



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

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March 5, 2021

Pat Hulett
Department of Fish and Wildlife
WA DFW Lower Deep River Net Pens
804 Allen Street, Suite 3
Kelso, WA 98626

Re: WA DFW Lower Deep River Net Pens – Permit No. WA0040053 Inspection

Dear Pat Hulett:

Thank you for facilitating an inspection and a tour of your facility on February 8, 2021. Please find a copy of the inspection report and photo log for your reference and records. If you have any questions regarding this inspection report, please contact me at hiro.kusakabe@ecy.wa.gov or (360) 810-1340.

Sincerely,

A handwritten signature in black ink, appearing to read "Hiro Kusakabe", is written over a light blue horizontal line.

Hiro Kusakabe
Industrial Facility Manager | Lower Columbia Basin
Southwest Regional Office
Water Quality Program

Enclosures: Water Quality Inspection Report
Photograph Log

Water Compliance Inspection Report

Section A: National Data System Coding (i.e., PCS)

Transaction Code						NPDES				yr/mo/dy				Inspection Type				Inspector				Facility Type																																	
1	N					W	A	004	0053							C	I		S							2																													
Remarks																																																							
21																																																							
Inspection Work Days								Facility Self-Monitoring Evaluation Rating								B1				QA				Reserved																															
67						0.4										71	N									72	N					73						74						75						80					

Section B: Facility Data

Name and Location of Facility Inspected <i>(For industrial users discharging to POTW, also include POTW name and NPDES permit number)</i> WA DFW Lower Deep River Net Pens 123 Oneida Road Naselle, WA 98638		Entry Time/Date 9:00 a.m. 2/8/2021	Permit Effective Date Unpermitted
		Exit Time/Date 11:30 a.m. 2/8/2021	Permit Expiration Date Unpermitted
Name(s) of On-Site Representative(s)/Title(s)/Phone and Fax Number Patrick Hulett, Net Pen Project Manager, (360) 846-5268 Shane McEneny, Fish Hatchery Specialist, (360) 465-2446 Karl Mahlum, Fish Hatchery Specialist, (360) 465-2446		Other Facility Data <i>(e.g., SIC NAICS, and other description information)</i> SIC 0273 – Animal Aquaculture	
Name, Address of Responsible Official/Title/Phone and Fax Number Aaron Roberts, (360) 577-0197 Regional Hatchery Reform & Operations Manager		NAICS 112511 – Finfish Farming and Fish Hatcheries	
		Contacted <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	

Section C: Areas Evaluated During Inspection (Check only those areas evaluated)

<input type="checkbox"/> Permit	<input type="checkbox"/> Self-Monitoring Program	<input type="checkbox"/> Pretreatment	<input type="checkbox"/> MS4
<input type="checkbox"/> Records/Reports	<input type="checkbox"/> Compliance Schedules	<input type="checkbox"/> Pollution Prevention	
<input checked="" type="checkbox"/> Facility Site Review	<input type="checkbox"/> Laboratory	<input type="checkbox"/> Stormwater	
<input checked="" type="checkbox"/> Effluent/Receiving Waters	<input type="checkbox"/> Operations & Maintenance	<input type="checkbox"/> Combined Sewer Overflow	
<input type="checkbox"/> Flow Measurement	<input type="checkbox"/> Sludge Handling/Disposal	<input type="checkbox"/> Sanitary Sewer Overflow	

Section D: Summary of Findings/Comments



(Attach additional sheets of narrative and checklists, including Single Event Violation codes, as necessary)

Hiro Kusakabe (Department of Ecology – Water Quality Program – Southwest Regional Office) entered the net pens site on the Deep River at 9:00 a.m. on February 8, 2021. The weather was sunny. Hiro met with Patrick Hulett, Shane McEneny, and Karl Mahlum from the Department of Fish and Wildlife (DFW) onsite.

Since this was the first time that Hiro has been at the Deep River net pens, Patrick, Shane, and Karl provided a brief history and background of the facility and its operations. Then the DFW team provided information regarding the facility that was helpful for the inspection along with the permit and fact sheet for this unpermitted facility.

The net pens appeared to be free of algae growth and looked to be in good shape. The water quality around the net pens appeared to be the same as the rest of the Deep River. The wooden walking surfaces were slippery in some places but the site overall appeared to be well kept.

Please see the following pages which summarizes the inspection and the facility.

Verify Latitude and Longitude 46.32775, -123.69921		<input checked="checked" type="checkbox"/> Announced <input type="checkbox"/> Unannounced
Name(s) and Signature(s) of Inspector(s): Hiro Kusakabe 	Agency/Office/Phone and Fax Numbers Ecology/SWRO (360) 810-1340	Date 2/25/2021
Name(s) and Signature(s) of Inspector(s):	Agency/Office/Phone and Fax Numbers	Date
Signature of Management QA Reviewer Steven G. Eberl, P.E. 	Agency/Office/Phone and Fax numbers Ecology/SWRO (360) 407-7293	Date 3/5/2021

The following is a summary of the facility and information gathered during the inspection:

Facility background

- The road to get to the net pens on the Deep River is on leased property. The Department of Fish and Wildlife (WDF) only owns the piling, dock, nets, and the structure at the net pens
- DFW personnel is onsite roughly 3 days per week. Personnel typically spend roughly 1 hour onsite when providing feed for the salmon and roughly half a day or longer when hauling salmon to the net pens from the hatcheries.

Water Quality

- Because the net pens on the Deep River are roughly 5 miles away from the Columbia River, the water quality of the Deep River is very similar to that of the Columbia River
- During the site visit, no algae was visible in the net pens. There was one net pen with plant growth in it. There is typically algae presence in the net pens in the summer months. The warm water, low volume, and slow flow contribute to the algae growth. During the previous inspection by Ecology in October of 2011, there was algae growth in 6 of the net pens.
- The Deep River is tidally influenced. During the visit, the river was flowing southward towards the Columbia River. But the flow was very slow
- DFW personnel has measured dissolved oxygen in the Deep River. The dissolved oxygen is typically at the lowest around 8 mg/L and is usually between 9 and 10 mg/L

Net Pens Operations

- The DFW operates the net pens for rearing Coho salmon and spring Chinook salmon for release into the natural environment
- During the inspection, 5 out of the 31 available net pens were filled. Not all 31 net pens are typically used. During a typical season, roughly 20 net pens are used for Coho salmon and roughly 4 net pens are used for spring Chinook salmon
- DFW's intent is for the released salmon to mature in the ocean and be harvested in a gillnet fishery in Deep River when the salmon return as adults. The DFW intends to provide commercial gillnet harvest opportunity within the Deep River, where there is less likelihood of capture of ESA protected stocks of salmon and steelhead that might occur in the Columbia River
- The juvenile Coho salmon are typically stocked from the Beaver Creek hatchery. Coho salmon juveniles are loaded into the net pens in October or November and released in the following May.
- The Chinook salmon are typically stocked from the Kalama hatchery. Spring chinook juveniles are also typically released into the net pens in October or November. And are released in halves – one half in November or December and the other half in June
- The amount of feed is calculated using a computer model that accounts for the target fish per pound and release date. The fish per pound is verified weekly or bi-weekly. The feed accounts to roughly 2% of the bodyweight of the fish. The amount of feed is also adjusted by season. Less feed is needed in the colder months because the fish often do not come up to the surface. More feed is needed in the warmer months (e.g. March through May) which are also the highest growth months.

Net Pens Maintenance

- The maintenance for the net pens and its structure are almost all done by DFW
- The wooden boards that are used for walking on are fixed and/or replaced as needed. Lumber is obtained every year for repairs. The entire decking structure is chained and connected to metal poles in the Deep River along the shore. The structural integrity of the net pens and its surrounding structures are not inspected
- The nets are inspected every year. After planting the fish, the nets are pulled, hosed off, pressure washed, then inspected. According to DFW, the nets at this site typically last 10 years because they are UV protected. Holes are typically not found during the annual inspections. When holes are present, DFW personnel typically find out because the feed is left uneaten in the net pens

Recommended Actions

Permittee:

1. Continue to work with Hiro on the permit issuance process
2. Once the permit is issued, continue to work with Ecology on completing water quality tests and resolving any issues
3. The permittee must inform the Department of Ecology (Ecology) of any upsets or failures at the net pens (e.g. fish escaping, water quality issues, missing net pens, etc.)
4. The permittee must inform Ecology if there are plans to make significant changes to the net pens operations

Department of Ecology:

1. Ecology will keep working on issuing a NPDES permit for this facility
2. Ecology will forward a copy of this inspection report to the permittee for their review and records
3. Ecology will work together with DFW if any issues arise at the facility and the surrounding waters



Figure 1: Road on the leased land to get to the net pens



Figure 2: Walkway to access the net pens



Figure 3: North end of the net pens from the shore



Figure 4: Walkway to access the net pens. PVC piping on the left is used for releasing salmon into the net pens



Figure 5: Net pens looking towards the south. Container with fish feed is at the bottom of the picture



Figure 6: Net pens looking towards the north



Figure 7: Label for the fish feed used at the site



Figure 8: Net pens looking towards the north



Figure 9: Plant growth in a net pen



Figure 10: Close-up of the plant growth outside of the water