

**IONA ISLAND WASTEWATER TREATMENT PLANT PROJECT
ONLINE BIRDING AND NATURALIST GROUPS STAKEHOLDER MEETING #3
SEPTEMBER 10, 2020
SUMMARY**

Summary of the Iona Island Wastewater Treatment Plant (IIWWTP) Project Birding and Naturalist Groups Stakeholder Meeting #3 (Meeting) held September 10, 2020 via videoconference.

1. Welcome

Michelle Candido, Senior Community Engagement Lead, External Relations, Metro Vancouver (MV), called the Meeting to order at 1 p.m. and welcomed participants.

The list of meeting participants is included in [Appendix A](#).

Ms. Candido commenced the presentation titled “Iona Island Wastewater Treatment Plant Project Update Meeting with Birding and Naturalist Groups” and highlighted:

- Overall project timeline and project definition goals of wastewater treatment, resource recovery, and community and park integration
- An update on community engagement since the May 13, 2020 Birding and Naturalist Groups Stakeholder Meeting includes two online public meetings held in May 2020 and the project team continues to meet with interested stakeholder groups
- Request to participants to submit input, including on the concepts and ideas presented at this meeting
 - Input for this phase of the project will be received until the October 15, 2020 deadline
 - Input received will be included in an engagement summary and will be included in a Board report for endorsement in January 2021
- Discussion topics previously submitted by participants have shaped this meeting’s presentation and agenda.

2. Treatment Plant

Rick Bitcon, Senior Engineer, AECOM, provided an update on the design of the treatment plant, lagoon decommissioning and highlighted:

- The new IIWWTP will provide tertiary treatment. This includes an enhanced primary treatment process, activated sludge process, and effluent filtration to achieve tertiary treatment.
- MV intends to conduct pilot testing of technologies for advanced treatment of micropollutants, including ozone, activated carbon and reverse osmosis
- Flexibility in the IIWWTP design to adapt future technologies and innovations
- Resource recovery opportunities including reclaimed water (both on and off-site), effluent heat recovery (both on and off-site), renewable natural gas, and biosolids
- Key features of odour control

- Any potential odour-generating components of the new treatment plant will be covered, and air treated using bio-trickling filters and activated carbon units
- Improvements will be made to reduce odour emissions from existing infrastructure
- Comparison of existing plant and new plant layout and footprint
- Artist rendering of the view of IWWTP and multi-use building
- Lagoon decommissioning plan
 - Based on preliminary construction schedule, all lagoons will be de-sludged by 2025 with decommissioning and habitat enhancements to follow
 - Lagoon schedule is flexible and still being refined based on the construction schedule, staging needs and habitat enhancement projects
 - Goal is not to have 'gap years' in freshwater habitat
- Proposed construction schedule is being developed

3. Island-Scale Design & Ecology Projects

Sarah Primeau, Landscape Architect and Ecologist, space2place, provided an update on the island-scale design and ecology projects and highlighted:

- Four ecological priorities - improve water quality, restore fish habitat, protect bird habitat and restore terrestrial ecosystems - were used to develop the proposed ecology projects and proposed island-scale design on Iona Island. Collectively, these projects aim to help restore the ecological processes that led to the formation of Iona Island.

The proposed indicative design concept seeks to:

- Protect the tidal marsh along McDonald Slough, the riparian forest along the Fraser River and the cottonwood forest west of sludge lagoons
- Convert the invasive-dominated upland area at east end of the island to high-quality shrub-grassland and riparian forest, and expand riparian forest along north arm
- Convert the north sludge lagoons and north freshwater pond to tidal marsh and tidal channels to manage invasive aquatic plant species in the north freshwater pond, to provide off-channel rearing habitat for juvenile salmon, and to restore estuarine processes, such as fresh and saline water mixing, and sediment transport, by connecting the river to inter-jetty area via north jetty east breach.
- Convert the southwest lagoon to freshwater habitat while the other lagoons are being decommissioned to improve quality of freshwater wetland habitat
- Create breaches to restore inputs of freshwater and sediment to foreshore areas; offshore wave breaks and a sediment augmentation pilot project will help these habitats keep pace with sea level rise and offer some wave protection
- Replace the causeway with a bridge over the breach to meet seismic and flood protection standards

Additional Ecological Enhancement Projects/Opportunities

- The proposed priorities and phasing of the ecological enhancement projects/opportunities are shown (phase 1, phase 2, phase 3, post phase 3) and will be subject to more detailed work in the next phase of the Project.
- The WildResearch bird banding station and mist net sites will be retained to extent possible and Metro Vancouver will continue to work with WildResearch to inform next stage of detailed design

Artist renderings of:

- Southern intertidal wetland – proposed new boardwalk for public access and bird blinds for public
- Knolls and freshwater wetlands – proposed new grassy mounds to screen view of the treatment plant from the park; outdoor educational opportunities such as a look-out tower and outdoor classroom
- Tidal channels, freshwater wetlands and the IWWTP following the 2032 initial build
- West and east views of the multi-use building – proposed multi-use building is intended to be a bookable public facility with scheduled Metro Vancouver Regional Parks programming (not staffed full-time), and to host special events and meetings

4. Interpretive Concept

Anna Wilkinson, Content Developer, AldrichPears Associates, led a presentation on the Interpretive Concept and noted:

- The proposed interpretation approach acknowledges that many visitors come to Iona Beach Regional Park for the natural environment
- The nine proposed outdoor interpretative nodes are dynamic and refer to specific natural and cultural features in and around the park
- This conceptual Integrative Design Process considers the park as though it were a visitors centre by inviting visitors to explore the integrated park
- Some of the proposed interpretive elements include: viewing tower, topographic map, ViewScopes, interactive bird migration panel, plant species sculptural elements, acoustic fish camera live feed, integrated sculpture and art, pond viewer, and some indoor interpretive elements for use during scheduled programming (potentially including a bird call station, microscopes, acoustic fish camera live feed).

5. Next Steps

Lea Elliott, Senior Policy Analyst, Liquid Waste Services, MV, and Sylvia Pendl, Park Planner, Parks, MV, led a presentation on the next steps and highlighted:

- The next step for the IWWTP Project is the detailed design and construction phase, this includes: phasing and scheduling, research and partnerships, permits and approvals, detailed design of the IWWTP and ecological restoration projects, planning for monitoring, maintenance and adaptive management, planting and construction
- MV Parks intends to develop a Park Management Plan for Iona Beach Regional Park and

Iona Island; this will include further engagement with Musqueam, stakeholders and park visitors.

- Policy context for the development of the Iona Beach Regional Park Management Plan; suggested interested meeting participants could view the [2016 Regional Parks Plan](#) and the [2020 Regional Parks Natural Resource Management Framework](#). See example of a Metro Vancouver [Park Management Plan](#).
- Upcoming opportunities for community, stakeholder and First Nation, particularly Musqueam Indian Band, input into the development of the Park Management Plan.

6. Discussion

The following table summarizes responses to questions and comments expressed by participants, organized by topic, throughout the Meeting.

Issue, Comment, Question	Metro Vancouver (MV) Response
Ecology Projects	
Will log storage continue to be allowed in McDonald Slough?	The provincial Ministry of Forests, Lands, Natural Resource Operations and Rural Development manages log storage, and review and provide log storage licences for McDonald Slough and around Iona Island. Fisheries and Oceans Canada published a guidebook on best environmental practices for log handling facilities in British Columbia.
Is there a baseline study of bird usage of the lagoons and other parts of Iona Island to be used to track success?	There is some data. We recognize there is a need for additional studies on existing bird use to inform the detailed design of the new habitat.
Before undertaking a bird study, will there be consultation with relevant organizations and experts on the design and goals of the survey through a workshop such as this?	MV will continue to meet with relevant organizations and experts in the detailed design phase.
Does YVR support the enhancements to the foreshore, presuming it will attract more snow geese and other waterfowl, which will increase the risk of bird strikes?	The intent is to design the habitat enhancements on Iona Island in a manner that does not increase the risk of bird strikes at the airport. Mitigation measures will be required in the foreshore and upland habitats to deter snow geese. MV has been coordinating with YVR throughout the preliminary design process and will continue to do so.

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Will the restoration of the north arm jetty extend to Port Metro Vancouver lands?	Some of the proposed ecological projects are on the north arm jetty, such as the one of the breaches and some of the coastal sand dune restoration. Most of the north arm jetty lands are owned by Vancouver Fraser Port Authority. MV has been communicating with the port authority during the preliminary design process and will continue to do so.
The bird blind illustration shown in the presentation isn't ideal for rainy weather conditions. Please use something similar to what is being used at the Reifel Bird Sanctuary.	MV Parks will be involved in the design of the bird blind.
The timing for de-sludging of lagoons should be coordinated with active bird use.	Bird use will be considered in the development of the project schedule, along with interests of fish and other ecological priorities.
WildResearch requires at least seven mist net locations to remain stable so that it can be consistent in its link to a wider network.	Members of the IWWTP Project team met with WildResearch representatives recently to discuss its priorities in terms of bird banding, banding hut, mist net locations and timing. The intention is to have more discussions with WildResearch during the next phase of the project to inform the detailed design.
Stakeholder Funding and Partnerships	
Has funding been allocated for studies and community engagement over the next five years for bird and baseline studies?	General funding for community engagement is provided by the GVS&DD Board.
I suggest that a grant stream be established to fund community input and relevant studies.	Comment noted.
The site is important to a number of stakeholders. Is there an opportunity to leverage community partnerships for restoration,	The project budget will be set after the concept is approved by the GVS&DD Board and the project moves to the detailed design phase. We would encourage participants to continue to engage

Issue, Comment, Question	Metro Vancouver (MV) Response
<p>education and outreach activities? Is there an opportunity for stakeholders to explore available funding?</p>	<p>with MV on the IWWTP Project. The project definition phase is just one phase in the engagement process. There will be further engagement required with the detailed design and Park Management Plan. This will include the opportunity for stakeholders to refine the work of the endorsed design concept. The details resulting from the next phase (Project Delivery) will help identify specific areas of interest to leverage community partnerships for restoration, education and outreach.</p> <p>We encourage participants to collaborate with other stakeholders.</p> <p>For further information on existing stewardship opportunities, please check out this webpage: http://www.metrovancouver.org/services/parks/get-involved/volunteer/Pages/default.aspx</p>
<p>Ducks Unlimited and CWS have had preliminary discussions with MV regarding the establishment of partnerships and leveraging funding opportunities, including potential future federal government funding.</p>	<p>Comment noted.</p>
Park Management Plan	
<p>Please provide as much advance notice as possible regarding the initiation of the consultation on the Park Management Plan.</p>	<p>Comment noted.</p>
<p>Will there be an area of Iona Beach Regional Park where dogs will not be permitted, whether on or off-leash, in order to preserve the birding opportunities?</p>	<p>There are currently areas where dogs are restricted and that will continue in the new park plan. Any changes to this will be identified during the development of the Park Management Plan.</p> <p>Additionally, there will likely be some sensitive habitat areas where both people and dogs will be restricted.</p>

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Wastewater Treatment Options	
<p>Was the General Manager of the Orange County, California plant contacted regarding the tertiary treatment process used to provide the highest level of purification of water before it is introduced into the receiving environment?</p>	<p>We did not contact the General Manager, but we did conduct research into that Orange County Groundwater Replenishment System (GWRS) based on previous input received. The primary objective of the GWRS is to treat secondary effluent produced by other Orange County wastewater treatment plants to produce a high quality effluent suitable for indirect potable reuse (i.e. inject into groundwater aquifer). The goal of the new IWWTP is to produce minimum secondary effluent (i.e. equivalent to the first step in Orange County's wastewater treatment system) that meets provincial and federal regulatory requirements. In the future Metro Vancouver intends to carry out pilot testing of advanced treatment technologies for micropollutant removal.</p>
<p>Is the intent to produce water that is of a lower quality than what is achieved at the Orange County plant?</p>	<p>Such a treatment level would be prohibitively expensive for a plant the size of Iona Island WWTP. MV is proposing disk filtration tertiary treatment, which is beyond the secondary treatment standards required by the federal and provincial governments.</p> <p>MV is committing to moving ahead with studies on advanced treatment (e.g. reverse osmosis and ozone processes) and allocating space on site to construct these processes in the future when required to do so.</p>
<p>Where does the input on suggested improvements go?</p>	<p>Input received to date, and moving forward, has been and will continue to be provided to the MV Liquid Waste Committee and the GVS&DD Board of Directors for their consideration when reviewing the Indicative Design for endorsement in January 2021.</p>
Other	
<p>Would the federal and provincial governments be willing to provide funding for the tertiary treatment processes?</p>	<p>MV is seeking contributions from both the provincial and federal commitments but there is currently no senior government funding committed to the IWWTP. If no funding is provided, the IWWTP would be funded solely by MV in accordance with their cost allocation bylaw.</p>

Issue, Comment, Question	Metro Vancouver (MV) Response
	The IWWTP project and the accompanying ecological projects are “shovel worthy” and are good candidates for stimulus funding from the provincial and federal governments.
The federal government may be interested in helping to fund the tertiary treatment process to protect the orcas who live in federal waters.	The impact on southern resident killer whales is an important part of the conversation underway with the federal government.
How can we best ask for Project funding support from all levels of government?	Contact your local elected government officials, including MPs and MLAs, regarding requests for Project funding support.
Are there plans to expand parking given the recent increase in the number of visitors to Iona Beach Regional Park?	A new parking lot near the multi-use building is proposed to meet the anticipated increased demand.
Will the project schedule be available for public comment?	The schedule will be included in the indicative design that will be presented to the GVS&DD Board in January 2021. Further opportunity for engagement will take place during the next phase of the Project.
Has there been any consideration given to providing job training programs for low income and Indigenous communities?	<p>MV is working on scholarship training opportunities on other projects and will consider it for this as well.</p> <p>[Post meeting comment: MV is also working with Musqueam Indian Band to provide job training and employment and contracting opportunities.]</p>
Does Iona Beach Regional Park have a park association? How do you go about creating one?	<p>There is currently no park association for Iona Beach Regional Park.</p> <p>[Post-meeting comment:</p> <p>The Regional Parks’ Community Development that works with the Park Associations will be reassessed in 2021. There will be no new park associations formed until the assessment is completed.</p> <p><u>Regional Park Stewardship grant:</u></p> <p>The George Ross Legacy Stewardship Program</p>

Issue, Comment, Question	Metro Vancouver (MV) Response
	https://www.pacificparklands.com/grants-and-scholarships/the-george-ross-legacy-stewardship-program/small-grants]

7. Closing Remarks

Ms. Candido thanked meeting participants for their attendance and contributions. She advised that the Meeting presentation will be posted on the Metro Vancouver website on September 11th, and the Meeting summary within the next month.

Tom Sadleir, Liquid Waste Services Community Engagement Program Manager, reviewed next steps in community engagement. Additional thoughts and input can be submitted to ionawwtp@metrovancover.org by October 15, 2020 for consideration in the development of the indicative design to the MV Liquid Waste Committee and GVS&DD Board in January 2021.

The meeting concluded at 3 p.m.

APPENDIX A – PARTICIPANT LIST

Participants:

Matthias Bieber	WildResearch
David Bradbeer	Vancouver Airport Authority (YVR)
James Casey	Bird Studies Canada and BC Nature Important Bird Area Program
Matt Christensen	Ducks Unlimited
Ceri Chong	Tourism Richmond
Colin Clasen	Nature Vancouver
Bruce Harrison	Ducks Unlimited
Andrew Huang	Environment and Climate Change Canada
Jeff Brooks	Vancouver Bird Advisory Committee
Anne Murray	Delta Naturalists' Society and BC Nature Important Bird Area Program
Bev Ramey	Nature Vancouver
Simon Robinson	Vancouver Airport Authority (YVR)
Megan Ross	Environment and Climate Change Canada
Scott Flemming	Environment and Climate Change Canada
Eric Balke	Ducks Unlimited Canada

Staff and Resources:

Rick Bitcon	AECOM
Michelle Candido	Metro Vancouver
Martin Clarke	Metro Vancouver
Tina Chiu	Metro Vancouver
Jeff Cutler	space2place
Lea Elliott	Metro Vancouver
Zac Fudge	Metro Vancouver
Dave Keeney	Metro Vancouver
Sylvia Pendl	Metro Vancouver
Sarah Primeau	space2place
Tom Sadleir	Metro Vancouver
Anna Wilkinson	AldrichPears
Matthew Woodruff	Local Practice Architecture
Robyn Worcester	Metro Vancouver
Carol Lee	Recording Secretary, Mosaic Writing Group