

ODEQ FINAL 401 WATER QUALITY CERTIFICATION QUESTIONS AND ANSWERS

September 10, 2018

What does the ODEQ 401 Water Quality Certification mean for KRRC?

The Oregon Department of Environmental Quality (ODEQ) has determined that dam removal will comply with water quality standards and other applicable state laws for protection of the Klamath River. ODEQ has therefore issued its final [Clean Water Act Section 401 Water Quality Certification](#) for the removal of the J.C. Boyle dam located in Klamath County, OR. The 401 Certification is a major milestone for KRRC as it represents one of the major permits it requires to proceed with dam removal.

Why does KRRC require this Certification?

Section 401 of the federal Clean Water Act (CWA) requires state governments to certify that any discharge into the nation's waters—including water releases from the construction, operation, or removal of a dam—complies with all applicable water quality standards.

The ODEQ final Section 401 Water Quality Certification conditionally affirms that the KRRC's dam removal project will comply with all applicable water quality standards, limitations, and restrictions set by Oregon law and the federal Clean Water Act.

This Certification, and the conditions included in it, will be incorporated into the Federal Energy Regulatory Commission's (FERC) decision on the transfer and surrender of the hydroelectric licenses for the four dams.

What does the ODEQ Certification say about the benefits of dam removal?

ODEQ found that dam removal is expected to restore the river to more natural, free-flowing conditions, improve water quality, and provide net benefits to fish populations in the Klamath River in the long run. Dam removal will improve habitat and access for salmonids and reduce production of nuisance algae and fish disease.

ODEQ also found that the adverse impacts from dam removal will be short term: elevated suspended sediment concentrations and dissolved oxygen reductions will be limited to the first 24 months after the start of draw down.

Finally, ODEQ found that dam removal will be performed in a manner which minimizes, to the extent feasible, adverse impacts to water quality, threatened species, and beneficial uses of the Klamath River.

What was ODEQ's process for preparing this Certification?

Before issuing the final Section 401 Water Quality Certification, ODEQ undertook a rigorous evaluation of the existing science on impacts to water quality and aquatic species from the proposed removal of J.C. Boyle dam.

For example, ODEQ examined how dam removal would affect sediment levels, impact aquatic species, and change nutrient and pollutant levels. It also compared these impacts to the effect of current hydropower operations on water quality.

ODEQ also stipulated several detailed "conditions" of the Certification that KRRC must implement to further protect water quality. These include the development of a Water Quality Management Plan for monitoring and data collection, measures to limit short-term barriers to fish passage, and plans for reservoir drawdown and reservoir area restoration.

Was the public allowed input into the Certification process?

Yes. The ODEQ process included an open and transparent public review and comment period to ensure all interested parties had an opportunity to provide input – including two public meetings that were publicized in advance. The public comment period was open from May 23 through July 23, 2018. ODEQ received more than 100 comments. ODEQ developed its final Certification decision in consideration of all comments received and provided responses to public comments in its final evaluation report.

Does this Section 401 Water Quality Certification mean dam removal will move forward?

This final Certification is a significant milestone and is one of several major permits and approvals KRRC requires to proceed with dam removal. ODEQ’s Certification addresses the proposed actions related to removing the J.C Boyle dam located in Oregon. KRRC anticipates it will receive a final Certification from the California State Water Resources Control Board (California Water Board) in 2019, following its California Environmental Quality (CEQA) analysis. KRRC will also require approvals from the Federal Energy Regulatory Commission (FERC) on its applications to transfer and surrender the dam licenses before it can proceed with dam removal. Those applications are still pending.

Did ODEQ consider the release of hazardous waste that could occur during dam removal?

Yes. ODEQ assessed KRRC’s plans for managing and assessing any potentially hazardous wastes it encounters during removal of the powerhouse, infrastructure buildings, and other facilities proposed for removal. ODEQ further stipulated “conditions” of the final Certification related to hazardous wastes. These include providing specific detail on waste disposal and management, spill response, and compliance reporting.

What about toxins contained in sediments behind the dams?

ODEQ assessed studies on sediments behind the J.C. Boyle dam. No contaminants have been detected in violation of human health or drinking water standards. ODEQ concluded that there is no concentration of chemicals in the reservoir sediments beyond what is generally found in surrounding soils.

Fine-grained sediments, like silt and clay, have the greatest risk of contamination and toxicity but tend to remain “floating” (in suspension) even in small to moderate flows. As a result, the risk of having the most likely contaminants settle in the Klamath River and estuary is highly unlikely. These sediments likely will be carried to the Pacific Ocean.

How will ODEQ protect water quality after the dam removal project begins?

As one condition of the Certification, KRRC must file a Water Quality Management Plan (WQMP) with ODEQ that details requirements for KRRC to monitor water quality through a combination of continuous monitoring and drop-sample collection.

KRRC must also comply with several other required conditions of the Certification. These include providing specific detail on reservoir drawdown, a reservoir area management plan, a remaining facilities plan, and detail on waste disposal and management.

KRRC will continue to work with ODEQ as dam removal efforts progress and will provide ODEQ with detailed and consistent water quality information in compliance reports.

How does the 401 Certification process relate to FERC’s review of KRRC’s applications for transfer and surrender of the dam licenses?

The Section 401 Water Quality Certification process is triggered by FERC's review of KRRC's license surrender application. Section 401 of the Clean Water Act requires state governments to certify that any discharge into the nation's waters, including water releases from the construction, operation, or removal of a hydroelectric project, complies with water quality standards. The conditions which ODEQ (and later the California Water Board) impose as part of the certification process will be incorporated into the FERC license decision.

Why do Oregon and California have to issue two different certifications?

The Section 401 Water Quality Certification process is intended to help states achieve their specific water quality goals while maintaining both state and federal water quality standards. Each state must complete its own process for the dam removal project in its state.

ODEQ's Certification applies to removal of the J.C. Boyle dam in Klamath County, OR.

The California State Water Resources Control Board (SWRCB) is responsible for certification of the portion of the project in California: Copco No. 1, Copco No. 2, and Iron Gate dams in Siskiyou County. The California Water Board must complete California Environmental Quality Act (CEQA) analysis on the project as part of its certification process. The CEQA analysis and final certification are expected in 2019.

Will the California Section 401 Water Quality Certification have the same conditions as the ODEQ Certification?

KRRC's dam removal project must be certified in both Oregon (for J.C. Boyle dam) and California (for Copco No. 1, Copco No. 2, and Iron Gate dams). Each state has its own process and standards for water quality certification. While some of the requirements of the water quality certifications from Oregon and California will certainly overlap, some conditions may be unique to each state's goals, rules and regulations. In particular, because the SWRCB must perform the required California Environmental Quality Act (CEQA) analysis and develop proposed

mitigations for impacts for the removal of the three lower most dams located in California, there may be new and different requirements included in the SWRCB certification.

Additional Questions and Answers on Water Quality

Dam removal opponents claim that this project presents daunting threats to water quality. Who is correct?

The benefits of dam removal on the Klamath River have been confirmed by extensive, peer-reviewed studies by the Department of Interior and the Department of Commerce NOAA Fisheries (NMFS). ODEQ's findings further validate the water quality benefits from dam removal. The California State Water Resources Board and the Federal Energy Regulatory Commission will further review evidence of the effects of dam removal. All of these agencies are charged with protecting the public interest with respect to KRRC's proposed project.

Won't the removal of the sediment from behind the dams ruin water clarity?

There will be short-term impacts from the release of sediments that have built up behind the dams, but the impacts will last only one to two years. Most of the sediment will wash out to the Pacific Ocean after a couple of rainy seasons. KRRC also proposes to restore the former reservoir lands through revegetation and other activities that will combat erosion and transform remaining sediments into new soils.

Will the release of sediments hurt fish?

The impacts from dam removal on lower river species are expected to be short-term, lasting one to two years, with populations recovering from sediment impacts within five years. In contrast, dam removal will create long-term benefits to fish through improved and expanded habitat, reduced disease, and improved water quality.

ODEQ found in its Section 401 Water Quality Certification that “dam removal and related restoration activities will provide a net ecological benefit, with long-term benefits of river restoration outweighing unavoidable short-term adverse impacts to water quality.”

Why is dissolved oxygen important?

Dissolved oxygen is an important indicator of water quality. Fish do not have lungs, so oxygen is absorbed through their gills. As such, fish need dissolved oxygen in the same way humans need air to breathe.

What are the benefits of returning the river to its historical pattern?

There are many environmental benefits of returning the river to its natural state, including improved water quality and improved habitat. Dam removal will restore a more natural hydrologic system, with a warmer spring and cooler summer and fall temperatures. It will also result in more natural river flows. These two changes will improve dissolved oxygen content, nutrient cycling, and acidity and reduce toxins. Opening up the river will restore access to historic habitat and coldwater tributaries above the dams for several Salmonid species. More natural sediment transport through the river will further improve fish habitat and help combat fish diseases.