

MEMORANDUM FOR THE RECORD**SUBJECT: 17BON01 MFR – ROV inspection at Cascades Island Entrance Pool**

On 07 February, Project biologists conducted an ROV inspection of the Cascade Island and B-branch entrance pools. No issues were found at B-branch. Four items of concern were found at Cascades Island.

- 1) Diffuser pit access hatch across from FG6-18 is blown off (figure A).
- 2) The south elevator door has a screen opening at its base that is blown open (figure B).
- 3) One piece of grating at FG6-20 is blown off (figure C).
- 4) One of two channel keeper bars on the FG6-16 diffuser plate is blown off (figure D). These bars hold the diffuser plate in place. When the other bar goes, the diffuser plate will displace.



Figure A.



Figure B.



Figure C.



Figure D.

Cascades Island diffusers (FG6-)			
FG6-	Auto/Man	TW elev.	Position
5	auto	>31'	open
6	auto	>29'	open
7	auto	>25'	open
8	auto	>23'	open
9	auto	>20'	open
10	auto	>17'	open
11	auto	>14'	open
12	auto	11'-33'	open
13	auto	10'-31'	open
14	auto	9'-28'	open
15	manual		open
16	manual		open
17	manual		open
18	auto	>12'	open
19	auto	>15'	open
20	auto	>19'	open

Update: BON project has made operational adjustments to the CI ladder to close the diffusers with blown gratings/hatches so there is no attraction flow to these holes. The next options are as follows.

- 1) Do nothing. Leave the problem diffusers closed and adjust with other diffusers until we can access the area for a proper fix. Two years from now unless we do an out of cycle dewatering.
- 2) Attempt to place material (plate steel, grating, etc.) over the open holes while watered up and then leave the diffusers closed to avoid displacing them. This could be in conjunction with a diver to facilitate placement. This would take one day

3) Dewater the CI ladder and fix the three issues properly, in the dry. This would take an estimated 4 days and 30K in labor.

Sincerely,
Bonneville Fisheries