

## Meeting Minutes –March 4, 2024

ATTENDANCE - [✓ - Present, R - Regrets]	
DBID Board Members	<ul style="list-style-type: none"> <li>- Present: Christo, Diane, Janine, Claire, Craig, Colin, and Suzanne</li> <li>- Regrets: Bob</li> </ul>
DBID Water Operator	<ul style="list-style-type: none"> <li>- Present: Don</li> </ul>
Island Health	<ul style="list-style-type: none"> <li>- Present: Stacey, Shaun, Seulbi, Jasmine, and Phi</li> </ul>

Meeting with Trustees and Water Operator of Deep Bay Improvement District	
Items	Discussion
Reservoir and Secondary Disinfection	<p>Report by Herold Engineering doesn't speak to the specific sources of contamination that may be present for the reservoir but speaks to integrity, lifespan (10-15 years), and identifies various areas that require repairs.</p> <p>During pressure washing on the top of the reservoir, saw the hatch as potential entry point, focus going forward is to seal the cracks.</p> <ul style="list-style-type: none"> <li>- As the cracks on the sides of the reservoir are considered lower risk, higher priority should be given to repair the cracks on the hatch/roof of the reservoir.</li> </ul> <p>DBID wants to avoid replacing reservoir and has a majority decision to move forward on making necessary repairs:</p> <ul style="list-style-type: none"> <li>- 2024 budget: \$250,000 has been set aside to do reservoir remediation. Repairs including filling of cracks, resurfacing root, etc.</li> </ul> <p>Questions brought up from the Board:</p> <ul style="list-style-type: none"> <li>- Any information/research/document on microorganism ingress/migration in the reservoir?</li> <li>- Any recommendation on water specialist who can investigate potential sources of contamination?</li> </ul> <p>Water turnover within the reservoir:</p> <ul style="list-style-type: none"> <li>- Interest in improving turnover of reservoir. Recognition that single inlet/outlet design is creating stagnation challenges.</li> <li>- Suggestion of having the water line extended to the top of the reservoir to encourage movement of water as suggested by the operator in the past.</li> </ul>

	<p>Implementation of big-ticket items such as secondary disinfection:</p> <ul style="list-style-type: none"> <li>- Island Health and the Board will mutually agree upon a timeline.</li> <li>- Rapid implementation may be required for an immediate concern, such as repeated <i>E. coli</i> counts in the water samples.</li> <li>- Currently, there is room to allow for an extended time frame for implementation (approx. 1-2 years). Provided the system will make basic repairs that might be contributing the ingress into reservoir, changes in standard operating procedures, demonstrate good microbiological results, install multiple fire hydrants for fire suppression, refresh water within reservoir more often, and have a solid plan of building a new reservoir in the future with removal of dead-end lines.</li> <li>- What will drive the eventuality for implementation of chlorination? – repeated failed tests, unknown condition of reservoir, reservoir not functional, identified as probable source of total coliform.</li> </ul> <p>What if the water is chlorinated as it is?</p> <ul style="list-style-type: none"> <li>- Chlorination to occur right after the wells before the water enters the reservoir as secondary disinfection is <b>not</b> relying on contact time.</li> <li>- Making secondary disinfection more manageable even with current system design.</li> </ul> <p>Point made that UV can provide initial treatment step of water and chlorination for residual will require less chlorine (i.e. just enough to maintain residual throughout lines)</p> <ul style="list-style-type: none"> <li>- The four wells are assessed as non-GARP wells, therefore does not require UV disinfection to eliminate risk factors such as <i>Giardia</i> and <i>Cryptosporidium</i>.</li> <li>- Is UV disinfection enough to bring well #1 back on-line? Need further assessment in the surrounding area to determine the target virus. If the target virus is human viral sources (adenovirus), chlorine will be required.</li> </ul>
<p>Maintenance Work by Operator and Construction Permits</p>	<p>Can Island Health advise on how to maintain/monitor the reservoir?</p> <ul style="list-style-type: none"> <li>- Island Health provide general guidance (i.e. turnover, secondary disinfection, or cleaning of the reservoir). However, we defer operation of reservoir to expertise of operator. As Don is the operator and has training as required EOCP level, he has good understanding on how the reservoir work and will defer to Don.</li> <li>- Priority should be given to make reservoir back on-line. Discussed limitations of no electrical power as well as the design itself. The board will sit down with the operator to discuss further.</li> </ul> <p>Construction Permits for repairs/works on the reservoir:</p> <ul style="list-style-type: none"> <li>- To ensure compliance with the Regulation, it's important for qualified water system professionals who have the right skill set and knowledge point to do works on the system.</li> </ul>

	<ul style="list-style-type: none"> <li>- Island Health will give evaluation, provide comments, and approve the proposed work with or without amendments.</li> <li>- Construction permit is not necessary for projects such as electrical power and generator on wells.</li> <li>- Construction permits necessary for any components of the reservoir that will be altered, particularly components that can come into contact with water (i.e. sealing cracks, sealing metal-to-metal junctions at hatches). Verification of resurfacing roof requiring construction permit will be provided at a later time.</li> <li>- Construction permit can be submitted to the DWO – Seulbi Lee.</li> </ul>
Drought Response and Contingency Plan	<p>Deadline to submit the Drought Response and Contingency Plan is coming up:</p> <ul style="list-style-type: none"> <li>- Absolute deadline is March 31<sup>st</sup>, 2024, but please submit at least a week prior to give the DWO time to review and provide comments.</li> <li>- Drought plan back in 2005 had similar points that can be used for the Drought Response and Contingency Plan.</li> <li>- Stacey will provide the template and an example Plan to Colin.</li> <li>- The system has additional sources of well that can be used during an emergency. There’s an opportunity to turn Well #1 and 2 on-line for basic sanitation purposes, automatically go into boil water advisories.</li> <li>- Janine has the info on water level of Well #3 and 10. She will share the info to the rest of the Board members.</li> <li>- Hydrogeology report done by Mr. Eaton in 2014 – talks about recoverable amount/capacity of the wells.</li> </ul>
	<p>Queries from the ratepayers of DBID:</p> <ul style="list-style-type: none"> <li>- EHOs are receiving direct emails from ratepayers of DBID.</li> <li>- We will be directing the queries back to the Board.</li> </ul>

	Action Items	Responsible Person
1.	Submit a written plan on what the next steps are with the current reservoir by April 15, 2024.	DBID Board
2.	Submit a weekly water sample from the reservoir.	Don
3.	Provide a Drought Response Plan template and an example to Colin.	Stacey
4.	Provide any research on migration of microorganism in the reservoir.	Stacey
5.	Reassessment of Well #1 and its surrounding area.	Seulbi