



State of Oregon
Department of
Environmental
Quality

Draft Issue Paper: Water Quality Certification Procedures for Klamath River Restoration Project

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Chapter 1. Introduction and Background

Introduction

The removal of the J.C. Boyle Dam on the Klamath River is being considered as part of the Klamath Hydroelectric Settlement Agreement (KHSA). The Department of Environmental Quality (DEQ) is proposing a rule stating DEQ's policy and procedures for evaluating whether to certify the dam removal under section 401 of the Clean Water Act should an application for certification be submitted. In order to certify the project, DEQ must conclude that the project will comply with Oregon's water quality standards. This issue paper provides background information, discusses the basis and rationale for the proposed rule, and describes the process DEQ used to develop the proposed rule.

Background

Pursuant to the Klamath Hydroelectric Settlement Agreement (KHSA), the Secretary of Interior will make a decision in March 2012, or soon thereafter, whether to remove the J.C. Boyle Dam on the Klamath River. If the Secretarial Determination is affirmative, the Oregon Governor's office must determine whether to concur with that decision within 60 days. The KHSA states that in its Concurrence, "each State shall consider, in its discretion and independent judgment, whether: (i) significant impacts identified in its environmental review can be avoided or mitigated as provided under state law; and (ii) Facilities Removal will be completed within the State Cost Cap". The Department of the Interior (DOI), through the Bureau of Reclamation and in coordination with California Fish & Game, has prepared a draft Environmental Impact Report/Environmental Impact Statement (EIS/EIR, September 2011) pursuant to the National Environmental Policy Act (NEPA) and the California Environmental Quality Act (CEQA) to evaluate removal of four dams on the Klamath River pursuant to the terms of the KHSA.

Dam removal activities often result in short-term degradation of water quality but provide long-term water quality and/or fish habitat improvements. In the Klamath River, dam removal is expected to result in the release of sediments with potential associated exceedances of water quality criteria, including dissolved oxygen, pH and turbidity, for a limited period of time according to the draft environmental impact statement (U.S. Department of Interior, September 2011). However, the proposed dam removal is expected to benefit water quality and ultimately achieve enhanced fish use support. If the project meets this objective, it would serve the Clean Water Act's goal to "restore and maintain the chemical, physical, and biological integrity of the Nation's waters."

Purpose and Need for Rulemaking

The purpose of the proposed rule is to clarify DEQ's policy and procedures for evaluating whether or not to certify that the dam removal will comply with water quality standards. The Secretary of Interior will decide whether or not to remove J.C. Boyle dam as part of Klamath River restoration efforts. DEQ's current rules are not clear as to how DEQ would evaluate a project, such as dam removal, that is expected to result in some unavoidable short term water quality impacts in order to realize long term water quality and fish habitat (beneficial use)

improvements. The proposed rule clarifies DEQ's intent and authority to provide a time schedule in the Section 401 certification, which will allow time for the project to comply with water quality standards, if certain findings are made. The proposed rule also requires that water quality be protected to the maximum extent practicable during removal of the J.C. Boyle Dam. The rule will provide assurance to the Governor's office that DEQ's water quality regulations will not be an obstacle to the Governor's ability to concur should the U.S. Secretary of Interior determine that the dam should be removed.

Objectives

The water quality objectives of the proposed rule are to protect water quality to the maximum extent practicable during removal of the J.C. Boyle Dam on the Klamath River, to ensure that the long term ecological benefits outweigh the short term impacts, and to ensure that river restoration and the long term water quality and habitat improvements are successful and occur in a timely manner. The proposed rule facilitates DEQ's ability to include conditions, if necessary, as part of the Section 401 certification to ensure that these objectives are met from DEQ's perspective.

Process

DEQ formed and met three times with a local advisory committee and considered the input of the committee members while developing these rules. The committee provided input to DEQ on the options evaluation and the proposed rule language. The scope of the committee did not include debating the pros and cons of dam removal, nor did it include advising DEQ on the water quality conditions that should be included in a future Section 401 certification for the project. DEQ also informed environmental stakeholder groups in the Portland area about the rule development.

DEQ had multiple discussions with neighboring states and EPA to learn about possible regulatory pathways to dam removal and to evaluate the options. In addition, because the Klamath settlement includes dam removals in both Oregon and California, DEQ sought to understand how California is addressing the regulatory issues and state concurrence decision. DEQ's recommended rule is consistent with California's proposed approach both in its objectives, its legal foundation, and its requirements.

This rulemaking will use Oregon's standard public notice and comment process and will provide a 45 day public comment period. Stakeholders also had the opportunity to be informed of this rulemaking through advisory committee meetings that were open to the public as well as updates posted to the water quality standards and DEQ Eastern Region web pages that are available on DEQ's website.

Chapter 2. Approaches Used for Other Dam Removal Projects

Several dam removal projects in Oregon, Washington and California have been completed or are in the process of developing regulatory approaches for achieving long-term river and fisheries restoration. The following section provides a brief summary of several dam removal projects and their associated approaches to the administrative processes to facilitate the Section 401 water quality certification.

Powerdale Dam, Hood River, OR – The Section 401 water quality certification was based, among other things, on compliance with the turbidity water quality standard, which authorizes limited duration exceedances. The project was not expected to cause other water quality standards exceedances.

Marmot Dam, Sandy River, OR – The Section 401 water quality certification relied on compliance with water quality standards including turbidity and anti-degradation. The project was not expected to cause other water quality standards exceedances.

Elwah and Condit Dams, Washington - Dam removal projects in Washington include the Elwah and Condit projects. The Washington Department of Ecology has used three approaches to facilitate Section 401 certification for these two projects, a habitat restoration provision (WAC 173-201A-300(3)), a short-term modification provision (WAC 173-201A-410(3)), and an existing compliance schedule rule (WAC173-201A-510).

The Department of Ecology adopted the habitat restoration and short-term modification rules in 2003 in order to facilitate issuing section 401 certifications for the Elwha and Condit Dam removal projects. In 2007, EPA declined to take action on the habitat restoration provision, finding that the provision was not a "water quality standard" as defined under the Clean Water Act. In 2008, EPA declined to take action on the short-term modification provision for the same reason. EPA suggested in a subsequent communications that Washington could use the rule as "another appropriate requirement of state law" in Section 401 certifications. In 2005, EPA declined to take action on the compliance schedule rule as a water quality standard. Following this 10-year process, Ecology used the existing compliance schedule rule to facilitate the issuance of the Section 401 certification for the Condit project.

Copco 1&2 and Iron Gate Dams, California North Coast Regional Water Quality Control Board
The Regional Board is developing Basin Plan amendments to broadly address the issue of aquatic system restoration and its role as a water quality protection tool. The proposed Restoration Policy includes the following:

- A definition of aquatic system restoration;
- New or revised prohibitions designed to support aquatic system restoration;
- Criteria by which to exempt certain aquatic system restoration projects from prohibitions, or permit the temporary exceedance of certain water quality objectives;

- Implementation guidelines for the construction of aquatic system restoration projects; and a strategy by which to coordinate the review and approval of aquatic system restoration projects with other resource protection agencies.

As of the time of this document preparation, EPA Region 9 is not expected to regard California's proposed restoration policy as a water quality standard, which would obviate the need for EPA approval.

Chapter 3. Approaches Considered

Introduction

DEQ identified the following approaches that could potentially be used to provide a regulatory pathway for evaluating the removal of the J.C. Boyle Dam under Section 401 of the Clean Water Act: compliance schedules, variances or a project-specific restoration rule. In considering these options, DEQ's objective is to be able to allow unavoidable limited duration exceedances of some water quality standards during the dam removal process in order that the long-term water quality and fish use benefits of this restoration project may be realized. Existing rules do not clearly authorize DEQ to grant this latitude for the entire range of water quality parameters that could be affected if the J.C. Boyle Dam is removed.

DEQ considered whether to develop a rule that would apply to restoration projects statewide or to develop a rule that would apply specifically to the Klamath River and the proposed dam removal projects. For the following reasons, DEQ decided to develop the rule specifically for removal of the J.C. Boyle Dam:

1. DEQ will be more likely to complete rulemaking for a Klamath specific rule in the needed timeframe. The state will be asked to concur or not concur with the Secretarial Determination regarding removal of the dam in the spring or summer of 2012, or soon thereafter.
2. This is a new water quality standards rule for Oregon and there are not readily available models from other Northwest states for a removal project of this particular scope. A narrow application provides more certainty about the circumstances under which the provision will be applied and how it will work. DEQ concluded that a narrow rule will be a more comfortable first step for DEQ, statewide stakeholders and EPA Region 10.
3. If DEQ had pursued a more general statewide rule, DEQ would have conducted a broader rule development process, including involving stakeholders throughout the state and additional options and considerations for situations that may arise elsewhere throughout the state.

Compliance Schedule Options

1. Use Existing Compliance Rules

DEQ has an existing compliance schedule rule and other provisions that provide some implementation timing flexibility for certain sources and parameters:

OAR 340-041-0061(16) Compliance schedules. In a permit issued under OAR 340, division 045 or in a water quality certification under OAR 340, division 48, the department may include compliance schedules for the implementation of effluent limits derived from water quality criteria in this division. A compliance schedule in an NPDES permit is allowed only for water quality based effluent limits that are newly applicable to the permit and must comply with provisions in 40 CFR § 122.47 (including the requirement that water quality criteria must be achieved as soon as possible).

OAR 340-041-0028 (12) (h) (B), in part, Implementation of the Temperature Criteria: Each plan must include a description of best management practices, measures, effluent trading, and control technologies (including eliminating the heat impact on the stream) that the nonpoint source intends to use to reduce its temperature effect, a monitoring plan, and a compliance schedule for undertaking each measure.

OAR 340-041-0036, in part, Turbidity Criteria:

Turbidity (Nephelometric Turbidity Units, NTU): No more than a ten percent cumulative increase in natural stream turbidities may be allowed, as measured relative to a control point immediately upstream of the turbidity causing activity. However, limited duration activities necessary to address an emergency or to accommodate essential dredging, construction or other legitimate activities and which cause the standard to be exceeded may be authorized provided all practicable turbidity control techniques have been applied and one of the following has been granted:

1. Emergency activities: Approval coordinated by the Department with the Oregon Department of Fish and Wildlife under conditions they may prescribe to accommodate response to emergencies or to protect public health and welfare.

Advantages: Using the existing compliance rule has the following advantages:

- DEQ could interpret this rule to authorize it to certify the project with a compliance schedule or conditions in the certification related to temperature or turbidity.
- Would not require rulemaking.

Disadvantages: Using the existing compliance rule has the following disadvantages:

- Potential argument that compliance schedules should not be used to allow water quality exceedances. OAR 340-041-0061(16) most clearly applies to point sources in NPDES context; its application to nonpoint sources is unclear. Discharges during dam removal are not considered a point source.
- The project is expected to have short term water quality standards exceedances for parameters other than temperature or turbidity that are not specifically addressed by current rules.

2. Amend Rules to Allow Compliance Schedule for Klamath Dam Removal 401 Certification

One option considered by DEQ was to amend the existing compliance schedule rule to clarify that a compliance schedule could be included in a Section 401 certification for the Klamath River dam removal. The existing compliance schedule rule clearly authorizes the use of compliance schedules for NPDES permits. Under this option the rules would be amended to clarify that a compliance schedule could also be used in Section 401 certifications for dam removal projects and that they would include specific conditions and requirements, work schedule, milestones and date when water quality standards will be met. These conditions and requirements, as part of the Section 401 certification, would become conditions of the federal permit regulating the dam removal (e.g. U.S. Army Corps of Engineers permit issued under the Clean Water Act Section 404).

The evaluation and conditions of the Section 401 certification for removal of the J.C. Boyle Dam would include:

- The time period during which water quality standards may be exceeded and a description of the expected exceedances;
- A demonstration of the net ecological benefit;
- Conditions specifying any additional actions the project will take to minimize the spatial and temporal adverse impacts to water quality, threatened & endangered species, and beneficial uses; and
- Reasonable assurance that water quality standards will be met by the end of the compliance schedule.

Advantages: The rule would apply to a range of restoration or dam removal projects.

Disadvantages: Issuance of compliance schedules in NPDES permits was the focus of recent litigation and DEQ has entered into an agreement and developed a guidance document regarding the implementation of compliance schedules in NPDES permits. Using or revising the existing compliance schedule in this way may raise additional issues not contemplated in the compliance schedule settlement agreement discussions.

- Using the term “compliance schedule” and trying to include the concept for 401 certifications in the same rule could create confusion. While the general purpose is the same, the procedures and findings for implementing the provision in a 401 would be somewhat different than they are for NPDES permits.
- EPA would not consider a compliance schedule rule for 401 certifications to be a water quality standard that they would act on.

Variance Rule Options

DEQ may grant variances to point sources for one of six reasons specified in both federal and state water quality standards regulations. Because the dam removal project is not a permitted point source and because none of the six reasons for allowing a variance clearly fit the dam removal circumstance, DEQ concludes that the agency should not rely on the state’s existing variance rule to certify the Klamath dam removal.

DEQ considered the following options to allow a variance to be used for a dam removal certification:

- Amend the existing variance rule, or
- Adopt a Klamath-specific variance rule.

1. Amend the Existing Variance Authorizing Rule

DEQ considered how the existing rule could be expanded to apply to a dam removal project, which is considered a nonpoint source and requires a Section 401 certification rather than an NPDES permit. The amendments would need to authorize the Department to grant variances for non-permitted sources. They would also need to include restoration as a reason to justify a variance based on a finding that the project will cause unavoidable short term standards exceedances, but will result in long term water quality and use protection improvements. Under this option, the variance for the Klamath dam removal project would be granted through a second, separate action at the time of Section 401 certification and would require EPA approval.

Advantages: DEQ would expect EPA to review the proposed rule as a water quality standard and the rule may apply to other restoration projects.

Disadvantages:

- If DEQ pursues expanding the existing variance provision to incorporate nonpoint restoration projects requiring a Section 401 certification, EPA would likely need to approve both the amended rule and the project-specific variance. The time needed for these additional steps could be significant. In addition, having EPA action on the critical path would introduce additional uncertainty in the dam removal administrative process.
- The amended variance rule would effectively require EPA approval for dam removal, which would be an expansion of EPA's role in the Section 401 certification process, an area of the state's authority.

2. Adopt a Water Body Variance or Temporary Standard

DEQ considered whether DEQ could adopt a Klamath-specific variance rule that would allow DEQ to specify the requirements and conditions of the variance in more detail at the time of the 401 certification when more detailed information is available. The objective would be to avoid a second rulemaking process and a second EPA approval at the time of certification. One problem with this approach may be whether sufficient information will be available in the near term for EPA to approve the site specific variance rule.

DEQ also considered a temporary standard for the Klamath River as an option. DEQ would specify a limited time period during which the underlying beneficial uses and water quality standards would be unattainable and temporary standards would be applicable. This approach requires a justification as to why the current standards are not expected to be attainable during this time and a description of why the temporary uses and criteria are the best that will be attainable.

Advantages:

- Provides for a project-specific variance or temporary standards for all affected parameters.
- Would require one rulemaking.

Disadvantages:

- A water body variance or temporary standard would require approval by EPA. The time needed for this additional step could be significant.
- This option may require more specific and quantitative information on the nature and duration of water quality standards exceedances at the time of the rulemaking, which is not likely to be available. In the absence of this information, additional DEQ action and EPA oversight may be required at the time of certification. This would add costs and even more importantly, unacceptable uncertainty.
- The information needed to support such an approach has not been developed, including a decision by the Secretary of the Interior that the dam removal should occur. As such, this approach could be premature.

Adopt a Klamath-Specific Restoration Rule

This option is a project-specific restoration rule that states DEQ's authority and procedures for including a time schedule in a future water quality certification for the removal of the J.C. Boyle Dam. The time schedule would provide time for the project to comply with water quality standards following the removal of the J.C. Boyle Dam and would clarify that DEQ could issue a Section 401 certification notwithstanding temporary water quality standards exceedances under the following conditions:

- The expected exceedances will be for a limited duration;
- The project provides net ecological benefits;
- The project minimizes adverse impacts, to the maximum extent practicable, to water quality, threatened & endangered species and beneficial uses;
- The project will not cause water quality exceedances past the end of the predetermined duration; and
- Conditions will be placed in the Section 401 certification.

Advantages:

- Authorizes DEQ to certify the project under section 401 and place conditions in the certification to minimize temporal and spatial water quality impacts during the process of dam removal in order to ensure timely recovery of water quality and use protection following removal.
- Provides the regulatory tool DEQ needs to ensure that the project will meet Oregon's water quality standards and to minimize water quality impacts from the project.
- Would be administratively efficient and relatively low cost for DEQ because the rule would be adopted in 2012 and would then be implemented through the Section 401 certification.
- This provision will not require approval by EPA.
- This approach will allow DEQ to complete the rulemaking in the near term prior to state concurrence on the project.

Disadvantages:

- This rule is not expected to be considered a water quality standard by EPA as defined by the Clean Water Act, and as such, does not require EPA approval. DEQ's 401 certification would have a stronger basis if it was based on an approved water quality standard.

Chapter 4. Summary of Advisory Committee Discussion

DEQ formed a local Advisory Committee and met with the committee on three occasions: May 16, June 7, and August 31, 2011 to discuss rulemaking objectives, options and draft rule language. The Advisory Committee provided the following input on technical and policy issues.

Technical Issues

The advisory committee discussed several technical issues relevant to the KHSA and future decisions that will be made regarding the removal of the dam and DEQ's issuance of the Section 401 certification, if needed. DEQ and the advisory committee considered these issues as part of their evaluation of the rulemaking options.

- The draft Environmental Impact Report/Environmental Impact Statement (EIS/EIR) for estimating water quality impacts from removing the J.C. Boyle Dam was released for public comment after the advisory committee adjourned.
- The Section 401 application process with a final detailed plan for removal will be completed only after a decision has been made to remove the J.C. Boyle Dam.
- The technical issues will have to be evaluated during the Section 401 certification process. This rule does not preclude any technical evaluation but just specifies the findings that DEQ must make at the time of Section 401 certification.
- Committee members generally agreed with the DEQ's stated objective to allow short term impacts in order to facilitate restoration and achieve long term river improvements.
- Committee members generally agreed with the objective of minimizing water quality impacts during the dam removal process to the maximum extent practical.

Policy Issues

Policy issues considered and discussed by the advisory committee included:

- The KHSA, which includes provisions for the potential removal of the J.C. Boyle Dam, is a contentious issue in the Klamath Basin.
- Siskiyou County (CA) is strongly opposed to the proposed removal of the four dams on the Klamath River.
- PacifiCorp and the Dam Removal Entity (DRE) will benefit from this rulemaking since it will facilitate the administrative process.
- The Governor supports the KHSA and may need to rely on the rulemaking as part of the State Concurrence.
- DEQ is not responsible for deciding whether or not to remove the dams. Rather, DEQ's rulemaking is focused on how to protect water quality to the extent feasible through the Section 401 certification process and to ensure that short term water quality impacts do not present an obstacle to dam removal, if that is the ultimate decision.

- DEQ should make a finding whether the long term benefits outweigh the short term impacts when evaluating the certification.

Chapter 5. DEQ Recommendation and Technical Justification

Summary of DEQ Recommendation

Based on a review of the available approaches and input from the advisory committee, other states and EPA, DEQ recommends adoption of a Klamath-specific restoration rule that clearly allows DEQ to include a time schedule in the 401 certification if certain findings are made (the option described in section 3.C.). The purpose of the time schedule is to provide time for recovery of water quality impacts associated with dam removal activities at the J.C. Boyle Dam. The proposed rule requires that dam removal activities will not cause a violation of a water quality standard beyond the end of the period for meeting standards that DEQ would specify in the time schedule and include in the Section 401 water quality certification. In addition, the rule specifies the findings that DEQ must make in order to allow the time schedule and certify the dam removal as a restoration project. DEQ will only use this rule if the Secretary of the Interior decides that the J.C. Boyle Dam should be removed pursuant to the KHSR.

Proposed Rule

Basin-Specific Criteria (Klamath)

340-041-0185

Water Quality Standards and Policies for this Basin

(5) Time Schedule for Dam Removal.

(a) The Upper Klamath River experiences water quality degradation due to various anthropogenic and non-anthropogenic causes. DEQ may issue a 401 Water Quality Certification for the federal license or permit authorizing the removal of J.C. Boyle Dam on the Klamath River that includes a time schedule for compliance with water quality standards, if DEQ makes the following findings:

(A) The dam removal and its associated water quality impacts will be of limited duration;

(B) The dam removal and related restoration activities will provide a net ecological benefit;

(C) The dam removal will be performed in a manner minimizing, to the maximum extent practicable, adverse impacts to water quality, threatened and endangered species, and beneficial uses of the Klamath River; and

(D) The dam removal, by the end of a specified time schedule, is not expected to cause an exceedance of a water quality standard set forth in this Division.

(b) Any 401 Water Quality Certification issued by DEQ for removal of J.C. Boyle Dam must:

(A) Be based on an application, evaluation, and public participation complying with OAR Chapter 340 Division 48; and

(B) Contain conditions ensuring that the dam removal:

(i) will be performed in accordance with interim milestones and a time schedule specified in the certification;

(ii) will be performed in a manner that, to the maximum practicable extent, minimizes adverse impacts to water quality, threatened and endangered species, and beneficial uses of the Klamath River (including the use of best practices and interim and post-removal protection, mitigation, and monitoring measures); and

(iii) will not cause an exceedance of a water quality standard set forth in this Division by the end of the maximum period for meeting standards specified in the certification.

Stat. Auth.: ORS 468.020, 468B.030, 468B.035 & 468B.048

Stats. Implemented: ORS 468B.030, 468B.035 & 468B.048

Hist.: DEQ 17-2003, f. & cert. ef. 12-9-03; DEQ 1-2007, f. & cert. ef. 3-14-07