# Weigles Road Woodlot Forest Fertilization

Land Application Plan Updated: February 2018

#### Prepared for:

Regional Municipality of Nanaimo 6300 Hammond Bay Road Nanaimo, BC, Canada V9T 6N2

#### Prepared by:

#### **SYLVIS Environmental**

427 Seventh Street New Westminster, BC Canada, V3M 3L2 Phone: 604.777.9788 Fax: 604.777.9791 www.SYLVIS.com

SYLVIS DOCUMENT #1153-18

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#### **DECLARATION**

SYLVIS has prepared a Land Application Plan (LAP) for the purpose of biosolids fertilization of mixed juvenile and mature forest ecosystems at the Weigles Road Woodlot in Nanaimo, BC. This LAP is limited to the specific site, development, and design objectives for fertilization activities at the Weigles Road Woodlot utilizing biosolids meeting the quality requirements of the British Columbia (BC) *Organic Matter Recycling Regulation* (OMRR).

This LAP sets forth all the assumptions and limiting conditions imposed by the terms of our engagement affecting the analysis, opinions, and conclusions contained in the LAP. The entire LAP, including all conclusions and opinions, pertains only to the above-referenced property and is based on our present knowledge and information with respect to the current data for the property, as of the date of signature below. The findings in this LAP may be subject to change as a result of the passage of time.

This LAP provides information required by the OMRR for biosolids fertilization activities at the Weigles Road Woodlot, and replaces previous LAPs authored for this site. If there are any questions or comments regarding this LAP, please contact myself by phone at the number indicated on the cover page or by email (<u>cevans@sylvis.com</u>).

This report is valid only if it bears the original signature and seal of the author.

I, Christian Evans, PAg, confirm by signature and seal below that the information contained in this LAP is true to the best of my knowledge.

Signature

Professional Seal

SH COLUMB

2095

Christian Evans

PAG.

OF AGREE

Professional Seal

#### **LIST OF ABBREVIATIONS**

#### List of general abbreviations used in this document:

BC – British Columbia

ENV - Ministry of Environment & Climate Change Strategy

LAP - Land Application Plan

N – Nitrogen

OMRR - Organic Matter Recycling Regulation

PAg – Professional Agrologist

PID - Parcel Identifier

TKN - Total Kjeldahl Nitrogen

WWTP - Wastewater Treatment Plant

#### List of unit abbreviations used in this document:

dt – dry tonne

dS/m – deciSiemens per metre

g – gram

ha – hectare

kg – kilogram

km – kilometre

m - metre

mm – millimetre

MPN – most probable number

μg/g – microgram per gram



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#### 1 THIS DOCUMENT AND THE ORGANIC MATTER RECYCLING REGULATION

This document is a Land Application Plan (LAP) prepared in accordance with the British Columbia (BC) *Organic Matter Recycling Regulation* (OMRR). This LAP provides background information and rationale for forest fertilization activities with biosolids from Regional District of Nanaimo wastewater treatment plants (WWTPs) at the Weigles Road Woodlot (the Woodlot) in Nanaimo, BC. Biosolids used at the Woodlot meet OMRR requirements and will be used for fertilization activities outlined in this document.

The following information is provided as requested by the OMRR Schedule 7:

Discharger <sup>a</sup>				
Local Contact	Adrian Limpus, Regional District of Nanaimo			
Local Address	6300 Hammond Bay Road Nanaimo, BC V9T 6N2			
Telephone Number	250-390-6560			
Qualified Professional				
Plan Producer	Christian Evans, PAg			
Address	427 Seventh Street New Westminster, BC, Canada, V3M 3L2			
Telephone Number	604.777.9788			

a This Land Application Plan identifies the Regional District of Nanaimo as the discharger as the RDN holds a land-use agreement with the landowner for biosolids application activities at the Woodlot.

#### 2 NOTIFICATIONS

As per the OMRR, the following parties were notified of the proposed land application at the Woodlot through the standardised notification form available on the Ministry of Environment & Climate Change Strategy (ENV) website: (<a href="http://www2.gov.bc.ca/assets/gov/environment/waste-management/waste-discharge-authorization/forms/epd-omr-04">http://www2.gov.bc.ca/assets/gov/environment/waste-management/waste-discharge-authorization/forms/epd-omr-04</a> omrr notification of land application form.pdf):

Party	Contact Person	Date Notified
Ministry of Environment (ENV)	Victoria Administration	January 25 <sup>th</sup> , 2018
Medical Health Officer – Vancouver Island Health	Lynne Magee	January 25 <sup>th</sup> , 2018



The land parcels prescribed for biosolids land applications in this LAP do not form part of any land reserve within the BC Land Reserve Commission designation system. The Medical Health Officer having jurisdiction over this region was notified of this land application at least 30 days prior to the proposed start date of biosolids fertilization. As per the OMRR, the ENV director was notified 30 days prior to the proposed start date of biosolids fertilization.

#### 3 SITE CHARACTERISTICS

The Woodlot is located on private land and has restricted public access.

The following information is provided as requested by the OMRR Schedule 7:

Site Characteristics				
Registered Owner of the Land	TimberWest Forest Corporation			
Land Application Site Address	Weigles Road, Nanaimo, BC			
Land Application Site Coordinates	Latitude 49.2019 N Longitude 124.1022 W			
Registered Owner Land Authorization	TimberWest was notified of this LAP and has provided written authorization (Appendix 4)			

#### 3.1 Location and Access

The Woodlot comprises 1,000 hectares of land and is located 11 kilometres (km) west of Nanaimo, BC on Vancouver Island in the Regional District of Nanaimo (Figure 1, Appendix Two).

Parcel Identifiers (PID) for land parcels at the Woodlot for biosolids fertilization are:

- PID 009-438-203 Block 505, Nanoose Land District
- PID 009-842-616 Block 463, Dunsmuir District, Except Part in Plan 27690
- PID 009-842-586 Block 355, Dunsmuir Land District

Biosolids fertilization will occur on suitable areas of land within these parcels, which will be identified and assessed prior to biosolids applications by the SYLVIS Qualified Professional. The general application area and property boundaries are depicted in Figure 2 of Appendix Two.

#### 3.2 Soils and Soil Sampling

As per the OMRR all sites proposed for fertilization were assessed for fertilization rate and trace element concentration determination. Pre-application soil sampling was completed at the Woodlot to characterize areas where biosolids fertilization activities will occur.

Soil sampling and soil quality information is provided below.



Soil Information					
Soil Sampling Date	Five sampling events from January to December 2017.				
Number of Samples Collected	18 composite samples, each consisting of ten equal volume sub-samples.				
Sampling Depth	0 - 0.15 meters (m)				
Soil Quality	Compliant with OMRR Schedule 10.1, as presented in Table 2, Appendix One.				
Average Soil pH	5.1				
Average Soil Electrical Conductivity	0.20 dS/m				
Site-Specific Factors Considered	<ul> <li>Intake of contaminated soil</li> <li>Toxicity to soil invertebrates and plants</li> <li>Major microbial functional impairment</li> <li>Groundwater flow to surface water used by freshwater aquatic life</li> </ul>				

#### 3.3 Hydrology

A hydrogeological assessment has not been prepared for the Woodlot during the preparation of this LAP. Surface water and groundwater buffers are presented in Section 7.1

The Woodlot is located within the *Coastal Basins, Lowlands and Plains* groundwater region and the *Nanaimo and Georgia Lowlands* sub-region (Ronneseth et al., 1994). Two hydrogeological assessments of the potential for biosolids application impacts to groundwater have been completed by Piteau & Associates (R. Allan, 2003; Cleary and Tiplady, 2012); both concluded that there is no harmful effect on groundwater quality resulting from biosolids fertilization activities at Woodlot 20. A small extension of aquifer 213 IIC (11) comes within 30 m of proposed biosolids application areas; however, the majority of this aquifer is located >500 m from application areas (BC Ministry of Environment, 2017). The nearest groundwater wells include two wells for water supply located 300 m upgradient from proposed application areas and one private domestic well located 650 m down-gradient to the east of the proposed application areas.

The forest lands identified for biosolids fertilization drain to the east towards Brannen Lake. Brannen Lake is the largest down-gradient body of water in close proximity to the biosolids application site, located a minimum of 1.8 km east-northeast of the application site (Figure 1, Appendix Two). Brannen Lake is not a community water supply and is fed from a series of small



ephemeral and permanent creeks including Flynfall Creek, which originates within Woodlot 20. Brannen Lake drains at the southern end of the lake via the Millstone River to the Strait of Georgia.

Various creeks, ephemeral streams, and small wetlands are located throughout the Woodlot which have been identified and delineated. These creeks include Flynnfall, Caillet, Bonnell, W1500, and other unnamed creeks. One water diversion permit for domestic use is located on Krall Creek 1,000 m down-gradient from the nearest application area. Other nearby diversions are for purposes other than domestic use and are located on Heikkila Brook, which does not originate from within the Woodlot. Two other downstream water diversion permits for domestic use are located 13 km downstream along Bonnell Creek to the northwest, although they are located at the site of springs adjacent to the creek and not within the creek itself (BC Ministry of Environment, 2017).

Relevant hydrological features, wells, and diversion are shown on Figure 2, Appendix Two.

#### 4 BIOSOLIDS CHARACTERISTICS

Biosolids used in this fertilization project will originate from Regional District of Nanaimo WWTPs. Sampling and analysis of biosolids for the purposes of confirming OMRR compliance and application rate calculation is completed annually. The most recent set of complete annual data is presented in Table 1, Appendix One.

Biosolids quality will be monitored during the biosolids land application period at the Woodlot to ensure ongoing compliance with the OMRR.

The following information is provided as requested by the OMRR Schedule 7:

Facility	Greater Nanaimo Pollution Control Centre	French Creek Pollution Control Centre	
Legal Name of Facility Producing Biosolids	Greater Nanaimo Pollution Control Centre	French Creek Pollution Control Centre	
Facility Address	4600 Hammond Bay Road, Nanaimo, BC	957 Lee Road, Parksville, BC	
Facility Primary Contact	Adrian Limpus		
Primary Contact Number	(250) 390-6509		
Primary Contact Email	alimpus@rdn.bc.ca		
Annual Production (dry tonnes or dt)	800 dt/yr	400 dt/yr	
Sets of Samples Required Per Year	1	1	



Facility	Greater Nanaimo Pollution Control Centre	French Creek Pollution Control Centre	
Vector Attraction Reduction Process	mesophilic anaerobic digestion resulting in the mass of volatile solids being reduced by more than 38%	autothermal aerobic digestion resulting in the mass of volatile solids being reduced by more than 38%	
Biosolids Class (A or B)	В	A	

#### 5 BIOSOLIDS TEMPORARY STORAGE

Biosolids delivered to the Woodlot will be stored in accordance with the following requirements for storage facilities, as defined by the OMRR:

Storage Information					
Type of Temporary Storage	Storage facility (asphalt pad, three lock-block walls, seasonal cover)				
Annual Precipitation (a)	1,165 millimetres (mm)				
Runoff and Leachate Management	Tarping of biosolids from October 1st to March 31st				
Storage Buffers	15 m from any watercourse and 30 m from any source of water used for domestic purposes				
Storage Time	9 months maximum as best management practice				

<sup>(</sup>a) Canadian Climate Normals 1981-2010 data obtained from the Nanaimo Airport weather station 22 km southeast of the site (Environment Canada, 2018).

#### 6 BIOSOLIDS FERTILIZATION

This LAP was authored to enable biosolids applications to the land parcels identified in Section 3.1 of this document. Biosolids fertilization will improve the organic matter and nutrient content on the low-quality sites of the Woodlot in order to promote and sustain vegetation growth and soil development.

#### 6.1 Biosolids Application Areas

Biosolids fertilization will occur over the 1,000 hectares (ha) of Woodlot's forested area. Biosolids will be applied to a portion of this area over the term of this LAP.



#### 6.2 Land Application Dates

Biosolids applications are anticipated to occur when the weather is favourable throughout the year. Biosolids applications will cease under conditions of inclement weather (e.g., intense rainfall or snowfall events) or at the discretion of the project manager. There will be no applications over snow or to frozen soil.

#### 6.3 Application Rate

Biosolids will be applied at a maximum agronomic rate of 25 dry tonnes per hectare (dt/ha). Post fertilization soil trace element concentrations will not exceed the applicable soil standards specified in Schedule 10.1 of the OMRR for Agricultural Land.

Application Rate				
Maximum Land Application Rate	25 dt/ha			

The application rate presented in this LAP is a maximum for agronomic and research purposes, applicable to biosolids produced at WWTPs identified in Section 4.

#### 6.3.1 Crop nutrient requirements calculation

The exact fertilization rate provided to the land application operator will be calculated by a Qualified Professional based on the agronomic nutrient uptake of the vegetation, the nutrient concentrations and bulk densities of the soils, and the quantity of nutrients supplied by each of the biosolids sources. The agronomic rate of application will supply approximately 775 kilograms of nitrogen (kg N) per ha, of which 45% (or 350 kg N/ha) is expected to be available to the vegetation in the first growing season.

Predicted post-application soil trace element concentrations are presented in Table 2, Appendix One.

#### 7 SITE-SPECIFIC MANAGEMENT METHODS

All biosolids delivered and land-applied to the Woodlot will be managed as per Schedule 8, Article 1 of the OMRR.

#### 7.1 Buffers

In accordance with Schedule 8 of the OMRR, the following buffers (setbacks) will be adhered to for Class B biosolids during stockpiling and land application:

- A 30 -m buffer will be maintained surrounding all lakes, rivers, streams, and water wells;
- A 30-m buffer will be maintained surrounding water sources, irrigation wells, dwellings, and properties zoned for residences or recreation;
- A 20-m buffer will be maintained from major arterial roads;
- A 10-m buffer will be maintained from minor public roads; and,



 Biosolids will not occur in areas where groundwater occurs within 1 m of the soil surface at the time of application.

The same buffers will be adhered to for the land application of Class A biosolids as a best management practice. Buffers to known water features are identified in Figure 2, Appendix Two. Additional buffers will be put in place for water features identified on site, as required.

#### 7.2 Signage

Biosolids application signs will be posted at the Woodlot prior to fertilization activities, specifically at the entrance points to the fertilization areas. All signs will remain in place for at least 38 months after biosolids have been applied. The signs will include all requirements of Schedule 8 of the OMRR.

#### 8 REPORTING AND RECORD-KEEPING

The most current version of this LAP, the associated sampling data, and the OMRR notification form will be kept by the discharger and the registered owners of the land for at least 36 months following applications, as required by Schedule 6 of the OMRR.

Throughout biosolids applications, a Qualified Professional or designate from SYLVIS will assist and supervise to ensure that biosolids are applied in accordance with the LAP. Written certification from the Qualified Professional in the form of a post-application compliance and management summary report will be provided to the discharger annually as per Part 3, Article 5 (3) of the OMRR.

#### 9 REFERENCES

- BC Ministry of Environment. 2017. BC Water Resources Atlas. Available at http://geobc.gov.bc.ca/base-mapping/atlas/fwa/index.html.
- Cleary, M.L., and D.J. Tiplady. 2012. Hydrogeological Assessment of Land Application of Biosolids Vancouver Island University Forest (WL 20), Nanaimo, BC. Piteau Associates: Geotechnical and Hydrogeological Consultants, North Vancouver, BC.
- R. Allan, D. 2003. Hydrogeological Assessment of Land Application of Biosolids Malaspina University-College Forest, Nanaimo, BC. Piteau Associates: Geotechnical and Hydrogeological Consultants, North Vancouver, BC.
- Ronneseth, K., W. Hodge, and A.P. Kohut. 1994. Nanaimo and Georgia Lowlands. *In* Groundwater Resources of British Columbia. Government of British Columbia.



### **APPENDIX ONE – TABLES**

**Table 1:** Trace element and physicochemical quality for biosolids produced at the Greater Nanaimo Pollution Control Centre (GNPCC) and the French Creek Pollution Control Centre (FCPCC) in 2017.

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Constituent	GNPCC Biosolids <sup>a</sup>	FCPCC Biosolids <sup>b</sup>	Weighted Average Biosolids	Class A Biosolids Limits <sup>c</sup>	Class B Biosolids Limits <sup>d</sup>	Units
Physicochemical Paramete	ers					
Total Nitrogen - TKN	46,800	44,600	46,200	-	-	μg/g
Ammonia + Ammonium - N	6,300	3,300	5,500	-	-	μg/g
Nitrate - N	10	10	10	-	-	μg/g
Phosphorus (available)	2,300	1,800	2,200	-	-	μg/g
Potassium (available)	775	751	769	-	-	μg/g
Organic Matter	59.87	65.10	61.33	-	-	%
Total solids	25.3	30.5	26.8	-	-	%
Conductivity	3.90	6.40	4.59	-	-	dS/m
рН	7.0	6.8	7.0	-	-	pH units
Foreign Matter	NAe	NAe	NA	1	1	% dry weight
Microbiology						
Fecal Coliforms	97,000 <sup>f</sup>	200 <sup>9</sup>	70,000	1,000	2,000,000	MPN / g
Trace Elements			•			•
Arsenic	2.9	3.0	2.9	75	75	μg/g
Cadmium	1.9	1.4	1.8	20	20	μg/g
Chromium	28	25	27	-	1,060	μg/g
Cobalt	3.7	1.9	3.2	150	150	μg/g
Copper	480	740	550	-	2,200	μg/g
Lead	25	19	23	500	500	μg/g
Mercury	1.17	0.59	1.01	5	15	μg/g
Molybdenum	6.4	4.2	5.8	20	20	μg/g
Nickel	17	11	15	180	180	μg/g
Selenium	4.1	4.4	4.2	14	14	μg/g
Zinc	910	1,000	940	1,850	1,850	μg/g

a Greater Nanaimo Pollution Control Centre (GNPCC) values represent the mean of three composite samples, each comprised of eight equal-volume subsamples collected on April 18 and July 25, 2017 and January 11, 2018 by SYLVIS. Samples were analyzed by EXOVA Laboratory in Surrey, BC.



b French Creek Pollution Control Centre (FCPCC) values represent the mean of three composite samples, each comprised of eight equal-volume subsamples collected on April 18, July 25, and December 14, 2017 by SYLVIS. Samples were analyzed by EXOVA Laboratory in Surrey, BC.

c Limits specified in Trade Memorandum T-4-93 (September 1997), Standards for Metals in Fertilizers and Supplements.

d Limits specified in OMRR for Class B biosolids, Schedule 4, Column 3.

Biosolids are delivered directly from the WWTP and visual observations confirm no foreign matter.

f Value represents the geometric mean of nine discrete grab samples, collected on April 18 and July 25, 2017 and January 11, 2018 by SYLVIS. Samples were analyzed by ALS Laboratories in Burnaby, BC.

g Value represents the geometric mean of 20 discrete grab samples, collected on April 18, July 25, and December 14, 2017 by SYLVIS. Samples were analyzed by ALS Laboratories in Burnaby, BC.

**Table 2:** Pre-application and projected maximum post-application soil concentrations for forest soils at the Weigles Road Woodlot which are to be fertilized with biosolids.

Constituent	Pre-application Weigles Road Woodlot mean concentrations in soil <sup>(a)</sup>	Projected post-fertilization concentrations (b)	OMRR Soil Standard <sup>(c)</sup>	Units (dry weight)
Trace Elements				
Arsenic	5.4	5.4	10	μg/g
Cadmium	0.2	0.2	1.0	μg/g
Chromium	30	30	60	μg/g
Cobalt	12	12	25	μg/g
Copper	46	53	75	μg/g
Lead	13	14	120	μg/g
Mercury	0.10	0.11	25.0	μg/g
Molybdenum	0.5	0.6	60.0	μg/g
Nickel	21	21	90	μg/g
Selenium	0.3	0.4	1.0	μg/g
Zinc	78	90	150	μg/g

Note: When the value was reported as below detection limit, the detection limit was used in calculating the mean.



<sup>(</sup>a) Values were obtained from 18 samples collected in 2017. Samples were analyzed by Exova in Surrey, BC.

<sup>(</sup>b) Projected concentrations are calculated using the maximum application rate for the weighted average of constituents from biosolids sources identified in Table 1.

<sup>(</sup>c) Most restrictive soil standards as per OMRR schedule 10.1 for Natural Wildlands, using site-specific standards listed in Section 3.2.

WEIGLES ROAD WOODLOT FOREST FERTILIZATION
BIOSOLIDS LAND APPLICATION PLAN – APPENDIX

# APPENDIX TWO - FIGURES

Figure 1: General overview of the Weigles Road Woodlot and surrounding areas.

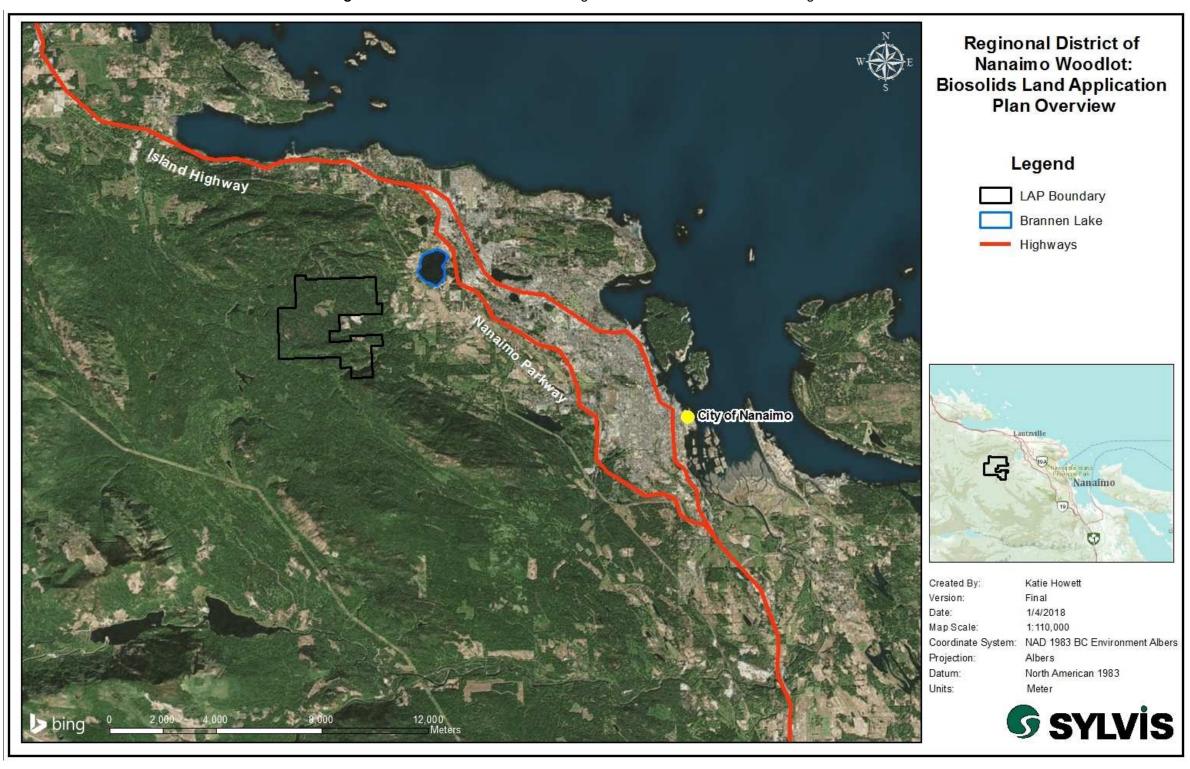




Figure 2: Site map for Woodlot 20 depicting land parcels, access roads, and water features.

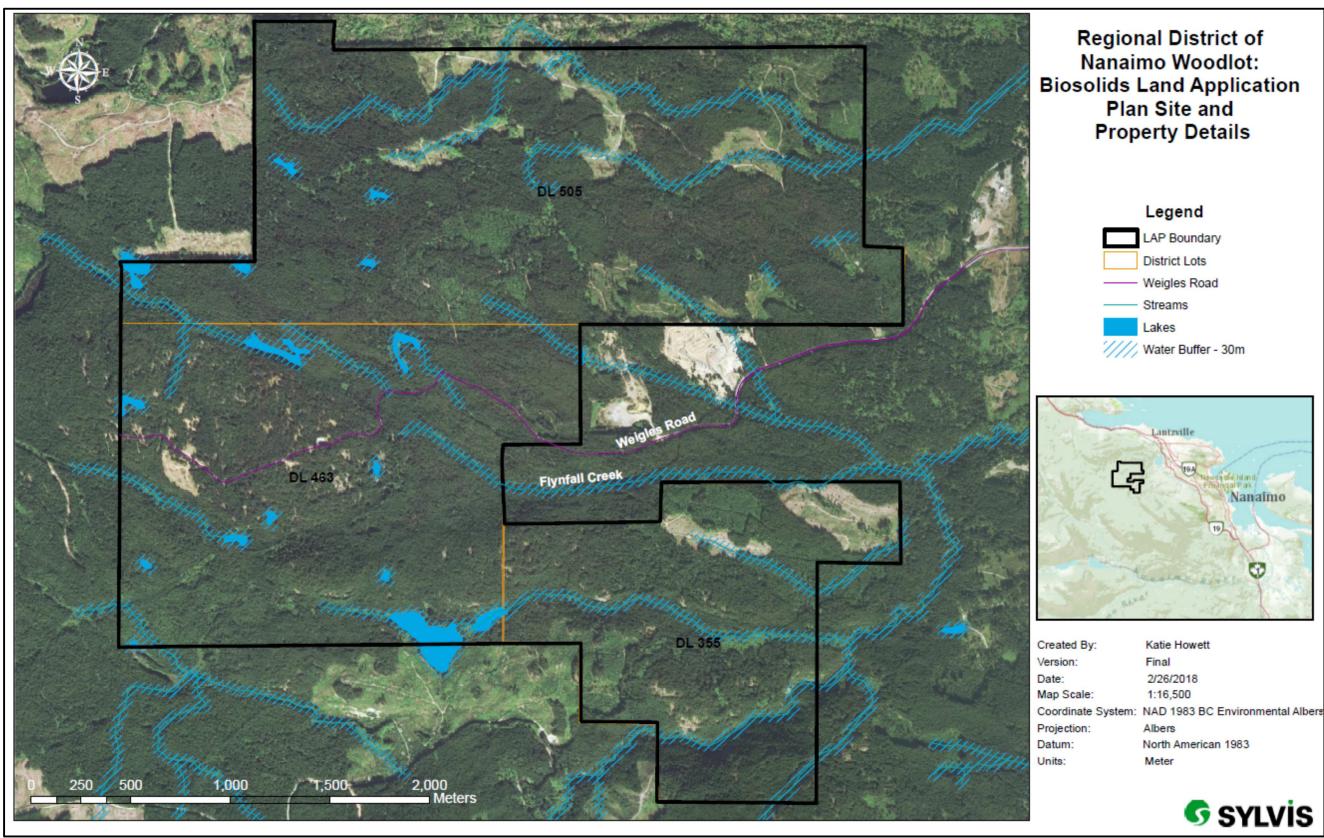
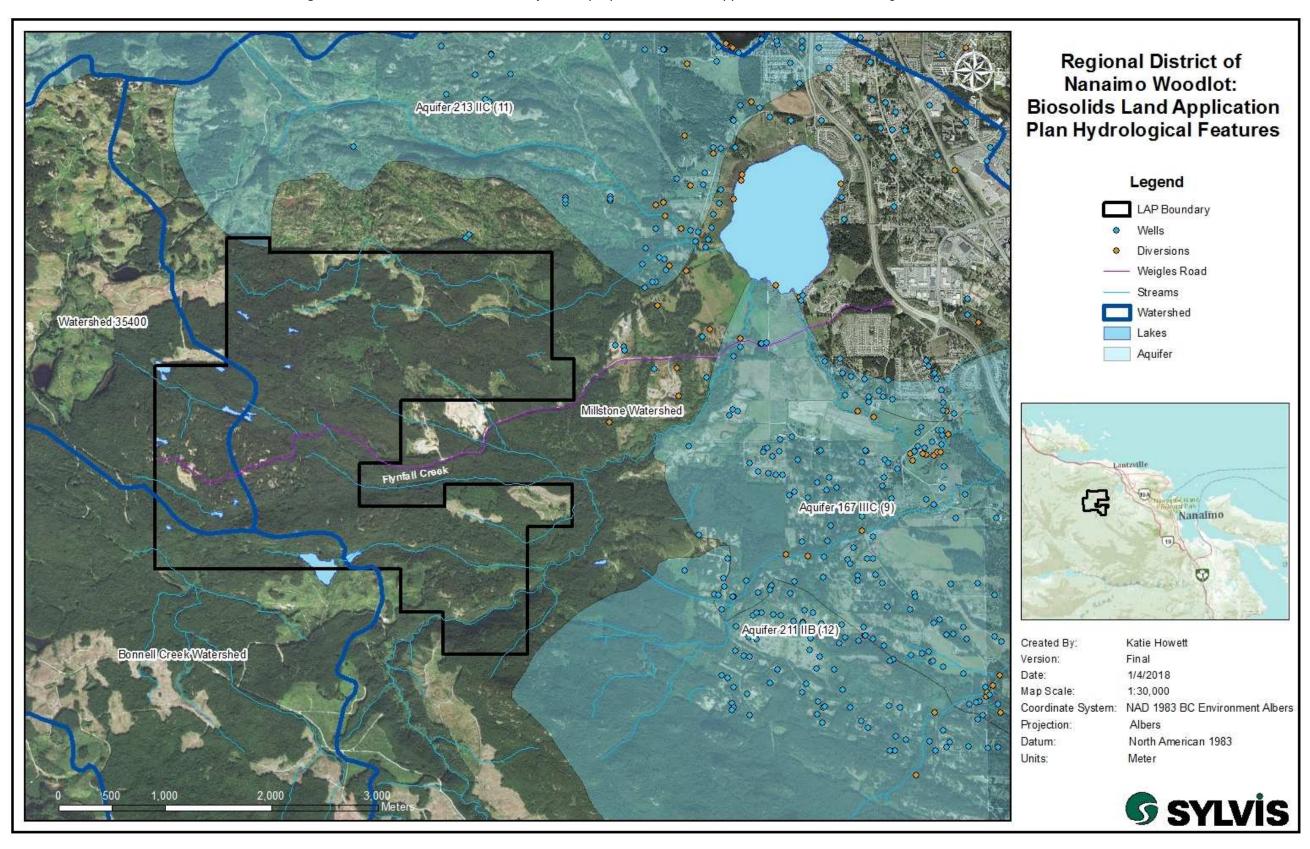




Figure 3: Water features in the vicinity of the proposed biosolids application area at the Weigles Road Woodlot.





#### **APPENDIX THREE – LANDOWNER AUTHORIZATION**

TimberWest Forest Corporation, the landowner of the land parcels identified in this document as the "Weigles Road Woodlot", supports biosolids fertilization as identified in the authorization letter on the following page. This Land Application Plan identifies the Regional District of Nanaimo as the discharger as the RDN holds a land-use agreement with the landowner for biosolids application activities at the Woodlot.



# **TimberWest**

January 23, 2018

SYLVIS Environmental Attn: Mike Van Ham 427 Seventh Street, New Westminster, BC V3M 3L2

Re: Authorization for the Application of Managed Organic Matter under the BC

Organic Matter Recycling Regulation

Dear Mr. Van Ham:

Through this letter we authorize SYLVIS Environmental to prepare a required BC *Organic Matter Recycling Regulation* Land Application Plan for the proposed application of managed organic matter to the Lands, as defined herein, located along Weigles Road in Nanaimo, BC, for the purpose of forest fertilization. This site consists of the following parcels legally described as:

- PID: 009-438-203 Block 505, Nanoose Land District;
- PID: 009-842-616 Block 463, Dunsmuir District, Except Part in Plan 27690; and
- PID: 009-842-586 Block 355, Dunsmuir Land District,

(together, the "Lands").

This letter serves to provide written authorization from TimberWest Forest II Limited as the registered owner of the Lands acknowledging that TimberWest is fully aware and sanctions the application of managed organic matter to the Lands in accordance with the most current Land Application Plan.

I fully understand that a SYLVIS Qualified Professional will oversee the implementation of the Land Application Plan authorized by this letter. As such, I indicate that, to the best of my knowledge, this Land Application Plan is the only current authorization of its kind for the Lands. I will not authorize another Qualified Professional to prepare a Land Application Plan without giving SYLVIS 180 days of notice.

Any questions on this authorization for the land application of managed organic matter to the Lands should be directed to myself.

Yours truly,

TIMBERWEST FOREST CORP.

Per: Domenico lannidinardo

VP, Sustainability & Chief Forester

DI/laa



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#### **APPENDIX FOUR – STATEMENT OF LIMITATIONS**

SYLVIS has prepared a Land Application Plan (LAP) for the purpose of biosolids applications to soil. This LAP will be limited to the specific site, development, and design objectives for fertilization of the Weigles Road Woodlot, owned by TimberWest, managed by the Reginal District of Nanaimo, and accessed from Weigles Road in Nanaimo, BC.

This LAP is intended for use by persons or companies familiar with biosolids and their management, real property such as the subject property, and persons or companies that are familiar with land use terminology, methodology, and reporting. Any questions about this LAP, its use, terms, scope, research, or the analytical methodology used should be directed to its author.

This LAP must not be used partially but only in the context in which it is presented. SYLVIS cannot monitor changes to their reports once they leave their office, nor can they prevent changes, additions or deletions in copies of their reports. SYLVIS recommends that people intending to rely on their report do so only after reading an original report in its entirety.

The Client and/or Landowner and regulators are the only parties who may rely on the opinions expressed in this LAP. As this LAP has been prepared exclusively for the Weigles Road Woodlot, no one else may rely on this LAP without the written consent of the author, which SYLVIS may not provide retroactively. SYLVIS expressly denies any legal liability for unauthorized reliance and for any other use.

No one other than the Landowner or biosolids Producer/Client may use or copy this LAP for any purpose without the written consent of SYLVIS. Exceptions exist when required by due process of law or if subject to confidential review by the Regulatory Agencies.

The analysis contained in this LAP and the basis for the opinions and estimates may rely upon written and verbal information obtained from a variety of sources that SYLVIS considers reliable. This LAP is not prepared for court purposes or for arbitration; as such, some of the information set out in this LAP may not be fully documented or confirmed by reference to primary sources. Information provided by the Landowner and/or Producer may not be verified with other parties unless so indicated in this LAP. Any information provided to SYLVIS by the Landowner and/or Producer is believed to be correct and reliable. General market and environmental information is derived from various public sources as well as from various individuals believed to be knowledgeable in these matters. It is recognized that information from others is believed to be correct, but accuracy cannot be guaranteed. The veracity of information provided to SYLVIS by others will be accepted unless SYLVIS has specific reason for doubt, in which case further confirmation is sought. Soil quality predictions are predicated upon laboratory analysis of the soil and biosolids, and that SYLVIS cannot assume responsibility for the accuracy of such analyses where the basis is third-party sources. SYLVIS has included plans and sketches for visual reference only and SYLVIS cannot assume responsibility for the accuracy of such illustrations where the basis was third-party sources.



SYLVIS will not complete technical investigations such as:

- Contaminated Site Assessments;
- Hydrogeological Assessments; and
- Terrain Stability Assessments.

Unless otherwise stated in this LAP, the existence of any contaminants or hazardous materials, which may or may not be present on the property, is not assessed. SYLVIS will neither source hazardous materials or contaminated land studies nor commission such a study. SYLVIS has no knowledge of the existence of such materials on or in the property. SYLVIS is not retained to detect such substances, the presence of which may materially affect the value of the property. No responsibility is assumed by SYLVIS for any such conditions, or for any specialized expertise or engineering knowledge required to discover them or to remove or eliminate them.

Attendance at any legal proceedings with respect to this LAP, and any fees and expenses for preparation and attendance are to be agreed upon in advance. However, neither this nor any other of these limiting conditions is an attempt to limit the use that might be made of this LAP should it properly become evidence in a judicial proceeding. In such a case it is the judicial body that will decide the use of this LAP that best serves the administration of justice.

