



# **REGIONAL DISTRICT of Fraser-Fort George**

## **REQUEST FOR PROPOSALS ES-23-12**

### **Consulting Services for Design & Operations Plan Mackenzie Regional Landfill**

**Date Issued:** April 25, 2023

**Closing Location:** Regional District Office  
3<sup>rd</sup> Floor, 155 George Street,  
Prince George, BC V2L 1P8

**Closing Date and Time:** May 19, 2023  
**2:00 pm (Pacific Standard Time)**  
**No Public Opening**

**Inquiries:** Email Darwin Paton at [dpaton@rdffg.bc.ca](mailto:dpaton@rdffg.bc.ca)

**Note:** Late submissions will not be considered



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Request For Proposals  
ES-23-12  
Consulting Services  
Design & Operation Plan Mackenzie Regional Landfill

## **1.0 INTRODUCTION AND BACKGROUND**

- Introduction

The Regional District of Fraser-Fort George invites proposals from qualified firms to prepare a Design & Operations Plan for the Mackenzie Regional Landfill. The scope of the work involves integrating existing plans and studies associated with the continued operation and planning of the site into a single comprehensive plan, which will be utilized to ensure environmental compliant operations as well as identify and generate capital cost estimates for key long-term infrastructure projects required at the landfill.

The Regional District of Fraser-Fort George (Regional District) operates and owns the Mackenzie Regional Landfill (the Site), formally a Municipal Solid Waste Landfill. Since 2020 the Site has operated as a Demolition and Construction Select Waste Landfill. This site is located approximately 3 km south of the town of Mackenzie, (4.2 km south of the SW Corner of DL 12463 Cariboo Land District, UTM 55 18'17.5"N and 125 05'49.1"W).

Opened in 1974 the site covers approximately 8.2 ha with most of this area having been utilized. The site consists of an adjacent transfer station which includes a public drop-off area, materials recycling and materials exchange area. Situated on the landfill is a compostable materials area that accepts yard and garden waste only. There are currently five (5) active ground water monitoring wells located on site.

Location of the Site is shown on the location map attached.

- Background

Mackenzie Regional Landfill operations are carried out under a Landfill Operational Certificate #100206 issued by the Ministry of Environment on March 04, 2009. The permitted landfill area covers approximately 8.2 hectares, with most of this area having been utilized for either waste disposal or, adjacent to the site, the regional transfer station. On the eastern side is the soil cover borrow area. Since 2020 materials accepted for disposal at the landfill have been limited to demolition and construction waste and land clearing debris from the District of Mackenzie and surrounding areas.

Sources include residential, commercial, and industrial sources. The site is gated and staffed by the Regional District with set hours of operation. The landfill site now receives less than 1% of the regional solid waste stream.

The following documents have been identified as relevant for the purpose of this RFP:

1. Landfill Operational Certificate #100206 issued by the Ministry of Environment on March 04, 2009
2. 2021 Annual Report Mackenzie Regional Landfill
3. Mackenzie Landfill Property Boundary

The following documents have been identified as relevant to this facility which are to be embodied into the Design & Operations Plan:

1. Landfill Operational Certificate #100206 issued by the Ministry of Environment on March 04, 2009
2. Regional Solid Waste Management Plan, 2015
3. Mackenzie Landfill Design & Operations Plan, AGRA Earth and Environmental, 1995
4. 2021 Annual Report Mackenzie Regional Landfill



5. 2021 Annual Groundwater Monitoring Report Mackenzie Demolition and Construction Waste Landfill (SNC Lavalin, 2022)
6. The 2022 Site Volume Assessment and Posters
7. License of Occupation 705356 Mackenzie Landfill 2004 -2034
8. Mackenzie Landfill Property Boundary
9. Ground Water Monitoring Well logs
10. 2019 Geotechnical Report
11. MoECCS 2023 Compliance Inspection Report

- Documents

Documents will be made available to the successful bidder upon award of the contract.

## **2.0 INVITATION AND SUBMISSION INSTRUCTIONS**

### **2.1 Request for Proposals ("RFP") Documents:**

RFP Documents may be obtained on, or after the Issue Date as follows:

- a) in a PDF (Public Document Format) file format from the Regional District's website at [www.rdffg.bc.ca](http://www.rdffg.bc.ca) , or
- b) on the BCBid website @ [www.bcbid.gov.bc.ca](http://www.bcbid.gov.bc.ca).

All subsequent information regarding this RFP, including amendments, addenda and answers to questions will also be available as above.

It is the sole responsibility of the proponent to ascertain that they have received a full set of the RFP documents. Upon submission of their proposal, the proponent will be deemed conclusively to have been in possession of a full set of the RFP documents.

The lowest or any proposal will not necessarily be accepted. The Regional District reserves the right to accept or reject any or all proposals. Facsimile proposals and electronic proposals will **NOT** be accepted.

### **2.2 Proposal Submissions and Closing Date**

Proposals must be in English and must be submitted using the submission methods below. The submission must include a cover letter that identifies the RFP, identifies the Proponent and includes the signature of an authorized representative of the Proponent that confirms the Proponent's intent to be bound to the RFP process.

The Regional District will accept Proposals submitted by email or by delivery directly to the Regional District main office. All Proposals must be submitted to the Regional District's General Manager of Financial Services by 2:00 p.m. (local time) on May 19, 2023.

Proposals submitted by fax will **NOT** be accepted. Any Proposal received after the closing date and time will be considered disqualified and will be returned to the Proponent.

Submissions must be directly delivered to the Regional District in either:

- Email format with the Proposal attached to the email in a PDF, or equivalent, format and emailed to [purchasing@rdffg.bc.ca](mailto:purchasing@rdffg.bc.ca). The subject line should read "**ES-23-12 – Consulting Services, Design and Operations Plan, Mackenzie Regional Landfill - [Proponent Name]**", (The maximum file size able to be received by the Regional District is 35 MB); **or**
- Electronic format submitted on a USB readable device with the Proposal in a PDF, or equivalent, format; **or**



- Hard copy format with three (3) complete Proposal copies.

If submitting in a mail format (USB or hard copy), proponents should submit it in a sealed envelope with the following information written on the outside of the envelope containing the Proposal, as well as on the outside of the courier envelope (if sending by courier):

1. Attention: General Manager of Financial Services  
Regional District of Fraser-Fort George  
3<sup>rd</sup> Floor, 155 George Street, Prince George, BC V2L 1P8
2. Request for Proposals  
ES-23-12 – Consulting Services, Design and Operations Plan, Mackenzie Regional Landfill
3. Responding Proponent's name and address.

To be considered, proposals must be signed by an authorized signatory of the proponent. By signing the proposal, the proponent is bound to statements made in response to this RFP. Any proposal received by the Regional District that is unsigned will be rejected.

**Proposals not submitted in strict accordance with these instructions or not complying with the requirements in this RFP may be rejected.**

**The Regional District will not be responsible for any costs incurred by proponents as a result of the preparation or submission of a proposal pertaining to this RFP.** The accuracy and completeness of the proposal is the proponent's responsibility. Should errors be discovered, they will be corrected by the proponent at their expense.

The Regional District reserves the right to negotiate with any proponent at its discretion. The proponents will be competent and capable of performing the work. The proponent may be required to provide evidence of previous experience and financial responsibility before a contract is awarded.

## 2.3 Proponents Meeting

There will be no proponent's meeting for this RFP.

Questions relating to this RFP must be made in writing and emailed directly to the Project Manager:

Darwin Paton  
Environmental Services Technologist  
[dpaton@rdffg.bc.ca](mailto:dpaton@rdffg.bc.ca)

**Deadline for question submissions is 5:00 p.m. (local time) May 12, 2023.**

Those questions that are determined to be of a common interest to all potential proponents will be summarized and posted as Addendum(s) on the website.

## 2.4 Errors, Omissions, Clarifications

All questions and requests for clarification relating to the RFP process, and/or identification of any errors or omissions in the RFP documents, shall be made by email to Darwin Paton, Environmental Services Technologist, [dpaton@rdffg.bc.ca](mailto:dpaton@rdffg.bc.ca).



## **2.5 Regional District's Right to Reject Proposals**

The Regional District reserves the right, in its sole discretion, to waive informalities in proposals, reject any and all proposals, or accept the proposal deemed most favourable in the interests of the Regional District. The lowest, or any proposal, will not necessarily be awarded.

If a proposal contains a defect or fails in some way to comply with the requirements of this RFP, which, in the sole discretion of the Regional District, is not material, the Regional District may waive the defect or accept the proposal.

The Regional District reserves the right to reject a proposal based on potential or perceived conflict of interest.

The Regional District reserves discretion to reject any proposal where:

- a) one or more of the directors, officers, principals, partners, senior management employees, shareholders or owners of the proponent, is an officer, employee or director of the Regional District, or is a member of the immediate family of an officer, employee or director of the Regional District; or
- b) in the case of a proposal submitted by a proponent who is an individual person, where that individual is an officer, employee or director of the Regional District, or is a member of the immediate family of an officer, employee or director of the Regional District.

When submitting a proposal, the proponent is required to complete a Conflict of Interest Disclosure Statement (page 19).

The Regional District reserves the right to reject any proposal submitted by a proponent who is, or whose principals are, at the time of proposal, engaged in a lawsuit against the Regional District in relation to work similar to that being proposed.

## **2.6 Claim for Compensation**

No proponent shall have any claim for compensation of any kind whatsoever as a result of participating in this RFP.

In the event that the previous paragraph is found to be invalid by a court of competent jurisdiction, then this paragraph will apply. By submitting a proposal, a proponent agrees that they will not claim damages in excess of an amount equivalent to the reasonable costs incurred by the proponent in preparing their proposal for matters relating to this RFP or in respect of the competitive proposal process, and the proponent, by submitting a proposal, waives any claim for loss of profits if a contract is not entered into with the proponent.

## **3.0 PURPOSE**

The Regional District requires a Design & Operations Plan (D & O Plan) for the Mackenzie Regional Landfill to address current and future construction and demolition waste disposal, LFG management and environmental monitoring. The Design & Operations Plan is to provide:

- guidance on the available airspace being filled in the most efficient and environmentally sound way including descriptions of all principal design and operating practices at the landfill.
- assessment of LFG generation and guidance on managing LFG generation
- guidance on an appropriate environmental monitoring program.

The D & O Plan is intended to be a living document with updates and changes being incorporated as required due to changes in regulatory requirements and/or best management practices applicable to a



demolition and construction waste select landfill site. Recommendations in the 2015 Regional Solid Waste Management Plan are driving the development of the D & O Plan.

The D & O Plan should include existing fill, closure, post-closure, groundwater, landfill gas and surface water management aspects, and integrate and optimize current monitoring programs.

#### **4.0 SCOPE OF WORK**

The successful proponent will provide a Design & Operations Plan, including a report and drawings, which will present the finalized conceptual design for the entire Site. As the Plan is intended to be the master document for the Site it will accomplish the following:

- meet the requirements of the Landfill Operational Certificate issued in May 2009, by developing a Design & Operations Plan that provides and optimizes existing fill, closure, post-closure, landfill gas, groundwater, and surface water management plans, and embeds and optimizes current monitoring programs,
- conduct required assessments and/or reviews where no information exists,
- provide an operating manual for the site operator, (Regional District),
- identify any relevant aspects pertinent to potential future environmental impacts and liability, and
- identify key infrastructure elements/projects associated with the continued Site operation, expansion, progressive closure and post-closure activities.

#### **5.0 PROPOSAL FORMAT**

Proponents are asked to respond in a similar manner. The following format and sequence should be followed in order to provide consistency in proponent response and to ensure each proposal receives full and complete consideration. All pages should be consecutively numbered.

- a. Title Page, including RFP title and number, proponent's name and address, telephone number, fax number, email address and contract representative.
- b. One (1) page letter of introduction signed by the person or persons authorized to sign on behalf of the proponent which will bind the proponent to statements made in the proposal.
- c. Table of Contents including page numbers.
- d. An Executive Summary of the key features of the proposal.
- e. The body of the proposal, including pricing, i.e. the "Proponents Response".
- f. Workplan including methodology, start date, milestones, and completion date.
- g. Three (3) references that may be contacted for purposes of confirming your company's experience.
- h. Additional information that a proponent may choose to provide.
- i. **All amendments and addenda, if any, issued for this RFP. Each amendment and addenda should be signed by the Proponent and should be included with the Proposal and will form part of the Proposal and Contract.**





## **6.0 PROPONENT INFORMATION**

### **6.1 Qualifications and Experience**

The successful proponent will have at least five (5) years' experience as a bona fide prime consultant in the business of solid waste management, landfill gas management, and landfill site engineering for local government. Proponents will submit evidence of previous successful performance in comparable work.

Proponents will provide complete information on experience of key personnel to be involved in the Design & Operations Plan and references from work on similar projects.

Proponents may be required to submit evidence of their resources and their ability to carry out the work in their respective submissions.

**This RFP encourages proponents to demonstrate their experience, technical expertise and creativity in the area of short and long-term landfill site development.**

### **6.2 Key Personnel**

The successful Proponent will be required to maintain key members of the project team as proposed throughout the term of the Contract including, but not limited to the team lead, key staff and sub-consultants. Any proposed change to the project team must be agreed upon in writing by the Regional District. The proponent must include a minimum of three (3) references complete with contact information in the proposal for projects similar to the Design & Operations Plan. A brief description of the project completed for each reference should be provided.

### **6.3 Professional Responsibility**

Only qualified and experienced engineering professionals will be considered for this project. The successful proponent will be expected to provide services in accordance with a standard care, skill, and diligence maintained by a person (or firm) providing the services described herein. The successful proponent will be required to seal all documents issued for this project.

## **7.0 PROPOSAL EVALUATION**

### **7.1 Proposal Evaluation**

All Proposals will be evaluated by the Regional District to assess the qualifications and capabilities of Proponents to meet the minimum standards specified in the RFP. Proposals will be assessed by a committee formed by the Regional District.

### **7.2 Selected Proponent Negotiations**

The Regional District, in its sole discretion, may enter into contract negotiations with a selected Proponent, or Proponents, based only on the evaluation of the written Proposal(s), and/or an evaluation of the combination of the written Proposals and/or detailed discussions.

The Regional District may enter into negotiations with any Proponent without requiring any other Proponents to make any presentations or require any other Proponents to enter into detailed discussions with the Regional District.

This Regional District may continue to use the successful proponent for successive phases of this project.

### **7.3 Termination of Negotiations and/or RFP Process**

The Regional District may terminate contract negotiations with any Proponent and enter into contract negotiations with any other Proponent if, in the opinion of the Regional District at any time,





the contract negotiations with the initially selected Proponent will not be satisfactorily completed in the best interests of the Regional District. The Regional District may, in its sole discretion, reject any or all Proposals at any time throughout the Proposal evaluation, Proponent selection, or contract negotiation process.

#### 7.4 Compliance with RFP Requirements

All terms and conditions of this RFP are assumed to be accepted by the Proponent and incorporated in its Proposal.

All items in the Proposal that are **not** in full compliance, or that vary from the specific requirements, should be clearly identified in the Proposal as non-compliant and/or variant, and should include specific reference to the relevant section in this RFP and the precise nature of the variance or non-compliance. Non-compliance or variances with the specific RFP requirements will not necessarily result in rejection of a Proposal.

The acceptance or rejection of all non-compliant items, and/or variances to the RFP requirements, will be in the sole discretion of the Regional District, without any obligation by the Regional District to either request clarifications, enter detailed discussions, or negotiations with the Proponent(s).

### 8.0 **SELECTION AND EVALUATION**

#### 8.1 Selection Criteria

The following are the criteria and the percentage of the total score for each criterion that will be used by the Regional District to select a Proponent. The list of criteria is not in any particular order of priority. The Regional District, in its sole judgment, will base the selection of a successful Proponent on a combination of the criteria.

##### Evaluation Criteria

<b>ES-23-12 – Design and Operations Plan Mackenzie Regional Landfill</b>	
<b>EVALUATION CRITERIA</b>	<b>WEIGHT</b>
Proposal Quality & Clarity	5
Understanding of Engagement	10
Proponent/Team Qualifications and Experience	20
Workplan Approach Methodology and Timeline / Proposed Solution	25
Experience with Local Government in similar projects in a rural, regional and climate context	15
References	10
Proposed All-Inclusive Fees	15
<b>Total</b>	<b>100</b>

Additional information regarding the evaluation criteria is as follows:

- a) Understanding of Engagement
  - i. The Proposal should demonstrate a clear and coherent understanding of the Regional District's requirements and needs.
  - ii. Indicate why you are interested in the Regional District as a client.
  - iii. Demonstrate understanding of Regional District structure and governance.



- b) Proponent/ Team Qualifications and Experience
  - i. Provide overview of Proponent's history and current leadership team.
  - ii. Provide details of Proponent's experience and team members experience with clients of similar size and complexity.
  - iii. Provide information on how the Proponent ensures their staff is up to date with requirements pertaining to the project.
  - iv. Provide examples of value-added services provided by the Proponent to its clients.
  - v. Provide resumes of proposed team members.
  - vi. Provide detailed information on any partners / sub-contractors the Proponent intends to use.
  - vii. Provide details regarding the Proponent's business continuity planning and pandemic response and how it could be utilized for this engagement if necessary.
- c) Workplan Approach, Methodology and Timeline
  - i. A statement of understanding of the services to be performed and the ability and commitment to fulfil the responsibilities as described.
  - ii. Details of proposed methodology to complete the project, including approach to stakeholder consultation and any fieldwork and the timing and duration of each.
  - iii. Detail the expected time required of Regional District staff based on the proposed workplan.
  - iv. Provide options for additional phases of work.
  - v. Provide details of any additional and/or value-added services that may be of benefit to the Regional District both within the project budget cap and additional optional elements.
  - vi. Details of the corporate Communicable Disease Plan and measures to be implemented to mitigate the risk of transmission for the purpose of this project.
- d) Experience with Local Government in similar feasibility study projects including references
  - i. Provide details of Proponent's experience undertaking similar feasibility projects for local governments of similar size and scope and in similar location.
  - ii. Outline specific local government expertise on the proposed team.
  - iii. Proponents should identify a minimum of three (3) local government references for which the Proponent has performed similar services in the last five (5) years, complete with the name of the Project Manager for the organization and their contact information.
- e) Proposed All-Inclusive Fees
  - i. Provide all-inclusive pricing information relative to performing the project. This price should be inclusive of all direct and indirect costs, including out of pocket expenses.
    - Include the pricing for each stage of the workplan.
  - ii. Provide an estimate of the total number of person hours required to provide services.
  - iii. Provide hourly rates for each category of staff for additional work.
  - iv. Provide pricing structure (hourly rates or lump sum) for special projects or additional value-added services beyond the scope of this project.

## **9.0 CONTRACT**

### **9.1 Form of Contract**

The proponent will be required to enter into a service agreement prior to commencing work and subject to negotiation between the Regional District and the Proponent. The contract will include this RFP, Conflict of Interest Disclosure Statement, all appendices, amendments and addenda, as well as the successful Proponent's submission.

The successful Proponent will also have to meet the following requirements:

- Be compliant with BC Occupational Health and Safety statutes and supply



documentation supporting such.

- Meet a number of insurance provisions including Commercial General Liability in an amount of at least \$5,000,000 and appropriate owned and non-owned automobile insurance coverage if automobile use is required.
- All materials produced will become the exclusive property of the Regional District.

## **9.2     Notification**

Approval of a proponent and the award of a Contract is expected to occur by May 19<sup>th</sup>, 2022. The Regional District, in its sole judgment, may delay the award of Contract date as deemed appropriate by the Regional District.

## **10.0    CONTRACT PRICE**

All prices for the work are to be Canadian dollars. Taxes are considered extra to the project budget cap and should be shown as separate line item. Any applicable Federal or Provincial taxes, or levies, must be included in the Total Contract Price.

## **11.0    WORK PLAN AND PROJECT SCHEDULE**

The proponent will propose a work schedule. For the purpose of scheduling, the project will need to be completed no later than October 31, 2023. Earlier completion dates are acceptable.

Proponents will be required to provide a workplan detailing a schedule of project tasks, milestones, the sequence of task occurrence, and details concerning implementation and completion dates for each task, work efforts and timelines. The Regional District of Fraser-Fort George requires the successful proponent to provide a draft of the Design & Operations Plan with final conceptual and/or pre-design cost estimates no later than September 30, 2023. Revised conceptual capital cost estimates for the infrastructure projects identified as part of this plan are to be included in the final plan.

## **12.0    DOCUMENTS**

The successful proponent will be required to provide all documents to the project to the Regional District in hard copy and an electronic format. All design drawings will be in an AutoCAD 2010 or higher format. All text documents will be in Microsoft Word format.

The successful proponent will be provided with the documents listed under Section 1.0 and is expected to return these documents to the Regional District at the conclusion of the project.

## **13.0    FACILITY OPERATING HOURS**

Summer operating hours of the Mackenzie Regional Landfill are Monday to Friday 9:00 a.m. to 5:00 p.m., Saturday and Sunday 9:00 a.m. to 1:00 p.m.

## **14.0    PROJECT MANAGER**

All questions concerning RFP ES-23-12 – Consulting Services – Design & Operations Plan – Mackenzie Regional Landfill, are to be directed to the Project Manager.

Darwin Paton, Environmental Services Technologist  
Regional District of Fraser-Fort George  
Telephone: 250-960-4400  
Fax: 250-562-8676     Email: [dpaton@rdffg.bc.ca](mailto:dpaton@rdffg.bc.ca)



## **APPENDICES**

Appendix A – Conflict of Interest Disclosure Statement  
Appendix B - Mackenzie Location Map  
Appendix C - Mackenzie Site Volume Estimates  
Appendix D - Mackenzie Landfill Operational Certificate



**Appendix “A”**  
**CONFLICT OF INTEREST DISCLOSURE STATEMENT**

RFP ES-23-12  
Consulting Services  
Design & Operations Plan – Mackenzie Regional Landfill

Proponent Name: \_\_\_\_\_

The Proponent, including its officers, employees, and any person or other entity working on behalf of or in conjunction with, the Proponent on this Procurement Process:

- ☐ is free of any conflict of interest that could be perceived to improperly influence the outcome of this procurement process.
- ☐ has not, and will not, participate in any improper procurement practices that can provide the Proponent with an unfair competitive advantage including obtaining and using insider type information to prepare a solicitation offer or participating in bid rigging.
- ☐ has an actual, perceived or potential conflict of interest regarding this procurement process as a result of:

State reason(s) for Conflict of Interest:

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By signing below, I certify that all statements made on this form are true and correct to the best of my knowledge.

\_\_\_\_\_  
Print Name of Person Signing Disclosure

\_\_\_\_\_  
Authorized Representative of:

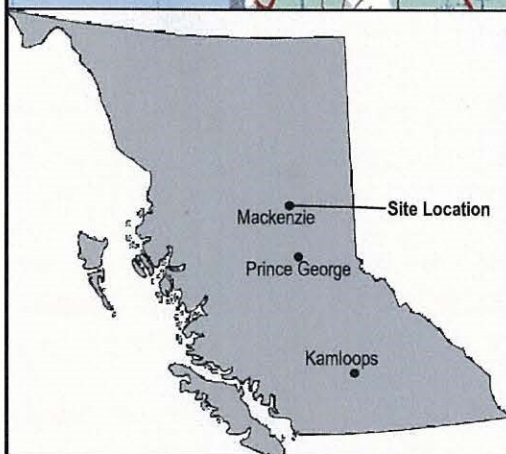
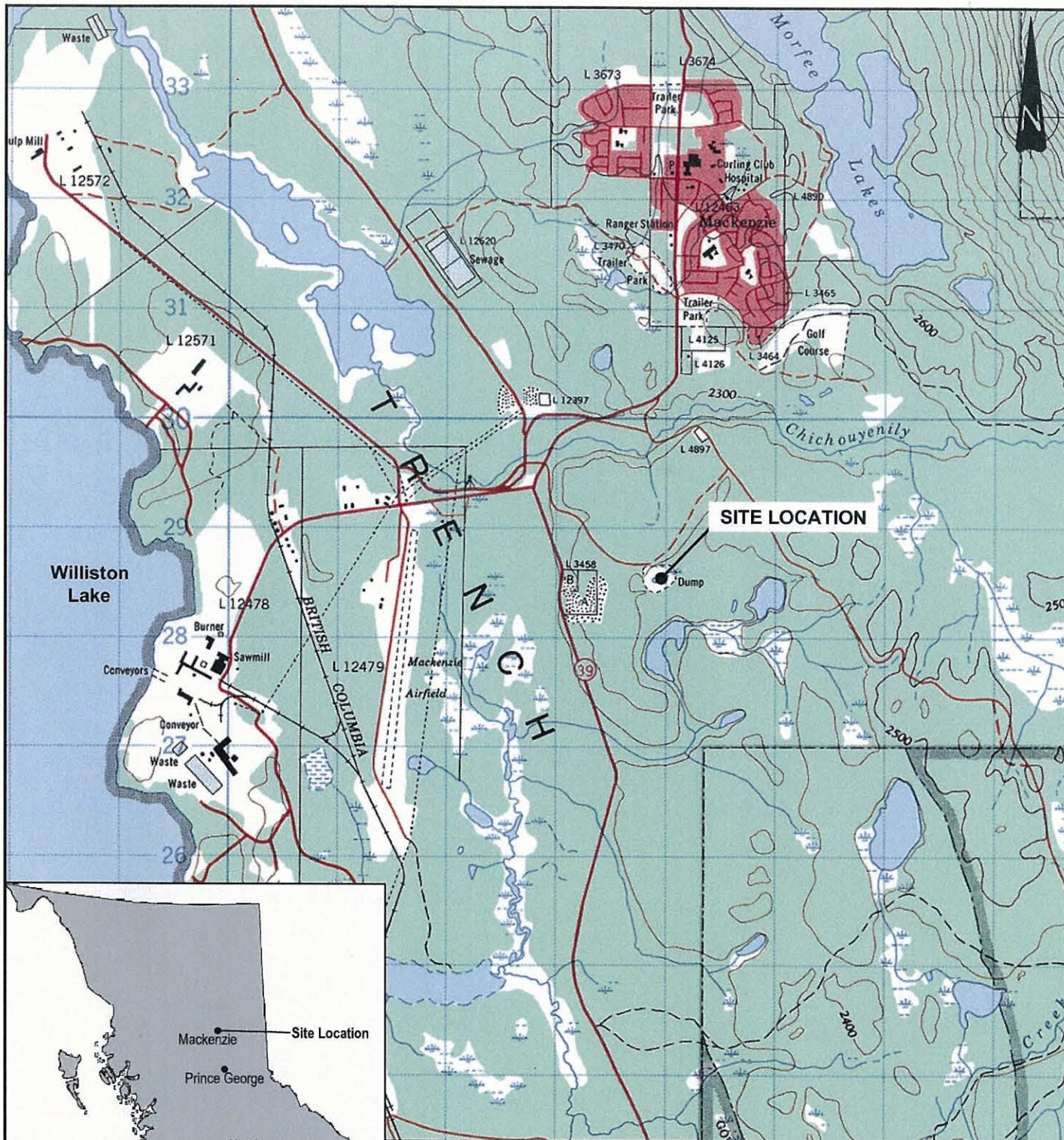
\_\_\_\_\_  
Signature of Person Making Disclosure

\_\_\_\_\_  
Date Signed

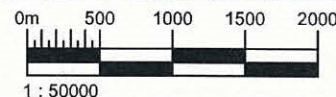


**Appendix “B”**  
**MACKENZIE LOCATION MAP**





Note: Image provided by Spectrum Digital  
Mapping NTS map sheet 9306  
(1981 Edition 2, contour interval 100')



<p>TITLE</p> <p><b>SITE LOCATION PLAN</b></p>	<p>CLIENT</p> <p><b>REGIONAL DISTRICT of Fraser-Fort George</b></p>	<p>DWN BY: S.Ruiz</p> <p>CHK'D BY: K.Fairweather</p> <p>PROJECTION: UTM Zone 10</p> <p>DATUM: NAD27</p> <p>REV. NO.: A</p> <p>SCALE: 1:50 000</p> <p>DATE: MARCH 2010</p> <p>PROJECT NO: KX05106</p>
<p>PROJECT</p> <p><b>MACKENZIE REGIONAL LANDFILL, MACKENZIE, BC</b></p>		<p>FIGURE 3</p>





**Appendix “C”**  
**MACKENZIE SITE VOLUME ESTIMATES**

## Annual Tonnage Mackenzie Regional Landfill

Year	Tonnage (*est)										
1995	4,700		Source: Mackenzie Landfill, Interim Operations Plan, AGRA, December 12, 1995								
1996	5,000										
1997	5,000										
1998	5,000										
1999	5,000										
2000	5,000										
2001	5,000										
2002	5,000		Source: Mackenzie Landfill, Interim Operations Plan, AGRA, December 12, 1995								
2003	5,000										
2004	5,000										
2005	5,000										
2006	5,000		Extrapolated estimate								
2007	7,107		Source: Scale Reords								
2008	7,033										
2009	7,033										
2010	7,033										
2011	7,033										
2012	7,033		Source: RDFFG Annual Report/scale avg								
2013	6,325		Source: RDFFG Annual Report								
2014	7,778		Source: RDFFG Annual Report								
2015	7,063		Source: RDFFG Annual Report								
2016	6,892		Source: RDFFG Annual Report								
2017	6,117		Source: RDFFG Annual Report								
2018	6,645		Source: RDFFG Annual Report								
2019	6,439		Source: RDFFG Annual Report								
2020	779		Changed to a Transfer station. All MSW transported to FBRLF. DLC buried on site								
2021	1,429		Source: RDFFG Annual Report								

**Red** estimated

**Black** actual

Note: Estimate for residential tonnage drop off based on population and 1 tonne per capita as follows; 2007 thru 2016 3,855 tonnes.

From 1996 to 2012 based on population and 0.76 tonnes per capita 4,700 tonnes, excluding 2007

In 2020 the site began operations as a trasnsfer station with a select only DLC area.



**Appendix “D”**  
**MACKENZIE LANDFILL OPERATIONAL CERTIFICATE**

MINISTRY OF ENVIRONMENT

OPERATIONAL CERTIFICATE

100206

*Under the Provisions of the Environmental Management Act  
and In accordance with the  
Regional District of Fraser-Fort George  
Solid Waste Management Plan*

Regional District of Fraser-Fort George

155 George Street

Prince George, British Columbia

V2L 1P8

is authorised to manage recyclable material and municipal solid waste at a sanitary landfill located 4.2 km south of Mackenzie, British Columbia, subject to the conditions listed below. Contravention of any of these conditions is a violation of the *Environmental Management Act* and may result in prosecution.

1. LOCATION OF AUTHORISED FACILITY

The location of the facility for the management of recyclable material and municipal solid wastes to which this Operational Certificate is applicable is the Mackenzie Regional Landfill, covering all unsurveyed Crown Land in the vicinity of District Lot 3458, Cariboo District, containing 16.73 hectares, more or less. The Crown Licence of Occupation for the site is #705356.

2. ENTRANCE FACILITIES

The authorised facility includes recyclable material and municipal solid waste drop-off facilities, weigh scales and related appurtenances approximately as shown on attached Site Plan A.

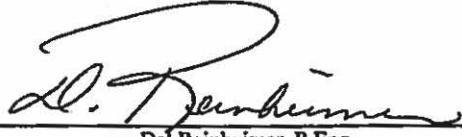
3. MANAGEMENT OF MUNICIPAL SOLID WASTE

3.1. Sanitary Landfill

3.1.1. The authorised facilities are a sanitary landfill area, recyclable material storage areas and related appurtenances approximately as shown on the attached Site Plan. The site reference number for the discharge is E211576.

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3.1.2. The characteristics of the discharge must be municipal solid waste as defined under the *Environmental Management Act* and other wastes as approved in writing by the Director.

3.1.3. Waste may be discharged to the areas specified in the Regional District's Design and Operation Plan, approximately located as shown on attached Site Plan A.

4. **GENERAL REQUIREMENTS**

4.1. **Qualified Professionals**

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

4.2. **Plans**

4.2.1. The Regional District shall prepare a Design and Operation Plan that will include considerations for site operation, development and closure, leachate and landfill gas management, composting operations, monitoring programs and environmental impact mitigation management.

The Design and Operation Plan must be submitted to the Director by May 15, 2009.

4.2.2. The Design and Operation Plan must address, but not be limited to, each of the subsections in the *Landfill Criteria for Municipal Solid Waste* including performance, siting, design, operational and closure and post-closure criteria.

4.2.3. The facilities must be developed and operated in accordance with the Design and Operation Plan.


4.2.4. Any updates to the plan shall be immediately submitted to the Director.

4.3. **Additional Facilities or Works**

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

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5. OPERATIONAL REQUIREMENTS

5.1. Non-Compliance Reporting

The Regional District shall immediately notify the Regional Manager, Environmental Protection, or designate by facsimile (250-565-6629) of any non-compliance with the requirements of this Operational Certificate and take appropriate remedial action.

Written confirmation of all non-compliance events, including available test results, is required by facsimile within 24 hours of the original notification unless otherwise directed by the Regional Manager, Environmental Protection.

5.2. Operator Training and Development

At a minimum, the Regional District will ensure that operating personnel are trained to industry standards and current in a SWANA recognized landfill operator course or equivalent.

5.3. Electric Fencing

Areas where putrescible materials are stored or discharged shall be surrounded by an electric fence.

5.3.1. Design, Construction and Maintenance

The electric fencing shall be designed, constructed, and maintained such that bears are prevented from penetrating the fence. The Director shall be advised of any modifications to the fence.

5.3.2. Operating Period

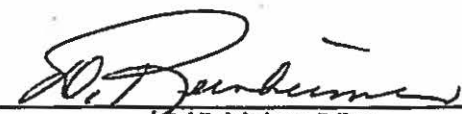
The electric fence shall be fully operational during the period of April 15 to November 15 inclusive each year. If snow is present during this period, any electrified strands above snow line shall be isolated from the remainder of the system and energised. The Director may vary the operating period with prior written authorisation.

5.3.3. Record Keeping and Reporting

The Regional District is required to monitor wildlife (medium and large carnivores) activity at the facility and keep records of occurrences and observations of wildlife (medium and large carnivores).

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5.4. Compost

Composting facilities shall be operated and maintained in accordance with the *Organic Matter Recycling Regulation*.

5.5. Landfill Gas

Landfill gas shall be managed in accordance with the *Landfill Gas Management Regulation*.

5.6. Leachate

The characteristics of the surface water and groundwater at the property boundary must not exceed concentrations set in the *British Columbia Approved Water Quality Guidelines (Criteria)* and *A Compendium of Working Water Quality Guidelines for British Columbia*. Where natural background water quality concentrations exceed the aforementioned guidelines, characteristics of the surface water and groundwater at the property boundary must not exceed background concentrations.

6. HAZARDOUS WASTE MANAGEMENT

6.1. Hazardous Waste

"Hazardous Wastes" as defined by the *Hazardous Waste Regulation* pursuant to the *Environmental Management Act* are prohibited from disposal unless expressly authorised by the *Hazardous Waste Regulation*, approved by the Director or as specified in the Operational Certificate.

6.2. Waste Asbestos

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

6.2.1. The asbestos waste may not be mixed with any other hazardous waste.

6.2.2. The Regional District must approve the disposal before disposal takes place.

6.2.3. All other applicable requirements of the *Hazardous Waste Regulation*, including but limited to manifesting and waste record keeping, must also be complied with.

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6.3. Handling of Impacted Soil

The *Environmental Management Act*, the *Contaminated Sites Regulation* and the *Hazardous Waste Regulation* are applicable for the disposal of impacted (contaminated) soil at the facility.

6.4. Hazardous Wastes from Accidental Spills or Abandonment

Hazardous wastes resulting from accidental spills or abandonment of dangerous goods may be accepted at the facility only under the authority of Section 52(1) of the *Hazardous Waste Regulation*.

7. MONITORING

7.1. Monitoring Program

7.1.1. A monitoring program shall be developed by a qualified professional to identify potential impacts to the environment and public health from the facility.

7.1.2. The monitoring program shall be submitted as part of the Design and Operation Plan.

7.1.3. The monitoring program must address, but not be limited to, subsections 4.1, 4.2 and 7.15 of the *Landfill Criteria for Municipal Solid Waste* and the *Guidelines for Environmental Monitoring at Municipal Solid Landfills*.

7.1.4. Monitoring must be conducted in accordance with the monitoring program.

8. REPORTING

All reports and drawings shall be submitted in electronic format unless otherwise requested by the Director.

8.1. Drawings

All drawings shall be certified correct and sealed by a qualified professional. Drawings shall be submitted to the Director within 30 days of completion or as otherwise specified by the Director.


8.2. Annual Report

The Regional District shall submit an Annual Report to the Director on or before June 30 each year for the previous calendar year.

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The report shall contain, but not be limited to the following information:

- i.) an executive summary;
- ii.) the type and tonnage of waste received, recycled and landfilled for the year;
- iii.) a current topographic map detailing airspace consumption, on-site borrow pit changes and future developments;
- iv.) updated estimates for the remaining capacity, closure date for the current phase and closure date for the current landfill footprint;
- v.) any new information or proposed changes relating to the facilities and Design and Operation Plan;
- vi.) composting operation activity including amount of material received for composting, material composted, material sold and number of composting cycles;
- vii.) occurrences or observations of wildlife (medium and large carnivores) at the facility;
- viii.) a statement regarding the facility's progress in reducing the regional solid waste stream, in accordance with the hierarchy of reduce, reuse and recycle principles; and,
- ix.) the results of all monitoring programs as specified in this Operational Certificate. Data interpretation and comparison to the performance criteria in the *Landfill Criteria for Municipal Solid Waste* and the *Guidelines for Environmental Monitoring and Municipal Solid Waste Landfills*. Trend analysis, as well as an evaluation of the impacts of the discharges on the receiving environment in the previous year shall be carried out by a qualified professional.

#### 9. CLOSURE PLAN

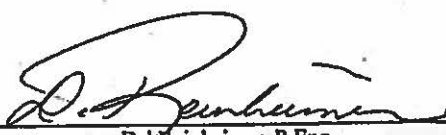
At least one year in advance of decommissioning the landfill, or as otherwise specified by the Director, a Closure Plan shall be submitted which includes at least the following information:

- i) a topographic plan showing the final elevations contours of the landfill and surface water diversion and drainage controls;
- ii) specifications for the final cap and proposed end use of the site; and,

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- iii) provisions for a minimum 25 year post-closure care period at the facility which, at a minimum, considers the following: groundwater monitoring, surface water monitoring, landfill gas management, erosion and settlement monitoring and management.


10. CLOSURE AND POST-CLOSURE FUND

The Regional District will conform to the Public Sector Accounting and Auditing Board's requirements (PS 3270) to recognize solid waste landfill closure and post-closure liability. The Regional District will develop a plan to ensure that sufficient funds are available for closure and post-closure care work.

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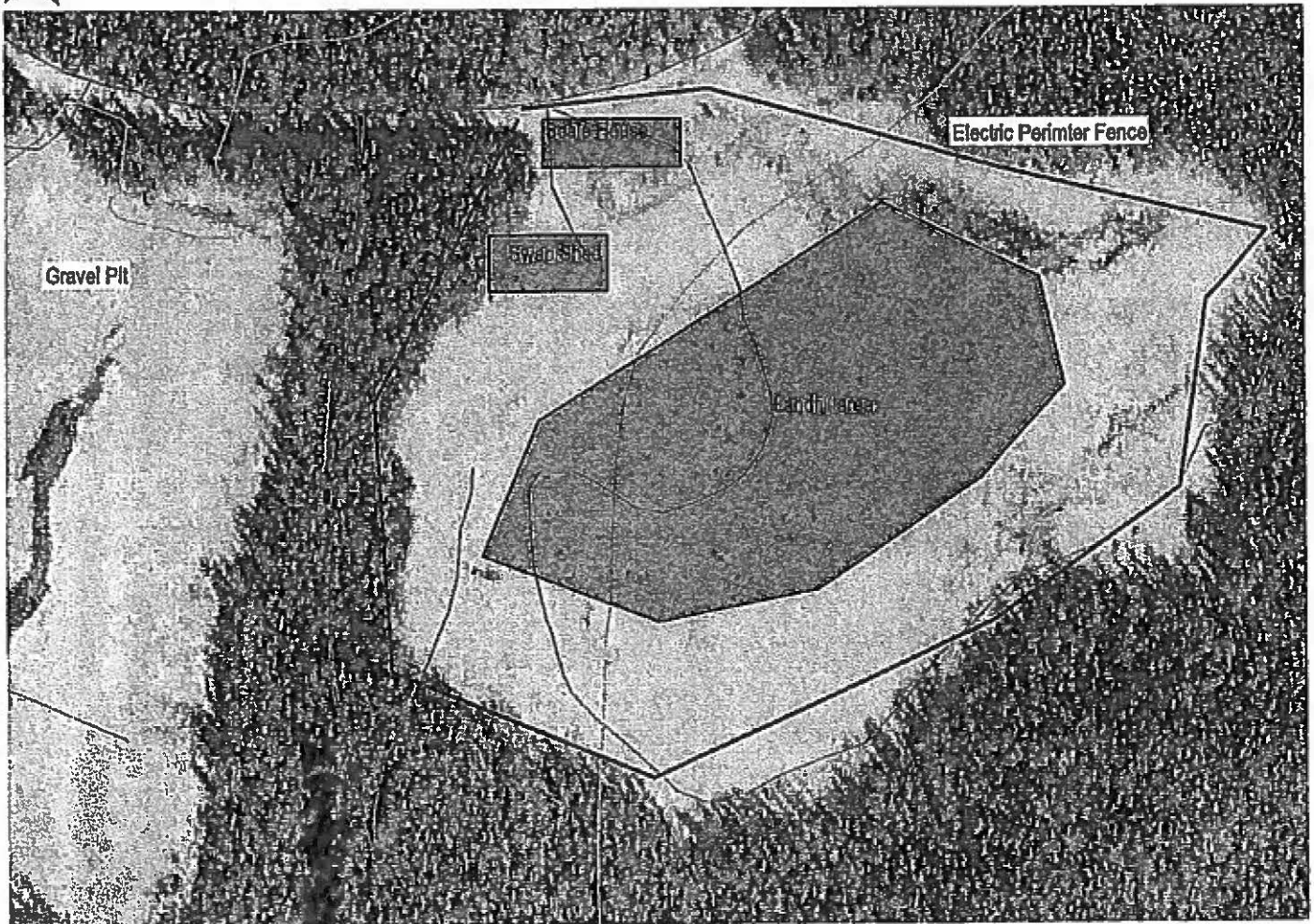
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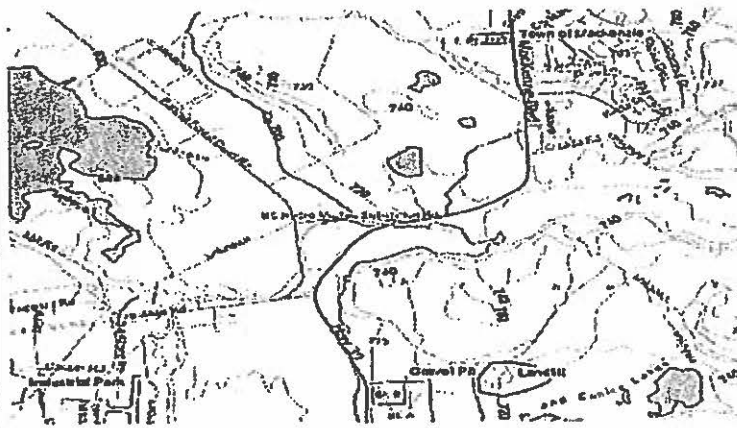
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## SITE PLAN A



Location Map



Not to Scale

Operational Certificate 100206

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