



**Installation of New Intake Screen and  
Anchoring System at Waugh Lake**

**PO # 3005445**

January 15th 2025

Prepared for:

Sunshine Coast Regional District  
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Attention: Coddie Abbott

Prepared By:

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## **Summary:**

On January 15th 2025, Freedom Diving Systems Ltd. (FDS) mobilized a crew, equipment and materials to extend and raise an intake pipe and install an anchoring system for improved functionality.

The intake pipe was extended approximately 40' offshore through the addition of a 50' section of 4" HDPE pipe. The HDPE extension was coupled to the existing 6" PVC pipe with a flexible rubber reducer secured with two hose clamps.

To stabilize the joint, four 95-pound precast concrete pipe weights were installed with two inshore and two offshore of the coupling.

The new terminus of the intake is approximately 49°44.909'N 123°56.664'W located in 51' of water depth.

FDS installed a 300-pound concrete anchor in the lakebed to secure the new terminus in position. A fine mesh, stainless steel intake screen was installed at the end of the HDPE pipe. This was suspended within the water column, approximately 15' from the lake bed, utilizing a midwater float.

The existing terminus was not recovered due to limited daylight hours. FDS recommends inspection of the new terminus after 12 months to monitor the settlement of the new terminus anchor into the lake bed. During this inspection, it is proposed to remove the original intake and section of pipe.

**Photo Log:**



*Photo 1: New 4" HDPE pipe installed.*



*Photo 2: Anchor weights around the new pipe.*

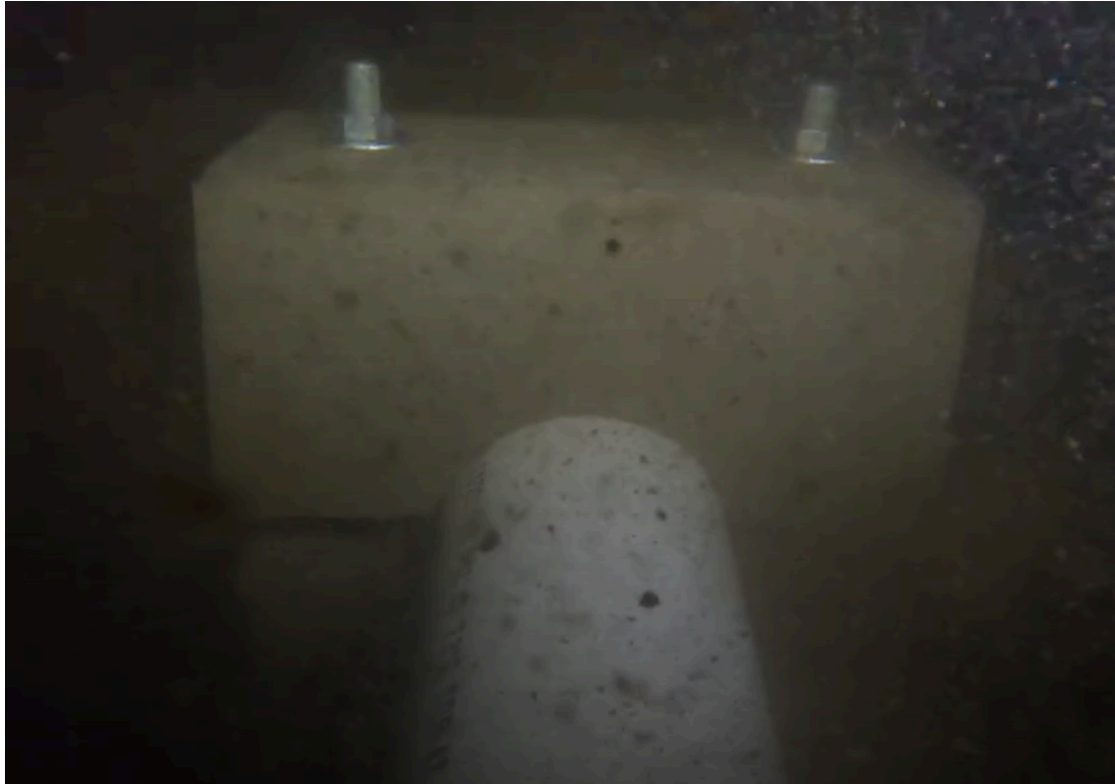


Photo 3: Anchor weights around the existing pipe



Photo 4: Anchor weights around the existing pipe

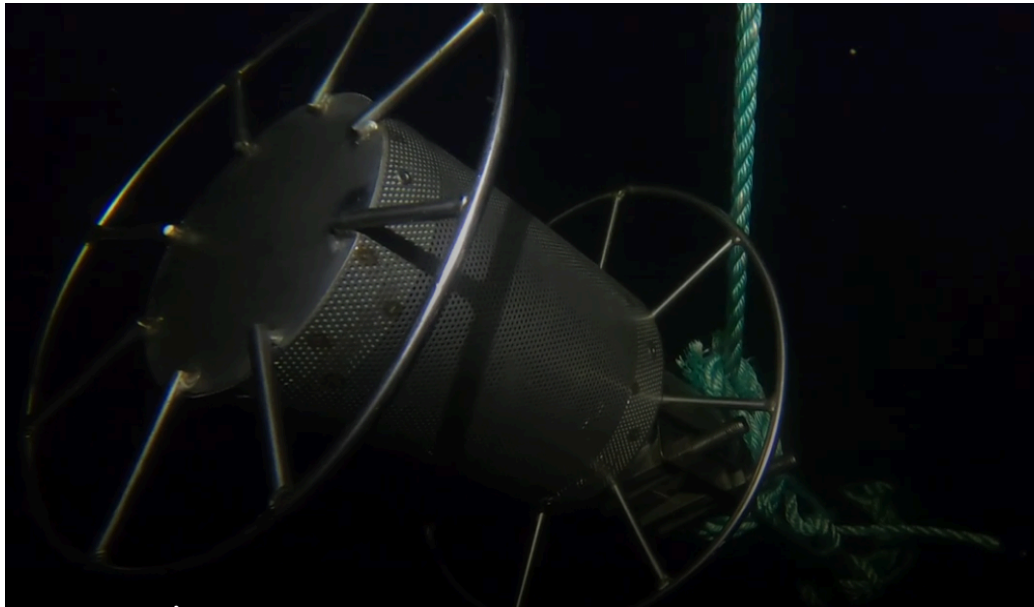


Photo 4 New stainless steel intake screen installed



Photo 5 New intake screen suspended approximately 15' from the lake bottom



*Photo 6: A3 Scotchman mid water float suspending intake screen off the lake bottom.*

### **Conclusion:**

In conclusion, Freedom Diving Systems Ltd. successfully executed the extension and stabilization of the intake pipe. The addition of 50 feet of HDPE pipe, reinforced with an anchor system, will improve the stability and longevity of the structure. Furthermore, the installation of a fine-mesh screen, in collaboration with the Sunshine Coast Regional District, addresses ecological concerns by preventing fish from entering the system.

Ben Zander

A handwritten signature in black ink, appearing to be 'Ben Zander', with a long horizontal line extending to the right.

Operations Manager

Prepared for Sunshine Coast Regional District  
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Close-Out Report



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