

January 12, 2023

Shannon Ames
Executive Director
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1167 Massachusetts Ave, Office 407
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Re: DRA comments on Pelton Round Butte's Low Impact recertification application

On behalf of the Deschutes River Alliance and the Wild and Scenic Deschutes River, we submit these comments on the Pelton Round Butte Hydroelectric Project's application for recertification of its Low Impact status. Pelton Round Butte's (PRB or the "Project") operations directly cause and contribute to ongoing violations of state water quality standards and operational license requirements. This, then, directly harms and harasses threatened and endangered species, impacting their ability to recover. While these two facts alone should prevent PRB's recertification, many other issues exist that further weigh against recertification. Considering all of this, the Deschutes River Alliance (DRA) urges the Low Impact Hydropower Institute (LIHI) to deny PRB's application for recertification as a Low Impact facility.

The Deschutes River Alliance is a science-based advocacy organization seeking collaborative solutions to the threats facing the Wild and Scenic Deschutes River and its tributaries. We advocate for cooler, cleaner water, a healthy ecosystem, and the recovery and protection of robust populations of resident and anadromous fish. In support of our mission, we work to provide science-based facts about the current conditions of the lower Deschutes River (LDR) and their causes. As such, we provide these comments to alert LIHI of the impacts from PRB's current mode of operations.

We ask the Low Impact Hydropower Institute to take a long-term view – both past and future – of the impacts from Pelton Round Butte. Fish health and water quality are worse now than when PRB received its first "Low Impact Certification." No indications exist for improving these situations. For the sake of the lower Deschutes River and for all who rely on it – insect, fish, human, small business, and rural community – we strongly urge you to prevent PRB's recertification.

I. Recent History and Impacts

Over the last 12 years of operations, it has become clear that conditions in the lower Deschutes River are not only not improving but are declining. River temperatures

are warmer both overall and for a longer period of time, dissolved oxygen (DO) levels do not support native fish's biological needs, and the river's pH levels exceed basin standards, which provide a numeric indication of increased nutrient loading and the nuisance algal growth it causes. All of this leads to less usable habitat and creates significant imbalances in the aquatic ecosystem.

This decline in water quality is directly attributable to the installation and operation of the Selective Water Withdrawal (SWW) Tower at Round Butte Dam. These measurable shifts in water quality align with the Project's current mode of operation. Likewise, the prevalence of nuisance algae throughout the lower Deschutes only began following the SWW Tower's installation and operation. Despite these known issues, the dam operators continue to use "adaptive management considerations" as a justification to avoid making minor and allowable changes that would improve water quality and fish habitat while also maintaining hydropower operations.

Despite these known issues and a clear understanding that the agreed-to terms of operation are not being met, both dam operators and state regulators have avoided making or mandating needed and required changes. Rather, they have ignored the predetermined mechanisms established in the Project's state-issues water quality certification for modifying operations. Instead, the operators and state regulators pursued a decade of legally dubious "interim agreements." These agreements have materially changed how the dam is operated and what water quality standards are enforced. Worse, these agreements were non-public actions with no opportunity for stakeholders to review or give feedback. After years of settlement negotiation to find mutually acceptable operating conditions, those operating terms were almost immediately thrown out in favor of these non-scrutinized interim agreement. While intended to be temporary agreements, they were renewed annually from 2011 through 2019. Over that time, water quality in the waterbodies directly affected by the Project continued to violate both state standards and the Project's water quality certification and, at time, even the interim agreements themselves.

As a result of declining water quality, the lower Deschutes River's aquatic ecosystem, and in particular its aquatic invertebrates, has begun to shift. The traditional hatches of stoneflies, mayflies, and caddisflies are less prevalent and have shifted their emergence timing. Beginning to outcompete these traditional hatches are worms and snails. This shift is an indication of pollution, as the fly hatches are less pollution-tolerant while worms and snails are more pollution-tolerant. As a result, the resident and anadromous fish of the lower Deschutes River, who have adapted to survive alongside the fly hatches, have had to shift their diets. Snail in particular are much less

advantageous for the fish who cannot easily digest their shells. In addition, the lowered prevalence of flies is likely impacting the birds and bats – causing ripples throughout both the aquatic and terrestrial ecosystem supported by the river.

A direct result of both the changed aquatic and benthic environments and the declining water quality in the lower Deschutes River is a significant uptick in fish disease and parasite prevalence. As noted, aquatic insect populations have shifted to more pollution-tolerant species of worms and snails. Many of these species are the intermediate hosts of the fish diseases *C. shasta*, which plagues the lower Deschutes and its tributaries. In addition, black spot disease and copepod parasites are common issues with resident and out-migrating salmonids. Warmer water temperatures exacerbate the problem, as these diseases increase in virulence as temperatures rise.

All of these changes align with operational changes at the Pelton Round Butte Project. Despite clear data showing a decline in many parameters of the aquatic environment, any efforts up to this point aimed at limiting or eliminating that impact have clearly fallen short. The result is a lower Deschutes River that is in worse condition now than it was in 2009.

II. Criterion B – Water Quality

The clearest instance of the significant impacts stemming from Pelton Round Butte's (PRB) operations can be seen in the water quality context. After more than a decade of operations and attempted adjustments, it is unclear if the SWW Tower will ever be able to meet the operating conditions promised by the operators in their application materials and expected to be achieved by FERC in decision to relicense PRB. Instead, annual and months-long violations of both those license terms and of the State of Oregon water quality standards are now the norm. Applying LIHI's recertification review criterion for water quality to these facts makes one thing clear – PRB's operations are not "low impact." As a result, LIHI cannot recertify Pelton Round Butte as a Low Impact facility.

The stated goal of Criterion B is to ensure "[w]ater quality is protected in water bodies directly affected by the facility," which includes downstream waters.¹ The introduction to the standard further clarifies that "if any water body affected by the facility has been defined as being water quality limited...the applicant must demonstrate that the facility has not contributed to the impairment in that waterbody."

¹ LIHI. 2022. LIHI Handbook 2nd Edition – Revision 2.05. At page 7 (17/91).

Standard B-2 further requires that the facility must be “in compliance with all water quality conditions contained in a recent Water Quality Certification.” These provide clear measures by which a facility’s impact should be judged.

Under these measures, PRB fails to meet the ‘low impact’ requirements in the water quality context. As noted above, water quality in the lower Deschutes River (LDR) is suffering and has declined as a result of facility operations. The lower Deschutes River, which is immediately downstream of PRB and within its zone of affect, has been designated as water quality impaired in each of Oregon’s Clean Water Act Integrated Reports since 1998.² The parameters for which the LDR has been listed have consistently included, among others, temperature, dissolved oxygen, and, most clearly, pH. These issues were known during PRB’s most recent FERC relicensing process, and the resulting requirements found in the State of Oregon’s Clean Water Act Section 401 Water Quality Certification (“401 Cert”) and through the construction of the SWW Tower were expected to improve water quality in the LDR.

Unfortunately, rather than improve, water quality has worsened since PRB’s relicensing. The clearest and most persistent violations happen in the pH context. During the summer months, the State of Oregon standard of 8.5 is regularly exceeded for weeks at a time, with some exceedances starting as early as April.³ In addition, river temperatures exceed the 401 Cert’s 12°C maximum months earlier than pre-Tower operation and maintain those high temperatures through the late summer and early fall.⁴ Finally, dissolved oxygen levels regularly fall below the 401 Cert’s year-round minimum of 9.0 mg/L.⁵ The 401 Cert’s standards were the result of years of negotiation and state and federal approvals. Continued non-achievement of these standards shows that Pelton Round Butte does not comply LIHI’s review Standard B-2.⁶

This declining water quality is not surprising when considering that the 401 Cert’s operating conditions have never been fully achieved by PRB’s operators. This is seen most clearly in the prescribed mixing requirements for the SWW Tower. Two sets of precise “blends” were prescribed in order to achieve the goals of improving water quality and facilitating downstream fish passage.⁷ Since the Tower became operational,

² More information available at: <https://www.oregon.gov/deq/wq/tmdls/Pages/TMDLs-Deschutes-Basin.aspx>

³ See *example* PGE. 2022. Project No. 2030 – Pelton Round Butte Hydroelectric Project – Article 416 – 2021 Water Quality Monitoring Report. At pages 32-33 (41-42/65).

⁴ *Id.* At pages 10-11 (19-20/65).

⁵ *Id.* At pages 26-27 (35-36/65).

⁶ LIHI. 2022. LIHI Handbook 2nd Edition – Revision 2.05. At page 7 (17/91).

⁷ CTWS and PGE. 2002. Pelton Round Butte Project Water Quality Management and Monitoring Plan. At page 5 (6/30).

however, it has become clear that these blends are impossible to achieve in practice. While the blends, at times, call for 100% bottom water to be discharged, the operators have made clear that the actual maximum amount of bottom water that can be “blended” and discharged through the Tower is 60%. This is an enormous change in expectations and clearly shows that PRB’s operations are not complying with the requirements of the applicable Water Quality Certification, as required by LIHI Standard B-2.

Beyond the failures to achieve the prescribed blends, PRB’s operators have also failed to comply with a number of water quality standards set by the Water Quality Certification. Specifically, the minimum standards for pH, temperature, and dissolved oxygen, are all clearly defined and continually violated. The maximum pH levels allowed for the LDR match Oregon’s 8.5 maximum levels.⁸ The temperature standard was set at a 12°C maximum to protect the Endangered Species Act-listed bull trout, who are known to use the lower Deschutes.⁹ And for dissolved oxygen, operating requirements call for a 9.0 mg/L minimum in order to protect the spawning salmonids who, collectively, use the lower river year-round.¹⁰

Oregon, in approving PRB’s continued operations, required the operators to meet these elevated protections for temperature and dissolved oxygen. This was likely to ensure the already water quality limited lower Deschutes River is given enough protections to allow it to be restored in order to support its beneficial uses. FERC, along with the US Fish and Wildlife Service and the National Marine Fisheries Service, then relied on the assumption that these standards would be achieved in making their own important relicensing and biological opinions decisions, respectively. Annual and ongoing water quality violations highlight that these expected outcomes are not being met.

Based on years of post-SWW Tower water quality data, Pelton Round Butte’s operations do not meet LIHI’s review criterion standards for water quality. Operational decisions are further contributing to the already water quality limited lower Deschutes River, further impairing the waterbody. In addition, PRB regularly fails to comply with multiple conditions set out in its most recent Water Quality Certification. Either of these shortcomings, alone, is enough to prevent recertification. Combined, the true impacts to the lower Deschutes River from PRB’s continued operations are clearly presented.

⁸ *Id.* at page 12 (13/30).

⁹ *Id.* at page 4 (5/30).

¹⁰ *Id.* at page 9 (10/30).

Because Pelton Round Butte does not meet Criterion B for Water Quality, LIHI cannot recertify the Project as “low impact.”

III. Criterion F – Threatened and Endangered Species Protection

Pelton Round Butte’s negative impact to threatened and endangered species, likewise, should call its low impact status into serious question. Beyond its history of extirpation, listed species impacted by PRB are not having their biological needs met. By failing to adhere to the terms and conditions set out in the Project’s pair of biological opinions, these suffering species are not receiving the full range of protections expected by the approval federal agencies. And despite more than a decade of efforts, reintroduction efforts have essentially remained stagnant – far below sustainable, self-supporting, and harvestable runs. As a result, LIHI cannot recertify Pelton Round Butte as a Low Impact facility.

The Project and its operators bear a heavy burden in the impacts to currently-listed bull trout and steelhead. While the PRB operators’ current efforts to support these listed species are a welcomed outcome, it was preceded by decades of failed and abandoned efforts that blocked off hundreds of miles of historically-used spawning and rearing grounds above the dam complex. In doing so, PRB caused the extirpated numerous salmonid species in the Upper Deschutes and Crooked River basins. After more than a decade of “experimenting” and efforts to get it right, the current reintroduction effort is still far from its goals of creating sustainable, self-supporting, and harvestable runs of Chinook, sockeye, and steelhead. As such, PRB’s impact to endangered species is questionable at best and is a net harm overall.

The stated goal of Criterion F is to ensure the “facility does not negatively impact federal, or state listed species.”¹¹ Listed species are those that are either in danger of extinction in a significant portion of their range or are likely to near that same danger in the foreseeable future.¹² In order to assess a facility’s impact on these listed species, LIHI looks to state and federal agencies’ formal assessments of environmental impact, the operators’ compliance with any relevant operating conditions and requirements, and, when appropriate, allows for vetted mitigation options. These are reflected in Standards F-2, F-3, and F-4, respectively.

¹¹ LIHI. 2022. LIHI Handbook 2nd Edition – Revision 2.05. At page 11 (21/91).

¹² *Id.* At page 44 (54/91).

Two biological opinions (BiOp) exist for PRB's operations – one from each of the two federal services tasked with consulting on species-related issues. The U.S. Fish and Wildlife Service's (USFWS) BiOp addresses bull trout.¹³ Meanwhile, the National Oceanic and Atmospheric Agency (NOAA) Fisheries' BiOp addresses steelhead.¹⁴ While there are slight differences between these two BiOps, they have very similar mechanisms for ensuring species protections through reasonable and prudent measures and terms and conditions, among others.

Most relevant to bull trout and steelhead are the reasonable and prudent measures and accompanying terms and conditions that require PRB and its operations comply with and implement all of the Settlement Agreement's protection, mitigation, and enhancement measures.¹⁵ While the BiOps do not go into any greater detail about which specific measures this includes, PGE's cover letter and certificate of service for transmitting the Settlement Agreement includes a list of included exhibits and appendices.¹⁶ It is fair to assume that these documents are, at minimum, what USFWS and NOAA Fisheries intended to be fully implemented by PRB operators in support of their approval of continued dam operations.

Among these listed documents are the Water Quality Certifications and the Water Quality Management and Monitoring Plan for Pelton Round Butte. As noted above in our review of LIHI's water quality review criterion, PRB's operations are not achieving these requirements. And as such, PRB is failing to achieve Standard F-3, which requires compliance with relevant conditions in, among others, biological opinions.¹⁷ By not fully implementing the expectations of the 401 Cert and accompanying Water Quality Management and Monitoring Plan, PRB's operators are failing to comply with the terms and conditions and the reasonable and prudent measures of these two Biological Opinions. As a result, PRB does not achieve LIHI Standard F-3.

¹³ USFWS. 2004. Endangered Species Act – Section 7(a)(2) – Biological Opinion and Concurrence on the Issuance of a New License for the Pelton Round Butte Hydroelectric Project – Deschutes, Crook, Jefferson, Marion, and Wasco Counties, Oregon.

¹⁴ NOAA Fisheries. 2005. Endangered Species Act – Section 7(a)(2) Consultation – Biological Opinion and Magnuson-Stevens Fishery Conservation and Management Act Consultation – Pelton Round Butte Hydroelectric Project, FERC Project No. 2030, Deschutes River, Jefferson County, Oregon.

¹⁵ See USFWS BiOp at page 43-44 (48-49/68). See also NOAA Fisheries BiOp at pages 9-3 and 9-4 (76-77/92).

¹⁶ FERC. 2004. Project No. 2030 – Offer of Settlement and Joint Explanatory Statement In Support of Settlement Agreement, and Request for Technical Conference.

¹⁷ LIHI. 2022. LIHI Handbook 2nd Edition – Revision 2.05. At page 11 (21/91).

Likewise, PRB's operations do not meet any of LIHI's other Threatened and Endangered Species review standards. Standard F-1 applies only when there are not listed species in the facility's areas. Standard F-2 applies only if relevant state and federal agencies make a finding of no significant impact stemming from the facility's operations. The existence of biological opinions makes this standard inapplicable. And finally, Standard F-4 allows for acceptable mitigation efforts to comply with the LIHI Review Criterion. However, mitigation is only allowed "[i]f a newly listed species" has been found at the facility, "and no incidental take permit or statement, biological opinion, habitat conservation plan, or similar government document relevant to the facility exists."¹⁸ Again, with two applicable biological opinions for PRB, full compliance with their terms and conditions is the proper way to assess compliance with LIHI's review standards.

Pelton Round Butte's failure to comply with the two biological opinions for bull trout and steelhead must prevent LIHI from recertifying the Project as "low impact." Both USFWS and NOAA Fisheries chose to include all of the protections agreed to in the Settlement Agreement. By their inclusion, these federal entities expected all of the terms to be achieved in making their ultimate decision of whether PRB could continue operation in compliance with the Endangered Species Act. By failing to achieve the expected operation outcomes, especially in the fundamentally important water quality context, PRB's operations call into question whether these listed species are actually being protected. Without compliance with the biological opinions, LIHI's review criterion for threatened and endangered species is not be met, and Pelton Round Butte cannot be recertified.

IV. Methane Emissions

Emerging science is bringing a new impact of hydroelectric dam operations to the attention of operators, regulators, and conservationists – methane emissions. Inextricably linked to dam operations, these emissions call hydroelectric generation's "low impact" status into further – especially considering methane's enormous warming potential. While this emerging issue and its impacts do not neatly fit neatly into any current review criteria, LIHI should seriously consider the resulting impacts from methane emissions before facilities like Pelton Round Butte receive a "low impact" certification.

¹⁸ *Ibid.*

Research out of Washington State University shows that hydropower reservoirs are a major source of human-caused methane emissions.¹⁹ Studies of dams in Oregon and Washington have found that reservoirs with eutrophic conditions or high chlorophyll-a levels have heightened methane production and are likely to have significant methane emissions.²⁰ Globally, reservoir-originating methane emissions are a top-6 source of methane – on par with biomass and biofuel burning or global rice cultivation.²¹

While hydroelectric generation is often touted as a greenhouse gas emission-free source of electricity generation, the reservoirs necessary for that generation are serious contributors of methane emission around the world. Methane is a potent greenhouse gas, with its impact being multiple times stronger than carbon dioxide's, especially over the short-term. The US Environmental Protection Agency (EPA) states that methane's warming potential is 25x more than carbon dioxide.²² MIT points out that this EPA measure is methane's impact over a 100-year period.²³ Due to methane's relatively short life in the atmosphere, that 100-year timeframe dilutes methane's true warming impact in the short-term. Over its first 20 years in atmosphere, methane's impact is at least 80x that of carbon dioxide. Regardless of measurement methodology, methane is a significant contributor to global warming and climate change, and sources of methane emissions have significant impacts not just locally but globally.

Pelton Round Butte's reservoirs seem to fit the necessary conditions to be considered a significant emitter of methane. Its two largest reservoirs – Lake Billy Chinook and Lake Simtustus – both face eutrophic conditions.²⁴ Likewise, both of these reservoirs have such high chlorophyll-a levels that they are listed as impaired for that parameter in Oregon's most recent Integrated Report.²⁵ The water quality conditions in these reservoirs, in light of the growing understanding methane production and

¹⁹ See <https://news.wsu.edu/press-release/2021/06/01/greenhouse-gas-emissions-reservoirs-higher-previously-expected/> among other sources.

²⁰ American Rivers (webinar). Jan 2022. "Understanding Greenhouse Gas Emissions from Reservoirs: Insights from Field Studies and a Global Model." Presented by Prof. John Harrison (Washington State University).

²¹ *Ibid.*

²² <https://www.epa.gov/gmi/importance-methane>

²³ <https://climate.mit.edu/ask-mit/why-do-we-compare-methane-carbon-dioxide-over-100-year-timeframe-are-we-underrating>

²⁴ Eilers, Joseph and Kellie Vache. 2021. Water Quality Study for the Pelton Round Butte Project and the Lower Deschutes River: Monitoring & Modeling. At page ii (35/623). See also page 321 (358/623) for LBC, and page 323-24 generally (360-61/623) for Lake Simtustus.

²⁵ DEQ submitted its 2022 Integrated Report to EPA in May 2022. It is current pending final EPA approval. See DEQ website for more information - <https://www.oregon.gov/deq/wq/Pages/proposedIR.aspx>

emission, raise serious questions about PRB's contributions to global warming and the true range of its impacts.

Before recertifying PRB as a "low impact" facility, LIHI must factor in these likely methane emissions. One of the major benefits of a facility receiving LIHI's Low Impact Certification is that its generated electricity is able to receive renewable energy credits (RECs) and can count that production towards the generator's renewable portfolio standard (RPS) requirements.²⁶ Like many, LIHI assumes that these dams are "pollution-free" sources of energy.²⁷ Unfortunately, if that initial assumption is incorrect, as these recent studies have noted, many other assumptions fall apart. Is a hydroelectric project (and the electricity it produced) "low impact" if it is producing similar amount of methane as non-renewable energy sources? And, when combined with other environmental impacts, should electricity from these dams be given RECs and counted towards RPSs if they are directly and significantly contributing to greenhouse gas emission and global warming? The DRA does not think so, and we urge LIHI to carefully consider this issue in Pelton Round Butte's recertification process.

As one potential path forward, we ask that LIHI include a Condition on PRB's recertification that delves further into this issue. Most urgently needed are data about methane emissions from Lake Billy Chinook and Lake Simtustus. The extent of methane emissions from a facility falls squarely within the question of a facility's operational impacts, and determining whether a facility is a methane emitter should be step one. This Condition could require the dam operators to set up monitoring devices and collect data on methane emission from PRB's reservoirs. Once data have been collected, this Condition can further spell-out next steps - such as determining whether more monitoring is needed, processing the data through independent reviewers, establishing reduction strategies, or, if need be, revoking PRB's Low Impact Certification. It is absolutely vital that LIHI require some Condition for PRB's continue Low Impact Certification that determine the true extent of these methane-related impacts.

LIHI must carefully consider Pelton Round Butte's "low impact" status in light of the developing scientific understanding around methane emissions from hydropower reservoirs. Methane is one of the most potent sources of global warming. If a LIHI-certified facility is a significant contributor of methane emissions, its "low impact" status must seriously be considered. We ask that LIHI look further into this question and determine the true extent of the issue at Pelton Round Butte.

²⁶ OAR 330-160 *et seq.* <https://secure.sos.state.or.us/oard/displayDivisionRules.action?selectedDivision=1116>

²⁷ <https://lowimpacthydro.org/about-us-2/>

V. Forthcoming changes to governing laws and certifications

Beyond the actual impacts from Pelton Round Butte's continued operations detailed above, changes to both Oregon water quality laws and to the PRB's operating documents are expected within the next year. With these looming changes, the DRA urges LIHI to carefully consider how it assesses PRB's ongoing ability to comply with LIHI review criteria, to set Conditions that will operate independent of potentially changing standards, and to ensure that all of the waters and species affected by the Project are impacted as little as possible.

The first change will be to the State of Oregon's fish and aquatic life use maps.²⁸ DEQ is in the process of developing a proposed rulemaking that will both update the current designations and create new use subcategories to better support beneficial uses related to fish and aquatic life.

The fish and aquatic life map updates will mainly focus on two water quality standards – temperature and dissolved oxygen. The temperature-related updates will maintain the current system of subcategorization of various segments of Oregon's many water bodies. Existing categories for temperature are set based on how waters are used by salmonids and other native fishes. DEQ is using this opportunity to incorporate over a decade's worth of data into the maps to ensure that actual fish uses are being protected where and when they are known to use those waters.

The changes likely for dissolved oxygen, on the other hand, will be more involved than the temperature changes. This is because DEQ is proposing to create new subcategorizations for establishing applicable dissolved oxygen levels. As currently proposed, DEQ will rely on temperature use designations in their subcategorizations. The approach will also attempt to more precisely define when spawning activities occur in specific water bodies and, in response, provide heightened protections during those periods.

In addition to these use designation changes, DEQ is also proposing to relax pH standards in two of the lower Deschutes' tributary streams – the Crooked River and Trout Creek. Of these, the Crooked River's relaxation would be the most impactful, as it

²⁸ DEQ. Fish and Aquatic Life Use Updates 2022 webpage. Available at: <https://www.oregon.gov/deq/rulemaking/Pages/aquaticlife2022.aspx>

contributes over 80% of the nitrogen entering the lower Deschutes River²⁹ and more than half of the dissolved phosphorous entering into Lake Billy Chinook.³⁰ By proposing a shift from 8.5 to 9.0, it is very likely that these upstream water bodies will lower in quality – directly impacting downstream waters. The Crooked River, compare to the Metolius and Middle Deschutes, is a major source of nutrient pollution and heightened pH levels for both Lake Billy Chinook’s surface water and for the lower Deschutes.³¹ Due to the frequency of 100% surface water withdrawal through the SWW Tower, any reduction in Crooked River water quality will be directly passed on to the lower Deschutes River, where the pH standard is not changing and is already being exceeded for months each year. As a consequence of worsening upstream water quality, operational decisions will play an enormous role in lower river water quality. Any failure to anticipate or respond to these changes from PRB’s operators will result in direct contributions to growing pH violations and worsening habitat conditions for ESA-listed and State of Oregon species of concern.

The rulemaking is expected to be submitted to the Oregon Environmental Quality Commission in Spring 2023, after which it will be submitted to the EPA for final review and approval.

The second forthcoming change that will impact PRB and its waters is a formal revision to its Clean Water Act Section 401 Certification. While revisions to the 401 Cert have been known to be necessary since at least 2013,³² formal efforts only began in recent years. In PRB’s last interim agreement, DEQ required PRB’s operators to request and actively seek revisions to the 401 Cert,³³ and in 2020, PRB’s operators requested those revisions.³⁴ Following the request, DEQ began its Findings and Evaluation process. However, it has since paused the process and is waiting for the fish and aquatic life updates to finish. As noted, this will not likely occur until Summer 2023 at the earliest. With at least a 45-day comment periods likely to precede a months-long review, it is likely that the 401 Cert revision will not be completed into Fall or Winter 2023.

²⁹ Eilers and Vache. 2021. Water Quality Study for the Pelton Round Butte Project and Lower Deschutes River: Monitoring & Modeling. At page 296 (333/623).

³⁰ Eilers and Vache. 2019. Water Quality Study for the Pelton Round Butte Project and Lower Deschutes River: Monitoring & Modeling. At page ii (37/606).

³¹ *Id.* at pages 51-54 (90-93/606)

³² Declaration of Eric Nigg. 2018. At page 10 (¶ 28). *See also* DEQ clarification. 2018. At page 3 (¶ 2).

³³ DEQ and PGE. 2019. Section 401 Interim Agreement for the Pelton Round Butte Hydroelectric Project. At page 3 (Agreement § 3).

³⁴ DEQ. 2021. Draft Evaluation and Findings Report – Clean Water Act Section 401 Water Quality Certification Modification – Pelton Round Butt Hydroelectric Project (FERC No. 2030). At page 1.

Third, and finally, a direct result of the revisions to the 401 Cert and the Water Quality Management and Monitoring Plan will be the reinitiation of Endangered Species Act consultation and the issuance or potential revocation of PRB's biological opinions. Both the USFWS³⁵ and NOAA Fisheries³⁶ BiOps specifically include the regulatory requirement³⁷ that consultation be reinitiated in certain conditions. Among these, modification to these State of Oregon-issued operational requirements is a "subsequent[] modif[ication]...that causes an effect to the listed species or critical habitat not considered in [the original] Opinion."³⁸ The new water quality standards and operating requirement likely to result from a new 401 Cert and Management and Monitoring Plan will certainly cause effects to bull trout and steelhead that were not considered in the nearly two-decade old BiOps for PRB. As such, those biological opinions, which constitute the basis of compliance for LIHI Review Criterion F, will be at best altered and at worst revoked.

These three upcoming revisions to Oregon law and Pelton Round Butte operational documents will result in significant changes in operational requirements, protections for water quality and listed fish species, and whether the Project is continued to be permitted at all. To ensure that environmental and ecological baselines do not shift, we urge LIHI to carefully consider how it can ensure that Pelton Round Butte's operations are truly "low impact" and, as necessary, establish Conditions to preserve water quality and listed species protections.

VI. Conclusion

The Deschutes River Alliance calls on the Low Impact Hydropower Institute to reject the recertification of the Pelton Round Butte Hydroelectric Project as a Low Impact Facility. The Project fails to comply with two separate LIHI review criteria – water quality and threatened and endangered species protection. Failure to comply with either of these criteria alone is enough to prevent recertification. In addition to these shortcomings, there are serious concerns that Pelton Round Butte's operation result in significant methane emissions. Before certifying the Project as low impact, LIHI must ensure that the facility is not emitting these potent greenhouse gasses and negatively impacting global warmings. Considering these shortcomings, we oppose any action to recertify Pelton Round Butte as a low impact facility.

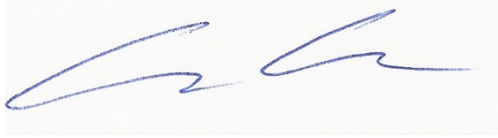
³⁵ USFWS BiOp. At page 45 (50/68).

³⁶ NOAA Fisheries BiOp. At page 11-1 (79/92).

³⁷ 50 CFR § 402.16. (<https://www.law.cornell.edu/cfr/text/50/402.16>)

³⁸ 50 CFR § 402.16(a)(3).

Sincerely,

A handwritten signature in blue ink, appearing to read 'Sarah Cloud', is centered on a light beige rectangular background.

Sarah Cloud
Executive Director
Deschutes River Alliance