



NPDES Compliance Inspection Report

Spokane Tribal Hatchery Ford, Washington

Permit #: WAG130019

Inspection Date: August 3, 2021

Prepared by:

Raymond Andrews
U.S. Environmental Protection Agency, Region 10
Enforcement & Compliance Assurance Division
Water Enforcement & Field Branch
Field, Data & Drinking Water Enforcement Section

Inspector Signature/Date:

RAYMOND ANDREWS	Digitally signed by RAYMOND ANDREWS Date: 2021.10.08 08:05:34 -07'00'
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Supervisor Signature/Date:

Contreras, Peter	Digitally signed by Contreras, Peter Date: 2021.10.08 08:27:34 -07'00'
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(Unless otherwise noted, all details in this inspection report were obtained from conversations with Mr. Tim Peone, or from observations made during the inspection.)

I. Facility Information

Facility Name: Spokane Tribal Hatchery

Facility Owner/Operator: Spokane Tribe of Indians

Physical Address: 5629 Fish Hatchery Drive
Ford, Washington 99013

Mailing Address: P.O. Box 100
Wellpinit, Washington 99040

Lat/Long: 47.90662, -117.85594

SIC Code: 0921 – Fish Hatcheries and Preserves

NAICS Code: 11251 – Animal Aquaculture

Facility Contacts: Tim Peone, Hatchery Manager
Phone: (509) 258-7297
Email: timpeone@spokanetribe.com

Permit Number: WAG130019

Nearest Surface Water: Tshimakain Creek

II. Inspection Information

Inspection Date: August 3, 2021

Inspectors: Raymond Andrews, Inspector
EPA Region 10, ECAD / FDDWES
Phone: 206-553-4252

Arrival Time: 9:30 AM

Departure Time: 12:00 PM

Weather: Sunny, 67°F

Purpose: To determine compliance with the Clean Water Act (CWA) and the National Pollutant Discharge Elimination System (NPDES) permit for Federal Aquaculture Facilities and Aquaculture Facilities Located in Indian Country within the boundaries of the State of Washington.

III. Permit Information

On June 21, 2016, the U.S. Environmental Protection Agency (EPA) issued the National Pollutant Discharge Elimination System (NPDES) permit for Federal Aquaculture Facilities and Aquaculture Facilities within the boundaries of the State of Washington (“Permit”), permit #WAG130000. The permit became effective on August 1, 2016, and expired on July 31, 2021. Subsequently, the permit was administratively continued. The Spokane Tribal Hatchery is covered by the aquaculture permit under permit tracking number #WAG130019.

On July 22, 2021, EPA Region 10’s NPDES Permitting Unit (NPU) issued a letter explaining to the facility that since it had submitted a timely and complete reauthorization NOI, the facility could continue operating under coverage of the administratively continued permit.

IV. Enforcement Background

The facility was last inspected by EPA on February 19, 2015. No formal action has been taken against the facility.

V. Inspection Chronology

This was an announced inspection. On July 20, 2021, I contacted Mr. Tim Peone, Hatchery Manager, by email. We agreed to meet at the facility on August 3rd at 9am.

I arrived and was greeted by Mr. Peone to whom I presented my credentials. I gave him a copy of the Small Business Resources Information Sheet. Mr. Peone accompanied me throughout the inspection and did not deny access to any part of the facility.

I began the inspection with an opening conference with the Mr. Peone. Upon completion of the opening conference, I conducted a file review which was followed by a tour of the facility. The inspection concluded with a closing conference where I discussed my observations and next steps.

VI. Opening Conference

The Spokane Tribal Hatchery (“Facility”) was constructed in 1990, and is in northeast Washington near the southeastern region of Lake Roosevelt at Metamootes Springs. The facility’s effluent flows into Chamokane Creek (aka Tshimakain Creek), a tributary of the Spokane Arm of Lake Roosevelt.

The hatchery consists of 44 indoor/outdoor raceways with 26,752 cubic feet of rearing space. The facility uses both surface and ground water sources and incubates eggs using self-fabricated upwelling units.

The hatchery produces approximately 750,000 triploid Rainbow trout annually to release for sport fishing. In addition to its primary function of raising the Rainbow trout, the hatchery supports the Tribe's conservation and recovery effort for Redband trout, Upper Columbia White Sturgeon, and various other species of anadromous fish.

The facility discharges to Chamokane Creek on a continuous basis through a single outfall, Outfall 001. Mr. Peone conducts monthly influent and effluent monitoring. The influent comes from two sources, a well and a surface water spring. The water from the two influent sources co-mingle prior to sample collection. The facility collects influent samples at the headbox and effluent samples are collected at Outfall 001. All samples are grab samples. The facility does not conduct surface water monitoring.

Inflow and outflow are measured using electronic flow meters. The meters were calibrated when installed and have not been calibrated since. Flow is calculated, not measured, for the off-line settling basins (OLSB). The OLSBs do not discharge to waters of the U.S.

The facility does not use chlorine; however, it does use Aquaflor® for disease control. Mr. Peone fills out and submits the discharge monitoring reports (DMRs).

VII. Laboratory Inspection

The hatchery maintains a small laboratory and conducts in-house analysis for flow, temperature, settleable solids, and pH. The facility uses pH strips from Med Lab Diagnostics to determine the pH level of water samples.

Ammonia and total suspended solids (TSS) are analyzed by a contract laboratory. The contract lab is:

Tshimakain Creek Laboratories
5503 East Broadway Avenue
Spokane Valley, Washington 99212
(509) 928-3577

VIII. Site Inspection

An aerial view of the facility, **Appendix A**, is provided by Google Maps. Photographs used in this inspection report and a Photograph Log is in **Appendix B**.

Mr. Peone took me on a brief tour of the site. Located right outside Mr. Peone's office is a small laboratory maintained by the facility and used to perform the in-house analysis of settleable solids and pH. The facility uses test strips (**Photos 1 & 2**) to test the pH level of water samples.

The facility was clean and well-maintained. I did not observe any excess food, mortalities, or algal growth during the inspection. The facility's raceways extend from inside the building (**Photo 3**) to an outside covered portion (**Photo 4 & 5**).

As stated in the above section, “Opening Conference”, the facility uses two water sources to operate the hatchery, a well and a surface water spring. Both sources of water enter the system through several headboxes. An example of a headbox is in **Photo 6**. Spring water enters the system through the pipe on the left in the picture and the well water enters from the pipe on the right. The facility collects a grab sample of the influent from the headbox after the well and spring waters have co-mingled.

The facility uses an Oxyguard® system to monitor dissolved oxygen and temperature in each raceway. The system is primarily composed of monitoring probes (**Photo 7**) located in the exterior section of raceway and monitoring & control units (**Photo 8**) located on the wall between the interior and exterior sections of the raceways.

The facility discharges directly into Tshimakain Creek at a point downstream from the facility as annotated on the aerial photo in Appendix A. The facility collects a grab sample of the effluent at the discharge point (**Photo 9**).

IX. File Review

- EPA’s Integrated Computer Information System (ICIS) data from September 2016 through August 2021
- Chain of Custody (COC) Documents – January 2017 through December 2019
- 2021 Notice of Intent (NOI) Reauthorization Letter – dated July 22, 2021
- Combined Quality Assurance (QA)/Best Management Practices (BMP) Plans – dated February 2014

X. Areas of Concern

A. pH Analysis

Part IV.B.2, Table 4 of the Permit shows the sample type for pH monitoring is “Meter.”

At the time of the inspection, I asked Mr. Peone how pH was tested, and he showed me the container of test strips the facility uses to determine pH. Sampling pH with test strips rather than a pH meter does not meet the requirements of the permit which states “meter” as the monitoring “Sample Type”.

B. Discharge Monitoring Reports (DMRs)

Part IV.C.2 of the Permit states, in part, “All required monitoring data must be submitted electronically to EPA no later than the 20th day of the month following the end of the reporting period.”

Post inspection, I reviewed DMR submissions from September 2016 through August 2021. Of the DMRs reviewed, two were not received, eight were late, and 37 were missing data, i.e., total residual chlorine, flow, and settleable solids. **Appendix C** contains a table of the DMR deficiencies.

Note: Since Mr. Peone says the facility does not use chlorine, it is possible that the deficiencies for missing chlorine data is due to incorrectly coding the electronic DMRs.

C. Preservation Temperature

Part VI.B of the Permit states, in part, “The Permittee must conduct monitoring according to test procedures approved under 40 CFR 136...”

40 CFR Part 136, Table II indicates the preservation temperature of samples to be analyzed for total suspended solids (TSS) is $\leq 6^{\circ}\text{C}$.

As part of the inspection, I reviewed laboratory chain-of-custody (COC) documents from January 2017 through December 2019. The COCs were incomplete, i.e., missing facility information, and on the January 12, 2017, COC, the parameter to be analyzed was not identified. The following deficiencies were found on the reviewed COCs:

	2017	2018	2019
Missing Preservation Temperature	5	2	6
Over Preservation Temperature	4	7	3

Note: The COCs for April – July 2017 were not available for review.

D. Quality Assurance (QA) Plan

Part IV.F.c of the of the Permit states, in part, “Throughout all sample collection and analysis activities, the Permittee must use the EPA-approved quality assurance and quality control (QA/QC) and chain-of-custody procedures described in Requirements for Quality Assurance project Plans (EPA/QA/R-5) and Guidance for Quality Assurance Project Plans EPA/QA/G-5). The QA Plan must be prepared in the format that is specified in these documents.”

Upon review of the QA Plan, I found that the plan was not prepared in the specified format. EPA Requirements of Quality Assurance Project Plans (EPA/QA/R-5) require that QA Plans contain four specific elements. Those four elements are Project Management, Data Generation and Acquisition, Assessment and Oversight, and Data Validation and Usability. All four elements of the facility’s QA Plan were either missing or incomplete.

E. Best Management Practices (BMP) Plan

Part IV.F.5 of the of the Permit states that the BMP Plan must include, at a minimum, sections on; material storage, structural maintenance, record keeping, training requirements, and operational requirements.

Upon review of the BMP Plan, I found that the plan was missing sections on material storage, structural maintenance, record keeping, training requirements, and operational requirements, which are required by the permit.

XI. Closing Conference

I held a closing conference with Mr. Peone. I went over my observations. and gave a brief overview of the post-inspection process. I thanked him for his time and assistance then departed the facility.

Appendix A Aerial Facility Image

Aerial Image provided by Google Maps.



Appendix B

Inspection Photographs and Photograph Log

(Photographs taken by Ray Andrews on August 3, 2021 with a Panasonic DMC-FH25 camera)



Photo 1 / P1000985 – pH Test Strips Box, front view.

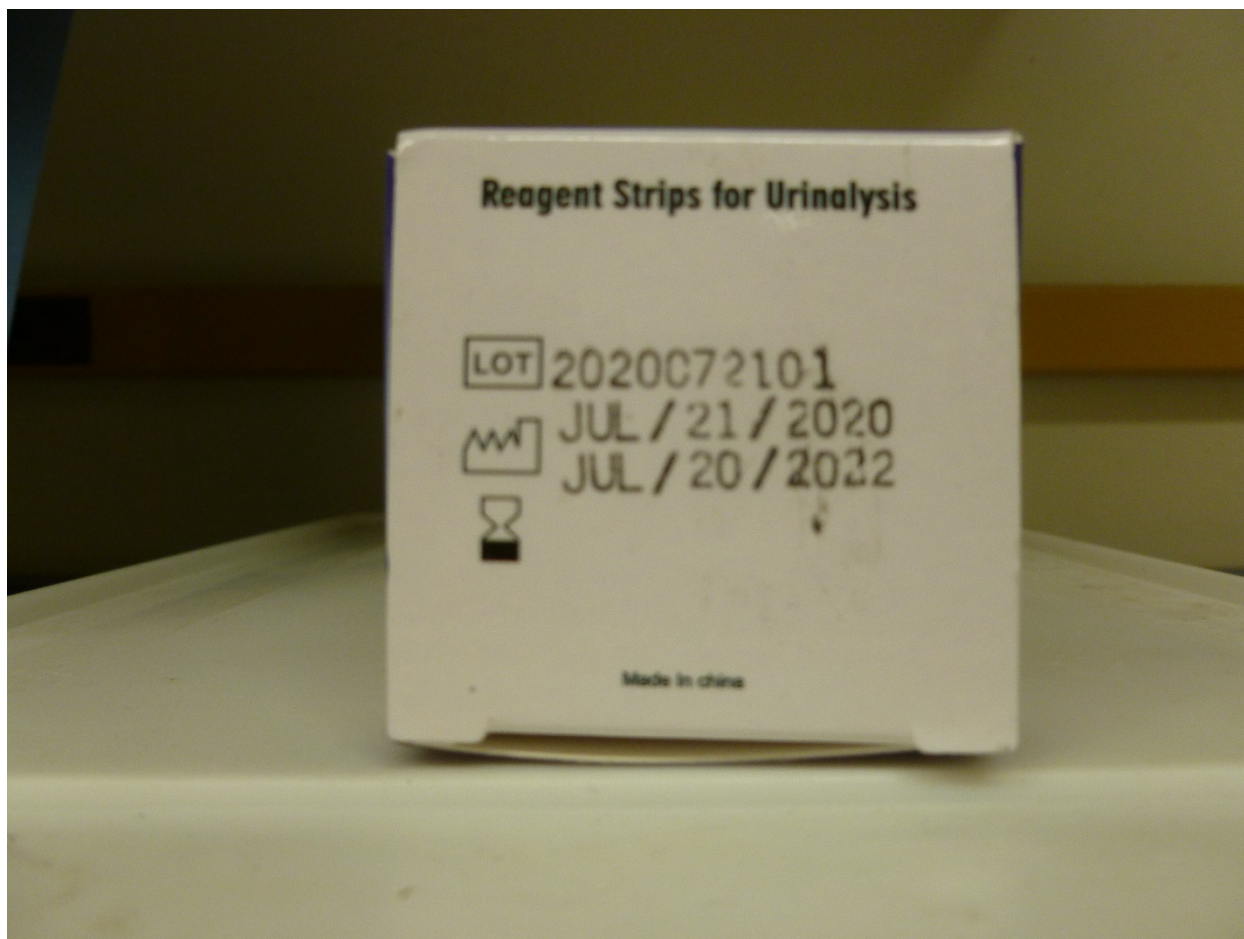


Photo 2 / P1000986 – pH Test Strips Box, end view.



Photo 3 / P1000991 – Raceway, indoor section facing toward wall.



Photo 4 / P1000992 – Raceway, outdoor section near wall.



Photo 5 / P1000993 – Raceway, outdoor section facing toward building.

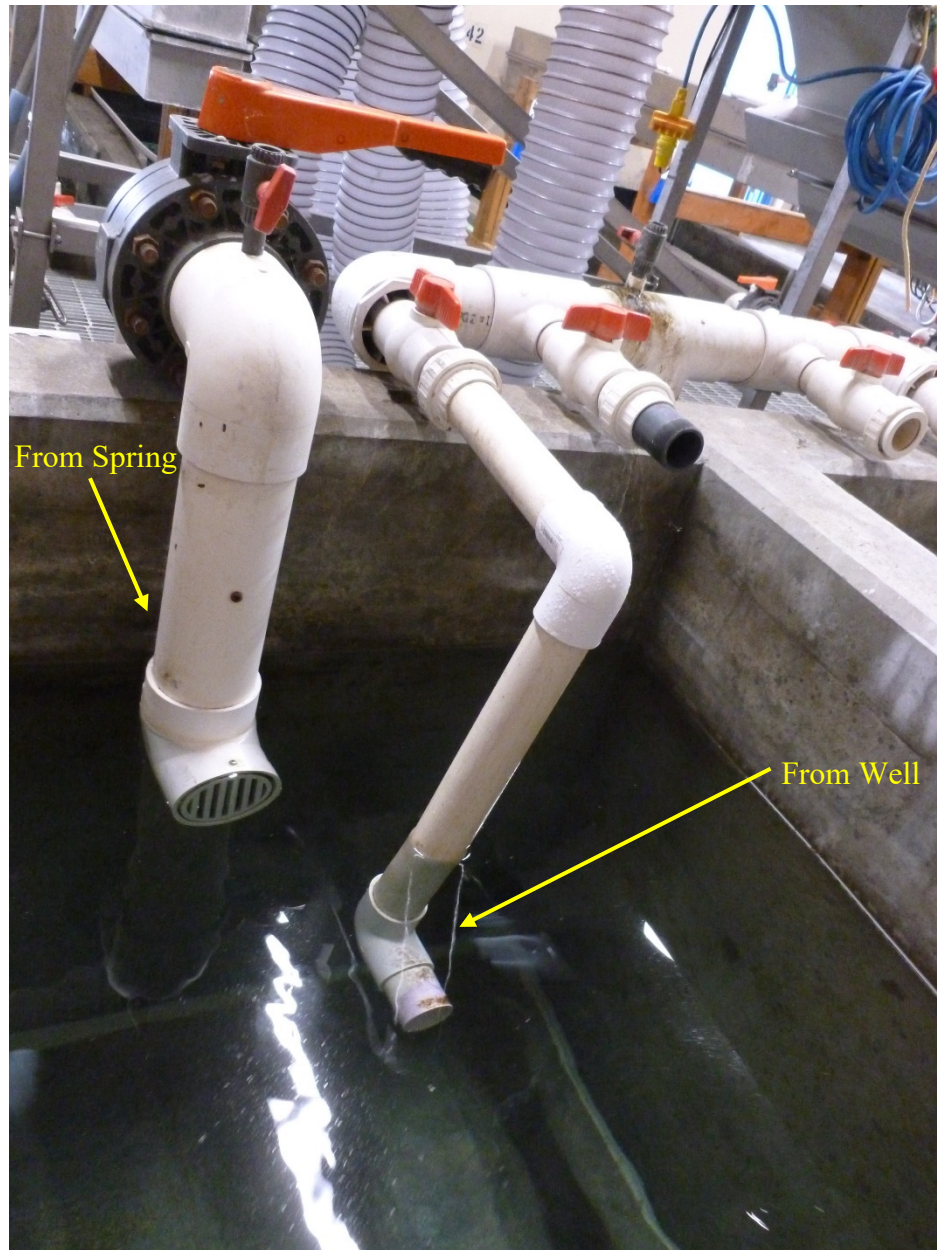


Photo 6 / P1000989 – Head Box.



Photo 7 / P1000994 – Oxyguard® Probe.



Photo 8 / P1000995 – Oxyguard® Monitoring and Control Unit.



Photo 9 / P1000996 – Effluent Sampling/Discharge Point.

Complete list of photographs taken during the inspection:

- P1000980 – Chain-of-Custody Record, February 1, 2017
- P1000981 – Chain-of-Custody Record, January 12, 2017
- P1000982 – Fish Mortality Data, July 2021
- P1000983 – Monthly Settable Solids Data, 2021
- P1000984 – pH Test Strips Box, front view
- P1000985 – pH Test Strips Box, front view
- P1000986 – pH Test Strips Box, end view
- P1000987 – Blue Rainbow Trout
- P1000988 – Blue Rainbow Trout
- P1000989 – Head Box
- P1000990 – Influent Sampling Point
- P1000991 – Raceway, indoor section facing toward wall
- P1000992 – Raceway, outdoor section near wall
- P1000993 – Raceway, outdoor section facing toward building
- P1000994 – Oxyguard® Probe
- P1000995 – Oxyguard® Monitoring and Control Unit
- P1000996 – Effluent Sampling/Discharge Point

Appendix C

Discharge Monitoring Report Deficiency Table

Monitoring Period End Date	DMR Due Date	DMR Received	Notes
September 30, 2016	October 20, 2016	February 28, 2017	Late.
October 31, 2016	November 20, 2016	February 28, 2017	Late.
November 30, 2016	December 20, 2016	February 28, 2017	Late & Total residual chlorine data not received.
December 31, 2016	January 20, 2017	December 20, 2016	Total residual chlorine data not received.
January 31, 2017	February 20, 2017	February 28, 2017	Total residual chlorine, and settleable solids, data not received.
February 28, 2017	March 20, 2017	February 28, 2017	Total residual chlorine data not received.
March 31, 2017	April 20, 2017	July 05, 2017	Late.
April 20, 2017	May 20, 2017	July 05, 2017	Late.
June 30, 2017	July 20, 2017	July 31, 2017	Total residual chlorine, and settleable solids, data not received.
July 31, 2017	August 20, 2017	September 05, 2017	Total residual chlorine data not received.
August 31, 2017	September 20, 2017	October 24, 2017	Late.
September 30, 2017	October 20, 2017	October 24, 2017	Total residual chlorine data not received.
October 30, 2017	November 20, 2017	October 24, 2017	Total residual chlorine data not received.
December 31, 2017	January 20, 2018	December 27, 2017	Total residual chlorine data not received.
January 31, 2018	February 20, 2018		Not Received.
February 28, 2018	March 20, 2018	April 04, 2018	Total residual chlorine data not received.
March 31, 2018	April 20, 2018	April 04, 2018	Total residual chlorine data not received.
April 30, 2018	May 20, 2018	May 24, 2018	Late.
May 31, 2018	June 20, 2018	June 04, 2018	Total residual chlorine data not received.
June 30, 2018	July 20, 2018	July 31, 2018	Total residual chlorine data not received.
July 31, 2018	August 20, 2018	July 31, 2018	Total residual chlorine data not received.
August 31, 2018	September 20, 2018	September 20, 2019	Total residual chlorine data not received.
September 30, 2018	October 20, 2018	November 26, 2018	Late.
October 31, 2018	November 20, 2018	November 26, 2018	Total residual chlorine, and flow, data not received.
November 30, 2018	December 20, 2018	December 07, 2018	Total residual chlorine, and flow, data not received.
December 31, 2018	January 20, 2019	January 29, 2019	Total residual chlorine data not received.
January 31, 2019	February 20, 2019	January 29, 2019	Total residual chlorine data not received.
February 28, 2019	March 20, 2019	March 25, 2019	Total residual chlorine data not received.
March 31, 2019	April 20, 2019	March 25, 2019	Total residual chlorine data not received.
April 30, 2019	May 20, 2019	June 18, 2019	Total residual chlorine data not received.
May 31, 2019	June 20, 2019	June 18, 2019	Total residual chlorine data not received.
June 30, 2019	July 20, 2019	August 06, 2019	Total residual chlorine data not received.
July 31, 2019	August 20, 2019	August 06, 2019	Total residual chlorine data not received.
August 31, 2019	September 20, 2019	August 22, 2019	Total residual chlorine data not received.
September 30, 2019	October 20, 2019	October 22, 2019	Total residual chlorine data not received.
October 31, 2019	November 20, 2019	October 29, 2019	Total residual chlorine data not received.
November 30, 2019	December 20, 2019	December 23, 2019	Total residual chlorine data not received.
December 31, 2019	January 20, 2020	December 23, 2019	Total residual chlorine data not received.
January 31, 2020	February 20, 2020	January 16, 2020	Total residual chlorine data not received.
February 29, 2020	March 20, 2020	February 21, 2020	Total residual chlorine data not received.
March 31, 2020	April 20, 2020	May 14, 2020	Total residual chlorine data not received.
April 30, 2020	May 20, 2020	May 14, 2020	Total residual chlorine data not received.
May 31, 2020	June 20, 2020	May 14, 2020	Total residual chlorine data not received.
June 30, 2020	July 20, 2020	July 28, 2020	Total residual chlorine data not received.
July 31, 2020	August 20, 2020	July 28, 2020	Total residual chlorine data not received.
March 31, 2021	April 20, 2021		Not received.