



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

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June 8, 2021

Thom Fischer, President
Electron Hydro, LLC
1800 James Street, Suite 201
Bellingham, WA 98225-9999

Order Docket #	19624
Site Location	Electron Hydroelectric Project 19318 Electron Road East Orting, WA 98360

Re: Administrative Order

Dear Thom Fischer:

The Department of Ecology (Ecology) has issued the enclosed Administrative Order (Order) requiring Electron Hydro, LLC to comply with:

- Chapter 90.48 Revised Code of Washington (RCW) – Water Pollution Control
- Chapter 173-201A Washington Administrative Code (WAC) – Water Quality Standards for Surface Waters of the State of Washington
- Construction Stormwater General Permit WAR306648 – Electron Hydro LLC Intake

If you have questions please contact Carol Serdar at carol.serdar@ecy.wa.gov or by phone at (360) 742-9751.

Sincerely,

Andrew Kolosseus
Southwest Region Section Manager
Water Quality Program

Enclosures: Administrative Order Docket
#19624

By Certified Mail: 9489 0090 0027 6085 7537 76

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

IN THE MATTER OF AN)
ADMINISTRATIVE ORDER) ADMINISTRATIVE ORDER
AGAINST) DOCKET #19624
Electron Hydro, LLC)
)

To: Thom Fischer
Electron Hydro, LLC
1800 James Street, Suite 201
Bellingham, WA 98225-4631

Order Docket #	19624
Site Location	Electron Hydroelectric Project 19318 Electron Road East Orting, WA 98360

The Department of Ecology (Ecology) has issued this Administrative Order (Order) requiring Electron Hydro, LLC to comply with:

- Chapter 90.48 Revised Code of Washington (RCW) – Water Pollution Control
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- Construction Stormwater General Permit (CSWGP) WAR306648 – Electron Hydro LLC Intake

Chapter 90.48 RCW gives Ecology the authority to issue Administrative Orders requiring compliance whenever it determines that a person has violated Chapter 90.48 RCW.

DETERMINATION OF VIOLATION(S) AND ORDER TO COMPLY

Ecology’s determination that violations have occurred is based on the violations listed below.

Violations and Associated Corrective Actions:

Violations Description:

Violation 1: Aquatic Life Turbidity Criteria [WAC 173-201A-200(1)(e)]

January/February 2020 – The Electron Hydroelectric Project (Project) winter storm events triggered a large portion of stockpiled sediment to landslide into a forested area and likely into the Puyallup River. Sediment has been stockpiled north of the settling basin for decades. Stockpiled material was removed from the settling basin and compacted in benches. When the landslide event occurred in January/February 2020, sediment and turbid water likely entered the Puyallup River, exceeding Water Quality Standards (WQS) [WAC 173-201A-200(1)(e)].

July 29, 2020 – Washington State Department of Fish and Wildlife (WDFW) observed the Project drawdown of the forebay to perform in-water work at the diversion dam. This activity drained water and a slurry of sediment into the penstocks that discharged into the Puyallup River. The dewatering of the forebay resulted in the death of a number of Endangered Species Act (ESA) listed fish. The slurry of sediment that discharged to the Puyallup River created an exceedance of WQS [WAC 173-201A-200(1)(e)].

Hydroelectric operational sediment management (excavations, stockpile placement, and BMP implementation) within the forebay and settling basin continue to pose a risk of violations of turbidity WQS. Additionally, future in-water and over-water work activities have potential for exceedances related to pH, turbidity, and toxic substances.

Violation 2: Aquatic Life Temperature Criteria [WAC 173-201A-200(1)(c)]

The Puyallup River and tributaries in the area of the Project have a core summer salmonid habitat designation and a temperature standard of 16°C or 60.8°F (highest seven (7)-day average of the daily maximum temperatures) with the Project Area. Temperatures greater than 16°C or 60.8°F, during the seven (7)-day average, indicates exceedance of WQS [WAC 173-201A-200(1)(c)]. Additional protections include salmon and trout spawning and incubation criteria of 13°C from September 1st to July 1st. In July 2019, the Puyallup Tribe and South Puget Sound Salmon Enhancement Group commissioned a thermal infrared imagery survey of the salmon-bearing rivers and tributaries of the Puyallup River. The survey illustrated temperatures are warmer downstream of the Project diversion dam and intake structure, likely due, in part, to the removal of up to 400 cfs from the Puyallup River. The survey documented a temperature of 18.7°C downstream of the Project diversion dam, showing potential operational influence, and likely exceedance of WQS [WAC 173-201A-200(1)(c)].

Additional temperature exceedances likely occur during a portion of the year when cool water is withdrawn from the Puyallup River. Ambient air temperatures can increase the temperature of the water travelling in the approximately 10-mile wooden flume. After flowing through the flume, this warmer water empties into the forebay and penstocks, then back into the Puyallup River.

Temperature data related to the Project's operations and maintenance is limited, although a high temperature was documented at 18.7°C within the influence of hydroelectric operations. Additional data is required to document compliance with temperature WQS.

Violation 3: CSWGP Conditions WAR306648 – Electron Hydro LLC Intake Conditions

Corrections Required reports detailed violations related to the CSWGP and compliance inspections on August 11, 2020; August 17, 2020; and September 30, 2020. The Corrections Required reports noted the following violations based on permit conditions:

- A. Permit Condition S5 - Failure of the Permittee to contact Ecology when the sports turf and crumb rubber entered the Puyallup River is a violation of Permit Condition S5.F., the requirement to submit noncompliance notification. Failure to retain up-to-date records on site is a violation of Permit Condition S.5.C. Failure to retain a copy of the CSWGP, permit coverage letter, Stormwater Pollution Prevention Plan (SWPPP), Discharge Monitoring Reports (DMRs), Water Quality Monitoring Plan, all stormwater related documents, and Site Log Book on site or within reasonable access are violations of Permit Condition S5.G.
- B. Permit Condition S9.B.2. - Failure to modify the SWPPP to reflect changes in the permitted area of soil disturbance and follow Best Management Practices (BMPs) are a violation of Permit Condition S9.B.2.
- C. Permit Condition S9.D.9. - The SWPPP failed to provide details of the stormwater management and comingling of riverbed dewatering water within the permitted area. BMPs were not implemented in the required time period for exposed and unworked slopes related to temporary stabilization. Failure to design, install, implement and maintain effective pollution prevention measures to minimize discharge of pollutants is a violation of Permit Condition S9.D.9. Failure to monitor secondary containment and cover for all equipment, storage of chemicals, and fuel is a violation of Permit Condition S9.D.9.b. Lack of secondary containment and onsite spills of fuel, oil, and grease (toxic substances) routinely provided potential to discharge to waters of the State. Sports turf and crumb rubber that discharged to the Puyallup River was not approved or authorized.
- D. Permit Condition G20 – Failure of the Permittee to report planned changes to Ecology is a violation of Permit Condition G20. The site was permitted for soil disturbing activities on 4.5 acres. The

Permittee failed to provide notification to Ecology that soil disturbing activities were exceeding the 4.5 permitted acres. The inspection on August 17, 2020, revealed soil disturbing activities exceeded 4.5 acres, and were estimated to be 9 acres. Ecology received a modification form on September 16, 2020, to increase their acreage of soil disturbance. The site is now permitted for 10 acres of soil disturbing activities.

Corrective Actions Required:

The following corrective actions relate to all of the violations stated above and are required to ensure compliance with the WQS (173-201A WAC). For these reasons and in accordance with RCW 90.48.120(2), it is ordered that Electron Hydro, LLC take the following actions at the location known as the Electron Hydroelectric Project located at 19318 Electron Road East, Orting, Washington 98360:

Corrective Action Requirement 1:

- A. Upon receipt of this order, and continuously thereafter, immediately stop any discharges that may result in an exceedance of Aquatic Life Criteria for Turbidity [WAC 173-201A-200(1)(e)], Temperature [WAC 173-201A-200(1)(c)], or Toxic Substances (WAC 173-201A-240).
- B. Provide Ecology with a Water Quality Management Plan (WQMP) that details a brief history of Project hydroelectric management practices that influence water quality throughout the entire Project area for operation and maintenance activities and provide compliance with WQS. The parameters to be managed include Aquatic Life Criteria for Temperature [WAC173-201A-200(1)(c)], Turbidity [WAC173-201A-200(1)(e)], and Toxic Substances (WAC 173-201A-240). The WQMP shall include all potential operational changes or BMPs that will ensure water quality standards are met at all locations within the entire Project area during operation and maintenance activities, including landslide prevention and discharges at all stockpile locations. The WQMP shall include:
 1. Sediment Management – include a brief site history, a narrative of sediment management (current and past practices) and all sediment discharges, and all BMPs that will be used to ensure water quality compliance. A map shall include whole Project boundary and 0.5-mile radius beyond boundary (additional Project features and management shall require maps at a variety of scale). All

known and in process reports with any data related to sediment management shall be cited and attached in the appendices of the WQMP. Provide specifics for all operational changes, actions, or BMPs that might have an influence on preventing exceedances of turbidity standards during operation and maintenance activities. The WQMP shall identify actions that Hydro Electron, LLC will take to ensure compliance with WQS for turbidity during operation and maintenance activities.

2. Water Quality Monitoring – The requirements for this section of the WQMP are provided below (See Corrective Action Requirement 2). The final water quality monitoring plan must provide the process by which to collect data under all river flow conditions and precipitation events during operation and maintenance activities; additionally, in-water and over-water activities require a separate monitoring plan specific to the activity. The monitoring results shall show compliance with Aquatic Life Criteria for Turbidity [WAC 173-201A-200(1)(e)], Temperature [WAC 173-201A-200(1)(c)], and Toxic Substances (WAC 173-201A-240) standards. The compliance schedule for this component of Corrective Action 1 has a compliance timeline of 90 days, which is less time than the overall WQMP (180 days).
3. Toxics Substances – include a narrative of all uses of chemicals, petroleum products, and other materials that have the potential to pose a threat to human health or the environment that are used throughout the Project for hydroelectric operations or maintenance activities. The narrative shall include a map showing locations where these substances are to be used and stored. Provide a plan (to be included in the overall WQMP) to visually monitor all water that is adjacent to or near all chemicals, fuels, grease, and oil. Include plan specifics related to regular and routine inspections of all facilities within the Project area for visual monitoring of sheen on water. A plan for all scenarios of potential ground and surface water discharges shall include specific spill identification, required immediate reporting to Ecology, required cleanup protocols, as well as BMPs to be utilized for secondary containment and the prevention of toxic substance spills which may lead to violations of WQS (WAC 173-201A-240). Compliance with WQS is required, therefore, include

all operational changes or actions that might have an influence on ensuring compliance with WQS through appropriate reporting (See below Corrective Action Requirement 1.B.4. and Correction Action Requirement 4).

4. Reporting requirement for all exceedances of WQS in the WQMP. If exceedance occurs, an Environmental Report Tracking System (ERTS) shall be reported within 24-hours. An additional email shall be sent to Ecology's Southwest Regional Office Water Quality Compliance Manager, Carol Serdar.
5. A component of the WQMP will include a water quality monitoring plan for all operational and maintenance activities, including in-water and over-water activities. The WQMP has a compliance schedule of 180 days and the water quality monitoring plan (See Corrective Action Requirement 2 below) has a compliance schedule of 90 days.

Submit a Table of Contents for WQMP to Ecology for review and approval by July 8, 2021.

Submit a complete draft of the WQMP to Ecology for review and approval by December 8, 2021.

Respond to Ecology's comments and submit the final WQMP within thirty (30) days of Ecology's comments.

Corrective Action Requirement 2:

Provide Ecology a Hydroelectric Operations Water Quality Monitoring Plan (HOWQMP) that demonstrates reasonable assurance for compliance with WQS for all river flow and water diversion conditions and variations. The HOWQMP shall include monitoring for temperature, turbidity, and toxics substances for all waters of the State (conveyance ditches, small tributaries, flume, Puyallup River, etc.) that are influenced by the operation and maintenance (including in-water and over-water activities) of the hydroelectric Project. Include daily hydrologic influences (rainfall and river discharges at two USGS gages, upstream and downstream). The HOWQMP shall include visual monitoring for toxics substances for all operational and maintenance activities (including in-water and over-water activities). Through monitoring, the data will provide compliance with WQS (WAC

173-201A-200(1)(c), WAC 173-201A-200(1)(e), and WAC 173-201A-240).

The HOWQMP is a component of the overall WQMP as stated in Corrective Action Requirement 1 and has a different compliance schedule.

The HOWQMP shall include:

A brief site history and a narrative of hydroelectric operations that may adversely affect water quality related to temperature, turbidity, and toxic substances. For temperature, the 2019 infrared survey data provided limited data related to warm temperatures downstream of the diversion dam. Therefore, for temperature the Project must, at a minimum, monitor the mainstem of the Puyallup River as well as other Project features that may impact temperatures entering the River (above ground flume, settling basin, forebay, and tailrace adjacent to the river). Additional water quality parameters to be monitored are specified in b. and c. below. The monitoring map shall include the whole Project boundary and 0.5-mile radius beyond the boundary (additional Project features shall require maps at a variety of scale). The plan must include common water quality monitoring plan details (purpose, equipment and calibration requirements, sampling protocols, and reporting of exceedances; these details are often referred to as a quality assurance plan). All known and in process reports with any data related to water quality monitoring shall be cited and attached in the appendices of the WQMP. The HOWQMP shall include reporting requirements to Ecology within 24-hours of knowledge of exceedances of the WQS. Monitoring shall continue until continuous data for five (5) years has demonstrated compliance with WQS and Ecology has provided concurrence.

Submit to Ecology for review and approval:

- A. A proposed monitoring location map and table of contents for the HOWQMP to Ecology for review and approval by July 8, 2021.
- B. A water quality monitoring plan (HOWQMP) that provides quality assurance plan details which describe the objectives of the study and the procedures to be followed to achieve those objectives. The plan shall include water quality monitoring for temperature and turbidity as required by this Order. Immediate implementation includes:

1. Water temperature monitoring: continuous monitoring shall be conducted at three locations of the Puyallup River during the critical summer period when temperatures in the River are the highest: 1. above the diversion dam at river mile 41.7; 2. just above the confluence with the powerhouse tailrace waters; and 3. approximately 300 feet downstream of powerhouse (tailrace water reenters river at river mile 31.2).
 2. Water turbidity monitoring: shall be monitored in the Puyallup River above the powerhouse tailrace and 300 feet downstream of powerhouse (tailrace water re-enters river at river mile 31.2). Compliance with turbidity WQS is demonstrated when the Project does not exceed 5 NTU over background when background is 50 NTU or less, or a ten (10) percent increase in turbidity when the background turbidity is more than 50 NTU.
 3. Water quality monitoring of all in-water and above-water work: shall include water quality parameters based on the specific activity (ies) of in-water and above-water work. The water quality monitoring plans may require pH, turbidity, toxic substances, as well as other parameters, dependent on the specific work to be performed. The point of compliance for monitoring shall be at a maximum of 300 feet downstream of the activity, dependent on receiving water discharge volume during construction. Water quality monitoring plans shall be submitted to Ecology for review, and approval 30 days prior to work commencement.
- C. Toxic substances monitoring: A monitoring plan shall include procedures for regular and routine inspections of all facilities within the Project area for visual monitoring of sheen on water. Additional water quality sampling may be required based on WAC 173-201A-240(2). Include specific BMPs necessary for secondary containment and the prevention of toxic substance spills which may lead to violations of WQS (WAC 173-201A-240).
- D. A summary data report, prepared and submitted annually, providing the data assessment described in the HOWQMP to determine compliance with WQS. The report shall be included in the annual report described in Corrective Action Requirement 4.

- E. Data summarized and reported in a format approved by Ecology. Ecology will use the results to determine compliance with WQS.
- F. Data prior to entry into Ecology's statewide Environmental Information Management System database.

Submit a complete draft of the HOWQMP to Ecology for review and approval by September 8, 2021.

Resubmit all draft corrections of the HOWQMP within thirty (30) days of Ecology's comments.

If the HOWQMP shows that the Project is causing or contributing to an exceedance of WQS for temperature, turbidity, or toxics substances, submit and implement a plan describing operational changes that will be implemented to ensure that WQS are met at all locations within the entire Project area.

Corrective Action Requirement 3:

Immediately comply with all conditions of CSWGP WAR306648 – Electron Hydro LLC Intake.

Corrective Action Requirement 4:

Submit an Annual Water Quality Management Report (AWQMR) to Ecology on or before January 31st of every year for reporting of January through December, beginning January 31, 2022.

The AWQMR shall be prepared and submitted annually, providing the data assessment described in the HOWQMP to determine compliance with WQS. The AWQMR shall include: status of sediment management for all areas within the Project; status of all water quality monitoring (HOWQMP) within the Project's operational control; hydrologic influences; all operational changes employed to ensure compliance with WQS; and a summary of all exceedances of the WQS.

Electron Hydro, LLC may request that all or part of the above sampling, described in Corrective Action Requirement 2, be suspended or modified after a minimum of three (3) years of complete, reliable data collection.

A more rigorous water quality sampling program for the listed parameters or additional parameters may be required by Ecology if necessary to protect water quality in the future based on monitoring results, regulatory changes, changes in Project operations and/or

requirements of TMDLs or to otherwise provide reasonable assurance of compliance with WQS.

ELIGIBILITY FOR PAPERWORK VIOLATION WAIVER AND OPPORTUNITY TO CORRECT

Under RCW 34.05.110, small businesses are eligible for a waiver of a first-time paperwork violation and an opportunity to correct other violations. We have made no determination as to whether you meet the definition of a “small business” under this section. However, we have determined that the requirements of RCW 34.05.110 do not apply to the violation(s) due to a conflict with federal law or program requirements, including federal requirements that are a prescribed condition to the allocation of federal funds to the state.

FAILURE TO COMPLY WITH THIS ORDER

Failure to comply with this Order may result in the issuance of civil penalties or other actions, whether administrative or judicial, to enforce the terms of this Order.

YOUR RIGHT TO APPEAL

You have a right to appeal this Order to the Pollution Control Hearing Board (PCHB) within thirty (30) days of the date of receipt of this Order. The appeal process is governed by Chapter 43.21B RCW and Chapter 371-08 WAC. “Date of receipt” is defined in RCW 43.21B.001(2).

To appeal you must do both of the following within 30 days of the date of receipt of this Order:

- File your appeal and a copy of this Order with the PCHB (see addresses below). Filing means actual receipt by the PCHB during regular business hours.
- Serve a copy of your appeal and this Order on Ecology in paper form - by mail or in person. (See addresses below.) Email is not accepted.

You must also comply with other applicable requirements in Chapter 43.21B RCW and Chapter 371-08 WAC.

Your appeal alone will not stay the effectiveness of this Order. Stay requests must be submitted in accordance with RCW 43.21B.320.

ADDRESS AND LOCATION INFORMATION

Street Addresses	Mailing Addresses
<p>Department of Ecology Attn: Appeals Processing Desk 300 Desmond Drive Southeast Lacey, WA 98503</p> <p>Pollution Control Hearings Board 1111 Israel Road Southwest, Suite 301 Tumwater, WA 98501</p>	<p>Department of Ecology Attn: Appeals Processing Desk PO Box 47608 Olympia, WA 98504-7608</p> <p>Pollution Control Hearings Board PO Box 40903 Olympia, WA 98504-0903</p>

CONTACT INFORMATION

Please direct all questions about this Order to:

Carol Serdar
Department of Ecology
Southwest Regional Office
Water Quality Program
PO Box 47775
Olympia, WA 98504-7775
Phone: (360) 742-9751
Email: carol.serdar@ecy.wa.gov

MORE INFORMATION

- Pollution Control Hearings Board Website
<http://www.eluho.wa.gov/Board/PCHB>
- Chapter 43.21B RCW - Environmental and Land Use Hearings Office – Pollution Control Hearings Board
<http://app.leg.wa.gov/RCW/default.aspx?cite=43.21B>
- Chapter 371-08 WAC – Practice And Procedure
<http://app.leg.wa.gov/WAC/default.aspx?cite=371-08>
- Chapter 34.05 RCW – Administrative Procedure Act
<http://app.leg.wa.gov/RCW/default.aspx?cite=34.05>
- Ecology's Laws, rules, & rulemaking website
<https://ecology.wa.gov/About-us/How-we-operate/Laws-rules-rulemaking>

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SIGNATURE



Date: June 8, 2021

Andrew Kolosseus
Southwest Region Section Manager
Water Quality Program