Washington Department of
Fish & Wildlife
PO Box 43234
Olympia, WA 98504-3234
(360) 902-2200

HYDRAULIC PROJECT APPROVAL

Issued Date: August 28, 2020
Project End Date: September 15, 2020

Permit Number: 2018-6-256+03
FPA/Public Notice Number: N/A
Application ID: 14829

PERMITTEE	AUTHORIZED AGENT OR CONTRACTOR
Electron Hydro, LLC	COMPANY Electron Hydro
ATTENTION: Thom Fischer	ATTENTION: Chris Spens
1800 James St	1800 James St
Bellingham, WA 98225	Bellingham, WA 98225-4631

Project Name: Electron Hydro Diversion Repair, Spillway Replacement and Bank Protection

Project Description: The purpose of the project is to repair the Electron wooden diversion apron structure, replace the spillway, and reinforce and replace existing shoreline bank protection. The spillway replacement is designed to better manage bedload.

The spillway replacement structure is a 12' diameter x 70' long inflatable bladder on a concrete foundation and will be built within the existing alignment of the original 200' wide diversion. The replacement bladder spillway would maintain a pool elevation sufficient to support diversions for hydroelectric generation and upstream fish passage. The replacement spillway would maintain the existing diversion crest and pool elevation.

The existing shoreline protection structures will be reinforced and replaced with concrete walls and 3 - 6 man angular rock. Additionally, the channel will be excavated and re-graded and up to 12,000 CY of material will be removed and stockpiled landward of the Ordinary High Water Line.

PROVISIONS

TIMING - PLANS - INVASIVE SPECIES CONTROL

1. TIMING LIMITATION: Work below the ordinary high water line must only occur between July 15 and September 15 of calendar years 2018, 2019, and 2020.

2. APPROVED WORK: The following work is approved: diversion repair, spillway replacement, intake shutter panel/trash rack replacement, replace and reinforce existing shoreline protection, and excavation of the channel.

Additional work has been approved as of August 28, 2020: Astroturf removal in the Puyallup River channel downstream of the diversion, the construction wastewater plan (Water Quality Management Plan), maintenance to the fish ladder to maintain fish passage during construction.

3. APPROVED PLANS: You must accomplish the work per plans and specifications submitted with the application and approved by the Washington Department of Fish and Wildlife, entitled "1-Electron Hydro JARPA_Sup_28Mar2017 Plans Reduced PDF", dated May 14, 2018, and "Coffer Dam Left Bank Upstream Repair", dated May 21, 2018, "WQMP Aug 26 2020", uploaded to APPS on August 27, 2020, "Fish Ladder Operation and Maintenance Plan", uploaded to APPS on August 27, 2020, "Turf Removal Plan_8-27-2020", uploaded to APPS on August 27, 2020, "Turf Removal Transfer Zone Figure 1", uploaded to APPS on August 27, 2020, and "WATER DIVERSION- RELOCATION PLAN", uploaded to APPS on August 27, 2020, except as modified by this Hydraulic Project Approval.

You must have a copy of these plans available on site during all phases of the project construction.

4. INVASIVE SPECIES CONTROL: Follow Level 1 Decontamination protocol for low risk locations. Thoroughly remove visible dirt and organic debris from all equipment and gear (including drive mechanisms, wheels, tires, tracks, buckets and undercarriage) before arriving and leaving the job site to prevent the transport and introduction of invasive species. Properly dispose of any water and chemicals used to clean gear and equipment. For contaminated or high risk sites please refer to the Level 2 Decontamination protocol. You can find this and additional information in the Washington Department of Fish and Wildlife's "Invasive Species Management Protocols", available online at http://wdfw.wa.gov/publications/search.php?Cat=Aquatic Invasive Species.

NOTIFICATION REQUIREMENTS

5. PRE- AND POST-CONSTRUCTION NOTIFICATION: You, your agent, or contractor must contact the Washington Department of Fish and Wildlife by e-mail at HPAapplications@dfw.wa.gov; mail to Post Office Box 43234, Olympia, Washington 98504-3234; or fax to (360) 902-2946 at least three business days before starting in-water work, and again within seven days after completing the in-water work each year of construction. The notification must include the permittee's name, project location, starting date for work or date the work was completed, and the permit number. The Washington Department of Fish and Wildlife may conduct inspections during and after construction; however, the Washington Department of Fish and Wildlife will notify you or your agent before conducting the inspection.

6. FISH KILL/ WATER QUALITY PROBLEM NOTIFICATION: If a fish kill occurs or fish are observed in distress at the job site, immediately stop all activities causing harm. Immediately notify the Washington Department of Fish and Wildlife of the problem. If the likely cause of the fish kill or fish distress is related to water quality, also notify the Washington Military Department Emergency Management Division at 1-800-258-5990. Activities related to the fish kill or fish distress must not resume until the Washington Department of Fish and Wildlife gives approval. The Washington Department of Fish and Wildlife may require additional measures to mitigate impacts.

STAGING, JOB SITE ACCESS, AND EQUIPMENT

7. Establish staging areas (used for equipment storage, vehicle storage, fueling, servicing, and hazardous material storage) in a location and manner that will prevent contaminants such as petroleum products, hydraulic fluid, fresh concrete, sediments, sediment-laden water, chemicals, or any other toxic or harmful materials from entering waters of the state.

8. Use existing roadways or travel paths.

9. Clearly mark boundaries to establish the limit of work associated with site access and construction.

10. Limit the removal of native bankline vegetation to the minimum amount needed to construct the project.

11. This Hydraulic Project Approval authorizes only the removal of the large woody vegetation shown in the approved plan. Clearly mark all large woody vegetation authorized for removal before starting work.

12. Retain all natural habitat features on the bed or banks including large woody material and boulders. You may move these natural habitat features during construction but you must place them near the preproject location before leaving the job site.

13. Confine the use of equipment to the specific access and work corridor shown in the approved plans.

14. Remove soil or debris from the drive mechanisms (wheels, tires, tracks, etc.) and undercarriage of equipment prior to operating the equipment waterward of the ordinary high water line.

15. Check equipment daily for leaks and complete any required repairs in an upland location before using the equipment in or near the water.

16. Use environmentally acceptable lubricants composed of biodegradable base oils such as vegetable oils, synthetic esters, and polyalkylene glycols in equipment operated in or near the water.

CONSTRUCTION-RELATED SEDIMENT, EROSION AND POLLUTION CONTAINMENT

17. Work in the dry watercourse (when no natural flow is occurring in the channel, or when flow is diverted around the job site).

18. Protect all disturbed areas from erosion. Maintain erosion and sediment control until all work and cleanup of the job site is complete.

19. All erosion control materials that will remain onsite must be composed of 100% biodegradable materials.

20. Stop all hydraulic project activities except those needed to control erosion and siltation, if flow conditions arise that will result in erosion or siltation of waters of the state.

21. You must route construction water (wastewater) from the project as shown in the approved Water Quality Management Plan "WQMP Aug 26 2020" uploaded to APPS on August 27, 2020. Remove fine sediment and other contaminants before discharging the construction water to waters of the state.

22. Deposit waste material from the project, such as construction debris, silt, excess dirt, or overburden, in an upland area above the limits of anticipated floodwater unless the material is approved by the Washington Department of Fish and Wildlife for reuse in the project.

CONSTRUCTION MATERIALS

23. Store all construction and deconstruction material in a location and manner that will prevent contaminants such as petroleum products, hydraulic fluid, fresh cement, sediments, sediment-laden water, chemicals, or any other toxic or harmful materials from entering waters of the state.

24. Do not stockpile construction material waterward of the ordinary high water line, except for excavated riverbed material.

25. Use only clean, suitable material as fill material (no trash, debris, car bodies, tires, asphalt, concrete, etc.).

26. Angular rock, the rock must be large enough and installed to withstand the 100-year peak flow as shown in the WDFW approved plans.

27. To prevent leaching, construct forms to contain any wet concrete. Place impervious material over wet concrete that will come in contact with waters of the state. Forms and impervious materials must remain in place until the concrete is cured.

28. Do not use wood treated with oil-type preservatives (creosote, pentachlorophenol) in any hydraulic project. You may use wood treated with waterborne preservatives (ACZA, ACQ) provided the wood is approved by the Western Wood Preservers Institute for use in the aquatic environment. Any use of treated wood in the aquatic environment must follow guidelines and best management practices available at www.wwpinstitute.org.

IN-WATER WORK AREA ISOLATION USING A COFFERDAM STRUCTURE

29. Use a cofferdam, dike, or similar structure to exclude water from the work areas.

30. No more than 7,000 CY of riverbed material will be excavated to form cofferdams.

31. Maintain water quality when installing and removing the cofferdam, dike or similar structure.

32. Install the cofferdam, dike or similar structure and remove fish prior to the start of other work in the wetted perimeter.

33. Sequence the work to minimize the duration of dewatering.

34. Redistribute and disperse the cofferdam material composed of excavated riverbed material waterward of the Ordinary High Water Line.

FISH LIFE REMOVAL

35. All persons participating in capture and removal must have training, knowledge, and skills in the safe handling of fish life.

36. If electrofishing is conducted, a person with electrofishing training must be on-site to conduct or direct all electrofishing activities.

37. Capture and safely move fish life from the work area to the nearest suitable free-flowing water.

38. All persons removing fish life from a job site must follow the protocol described in Appendix A of the Biological Evaluation entitled, "Phase I Fish Exclusion and Removal Protocols" dated March 2017.

STREAM BANK PROTECTION

39. No more than 900 linear feet of 3 - 6 man rock bank protection will be installed.

40. Establish the waterward distance of the structure from a permanent benchmark(s). Locate and mark the benchmark (s) in the field prior to the start of work. Protect the benchmark to serve as a post-project reference for ten years.

41. Install the toe to protect the integrity of bank protection material.

42. Bury the base of the structure deep enough to prevent undermining.

43. Do not release overburden material into the waters of the state when resloping the bank.

44. Place bank protection or shoreline stabilization material and biodegradable filter blanket material from the bank or a barge. Dumping material onto the bank face may occur only if the toe is established and the material can be confined to the bank face.

45. Complete all bank protection work prior to releasing the water flow to the project area.

DAM AND SPILLWAY

46. Replace existing gates and section of the wooden apron with a 12' diameter and 70' long inflatable rubber bladder spillway as shown in the approved plans.

47. A diversion structure must not hinder upstream and downstream adult and juvenile fish passage.

FISH PASSAGE IMPROVEMENT

48. Rocks can be placed at the outlet of the fish ladder to create pools leading up to the first cell, and rock can be placed at the inlet of the fish ladder to direct flow. This rock must be removed at the end of construction for the diversion unless there are still fish passage concerns at the fish ladder.

49. Place the rock steps so that the drop between pools is a maximum of 12-inches vertical height.

50. Inspect the fish ladder for proper function at least once a day. If passage problems develop, contact the WDFW Area Habitat Biologist to discuss modifications.

CHANNEL EXCAVATION

51. Place boundary markers to identify the excavation zone.

52. No more than 12,000 cubic yards of riverbed material will be excavated from the Puyallup River and stockpiled landward of the Ordinary High Water Line.

53. Complete all channel excavation activities prior to releasing flow to the project area.

54. Sand, gravel, and cobble washing or crushing operations must take place above the limits of anticipated floodwater.

ASTROTURF REMOVAL DOWNSTREAM OF DIVERSION

55. Remove all astroturf located in the Puyallup River from the diversion structure to the powerhouse.

56. Remove the astroturf downstream of the diversion using hand tools, block and tackle, or a helicopter only.

57. Astroturf removed from the channel and banks must be moved to an upland area, picked up, and stored at the staging area or landfill as described in the approved Turf Removal Plan.

58. Minimize streambed disturbance when removing astroturf from the active channel.

DEMOBILIZATION AND CLEANUP

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59. Do not relocate removed or replaced structures within waters of the state. Remove and dispose of these structures in an upland area above the limits of anticipated floodwater.

60. Upon completion of the project, restore the disturbed bed, banks, and riparian zone to preproject condition to the extent possible.

61. Completely remove any temporary fill before the end of the in-water timing window if the fill material could erode and deliver sediment-laden water into waters of the state.

62. To prevent fish from stranding, backfill trenches, depressions, and holes in the bed that may entrain fish during high water or wave action.

63. To minimize sediment delivery to the stream or stream channel, do not return in-stream flows to the work area until all in-channel work is completed and the bed and banks are stabilized.

64. Upon completion of the project, remove all materials or equipment from the site and dispose of all excess spoils and waste materials in an upland area above the limits of anticipated floodwater.

65. Rocks can be placed at the outlet of the fish ladder to create pools leading up to the first cell, and rock can be placed at the inlet of the fish ladder to direct flow. This rock must be removed at the end of construction for the diversion unless there are still fish passage concerns at the fish ladder.

LOCATION #1:	Site Name: Electron Hydro Diversion , , WA					
WORK START:	July 15, 2020			WORK END:	September 15, 2020	
WRIA		Waterbody:			Tributary to:	
10 - Puyallup - White		Puyallup River			Puyallup River	
1/4 SEC:	Section:	Township:	Range:	Latitude:	Longitude:	County:
NW 1/4	03	16 N	06 E	46.90554	-122.03974	Pierce
Location #1 Driving Directions						
Requires company escort due to numerous locked gates and access through other private property.						

APPLY TO ALL HYDRAULIC PROJECT APPROVALS

This Hydraulic Project Approval pertains only to those requirements of the Washington State Hydraulic Code, specifically Chapter 77.55 RCW. Additional authorization from other public agencies may be necessary for this project. The person(s) to whom this Hydraulic Project Approval is issued is responsible for applying for and obtaining any additional authorization from other public agencies (local, state and/or federal) that may be necessary for this project.

This Hydraulic Project Approval shall be available on the job site at all times and all its provisions followed by the person (s) to whom this Hydraulic Project Approval is issued and operator(s) performing the work.

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This Hydraulic Project Approval does not authorize trespass.

The person(s) to whom this Hydraulic Project Approval is issued and operator(s) performing the work may be held liable for any loss or damage to fish life or fish habitat that results from failure to comply with the provisions of this Hydraulic Project Approval.

Failure to comply with the provisions of this Hydraulic Project Approval could result in civil action against you, including, but not limited to, a stop work order or notice to comply, and/or a gross misdemeanor criminal charge, possibly punishable by fine and/or imprisonment.

All Hydraulic Project Approvals issued under RCW 77.55.021 are subject to additional restrictions, conditions, or revocation if the Department of Fish and Wildlife determines that changed conditions require such action. The person(s) to whom this Hydraulic Project Approval is issued has the right to appeal those decisions. Procedures for filing appeals are listed below.

MINOR MODIFICATIONS TO THIS HPA: You may request approval of minor modifications to the required work timing or to the plans and specifications approved in this HPA unless this is a General HPA. If this is a General HPA you must use the Major Modification process described below. Any approved minor modification will require issuance of a letter documenting the approval. A minor modification to the required work timing means any change to the work start or end dates of the current work season to enable project or work phase completion. Minor modifications will be approved only if spawning or incubating fish are not present within the vicinity of the project. You may request subsequent minor modifications to the required work timing. A minor modification of the plans and specifications means any changes in the materials, characteristics or construction of your project that does not alter the project's impact to fish life or habitat and does not require a change in the provisions of the HPA to mitigate the impacts of the modification. If you originally applied for your HPA through the online Aquatic Protection Permitting System (APPS), you may request a minor modification through APPS. A link to APPS is at http://wdfw.wa.gov/licensing/hpa/. If you did not use APPS you must submit a written request that clearly indicates you are seeking a minor modification to an existing HPA. Written requests must include the name of the applicant, the name of the authorized agent if one is acting for the applicant, the APP ID number of the HPA, the date issued, the permitting biologist, the requested changes to the HPA, the reason for the requested change, the date of the request, and the requestor's signature. Send by mail to: Washington Department of Fish and Wildlife, PO Box 43234, Olympia, Washington 98504-3234, or by email to HPAapplications@dfw.wa.gov. You should allow up to 45 days for the department to process your request.

MAJOR MODIFICATIONS TO THIS HPA: You may request approval of major modifications to any aspect of your HPA. Any approved change other than a minor modification to your HPA will require issuance of a new HPA. If you originally applied for your HPA through the online Aquatic Protection Permitting System (APPS), you may request a major modification through APPS. A link to APPS is at http://wdfw.wa.gov/licensing/hpa/. If you did not use APPS you must submit a written request that clearly indicates you are requesting a major modification to an existing HPA. Written requests must include the name of the applicant, the name of the authorized agent if one is acting for the applicant, the APP ID number of the HPA, the date issued, the permitting biologist, the requested changes to the HPA, the reason for the requested change, the date of the request, and the requestor's signature. Send your written request by mail to: Washington Department of Fish and Wildlife, PO Box 43234, Olympia, Washington 98504-3234. You may email your request for a major modification to HPAapplications@dfw.wa.gov. You should allow up to 45 days for the department to process your request.

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APPEALS INFORMATION

If you wish to appeal the issuance, denial, conditioning, or modification of a Hydraulic Project Approval (HPA), Washington Department of Fish and Wildlife (WDFW) recommends that you first contact the department employee who issued or denied the HPA to discuss your concerns. Such a discussion may resolve your concerns without the need for further appeal action. If you proceed with an appeal, you may request an informal or formal appeal. WDFW encourages you to take advantage of the informal appeal process before initiating a formal appeal. The informal appeal process includes a review by department management of the HPA or denial and often resolves issues faster and with less legal complexity than the formal appeal process. If the informal appeal process does not resolve your concerns, you may advance your appeal to the formal process. You may contact the HPA Appeals Coordinator at (360) 902-2534 for more information.

A. INFORMAL APPEALS: WAC 220-660-460 is the rule describing how to request an informal appeal of WDFW actions taken under Chapter 77.55 RCW. Please refer to that rule for complete informal appeal procedures. The following information summarizes that rule.

A person who is aggrieved by the issuance, denial, conditioning, or modification of an HPA may request an informal appeal of that action. You must send your request to WDFW by mail to the HPA Appeals Coordinator, Department of Fish and Wildlife, Habitat Program, PO Box 43234, Olympia, Washington 98504-3234; e-mail to HPAapplications@dfw.wa.gov; fax to (360) 902-2946; or hand-delivery to the Natural Resources Building, 1111 Washington St SE, Habitat Program, Fifth floor. WDFW must receive your request within 30 days from the date you receive notice of the decision. If you agree, and you applied for the HPA, resolution of the appeal may be facilitated through an informal conference with the WDFW employee responsible for the decision and a supervisor. If a resolution is not reached through the informal conference, or you are not the person who applied for the HPA, the HPA Appeals Coordinator or designee may conduct an informal hearing or review and recommend a decision to the Director or designee. If you are not satisfied with the results of the informal appeal, you may file a request for a formal appeal.

B. FORMAL APPEALS: WAC 220-660-470 is the rule describing how to request a formal appeal of WDFW actions taken under Chapter 77.55 RCW. Please refer to that rule for complete formal appeal procedures. The following information summarizes that rule.

A person who is aggrieved by the issuance, denial, conditioning, or modification of an HPA may request a formal appeal of that action. You must send your request for a formal appeal to the clerk of the Pollution Control Hearings Boards and serve a copy on WDFW within 30 days from the date you receive notice of the decision. You may serve WDFW by mail to the HPA Appeals Coordinator, Department of Fish and Wildlife, Habitat Program, PO Box 43234, Olympia, Washington 98504-3234; e-mail to HPAapplications@dfw.wa.gov; fax to (360) 902-2946; or hand-delivery to the Natural Resources Building, 1111 Washington St SE, Habitat Program, Fifth floor. The time period for requesting a formal appeal is suspended during consideration of a timely informal appeal. If there has been an informal appeal, you may request a formal appeal within 30 days from the date you receive the Director's or designee's written decision in response to the informal appeal.

C. FAILURE TO APPEAL WITHIN THE REQUIRED TIME PERIODS: If there is no timely request for an appeal, the WDFW action shall be final and unappealable.

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Habitat Biologist	elizabeth.bockstiegel@dfw.wa.gov		for Director
Elizabeth Bockstiegel	360-480-2908		WDFW