



The Seatera Program will provide wastewater treatment for Capital Regional District (CRD) core area municipalities. The Program includes:

- >> Wastewater Treatment Plant at McLoughlin Point
- >> Resource Recovery Centre (RRC) at Hartland landfill
- >> Pumping stations and connecting conveyance pipes

The Seatera Program will provide preliminary, primary and secondary wastewater treatment for the core area municipalities and local First Nations:

- >> Colwood
- >> Esquimalt
- >> Langford
- >> Oak Bay
- >> Saanich
- >> Victoria
- >> View Royal
- >> Esquimalt Nation
- >> Songhees Nation

The Seatera Program will bring the core area wastewater treatment and disposal into compliance with provincial and federal government regulations.

SEATERRA CONVEYANCE SYSTEM

The conveyance system refers to the ‘pumping stations and pipes’ of the Seaterra Program. This includes the following facilities and conveyance pipes:

- >> Clover Pump Station and Conveyance Pipe in Victoria
- >> Macaulay Point Pump Station and Conveyance Pipe in Esquimalt
- >> Craigflower Pump Station in View Royal
- >> Arbutus Road Attenuation Tank in Saanich
- >> Currie Road Pump Station upgrade and Conveyance Pipe in Oak Bay
- >> Trent Siphon/East Coast Interceptor Extension in Victoria

Pump stations and conveyance pipes will move wastewater from across the core area to the Wastewater Treatment Plant at McLoughlin Point. New pump stations will replace aging and outdated pump stations at each location, except for the Currie Pump Station and the Arbutus Road site, where only a storage tank is required.

The Seaterra Program pump stations and pipes will be operated and maintained by the CRD.

The CRD has a long history of planning, designing, operating and maintain pump stations within existing neighbourhoods. Award-winning examples include the Currie Pump Station, adjacent to homes in Oak Bay, and Trent Pump Station, located in a higher density residential and commercial area in Victoria. Both of these pump stations complement their surroundings, while meeting all of the project’s technical requirements through innovative applications of engineering and architecture.



>> Trent Pump Station



>> Proposed Craigflower Pump Station currently under construction



>> Currie Road Pump Station

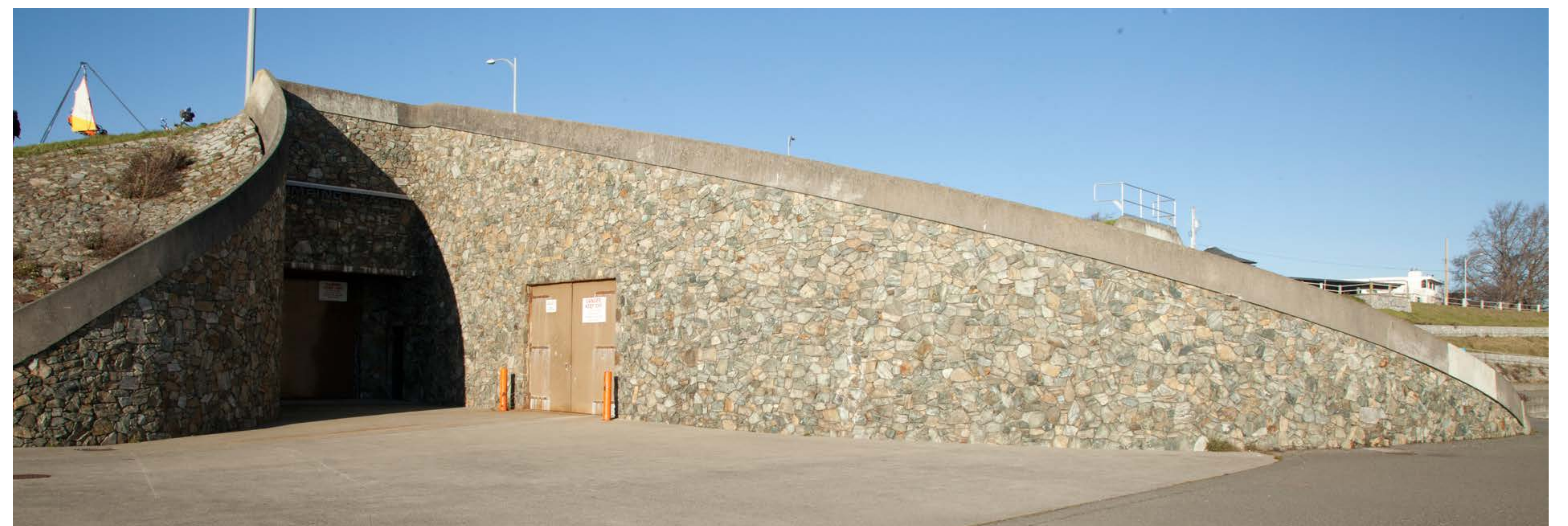
Clover Pump Station currently screens wastewater to remove coarse solids (rocks, rags, plastics, etc.) prior to discharging at Clover Point Marine Outfall. Clover Pump Station was first built in 1975 and was designed to serve about 140,000 people. It now serves approximately 200,000 people and is in need of upgrade and expansion to meet new wastewater regulations and better serve the region's growing population.

The existing station must be kept operational during construction and will be used as an emergency backup during extreme wet weather days once the new, expanded station is commissioned. Upgrades will also be made to the electrical and control systems at the existing station.

The new, expanded station will be built below ground, beside the existing station. The expanded station may be slightly larger than the existing station and will include enhanced screening and grit (sand and sediment) removal equipment. Following completion of the Seatera Program, Clover Pump Station will pump wastewater to the Treatment Plant at McLoughlin Point for secondary treatment.



>> Pumps at Clover Point Station



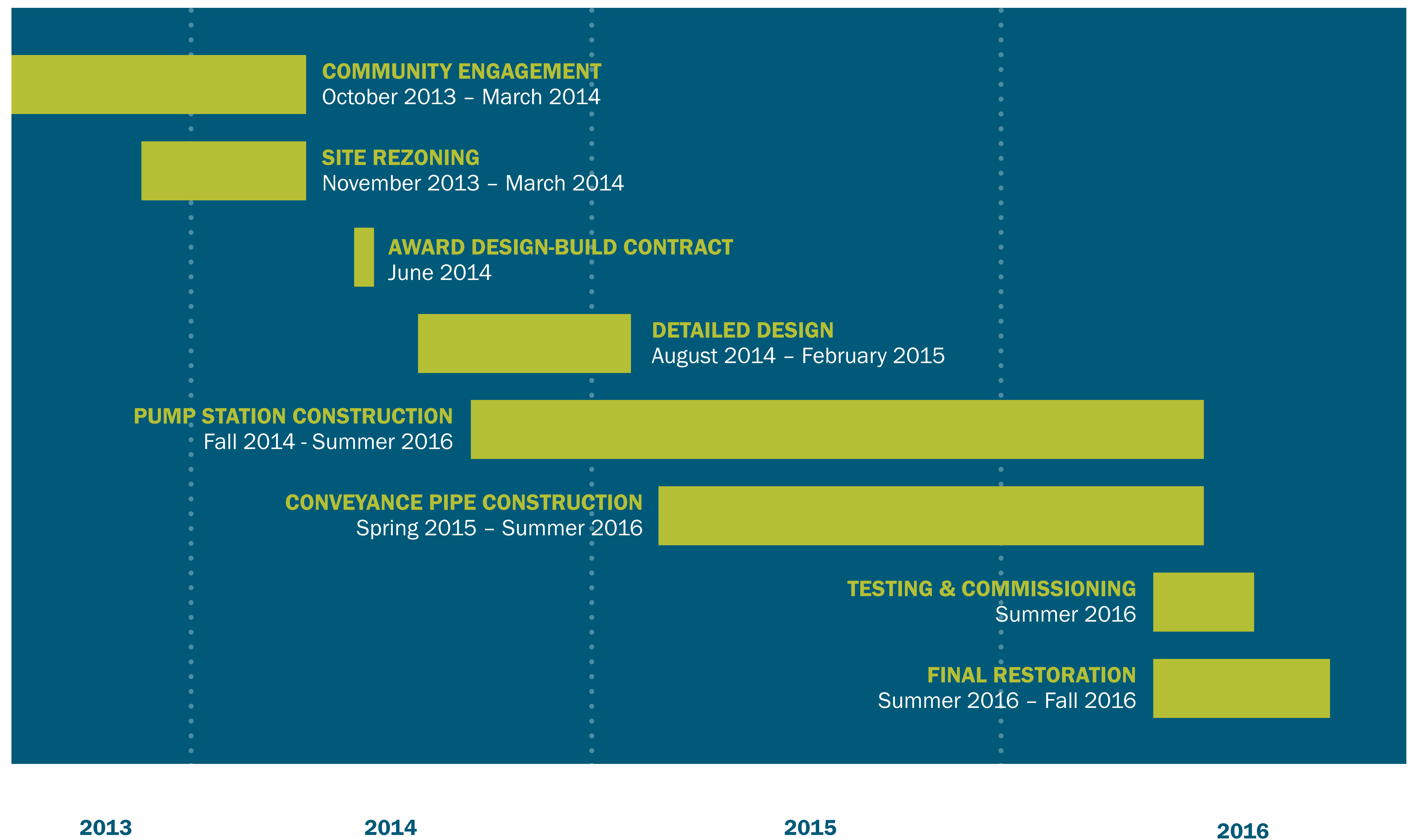
>> Existing Clover Pump Station located at Clover Point (above and below)



CLOVER PROJECTS TIMELINE

The Clover Projects will be commissioned and put into operation in late 2016 using the existing Clover Point marine outfall. The Clover Pump Station and Conveyance Pipe will direct wastewater to the Treatment Plant at McLoughlin Point once the plant is complete in 2018.

Construction of the Trent Siphon/East Coast Interceptor from Fairfield to Clover Pump Station is tentatively scheduled to start in 2015 so that it too can be complete in 2016 in order to minimize the overall duration of construction to Victoria residents.

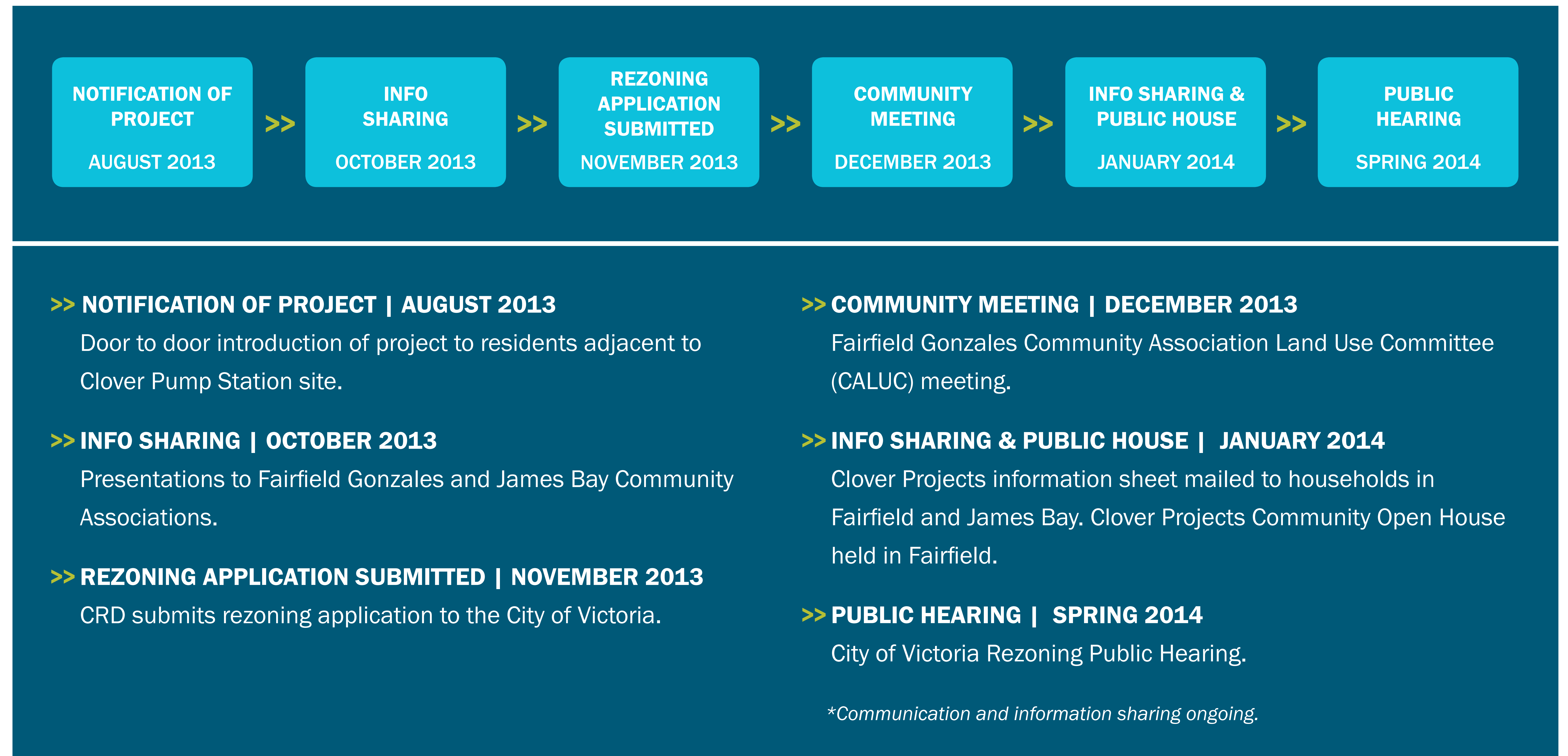


The Seatererra Program is working with local residents and the City of Victoria to provide information on the project and receive community feedback, concerns and potential mitigation options that can be provided to the design team for consideration.

The CRD has applied to the City of Victoria to rezone the site of the new, expanded pump station beside the existing pump station at Clover Point. The expanded pump station will be located below ground and park improvements have been proposed for the site.

Feedback gathered during the rezoning process and at community meetings will help inform the design and mitigation options for the Clover Pump Station and Conveyance Pipe route. This feedback has already helped to identify some potential park use and public safety improvements.

The Seatererra Program will continue to provide ongoing communications and updates to the community as the Clover Projects move forward.





In keeping with the existing pump station, the proposed expansion will be below ground level and will not be visible from Dallas Road. The seaside walkway and the existing split rock wall facing the waterfront will be extended in order to allow access to the pump station. Similar materials will be used so that the expanded facility will blend in with the existing facility and surrounding area.

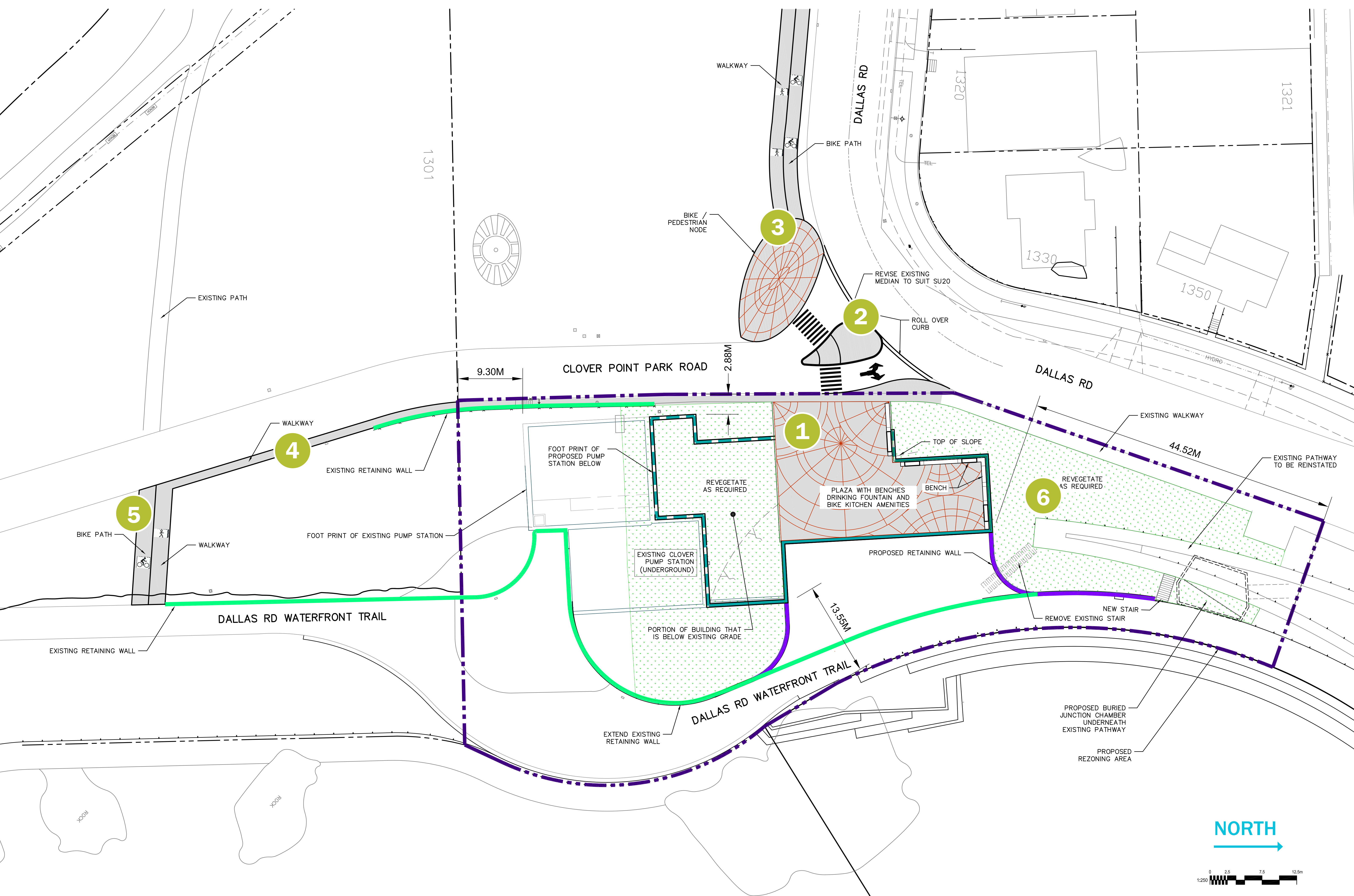
Park use and public safety improvements are proposed for the rooftop surface above the new pump station. These changes would result in a net gain of park use space.



PROPOSED IMPROVEMENTS INCLUDE:

1. Removal of the existing parking area and addition of a public plaza with benches, a drinking fountain, a view point, bike racks, and other enhancements.
2. Intersection safety improvements at the entrance of Clover Point Park from Dallas Road including walkways, crosswalks, and medians to improve traffic flow and safety of pedestrians and cyclists.
3. Establishing a pedestrian walkway and bike path connection from Clover Point Park to the existing seaside walkway along Ross Bay.

>> The land above the Clover Pump Station could include a public plaza, benches, walkways, bike paths, and intersection safety improvements.



THE FOLLOWING PROPOSED CHANGES HAVE BEEN MADE TO IMPROVE PARK USE AND SAFETY:

1. Removal of existing parking area and barriers at the entrance of Clover Point Park Road and addition of a public plaza area with benches and park-use enhancements.
2. Improved traffic median and crosswalk at the entrance to Clover Point Park Road.
3. Addition of bike path along Dallas Road, pedestrian walkway to existing crosswalk at Moss Street and pedestrian and bike path node at the entrance to Clover Point Park.
4. Addition of a pedestrian walkway from Dallas Road Waterfront Trail along Clover Point Park Road.
5. Addition of a bike and walkway path to connect the Dallas Road Pathway to the Ross Bay Seawalk.
6. Relocation of new stair access and the reinstatement of the ramp access from Dallas Road down to Ross Bay Seawalk.

PLEASE LET US KNOW WHAT YOU THINK OF THE PROPOSED ENHANCEMENTS:

NOISE CONTROL

A noise control consultant will be retained to develop appropriate noise level criteria for the pump station. Typically, the consultant will conduct a 24-hour noise level measurement at the proposed pump station site to determine the lowest nighttime background noise level. Once that information is known, the design team can then design the pump station to not exceed that noise level when measured at the property line. This is typically accomplished by acoustical silencing of the pumps, motors, and fans, and emitting the dampened noise through acoustical louvers placed in discrete locations away from residents. The new, expanded pump station will have a similar or lower noise level than the existing pump station.



>> Acoustic insulation

>> Air purification system

ODOUR CONTROL

Odour control will be provided in the new expanded facility. During the design phase of the new facility, an odour control specialist will be retained to design a comprehensive odour control system to contain and suppress odour by:

- >> Incorporating ventilation and scrubbing systems
- >> Maintaining the wet well area of the pump station at negative pressure to draw air into the scrubber
- >> Directing all foul air through an activated carbon absorber system to remove odours prior to releasing the air to the atmosphere

These systems have been successfully operating at other CRD facilities, including the Currie Road, Trent and Craigflower pump stations.

WHAT ELSE SHOULD BE CONSIDERED?

SUSTAINABLE DESIGN

The design of the pump station will be consistent with sustainable design practices and will include:

- >> Specifying ecoSmart concrete
- >> Applying leadership in energy and environmental design (LEED) principles
- >> Adopting an energy efficient design
- >> Using PowerSmart electrical equipment
- >> A plaza and green roof, with possible revegetation with native grasses and plants
- >> Rainwater run-off control on-site by means of infiltration into revegetated areas
- >> Reuse of recycled water to wash down equipment
- >> Reuse of waste heat to lower building heating requirements
- >> Low level lighting to minimize light pollution



CLOVER PUMP STATION CONSTRUCTION SITE AND STAGING AREA:

The Seaterra Program will work to minimize impact to Clover Point Park users during construction of the pump station. Access to Clover Point Park and parking will be maintained during construction. Impact mitigation measures include:

- 1.** Construction site and staging area will be located on the east side of Clover Point Park Road to minimize traffic disruption.
- 2.** Clover Point Park and parking area will remain open.
- 3.** An eight foot high decorated fence will surround construction siting area.
- 4.** Temporary stairs will provide continued access to the Ross Bay Seawalk during construction.
- 5.** The temporary construction site office and construction vehicle parking will be located within the fenced staging area.
- 6.** Construction traffic will enter the site from the Clover Point Park Road through the existing pump station service entrance.

PROJECTS OF THIS SIZE AND COMPLEXITY WILL CREATE SOME CONSTRUCTION-RELATED IMPACTS.

The Seatererra Program will work with municipal staff and the public to ensure that impacts are kept to a minimum and opportunities are identified for enhancement and mitigation.

WHAT ELSE SHOULD BE CONSIDERED?

DURATION

It is anticipated the construction on the pump station and conveyance pipe will start in fall–winter 2014. Both projects are anticipated to be complete by mid to late 2016. Peak construction activity for the pump station will occur in the first few months during excavation and pouring concrete. After this, the work will be similar to a large residential construction project, with various trades completing their portions of the work.

TIMING

The conveyance pipe can be installed in segments (on a block-by-block basis) along Dallas Road to minimize impacts to residents, public events and tourists. Seatererra Program staff will continue to work with City of Victoria staff and other stakeholders, including the Fairfield/ Gonzales and James Bay Community Associations, and the Greater Victoria Harbour Authority, to minimize construction impacts along the conveyance pipe route.

TRAFFIC AND SAFETY

A traffic management plan will be prepared to address traffic disruptions, construction traffic and maintain access to nearby residences. Even during peak construction times, one lane of traffic will remain open on Dallas Road. Fencing and warning signs will be installed around the pump station and any open excavations for the conveyance pipe construction. When required, flag persons will direct vehicles and pedestrians around construction areas. Traffic disruptions will be communicated to the public in advance of implementation.

NOISE

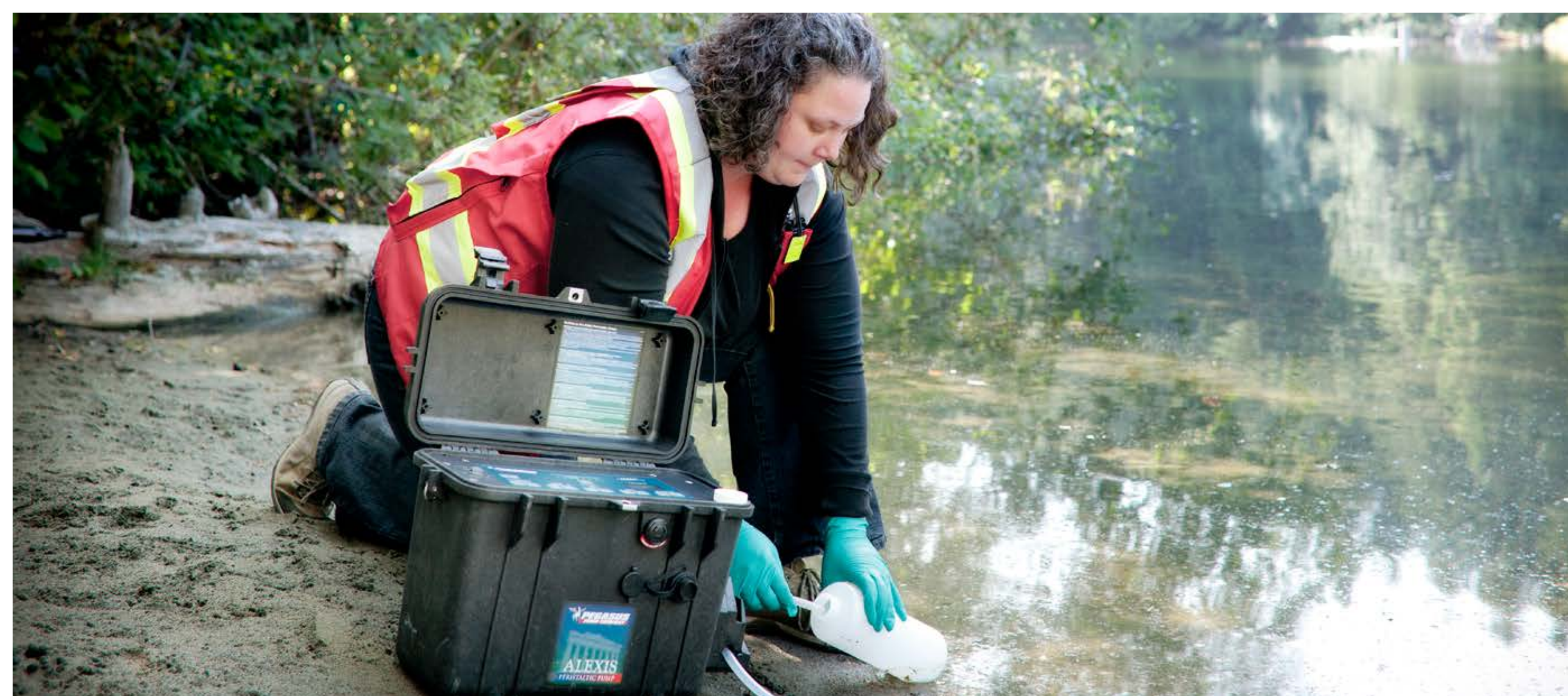
Construction activities will comply with the local bylaw for noise levels. Work will typically occur on weekdays from 7 a.m. – 6 p.m. No work will be planned for Sundays or holidays (except in an emergency or where a critical piece of work must be completed promptly to reduce impacts).

ENVIRONMENT

An Environmental Management Plan (EMP) will be prepared to mitigate potential environmental impacts. The EMP will address issues including soil management, air quality, water quality and waste management. An environmental monitor will be on-site during the course of construction to ensure compliance with the plan.

COMMUNICATION

Information letters (with contact names and phone numbers) will be provided to local residents and community associations at the start of the construction and updated, as required, through the project. The Seatererra Program will provide regular updates on the Clover Projects at www.seaterraprogram.ca.



>> An environmental monitor will be on-site during the course of construction.

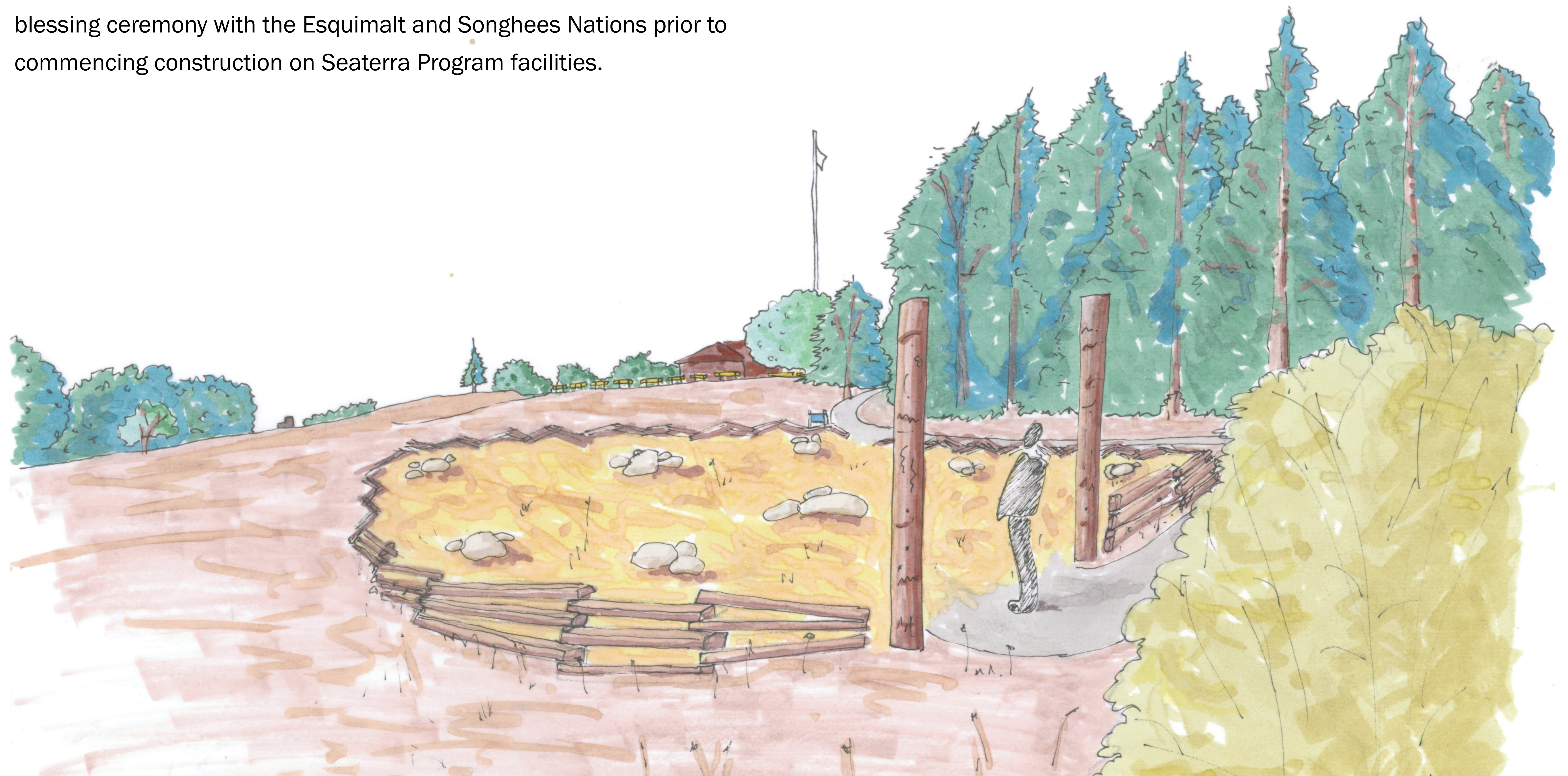
WHAT ELSE SHOULD BE CONSIDERED?

The Seaterra Program is working with archaeologists, First Nations, City of Victoria, and the Archaeological Branch to develop a protocol should any significant artifacts or human remains be discovered during construction.

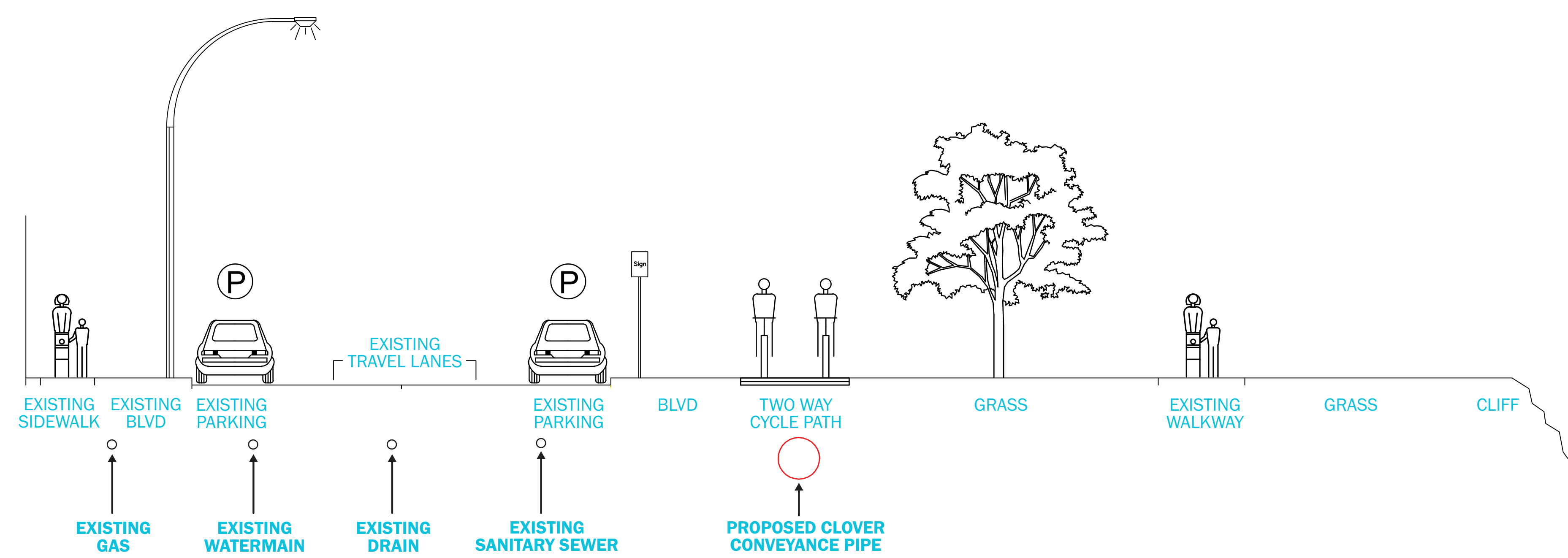
Archaeological Impact Assessments will be completed, where required, and an archaeologist will be on-site observing the work.

In September 2013, Seaterra Program staff participated in a ground blessing ceremony with the Esquimalt and Songhees Nations prior to commencing construction on Seaterra Program facilities.

The Seaterra Program has partnered with the City of Victoria and Songhees and Esquimalt First Nations to commence with preparing a respectful and honouring reburial ground, should any human remains be uncovered and require reburial.



>> Rendering of the proposed reburial ground in Beacon Hill Park.



>> Cross section of the conveyance pipe and bike path along Dallas Road.

CONVEYANCE PIPE

A new conveyance pipe will run from the Clover Pump Station along the south side of Dallas Road from Clover Pump Station to Ogden Point, then under the Victoria Harbour via a marine crossing to the Treatment Plant at McLoughlin Point. The pipe will be about 1.2 metres in diameter and will be installed about 1 metre below the ground surface. The total length of the conveyance pipe from Clover Point to Ogden Point will be about 3.4 kilometres.

WORKING TOGETHER REDUCES COSTS

By aligning the conveyance pipe directly underneath the City of Victoria's new, separated two-way bike path, the same corridor can be utilized for both projects, which will minimize environmental and social impacts and save costs for Seaterra and the City. Seaterra is collaborating with the City of Victoria to identify the route of the bike path, which has been long identified in the City's Official Community Plan and Bicycle Master Plan.

ROADWAYS AND WALKWAYS

The conveyance pipe and resulting bike path will not reduce the width of the travel lanes along Dallas Road, but may require revising some angled parking spaces to parallel parking in some locations along Dallas Road. Existing pedestrian walkways along the Dallas Road Waterfront will not be reduced by the installation of the conveyance pipe and bike path.

Conveyance Pipe and Bike Path Route



Local residents will have the opportunity to provide input and feedback to inform facility planning.

- >> Fill out a feedback form
- >> Contact Seatererra Program staff with questions or concerns
- >> Learn more about the project at community meetings or online at www.seaterraprogram.ca

UPCOMING ACTIVITIES

- >> Public hearing for Clover Pump Station rezoning
SPRING 2014
- >> Project design team to share detailed designs with community
FALL 2014

QUESTIONS?

COMMUNITY CONTACT

Kristin Quayle

Communications Coordinator

CRD Seatererra Program

510 - 1675 Douglas Street

Victoria, BC V8W 2G5

T: 250.360.3623 **F:** 250.360.3071