

**IONA ISLAND WASTEWATER TREATMENT PLANT PROJECT**  
**ONLINE BIRDING AND NATURALIST GROUPS STAKEHOLDER MEETING #2 and #3**  
**SUMMARY (September 10, 2020 and May 13, 2020)**

This document provides a summary of the Iona Island Wastewater Treatment Plant (IIWWTP) Project Birding and Naturalist Groups Stakeholder meeting #2 (May 13, 2020) and meeting #3 (September 10, 2020) held via videoconference.

**1. May 13, 2020 IIWWTP Update - Birder and Naturalists Meeting Summary Discussion**

The following table summarizes responses to questions and comments expressed by participants, and organized by topic, throughout the Birders and Naturalist meeting on May 13, 2021.

Issue, Comment, Question	Response
<b>Community Engagement</b>	
The estuary is important in an international flyway context. What engagement has MV undertaken with international bodies e.g. Pacific Bird Habitat Joint Venture and Western Hemisphere Shorebird Reserve Network?	The two groups you mentioned have not been specifically contacted from an engagement perspective. The focus has been on engaging local organizations to understand their perspectives regarding ecological priorities and the design of bird habitat. MV understands the priorities of the international bodies and can reflect them in the design.
Is there the opportunity for YVR to liaise, outside of these sessions, to identify and mitigate potential bird hazards presented by the chosen design?	MV has been coordinating with YVR throughout the preliminary design process and will continue to do so.
MV must engage separately with WildResearch regarding the significant impacts of the IIWWTP design on its long-term research.	The intent is to maintain the riparian forest and the space for the research program. MV will engage with WildResearch regarding specific concerns as the design progresses and a Park Management Plan gets underway after 2020 to align with the project delivery scheduling
I suggest that there be a further meeting focused solely on the wildlife enhancement included in the plan.	MV will continue to engage with interested groups as the design progresses.
<b>Wastewater Treatment</b>	
Has MV has contacted the General Manager of the new tertiary treatment plant in Orange County, California, to learn about the treatment technology utilized and the small footprint of the plant?	The project team is generally familiar with the Orange County plant and visited the Brightwater plant in King County, Washington, which has a high level of treatment.

Issue, Comment, Question	Response
	<p>The engineering consultant team has done significant research into tertiary treatment technology.</p> <p>The IWWTP will be designed with a small footprint.</p>
<p>I am pleased to see that Treatment Concepts 2 and 3 include tertiary treatment. Could you provide detail about the differences between the tertiary treatment in Concepts 2 and 3?</p>	<p>Concept 3 utilizes Membrane Bioreactor (MBR) technology that results in a slightly higher level of treatment than is obtained with disk filters. Concept 3 requires significantly more energy and is costly because the membranes must be replaced every 10 years and also utilizes more chemicals.</p> <p>The IWWTP will be future-proofed to allow for advanced treatment and new technologies to be implemented when available and required. Also, MV intends to carry out pilot testing of various technologies to treat constituents of emerging concern (CECs), which will be used to evaluate various technologies before implementing them at IWWTP.</p>
<p>The Orange County plant uses a reverse osmosis process and ultraviolet light to provide the highest level of tertiary treatment currently available. The Brightwater plant treatment does not appear to be as thorough as the Orange County plant.</p>	<p>The design team has been tasked with designing the IWWTP to meet regulatory requirements to provide a minimum of secondary treatment. However, the design team also looked at advanced treatment options. The recommended concept provides tertiary treatment using disk filters. MV's vision for the long term is that treated effluent will be part of a regional reclaimed water system.</p> <p>The treatment system at the Orange County plant is energy intensive and expensive and produces a residual stream that will require further treatment. The cost to build a plant like this would be hundreds of millions more and the cost to operate it would be tens of millions of dollars per year more.</p>
<p>Will a trade-off or consequence table that weighs the different objectives of treatment level, costs, energy consumption and disposal be shared?</p>	<p>Structured decision-making and objective hierarchy processes were used by the project team. When complete, by January 2021, the Project Definition Report (PDR) will include a consequence table and objectives hierarchy.</p>

Issue, Comment, Question	Response
<b>Lagoons</b>	
Will the dredged lagoon be part of the IWWTP footprint?	The existing sludge lagoons will not be part of the footprint of the new IWWTP. The area will be managed as part of the Regional Park. The area to the east of the lagoons is reserved for future advanced treatment.
It would be wonderful if some kind of wetland could be provided in the lagoon area.	We have been working on the spatial layout of Iona Island. The next phase of work will be the consideration of the sequencing of the provision of wetland habitat in the area of the lagoons.
When does the jurisdiction of the lagoon site transfer from the Greater Vancouver Sewerage and Drainage District (GVS&DD) to MV Parks?	There will not be a transfer of jurisdiction. The liquid waste treatment will be managed by MV Liquid Waste and the recreational areas will be managed by MV Parks.
<b>IWWTP Design</b>	
What is the footprint of the new IWWTP compared to the current plant?	As the new plant will include replacing existing infrastructure at IWWTP its footprint will be two to three times larger than the existing plant, excluding the lagoons.
Will a visitor/education centre be incorporated into the IWWTP?	There is an interpretive strategy being developed for the site. A staffed visitor centre is not planned. MV Parks will develop a Park Management Plan for Iona Beach Regional Park and new park areas.
How will light and air pollution in the airspace above the IWWTP be addressed?	<p>Light and noise will be minimized and have been incorporated into the preliminary design of the IWWTP, as raised by Musqueam Indian Band and others.</p> <p>Air pollution control technologies will be used to address regional air quality requirements.</p>
Will road traffic become an issue for people who want to access the Iona Island recreational area during sludge removal from the site and construction?	<p>The sludge removal will result in approximately five truckloads per day.</p> <p>The overall plan for construction and ongoing traffic on Ferguson Road is being discussed by the Project team, City of Richmond and YVR.</p> <p>There is consideration being given to barging some construction material to Iona Island to reduce truck traffic.</p>

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<b>Ecological Priorities and Design</b>	
Where will WildResearch's Iona Island Bird Observatory building be located?	<p>We will engage with WildResearch to identify the best location for that building.</p> <p>We expect WildResearch and other partners will have more facilities as a result of the project.</p> <p>There will also be a public meeting space provided at the new IWWTP.</p>
Will dogs and visitors be allowed throughout the site?	<p>The designs include space for trails that will be developed as the Project progresses.</p> <p>MV will ensure that protected areas for nesting birds and other animals are maintained in the park.</p>
Do you anticipate increasing the parking for buses that will bring visitors to Iona Island?	<p>There will be an opportunity to increase parking capacity, when the cycle path is improved, and to the west of the new Plant. We will consider bus parking and drop off areas within the new layout.</p> <p>The carrying capacity of Iona Beach Regional Park will be explored as part of the Park Management Plan, similar to any new park.</p>
There must be a staffed visitor centre and a bird banding centre included in the long-term plan.	<p>Staffed visitor centres are not typical in Metro Vancouver's regional parks. There is a need to integrate the perspectives of numerous stakeholders into Iona Island and the Regional Park.</p>
I am concerned that an area of highly sensitive bird habitat, that was previously restricted, will be open to the public. Can Iona Island be modelled after the Reifel Bird Sanctuary to restrict public access into the bird habitat?	<p>This is a very preliminary design and MV Parks will ensure that there will be significant areas of good quality wildlife habitat. The new park design will provide inclusive space that can be accessed by all park users thereby enhancing equitable public space for everyone in the region.</p> <p>Iona Beach Regional Park will be managed like all other regional parks. We will be relying on partners to help educate park users on responsible bird watching behaviour and etiquette.</p>

Issue, Comment, Question	Response
<p>Will ticket sales be considered to provide funding for the management and ongoing maintenance of the Iona Beach Regional Park?</p>	<p>Iona Beach Regional Park will be managed in the same way as other regional parks and there will not be a charge for admission.</p>
<p><b>Habitat Enhancement Opportunities</b></p>	
<p>What is the schedule for the detailed design of the habitat elements?</p>	<p>There will be multiple projects nested within the overall IIWWTP Project. The early enhancement opportunities that make sense to undertake before and during the construction of the new plant have been identified, subject to future modification. However, the phasing plan is in progress.</p>
<p>I suggest the development of an overall strategy to ensure a wildlife planning focus is continued in the future. I am concerned with developing Iona Island as a park given its close proximity to the city and YVR.</p>	<p>The design of the plant and park integration has been led with a systematic and precautionary ecological approach that aligns with Regional Parks mandate – to protect and connect. Accommodation of park areas for people will be through low impact pathways and boardwalks, including features such as viewing platforms and bird blinds, while preserving sensitive areas and natural assets. This will be embedded in the PDR.</p> <p>The mandate of regional parks to protect ecological areas has not changed.</p>
<p>I suggest that modelling of coastal processes be undertaken early in the process to determine the appropriate location of sediment augmentation.</p>	<p>The plan is for the studies to occur in the near term to inform the detailed design of the foreshore elements.</p>
<p>The federal Minister of Environment’s mandate letter included a focus on nature-based solutions to climate change. The IIWWTP could be a candidate for federal funding.</p>	<p>MV is in discussions with the federal government regarding IIWWTP Project funding.</p>
<p>Any habitat change that is close the airport is of concern to YVR. How much of the habitat work is included in the concept design that will be presented for approval [to the Liquid Waste Committee and GVS&amp;DD Board] in July 2020?</p>	<p>Some ecological projects could be undertaken before plant construction. The next stage of the work will be to develop a phasing plan and schedule for ecological projects.</p> <p>The elements of the report to the GVS&amp;DD Board and Liquid Waste Committee have not yet been determined but will likely include most, if not all, the ecological projects included in the</p>

Issue, Comment, Question	Response
	presentation provided today.
<b>General</b>	
Do the 2030 federal and provincial regulatory deadlines have anything to do with the <i>Impact Assessment Act</i> deadlines?	The 2030 deadline requires the IWWTP to provide secondary treatment to meet effluent quality requirements as described in Metro Vancouver’s provincially-approved <i>Integrated Liquid Waste and Resource Management Plan</i> , and the Government of Canada’s <i>Wastewater Systems Effluent Regulations</i> .

**2. September 10, 2020 IWWTP Update – Birders and Naturalists Meeting Summary Discussion**

The following table summarizes responses to questions and comments expressed by participants, and organized by topic, throughout the Birders and Naturalist meeting on September 10, 2020.

Issue, Comment, Question	Metro Vancouver (MV) Response
<b>Ecology Projects</b>	
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.

<b>Issue, Comment, Question</b>	<b>Metro Vancouver (MV) Response</b>
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.
<b>Stakeholder Funding and Partnerships</b>	
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, education and outreach activities? Is there an opportunity for stakeholders to explore available funding?	<p>The project budget will be set after the concept is approved by the GVS&amp;DD Board and the project moves to the detailed design phase.</p> <p>We would encourage participants to continue to engage 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</p>

Issue, Comment, Question	Metro Vancouver (MV) Response
	<p>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:  <a href="http://www.metrovancouver.org/services/parks/get-involved/volunteer/Pages/default.aspx">http://www.metrovancouver.org/services/parks/get-involved/volunteer/Pages/default.aspx</a></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>
<b>Park Management Plan</b>	
<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>
<b>Wastewater Treatment Options</b>	
<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</p>



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	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.
Is the intent to produce water that is of a lower quality than what is achieved at the Orange County plant?	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.  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.
Where does the input on suggested improvements go?	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.
<b>Other</b>	
Would the federal and provincial governments be willing to provide funding for the tertiary treatment processes?	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.  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	A new parking lot near the multi-use building is proposed

Issue, Comment, Question	Metro Vancouver (MV) Response
parking given the recent increase in the number of visitors to Iona Beach Regional Park?	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> <p><a href="https://www.pacificparklands.com/grants-and-scholarships/the-george-ross-legacy-stewardship-program/small-grants">https://www.pacificparklands.com/grants-and-scholarships/the-george-ross-legacy-stewardship-program/small-grants</a> ]</p>