

5. Garden Bay Lake

Intake Location Address:	4470 Garden Bay Road	
Intake Location GPS:	49° 38.217 North	124° 1.613 West
Terminus GPS Location:	49° 38.448 North,	124° 1.685 West
Pipe Length:	1,492 feet / 455 metres	
Intake Screen Depth:	85 feet / 26 metres	
Lakebed Depth:	90 feet / 27.4 metres	
Construction Details:		
Pipe Diameter	12-inch	
Pipe Material:	Unknown. No distinct markings observed	
Anchoring	Concrete pipe sleeves at approx. 6m spacing	

Intake Screen Details

Intake screen stainless steel structure 2 feet / 0.6 metres in length and diameter of 24-inches

Stainless steel diffuser consists with slits 1-inch by 1/8-inch

Intake screen supported by steel A-frame structure & floating barrel

16 Bolt flange only supporting 8 bolts which connects screen to main pipe

Garden Bay Lake Assessment Notes

The Garden Bay Lake intake pipe extends for a total estimated length of 1,492 feet / 455 metres. Approx. 6.5 feet / 2 metres from shore is a clock spring joint measuring 4 feet / 1.2 metres in length with a total of 32, 3/4-inch bolts securing the two flanges. The pipe is exposed over the first 900 feet / 274 metres of its length before it gets buried to the terminus. The main section of pipe, through the part of the lake where it is exposed above the lakebed, runs parallel to an old section of pipe which is not active and this infrastructure has been left in the lake. The terminus of the pipe was recorded at a depth of 85 feet / 26 metres at an area of the lake that is 90 feet / 27.4 metres deep. The intake screen has a rise of 5 feet / 1.5 metres above the lakebed and is supported by a steel A-frame structure with a support bracket that is 3.5 feet / 1 metre back from the screen connection flange. The support bracket shows a moderate to heavy amount of corrosion but is still functional in securing the pipe. Above this bracket is a piece of rope secured by a shackle that suspends a plastic barrel which is full of air. This barrel provides lift to the end of the pipe potentially keeping the steel frame structure from sinking into the sediment. The main intake connection flange is a 16-bolt flange assembly but only contains 8-bolts.

Pipe anchoring is comprised of sections of concrete pipe tied into place with sections of rope which were observed along the entire length of the exposed section of the pipe.

Overall, the intake pipe and screen are visibly in good condition with no signs of leaks or damage. There is no indication that the 8-bolts, versus 16-bolts in the flange is of a concern, as the bolts are secure and in good condition. The screen did have a heavy amount of algae/sediment coverage when inspected which was all removed by divers

Garden Bay Lake Photos

