section, a “vector” is defined as an organism or carrier capable of transmitting a pathogen from one organism to another including, but not limited to flies and other insects, rodents, and birds.

For the purpose of this section an “attractant” is defined as waste, municipal solid waste, refuse, organic matter, compost, garbage, food or food waste that attracts bears or other wildlife.

3.7 **Operations, Maintenance & Emergency Procedures Manual**

The Operational Certificate holder must prepare an Operations, Maintenance and Emergency Procedures Manual. This manual must be reviewed and kept updated to reflect current site conditions. A copy of the manual must be available at the site office and must be made available to the Director upon request.

3.8 **Fire Prevention & Control**

The Operational Certificate Holder must take all reasonable measures to prevent fires from occurring at the site and is responsible for complying with all local fire safety requirements. The Operational Certificate holder must provide and maintain firefighting equipment and materials as required for the site.

In the event of a landfill fire the following must be notified immediately:

- The Fire Department
- Provincial Emergency Program (PEP)
- The Regional Manager Environmental Protection

3.9 **Maintenance of Works & Emergency Procedures**

The Operational Certificate holder must maintain the authorized works in good working order. In the event of an emergency or condition beyond the control of the Operational Certificate holder which prevents continuing operation of the authorized works and/or the continued performance of the prescribed methods of operation, the Operational Certificate holder must immediately notify the

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Regional Manager Environmental Protection and take appropriate remedial action in consultation with a Qualified Professional if specified by the Director.

Any activity or construction at the disposal site must be carried out in a manner that protects the integrity of the areas under final cover and without compromising landfill stability or without damage to the authorized works and related appurtenances.

Any settlement of areas under final cover or differential settlement that prevents the authorized works and appurtenances mentioned in Section 1 from functioning as intended in the Design & Operations plan must be addressed/ remedied accordingly to the satisfaction of the Director.

All access roads, within the landfill boundary, used for transporting waste to the tipping area for disposal must be maintained as necessary to assure safe and reliable all-weather access to the tipping face.

3.10 **Qualified Professionals**

Information pertaining to the landfill including details of works, plans, assessments, investigations, surveys, programs and reports, must be prepared by a Qualified Professional unless specified otherwise by the Director.

3.11 **Additional Facilities or Works**

The Director may require additional investigations, surveys, and the construction of additional facilities or works related to the landfill operation. The Director may also revise the requirements of any of the information required by this Operational Certificate including plans, programs, assessments and reports.

3.12 **Groundwater & Surfacewater Quality Protection**

The Operational Certificate holder must take appropriate measures to ensure that ground water and surface water quality does not decrease beyond that specified by the British Columbia Water Quality Guidelines or other appropriate criteria as may be specified by the Director at and beyond the landfill property boundary.

These measures include but are not limited to:

Date issued: December 15, 2014



Carol Danyluk, P.Eng.
for Director, *Environmental Management Act*
Southern Interior Region

- a. Ensuring that the landfill is operated in accordance with a Design & Operations Plan which specifies measures to prevent decreases in groundwater and surface water quality at and beyond the property boundary.
- b. Ensuring that the landfill is operated in a manner that prevents the exceedance in surface water of anticipated leachate indicators or parameters distinctive of leachate or those attributable to landfilling operations at the site or those specified by the Director at the landfill boundary.
- c. Ensuring that adequate storm water works are constructed and maintained to ensure that run-off is intercepted and conveyed away from construction, operational and capped phases and directed to the storm water management basin.
- d. Ensuring that storm water management works at the landfill are designed for predicted storm events and that designs are updated, if necessary, to include revisions to reasonable contingencies for the changes to precipitation, if any, at the site resulting from perceptible long term climate shifts.
- e. Ensuring that measures are taken to prevent stormwater from entering landfilled waste and that the management systems for storm water that has not come in contact with waste are hydraulically separate from those for managing impacted surface water.
- f. Ensuring that the landfill is operated in a manner that prevents the exceedance beyond BC Water Quality Guidelines in groundwater, of anticipated leachate indicators or parameters distinctive of leachate or those specified by the Director at the property boundary. Ensuring that suitable measures are taken to investigate an increasing trend for these parameters if this trend corresponds to an increasing trend also at other wells downgradient of the waste footprint and in the groundwater flowpath towards the property boundary.

If exceedances to the specified water quality criteria occur at the landfill boundary as a result of landfill operations, suitable corrective measures acceptable to the Director must be undertaken.

3.13 Landfill Gas

The Operational Certificate holder must ensure that operation of the landfill must not cause combustible gas concentrations to exceed the lower explosive limit in soils at the property boundary or 25% of the lower explosive limit at or in on-site or off-site structures.

The Operational Certificate holder must ensure that the facility is in compliance with the requirements of the *Landfill Gas Management Regulation* on or before applicable dates specified in the regulation. The requirements of the regulation and its guideline documents must be incorporated by the Operational Certificate

Date issued: December 15, 2014



Carol Danyluk, P.Eng.
for Director, *Environmental Management Act*
Southern Interior Region

holder into the Design and Operation Plan revisions as they come into effect and as applicable.

4. **MONITORING & REPORTING REQUIREMENTS**

4.1 **Environmental Monitoring**

4.1.1 **Environmental Monitoring Program**

The Operational Certificate holder must ensure that a Qualified Professional develops, maintains, conducts and reports to the Regional Manager, Environmental Protection a monitoring program to identify potential impacts to the environment and public health from the facility. The program must be designed to assess and identify:

- The design performance of the landfill including but not limited to compliance with Water Quality performance standards at the property boundary.
- Landfill leachate as a contaminant source.
- Surface Water Quality.

The monitoring program must address, but not be limited to relevant sections of the Landfill Criteria for Municipal Solid Waste and the Guidelines for Environmental Monitoring at Municipal Solid Waste Landfills. The Environmental Monitoring Program must take into consideration results from previous monitoring programs and any other investigations conducted at the site to ensure that early detection of potential impacts is possible.

The Environmental Monitoring Program must be reviewed and reported on annually. The need for subsequent increased or decreased monitoring must be assessed annually by the Operational Certificate Holder on the basis of available monitoring data. Based on the results of the monitoring program, or any other information relevant to the site, the Director may vary the frequency, location and analyses of environmental monitoring as warranted.

The Operational Certificate holder must ensure that groundwater monitoring wells are established and maintained to allow for uninterrupted monitoring as specified by the Environmental Monitoring Program. Background monitoring locations should be established and maintained. If progressive filling will result in the need for some background wells to be decommissioned, other background monitoring well locations should be identified in a timely manner to replace them. In the event that site hydrogeology restricts available locations for

Date issued: December 15, 2014



Carol Danyluk, P.Eng.
for Director, *Environmental Management Act*
Southern Interior Region

background groundwater monitoring wells, the use of data from other groundwater wells may be used provided they have been demonstrated as being suitable for the purpose of establishing background groundwater quality.

The location and installation of all monitoring wells must be specified and supervised by a Qualified Professional who is knowledgeable in the fields of Hydrogeology and Landfill Impact Assessment. The Operational Certificate holder must ensure that monitoring wells and other equipment are adequately secured and maintained, including provisions to ensure protection from damage due to weather, vehicles or vandalism. In the event of damage to the wells or monitoring equipment which could affect/compromise the integrity of monitoring data, the Operational Certificate holder must take immediate and necessary measures to ensure that conditions for uninterrupted monitoring are restored.

The Operational Certificate holder must maintain records of all monitoring program data and analyses and make these available for inspection upon request.

4.1.2 **Field Sampling Techniques**

Sampling must be carried out in accordance with the procedures described in the most recent edition of the "British Columbia Field Sampling Manual for Continuous Monitoring Plus the Collection of Air, Air-Emission, Water, Wastewater, Soil, Sediment, and Biological Samples", or by suitable alternative procedures as authorized by the Director. A copy of the above manual may be purchased from the Queen's Printer Publications Centre, P. O. Box 9452, Stn. Prov. Gov't. Victoria, British Columbia, V8W 9V7 (1-800-663-6105 or (250) 387-6409).

Proper care should be taken in sampling, storing and transporting the samples to adequately control temperature and avoid contamination and breakage.

4.1.3 **Laboratory Analysis**

Analyses are to be carried out in accordance with procedures described in the most recent edition of the "British Columbia Environmental Laboratory Manual for the Analysis of Water, Wastewater, Sediment and Biological Materials", or by suitable alternative procedures as authorized by the Director. A copy of the above manual may be purchased from the Queen's Printer Publication Centre,

Date issued: December 15, 2014



Carol Danyluk, P.Eng.
for Director, *Environmental Management Act*
Southern Interior Region

P. O. Box 9452, Stn. Prov. Govt. Victoria, British Columbia, V8W 9V7 (1-800-663-6105 or (250) 387-6409).

4.2 **Reporting**

4.2.1 **Monitoring Event Reporting**

The Operational Certificate Holder must notify the Regional Manager Environmental Protection of the completion of a monitoring event at the landfill through a memorandum within 60 days of the end of each event. The memorandum must identify exceedances to the water quality criteria for surface and ground water and observed non-compliance with operational certificate requirements.

4.2.2 **Non-Compliance Reporting**

The Operational Certificate holder must notify the Regional Manager Environmental Protection by facsimile or email of any non-compliance with the requirements of this Operational Certificate. The Operational Certificate holder must identify the non-compliance, the cause of non-compliance and any remedial action to address the non-compliance.

4.2.3 **Wildlife Reporting**

The Operational Certificate holder must maintain an onsite log of any ongoing bear activity such as digging around the perimeter of the electric fencing or other attempts to penetrate the fencing, and any observations pertaining to wildlife intrusion attempts. Any penetrations of the fencing by bears should be immediately reported to the Conservation Officer Service (COS) via the Report All Poachers & Polluters reporting line at 1877 952 7277.

4.2.4 **Five Year Report**

The Operational Certificate holder must submit to the Director a report every five years by April 30 of the respective fifth year after the last report. This report must be prepared by a qualified professional and must include but not be limited to:

- a. an executive summary;
- b. A current topographic map detailing airspace consumption, on-site borrow pit changes and future developments;

Date issued: December 15, 2014



Carol Danyluk, P.Eng.
for Director, *Environmental Management Act*
Southern Interior Region

- c. Volume and density analysis or an in-place material summary, updated estimates for the remaining capacity, site life, revised closure date for the current phase or sequence and revised closure date for the current landfill footprint;
- d. An update on the financial assurance mechanism including a statement of the current dollar value of the Closure Fund and the amount earmarked for the Landfill site;
- e. A detailed hydrogeological assessment of the site based on the previous five years monitoring data and other relevant information. The hydrogeological review must provide an update on the attenuative capacity of the site for contaminants of concern;
- f. Any proposed changes to the Design and Operations Plan and the Environmental Monitoring Program (EMP), with rationale for the changes and any changes to the closure or post-closure plans;
- g. A review of the preceding five years of operation or an operations update which summarizes landfill development work completed in the subject reporting years and work planned for the subsequent five years;
- h. A summary of any new information that could affect the facilities, plans, assessments, surveys, programs and reports;
- i. A statement regarding the facility's compliance with the objectives of the Regional Solid Waste Management Plan.
- j. Any additional information requested by the Director.

4.2.5 **Design & Operations Plan Review**

The Design and Operations plan must be reviewed every five years throughout the operating life of the landfill and updated to include at least the next five years of landfill operations. Updated plans must be prepared by a Qualified Professional. The review must take into account the information from the hydrogeological assessment specified in Section 4.2.3e. The Regional Manager, Environmental Protection may request additional reviews of the design based on the compliance history and design performance of the site.

4.2.6 **Annual Report**

The Operational Certificate holder must submit to the Director an Annual Report for the facility by April 30 each year. The report must include memorandum summarizing operational information and results of monitoring as per the Environmental Monitoring Program for the site. The report must include sample data sheet and the results of laboratory analysis.

Date issued: December 15, 2014



Carol Danyluk, P.Eng.
for Director, *Environmental Management Act*
Southern Interior Region

This report must be prepared by a qualified professional and must include but not be limited to:

- a. an executive summary
- b. the type and tonnage of waste received, recycled, stored on-site and discharged/landfilled for the years reported;
- c. A review of the preceding year of operation or an operations update which summarizes landfill development work completed in the subject reporting year and work planned for the subsequent year.
- d. A summary of any new information that could affect the facilities, plans, assessments, surveys, programs and reports
- e. An outline of the current Environmental Monitoring Program and a compendium of all environmental monitoring data in accordance with requirements specified in the most recent version of Guidelines for Environmental Monitoring at Municipal Solid Waste Landfills and Landfill Criteria for Municipal Solid Waste. The annual report must document any effect of the discharge on the quality of the receiving environment using appropriate statistical and graphical analysis and include trend analyses, as well as an evaluation of the impacts of the discharges on the receiving environment must be included;
- f. A summary of significant occurrences or observations of wildlife (medium and large carnivores) at the landfill;
- g. A list of training programs completed for landfill operators during the previous year;
- h. Any additional information requested by the Director.

Annual Reporting information requirements specified under this clause may be included along with the five year report specified in clause 4.2.3 for every fifth year.

4.2.5 **Reporting Format & Records Retention**

All reports must be submitted, suitably formatted in electronic format only. The Operational Certificate Holder must maintain records of all monitoring data in perpetuity and must also ensure that the results of monitoring and analysis are submitted in electronic format suitable for entry into applicable provincial databases.

4.3 **Notifications**

The Operational Certificate Holder must notify stakeholders specified by the Director regarding exceedances beyond the BC Water Quality Guidelines at

Date issued: December 15, 2014



Carol Danyluk, P.Eng.
for Director, *Environmental Management Act*
Southern Interior Region

groundwater monitoring wells located at the property boundary, if such exceedances can be attributed to the landfilling of waste.

5. **CLOSURE & POST CLOSURE REQUIREMENTS**

5.1 **Closure & Post Closure Plan**

A Closure Plan and Final Cover Design that meets or exceeds the requirements of the BC Landfill Criteria should be submitted to the Director at least 12 months prior to the closure of the landfill. The plan must also include a Post Closure Plan or Aftercare measures to be taken at the landfill. The post closure plan must be reviewed every five years throughout the post closure period.

Completion of closure works in accordance with the Closure Plan and Final Cover Design must be certified by a Qualified Professional within sixty days of the implementation of the Final Cover Design.

5.2 **Closure Fund**

The Operational Certificate holder must provide for the funding of progressive closure operations, final closure and operations beyond closure by maintaining a closure fund. The value of the closure fund must meet or exceed the estimated closure and post-closure costs as established in the approved Design and Operations Plan and updated in the annual report, plus a reasonable contingency for any remediation which may be required. Reported costs must be adjusted for inflation annually. Alternately, a closure and post-closure financial security acceptable to the Director may be built over time.

The Operational Certificate holder must determine and ensure that the closure fund is adequate by preparing annually a financial statement of the fund which must be made available to the Director upon request. The financial statement must report the accrued capital, interest and additions to the fund for the previous year and review the sufficiency of the fund and the rate of accrual in consideration of the projected costs of closure and post-closure obligations.

The Operations Certificate holder must take measures to ensure that the closure and post-closure funds will ultimately meet or exceed the estimated closure and post-closure costs and include a reasonable contingency for any remediation that may be required.

5.3 **Site Decommissioning**

Date issued: December 15, 2014



Carol Danyluk, P.Eng.
for Director, *Environmental Management Act*
Southern Interior Region

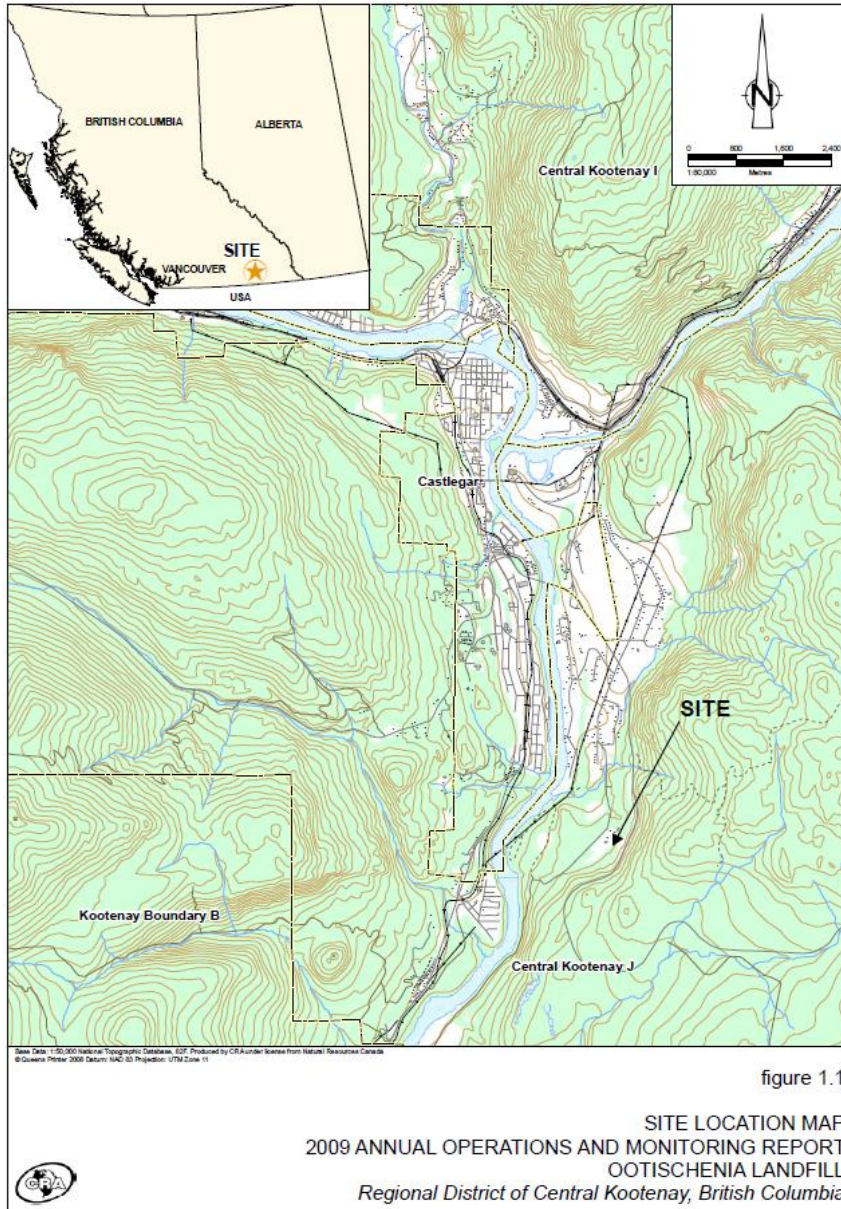
In accordance with Section 40 of the *Environmental Management Act* and Part 2 of the Contaminated Sites Regulation, the Operational Certificate holder must submit a site profile to the manager at least 10 days prior to decommissioning the facilities authorized in Section 1.

Date issued: December 15, 2014



Carol Danyluk, P.Eng.
for Director, *Environmental Management Act*
Southern Interior Region

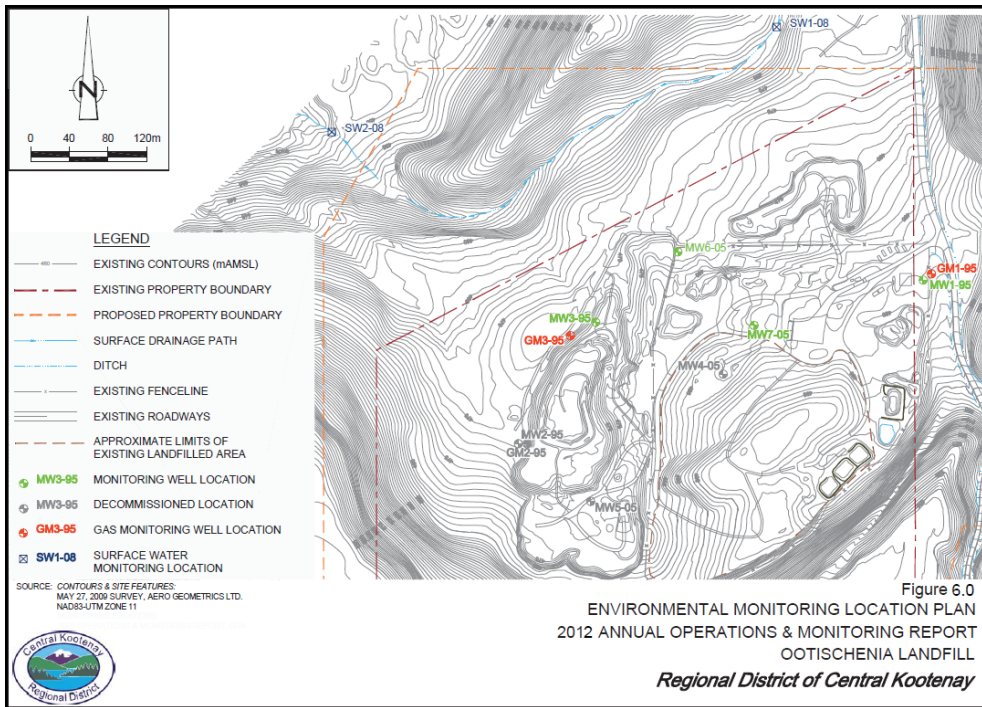
Location Map



Location: Lot 1, Sub Lot 23, D.L. 4598, Plan 6599, plus a portion of Sub Lot 23, Plan X-34, D.L. 4598

Date issued: December 15, 2014

Carol Danyluk, P.Eng.
for Director, *Environmental Management Act*
Southern Interior Region



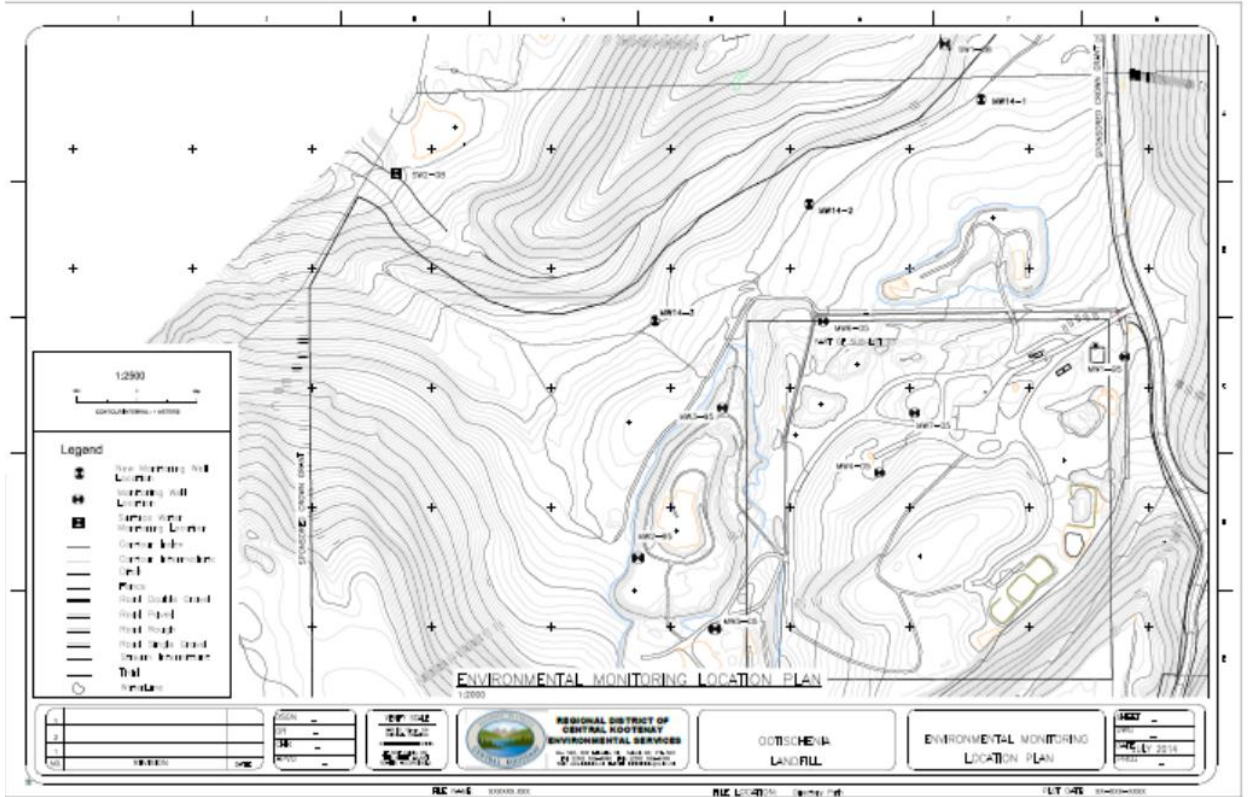
Site Plan indicating monitoring locations



Site Plan showing phased filling

Date issued: December 15, 2014

Carol Danyluk, P.Eng.
for Director, *Environmental Management Act*
Southern Interior Region



Site Plan indicating Monitoring Well locations

Date issued: December 15, 2014

Carol Danyluk, P.Eng.
for Director, *Environmental Management Act*
Southern Interior Region

ADDRESS ALL COMMUNICATIONS TO:
DIRECTOR, POLLUTION CONTROL BRANCH
PARLIAMENT BUILDINGS
VICTORIA, BRITISH COLUMBIA
V8V 4S5



WHEN REPLYING PLEASE STATE

OUR FILE No. 0262100-PR-4069

YOUR FILE No.

TELEPHONE 387-5321

3B

DEPARTMENT OF LANDS, FORESTS, AND WATER RESOURCES
WATER RESOURCES SERVICE
POLLUTION CONTROL BRANCH
VICTORIA, BRITISH COLUMBIA

R
VICTORIA, B. C.
P 1628

9/283/R

May 14, 1975

DOUBLE REGISTERED

Regional District of Central Kootenay
601 Vernon Street
Nelson, British Columbia

RECEIVED
MAY 14 1975
REGIONAL DISTRICT OF
CENTRAL KOOTENAY
NELSON, B.C.

Gentlemen:

LETTER OF TRANSMITTAL

Enclosed is a copy of Pollution Control Permit No. PR-4069 in the name of the Regional District of Central Kootenay. Your attention is respectfully directed to the conditions in the Permit.

In conjunction with this Permit, you are directed to comply with the following conditions:

A. OPERATION

Maintain the works authorized as a Level "C" operation in accordance with the "Operational Guidelines for the Discharge of Refuse on Land" dated October, 1971, or as may be otherwise required by the Director from time to time.

B. REHABILITATION OF SITE

To clean up and cover with soil the exposed face of the previous "over the bank" disposal operation to the satisfaction of the Regional Manager.

The terms and conditions of this Permit may be amended to meet any objectives or guidelines which may be established as a result of the Public Inquiry into Municipal Type Waste Discharges.

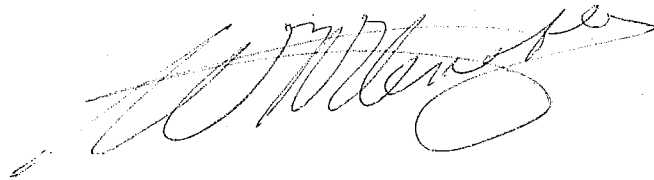
The administration of this Permit, including periodic inspections and monitoring, will be carried out by staff from our Regional office located at 310 Ward Street, Nelson, British Columbia, V1L 5S4, (telephone 352-2211 local 273). Any required information may be submitted to the Regional Manager at this address in lieu of the Director.

Crawford Bay

This Permit does not authorize entry upon, crossing over, or use for any purpose, of private or Crown lands or works, unless and except as authorized by the owner of such lands or works. The responsibility for obtaining such authority shall lie with the Permittee.

For your reference, enclosed is a copy of the Pollution Control Act, 1967, as amended, and the Regulations thereto. Also enclosed is a copy of the "Operational Guidelines for the Discharge of Refuse on Land."

Yours very truly,

A handwritten signature in cursive script, appearing to read 'W. N. Venables', written in dark ink.

W. N. Venables, P.Eng.
Director
Pollution Control Branch

Encl.



DEPARTMENT OF LANDS, FORESTS, AND WATER RESOURCES
WATER RESOURCES SERVICE
POLLUTION CONTROL BRANCH

PERMIT

Under the Provisions of the Pollution Control Act, 1967

Regional District of Central Kootenay

601 Vernon Street, Nelson, British Columbia

is hereby authorized to discharge refuse

from municipal sources

located in the Crawford Bay area, British Columbia

to the ground approximately 2 1/2 miles north east of Crawford Bay Secondary School

This permit has been issued under the terms and conditions prescribed in the attached appendices

01 and A

[Signature]
Director, Pollution Control Branch

Date issued May 14, 1975

Permit No. PR-4069

Amendments dated _____, 19____

_____, 19____

_____, 19____



DEPARTMENT OF LANDS, FORESTS, AND WATER RESOURCES
WATER RESOURCES SERVICE
POLLUTION CONTROL BRANCH

APPENDIX No. 01
to Pollution Control Permit No. PR-4069

- (a) The discharge of refuse applicable to this appendix is to a site located in Lots 9 and 10 of District Lot 4595 Kootenay District Plan 1316
as shown on attached Appendix A.
- (b) The quantity of refuse which may be discharged is 25 cubic yards per week.
- (c) The type of refuse which may be discharged is municipal.
(Municipal, industrial, etc.)
- (d) The nature or characteristics of the refuse which may be discharged are typical domestic refuse (excluding toxic wastes).
- (e) The works authorized are a landfill operation as directed
approximately located as shown on attached Appendix A.
- (f) The land from which the refuse originates and to which this appendix is appurtenant is Crawford Bay and surrounding area, British Columbia.
- (g) Those works authorized and proposed must be completed and in operation when discharge commences.

Date May 14, 19 75
Amended _____, 19____

[Signature]
Director, Pollution Control Branch

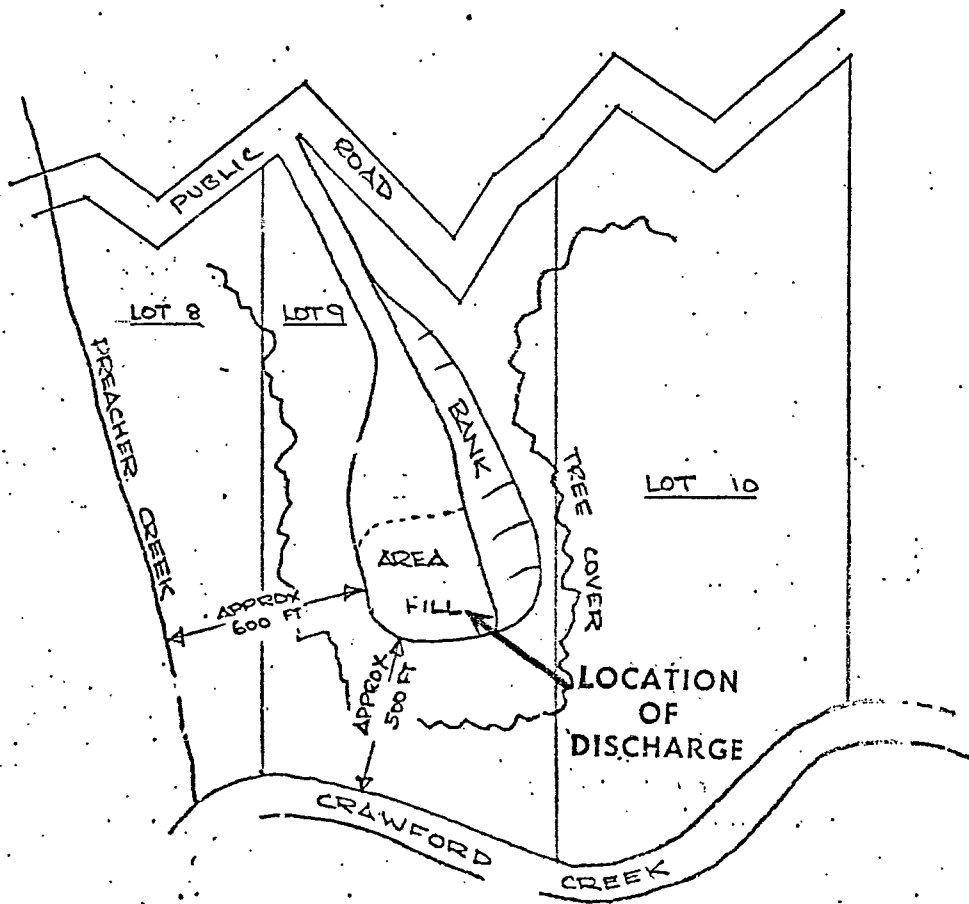


DEPARTMENT OF LANDS, FORESTS, AND WATER RESOURCES
 WATER RESOURCES SERVICE
 POLLUTION CONTROL BRANCH

SITE PLAN

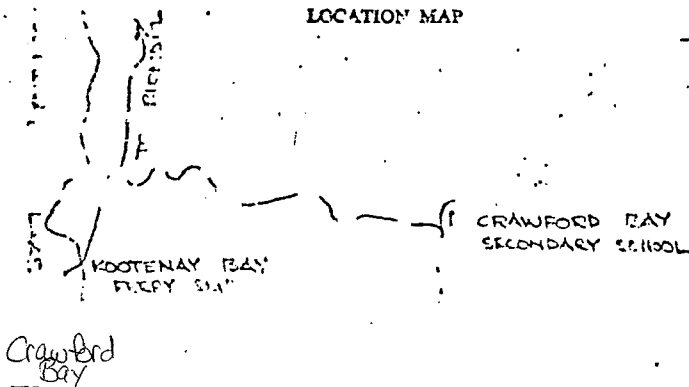
LOTS 9 AND 10 OF D.L. 4595 K.D. PLAN 1316

CRAWFORD BAY REFUSE DISPOSAL GROUNDS



SCALE: 4 CHAINS TO 1 INCH

LOCATION MAP



Regional District of Central Kootenai
 (Name of applicant(s))

Dec. 9/74
 (Date)

(Signature of applicant(s) or agent)

(FOR OFFICE USE ONLY)

May 14, 1975
 (Date Issued)

(Signature of Director, Pollution Control Branch)

Appendix A to Permit No. PR-4069

AMENDMENT TO LEASE RENTAL

NOTICE


Form A

Re: Lease No. 18722 dated April 29, 1969 from the
Minister of Lands, Forests and Water Resources to
Crawford Bay Women's Institute covering
Those portions of Lots 9 and 10 of Sublot 26 of Lot 4595,
Kootenay District, Plan 1316, which lie to the North of
Crawford Creek

TAKE NOTICE that the rent payable under the above-
mentioned lease is hereby adjusted from \$ 5.00 per annum
to a rental of \$ 25.00 per annum payable for the period of
five years commencing on the April 29, 1974 .

AND FURTHER TAKE NOTICE that the provisions of this NOTICE
shall, upon the execution hereof, be deemed to be incorporated in
the above-mentioned lease to the intent that the rental payment under
the lease is \$25.00 per annum for the period of five
years commencing April 29, 1974 .

DATED this 27th day of December 1973 ,
at Victoria, B.C.



for Director of Lands

N.B. This forms an integral part of your lease and must be attached thereto.

Your next notice of lease account rental due will be at the amended
rental indicated herein.

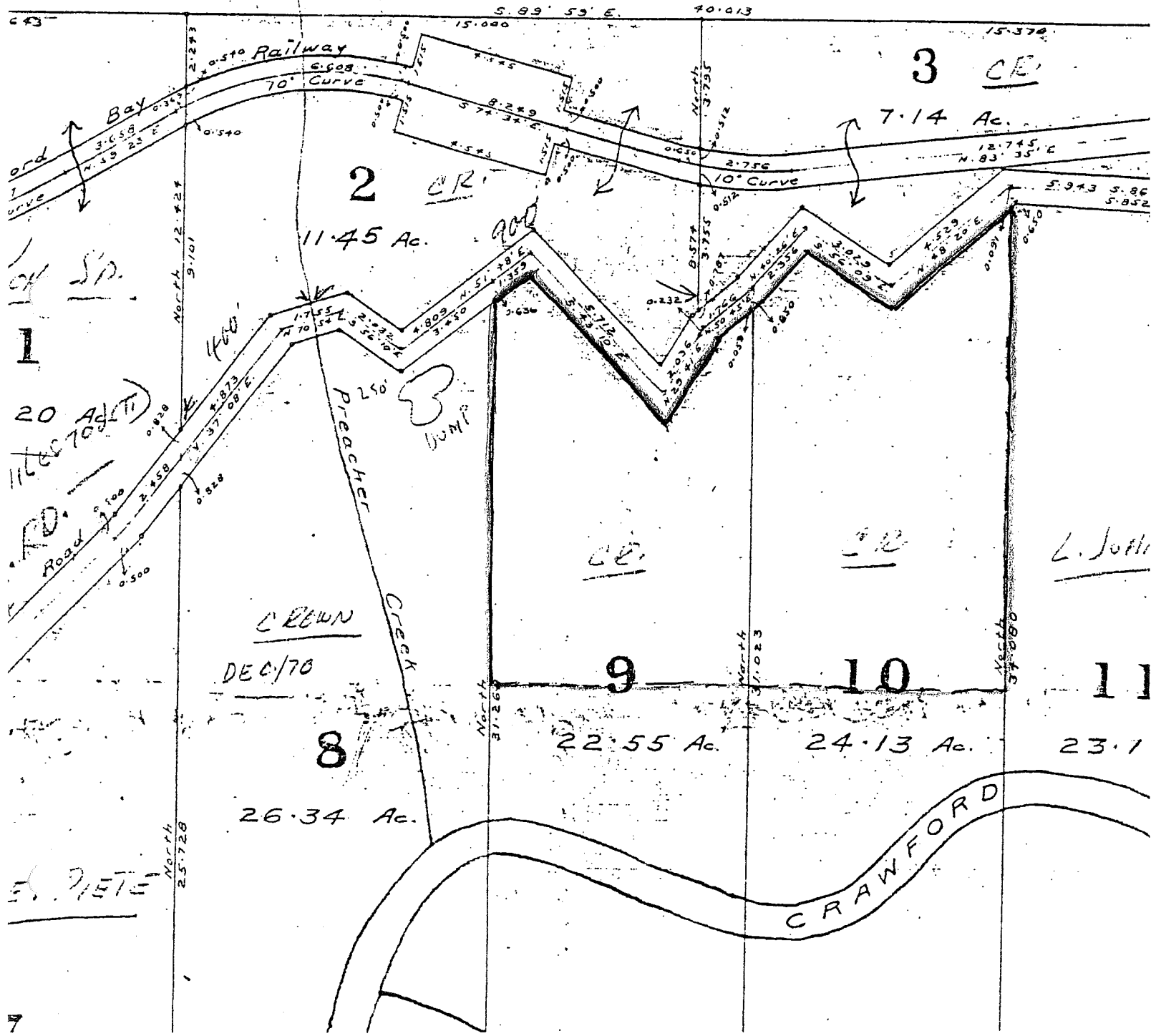
Crawford Bay

As shown bearings from west boundary of Sub-Lot 26.
 Angles of Lots marked by wooden posts and shown on plan thus o.
 The ~~area~~ ^{area} ~~is~~ ^{is} ~~shown~~ ^{shown} ~~in~~ ⁱⁿ ~~the~~ ^{the} ~~plan~~ ^{plan}, thus ^{the} ^{angles} ^{are} ^{located} ^{on} ^{the} ^{line} ^{bisecting} ^{the} ^{angle} ^{included} ^{between} ^{courses}.

CRAWFORD 13 AY
 GARBAGE DUMP

ON LEASE TILL APR. 29/84
 RENEWABLE FOR
 5 MORE YEARS

SUB-LOT 97



of Sp.
 1
 20 Ac (T)
 RD.

E. NIETE

L. Joffe



YOUR FILE

OUR FILE PR-5991.....

JAN 27 1981

CERTIFIED MAIL

Regional District of Central Kootenay
601 Vernon Street
Nelson, British Columbia
V1L 4E9

Gentlemen:

LETTER OF TRANSMITTAL

Enclosed is a copy of Pollution Control Permit No. PR-5991 in the name of Regional District of Central Kootenay. Your attention is respectfully directed to the terms and conditions outlined in the Permit.

In conjunction with this Permit, you are directed to comply with the following requirements:

A. OPERATIONAL REQUIREMENTS FOR LANDFILL

1. General Operating Conditions

Maintain the landfill operation authorized in Permit Appendix 01(e) from April 1st to October 31st inclusive each year as a Level "C" operation in accordance with the Pollution Control Objectives for Municipal Type Waste Discharges in British Columbia dated September, 1975, which, under normal conditions require that cover material be applied once per week and for the remainder of the year as a Level "D" operation, which, under normal circumstances requires that cover material be applied once every 20 days of operation or at least once per month.

B. REHABILITATION

Rehabilitate the old refuse disposal areas adjacent to this operation to the satisfaction of the Regional Manager.

C. SURFACE DRAINAGE

If, in the opinion of the Regional Manager, surface runoff

...2

JAN 27 1981

PR-5991

poses a threat to the proper operation of the site construct and maintain suitable drainage/diversion works to the satisfaction of the Regional Manager.

D. PLANS

Before commencing discharge submit a plan for operating the site to the Regional Manager for his approval.

You will note that values have been expressed in the International System of Units (SI). These units are to be used in submitting monitoring results and any other information in connection with this Permit.

The administration of this Permit will be carried out by staff from our Regional Office located at 310 Ward Street, Nelson, British Columbia, V1L 5S4 (telephone 352-2211). Plans, data and reports pertinent to the Permit are to be submitted to the Director through the Regional Manager at this address.

This Permit does not authorize entry upon, crossing over, or use for any purpose of, private or Crown lands or works, unless and except as authorized by the owner of such lands or works. The responsibility for obtaining such authority shall rest with the Permittee.

This Letter of Transmittal is an Order under the Pollution Control Act.

For your reference, enclosed is a copy of the Pollution Control Act, as amended, and the Regulations thereto. Also enclosed is a copy of the Metric Practice Guide and a copy of Section 3 of the "Pollution Control Objectives for Municipal Type Waste Discharges in British Columbia" relative to solid waste landfills.

Yours very truly,



H. P. Klassen, P. Eng.
Assistant Director of Pollution Control

Encl.



MINISTRY OF ENVIRONMENT

PERMIT

Under the Provisions of the Pollution Control Act, ~~1968~~

..... Regional District of Central Kootenay

..... 601 Vernon Street, Nelson, British Columbia, V1L 4E9

is hereby authorized to discharge refuse

from municipal sources

located in the Destiny Bay, Boswell and Sanca areas

to the ground at a site 0.8 km south-east of Boswell

This permit has been issued under the terms and conditions prescribed in the attached appendices

..... 01 and A

Assistant Director of Pollution Control

Date issued **JAN 27 1981**, 19.....

Amendments dated....., 19.....

....., 19.....

....., 19.....

Permit No. **PR-5991**.....



MINISTRY OF ENVIRONMENT

WASTE MANAGEMENT BRANCH

APPENDIX No. 01

to Pollution Control Permit No. PR-5991

(a) The discharge of refuse to which this appendix is applicable is 2.14 acres in Lot 1, District Lot 888, Plan 4665, Kootenay District approximately

as shown on the attached Appendix A

(b) The quantity of refuse which may be discharged is four (4) cubic metres per day.

(c) The type of refuse which may be discharged is municipal.

(Municipal, industrial, etc.)

(d) The nature or characteristics of the refuse which may be discharged are typical domestic refuse with a small proportion of commercial refuse (excluding toxic wastes).

(e) The works authorized are a landfill as directed

approximately located as shown on the attached Appendix A

(f) The land from which the refuse originates and to which this appendix is appurtenant is the Destiny Bay, Boswell and Sanca Areas.

(g) Those works authorized and proposed must be completed and in operation before discharge commences.

Date JAN 27 1981, 19

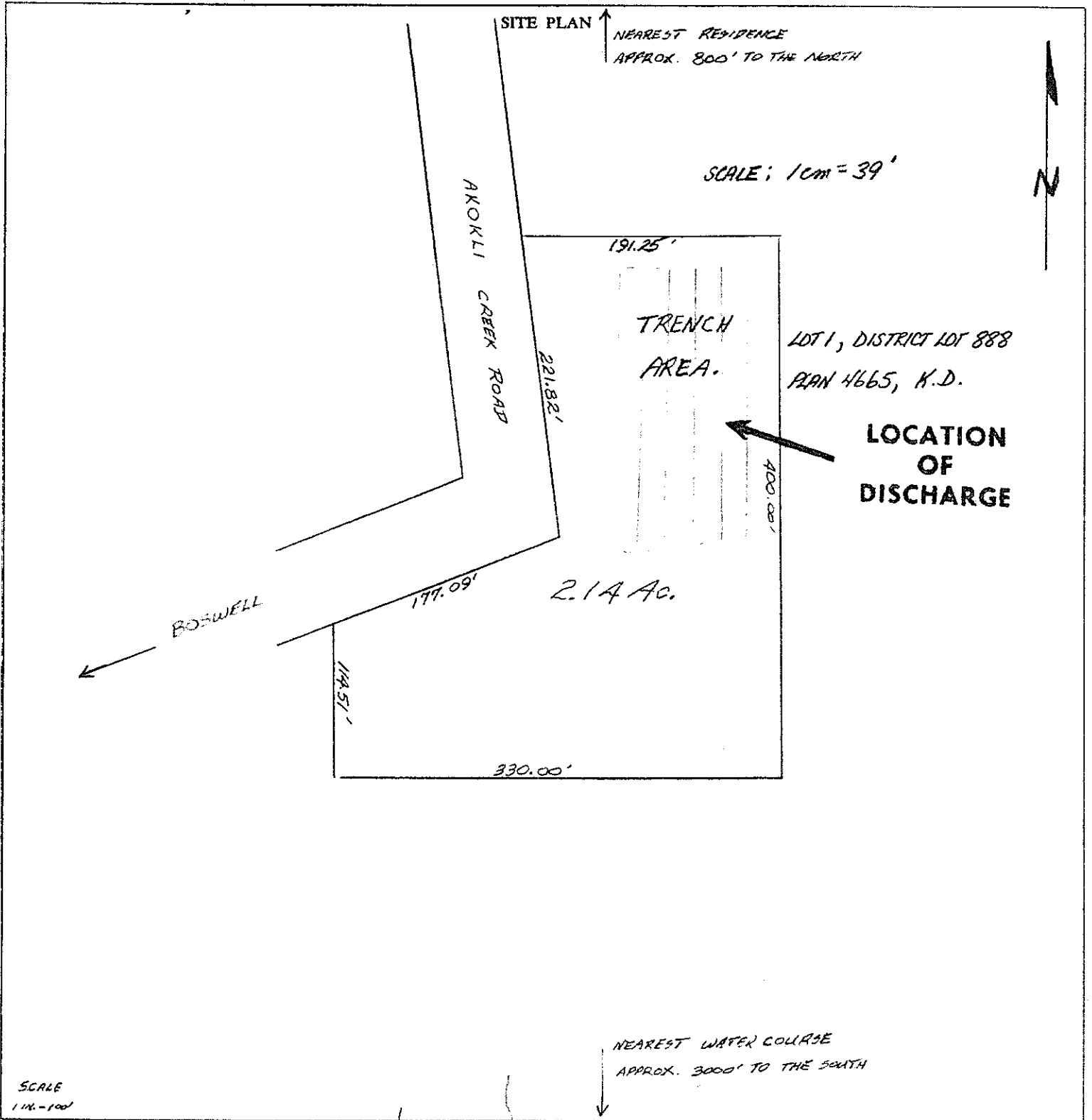
Amended, 19

Assistant Director of Pollution Control

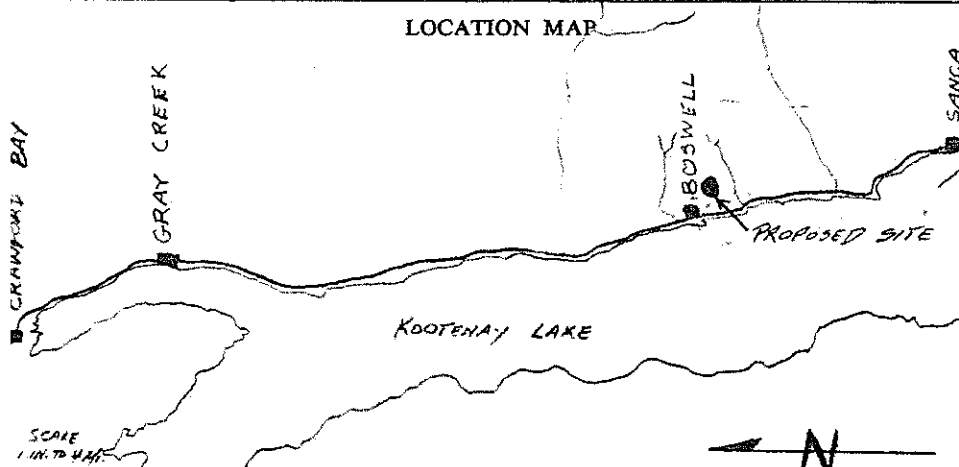


1883-88
178 (MIDWAY)

POLLUTION CONTROL BRANCH



LOCATION MAP



B. P. ...
(Name of applicant(s))

[Signature]
(Signature of applicant(s) or agent)

[Date]
(Date)

(FOR OFFICE USE ONLY)

JAN 27 1981

(Date issued) Assistant Director, Pollution Control

Appendix A to Permit No. PR-5991



PROVINCE OF
BRITISH COLUMBIA

MINISTRY OF
ENVIRONMENT,
LANDS AND PARKS

Environmental Protection
617 Vernon Street
Nelson, BC, V1L 4E9
Telephone: (604) 354-6355
Fax: (604) 354-6367

JUL 28 1993

File: PR-02197

REGISTERED MAIL

The Corporation of the Village of Slocan
503 Slocan Street
Post Office Box 50
Slocan, British Columbia
VOG 2C0

Gentlemen:

Enclosed is a copy of Amended Permit No. PR-02197 issued under the provisions of the Waste Management Act, in the name of The Corporation of the Village of Slocan. Your attention is respectfully directed to the terms and conditions outlined in the Permit.

Also enclosed for your information are copies of the Waste Management Act, Special Waste Regulation and Special Waste Legislation Guide.

The administration of this Permit will be carried out by staff from our Regional Office located at 617 Vernon Street, Nelson, British Columbia, V1L 4E9 (telephone 354-6355). Plans, data and reports pertinent to the Permit are to be submitted to the Regional Waste Manager at this address.

Yours truly,

Barry Wood, P. Eng.
Assistant Regional Waste Manager

/sw

Enclosure

RECEIVED

JUL 29 1993

VILLAGE OF SLOCAN

MINISTRY OF ENVIRONMENT, LANDS AND PARKS

PERMIT

Under the Provisions of the Waste Management Act

The Corporation of the Village of Slocan

of address 503 Slocan Street

Post Office Box 50

Slocan, British Columbia

VOG 2CO

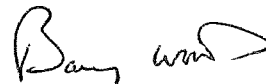
is authorized to discharge refuse from Municipal sources located in the Village of Slocan and Brandon Area to the ground subject to the following terms and conditions as outlined in Sections One, Two, Three and Four and the attached Site Plan SP-1.

This Permit does not authorize entry upon, crossing over, or use for any purpose of private or Crown lands or works, unless and except as authorized in writing by the owner of such lands or works. The responsibility for obtaining such authority shall rest with the Permittee.

Date issued: May 23, 1973

Amendment date: JUL 28 1993
(most recent)

Page 1 of 8



Barry Wood, P. Eng.
Assistant Regional Waste Manager

Permit No. PR-02197

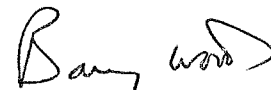
1. **SECTION ONE: AUTHORIZED DISCHARGES**

- 1.1 The discharge of refuse to which this Permit is applicable is from the Village of Slocan and Brandon Area to the ground as shown on the attached Site Plan SP-1.
- a) The maximum rate at which the refuse may be discharged is 2 cubic meters per day.
 - b) The characteristics of the discharge shall be typical Municipal refuse, excluding special waste.
 - c) The location of the point of discharge is that land located on those Portions of Lots 2 and 3 of Lot 395, Kootenay District, Plan 1317 lying east of the Canadian Pacific Railway right-of-way.

Date issued: May 23, 1973

Amendment date: JUL 28 1993
(most recent)

Page 2 of 8



Barry Wood, P. Eng.
Assistant Regional Waste Manager

Permit No. PR-02197

2. SECTION TWO: GENERAL REQUIREMENTS

2.1 LANDFILL OPERATION

The Permittee shall ensure that all exposed refuse is covered with a minimum of 0.15 meters of cover material of a type suitable to the Regional Waste Manager at least once per week.

At the site described in Site Plan SP-1, native soils are deemed to be acceptable cover material.

2.2 SITE PREPARATION AND RESTORATION

Provision for fencing, site access control, vehicle safety barriers, surface water diversionary works and site restoration as required shall be approved by the Regional Waste Manager.

2.3 LITTER CONTROL

Any litter scattered into neighbouring property, along roads, in drainage ditches, along litter control fences or elsewhere on the landfill site shall be removed to the satisfaction of the Regional Waste Manager and incorporated into the landfill twice a year. Written notification of clean up is to be submitted to the Regional Waste Manager within 7 days of completion.

Date issued: May 23, 1973

Amendment date:
(most recent) JUL 28 1993

Page 3 of 8



Barry Wood, P. Eng.
Assistant Regional Waste Manager

Permit No. PR-02197

2.4 REGULATED BURNING

2.4.1 Area

The operation shall be restricted to an area on the site which is approved by the Regional Waste Manager. If required by the Regional Waste Manager, this area shall be fenced to restrict access to the burn area stockpile.

2.4.2 Quantity And Frequency

The maximum quantity of wastes to be treated is 15 cubic meters per burn at a frequency not to exceed 12 times per year. Each burn shall comprise of one continuous period necessary to reduce the stockpiled waste to ashes.

2.4.3 Notification

The Permittee shall notify the Regional Waste Manager of its intent to burn a minimum of 7 days in advance of each event. The Permittee shall obtain written approval from the Regional Waste Manager prior to burning.

2.4.4 Nature Of Wastes

Waste in the nature of rubber, plastics, tars, insulations and like materials is unacceptable to the Regional Waste Manager and shall not be burned.

Acceptable materials may include selected demolition refuse, stumps, trees and similar items. Categories of items of doubtful nature shall be approved by the Regional Waste Manager before burning. The Permittee shall remove all unacceptable material from the burn pile at the end of each service day.

Date issued: May 23, 1973

Amendment date: JUL 28 1993
(most recent)

Page 4 of 8



Barry Wood, P. Eng.
Assistant Regional Waste Manager

Permit No. PR-02197

2.4.5 Timing

Burning shall take place only when an attendant is on duty at the site and when conditions promote rapid combustion and dispersion of combustion products. Materials shall be charged to the facility in a manner to promote rapid combustion and restrict the uplift of lighter constituents. No burning shall take place during periods of fire hazard or when burning is prohibited by other government agencies.

2.4.6 Fire Control

Devices shall be on site for extinguishing fires to prevent them from spreading to surrounding areas. Such devices may include a pressurized water supply or chemical type fire extinguishers, or an earth stockpile. If an earth stockpile is contemplated for fire control earth moving equipment shall be available at the site during burning. A fireguard shall be cleared and maintained free of combustible material.

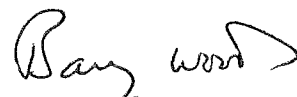
2.4.7 Residue Of Combustion

The residue of combustion shall be incorporated into the adjacent landfill within 7 days of initiation of each burn event. No burn event shall exceed 5 days in duration.

Date issued: May 23, 1973

Amendment date: JUL 28 1993
(most recent)

Page 5 of 8



Barry Wood, P. Eng.
Assistant Regional Waste Manager

Permit No. PR-02197

2.4.8 Monitoring

The Permittee is required to submit a service schedule to the Regional Waste Manager and shall notify the Regional Waste Manager in writing of any changes to the service schedule.

The Permittee shall document covering of refuse authorized by Section 1.1 by photographing the entire active area at the end of each day of scheduled refuse site covering.

Any modification of the photographic documentation required in this Section must be authorized in writing by the Regional Waste Manager.

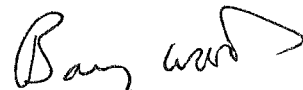
2.4.9 Reporting

The Permittee shall compile documentation of compliance with Sub-Section 2.4.8 and submit a report for the previous months operation to the Regional Waste Manager on or before the 15th day of each calender month.

Date issued: May 23, 1973

Amendment date:
(most recent)

JUL 28 1993



Barry Wood, P. Eng.
Assistant Regional Waste Manager

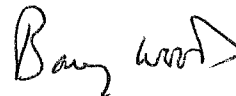
3. SECTION THREE: GENERAL REQUIREMENTS

- 3.1 In all Sections of this Permit requiring acceptance or approval by the Regional Waste Manager the Permittee shall obtain that acceptance or approval from the Regional Waste Manager prior to commencing operations.

Date issued: May 23, 1973

Amendment date:
(most recent) JUL 28 1993

Page 7 of 8



Barry Wood, P. Eng.
Assistant Regional Waste Manager

Permit No. PR-02197

4. SECTION FOUR: DEFINITION

4.1 "SPECIAL WASTE"

Special Waste will have the meaning as it is defined in part one of the Special Waste Regulations enacted pursuant to the Waste Management Act.

4.2 "REFUSE"

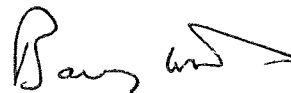
Refuse will have the meaning as it is defined in the Waste Management Act.

Date issued: May 23, 1973

Amendment date:
(most recent)

JUL 28 1993

Page 8 of 8

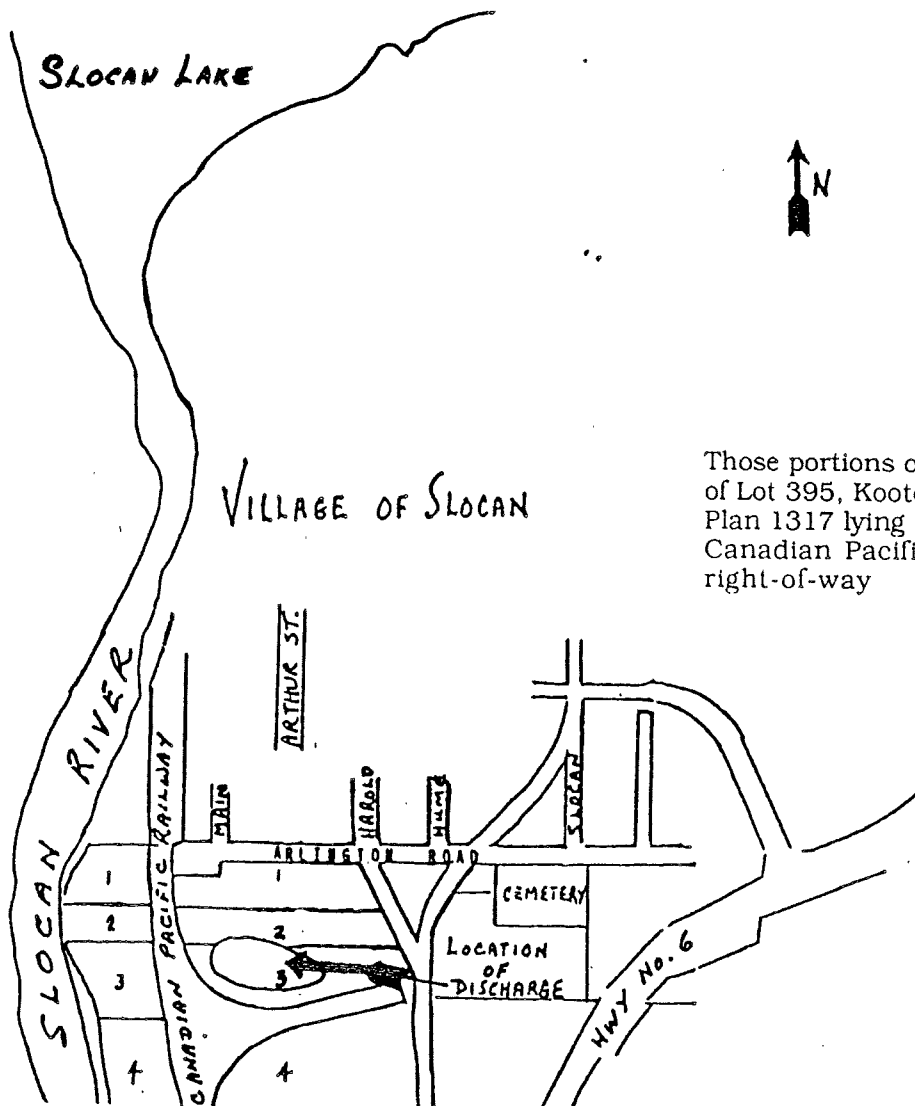


Barry Wood, P. Eng.
Assistant Regional Waste Manager

Permit No. PR-02197

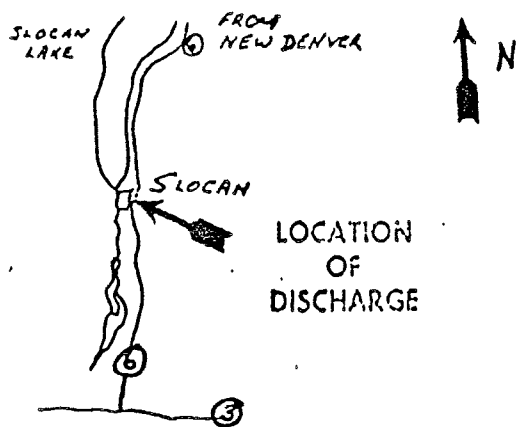


SITE PLAN SP-1



Those portions of Lots 2 and 3 of Lot 395, Kootenay District, Plan 1317 lying east of the Canadian Pacific Railway right-of-way

LOCATION MAP



The Corporation of the Village of Slocan
(Name of applicant(s))

(Date)

(Signature of applicant(s) or agent)

(FOR OFFICE USE ONLY)

May 23, 1973

Date Issued

JUL 28 1983

Date Amended

Barry Wood, P. Eng.

Assistant Regional Waste
Manager

Appendix SP-1 to Permit No. PR-02197

Approval No.



Province of
British Columbia

Ministry of
Environment

Waste Management Branch
Kootenay Region
310 Ward Street
Nelson
British Columbia
V1L 5S4

YOUR FILE PR-2197

OUR FILE

OCT 21 1985

REGISTERED MAIL

The Corporation of the Village of Slocan,
P.O. Box 50,
Slocan, British Columbia
VOG 2C0

Gentlemen:

LETTER OF TRANSMITTAL

Enclosed is a copy of amended Permit No. PR-2197 issued under the provisions of the Waste Management Act in the name of The Corporation of the Village of Slocan. Your attention is respectfully directed to the terms and conditions outlined in the Permit.

The administration of this Permit will be carried out by staff from our Regional Office located at 310 Ward Street, Nelson, British Columbia, V1L 5S4 (telephone 352-2211). Plans, data and reports pertinent to the Permit are to be submitted to the Regional Waste Manager at this address.

You will note that values have been expressed in the International Systems of Units (SI). These units are to be used in submitting monitoring results and any other information in connection with this Permit.

This Permit does not authorize entry upon, crossing over, or use for any purpose of private or Crown lands or works, unless and except as authorized by the owner of such lands or works. The responsibility for obtaining such authority shall rest with the Permittee.

Yours very truly,

M.K. Baillargeon, P. Eng.
Regional Waste Manager

Enclosure

RECEIVED

OCT 22 1985

VILLAGE OF SLOCAN



MINISTRY OF ENVIRONMENT

PERMIT

Under the Provisions of the Waste Management Act

The Corporation of the Village of Slocan

P.O. Box 50, Slocan, British Columbia V0G 2C0

is hereby authorized to discharge refuse
from municipal sources
located at Slocan, British Columbia
to the ground

This permit has been issued under the terms and conditions prescribed in the attached appendices
01, A-1, B-1 and B-2

[Signature]
Regional Waste Manager

Date issued May 23, 19 73
Amendments dated OCT 21 1985 19
, 19
, 19

Permit No. PR-2197



MINISTRY OF ENVIRONMENT
WASTE MANAGEMENT BRANCH

APPENDIX No. 01

to Permit No. PR-2197

(Refuse)

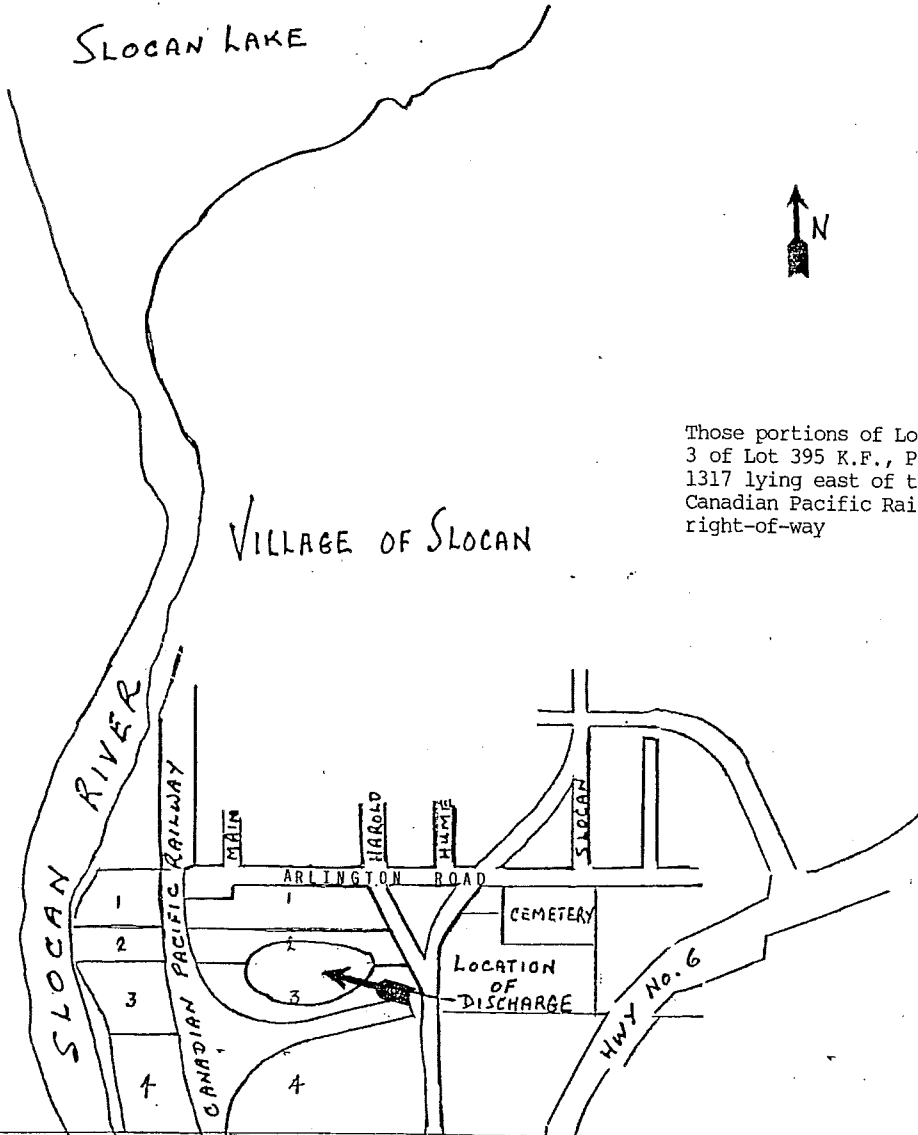
- (a) The discharge of refuse to which this appendix is applicable is from the Village of Slocan as shown on the attached Appendix A-1.
- (b) The rate at which refuse may be discharged is 2 m³/d.
- (c) The type of refuse which may be discharged is municipal.
- (d) The components of the refuse which may be discharged are typical municipal refuse (excluding toxic wastes).
- (e) The works authorized are landfill operation and open burning as directed approximately located as shown on the attached Appendix A-1.
- (f) The land to which the refuse is to be discharged and to which this appendix is appurtenant is to those portions of Lots 2 and 3 of Lot 395 K.F., Plan 1317 lying east of the Canadian Pacific Railway right-of-way.
- (g) The works authorized must be completed and in operation on and from the date of this Appendix.

Date issued May 23, 1973
Date amended OCT 21 1985, 19
_____, 19


Regional Waste Manager

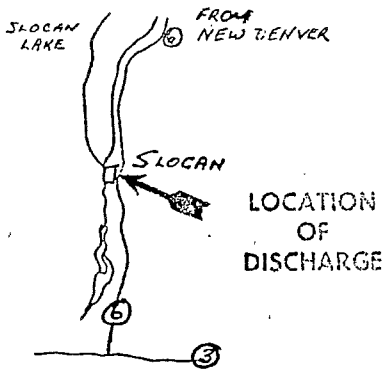


SITE PLAN



Those portions of Lots 2 & 3 of Lot 395 K.F., Plan 1317 lying east of the Canadian Pacific Railway right-of-way

LOCATION MAP



CORPORATION OF THE VILLAGE OF SLOCAN

(Name of applicant(s))
Wildebrand
 (Signature of applicant(s) or agent)
 Clerk/Administrator

(FOR OFFICE USE ONLY)
 Date Issued **OCT 21 1985**
 Date Amended _____
 Regional Waste Manager *W. Paulsen*

Appendix **A-1** to Permit No. **PR-2197**
 Approval No. _____



MINISTRY OF ENVIRONMENT
WASTE MANAGEMENT BRANCH

APPENDIX No. B-1

to Permit No. PR-2197

1. LANDFILL OPERATION

The Permittee shall maintain the landfill authorized in Appendix 01 as a Level "C" operation in accordance with the Pollution Control Objectives for Municipal Type Waste Discharges in British Columbia, dated September, 1975, which, in normal conditions, requires that cover material be applied once per week. The Regional Waste Manager may vary the frequency of covering when freezing conditions adversely affect normal operation.

2. OPERATION REQUIREMENTS FOR REGULATED BURNING

(a) AREA

The operation shall be restricted to an area on the site which is satisfactory to the Regional Waste Manager. If required, this area shall be fenced to restrict access to the burn area stockpile.

(b) QUANTITY AND FREQUENCY

The maximum quantity of wastes to be treated is 200 m³ per burn at a frequency not to exceed three times per year. Each burn shall comprise one continuous period necessary to reduce the stockpiled waste to ashes.

(c) NATURE OF WASTES

Generally, no waste shall be burned which is unacceptable to the Regional Waste Manager. Acceptable materials may include selected demolition refuse, stumps, trees and similar items, but excluding nuisance causing combustibles such as rubber, plastics, tars, insulation, etc. No putrescible refuse or objects containing 50% or more non-combustibles shall be burned.


(d) TIMING

Burning shall take place only when an attendant is on duty and when conditions promote rapid combustion and dispersion of combustion products. Materials shall be charged to the facility in a manner to promote best combustion and restrict the uplift of lighter constituents. No burning shall take place during periods of fire hazard nor when burning is prohibited by other government agencies.

Date issued OCT 21 1985, 19

Date amended, 19

....., 19


Regional Waste Manager



MINISTRY OF ENVIRONMENT
WASTE MANAGEMENT BRANCH

APPENDIX No. B-2
to Permit No. PR-2197

(e) FIRE CONTROL

Suitable approved devices shall be available for extinguishing fires to prevent them from spreading to surrounding areas. Such devices may include a pressurized water supply or chemical type fire extinguishers, or an earth stockpile. If an earth stockpile is contemplated for fire control earth moving equipment shall be available at the site during burning. A fireguard shall be cleared and maintained free of combustible material.

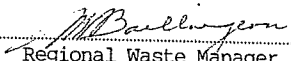
(f) RESIDUE OF COMBUSTION

As soon as the residue of combustion has cooled to ambient temperature it shall be incorporated into the adjacent landfill.

Date issued OCT 21 1985, 19

Date amended, 19

....., 19


.....
Regional Waste Manager

THE CORPORATION OF THE VILLAGE OF SLOCAN

TELEPHONE (604) 355-2277

FAX (604) 355-2666

P.O. BOX 50, SLOCAN, B.C. V0G 2C0

July 2, 1993

Ministry of Environment,
Land and Parks
Environmental Protection
617 Vernon Street
Nelson, B.C.
V1L 4E9

Attention: Gary Bell
Air Resource Officer

Dear Sirs:

Re: Amended Waste Management Permit PR-02197

Further to our discussion during our meeting on June 14, 1993, enclosed is an amended Site Plan showing the location of refuse discharge.

Also enclosed is a copy of this map showing the proposed arena site. This site would be east of a line drawn south using the east property line of Arthur Street, in Lot 2, District Lot 395, Plan 1317, Except Part Included in SRW Plan 18680.

We request approval from the Ministry of Environment for use of this site for a proposed arena. Please advise what is required, if anything, for approval to locate an arena on this portion of Lot 2.

Thank you for your assistance.

Yours truly,

Bruno H. Thomas



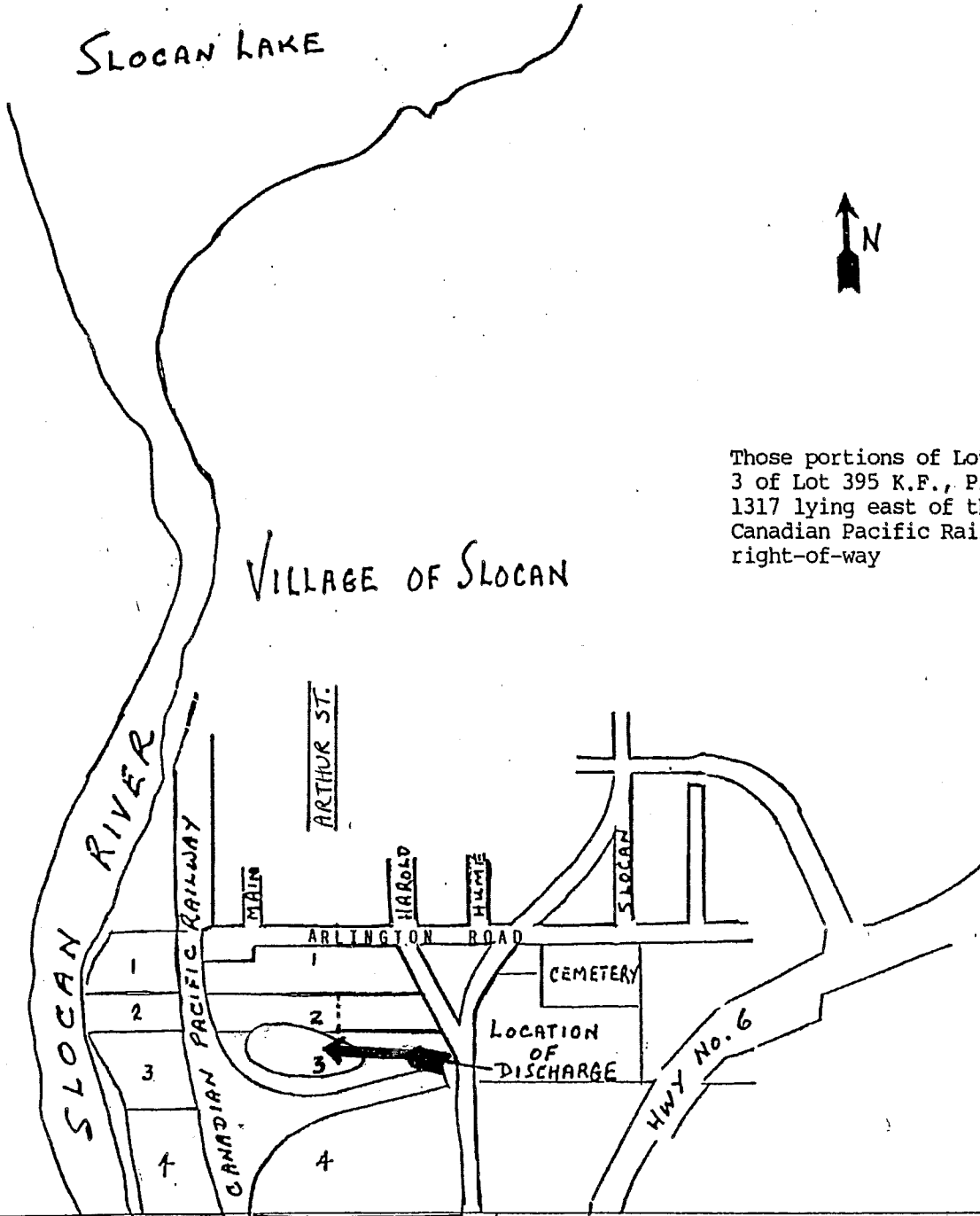
SITE PLAN

SLOCAN LAKE



Those portions of Lots 2 &
3 of Lot 395 K.F., Plan
1317 lying east of the
Canadian Pacific Railway
right-of-way

VILLAGE OF SLOCAN



LOCATION MAP

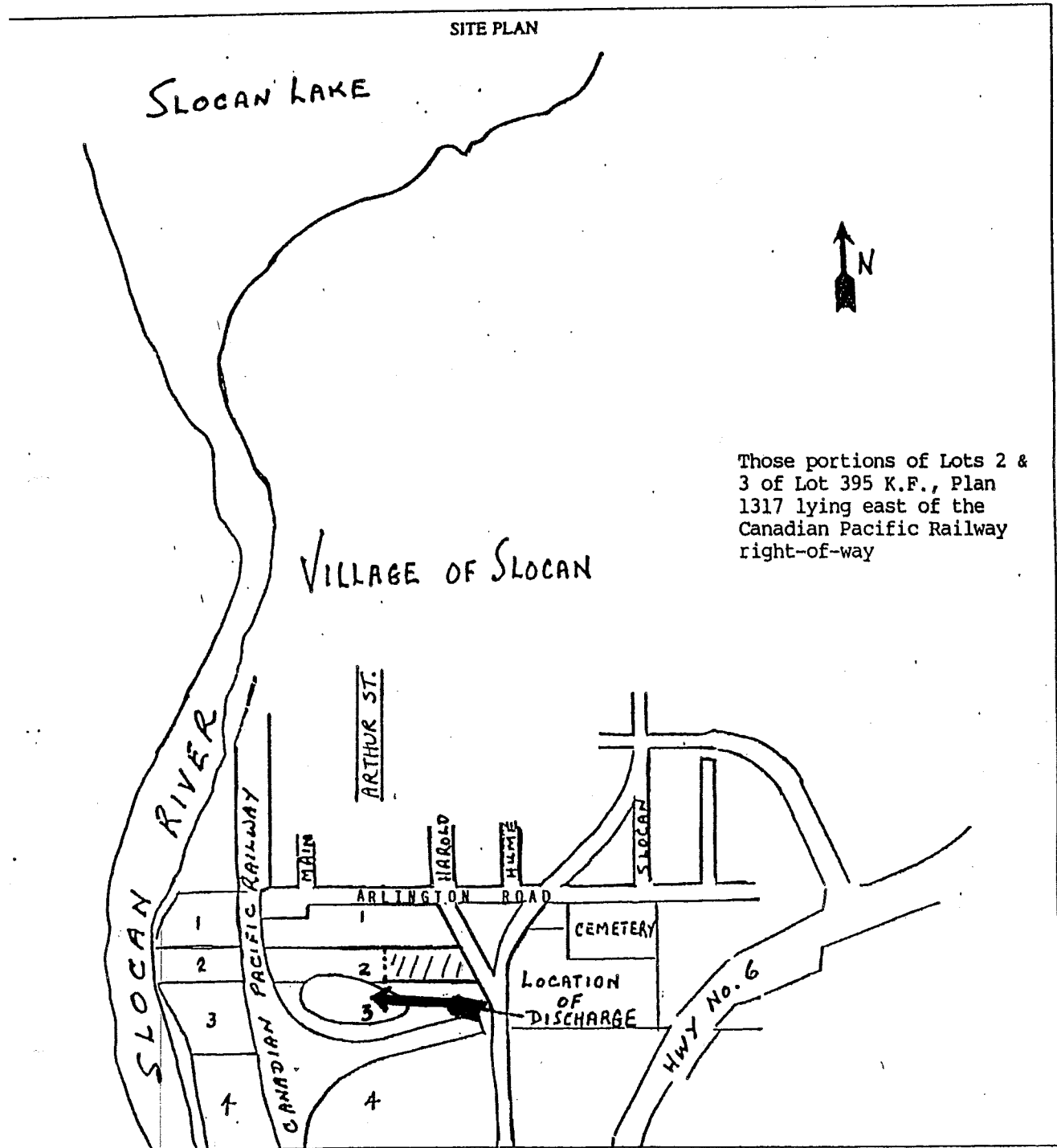
SLOCAN LAKE

FROM
NEW DENVER



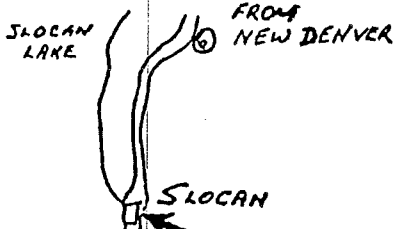
SLOCAN


SITE PLAN



Those portions of Lots 2 &
3 of Lot 395 K.F., Plan
1317 lying east of the
Canadian Pacific Railway
right-of-way

LOCATION MAP



 PROPOSED ARENA SITE



PROVINCE OF
BRITISH COLUMBIA

MINISTRY OF
ENVIRONMENT,
LANDS AND PARKS

Environmental Protection
617 Vernon Street
Nelson, BC, V1L 4E9
Telephone: (604) 354-6355
Fax: (604) 354-6367

JUL 28 1993

File: PR-02197

REGISTERED MAIL

The Corporation of the Village of Slocan
503 Slocan Street
Post Office Box 50
Slocan, British Columbia
VOG 2C0

Gentlemen:

Enclosed is a copy of Amended Permit No. PR-02197 issued under the provisions of the Waste Management Act, in the name of The Corporation of the Village of Slocan. Your attention is respectfully directed to the terms and conditions outlined in the Permit.

Also enclosed for your information are copies of the Waste Management Act, Special Waste Regulation and Special Waste Legislation Guide.

The administration of this Permit will be carried out by staff from our Regional Office located at 617 Vernon Street, Nelson, British Columbia, V1L 4E9 (telephone 354-6355). Plans, data and reports pertinent to the Permit are to be submitted to the Regional Waste Manager at this address.

Yours truly,

Barry Wood, P. Eng.
Assistant Regional Waste Manager

/sw

Enclosure

RECEIVED

JUL 29 1993

VILLAGE OF SLOCAN

MINISTRY OF ENVIRONMENT, LANDS AND PARKS

PERMIT

Under the Provisions of the Waste Management Act

The Corporation of the Village of Slocan

of address 503 Slocan Street

Post Office Box 50

Slocan, British Columbia

VOG 2CO

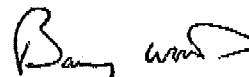
is authorized to discharge refuse from Municipal sources located in the Village of Slocan and Brandon Area to the ground subject to the following terms and conditions as outlined in Sections One, Two, Three and Four and the attached Site Plan SP-1.

This Permit does not authorize entry upon, crossing over, or use for any purpose of private or Crown lands or works, unless and except as authorized in writing by the owner of such lands or works. The responsibility for obtaining such authority shall rest with the Permittee.

Date issued: May 23, 1973

Amendment date: JUL 28 1993
(most recent)

Page 1 of 8



Barry Wood, P. Eng.
Assistant Regional Waste Manager

Permit No. PR-02197

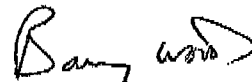
1. SECTION ONE: AUTHORIZED DISCHARGES

- 1.1 The discharge of refuse to which this Permit is applicable is from the Village of Slocan and Brandon Area to the ground as shown on the attached Site Plan SP-1.
- a) The maximum rate at which the refuse may be discharged is 2 cubic meters per day.
 - b) The characteristics of the discharge shall be typical Municipal refuse, excluding special waste.
 - c) The location of the point of discharge is that land located on those Portions of Lots 2 and 3 of Lot 395, Kootenay District, Plan 1317 lying east of the Canadian Pacific Railway right-of-way.

Date issued: May 23, 1973

Amendment date: JUL 28 1993
(most recent)

Page 2 of 8



Barry Wood, P. Eng.
Assistant Regional Waste Manager

Permit No. PR-02197

2.4 REGULATED BURNING

2.4.1 Area

The operation shall be restricted to an area on the site which is approved by the Regional Waste Manager. If required by the Regional Waste Manager, this area shall be fenced to restrict access to the burn area stockpile.

2.4.2 Quantity And Frequency

The maximum quantity of wastes to be treated is 15 cubic meters per burn at a frequency not to exceed 12 times per year. Each burn shall comprise of one continuous period necessary to reduce the stockpiled waste to ashes.

2.4.3 Notification

The Permittee shall notify the Regional Waste Manager of its intent to burn a minimum of 7 days in advance of each event. The Permittee shall obtain written approval from the Regional Waste Manager prior to burning.

2.4.4 Nature Of Wastes

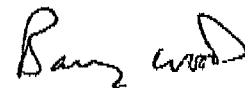
Waste in the nature of rubber, plastics, tars, insulations and like materials is unacceptable to the Regional Waste Manager and shall not be burned.

Acceptable materials may include selected demolition refuse, stumps, trees and similar items. Categories of items of doubtful nature shall be approved by the Regional Waste Manager before burning. The Permittee shall remove all unacceptable material from the burn pile at the end of each service day.

Date issued: May 23, 1973

Amendment date: JUL 28 1993
(most recent)

Page 4 of 8



Barry Wood, P. Eng.
Assistant Regional Waste Manager

Permit No. PR-02197

2.4.5 Timing

Burning shall take place only when an attendant is on duty at the site and when conditions promote rapid combustion and dispersion of combustion products. Materials shall be charged to the facility in a manner to promote rapid combustion and restrict the uplift of lighter constituents. No burning shall take place during periods of fire hazard or when burning is prohibited by other government agencies.

2.4.6 Fire Control

Devices shall be on site for extinguishing fires to prevent them from spreading to surrounding areas. Such devices may include a pressurized water supply or chemical type fire extinguishers, or an earth stockpile. If an earth stockpile is contemplated for fire control earth moving equipment shall be available at the site during burning. A fireguard shall be cleared and maintained free of combustible material.

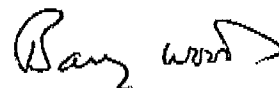
2.4.7 Residue Of Combustion

The residue of combustion shall be incorporated into the adjacent landfill within 7 days of initiation of each burn event. No burn event shall exceed 5 days in duration.

Date issued: May 23, 1973

Amendment date: JUL 28 1993
(most recent)

Page 5 of 8



Barry Wood, P. Eng.
Assistant Regional Waste Manager

Permit No. PR-02197

2.4.8 Monitoring

The Permittee is required to submit a service schedule to the Regional Waste Manager and shall notify the Regional Waste Manager in writing of any changes to the service schedule.

The Permittee shall document covering of refuse authorized by Section 1.1 by photographing the entire active area at the end of each day of scheduled refuse site covering.

Any modification of the photographic documentation required in this Section must be authorized in writing by the Regional Waste Manager.

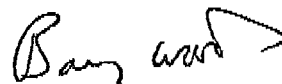
2.4.9 Reporting

The Permittee shall compile documentation of compliance with Sub-Section 2.4.8 and submit a report for the previous months operation to the Regional Waste Manager on or before the 15th day of each calendar month.

Date issued: May 23, 1973

Amendment date:
(most recent) JUL 28 1993

Page 6 of 8



Barry Wood, P. Eng.
Assistant Regional Waste Manager

Permit No. PR-02197

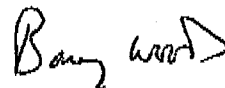
3. SECTION THREE: GENERAL REQUIREMENTS

- 3.1** In all Sections of this Permit requiring acceptance or approval by the Regional Waste Manager the Permittee shall obtain that acceptance or approval from the Regional Waste Manager prior to commencing operations.

Date issued: May 23, 1973

Amendment date:
(most recent) JUL 28 1993

Page 7 of 8



Barry Wood, P. Eng.
Assistant Regional Waste Manager

Permit No. PR-02197

4. SECTION FOUR: DEFINITION

4.1 "SPECIAL WASTE"

Special Waste will have the meaning as it is defined in part one of the Special Waste Regulations enacted pursuant to the Waste Management Act.

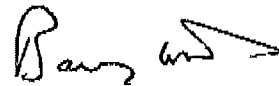
4.2 "REFUSE"

Refuse will have the meaning as it is defined in the Waste Management Act.

Date issued: May 23, 1973

Amendment date:
(most recent) JUL 28 1993

Page 8 of 8



Barry Wood, P. Eng.
Assistant Regional Waste Manager

Permit No. PR-02197

2. SECTION TWO: GENERAL REQUIREMENTS

2.1 LANDFILL OPERATION

The Permittee shall ensure that all exposed refuse is covered with a minimum of 0.15 meters of cover material of a type suitable to the Regional Waste Manager at least once per week.

At the site described in Site Plan SP-1, native soils are deemed to be acceptable cover material.

2.2 SITE PREPARATION AND RESTORATION

Provision for fencing, site access control, vehicle safety barriers, surface water diversionary works and site restoration as required shall be approved by the Regional Waste Manager.

2.3 LITTER CONTROL

Any litter scattered into neighbouring property, along roads, in drainage ditches, along litter control fences or elsewhere on the landfill site shall be removed to the satisfaction of the Regional Waste Manager and incorporated into the landfill twice a year. Written notification of clean up is to be submitted to the Regional Waste Manager within 7 days of completion.

Date issued: May 23, 1973

Amendment date:
(most recent) JUL 28 1993

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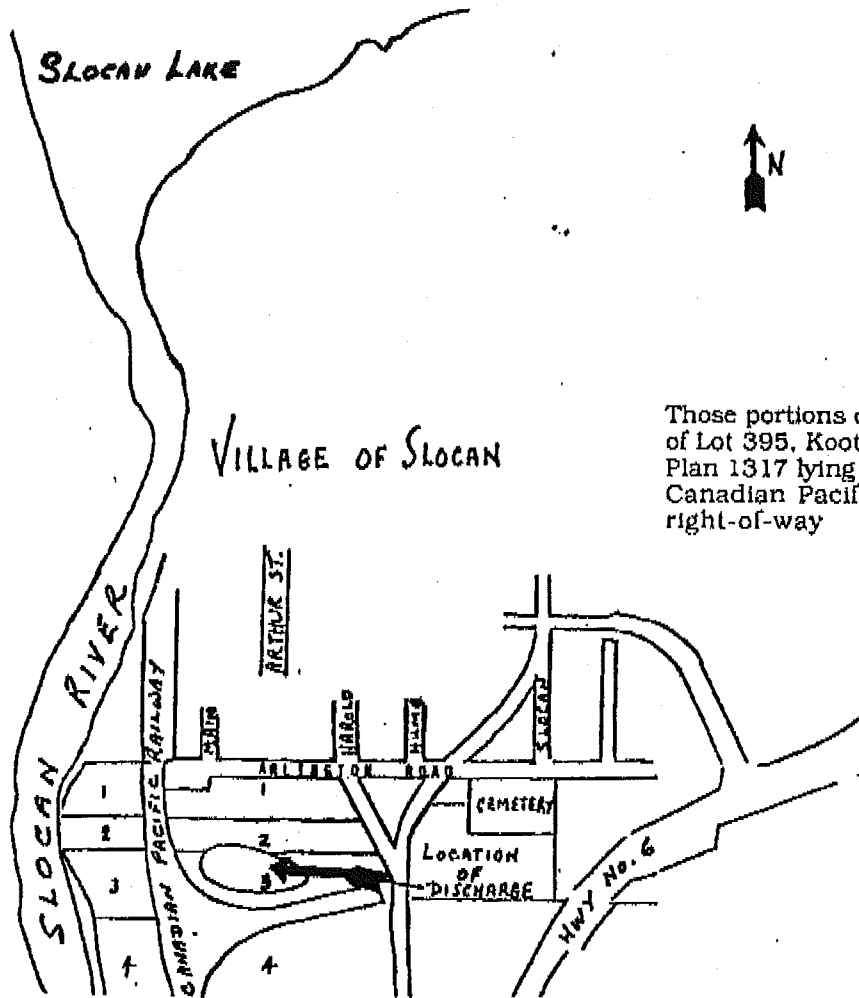


Barry Wood, P. Eng.
Assistant Regional Waste Manager

Permit No. PR-02197

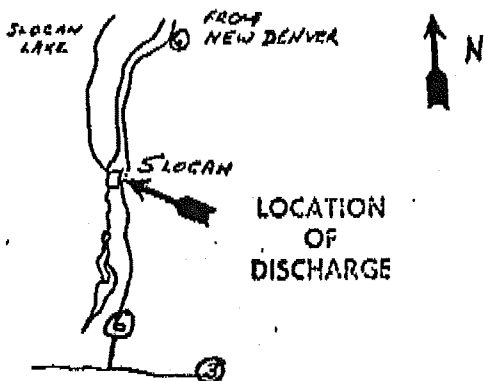


SITE PLAN SP-1



Those portions of Lots 2 and 3
of Lot 395, Kootenay District,
Plan 1317 lying east of the
Canadian Pacific Railway
right-of-way

LOCATION MAP



The Corporation of the Village of Slocan
(Name of applicant(s))

(Date)

(Signature of applicant(s) or agent)

(FOR OFFICE USE ONLY)

May 23, 1973

Date Issued

JUL 28 1983

Date Amended

Barry Wood, P. Eng.

Assistant Regional Waste
Manager

Appendix SP-1 to Permit No. PR-02197

Approval No.