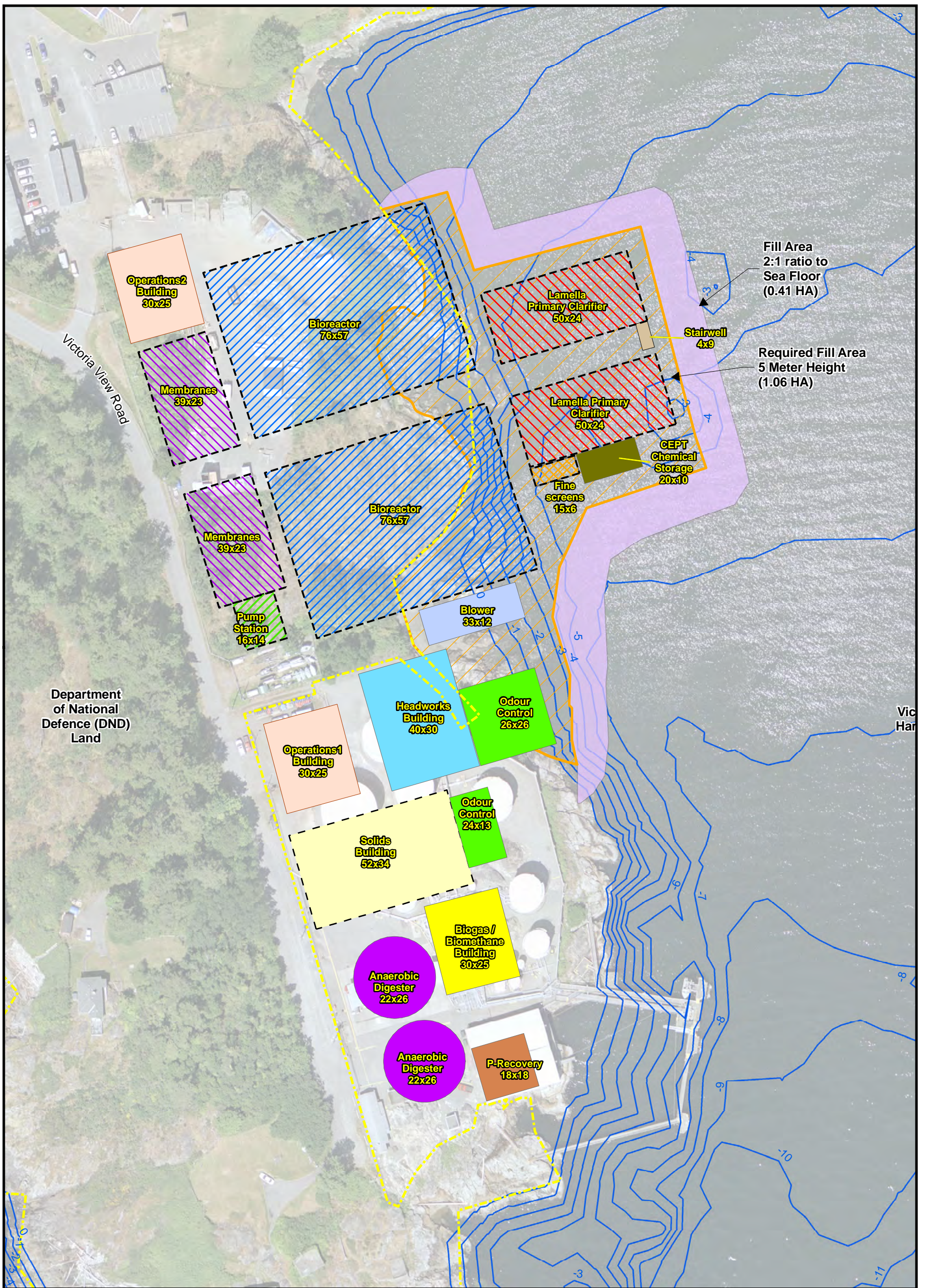


## APPENDIX A - Conceptual Facility Layout Drawings



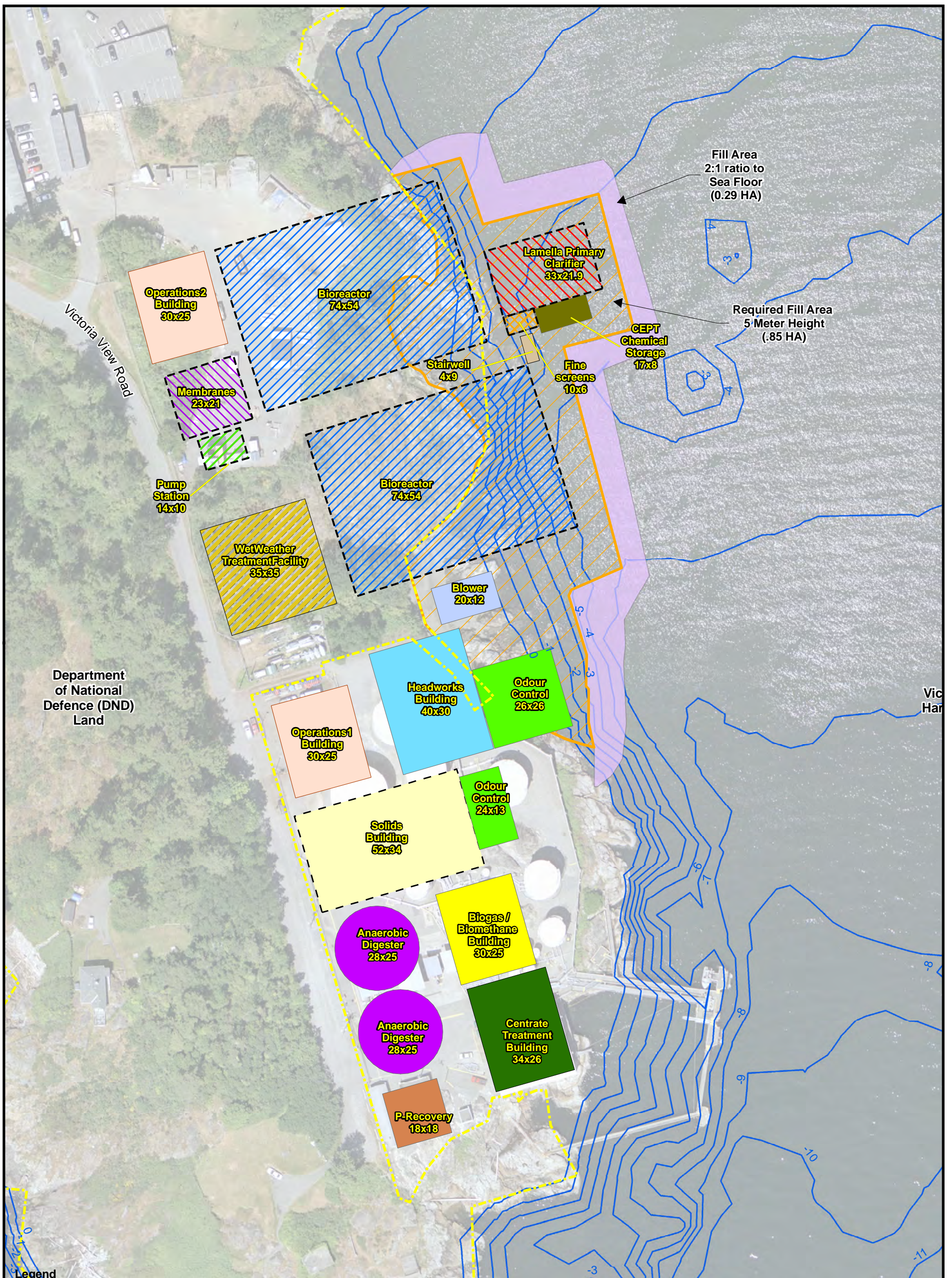
Fill Area  
2:1 ratio to  
Sea Floor  
(0.41 HA)

Required Fill Area  
5 Meter Height  
(1.06 HA)

Department  
of National  
Defence (DND)  
Land

<b>Legend</b>			
DND Boundary	Above Ground Facilities	Anaerobic Digester	Source: CRD 2008 Projection: UTM Zone 9N Datum: NAD83 Created February 24, 2009
Bathymetric Contours (1 meter)	CEPT Chemical Storage	Odour Control	
<b>Underground Facilities</b>	P-Recovery	Operations Building	<p><b>Option 1: McLoughlin Point Liquid &amp; Solids Treatment Facilities</b></p> <p>CRD Core Area Wastewater Management Program Distributed Wastewater Management Strategy</p> <p><b>CH2MHILL</b></p>
Lamella Primary Clarifier	Blower	Solids Building	
Bioreactor	Headworks Building	Stairwell	
Membranes	Biogas / Biomethane Building		
Fine screens			
Pump Station			

0 15 30 60m.



Fill Area  
2:1 ratio to  
Sea Floor  
(0.29 HA)

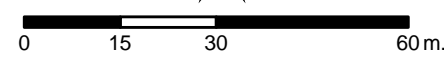
Required Fill Area  
5 Meter Height  
(.85 HA)

Department  
of National  
Defence (DND)  
Land

**Legend**

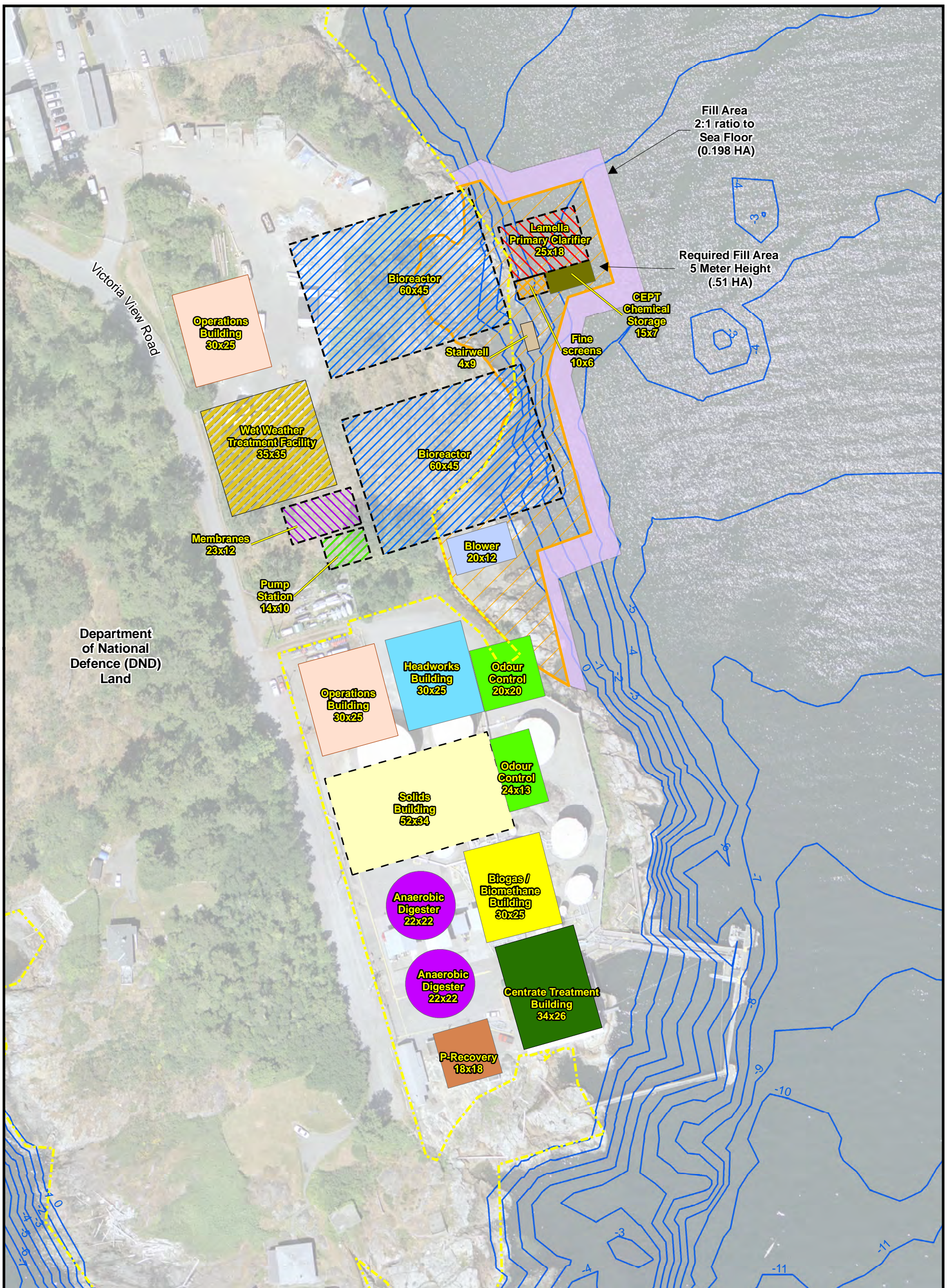
- |  |                                  |
|--|----------------------------------|
| — Bathymetric Contours (1 meter)                 | <b>Above Ground Facilities</b>   |
| - - - DND Boundary                               | ■ CEPT Chemical Storage          |
| ▨ Required Victoria Harbour Fill Area            | ▨ Wet Weather Treatment Facility |
| ■ Fill area from 5 meters above msl to sea floor | ■ Blower                         |
| <b>Underground Facilities</b>                    | ■ Headworks Building             |
| ▨ Lamella Primary Clarifier                      | ■ Biogas / Biomethane Building   |
| ▨ Bioreactor                                     | ■ Anaerobic Digester             |
| ▨ Membranes                                      | ■ Odour Control                  |
| ▨ Fine screens                                   | ■ Operations Building            |
| ▨ Pump Station                                   | ▨ Solids Building                |
|  | ■ Stairwell                      |
|  | ■ Centrate Treatment Building    |
|  | ■ P-Recovery                     |

Source: CRD 2008  
Projection: UTM Zone 9N  
Datum: NAD83  
Created February 24, 2009



**Option 2:  
McLoughlin Point Liquid  
& Solids Treatment Facilities**

CRD Core Area Wastewater Management Program  
Distributed Wastewater Management Strategy  
**CH2MHILL**



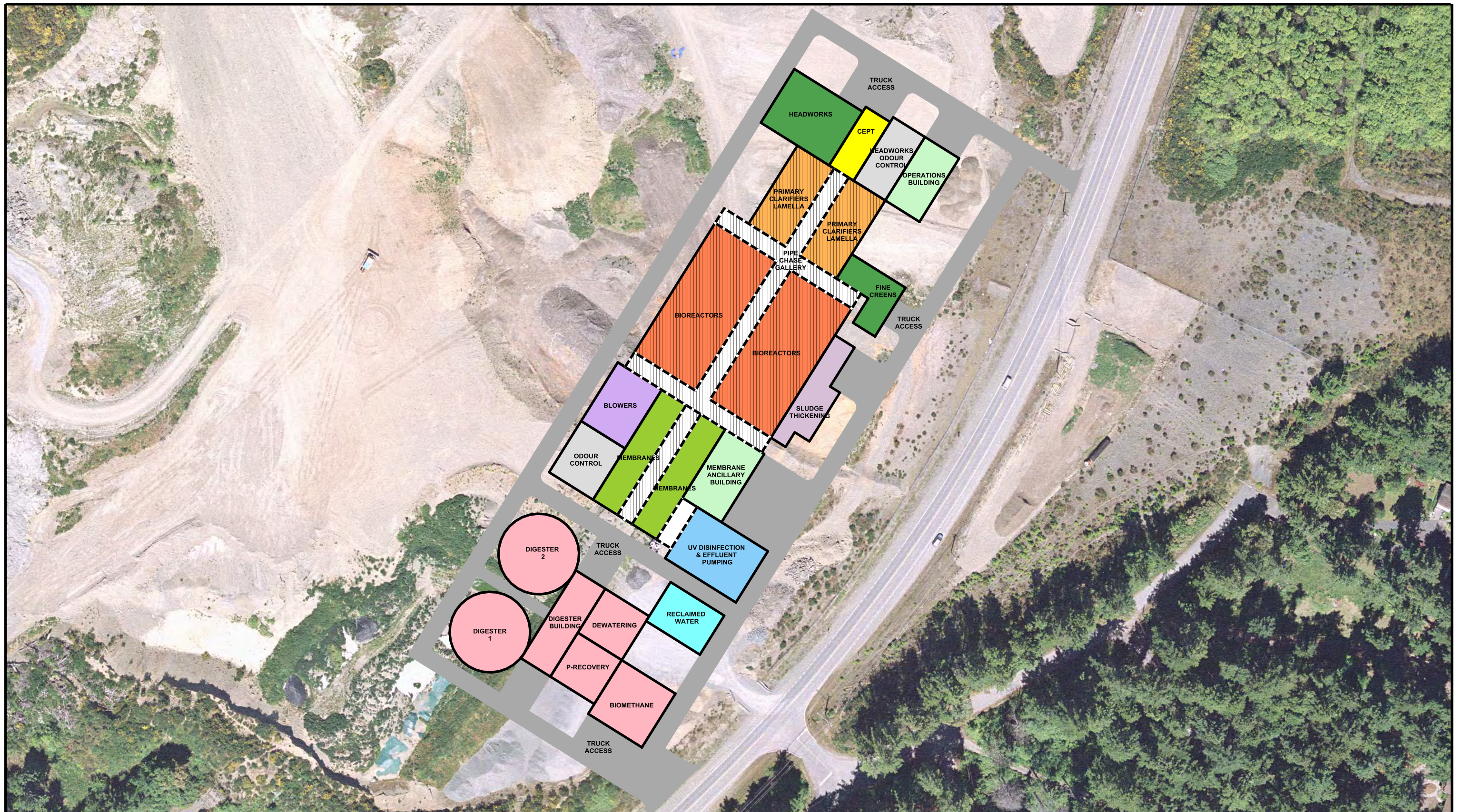
**Legend**

— Bathymetric Contours (1 meter)	<b>Above Ground Facilities</b>	■ P-Recovery
- - - DND Boundary	■ CEPT Chemical Storage	■ Anaerobic Digester
▨ Required Victoria Harbour Fill Area	▨ Wet Weather Treatment Facility	■ Odour Control
■ Fill area from 5 meters above msl to sea floor	■ Centrate Treatment Building	- - - Solids Building
<b>Underground Facilities</b>	■ Headworks Building	■ Stairwell
▨ Lamella Primary Clarifier	■ Biogas / Biomethane Building	■ Blower
▨ Bioreactor	■ Operations Building	
▨ Membranes		
▨ Fine screens		
▨ Pump Station		












Source: CRD 2008  
 Projection: UTM Zone 9N  
 Datum: NAD83  
 Created February 24, 2009

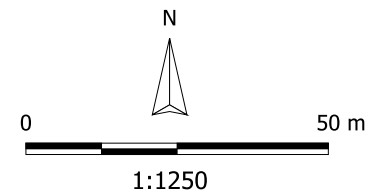
**Option 3:  
 McLoughlin Point Liquid  
 & Solids Treatment Facilities**

CRD Core Area Wastewater Management Program  
 Distributed Wastewater Management Strategy  
**CH2MHILL**



**Legend**

- |   |   |   |  |
|---|---|---|--|
|  Bioreactors |  Headworks & Screens |  Operations Building |  Underground Structures |
|  Blowers     |  Primary clarifiers  |  Reclaimed Water     |  Biosolids              |
|  CEPT        |  Membrane            |  UV Disinfection     |  |















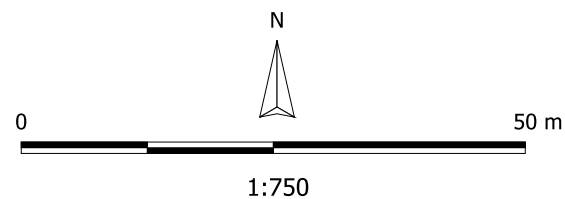
**South Colwood  
Wastewater Treatment Facility Option 1**  
Core Area Wastewater Management Program  
Facilities Siting Alternatives

Source: CRD 2008  
Projection: UTM Zone 10  
Datum: NAD 83  
Created March 04, 2009



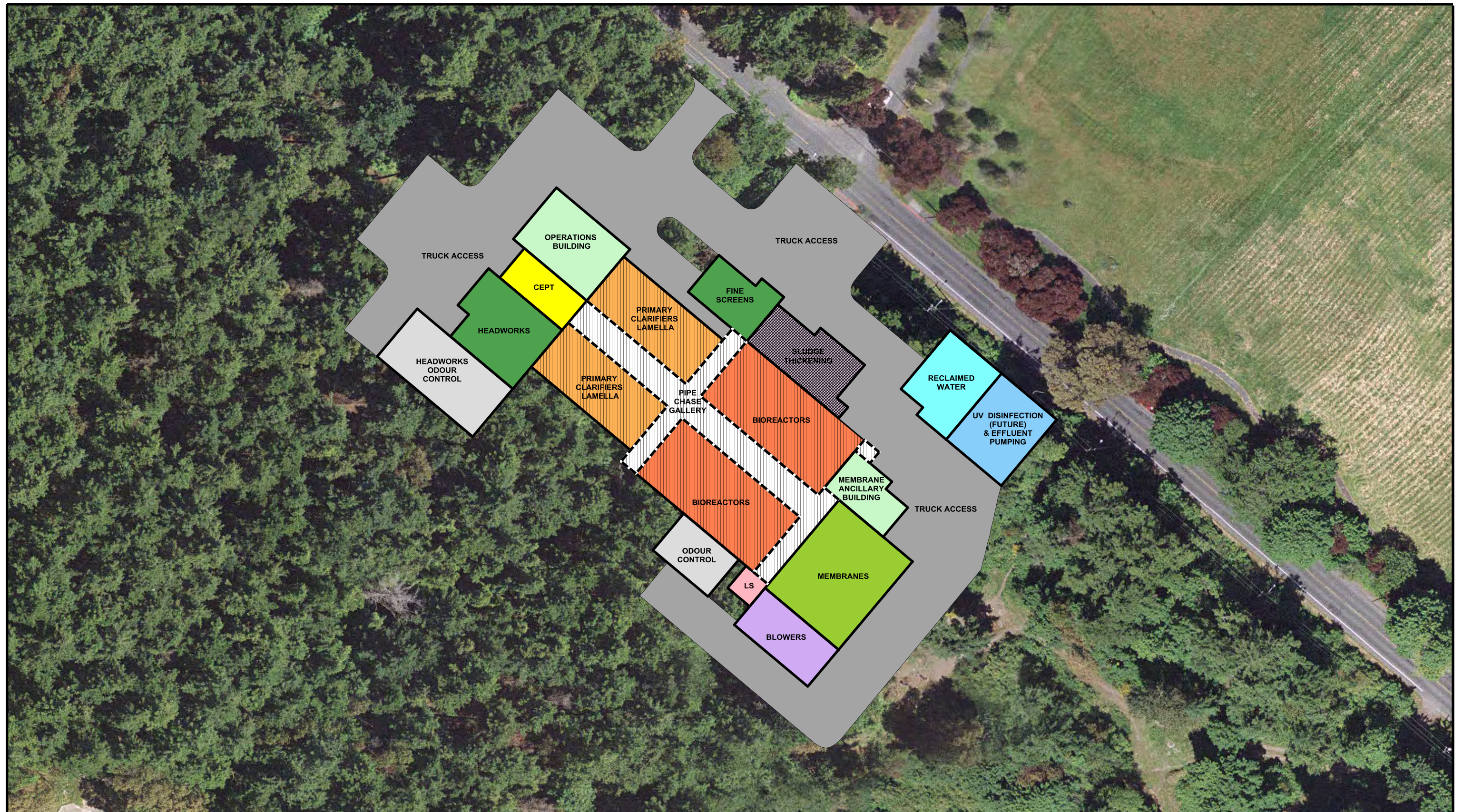
**Legend**

 Bioreactors	 Headworks & Screens	 Operations Building	 Odour Control
 Blowers	 Primary Clarifiers	 Reclaimed Water	 Sludge Thickening
 CEPT	 Membranes	 UV Disinfection ( Future ) & Effluent Pumping	 Underground Structures



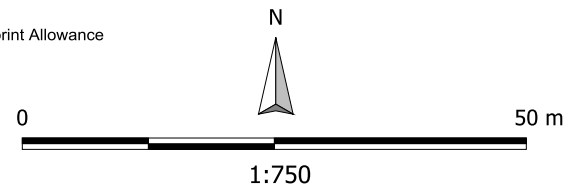
**South Colwood  
Wastewater Treatment Facility Options 2 & 3**  
Core Area Wastewater Management Program  
Facilities Siting Alternatives

Source: CRD 2008  
Projection: UTM Zone 10  
Datum: NAD 83  
Created March 04, 2009



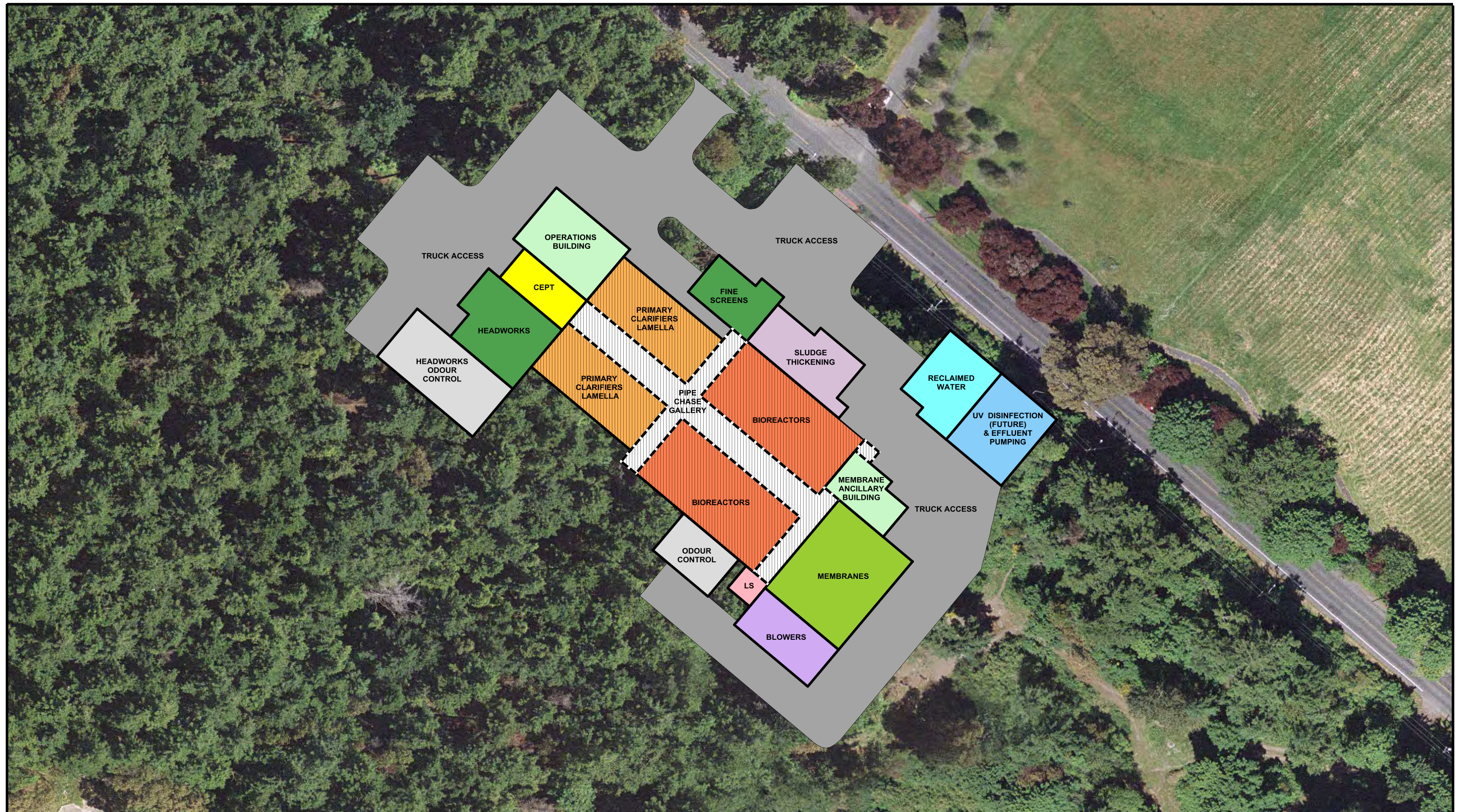
**Legend**

- |                     |                     |                            |   |                            |
|---------------------|---------------------|----------------------------|---|----------------------------|
| Blowers             | Membranes           | Primary Clarifiers Lamella | Underground Structures                      | Future Footprint Allowance |
| CEPT                | Operations Building | Lift Station (LS)          | Reclaimed Water                             |                            |
| Headworks & Screens | Bioreactors         | Odour Control              | UV Disinfection (Future) & Effluent Pumping |                            |















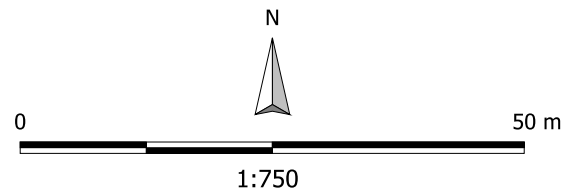
**Saanich East  
Wastewater Treatment Facility Options 1 & 2**  
Core Area Wastewater Management Program  
Facilities Siting Alternatives

Source: CRD 2008  
Projection: UTM Zone 10  
Datum: NAD 83  
Created March 04, 2009



**Legend**

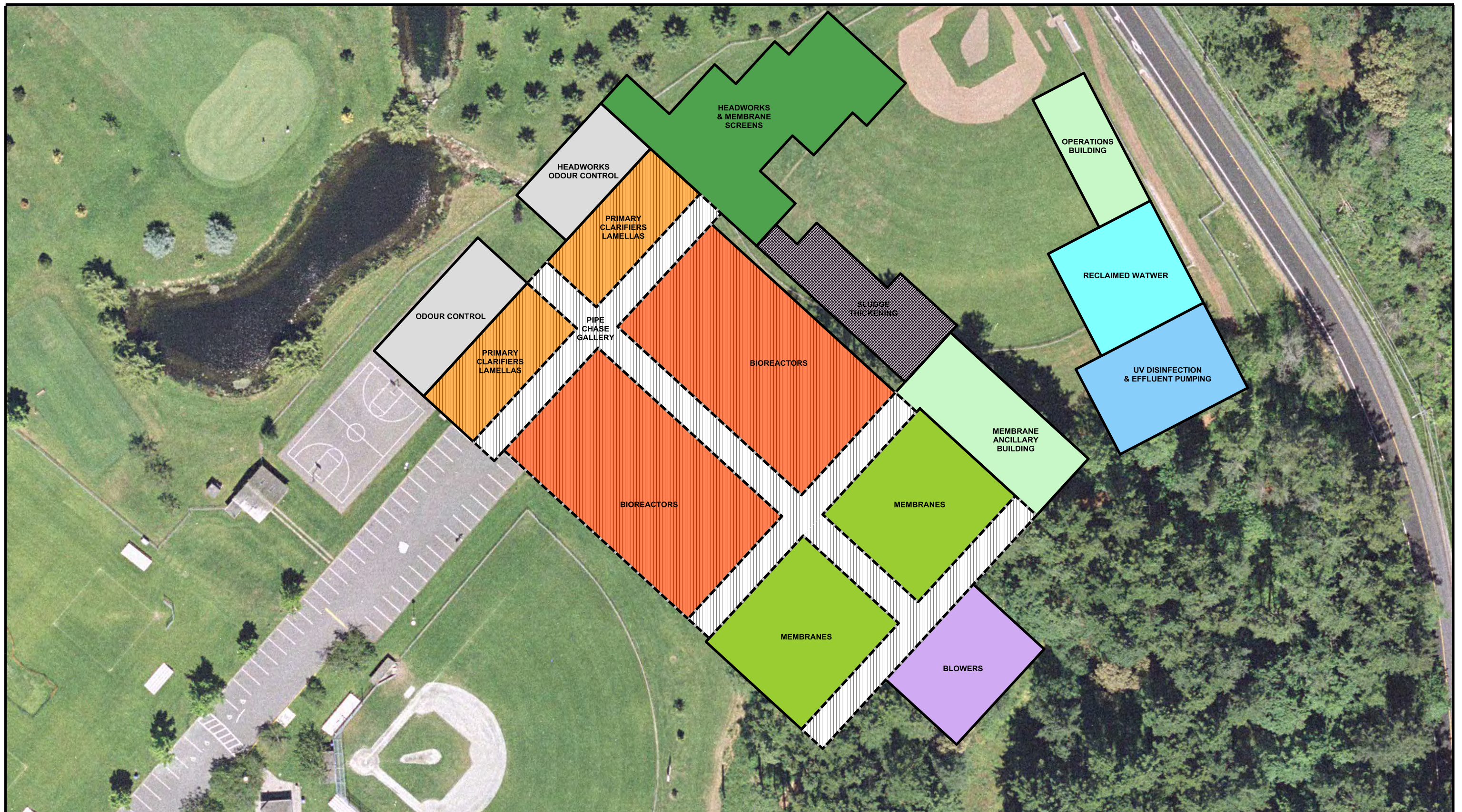
- |   |   |  |  |
|---|---|--|--|
|  Blowers             |  Membranes           |  Primary Clarifiers Lamella |  Underground Structures                      |
|  CEPT                |  Operations Building |  Lift Station (LS)          |  Reclaimed Water                             |
|  Headworks & Screens |  Bioreactors         |  Odour Control              |  UV Disinfection (Future) & Effluent Pumping |















**Saanich East  
Wastewater Treatment Facility Option 3**  
Core Area Wastewater Management Program  
Facilities Siting Alternatives

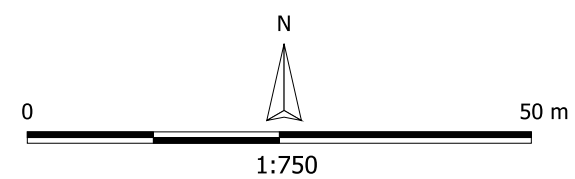
Source: CRD 2008  
Projection: UTM Zone 10  
Datum: NAD 83  
Created March 04, 2009





**Legend**

- |   |   |  |   |
|---|---|--|---|
|  Bioreactors |  Primary Clarifiers LamellaS |  Sludge Thickening                  |  Reclaimed Water            |
|  Blowers     |  Odour Control               |  Operations Building                |  Underground Building       |
|  Membranes   |  Headworks                   |  UV Disinfection & Effluent Pumping |  Future Footprint Allowance |



**Juan de Fuca  
Wastewater Treatment Facility Option 2**  
Core Area Wastewater Management Program  
Facilities Siting Alternatives

Source: CRD 2008  
Projection: UTM Zone 9N  
Datum: NAD83  
Created March 04 , 2009













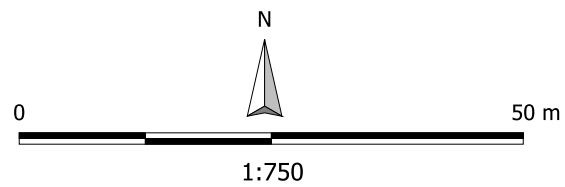
**Below Tennis Courts Layout**



**Above Grade Layout**

**Legend**

- |   |  |  |  |
|---|--|--|--|
|  Bioreactors |  Operations Buildings |  UV Disinfection & Effluent Pumping |  Primary Clarifiers Lamella |
|  Blowers     |  Odour Control        |  Reclaimed Water                    |  |
|  Membrane    |  Headworks & Screens  |  Lift Station (LS)                  |  |

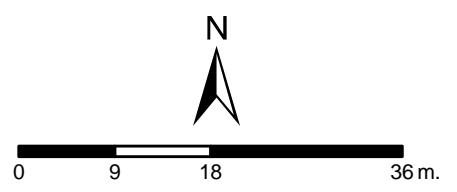


**Juan de Fuca  
Wastewater Treatment Facility Option 3**  
Core Area Wastewater Management Program  
Facilities Siting Alternatives

Source: CRD 2008  
Projection: UTM Zone 9N  
Datum: NAD83  
Created March 04, 2009



- Legend**
- Ogden Point A Site
  - Underground facilities**
  - Bioreactor
  - Fine Screens
  - Lamella Primary Clarifier
  - Membranes
  - Above Ground Facilities**
  - CEPT Chemical Storage
  - Headworks Building
  - Pump Station
  - Blowers
  - Odour Control
  - Operations Building
  - Truck Turning Area



Projection: UTM Zone 10N  
 Datum: NAD83  
 Created February 24, 2009

**Option 2  
 Ogden Point A  
 Treatment Facilities**

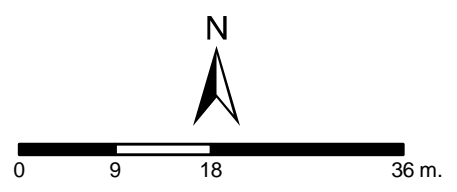
CRD Core Area Wastewater Management Program  
 Distributed Wastewater Management Strategy





- Legend**
- Ogden Point A Site
  - Underground facilities**
  - Bioreactor
  - Fine Screens
  - Lamella Primary Clarifier
  - Membranes
  - Above Ground Facilities**
  - CEPT Chemical Storage
  - Headworks Building
  - Pump Station
  - Blowers
  - Odour Control
  - Operations Building
  - Truck Turning Area

Ogden Point A

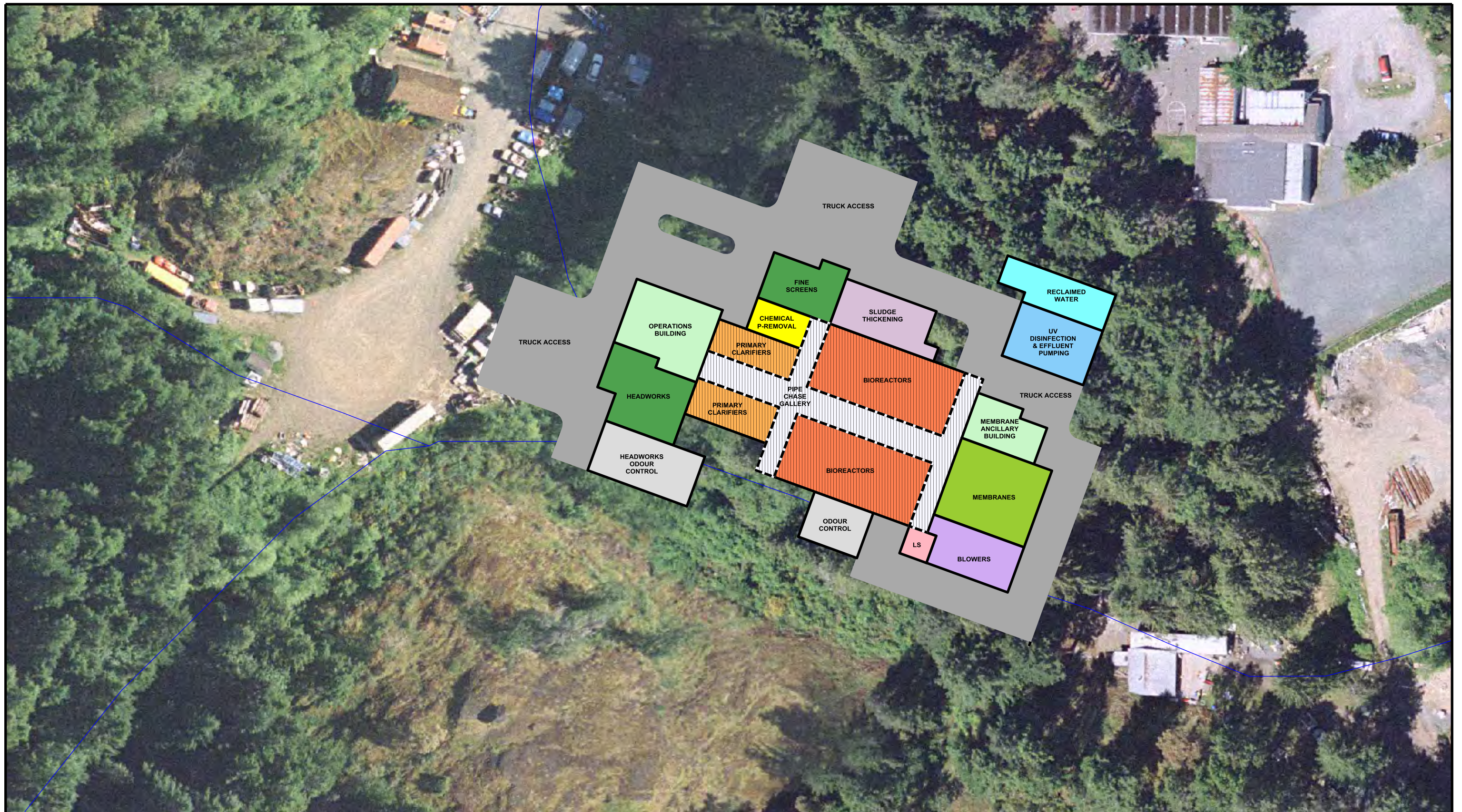


Projection: UTM Zone 10N  
 Datum: NAD83  
 Created February 26, 2009














**Option 3  
 Ogden Point A  
 Treatment Facilities**

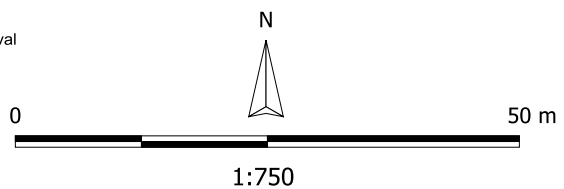
CRD Core Area Wastewater Management Program  
 Distributed Wastewater Management Strategy





**Legend**

- |   |   |  |   |  |
|---|---|--|---|--|
|  Bioreactors |  Headworks & Screens |  Operations Building                |  Odour Control          |  Chemical P-Removal |
|  Blowers     |  Lift Station (LS)   |  UV Disinfection & Effluent Pumping |  Sludge Thickening      |  |
|  Membranes   |  Primary Clarifiers  |  Reclaimed Water                    |  Underground Structures |  |

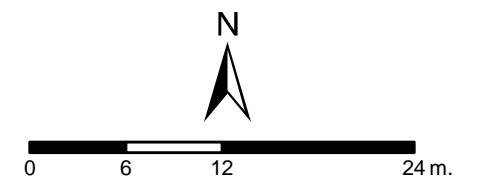


**Westhills**  
**Wastewater Treatment Facility Option 3**  
 Core Area Wastewater Management Program  
 Facilities Siting Alternatives

Source: CRD 2008  
 Projection: UTM Zone 10  
 Datum: NAD 83  
 Created March 09, 2009



- Legend**
- Florence Lake A Site
  - Chemical P Removal
  - Sludge Thickening
  - Bioreactor
  - Fine Screens & Blowers
  - Headworks Building
  - Primary Clarifier
  - Membranes
  - Odour Control
  - Operations Building
  - UV System



Projection: UTM Zone 10N  
 Datum: NAD83  
 Created February 26, 2009

**Option 3  
 Florence Lake A  
 Treatment Facilities**

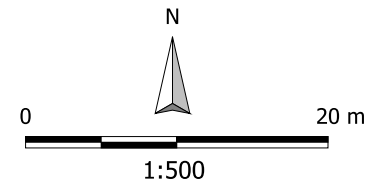
CRD Core Area Wastewater Management Program  
 Distributed Wastewater Management Strategy





**Legend**

- |                     |                     |                                    |                            |                      |
|---------------------|---------------------|------------------------------------|----------------------------|----------------------|
| Headworks & Screens | Membranes           | Odour Control                      | Future Footprint Allowance | Underground Building |
| Primary Clarifiers  | Blowers             | Lift Station (LS)                  | Reclaimed Water            |                      |
| Bioreactors         | Operations Building | UV Disinfection & Effluent Pumping | Sludge Thickening          |                      |



**Lang Cove  
Wastewater Treatment Facility Option 3**

Core Area Wastewater Management Program  
Facilities Siting Alternatives

Source: CRD 2008  
Projection: UTM Zone 10  
Datum: NAD 83  
Created March 04, 2009

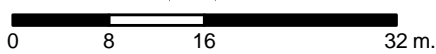


**Legend**

- Roderick Site
- Fermentors
- Bioreactor
- Fine Screens
- Headworks Building
- Lamella Primary Clarifier
- Membranes
- Truck Turning Area
- Blowers
- Odour Control
- Operations Building
- Pump Station
- UV System

**Note:**  
Commercial building structure over tankage not shown for clarity.

Projection: UTM Zone 10N  
Datum: NAD83  
Created February 24, 2009



**Option 3  
Roderick  
Treatment Facilities**

CRD Core Area Wastewater Management Program  
Distributed Wastewater Management Strategy







**Legend**

Windsor Park Site

**Below Ground Facilities**

Bioreactor

Fine Screens

Lamella Primary Clarifier

Footprint of Underground Facilities

**Above Ground Facilities**

CEPT Chemical Storage

Operations Building

Blowers

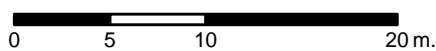
Headworks Building

Odour Control

Truck Turning Area

Membranes

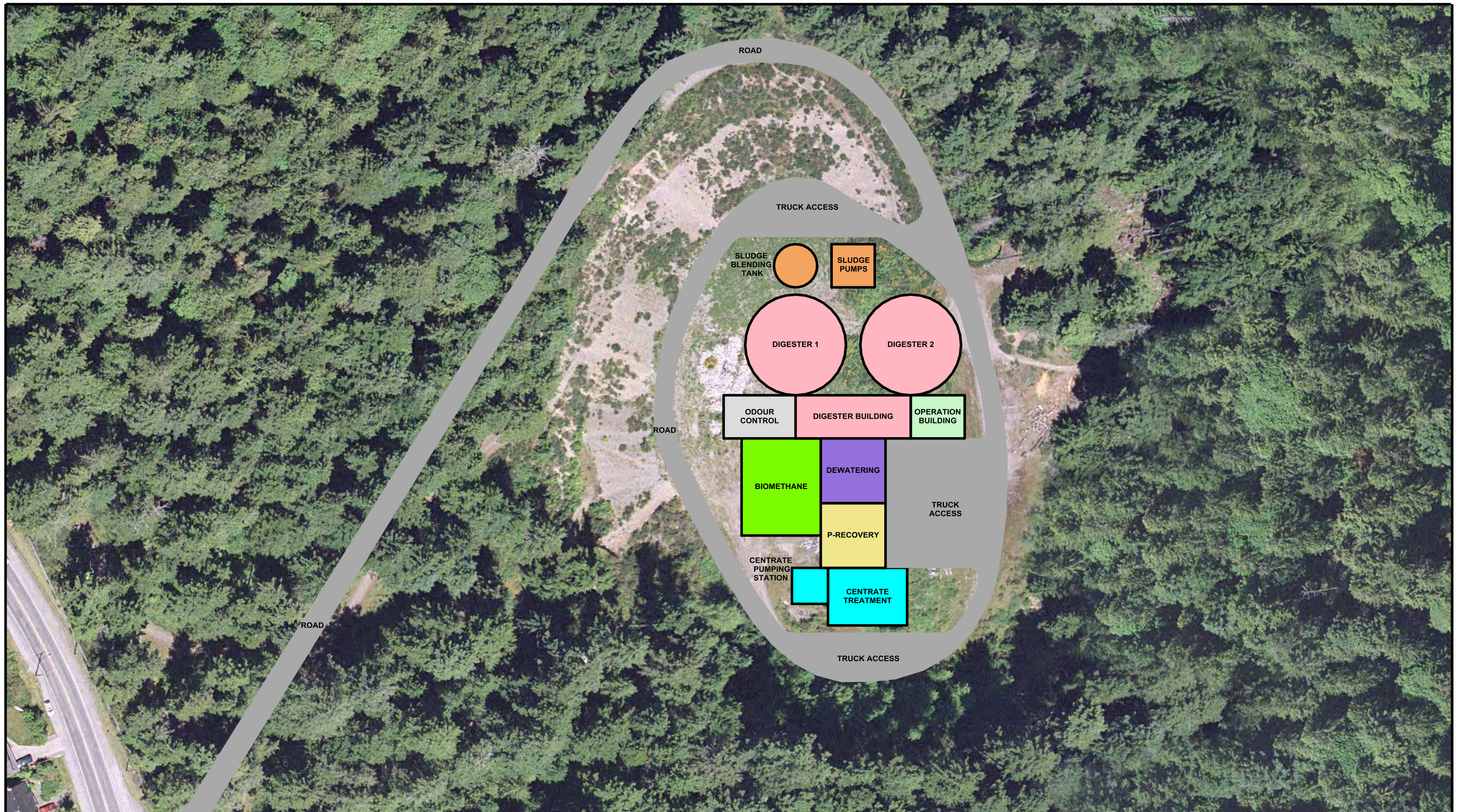
Projection: UTM Zone 10N  
Datum: NAD83  
Created February 26, 2009










**Option 3  
Windsor Park  
Treatment Facilities**

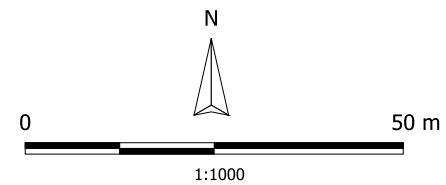
CRD Core Area Wastewater Management Program  
Distributed Wastewater Management Strategy

**CH2MHILL**



**Legend**

- |  |  |  |
|--|--|--|
|  Biosolids                      |  Dewatering                           |  Biomethane |
|  Odour Control                  |  Operation Building                   |  P-recovery |
|  Sludge Blending & Sludge Pumps |  Centrate Treatment & Pumping Station |  |
















Source: CRD 2008  
 Projection: UTM Zone 9N  
 Datum: NAD83  
 Created March 04, 2009

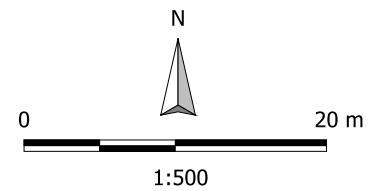
**Royal Roads Organics Facility**

Core Area Wastewater Management Program  
 Facilities Siting Alternatives



**Legend**

- |  |   |   |   |   |
|--|---|---|---|---|
|  Wet Weather Pump Station |  Odour Control   |  Court Yard                      |  MCC & Control           |  Vertical Wall |
|  Dry Weather Pump Station |  Outfall Pump Station                                    |  Ballasted Flocculation Facility |  Chemical & Sand Storage |   |
|  Office Storage           |  Fine Screens & Grit Removal Residual Handling & storage |  Sludge Pumps                    |  Road                    |   |



**Clover Point  
Wet Weather Treatment Facility  
HREPT Option**  
Core Area Wastewater Management Program

Source: CRD 2008  
Projection: UTM Zone 9N  
Datum: NAD83  
Created March 04, 2009