

October 19, 2016

Chris Stine, Hydroelectric Specialist
Oregon Department of Environmental Quality
165 E. 7th Ave. Suite 100
Eugene, OR 97401

Dear Mr. Stine,

The Deschutes River Alliance (DRA) submits these comments regarding the proposed Section 401 water quality certification for the Opal Springs Hydroelectric Project (FERC Project No. 5891). We appreciate the opportunity to participate in the certification process.

The DRA is a science-based advocacy organization seeking collaborative solutions to basin-wide threats to the health of the Deschutes River and its tributaries. We advocate for water quality, a healthy ecosystem, and for the establishment and protection of robust populations of resident and anadromous fish throughout the river's entire watershed. As such, we are highly supportive of the installation of fish passage facilities at the Opal Springs Project.

Our hope is that the new facilities can be installed and operated in a manner that will be beneficial to the Deschutes Basin's resident trout, that will comply with all applicable state water quality standards, and that lays the groundwork for successful reintroduction of anadromous fish in the Crooked River and elsewhere in the basin. To ensure these goals are met, we submit the following comments regarding the proposed § 401 Certification for the Project.

1. Monitoring Requirements

The DRA's principal concerns relate to the proposed monitoring requirements contained in the draft § 401 Certification. As noted in the document, the new facilities are expected to increase travel time for water through the reservoir. ODEQ has made several assumptions about how this increased travel time will impact water quality, which may ultimately hold true. However, we believe that more robust monitoring should be required to ensure that water quality is not degraded, and to allow for effective adaptive management in case unanticipated degradation does occur.

a. *Dissolved Oxygen*

The draft § 401 Certification calls for continuous measurement of dissolved oxygen (D.O.) for at least 30 days at upstream and downstream locations in the diversion pool during the first July and August when the pool reaches at least 80% of the proposed increase in elevation. In addition, beginning no later than May 1, the licensees are to continuously measure D.O. for 15 days in May. *See* Certification § 4(a)(1).

We believe these monitoring requirements are inadequate. With regard to the July and August requirement, very little July/August D.O. data currently exists, making it difficult to compare D.O. levels before and after installation of the new facilities. As a result, we believe a longer monitoring period is warranted. ODEQ should require continuous monitoring at the described locations throughout June, July, and August. Further, continuous monitoring should be required from April 15-May 15, to confirm D.O. levels during the designated spawning and incubation period.

b. *Hydrogen Ion Concentration (pH)*

As discussed in the Certification materials, the lower Crooked River is identified on ODEQ's 303(d) list of impaired bodies of water, as exceeding the numeric criteria for pH. Thus, ODEQ must ensure that proposed Project operations will not lead to further degradation of water quality related to pH. Robust monitoring for pH is essential to ensuring this degradation does not occur.

The pH monitoring required in the draft § 401 Certification is inadequate to ensure that water quality and beneficial uses are being protected. As with D.O., the Certification calls for only 30 consecutive days of monitoring sometime in July and August. *See* Certification § 5(a)(1). The Certification does not require that this monitoring be continuous.

This monitoring requirement should be significantly enhanced to ensure that pH requirements are being met. ODEQ should require the licensees to perform continuous monitoring of pH throughout June, July, and August, at the same time and locations as D.O. measurements are taken.

c. Temperature

The lower Crooked River is also listed under §303(d) as impaired for temperature, from Round Butte dam upstream to river mile 51. As with pH, it is thus critical that the licensees perform robust temperature monitoring to ensure new project operations are not resulting in violations of basin temperature standards. The draft § 401 Certification requires, in vague terms, that the licenses “shall measure temperature at upstream and downstream locations...from May 1 through September 30.” *See* Certification § 6(a)(1).

These requirements should be made more specific, and should require that more data be collected. ODEQ should mandate continuous temperature monitoring at the identified locations throughout May, June, July, and August.

d. Baseline Water Quality

Finally, in order to clearly identify any changes in water quality due to the proposed new operations at Opal Springs, it is critical that a more thorough understanding of current water quality conditions is established. To establish adequate baseline data, we recommend that continuous water quality monitoring be implemented in 2017 for turbidity, D.O., pH, and temperature, at the same locations and sampling periods as will be required following completion of the project. This baseline data will allow ODEQ and the licensees to more accurately assess how the proposed new facilities affect water quality, and whether any further degradation is occurring.

2. Adaptive Management Considerations

The DRA also has concerns regarding the identified adaptive management protocols in the event that D.O., pH, and temperature criteria are not met. For each of these criteria, ODEQ has included a paragraph titled “Adaptive Management,” laying out potential “strategies” to achieve state water quality standards. *See* Certification §§ 4(d); 5(d); 6(d).

We believe that this approach leaves too many of these important decisions and strategies up for debate until *after* it is determined that standards are not being met. At that time, it is quite possible that there will have been too many resources and other commitments invested in the Project to make any significant changes needed to protect water quality.

Instead, the final § 401 Certification should outline *specific* actions that must be taken if water quality problems are identified. This approach should focus on changes that will be made to specific operations at Project facilities, in case one or more criteria are not being met. This will help ensure that, once the new facilities are completed, the licensees will be prepared and have the capability to undertake any needed changes to management operations.

3. Anadromous Fish Reintroduction

Finally, the DRA would like to address the issue of anadromous fish reintroduction and passage. While fish passage at Opal Springs would provide some potential benefit for resident trout, the primary driver for the new facilities is to provide upstream and downstream passage for steelhead and Chinook salmon. The need for anadromous fish passage is obviously predicated on the success of Portland General Electric's fish reintroduction program.

Unfortunately, PGE's reintroduction program, using a Selective Water Withdrawal tower at Round Butte Dam, has been a failure by almost any measure. The tower is failing to guide meaningful numbers of juveniles across Lake Billy Chinook, and adult returns are well below what was anticipated. In the meantime, changes in discharges from the Pelton-Round Butte complex as a result of SWW operations have had a dramatic negative impact on the ecology of the lower Deschutes River below the complex.

In short, we believe that another approach to fish reintroduction in the upper Deschutes Basin may soon be necessary. And the facilities at Opal Springs could play a critical role in a more successful reintroduction effort than the one currently taking place. In particular, Opal Springs could provide an excellent location for trapping juveniles, where they could then be transported below Pelton-Round Butte (and avoid the treacherous currents, predation, and poor water quality in Lake Billy Chinook). As ODEQ and the licensees move forward in the certification process, both parties should keep this in mind, as Opal Springs could prove to be an essential piece of a more successful reintroduction scheme in the upper basin.

The DRA encourages ODEQ to reexamine the terms and conditions of the Certification identified above, to ensure compliance with applicable water quality standards at the Opal Springs Hydroelectric Project. We also request to be immediately notified of the final action taken by ODEQ on this § 401 Certification.

Again, thank you for accepting and considering these comments. We look forward to your response.

Sincerely,



Jonah Sandford
Executive Director
Deschutes River Alliance
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