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Withheld pursuant to/removed as

s.12; s.13

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s.13; s.12

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s.12; s.13

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s.12; s.13; s.14

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s.13; s.14; s.12

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Withheld pursuant to/removed as

s.12; s.13; s.14

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Withheld pursuant to/removed as

s.13; s.14; s.12

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Withheld pursuant to/removed as

s.13; s.12; s.14

Page 039 of 193 to/à Page 058 of 193

Withheld pursuant to/removed as

s.12; s.13; s.14

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Withheld pursuant to/removed as

s.12; s.14; s.13

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Withheld pursuant to/removed as

s.12; s.13; s.14

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Withheld pursuant to/removed as

s.13; s.12; s.14

Page 062 of 193 to/à Page 072 of 193

Withheld pursuant to/removed as

s.12; s.13; s.14

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Withheld pursuant to/removed as

s.13; s.14; s.12

Page 074 of 193 to/à Page 077 of 193

Withheld pursuant to/removed as

s.12; s.13; s.14

From: Kennedy, Karla ENV:EX
To: Sather, Kelly ENV:EX; Frampton, Caelie ENV:EX
Cc: Lo, Reamick ENV:EX; Neilson, Kirsten PSEC:EX; Drew, Ashley ENV:EX; Carroll, Deborah ENV:EX; Standen, Jim ENV:EX; Zacharias, Mark ENV:EX; Cotton, Brian GCPE:EX
Subject: NOI Issued for Uplands Landfill
Date: March 19, 2019 8:32:37 AM

Kelly/Caelie,
s.13

From: [Morel, David P ENV:EX](#)
To: [Zacharias, Mark ENV:EX](#)
Cc: [Graham, Tessa ENV:EX](#)
Subject: FW: Upland bullets
Date: April 3, 2019 8:57:34 AM

You asked about third party review of Uplands. See below.

David

From: Graham, Tessa ENV:EX
Sent: Wednesday, April 3, 2019 8:47 AM
To: Morel, David P ENV:EX
Subject: Upland bullets
Hi Dave –s.13

s.13

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Withheld pursuant to/removed as

s.13

Tessa Graham
Executive Director
Regional Operations Branch
Environmental Protection Division
Ministry of Environment and Climate Change Strategy
(tel) 778-698-3309 (cell) s.22

From: [Zacharias, Mark ENV:EX](#)
To: [Heyman, George ENV:EX](#)
Cc: [Sather, Kelly ENV:EX](#); [Morel, David P ENV:EX](#)
Subject: Re: Uplands landfill hydrogeologist assessments
Date: April 8, 2019 7:51:47 PM

Will do Minister

Regards, Mark

On Apr 8, 2019, at 7:29 PM, Heyman, George ENV:EX <George.Heyman@gov.bc.ca> wrote:

Let's discuss this week

Sent from my iPhone

On Apr 3, 2019, at 4:38 PM, Zacharias, Mark ENV:EX
<Mark.Zacharias@gov.bc.ca> wrote:

Minister:
s.13

Page 084 of 193 to/à Page 085 of 193

Withheld pursuant to/removed as

s.13

s.13

- On April 2nd, the City of Campbell River has requested an extension of the comments period to June 14, 2019.

Regards,

Mark Zacharias | Deputy Minister

BC Ministry of Environment and Climate Change Strategy

3rd Floor, 525 Superior Street | Victoria, BC | V8W 9M1 | 778-698-4908 |

s.17

From: [Leona](#)
To: [Minister, ENV ENV:EX](#)
Cc: [OfficeofthePremier, Office PREM:EX; Zacharias, Mark ENV:EX; Morel, David P ENV:EX; Mungall, MLA, Michelle LASS:EX; Caughill, David EMPR:EX; "dale.desrochers@dfo-mpo.gc.ca"; Trevena, MLA, Claire LASS:EX; Furstenau, MLA, Sonia LASS:EX](#)
Subject: Re: Waterline Resources Inc. Memorandum Response re Upland Excavating Ltd. Application
Date: May 13, 2019 9:34:57 PM
Attachments: [Memo Upland Landfill OC public2.pdf](#)

Dear Minister George Heyman,

Please find attached a memo provided to the City of Campbell River by the City hired hydrogeologist Waterline Resources Inc.

As the minister responsible for the protection of BC's water, land, air and living resources, I request you read this report.

As the minister, you are able to make the final decisions on a permit or an approval if it is not in the public interest.

Regards,

Campbell River Environmental Committee,

Per,

Leona Adams, President

250-287-3506

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REFERENCES

- GHD, 2017a. 2017 Design, Operations and Closure Plan, Upland Landfill, Campbell River, British Columbia. Prepared for Upland Excavating Ltd. May 27, 2016 Amended on May 31, 2017.
- GHD, 2019a. GHD Response to Waterline's Hydrogeological Review of the Proposed Upland Landfill, Upland Excavating, Campbell River, British Columbia. Submitted to Mr. Allan Leuschen, Senior Environmental Protection Officer, Authorizations – South, Environmental Protection Division, Ministry of Environment. April 9, 2019
- GHD, 2019b. Groundwater and Surface Water Monitoring Data, Upland Landfill, Upland Excavating, Campbell River, British Columbia. Submitted to Mr. Allan Leuschen, Senior Environmental Protection Officer, Authorizations – South, Environmental Protection Division, Ministry of Environment. April 9, 2019
- Government of British Columbia Ministry of Environment (ENV), 2016. Landfill Criteria for Municipal Solid Waste, Second Edition, June 2016. Retrieved from the ENV website: https://www2.gov.bc.ca/assets/gov/environment/waste-management/garbage/landfill_criteria.pdf
- Waterline Resources Inc (Waterline), 2019. Hydrogeological Review, Proposed Upland Landfill, Campbell River BC. Prepared for the City of Campbell River. Submitted February 25, 2019.

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The information presented in this document was compiled exclusively for (the City of Campbell River) (the Client) by Waterline Resources Inc. (Waterline). This work was completed in accordance with the scope of work for this project that was agreed between Waterline and the Client. Waterline exercised reasonable skill, care and diligence to assess the information acquired during the preparation of this document, but makes no guarantees or warranties as to the accuracy or completeness of this information. The information contained in this document is based upon, and limited by, the circumstances and conditions acknowledged herein, and upon information available at the time of the preparation of this document. Any information provided by others is believed to be accurate but cannot be guaranteed. No other warranty, expressed or implied, is made as to the professional services provided to the Client.

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s.12; s.13; s.14

From: Nash, Laurel ENV:EX
To: Zacharias, Mark ENV:EX
Cc: Kennedy, Karla ENV:EX; Gooderham, Coleen E ENV:EX; Graham, Tessa ENV:EX
Subject: FW: Uplands follow up - background, opportunities, timelines
Date: July 5, 2019 3:50:40 PM

Hi Mark.

For your consideration and discussion with MGH.

Thanks

Laurel Nash

Assistant Deputy Minister

Environmental Protection Division

Ministry of Environment and Climate Change Strategy

(t) 250 953 4004

(m) 250 508 1670

1. Background on Upland Landfill authorization

- Current permit for Upland landfill was issued in 1992
- It authorizes an un-lined landfill and open burning; it is out of date and does not meet the current 2016 Landfill Criteria
- In 2013, ENV advised Upland that it would need to apply for a new operational certificate (OC) to replace the existing permit or phase out the facility
- Upland opted to apply for a new OC
- In 2015, Upland submitted its pre-application
- The last four years have been spent conducting numerous technical reports and stakeholder/FN consultation;
- New OC increases discharge rate from 3,200 m³ to 34,000m³ and adds additional waste to include non-hazardous contaminated soil (IL+) and waste asbestos
- Upland also proposes to move all waste from the original un-lined cell to new landfill
- New landfill will meet or exceed 2016 Landfill Criteria (will include a primary and secondary liner, leak detection layer and leachate collection system)
- It is generally expected that a landfill application that is consistent with the 2016 Landfill criteria be approved by ENV
- Upland has a good compliance record – of 16 inspections only one instance of non-compliance (lack of groundwater monitoring wells in 2006);
- Latest 2018 inspection report stated *“the existing permit is significantly out of date and should be replaced with an updated authorization in a timely manner to be brought up to current standards, reflect current practise and improve clarity and enforceability”*
- There is significant community opposition – mostly about threat to drinking water
- The landfill is located in the Quinsam River Watershed which is a sub-watershed to the Campbell River watershed
- There are two lakes in close proximity to the landfill – McIvor Lake and Rico Lake
- The groundwater from the sand and gravel aquifer beneath the proposed landfill flows to the southeast away from McIvor and Rico Lakes . *“Flow in the reverse direction, against the hydraulic gradients, will not occur. ”*
- Water does not flow up hill
- *“Leachate generated from the waste will be contained, collected and treated to drinking water standards prior to discharge to groundwater. Also the flow of groundwater*

beneath the site is to the southeast, away from Rico and McIvor Lakes, therefore it is not possible for leachate derived impact to enter the City's drinking water supply"

- Concerns raised by community and City have been incorporated into the OC which is 20 pages of requirements

s.13

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s.12; s.13; s.14

From: [Zacharias, Mark ENV:EX](#)
To: [Corns, Paul GCPE:EX](#)
Subject: Fwd: Uplands Landfill
Date: July 8, 2019 9:36:37 AM
Attachments: [MAG legal advice on Uplands \(1\).docx](#)
[ATT00001.htm](#)

Regards, Mark

Begin forwarded message:

From: Mark Zacharias <mark.zacharias@gov.bc.ca>
Date: July 7, 2019 at 1:34:04 PM PDT
To: "Heyman, George ENV:EX" <George.Heyman@gov.bc.ca>
Cc: "Kelly FIN:EX Sather" <Kelly.Sather@gov.bc.ca>, Gala Milne
<Gala.Milne@gov.bc.ca>, Laurel Nash <Laurel.Nash@gov.bc.ca>
Subject: Uplands Landfill

s.12; s.13; s.14

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Withheld pursuant to/removed as

s.12; s.13; s.14

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Withheld pursuant to/removed as

s.14; s.12; s.13

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Withheld pursuant to/removed as

s.12; s.13; s.14

From: [Zacharias, Mark ENV:EX](#)
To: [Wright, Don J. PREM:EX](#)
Cc: [Kennedy, Christine PREM:EX](#)
Subject: Uplands Landfill refined options and most recent MAG legal advice
Date: July 8, 2019 12:02:16 PM

s.12; s.13; s.14

Regards, Mark

From: Zacharias, Mark ENV:EX
Sent: Monday, July 8, 2019 11:56 AM
To: Heyman, George ENV:EX
Cc: Sather, Kelly ENV:EX ; Nash, Laurel ENV:EX ; Corns, Paul GCPE:EX
Subject: Uplands options and most recent MAG legal advice
Minister:

s.12; s.13; s.14

Regards, Mark

From: [Heyman, George ENV:EX](#)
To: [Zacharias, Mark ENV:EX](#)
Cc: [Sather, Kelly ENV:EX](#); [Nash, Laurel ENV:EX](#); [Corns, Paul GCPE:EX](#)
Subject: Re: Uplands options and most recent MAG legal advice
Date: July 8, 2019 1:20:32 PM

s.12; s.13; s.14

Sent from my iPhone

On Jul 8, 2019, at 11:55 AM, Zacharias, Mark ENV:EX <Mark.Zacharias@gov.bc.ca> wrote:

Minister:
s.12; s.13; s.14

Regards, Mark

From: [Nash, Laurel ENV:EX](#)
To: [Zacharias, Mark ENV:EX](#)
Subject: Fwd: list of landfill applications in the queue
Date: July 8, 2019 3:21:40 PM
Attachments: [Copy of All landfill applications in the queue.xlsx](#)
[ATT00001.htm](#)

Laurel Nash
Assistant Deputy Minister
Environmental Protection Division
Ministry of Environment and Climate Change Strategy
250 953 4004
250 508 1670
Sent from my iPhone

From: Graham, Tessa ENV:EX
Sent: Monday, July 8, 2019 3:16 PM
To: Nash, Laurel ENV:EX
Cc: Ord, Kris ENV:EX

Subject: list of landfill applications in the queue

Hi – attached is a list of landfill applications in the queue. This is taken from our database and I haven't had time to have staff double check but it should give folks a sense of what else would be captured .

Tessa

Tessa Graham
Executive Director
Regional Operations Branch
Environmental Protection Division
Ministry of Environment and Climate Change Strategy
(tel) 778-698-3309 (cell) 250-812-3531

List of Landfill applications currently in progress - July 8, 2019

	AdministrativeArea	ClientName	JobType	AuthorizationType	BCENICCode	StatusDescription
1	Authorizations - South Region	CITY OF KELOWNA	Authorization Amendment	Operational Certificate	913000 - Administration - Local, Municipal, Regional	Pre-Application
2	Land Remediation	Parking Corporation of Vancouver doing business as Easy Park	Authorization Amendment	Permit	488400 - Transportation - Support Activities, 562910 - Waste Treatment - Remediation	Pre-Application
3	Authorizations - South Region	UPLAND EXCAVATING LTD.	New Authorization	Operational Certificate	562210 - Waste Treatment - Commercial Treatment & Disposal, 562230 - Solid Waste Management	Awaiting Decision
4	Authorizations - South Region	CITY OF ABBOTSFORD	Authorization Amendment	Permit	913000 - Administration - Local, Municipal, Regional, 562230 - Solid Waste Management	In Review
5	Authorizations - South Region	CITY OF ABBOTSFORD	Authorization Amendment	Permit	913000 - Administration - Local, Municipal, Regional, 562230 - Solid Waste Management	In Review
6	Authorizations - South Region	North Coast Regional District	Authorization Amendment	Permit	913000 - Administration - Local, Municipal, Regional, 562230 - Solid Waste Management	In Review
7	Authorizations - South Region	1068350 B.C. LTD.	Authorization Amendment	Permit	562210 - Waste Treatment - Commercial Treatment & Disposal, 562230 - Solid Waste Management	Pending Final Application
8	Authorizations - South Region	Belcorp Environmental Services Inc.	Authorization Amendment	Operational Certificate	913000 - Administration - Local, Municipal, Regional, 562230 - Solid Waste Management	Awaiting Decision
9	Authorizations - South Region	Comox Valley Regional District	Authorization Amendment	Operational Certificate	913000 - Administration - Local, Municipal, Regional, 562230 - Solid Waste Management	In Review
10	Authorizations - South Region	Upland Contracting Ltd.	New Authorization	Permit		Pending Final Application
11	Authorizations - North Region	Wainwright Marine Services Ltd.	New Authorization	Permit	562210 - Waste Treatment - Commercial Treatment & Disposal	Pending Customer
12	Authorizations - South Region	CITY OF KAMLOOPS	New Authorization	Operational Certificate		In Review
13	Land Remediation	DOMTAR INC. and SEASPAN ULC	Authorization Amendment	Permit	531300 - Administration - Private, 562910 - Waste Treatment - Remediation	Pre-Application
14	Authorizations - South Region	Summit Earthworks Inc.	Authorization Amendment	Permit	562210 - Waste Treatment - Commercial Treatment & Disposal	In Review
15	Authorizations - South Region	FRASER VALLEY REGIONAL DISTRICT	Authorization Amendment	Permit	913000 - Administration - Local, Municipal, Regional, 562230 - Solid Waste Management	Pending Final Application
16	Authorizations - South Region	SUNSHINE COAST REGIONAL DISTRICT	Authorization Amendment	Operational Certificate	913000 - Administration - Local, Municipal, Regional, 562230 - Solid Waste Management	Pending Final Application
17	Express Transactions	WEST COAST MARINE TERMINALS LTD.	Authorization Amendment	Permit	562210 - Waste Treatment - Commercial Treatment & Disposal, 562230 - Solid Waste Management	In Review
18	Authorizations - South Region	1069130 B.C. LTD.	Authorization Amendment	Permit	562210 - Waste Treatment - Commercial Treatment & Disposal, 562230 - Solid Waste Management	Pre-Application
19	Authorizations - South Region	REGIONAL DISTRICT OKANAGAN SIMS	Authorization Amendment	Operational Certificate	913000 - Administration - Local, Municipal, Regional	In Review
20	Authorizations - North Region	LEE-VINE HOLDINGS LTD.	Authorization Amendment	Permit	562210 - Waste Treatment - Commercial Treatment & Disposal, 562230 - Solid Waste Management	In Review
21	Express Transactions	COLUMBIA SHUSWAP REGIONAL DISTRICT	Authorization Amendment	Permit	562210 - Waste Treatment - Commercial Treatment & Disposal, 562230 - Solid Waste Management	Awaiting Decision

From: [Nash, Laurel ENV:EX](#)
To: [Graham, Tessa ENV:EX](#)
Cc: [Zacharias, Mark ENV:EX](#); [Kelly, Suzannah GCPE:EX](#); [Corns, Paul GCPE:EX](#)
Subject: Re: Technical briefing?
Date: July 9, 2019 10:21:30 AM

Including Paul and Suzannah in this for their perspective as well.

Laurel Nash
Assistant Deputy Minister
Environmental Protection Division
Ministry of Environment and Climate Change Strategy
250 953 4004
250 508 1670
Sent from my iPhone

On Jul 9, 2019, at 10:09 AM, Graham, Tessa ENV:EX <Tessa.Graham@gov.bc.ca> wrote:

Hi – below is another article on Shawnigan Lake that is laden with so much misinformation and untruths I wonder if there would be value in considering a technical briefing with a couple of reporters? This was a fairly common practise at Ministry of Health when the ministry was trying to roll out something complicated and it gave media correct information for their stories. Not sure whether it would help or hinder but the media is not getting the full or an accurate story – nor is the media taking the time to review documents posted online which address most of the issues. Just a thought.... Tessa

Horgan flip-flops: contaminated soil landfill to remain in Shawnigan

Cowichan Valley Citizen
Monday, July 08, 2019

By Bernhard H.J. Juurlink-1

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Bernhard H.J. Juurlink Mill Bay [Link to Story](#)

Tessa Graham

Executive Director

Regional Operations Branch

Environmental Protection Division

Ministry of Environment and Climate Change Strategy

(tel) 778-698-3309 (cell) 250-812-3531

From: [Graham, Tessa ENV:EX](#)
To: [Zacharias, Mark ENV:EX](#); [Nash, Laurel ENV:EX](#)
Subject: List of landfills
Date: July 9, 2019 12:10:37 PM
Attachments: [All landfill applications in the queue with details July 9 2019 tq.xlsx](#)
[City of Abbotsford and Summit Earthworks.png](#)
[City of Kelowna.png](#)
[Elk Falls.png](#)
[Uplands.png](#)

Mark and Laurel -

See attached summary – but I think there are really just 3 landfills that fit definition of existing or new landfill that currently has an application in with the ministry that is looking to increase their contaminated soil discharge. None are actually in community watersheds as defined under the *Forest & Range Practices Act* as all or part of the drainage area that is upslope of the lowest point from which water is diverted for human consumption by a licensed waterworks.

1. Kelowna – currently can accept hydrocarbon contaminated soil – applying to accept more broadly contaminated soils, particularly metals – not in a community watershed
2. Upland – also not in a community water shed
3. Elk Falls - applying to include addition of contaminated soil in addition to other amendments – not in a community watershed

There are 2 others that I included in attached but don't think apply -

1. Abbotsford – currently takes contaminated soil – applying to extend life of landfill beyond original 2015. They have to submit closure plan by end of 2019 – not in a community watershed
2. Summit Earthworks (Mission) – this is a contaminated soil treatment centre that is just applying to have their permit updated so that it aligns with the new CSR regs – no increases being contemplated – not in a community watershed

I have attached the spreadsheet and maps of these landfills and the community watershed in the vicinity but you will see they are not actually “in” any of the community watersheds.

Tessa Graham

Executive Director

Regional Operations Branch

Environmental Protection Division

Ministry of Environment and Climate Change Strategy

(tel) 778-698-3309 (cell) 250-812-3531

	ClientName	JobType	AuthorizationNum	AuthorizationType
1	CITY OF KELOWNA	Authorization Amendment	12218	Operational Certificate
2	UPLAND EXCAVATING LTD	New Authorization	107689	Operational Certificate
3	1069130 B.C. LTD. (Elk Fall	Authorization Amendment	11686	Permit
4	CITY OF ABBOTSFORD	Authorization Amendment	7232 and 8090	Permit
5	Summit Earthworks Inc.	Authorization Amendment	107108	Permit







From: [Graham, Tessa ENV:EX](#)
To: [Zacharias, Mark ENV:EX](#)
Cc: [Nash, Laurel ENV:EX](#)
Subject: Re: List of landfills
Date: July 9, 2019 3:26:48 PM

Does this work?

Area of land above a licensed drinking water source, where all the surface water drains towards

(Licensed means licensed under the water sustainability act.)

Tessa Graham
Executive Director, Regional Operations

On Jul 9, 2019, at 2:08 PM, Zacharias, Mark ENV:EX <Mark.Zacharias@gov.bc.ca> wrote:

Lovely, also can you rewrite this for me for a PO-level audience?

“...as all or part of the drainage area that is upslope of the lowest point from which water is diverted for human consumption by a licensed waterworks.”

Regards, Mark

On Jul 9, 2019, at 1:38 PM, Graham, Tessa ENV:EX
<Tessa.Graham@gov.bc.ca> wrote:

Good qx – I will find out.

Ok – to 12 months

From: Zacharias, Mark ENV:EX
Sent: Tuesday, July 9, 2019 1:33 PM
To: Nash, Laurel ENV:EX
Cc: Graham, Tessa ENV:EX
Subject: Re: List of landfills

Further to my note below one more thing: Are there landfills that will be exiting the EA process in the next 18 months that will require permits and get captured by the Order?

s.13

Regards, Mark

On Jul 9, 2019, at 1:20 PM, Nash, Laurel ENV:EX <Laurel.Nash@gov.bc.ca> wrote:

Hi thanks for the work on this Tessa.
It may be that we want to remove the term must be in a community watershed as a requirement and that is a particular point of focus for the provincial review.
Do you concur Mark?
Thx

Laurel Nash
Assistant Deputy Minister
Environmental Protection Division
Ministry of Environment and Climate Change Strategy
250 953 4004
250 508 1670
Sent from my iPhone

On Jul 9, 2019, at 12:10 PM, Graham, Tessa ENV:EX
<Tessa.Graham@gov.bc.ca> wrote:

Mark and Laurel -
See attached summary – but I think there are really just 3 landfills that fit definition of existing or new landfill that currently has an application in with the ministry that is looking to increase their contaminated soil discharge. None are actually in community watersheds as defined under the *Forest & Range Practices Act* as all or part of the drainage area that is upslope of the lowest point from which water is diverted for human consumption by a licensed waterworks.

- <!--[if !supportLists]-->1. <!--[endif]-->
>Kelowna – currently can accept hydrocarbon contaminated soil – applying to accept more broadly contaminated soils, particularly metals – not in a community watershed
- <!--[if !supportLists]-->2. <!--[endif]-->
>Upland – also not in a community water shed
- <!--[if !supportLists]-->3. <!--[endif]-->
>Elk Falls - applying to include addition of contaminated soil in addition to other amendments – not in a community watershed

There are 2 others that I included in attached

but don't think apply -

<!--[if !supportLists]-->1. <!--[endif]--

>Abbotsford – currently takes
contaminated soil – applying to extend
life of landfill beyond original 2015.
They have to submit closure plan by
end of 2019 – not in a community
watershed

<!--[if !supportLists]-->2. <!--[endif]--

>Summit Earthworks (Mission) – this is
a contaminated soil treatment centre
that is just applying to have their
permit updated so that it aligns with
the new CSR regs – no increases being
contemplated – not in a community
watershed

I have attached the spreadsheet and maps of
these landfills and the community watershed in
the vicinity but you will see they are not
actually “in” any of the community watersheds.

Tessa Graham

Executive Director

Regional Operations Branch

Environmental Protection Division

Ministry of Environment and Climate Change
Strategy

(tel) 778-698-3309 (cell) 250-812-3531

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Withheld pursuant to/removed as

s.12; s.13; s.14

From: [Nash, Laurel ENV:EX](#)
To: [Vroom, Bryan ENV:EX](#); [Zacharias, Mark ENV:EX](#); [Kennedy, Karla ENV:EX](#)
Cc: [Graham, Tessa ENV:EX](#); [Downie, AJ ENV:EX](#)
Subject: Re s.12; s.13; s.14
Date: July 17, 2019 7:19:15 PM

Thanks very much for the summary Bryan.

Mark this is a good summary of the discussion and next steps.

Thanks

Laurel Nash
Assistant Deputy Minister
Environmental Protection Division
Ministry of Environment and Climate Change Strategy
250 953 4004
250 508 1670
Sent from my iPhone

On Jul 17, 2019, at 5:49 PM, Vroom, Bryan ENV:EX <Bryan.Vroom@gov.bc.ca> wrote:

s.12; s.13; s.14

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s.12; s.13; s.14

From: [Zacharias, Mark ENV:EX](#)
To: [Nash, Laurel ENV:EX](#)
Cc: [Kelly, Suzannah GCPE:EX](#); [Corns, Paul GCPE:EX](#); [Nicol, Sara ENV:EX](#)
Subject: Re: Upland Update
Date: July 26, 2019 7:23:54 AM

Thanks and please let the MO know and what path Uplands has chosen

Regards, Mark

On Jul 25, 2019, at 10:06 PM, Nash, Laurel ENV:EX <Laurel.Nash@gov.bc.ca> wrote:

Hi apparently Terry Stuart is meeting with MLA Trevena tomorrow. We have messaging that was shared with her but want to ensure no surprises for her. Messaging remains the same but might be good to let her know regional staff are very engaged with Terry, exploring options and have landed on the below approach.

Mark do you give the heads up to the MO or would you like me to?

Thanks.

Laurel Nash
Assistant Deputy Minister
Environmental Protection Division
Ministry of Environment and Climate Change Strategy
250 953 4004
250 508 1670
Sent from my iPhone

On Jul 25, 2019, at 5:34 PM, Nash, Laurel ENV:EX <Laurel.Nash@gov.bc.ca> wrote:

This is a good outcome and means we don't have to try to do a work around or try to amend the order.
Thanks.

Laurel Nash
Assistant Deputy Minister
Environmental Protection Division
Ministry of Environment and Climate Change Strategy
250 953 4004
250 508 1670
Sent from my iPhone

Begin forwarded message:

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s.13; s.14; s.12

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Withheld pursuant to/removed as

s.12; s.13; s.14

From: [Nash, Laurel ENV:EX](#)
To: [Zacharias, Mark ENV:EX](#); [Nicoll, Sara ENV:EX](#)
Cc: [Kelly, Suzannah GCPE:EX](#)
Subject: FW: Heads-up: Upland Landfill Decision Made - OC issued!
Date: August 1, 2019 2:56:07 PM
Attachments: [2019-08-01 Operational Certificate.pdf](#)

FYI

Sara this needs to go to the MO as well as Minister Trevena's office along with the IN.

I will forward on to MAH ADM

AJ or Luc will be contacting the city of CR, First Nations and CREC

Thanks very much.

Laurel Nash

Assistant Deputy Minister

Environmental Protection Division

Ministry of Environment and Climate Change Strategy

(t) 250 953 4004

(m)250 508 1670

From: Downie, AJ ENV:EX

Sent: August 1, 2019 2:50 PM

To: Nash, Laurel ENV:EX ; Nelless, Brady ENV:EX ; Hill, Douglas J ENV:EX ; Jackson, Vickie ENV:EX ;
Kelly, Suzannah GCPE:EX

Cc: Lachance, Luc ENV:EX ; Graham, Tessa ENV:EX

Subject: Heads-up: Upland Landfill Decision Made - OC issued!

All:

s.13

A.J. Downie

Director, Authorizations - South
Environmental Protection Division
Ministry of Environment and Climate Change Strategy
phone: (250) 751-3176
email: AJ.Downie@gov.bc.ca
[Waste Discharge Authorizations Website](#)

From: Lachance, Luc ENV:EX

Sent: August 1, 2019 2:18 PM

To: Terry.Stuart@uplandgroup.ca; Greg Ferraro (greg.ferraro@ghd.com) <greg.ferraro@ghd.com>

Cc: Leuschen, Allan ENV:EX <Allan.Leuschen@gov.bc.ca>; Downie, AJ ENV:EX
<AJ.Downie@gov.bc.ca>

Subject: 2019-08-01 Operational Certificate

Good afternoon,

Please find attached the Operational Certificate issued to Upland Excavating Ltd. today. The Ministry will update the webpage previously used for the Notice of Intent, in March. The webpage will include the Ministry Assessment Report, the Operational Certificate (attached) as well as my Reasons for Decision.

The webpage address will be confirmed shortly. A formal notification will also be sent to you via Business Services in the next few days. Notifications of the decision will also be sent to agencies, First Nations as well as to the Campbell River Environmental Committee.

Please do not hesitate to contact me or Allan Leuschen as needed,

Regards,

Luc Lachance

August 1, 2019

Tracking Number: 335965
Authorization Number: 107689

REGISTERED MAIL

UPLAND EXCAVATING LTD.
#201-909 ISLAND HIGHWAY
CAMPBELL RIVER BC V9W 2C2

Dear operational certificate holder:

Enclosed is Operational Certificate 107689 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 and Approval Fees and Charges 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.

Requirements may also be specified by the *Environmental Management Act* and regulations including, but not limited to, the Contaminated Sites Regulation, Environmental Data Quality Assurance Regulation, Hazardous Waste Regulation, Landfill Gas Management Regulation, Organic Matter Recycling Regulation, Ozone Depleting Substances and Other Halocarbons Regulation, Recycling Regulation, Spill Reporting Regulation, Storage of Recyclable Material Regulation, Waste Discharge Regulation and Codes of Practice.

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 Environmental Protection Division's Regional Operations Branch. Documents pertinent to the operational certificate are to be submitted by email or electronic transfer to the director, in accordance with the ministry Data & Report Submissions website at: <http://www2.gov.bc.ca/gov/content/environment/waste-management/waste-discharge-authorization/data-and-report-submissions>, or as further instructed.

If you have any questions or concerns, please contact Authorizations - South at Authorizations.South@gov.bc.ca.

Yours truly,

A handwritten signature in black ink, consisting of a series of loops and a long horizontal stroke.

Luc Lachance, P.Eng
for Director, *Environmental Management Act*
Authorizations - South Region

Enclosure



MINISTRY OF ENVIRONMENT &
CLIMATE CHANGE STRATEGY

OPERATIONAL CERTIFICATE

107689

Under the Provisions of the Environmental Management Act

Pursuant to the Approved

Comox Valley Regional District Solid Waste Management Plan

UPLAND EXCAVATING LTD.

**#201-909 ISLAND HIGHWAY
CAMPBELL RIVER BC V9W 2C2**

Is authorized to manage waste at the Facility located in Campbell River, British Columbia, subject to the requirements listed below. Contravention of any of these requirements is a violation of the *Environmental Management Act* and may lead to prosecution.

Pursuant to section 24(10) of the *Environmental Management Act*, this operational certificate supersedes and cancels Permit PR-10807 issued under section 14 of the *Environmental Management Act*.

1. **AUTHORIZED DISCHARGES, FACILITIES AND WORKS**

1.1 **Original Landfill**

This section applies to the Original Landfill.

- 1.1.1 The maximum rate of waste discharge to the Original Lined Cell is 45,000 tonnes per calendar year.
- 1.1.2 The characteristics of the waste discharge to the Original Lined Cell must be:
 - (a) demolition waste,
 - (b) construction waste,
 - (c) land clearing waste,
 - (d) soil in which the concentrations of all substances are less than the lowest applicable industrial land use standard specified for those substances in
 - (i) the generic numerical soil standards,
 - (ii) the matrix numerical soil standards, or

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for Director, *Environmental Management Act*
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- (iii) a director's interim standard for soil, referred to in section 41(1)(a) of the Contaminated Sites Regulation, B.C. Reg. 375/96,
 - (e) sludge from the Original Leachate Management Works, or,
 - (f) other waste as authorized in writing by the director,but does not include:
 - (g) hazardous waste except as authorized pursuant to the Hazardous Waste Regulation, controlled waste, Attractants, and,
 - (h) waste and/or recyclable material prohibited in writing by the director.
- 1.1.3 The waste discharge is authorized to the Original Lined Cell approximately located as shown on Site Plan A. Waste discharge to the Original Un-Lined Cell is not authorized.
- 1.1.4 Authorization to discharge waste to the Original Lined Cell ceases on the earlier of:
 - (i) the date the Original Lined Cell is filled to capacity with grades not steeper than 3H:1V (33%),
 - (ii) the date of commencement of waste discharge to the New Landfill.
- 1.1.5 The authorized works are:
 - (i) a lined landfill footprint with a maximum area of 0.72 ha (85 m x 85 m) including from bottom to top a base with perimeter berm, 0.3 m sand cushion layer, 0.5 mm thick coated woven polyethylene liner, 0.3 m granular leak detection layer, leak detection riser pipe, 0.5 mm thick coated woven polyethylene liner, 0.3 m sand protection layer, leachate extraction chamber, final cover, and,
 - (ii) an un-lined landfill footprint with an approximate area of 0.7 ha, final cover, and related appurtenances, approximately located as shown on Site Plan A.
- 1.1.6 The operational certificate holder must ensure the Original Landfill, excluding final cover, is complete and fully operational on or before the date of issuance of this operational certificate, and at all times thereafter, until the Original Landfill is decommissioned in compliance with the plan referred to in section 2.9(a) (plan to remove all waste from the Original Landfill) of this operational certificate.

1.2 **Original Leachate Management Works**

This section applies to the management of leachate from the Original Lined Cell.

- 1.2.1 The operational certificate holder must convey the leachate from the Original Lined Cell, that is to be discharged on the Facility site, to the Original Leachate Management Works.
- 1.2.2 The maximum rate of treated leachate effluent discharge to the treated leachate infiltration pond is 7,139 m³ per calendar year.

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for Director, *Environmental Management Act*
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- 1.2.3 The concentration of any substance in the treated leachate effluent discharge to the treated leachate infiltration pond must not be greater than the Contaminated Sites Regulation Generic Numerical Water Standards for Drinking Water (DW), for that substance.
- 1.2.4 The treated leachate effluent is authorized to be discharged to the treated leachate infiltration pond and infiltrated into the ground. This authorization ceases on the date the Original Leachate Management Works are decommissioned in compliance with the plan referred to in section 2.9(a) (plan to remove all waste from the Original Landfill) of this operational certificate.
- 1.2.5 The authorized works are leachate conveyance, storage, treatment and discharge works including pumps, pipes, leachate storage and treatment tanks, treated leachate infiltration pond, flow monitoring works, and related appurtenances approximately located as shown on Site Plan A.
- 1.2.6 Minimum Freeboard must be maintained at all times as follows:
treated leachate infiltration pond: 0.6 m
- 1.2.7 The operational certificate holder must ensure the Original Leachate Management Works are complete and fully operational on or before the date of commencement of discharge to the treated leachate infiltration pond, and at all times thereafter, until the Original Leachate Management Works are decommissioned in compliance with the plan referred to in section 2.9(a) (plan to remove all waste from the Original Landfill) of this operational certificate.

1.3 **New Landfill**

This section applies to the New Landfill.

- 1.3.1 The maximum rate of waste discharge to the New Landfill is: (45,000 minus the waste discharge to the Original Lined Cell) tonnes per calendar year.
- 1.3.2 The characteristics of the waste discharge to the New Landfill must be:
 - (a) demolition waste,
 - (b) construction waste,
 - (c) land clearing waste,
 - (d) soil in which the concentrations of all substances are less than the lowest applicable industrial land use standard specified for those substances in
 - (i) the generic numerical soil standards,
 - (ii) the matrix numerical soil standards, or
 - (iii) a director's interim standard for soil,referred to in section 41(1)(a) of the Contaminated Sites Regulation, B.C. Reg. 375/96,
 - (e) sludge from the New Leachate Management Works or the New Stormwater

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Management Works, or,
(f) other waste as authorized in writing by the director,
but does not include:
(g) hazardous waste except as authorized pursuant to the Hazardous Waste Regulation,
controlled waste, Attractants, and,
(h) waste and/or recyclable material prohibited in writing by the director.

- 1.3.3 The waste discharge is authorized to the New Landfill approximately located as shown on Site Plan A.
- 1.3.4 The authorized works are a lined landfill footprint with a maximum area of 3.60 ha including from bottom to top a base with perimeter berm, secondary base liner, leak detection drainage layer and leak collection pipes and sump, primary base liner, leachate collection drainage layer and leachate collection pipes and sump, pumps, pipes, final cover, and related appurtenances, approximately located as shown on Site Plan A.
- 1.3.5 The secondary base liner and the primary base liner must each include an upper high density polyethylene double sided textured geomembrane of minimum 1.5 mm thickness and a lower geosynthetic clay liner of hydraulic conductivity less than or equal to 1×10^{-7} cm/s. However, on the south slope of the base more than 1 m above the primary base liner, the geosynthetic clay liners are not required.
- 1.3.6 The operational certificate holder must ensure the New Landfill, excluding final cover, is complete and fully operational on or before the date of commencement of waste discharge to the New Landfill, and at all times thereafter.

1.4 **New Leachate Management Works**

This section applies to the management of leachate from the New Landfill.

- 1.4.1 The operational certificate holder must convey the leachate from the New Landfill, that is to be discharged on the Facility site, to the New Leachate Management Works.
- 1.4.2 The maximum rate of treated leachate effluent discharge to the treated leachate infiltration pond is 24,633 m³ per calendar year.
- 1.4.3 The concentration of any substance in the treated leachate effluent discharge to the treated leachate infiltration pond must not be greater than the Contaminated Sites Regulation Generic Numerical Water Standards for Drinking Water (DW), for that substance.
- 1.4.4 The treated leachate effluent is authorized to be discharged to the treated leachate infiltration

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pond and infiltrated into the ground.

- 1.4.5 The authorized works are leachate conveyance, treatment and discharge works including pumps, pipes, leachate treatment pond(s), treated leachate infiltration pond, flow monitoring works, and related appurtenances approximately located as shown on Site Plan A.
- 1.4.6 The leachate treatment pond(s) must include from bottom to top a secondary base liner, leak detection drainage layer and leak collection pipe(s), and a primary base liner. The secondary base liner and the primary base liner must each include an upper high density polyethylene double sided textured geomembrane of minimum 1.5 mm thickness and a lower geosynthetic clay liner of hydraulic conductivity less than or equal to 1×10^{-7} cm/s.
- 1.4.7 Minimum Freeboard must be maintained at all times as follows:
 - leachate treatment pond(s): 0.6 m
 - treated leachate infiltration pond: 0.6 m
- 1.4.8 The operational certificate holder must ensure the New Leachate Management Works are complete and fully operational on or before the date of commencement of waste discharge to the New Landfill, and at all times thereafter.

1.5 **New Stormwater Management Works**

This section applies to the management of stormwater from the New Landfill.

- 1.5.1 The operational certificate holder must manage stormwater from the New Landfill such that stormwater is infiltrated into the ground with the authorized works.
- 1.5.2 The stormwater must not include leachate and the concentration of any substance in the stormwater must not be greater than the Contaminated Sites Regulation Generic Numerical Water Standards for Drinking Water (DW), for that substance.
- 1.5.3 The authorized works are diversion berm, perimeter berm, mid slope swales, drop down channels, ditches, energy dissipation and sediment traps, stormwater infiltration area, and related appurtenances approximately located as shown on Site Plan A.
- 1.5.4 Minimum Freeboard must be maintained at all times as follows:
 - stormwater infiltration area: 0.6 m
 - all other authorized works: 0.3 m
- 1.5.5 The operational certificate holder must ensure that adequate authorized works to manage stormwater, such that stormwater is infiltrated into the ground with the authorized works, are

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complete and fully operational on or before the date of commencement of waste discharge to the New Landfill, and at all times thereafter.

1.6 **Facility Entrance**

This section applies to the Facility entrance.

- 1.6.1 The authorized works are sign(s), gate, fence, weigh scale, and related appurtenances approximately located as shown on Site Plan A.
- 1.6.2 The operational certificate holder must ensure the authorized works are complete and fully operational on or before the date of issuance of this operational certificate and at all times thereafter.

1.7 **Location of Facility**

This section applies to the location of the Facility.

- 1.7.1 The location of the Facility is PID 001-223-321, LOT A, DISTRICT LOT 85, SAYWARD DISTRICT, PLAN 30709 EXCEPT PART IN PLAN EPP15087, approximately located as shown on Site Plan A.

2. **GENERAL REQUIREMENTS**

2.1 **Glossary**

The following capitalized terms referred to in this authorization are defined in the Glossary below. Other terms used in this authorization have the same meaning as those defined in the *Environmental Management Act*, applicable regulations, and the Landfill Criteria;

“Attractant” means food or food waste, compost, carcass or part of an animal, fish, or other meat, or other waste or garbage, that could attract bears, birds, rodents, insects, vectors or wildlife, but does not include grass, leaves, weeds, branches and woodwaste;

“Facility” means the Original Landfill, Original Leachate Management Works, New Landfill, New Leachate Management Works, New Stormwater Management Works and the authorized works in section 1.6.1 (Facility Entrance) of this operational certificate;

“Freeboard” means the difference in elevation between the contained liquid level and the top of the containment works at its lowest point;

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“Landfill Criteria” means the Landfill Criteria for Municipal Solid Waste Second Edition June 2016, as amended or replaced from time to time;

“New Landfill” means the authorized works in section 1.3.4 of this operational certificate;

“New Leachate Management Works” means the authorized works in section 1.4.5 of this operational certificate;

“New Stormwater Management Works” means the authorized works in section 1.5.3 of this operational certificate;

“Original Landfill” means the Original Lined Cell and the Original Un-Lined Cell;

“Original Leachate Management Works” means the authorized works in section 1.2.5 of this operational certificate;

“Original Lined Cell” means the authorized works in section 1.1.5(i) of this operational certificate;

“Original Un-Lined Cell” means the authorized works in section 1.1.5(ii) of this operational certificate;

“Province” means Her Majesty the Queen in right of British Columbia;

“Regulatory Document” means any document that the operational certificate holder is required to cause to be prepared, prepare or submit to the director or the Province, pursuant to: (i) this authorization; (ii) any regulation made under the *Environmental Management Act* that regulates the Facility described in this authorization or the discharge of waste from that Facility; or (iii) any order issued under the *Environmental Management Act* directed against the operational certificate holder that is related to the Facility described in this authorization or the discharge of waste from that Facility;

“Significant Works” means the Facility excluding the authorized works in section 1.6.1 (Facility Entrance) of this operational certificate.

2.2 Use of Qualified Professional(s)

The operational certificate holder must cause a Qualified Professional to:

- (a) Design and inspect the construction of the Facility, and,
- (b) Certify documents related to the Facility including plans, specifications, drawings, construction

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reports, assessments, reviews, investigations, studies, surveys, programs, reports and as-built record drawings.

(d) Submit a completed Declaration of Competency and a Conflict of Interest Disclosure Statement with each document.

2.3 **Operations and Closure Plan (OCP)**

(a) The operational certificate holder must cause a Qualified Professional to certify and submit an up to date OCP for the Original Landfill and the Original Leachate Management Works, to the director, on or before the earlier of:

- (i) 30 days before the date of commencement of waste discharge to the Original Lined Cell,
- (ii) 30 days after the date of issuance of this operational certificate.

(b) The OCP must comply with the requirements of this operational certificate, include information specified in relevant items listed in the Landfill Criteria Section 10.3 Design, Operations and Closure Plan including a site layout plan, a filling plan, a lifespan analysis table, a stormwater management plan, a leachate management plan, an environmental monitoring plan, an operations plan, a closure plan, and the information specified in the following sections of this operational certificate:

- 2.7(a) (soil acceptance plan), and,
- 2.10(a) (financial security plan).

(c) The operational certificate holder must carry out the most recent OCP and design, construct, operate, inspect, maintain, monitor and close the Original Landfill and the Original Leachate Management Works, in compliance with the most recent OCP and this operational certificate, until the Original Landfill and the Original Leachate Management Works are decommissioned in compliance with the plan referred to in section 2.9(a) (plan to remove all waste from the Original Landfill) of this operational certificate.

2.4 **Hydrogeology and Hydrology Characterization Report (HHCR)**

(a) The operational certificate holder must cause a Qualified Professional to certify and submit an up to date HHCR, to the director, on or before 90 days before the date of commencement of waste discharge to the New Landfill.

(b) The HHCR must include characterization of the geology, hydrogeology, and surface hydrology at and near the Facility site, and the information specified in all the items listed in the Landfill Criteria, section 10.1 Hydrogeology and Hydrology Characterization Report.

(c) The operational certificate holder must cause a Qualified Professional to certify and submit an updated HHCR to the director, at least once every five years after the date of commencement of waste

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discharge to the New Landfill.

2.5 **Design, Operations and Closure Plan (DOCP)**

(a) The operational certificate holder must cause a Qualified Professional to certify and submit an up to date DOCP, for the Facility, to the director, on or before 90 days before the date of commencement of waste discharge to the New Landfill.

(b) The DOCP must comply with the requirements of this operational certificate, include the information specified in all the items listed in the Landfill Criteria Section 10.3 Design, Operations and Closure Plan, and the information specified in the following sections of this operational certificate:

- 2.6(a) (New Leachate Management Works commissioning plan),
- 2.7(a) (soil acceptance plan),
- 2.8(a) (trigger level assessment plan),
- 2.9(a) (plan to remove all waste from the Original Landfill), and,
- 2.10(b) (financial security plan).

(c) The operational certificate holder must cause a Qualified Professional to certify and submit an updated DOCP to the director, as necessary to keep the DOCP up to date, at least once every five years after the date of commencement of waste discharge to the New Landfill.

(d) The operational certificate holder must carry out the most recent DOCP and design, construct, operate, inspect, maintain, monitor, and close the Facility, in compliance with most recent DOCP and this operational certificate.

2.6 **New Leachate Management Works Commissioning Plan and Report**

(a) The DOCP submitted pursuant to section 2.5 of this operational certificate must include a New Leachate Management Works commissioning plan that includes:

- (i) the expected duration of the New Leachate Management Works commissioning period,
- (ii) description of the New Leachate Management Works and design, including treatment of leachate from soil and treated leachate infiltration pond design and infiltration tests,
- (iii) the monitoring, sampling and analyses that will be carried out during the New Leachate Management Works commissioning period including the quantity and quality of leachate and treated leachate effluent, and confirmatory sampling before the discharge of any treated leachate effluent to the treated leachate infiltration pond,
- (iv) operating procedures that will be carried out during the New Leachate Management Works commissioning period including review of confirmatory sampling results before the discharge of any treated leachate effluent to the treated leachate infiltration pond,
- (v) contingency measures that will be carried out during the New Leachate Management Works

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commissioning period if the treated leachate effluent quality does not comply with this operational certificate, including storage, retreatment, and transport to an off-site authorized treatment facility,

(vi) New Leachate Management Works commissioning report description, table of contents and summary of contents.

(b) The operational certificate holder must cause a Qualified Professional to certify and submit a New Leachate Management Works commissioning report, that includes the information contemplated in section 2.6(a)(vi) of this operational certificate, to the director, on or before 30 days after the completion of the New Leachate Management Works commissioning period, or as specified by the director.

2.7 **Soil Acceptance Plan**

(a) The OCP submitted pursuant to section 2.3, and the DOCP submitted pursuant to section 2.5, of this operational certificate, must include a soil acceptance plan that includes procedures that will be carried out before soil is accepted at the Facility including receipt and review of documents required by section 2.7(b) of this operational certificate, and consideration of the applicable Original Leachate Management Works or New Leachate Management Works adequacy to treat leachate from the soil.

(b) Before a specific quantity of soil is accepted at the Facility, the operational certificate holder must cause a Qualified Professional to certify and submit to the operational certificate holder, a document pertaining to the specific quantity of soil that includes:

- (i) the soil tonnage(s) and soil quality class(es) as described in the most recent version of Technical Guidance 1 on Contaminated Sites Site Characterization and Confirmation Testing,
- (ii) the soil origin including applicable civic address, site identification number, parcel identifier, parcel identification number, legal description, and,
- (iii) characterization of the soil in accordance with ministry procedures and applicable Contaminated Sites Regulation Guidance, Protocols and Procedures.

2.8 **Trigger Level Assessment Plan**

(a) The DOCP submitted pursuant to section 2.5 of this operational certificate must include a trigger level assessment plan that includes:

- (i) Description of the routine monitoring of the quantity and quality of leachate leakage through the primary liner and into the leak detection layer for the New Landfill, and for the leachate treatment pond(s), and related leachate leakage quantities and qualities that will trigger corresponding described increased monitoring, investigations, contingency measures and actions.
- (ii) Description of the routine monitoring of groundwater quality immediately downgradient of the New Landfill, the leachate treatment pond(s), and the treated leachate infiltration pond, and related groundwater substance concentrations that will trigger corresponding described increased

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monitoring, investigations, contingency measures and actions.

2.9 **Plan to Remove all Waste from the Original Landfill**

- (a) The DOCP submitted pursuant to section 2.5 of this operational certificate must include a plan to remove all waste from the Original Landfill, categorize such waste, discharge all such waste to the New Landfill or to other identified and authorized waste management facility(ies), carry out sampling to confirm all such waste has been removed, and decommission the Original Landfill and the Original Leachate Management Works.
- (b) Subject to section 1.3.2 of this operational certificate, waste removed from the Original Landfill is authorized to be discharged to the New Landfill. The tonnage of such waste must not be included for the purpose of determining compliance with section 1.3.1 of this operational certificate.
- (c) The director may require the operational certificate holder to carry out and complete the plan referred to in section 2.9(a) of this operational certificate, in accordance with the director's requirements.
- (d) If the plan referred to in section 2.9(a) of this operational certificate is carried out, the operational certificate holder must cause a Qualified Professional to certify and submit a report to the director that confirms that the plan has been carried out and completed in accordance with the director's requirements, describes the plan implementation, describes and provides the waste categorization, describes and provides the sampling and results, describes the decommissioning of the Original Landfill and the Original Leachate Management Works, provides photos documenting the implementation of the plan referred to in section 2.9(a) of this operational certificate, and lists the tonnages or volumes, and categories of waste removed and discharged to the New Landfill and to other identified and authorized waste management facility(ies), on or before 60 days after the plan referred to in section 2.9(a) of this operational certificate has been carried out and completed.

2.10 **Financial Security**

- (a) The OCP submitted pursuant to section 2.3 of this operational certificate must include a financial security plan that includes:
 - (i) the calculations of the amounts of financial security and time periods for each phase of development for the Original Landfill in accordance with the Landfill Criteria Section 8.0 Financial Security, and,
 - (ii) the amounts of financial security for the corresponding time periods.
- (b) The DOCP submitted pursuant to section 2.5 of this operational certificate must include a financial security plan that includes:
 - (i) the tasks, estimated costs, contingency costs, calculations of the amounts of financial security

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- and time periods, to carry out and complete the plan referred to in section 2.9(a) of this operational certificate (plan to remove all waste from the Original Landfill),
- (ii) the calculations of the amounts of financial security and time periods for each phase of development for the New Landfill in accordance with the Landfill Criteria Section 8.0 Financial Security, and,
- (iii) the amounts of financial security for the corresponding time periods.
- (c) The operational certificate holder must provide the director with financial security, on or before the earlier of:
- (i) 30 days before the date of commencement of waste discharge to the Original Lined Cell,
 - (ii) 30 days after the date of issuance of this operational certificate,
 - (iii) 90 days before the date of commencement of waste discharge to the New Landfill,
- and at all times thereafter.
- (d) The amount of financial security at any time must be equal to or greater than:
- (i) Before the report referred to in section 2.9(d) (report that confirms that the plan referred to in section 2.9(a) of this operational certificate has been carried out and completed) of this operational certificate is submitted to the director, the greater amount specified for the corresponding time period in:
 - the financial security plan in the most recent OCP,
 - the financial security plan in the most recent DOCP.
 - (ii) On and after the report referred to in section 2.9(d) (report that confirms that the plan referred to in section 2.9(a) of this operational certificate has been carried out and completed) of this operational certificate is submitted to the director, the amount specified for the corresponding time period in the financial security plan in the most recent DOCP.
- (e) The form of financial security must be satisfactory to the director.
- (f) At the discretion of the director, such financial security may be used among other things:
- (i) to correct any inadequacy of the Facility relating to its design, construction, operation, inspection, maintenance, monitoring, closure, and post-closure;
 - (ii) to correct any default in compliance with this operational certificate or the *Environmental Management Act*; and,
 - (iii) for remediation of the Facility.
- (g) The operational certificate holder must replenish any amounts drawn from the posted financial security within 60 days of such amounts being drawn or as otherwise specified by the director.

2.11 **Construction Report(s)**

- (a) The operational certificate holder must cause a Qualified Professional to carry out inspections

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before and during the construction or modification of Significant Works, and, after the completion of construction or modification of Significant Works, to certify and submit construction report(s) to the director:

- (i) for construction of the New Landfill and the New Leachate Management Works, on or before 30 days before the date of commencement of waste discharge to those new Significant Works, and,
- (ii) for all Significant Works, on or before 60 days after the completion of construction or modification of the Significant Works.

(b) The construction report(s) must demonstrate that the Significant Works have been constructed in accordance with this operational certificate and the applicable most recent OCP or DOCP, describe any technical concerns that arose from the inspections and testing and how they were addressed, and include as-built record drawings of the constructed Significant Works, all the inspection and testing reports and results including geologic inspection report, quality control and quality assurance testing, soil test data including field and laboratory data, as described in the Landfill Criteria section 10.2 Construction Report(s).

2.12 **Notification of Commencement of Waste Discharge**

The operational certificate holder must notify the director of:

- (a) the date of commencement of waste discharge to the Original Lined Cell, on that date,
- (b) the date of commencement of waste discharge to the New Landfill, on that date,
- (c) the date the Original Lined Cell has reached capacity, on that date, and,
- (d) the date the plan referred to in section 2.9(a) of this operational certificate has been carried out and completed, on that date.

2.13 **Buffer Zone**

The operational certificate holder must ensure that the New Landfill, New Leachate Management Works, and New Stormwater Management Works, are located a minimum of 50 m from the Facility site boundary.

2.14 **Depth to Groundwater**

The operational certificate holder must ensure that the New Landfill secondary base liner, and the New Leachate Management Works leachate treatment pond(s) secondary base liner, are a minimum of 1.5 m above groundwater at all times.

2.15 **Covenant**

On or before the date of commencement of waste discharge to the New Landfill, the operational certificate holder must register a covenant under section 219 (1) of the *Land Title Act*, in a form

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acceptable to the director, that binds successors in title to uphold the continued implementation of the closure plan in the most recent DOCP, and prohibits development of the Facility other than as contemplated by this operational certificate or approved by the director. Such covenant must include an acknowledgement that the property was used for the purpose of waste disposal, must be registered as a charge against title to the property on which the facility is located and must be registered in priority to all charges except charges which do not give the holders any rights which might conflict with the covenant.

2.16 **Additional Requirements**

The director may require the operational certificate holder to:

- (a) Cause a Qualified Professional to certify and submit to the director additional, amended or improved documents of the Facility including plans, specifications, drawings, construction reports, assessments, reviews, investigations, studies, surveys, programs, reports and as-built record drawings.
- (b) Carry out actions in accordance with the additional, amended or improved documents submitted, and additional actions as specified.
- (c) Repair, alter, remove, improve or add to existing facilities and works, or construct new facilities and works, at the Facility.
- (d) Temporarily or permanently cease waste discharge to the Original Lined Cell and/or the New Landfill, cover part(s) or all of the Original Landfill and/or the New Landfill with final cover, and close and decommission the Facility, as specified.

2.17 **Authorization Requirements**

Where this authorization provides that the director may specify a matter or require an action to be carried out, the operational certificate holder must comply with the specification and carry out the action in accordance with the requirements of the director.

3. **OPERATING AND PERFORMANCE REQUIREMENTS**

3.1 **Multiple and/or Spare Works and Auxiliary Power Facilities**

The operational certificate holder must provide and install multiple and/or spare works and auxiliary power facilities to ensure the Original Lined Cell, Original Leachate Management Works, New Landfill, New Leachate Management Works, and New Stormwater Management Works, are complete and fully operational as specified in this operational certificate, including during maintenance, breakdowns and electrical power outages.

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3.2 **Maintenance of the Facility**

- (a) The operational certificate holder must cause persons that are qualified and trained to operate, regularly inspect, and maintain the Facility, in good working order. If components of the Facility have a manufacturer's recommended maintenance schedule, then those components must, at a minimum, be maintained in accordance with that schedule.
- (b) The operational certificate holder must prepare documents of the qualification and training of the persons operating, inspecting and maintaining the Facility, and of Facility inspections, operation and maintenance.

3.3 **Facility Manager and Operator Certification**

- (a) The operational certificate holder must ensure that at least one person responsible for the management of the Facility is certified, and maintains certification, by The Solid Waste Association of North America (SWANA) as a Manager of Landfill Operations, and at least one person responsible for the operation of the Facility has, within the preceding five years, successfully completed the SWANA Landfill Operations Basics course, on or before the earlier of:
- (i) the date of commencement of waste discharge to the Original Lined Cell,
 - (ii) the date of commencement of waste discharge to the New Landfill,
- and at all times thereafter.
- (b) The operational certificate holder must prepare documents of the SWANA certification and training of the person(s) responsible for the management and operation of the Facility.

3.4 **New Leachate Management Works Classification and Operator Certification**

- (a) The operational certificate holder must have the New Leachate Management Works classified by the Environmental Operators Certification Program (EOCP), on or before the date of commencement of waste discharge to the New Landfill, and at all times thereafter.
- (b) The operational certificate holder must ensure that the person(s) responsible for the operation and maintenance of the New Leachate Management Works is(are) certified at an EOCP certification level equivalent to or higher than the EOCP classification level of the New Leachate Management Works, on or before the date of commencement of waste discharge to the New Landfill, and at all times thereafter.
- (c) The operational certificate holder must prepare documents of the EOCP classification level of the New Leachate Management Works and the EOCP certification level(s) of the person(s) responsible for the operation and maintenance of the New Leachate Management Works.

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3.5 Groundwater Quality

(a) The operational certificate holder must ensure that the Facility does not cause the concentration of any substance in groundwater flowing from the Facility site boundary to be greater than:

(i) the Contaminated Sites Regulation Generic Numerical Water Standards for Drinking Water (DW), for that substance,

or,

(ii) if the local background concentration of any substance is greater than (i), the local background concentration of that substance.

(b) If section 3.5(a)(ii) of this operational certificate is being used, the operational certificate holder must cause a Qualified Professional to determine the local background concentration of substance(s) in (a), in accordance with the latest approved version of Protocol 9 for Contaminated Sites, Determining Background Groundwater Quality, and include such determination(s) in the Annual Operations and Monitoring Report.

(c) The director may specify more stringent groundwater quality standards than those set out in this section.

3.6 Landfill Gas Management

The operational certificate holder must ensure that:

(a) The Facility does not cause:

(i) combustible gas concentrations to exceed the lower explosive limit of methane (5 percent by volume), or a lower concentration specified by the director, in soil at the Facility site boundary;

(ii) combustible gas concentrations to exceed 20 percent of the lower explosive limit of methane (1 percent by volume) in any building; and

(iii) federal, provincial, or local ambient air quality objectives and standards to be exceeded in air at the Facility site boundary.

(b) Landfill gas is managed in accordance with all migration and health and safety requirements.

3.7 Nuisance

The operational certificate holder must ensure that the Facility does not cause a nuisance including with regard to birds, rodents, insects, odour, noise, dust, litter, vector and wildlife attraction.

3.8 Complaints

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The operational certificate holder must prepare documents of complaints with regard to matters relevant to this operational certificate, including environmental and nuisance complaints. These documents must include the source and nature of the complaint, actions, responses, and corresponding dates and times.

3.9 **Regulatory Documents**

(a) The operational certificate holder must retain all Regulatory Documents.

(b) The operational certificate holder must retain all Regulatory Documents for the last seven years at the Facility and such documents must be available for immediate inspection at the Facility by a director or an officer.

(c) If requested by a director or an officer, the operational certificate holder must submit the requested Regulatory Documents to the director or officer within 14 days of the request.

4. **SAMPLING REQUIREMENTS**

4.1 **Sampling Procedures**

The operational certificate holder must carry out required sampling in accordance with the procedures described in the "British Columbia Field Sampling Manual for Continuous Monitoring and the Collection of Air, Air-Emission, Water, Wastewater, Soil, Sediment, and Biological Samples, 2013 Edition (Permittee)" or most recent edition, or by alternative procedures as authorized by the director. A copy of the above manual is available on the Ministry web page at <https://www2.gov.bc.ca/gov/content/environment/research-monitoring-reporting/monitoring/laboratory-standards-quality-assurance>.

4.2 **Analytical Procedures**

The operational certificate holder must carry out required analyses in accordance with procedures described in the "British Columbia Laboratory Manual (2015 Permittee Edition)", or the most recent edition or by alternative procedures as authorized by the director. A copy of the above manual is available on the Ministry web page at <https://www2.gov.bc.ca/gov/content/environment/research-monitoring-reporting/monitoring/laboratory-standards-quality-assurance>.

4.3 **Quality Assurance**

(a) The operational certificate holder must obtain from the analytical laboratory(ies) their precision, accuracy and blank data for each sample set submitted by the operational certificate holder and an evaluation of the data acceptability, based on criteria set by such laboratory.

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(b) The operational certificate holder must submit samples to analytical laboratory(ies) that meet the definition of a qualified laboratory under the Environmental Data Quality Assurance Regulation.

(c) The operational certificate holder must collect, prepare and submit for analysis by the analytical laboratory(ies) quality control (QC) samples for each parameter. As a minimum,

- (i) The number of QC samples should be 20% of all samples collected (environmental + QC samples) within 48 hours of each other, and
- (ii) Include duplicate, field and trip blank samples for each parameter.

5. **REPORTING REQUIREMENTS**

5.1 **Routine Reporting**

The operational certificate holder must submit all routine Regulatory Documents required by this operational certificate by email to the Ministry's Routine Environmental Reporting Submission Mailbox at EnvAuthorizationsReporting@gov.bc.ca or as otherwise instructed by the director. For guidelines on how to properly name the files and email subject lines or for more information visit the Ministry website <http://www2.gov.bc.ca/gov/content/environment/waste-management/waste-discharge-authorization/data-and-report-submissions/routine-environmental-reporting-submission-mailbox>.

5.2 **Non-compliance Notification**

(a) The operational certificate holder must immediately notify the director or designate by email at EnvironmentalCompliance@gov.bc.ca, or as otherwise instructed by the director of any non-compliance with the requirements of this authorization by the operational certificate holder and must take remedial action to remedy any effects of such non-compliance.

(b) The operational certificate holder must provide the director with written confirmation of all such non-compliance events, including available test results within 24 hours of the original notification by email at EnvironmentalCompliance@gov.bc.ca, or as otherwise instructed by the director.

5.3. **Non-compliance Reporting**

(a) If the operational certificate holder fails to comply with any of the requirements of this authorization, the operational certificate holder must, within 30 days of such non-compliance, submit to the director a written report that is satisfactory to the director and includes, but is not necessarily limited to, the following:

- (i) all relevant test results obtained by the operational certificate holder related to the non-compliance,

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- (ii) an explanation of the most probable cause(s) of the non-compliance, and
- (iii) a description of remedial action planned and/or taken by the operational certificate holder to prevent similar non-compliance(s) in the future.

(b) The operational certificate holder must submit all non-compliance reporting required to be submitted under this section by email to the Ministry's Compliance Reporting Submission Mailbox at EnvironmentalCompliance@gov.bc.ca or as otherwise instructed by the director. For guidelines on how to report a non-compliance or for more information visit the Ministry website <http://www2.gov.bc.ca/gov/content/environment/waste-management/waste-discharge-authorization/data-and-report-submissions/non-compliance-reporting-mailbox>.

5.4 **Annual Operations and Monitoring Report**

(a) The operational certificate holder must cause a Qualified Professional to certify and submit an Annual Operations and Monitoring Report in a format suitable for public release, for the preceding calendar year, to the director on or before March 31 of each year. On or before March 31 of each year, the operational certificate holder must post a copy of the Annual Operations and Monitoring Report online, on a website accessible to the public, and in accordance with any requirements of the director.

(b) The Annual Operations and Monitoring Report must include the following information:
Operations Report:

- (i) Summary of OCP implementation that addresses the information in section 2.3(b), and summary of DOCP implementation that addresses the information in 2.5(b), of this operational certificate,
- (ii) Summary of construction report(s),
- (iii) Annual and cumulative tonnages and categories of waste including soil tonnage(s) and soil quality class(es) discharged to the Original Lined Cell and to the New Landfill,
- (iv) Remaining volume and life of the Original Lined Cell and of the New Landfill,
- (v) Summary of treated leachate effluent quantity and quality discharged to the treated leachate infiltration pond,
- (vi) Summary of complaints and nuisances and description of remedial action planned and/or taken by the operational certificate holder to prevent similar complaints and nuisances in the future,
- (vii) Summary of non-compliance notifications and non-compliance reporting and description of remedial action planned and/or taken by the operational certificate holder to prevent similar non-compliance(s) in the future ,
- (viii) Annual status form in accordance with the instructions and template at the ministry website <https://www2.gov.bc.ca/gov/content/environment/waste-management/waste-discharge-authorization/data-and-report-submissions/annual-status-form>
- (ix) Summary of OCP and DOCP implementation, and construction of Significant Works, planned for the next calendar year,

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Environmental Monitoring Plan Report:

- (x) Site plan(s), sampling locations, stormwater flow paths, groundwater elevations, gradients and flow directions,
- (xi) Sampling facilities, frequencies, substances, sampling and analytical procedures,
- (xii) Data including laboratory analysis and quality assurance and quality control results,
- (xiii) Data tabulation, trend analysis, graphs, diagrams, and interpretation,
- (xiv) Trigger level assessment plan monitoring, data, results and interpretation,
- (xv) Any determination(s) of the local background concentration of substance(s) in accordance with section 3.5 of this operational certificate,
- (xvi) Comparison of the data with the standards for treated leachate effluent discharge, stormwater quality, groundwater quality, and landfill gas management, specified in sections 1.2, 1.4, 1.5, 3.5 and 3.6 of this operational certificate, and identification of any non-compliance and predicted future non-compliance,
- (xvii) Results, conclusions, recommendations and changes to the environmental monitoring plan.

(c) The operational certificate holder must upload monitoring data associated with this operational certificate to the Ministry's Environmental Monitoring System (EMS) database, within 45 days of the end of the 3 month period in which the data is collected.

5.5 **Licence to Publish Documents**

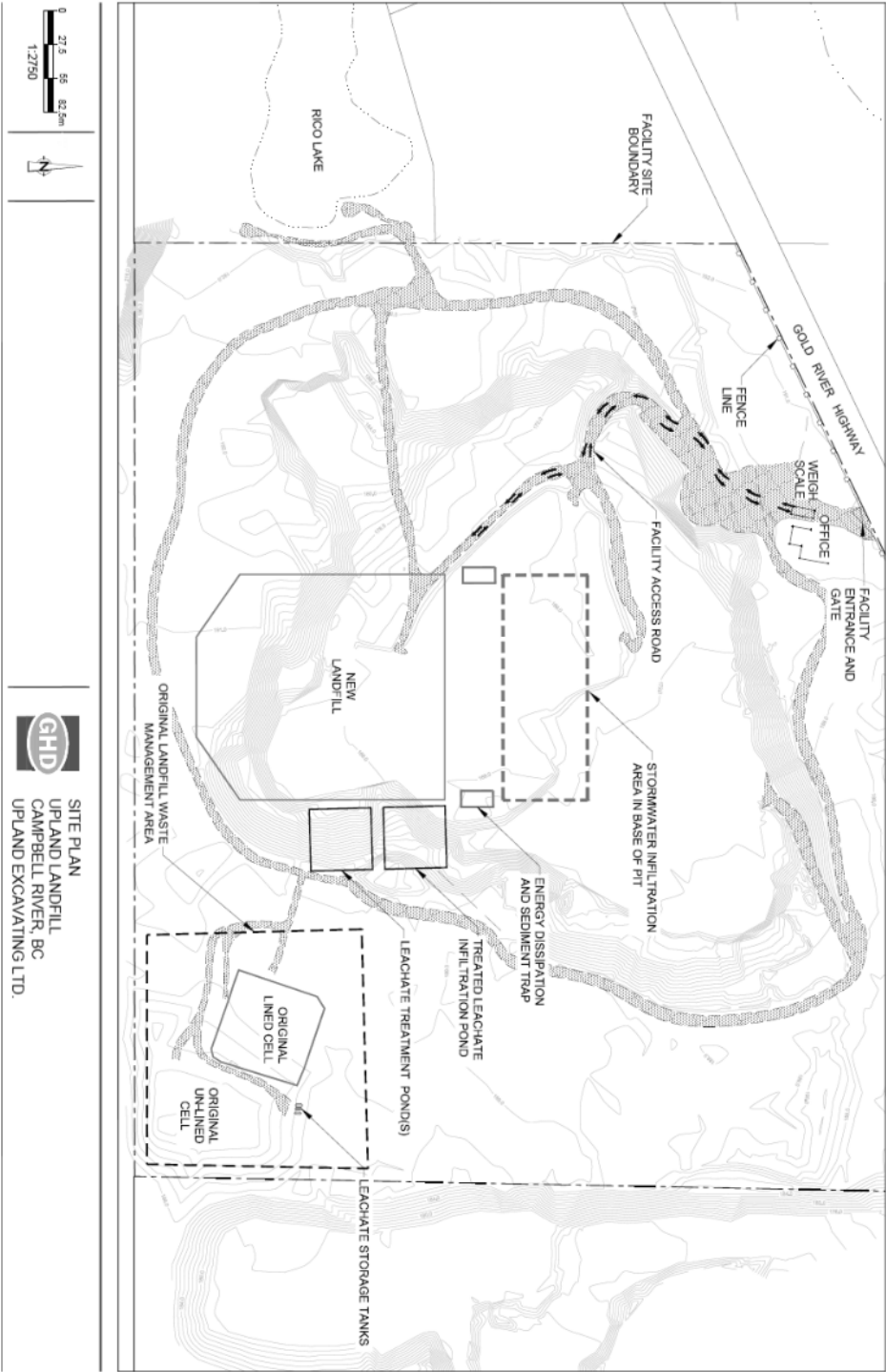
- (a) Subject to paragraph (b), the operational certificate holder authorizes the Province to publish on the Ministry of Environment and Climate Change Strategy website the entirety of any Regulatory Document.
- (b) The Province will not publish any information that could not, if it were subject to a request under section 5 of the *Freedom of Information and Protection of Privacy Act*, be disclosed under that Act.
- (c) The operational certificate holder will indemnify and save harmless the Province and the Province's employees and agents from any claim for infringement of copyright or other intellectual property rights that the Province or any of the Province's employees or agents may sustain, incur, suffer or be put to at any time that arise from the publication of a Regulatory Document.

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Site Plan A



Date issued: August 1, 2019

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From: [Zacharias, Mark ENV:EX](#)
To: [McGuire, Jennifer ENV:EX](#)
Subject: FW: Heads-up: Upland Landfill Decision Made - OC issued!
Date: August 2, 2019 10:59:00 AM
Attachments: [2019-08-01 Operational Certificate.pdf](#)

Regards, Mark

From: Nash, Laurel ENV:EX
Sent: Thursday, August 1, 2019 2:56 PM
To: Zacharias, Mark ENV:EX ; Nicoll, Sara ENV:EX
Cc: Kelly, Suzannah GCPE:EX
Subject: FW: Heads-up: Upland Landfill Decision Made - OC issued!
FYI

Sara this needs to go to the MO as well as Minister Trevena's office along with the IN.
I will forward on to MAH ADM
AJ or Luc will be contacting the city of CR, First Nations and CREC
Thanks very much.

Laurel Nash

*Assistant Deputy Minister
Environmental Protection Division
Ministry of Environment and Climate Change Strategy
(t) 250 953 4004
(m)250 508 1670*

From: Downie, AJ ENV:EX
Sent: August 1, 2019 2:50 PM
To: Nash, Laurel ENV:EX <Laurel.Nash@gov.bc.ca>; Nelless, Brady ENV:EX
<Brady.Nelless@gov.bc.ca>; Hill, Douglas J ENV:EX <Doug.Hill@gov.bc.ca>; Jackson, Vickie ENV:EX
<Vickie.Jackson@gov.bc.ca>; Kelly, Suzannah GCPE:EX <Suzannah.Kelly@gov.bc.ca>
Cc: Lachance, Luc ENV:EX <Luc.Lachance@gov.bc.ca>; Graham, Tessa ENV:EX
<Tessa.Graham@gov.bc.ca>
Subject: Heads-up: Upland Landfill Decision Made - OC issued!

All:

s.13

A.J. Downie

Director, Authorizations - South
Environmental Protection Division
Ministry of Environment and Climate Change Strategy
phone: (250) 751-3176
email: AJ.Downie@gov.bc.ca
[Waste Discharge Authorizations Website](#)

From: Lachance, Luc ENV:EX

Sent: August 1, 2019 2:18 PM

To: Terry.Stuart@uplandgroup.ca; Greg Ferraro (greg.ferraro@ghd.com) <greg.ferraro@ghd.com>

Cc: Leuschen, Allan ENV:EX <Allan.Leuschen@gov.bc.ca>; Downie, AJ ENV:EX
<AJ.Downie@gov.bc.ca>

Subject: 2019-08-01 Operational Certificate

Good afternoon,

Please find attached the Operational Certificate issued to Upland Excavating Ltd. today. The Ministry will update the webpage previously used for the Notice of Intent, in March. The webpage will include the Ministry Assessment Report, the Operational Certificate (attached) as well as my Reasons for Decision.

The webpage address will be confirmed shortly. A formal notification will also be sent to you via Business Services in the next few days. Notifications of the decision will also be sent to agencies, First Nations as well as to the Campbell River Environmental Committee.

Please do not hesitate to contact me or Allan Leuschen as needed,

Regards,

Luc Lachance

August 1, 2019

Tracking Number: 335965
Authorization Number: 107689

REGISTERED MAIL

UPLAND EXCAVATING LTD.
#201-909 ISLAND HIGHWAY
CAMPBELL RIVER BC V9W 2C2

Dear operational certificate holder:

Enclosed is Operational Certificate 107689 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 and Approval Fees and Charges 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.

Requirements may also be specified by the *Environmental Management Act* and regulations including, but not limited to, the Contaminated Sites Regulation, Environmental Data Quality Assurance Regulation, Hazardous Waste Regulation, Landfill Gas Management Regulation, Organic Matter Recycling Regulation, Ozone Depleting Substances and Other Halocarbons Regulation, Recycling Regulation, Spill Reporting Regulation, Storage of Recyclable Material Regulation, Waste Discharge Regulation and Codes of Practice.

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 Environmental Protection Division's Regional Operations Branch. Documents pertinent to the operational certificate are to be submitted by email or electronic transfer to the director, in accordance with the ministry Data & Report Submissions website at: <http://www2.gov.bc.ca/gov/content/environment/waste-management/waste-discharge-authorization/data-and-report-submissions>, or as further instructed.

If you have any questions or concerns, please contact Authorizations - South at Authorizations.South@gov.bc.ca.

Yours truly,

A handwritten signature in black ink, consisting of a series of fluid, connected strokes. The signature appears to be 'Luc Lachance'.

Luc Lachance, P.Eng
for Director, *Environmental Management Act*
Authorizations - South Region

Enclosure



MINISTRY OF ENVIRONMENT &
CLIMATE CHANGE STRATEGY

OPERATIONAL CERTIFICATE

107689

Under the Provisions of the Environmental Management Act

Pursuant to the Approved

Comox Valley Regional District Solid Waste Management Plan

UPLAND EXCAVATING LTD.

**#201-909 ISLAND HIGHWAY
CAMPBELL RIVER BC V9W 2C2**

Is authorized to manage waste at the Facility located in Campbell River, British Columbia, subject to the requirements listed below. Contravention of any of these requirements is a violation of the *Environmental Management Act* and may lead to prosecution.

Pursuant to section 24(10) of the *Environmental Management Act*, this operational certificate supersedes and cancels Permit PR-10807 issued under section 14 of the *Environmental Management Act*.

1. **AUTHORIZED DISCHARGES, FACILITIES AND WORKS**

1.1 **Original Landfill**

This section applies to the Original Landfill.

- 1.1.1 The maximum rate of waste discharge to the Original Lined Cell is 45,000 tonnes per calendar year.
- 1.1.2 The characteristics of the waste discharge to the Original Lined Cell must be:
 - (a) demolition waste,
 - (b) construction waste,
 - (c) land clearing waste,
 - (d) soil in which the concentrations of all substances are less than the lowest applicable industrial land use standard specified for those substances in
 - (i) the generic numerical soil standards,
 - (ii) the matrix numerical soil standards, or

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- (iii) a director's interim standard for soil,
referred to in section 41(1)(a) of the Contaminated Sites Regulation, B.C. Reg. 375/96,
 - (e) sludge from the Original Leachate Management Works, or,
 - (f) other waste as authorized in writing by the director,but does not include:
 - (g) hazardous waste except as authorized pursuant to the Hazardous Waste Regulation, controlled waste, Attractants, and,
 - (h) waste and/or recyclable material prohibited in writing by the director.
- 1.1.3 The waste discharge is authorized to the Original Lined Cell approximately located as shown on Site Plan A. Waste discharge to the Original Un-Lined Cell is not authorized.
- 1.1.4 Authorization to discharge waste to the Original Lined Cell ceases on the earlier of:
 - (i) the date the Original Lined Cell is filled to capacity with grades not steeper than 3H:1V (33%),
 - (ii) the date of commencement of waste discharge to the New Landfill.
- 1.1.5 The authorized works are:
 - (i) a lined landfill footprint with a maximum area of 0.72 ha (85 m x 85 m) including from bottom to top a base with perimeter berm, 0.3 m sand cushion layer, 0.5 mm thick coated woven polyethylene liner, 0.3 m granular leak detection layer, leak detection riser pipe, 0.5 mm thick coated woven polyethylene liner, 0.3 m sand protection layer, leachate extraction chamber, final cover, and,
 - (ii) an un-lined landfill footprint with an approximate area of 0.7 ha, final cover, and related appurtenances, approximately located as shown on Site Plan A.
- 1.1.6 The operational certificate holder must ensure the Original Landfill, excluding final cover, is complete and fully operational on or before the date of issuance of this operational certificate, and at all times thereafter, until the Original Landfill is decommissioned in compliance with the plan referred to in section 2.9(a) (plan to remove all waste from the Original Landfill) of this operational certificate.

1.2 **Original Leachate Management Works**

This section applies to the management of leachate from the Original Lined Cell.

- 1.2.1 The operational certificate holder must convey the leachate from the Original Lined Cell, that is to be discharged on the Facility site, to the Original Leachate Management Works.
- 1.2.2 The maximum rate of treated leachate effluent discharge to the treated leachate infiltration pond is 7,139 m³ per calendar year.

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- 1.2.3 The concentration of any substance in the treated leachate effluent discharge to the treated leachate infiltration pond must not be greater than the Contaminated Sites Regulation Generic Numerical Water Standards for Drinking Water (DW), for that substance.
- 1.2.4 The treated leachate effluent is authorized to be discharged to the treated leachate infiltration pond and infiltrated into the ground. This authorization ceases on the date the Original Leachate Management Works are decommissioned in compliance with the plan referred to in section 2.9(a) (plan to remove all waste from the Original Landfill) of this operational certificate.
- 1.2.5 The authorized works are leachate conveyance, storage, treatment and discharge works including pumps, pipes, leachate storage and treatment tanks, treated leachate infiltration pond, flow monitoring works, and related appurtenances approximately located as shown on Site Plan A.
- 1.2.6 Minimum Freeboard must be maintained at all times as follows:
treated leachate infiltration pond: 0.6 m
- 1.2.7 The operational certificate holder must ensure the Original Leachate Management Works are complete and fully operational on or before the date of commencement of discharge to the treated leachate infiltration pond, and at all times thereafter, until the Original Leachate Management Works are decommissioned in compliance with the plan referred to in section 2.9(a) (plan to remove all waste from the Original Landfill) of this operational certificate.

1.3 **New Landfill**

This section applies to the New Landfill.

- 1.3.1 The maximum rate of waste discharge to the New Landfill is: (45,000 minus the waste discharge to the Original Lined Cell) tonnes per calendar year.
- 1.3.2 The characteristics of the waste discharge to the New Landfill must be:
 - (a) demolition waste,
 - (b) construction waste,
 - (c) land clearing waste,
 - (d) soil in which the concentrations of all substances are less than the lowest applicable industrial land use standard specified for those substances in
 - (i) the generic numerical soil standards,
 - (ii) the matrix numerical soil standards, or
 - (iii) a director's interim standard for soil,referred to in section 41(1)(a) of the Contaminated Sites Regulation, B.C. Reg. 375/96,
 - (e) sludge from the New Leachate Management Works or the New Stormwater

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Management Works, or,
(f) other waste as authorized in writing by the director,
but does not include:
(g) hazardous waste except as authorized pursuant to the Hazardous Waste Regulation,
controlled waste, Attractants, and,
(h) waste and/or recyclable material prohibited in writing by the director.

- 1.3.3 The waste discharge is authorized to the New Landfill approximately located as shown on Site Plan A.
- 1.3.4 The authorized works are a lined landfill footprint with a maximum area of 3.60 ha including from bottom to top a base with perimeter berm, secondary base liner, leak detection drainage layer and leak collection pipes and sump, primary base liner, leachate collection drainage layer and leachate collection pipes and sump, pumps, pipes, final cover, and related appurtenances, approximately located as shown on Site Plan A.
- 1.3.5 The secondary base liner and the primary base liner must each include an upper high density polyethylene double sided textured geomembrane of minimum 1.5 mm thickness and a lower geosynthetic clay liner of hydraulic conductivity less than or equal to 1×10^{-7} cm/s. However, on the south slope of the base more than 1 m above the primary base liner, the geosynthetic clay liners are not required.
- 1.3.6 The operational certificate holder must ensure the New Landfill, excluding final cover, is complete and fully operational on or before the date of commencement of waste discharge to the New Landfill, and at all times thereafter.

1.4 **New Leachate Management Works**

This section applies to the management of leachate from the New Landfill.

- 1.4.1 The operational certificate holder must convey the leachate from the New Landfill, that is to be discharged on the Facility site, to the New Leachate Management Works.
- 1.4.2 The maximum rate of treated leachate effluent discharge to the treated leachate infiltration pond is 24,633 m³ per calendar year.
- 1.4.3 The concentration of any substance in the treated leachate effluent discharge to the treated leachate infiltration pond must not be greater than the Contaminated Sites Regulation Generic Numerical Water Standards for Drinking Water (DW), for that substance.
- 1.4.4 The treated leachate effluent is authorized to be discharged to the treated leachate infiltration

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pond and infiltrated into the ground.

- 1.4.5 The authorized works are leachate conveyance, treatment and discharge works including pumps, pipes, leachate treatment pond(s), treated leachate infiltration pond, flow monitoring works, and related appurtenances approximately located as shown on Site Plan A.
- 1.4.6 The leachate treatment pond(s) must include from bottom to top a secondary base liner, leak detection drainage layer and leak collection pipe(s), and a primary base liner. The secondary base liner and the primary base liner must each include an upper high density polyethylene double sided textured geomembrane of minimum 1.5 mm thickness and a lower geosynthetic clay liner of hydraulic conductivity less than or equal to 1×10^{-7} cm/s.
- 1.4.7 Minimum Freeboard must be maintained at all times as follows:
leachate treatment pond(s): 0.6 m
treated leachate infiltration pond: 0.6 m
- 1.4.8 The operational certificate holder must ensure the New Leachate Management Works are complete and fully operational on or before the date of commencement of waste discharge to the New Landfill, and at all times thereafter.

1.5 **New Stormwater Management Works**

This section applies to the management of stormwater from the New Landfill.

- 1.5.1 The operational certificate holder must manage stormwater from the New Landfill such that stormwater is infiltrated into the ground with the authorized works.
- 1.5.2 The stormwater must not include leachate and the concentration of any substance in the stormwater must not be greater than the Contaminated Sites Regulation Generic Numerical Water Standards for Drinking Water (DW), for that substance.
- 1.5.3 The authorized works are diversion berm, perimeter berm, mid slope swales, drop down channels, ditches, energy dissipation and sediment traps, stormwater infiltration area, and related appurtenances approximately located as shown on Site Plan A.
- 1.5.4 Minimum Freeboard must be maintained at all times as follows:
stormwater infiltration area: 0.6 m
all other authorized works: 0.3 m
- 1.5.5 The operational certificate holder must ensure that adequate authorized works to manage stormwater, such that stormwater is infiltrated into the ground with the authorized works, are

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complete and fully operational on or before the date of commencement of waste discharge to the New Landfill, and at all times thereafter.

1.6 **Facility Entrance**

This section applies to the Facility entrance.

- 1.6.1 The authorized works are sign(s), gate, fence, weigh scale, and related appurtenances approximately located as shown on Site Plan A.
- 1.6.2 The operational certificate holder must ensure the authorized works are complete and fully operational on or before the date of issuance of this operational certificate and at all times thereafter.

1.7 **Location of Facility**

This section applies to the location of the Facility.

- 1.7.1 The location of the Facility is PID 001-223-321, LOT A, DISTRICT LOT 85, SAYWARD DISTRICT, PLAN 30709 EXCEPT PART IN PLAN EPP15087, approximately located as shown on Site Plan A.

2. **GENERAL REQUIREMENTS**

2.1 **Glossary**

The following capitalized terms referred to in this authorization are defined in the Glossary below. Other terms used in this authorization have the same meaning as those defined in the *Environmental Management Act*, applicable regulations, and the Landfill Criteria;

“Attractant” means food or food waste, compost, carcass or part of an animal, fish, or other meat, or other waste or garbage, that could attract bears, birds, rodents, insects, vectors or wildlife, but does not include grass, leaves, weeds, branches and woodwaste;

“Facility” means the Original Landfill, Original Leachate Management Works, New Landfill, New Leachate Management Works, New Stormwater Management Works and the authorized works in section 1.6.1 (Facility Entrance) of this operational certificate;

“Freeboard” means the difference in elevation between the contained liquid level and the top of the containment works at its lowest point;

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“Landfill Criteria” means the Landfill Criteria for Municipal Solid Waste Second Edition June 2016, as amended or replaced from time to time;

“New Landfill” means the authorized works in section 1.3.4 of this operational certificate;

“New Leachate Management Works” means the authorized works in section 1.4.5 of this operational certificate;

“New Stormwater Management Works” means the authorized works in section 1.5.3 of this operational certificate;

“Original Landfill” means the Original Lined Cell and the Original Un-Lined Cell;

“Original Leachate Management Works” means the authorized works in section 1.2.5 of this operational certificate;

“Original Lined Cell” means the authorized works in section 1.1.5(i) of this operational certificate;

“Original Un-Lined Cell” means the authorized works in section 1.1.5(ii) of this operational certificate;

“Province” means Her Majesty the Queen in right of British Columbia;

“Regulatory Document” means any document that the operational certificate holder is required to cause to be prepared, prepare or submit to the director or the Province, pursuant to: (i) this authorization; (ii) any regulation made under the *Environmental Management Act* that regulates the Facility described in this authorization or the discharge of waste from that Facility; or (iii) any order issued under the *Environmental Management Act* directed against the operational certificate holder that is related to the Facility described in this authorization or the discharge of waste from that Facility;

“Significant Works” means the Facility excluding the authorized works in section 1.6.1 (Facility Entrance) of this operational certificate.

2.2 Use of Qualified Professional(s)

The operational certificate holder must cause a Qualified Professional to:

- (a) Design and inspect the construction of the Facility, and,
- (b) Certify documents related to the Facility including plans, specifications, drawings, construction

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reports, assessments, reviews, investigations, studies, surveys, programs, reports and as-built record drawings.

(d) Submit a completed Declaration of Competency and a Conflict of Interest Disclosure Statement with each document.

2.3 **Operations and Closure Plan (OCP)**

(a) The operational certificate holder must cause a Qualified Professional to certify and submit an up to date OCP for the Original Landfill and the Original Leachate Management Works, to the director, on or before the earlier of:

- (i) 30 days before the date of commencement of waste discharge to the Original Lined Cell,
- (ii) 30 days after the date of issuance of this operational certificate.

(b) The OCP must comply with the requirements of this operational certificate, include information specified in relevant items listed in the Landfill Criteria Section 10.3 Design, Operations and Closure Plan including a site layout plan, a filling plan, a lifespan analysis table, a stormwater management plan, a leachate management plan, an environmental monitoring plan, an operations plan, a closure plan, and the information specified in the following sections of this operational certificate:

- 2.7(a) (soil acceptance plan), and,
- 2.10(a) (financial security plan).

(c) The operational certificate holder must carry out the most recent OCP and design, construct, operate, inspect, maintain, monitor and close the Original Landfill and the Original Leachate Management Works, in compliance with the most recent OCP and this operational certificate, until the Original Landfill and the Original Leachate Management Works are decommissioned in compliance with the plan referred to in section 2.9(a) (plan to remove all waste from the Original Landfill) of this operational certificate.

2.4 **Hydrogeology and Hydrology Characterization Report (HHCR)**

(a) The operational certificate holder must cause a Qualified Professional to certify and submit an up to date HHCR, to the director, on or before 90 days before the date of commencement of waste discharge to the New Landfill.

(b) The HHCR must include characterization of the geology, hydrogeology, and surface hydrology at and near the Facility site, and the information specified in all the items listed in the Landfill Criteria, section 10.1 Hydrogeology and Hydrology Characterization Report.

(c) The operational certificate holder must cause a Qualified Professional to certify and submit an updated HHCR to the director, at least once every five years after the date of commencement of waste

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discharge to the New Landfill.

2.5 **Design, Operations and Closure Plan (DOCP)**

(a) The operational certificate holder must cause a Qualified Professional to certify and submit an up to date DOCP, for the Facility, to the director, on or before 90 days before the date of commencement of waste discharge to the New Landfill.

(b) The DOCP must comply with the requirements of this operational certificate, include the information specified in all the items listed in the Landfill Criteria Section 10.3 Design, Operations and Closure Plan, and the information specified in the following sections of this operational certificate:

- 2.6(a) (New Leachate Management Works commissioning plan),
- 2.7(a) (soil acceptance plan),
- 2.8(a) (trigger level assessment plan),
- 2.9(a) (plan to remove all waste from the Original Landfill), and,
- 2.10(b) (financial security plan).

(c) The operational certificate holder must cause a Qualified Professional to certify and submit an updated DOCP to the director, as necessary to keep the DOCP up to date, at least once every five years after the date of commencement of waste discharge to the New Landfill.

(d) The operational certificate holder must carry out the most recent DOCP and design, construct, operate, inspect, maintain, monitor, and close the Facility, in compliance with most recent DOCP and this operational certificate.

2.6 **New Leachate Management Works Commissioning Plan and Report**

(a) The DOCP submitted pursuant to section 2.5 of this operational certificate must include a New Leachate Management Works commissioning plan that includes:

- (i) the expected duration of the New Leachate Management Works commissioning period,
- (ii) description of the New Leachate Management Works and design, including treatment of leachate from soil and treated leachate infiltration pond design and infiltration tests,
- (iii) the monitoring, sampling and analyses that will be carried out during the New Leachate Management Works commissioning period including the quantity and quality of leachate and treated leachate effluent, and confirmatory sampling before the discharge of any treated leachate effluent to the treated leachate infiltration pond,
- (iv) operating procedures that will be carried out during the New Leachate Management Works commissioning period including review of confirmatory sampling results before the discharge of any treated leachate effluent to the treated leachate infiltration pond,
- (v) contingency measures that will be carried out during the New Leachate Management Works

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commissioning period if the treated leachate effluent quality does not comply with this operational certificate, including storage, retreatment, and transport to an off-site authorized treatment facility,

(vi) New Leachate Management Works commissioning report description, table of contents and summary of contents.

(b) The operational certificate holder must cause a Qualified Professional to certify and submit a New Leachate Management Works commissioning report, that includes the information contemplated in section 2.6(a)(vi) of this operational certificate, to the director, on or before 30 days after the completion of the New Leachate Management Works commissioning period, or as specified by the director.

2.7 **Soil Acceptance Plan**

(a) The OCP submitted pursuant to section 2.3, and the DOCP submitted pursuant to section 2.5, of this operational certificate, must include a soil acceptance plan that includes procedures that will be carried out before soil is accepted at the Facility including receipt and review of documents required by section 2.7(b) of this operational certificate, and consideration of the applicable Original Leachate Management Works or New Leachate Management Works adequacy to treat leachate from the soil.

(b) Before a specific quantity of soil is accepted at the Facility, the operational certificate holder must cause a Qualified Professional to certify and submit to the operational certificate holder, a document pertaining to the specific quantity of soil that includes:

- (i) the soil tonnage(s) and soil quality class(es) as described in the most recent version of Technical Guidance 1 on Contaminated Sites Site Characterization and Confirmation Testing,
- (ii) the soil origin including applicable civic address, site identification number, parcel identifier, parcel identification number, legal description, and,
- (iii) characterization of the soil in accordance with ministry procedures and applicable Contaminated Sites Regulation Guidance, Protocols and Procedures.

2.8 **Trigger Level Assessment Plan**

(a) The DOCP submitted pursuant to section 2.5 of this operational certificate must include a trigger level assessment plan that includes:

- (i) Description of the routine monitoring of the quantity and quality of leachate leakage through the primary liner and into the leak detection layer for the New Landfill, and for the leachate treatment pond(s), and related leachate leakage quantities and qualities that will trigger corresponding described increased monitoring, investigations, contingency measures and actions.
- (ii) Description of the routine monitoring of groundwater quality immediately downgradient of the New Landfill, the leachate treatment pond(s), and the treated leachate infiltration pond, and related groundwater substance concentrations that will trigger corresponding described increased

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monitoring, investigations, contingency measures and actions.

2.9 **Plan to Remove all Waste from the Original Landfill**

- (a) The DOCP submitted pursuant to section 2.5 of this operational certificate must include a plan to remove all waste from the Original Landfill, categorize such waste, discharge all such waste to the New Landfill or to other identified and authorized waste management facility(ies), carry out sampling to confirm all such waste has been removed, and decommission the Original Landfill and the Original Leachate Management Works.
- (b) Subject to section 1.3.2 of this operational certificate, waste removed from the Original Landfill is authorized to be discharged to the New Landfill. The tonnage of such waste must not be included for the purpose of determining compliance with section 1.3.1 of this operational certificate.
- (c) The director may require the operational certificate holder to carry out and complete the plan referred to in section 2.9(a) of this operational certificate, in accordance with the director's requirements.
- (d) If the plan referred to in section 2.9(a) of this operational certificate is carried out, the operational certificate holder must cause a Qualified Professional to certify and submit a report to the director that confirms that the plan has been carried out and completed in accordance with the director's requirements, describes the plan implementation, describes and provides the waste categorization, describes and provides the sampling and results, describes the decommissioning of the Original Landfill and the Original Leachate Management Works, provides photos documenting the implementation of the plan referred to in section 2.9(a) of this operational certificate, and lists the tonnages or volumes, and categories of waste removed and discharged to the New Landfill and to other identified and authorized waste management facility(ies), on or before 60 days after the plan referred to in section 2.9(a) of this operational certificate has been carried out and completed.

2.10 **Financial Security**

- (a) The OCP submitted pursuant to section 2.3 of this operational certificate must include a financial security plan that includes:
 - (i) the calculations of the amounts of financial security and time periods for each phase of development for the Original Landfill in accordance with the Landfill Criteria Section 8.0 Financial Security, and,
 - (ii) the amounts of financial security for the corresponding time periods.
- (b) The DOCP submitted pursuant to section 2.5 of this operational certificate must include a financial security plan that includes:
 - (i) the tasks, estimated costs, contingency costs, calculations of the amounts of financial security

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- and time periods, to carry out and complete the plan referred to in section 2.9(a) of this operational certificate (plan to remove all waste from the Original Landfill),
- (ii) the calculations of the amounts of financial security and time periods for each phase of development for the New Landfill in accordance with the Landfill Criteria Section 8.0 Financial Security, and,
- (iii) the amounts of financial security for the corresponding time periods.
- (c) The operational certificate holder must provide the director with financial security, on or before the earlier of:
- (i) 30 days before the date of commencement of waste discharge to the Original Lined Cell,
 - (ii) 30 days after the date of issuance of this operational certificate,
 - (iii) 90 days before the date of commencement of waste discharge to the New Landfill,
- and at all times thereafter.
- (d) The amount of financial security at any time must be equal to or greater than:
- (i) Before the report referred to in section 2.9(d) (report that confirms that the plan referred to in section 2.9(a) of this operational certificate has been carried out and completed) of this operational certificate is submitted to the director, the greater amount specified for the corresponding time period in:
 - the financial security plan in the most recent OCP,
 - the financial security plan in the most recent DOCP.
 - (ii) On and after the report referred to in section 2.9(d) (report that confirms that the plan referred to in section 2.9(a) of this operational certificate has been carried out and completed) of this operational certificate is submitted to the director, the amount specified for the corresponding time period in the financial security plan in the most recent DOCP.
- (e) The form of financial security must be satisfactory to the director.
- (f) At the discretion of the director, such financial security may be used among other things:
- (i) to correct any inadequacy of the Facility relating to its design, construction, operation, inspection, maintenance, monitoring, closure, and post-closure;
 - (ii) to correct any default in compliance with this operational certificate or the *Environmental Management Act*; and,
 - (iii) for remediation of the Facility.
- (g) The operational certificate holder must replenish any amounts drawn from the posted financial security within 60 days of such amounts being drawn or as otherwise specified by the director.

2.11 **Construction Report(s)**

- (a) The operational certificate holder must cause a Qualified Professional to carry out inspections

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before and during the construction or modification of Significant Works, and, after the completion of construction or modification of Significant Works, to certify and submit construction report(s) to the director:

- (i) for construction of the New Landfill and the New Leachate Management Works, on or before 30 days before the date of commencement of waste discharge to those new Significant Works, and,
- (ii) for all Significant Works, on or before 60 days after the completion of construction or modification of the Significant Works.

(b) The construction report(s) must demonstrate that the Significant Works have been constructed in accordance with this operational certificate and the applicable most recent OCP or DOCP, describe any technical concerns that arose from the inspections and testing and how they were addressed, and include as-built record drawings of the constructed Significant Works, all the inspection and testing reports and results including geologic inspection report, quality control and quality assurance testing, soil test data including field and laboratory data, as described in the Landfill Criteria section 10.2 Construction Report(s).

2.12 **Notification of Commencement of Waste Discharge**

The operational certificate holder must notify the director of:

- (a) the date of commencement of waste discharge to the Original Lined Cell, on that date,
- (b) the date of commencement of waste discharge to the New Landfill, on that date,
- (c) the date the Original Lined Cell has reached capacity, on that date, and,
- (d) the date the plan referred to in section 2.9(a) of this operational certificate has been carried out and completed, on that date.

2.13 **Buffer Zone**

The operational certificate holder must ensure that the New Landfill, New Leachate Management Works, and New Stormwater Management Works, are located a minimum of 50 m from the Facility site boundary.

2.14 **Depth to Groundwater**

The operational certificate holder must ensure that the New Landfill secondary base liner, and the New Leachate Management Works leachate treatment pond(s) secondary base liner, are a minimum of 1.5 m above groundwater at all times.

2.15 **Covenant**

On or before the date of commencement of waste discharge to the New Landfill, the operational certificate holder must register a covenant under section 219 (1) of the *Land Title Act*, in a form

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acceptable to the director, that binds successors in title to uphold the continued implementation of the closure plan in the most recent DOCP, and prohibits development of the Facility other than as contemplated by this operational certificate or approved by the director. Such covenant must include an acknowledgement that the property was used for the purpose of waste disposal, must be registered as a charge against title to the property on which the facility is located and must be registered in priority to all charges except charges which do not give the holders any rights which might conflict with the covenant.

2.16 **Additional Requirements**

The director may require the operational certificate holder to:

- (a) Cause a Qualified Professional to certify and submit to the director additional, amended or improved documents of the Facility including plans, specifications, drawings, construction reports, assessments, reviews, investigations, studies, surveys, programs, reports and as-built record drawings.
- (b) Carry out actions in accordance with the additional, amended or improved documents submitted, and additional actions as specified.
- (c) Repair, alter, remove, improve or add to existing facilities and works, or construct new facilities and works, at the Facility.
- (d) Temporarily or permanently cease waste discharge to the Original Lined Cell and/or the New Landfill, cover part(s) or all of the Original Landfill and/or the New Landfill with final cover, and close and decommission the Facility, as specified.

2.17 **Authorization Requirements**

Where this authorization provides that the director may specify a matter or require an action to be carried out, the operational certificate holder must comply with the specification and carry out the action in accordance with the requirements of the director.

3. **OPERATING AND PERFORMANCE REQUIREMENTS**

3.1 **Multiple and/or Spare Works and Auxiliary Power Facilities**

The operational certificate holder must provide and install multiple and/or spare works and auxiliary power facilities to ensure the Original Lined Cell, Original Leachate Management Works, New Landfill, New Leachate Management Works, and New Stormwater Management Works, are complete and fully operational as specified in this operational certificate, including during maintenance, breakdowns and electrical power outages.

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3.2 **Maintenance of the Facility**

- (a) The operational certificate holder must cause persons that are qualified and trained to operate, regularly inspect, and maintain the Facility, in good working order. If components of the Facility have a manufacturer's recommended maintenance schedule, then those components must, at a minimum, be maintained in accordance with that schedule.
- (b) The operational certificate holder must prepare documents of the qualification and training of the persons operating, inspecting and maintaining the Facility, and of Facility inspections, operation and maintenance.

3.3 **Facility Manager and Operator Certification**

- (a) The operational certificate holder must ensure that at least one person responsible for the management of the Facility is certified, and maintains certification, by The Solid Waste Association of North America (SWANA) as a Manager of Landfill Operations, and at least one person responsible for the operation of the Facility has, within the preceding five years, successfully completed the SWANA Landfill Operations Basics course, on or before the earlier of:
- (i) the date of commencement of waste discharge to the Original Lined Cell,
 - (ii) the date of commencement of waste discharge to the New Landfill,
- and at all times thereafter.
- (b) The operational certificate holder must prepare documents of the SWANA certification and training of the person(s) responsible for the management and operation of the Facility.

3.4 **New Leachate Management Works Classification and Operator Certification**

- (a) The operational certificate holder must have the New Leachate Management Works classified by the Environmental Operators Certification Program (EOCP), on or before the date of commencement of waste discharge to the New Landfill, and at all times thereafter.
- (b) The operational certificate holder must ensure that the person(s) responsible for the operation and maintenance of the New Leachate Management Works is(are) certified at an EOCP certification level equivalent to or higher than the EOCP classification level of the New Leachate Management Works, on or before the date of commencement of waste discharge to the New Landfill, and at all times thereafter.
- (c) The operational certificate holder must prepare documents of the EOCP classification level of the New Leachate Management Works and the EOCP certification level(s) of the person(s) responsible for the operation and maintenance of the New Leachate Management Works.

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3.5 Groundwater Quality

(a) The operational certificate holder must ensure that the Facility does not cause the concentration of any substance in groundwater flowing from the Facility site boundary to be greater than:

(i) the Contaminated Sites Regulation Generic Numerical Water Standards for Drinking Water (DW), for that substance,

or,

(ii) if the local background concentration of any substance is greater than (i), the local background concentration of that substance.

(b) If section 3.5(a)(ii) of this operational certificate is being used, the operational certificate holder must cause a Qualified Professional to determine the local background concentration of substance(s) in (a), in accordance with the latest approved version of Protocol 9 for Contaminated Sites, Determining Background Groundwater Quality, and include such determination(s) in the Annual Operations and Monitoring Report.

(c) The director may specify more stringent groundwater quality standards than those set out in this section.

3.6 Landfill Gas Management

The operational certificate holder must ensure that:

(a) The Facility does not cause:

(i) combustible gas concentrations to exceed the lower explosive limit of methane (5 percent by volume), or a lower concentration specified by the director, in soil at the Facility site boundary;

(ii) combustible gas concentrations to exceed 20 percent of the lower explosive limit of methane (1 percent by volume) in any building; and

(iii) federal, provincial, or local ambient air quality objectives and standards to be exceeded in air at the Facility site boundary.

(b) Landfill gas is managed in accordance with all migration and health and safety requirements.

3.7 Nuisance

The operational certificate holder must ensure that the Facility does not cause a nuisance including with regard to birds, rodents, insects, odour, noise, dust, litter, vector and wildlife attraction.

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The operational certificate holder must prepare documents of complaints with regard to matters relevant to this operational certificate, including environmental and nuisance complaints. These documents must include the source and nature of the complaint, actions, responses, and corresponding dates and times.

3.9 **Regulatory Documents**

(a) The operational certificate holder must retain all Regulatory Documents.

(b) The operational certificate holder must retain all Regulatory Documents for the last seven years at the Facility and such documents must be available for immediate inspection at the Facility by a director or an officer.

(c) If requested by a director or an officer, the operational certificate holder must submit the requested Regulatory Documents to the director or officer within 14 days of the request.

4. **SAMPLING REQUIREMENTS**

4.1 **Sampling Procedures**

The operational certificate holder must carry out required sampling in accordance with the procedures described in the "British Columbia Field Sampling Manual for Continuous Monitoring and the Collection of Air, Air-Emission, Water, Wastewater, Soil, Sediment, and Biological Samples, 2013 Edition (Permittee)" or most recent edition, or by alternative procedures as authorized by the director. A copy of the above manual is available on the Ministry web page at <https://www2.gov.bc.ca/gov/content/environment/research-monitoring-reporting/monitoring/laboratory-standards-quality-assurance>.

4.2 **Analytical Procedures**

The operational certificate holder must carry out required analyses in accordance with procedures described in the "British Columbia Laboratory Manual (2015 Permittee Edition)", or the most recent edition or by alternative procedures as authorized by the director. A copy of the above manual is available on the Ministry web page at <https://www2.gov.bc.ca/gov/content/environment/research-monitoring-reporting/monitoring/laboratory-standards-quality-assurance>.

4.3 **Quality Assurance**

(a) The operational certificate holder must obtain from the analytical laboratory(ies) their precision, accuracy and blank data for each sample set submitted by the operational certificate holder and an evaluation of the data acceptability, based on criteria set by such laboratory.

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- (b) The operational certificate holder must submit samples to analytical laboratory(ies) that meet the definition of a qualified laboratory under the Environmental Data Quality Assurance Regulation.
- (c) The operational certificate holder must collect, prepare and submit for analysis by the analytical laboratory(ies) quality control (QC) samples for each parameter. As a minimum,
 - (i) The number of QC samples should be 20% of all samples collected (environmental + QC samples) within 48 hours of each other, and
 - (ii) Include duplicate, field and trip blank samples for each parameter.

5. **REPORTING REQUIREMENTS**

5.1 **Routine Reporting**

The operational certificate holder must submit all routine Regulatory Documents required by this operational certificate by email to the Ministry's Routine Environmental Reporting Submission Mailbox at EnvAuthorizationsReporting@gov.bc.ca or as otherwise instructed by the director. For guidelines on how to properly name the files and email subject lines or for more information visit the Ministry website <http://www2.gov.bc.ca/gov/content/environment/waste-management/waste-discharge-authorization/data-and-report-submissions/routine-environmental-reporting-submission-mailbox>.

5.2 **Non-compliance Notification**

- (a) The operational certificate holder must immediately notify the director or designate by email at EnvironmentalCompliance@gov.bc.ca, or as otherwise instructed by the director of any non-compliance with the requirements of this authorization by the operational certificate holder and must take remedial action to remedy any effects of such non-compliance.
- (b) The operational certificate holder must provide the director with written confirmation of all such non-compliance events, including available test results within 24 hours of the original notification by email at EnvironmentalCompliance@gov.bc.ca, or as otherwise instructed by the director.

5.3. **Non-compliance Reporting**

- (a) If the operational certificate holder fails to comply with any of the requirements of this authorization, the operational certificate holder must, within 30 days of such non-compliance, submit to the director a written report that is satisfactory to the director and includes, but is not necessarily limited to, the following:
 - (i) all relevant test results obtained by the operational certificate holder related to the non-compliance,

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- (ii) an explanation of the most probable cause(s) of the non-compliance, and
- (iii) a description of remedial action planned and/or taken by the operational certificate holder to prevent similar non-compliance(s) in the future.

(b) The operational certificate holder must submit all non-compliance reporting required to be submitted under this section by email to the Ministry's Compliance Reporting Submission Mailbox at EnvironmentalCompliance@gov.bc.ca or as otherwise instructed by the director. For guidelines on how to report a non-compliance or for more information visit the Ministry website <http://www2.gov.bc.ca/gov/content/environment/waste-management/waste-discharge-authorization/data-and-report-submissions/non-compliance-reporting-mailbox>.

5.4 **Annual Operations and Monitoring Report**

(a) The operational certificate holder must cause a Qualified Professional to certify and submit an Annual Operations and Monitoring Report in a format suitable for public release, for the preceding calendar year, to the director on or before March 31 of each year. On or before March 31 of each year, the operational certificate holder must post a copy of the Annual Operations and Monitoring Report online, on a website accessible to the public, and in accordance with any requirements of the director.

(b) The Annual Operations and Monitoring Report must include the following information:
Operations Report:

- (i) Summary of OCP implementation that addresses the information in section 2.3(b), and summary of DOCP implementation that addresses the information in 2.5(b), of this operational certificate,
- (ii) Summary of construction report(s),
- (iii) Annual and cumulative tonnages and categories of waste including soil tonnage(s) and soil quality class(es) discharged to the Original Lined Cell and to the New Landfill,
- (iv) Remaining volume and life of the Original Lined Cell and of the New Landfill,
- (v) Summary of treated leachate effluent quantity and quality discharged to the treated leachate infiltration pond,
- (vi) Summary of complaints and nuisances and description of remedial action planned and/or taken by the operational certificate holder to prevent similar complaints and nuisances in the future,
- (vii) Summary of non-compliance notifications and non-compliance reporting and description of remedial action planned and/or taken by the operational certificate holder to prevent similar non-compliance(s) in the future ,
- (viii) Annual status form in accordance with the instructions and template at the ministry website <https://www2.gov.bc.ca/gov/content/environment/waste-management/waste-discharge-authorization/data-and-report-submissions/annual-status-form>
- (ix) Summary of OCP and DOCP implementation, and construction of Significant Works, planned for the next calendar year,

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Environmental Monitoring Plan Report:

- (x) Site plan(s), sampling locations, stormwater flow paths, groundwater elevations, gradients and flow directions,
- (xi) Sampling facilities, frequencies, substances, sampling and analytical procedures,
- (xii) Data including laboratory analysis and quality assurance and quality control results,
- (xiii) Data tabulation, trend analysis, graphs, diagrams, and interpretation,
- (xiv) Trigger level assessment plan monitoring, data, results and interpretation,
- (xv) Any determination(s) of the local background concentration of substance(s) in accordance with section 3.5 of this operational certificate,
- (xvi) Comparison of the data with the standards for treated leachate effluent discharge, stormwater quality, groundwater quality, and landfill gas management, specified in sections 1.2, 1.4, 1.5, 3.5 and 3.6 of this operational certificate, and identification of any non-compliance and predicted future non-compliance,
- (xvii) Results, conclusions, recommendations and changes to the environmental monitoring plan.

(c) The operational certificate holder must upload monitoring data associated with this operational certificate to the Ministry's Environmental Monitoring System (EMS) database, within 45 days of the end of the 3 month period in which the data is collected.

5.5 **Licence to Publish Documents**

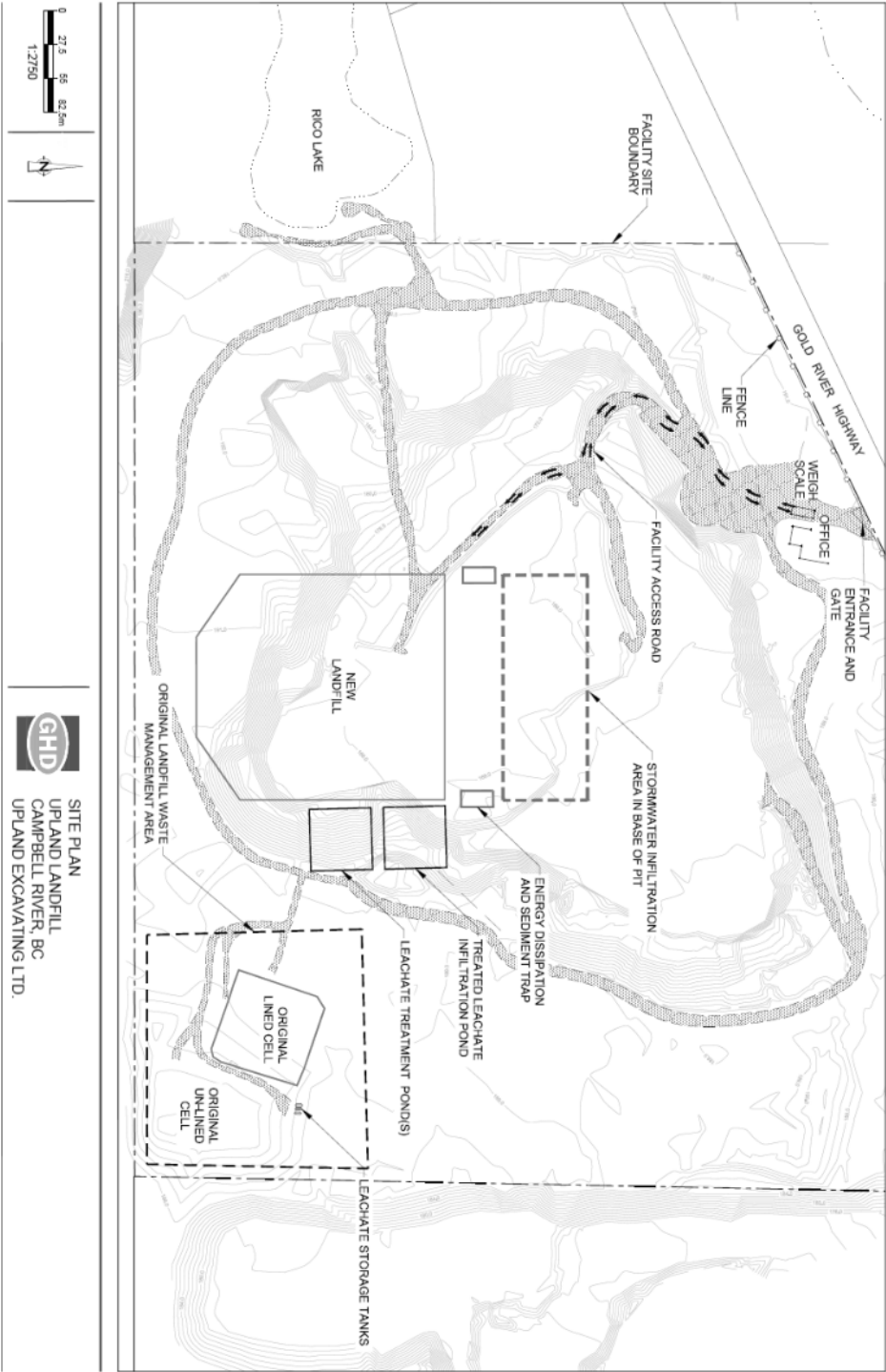
- (a) Subject to paragraph (b), the operational certificate holder authorizes the Province to publish on the Ministry of Environment and Climate Change Strategy website the entirety of any Regulatory Document.
- (b) The Province will not publish any information that could not, if it were subject to a request under section 5 of the *Freedom of Information and Protection of Privacy Act*, be disclosed under that Act.
- (c) The operational certificate holder will indemnify and save harmless the Province and the Province's employees and agents from any claim for infringement of copyright or other intellectual property rights that the Province or any of the Province's employees or agents may sustain, incur, suffer or be put to at any time that arise from the publication of a Regulatory Document.

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Site Plan A



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