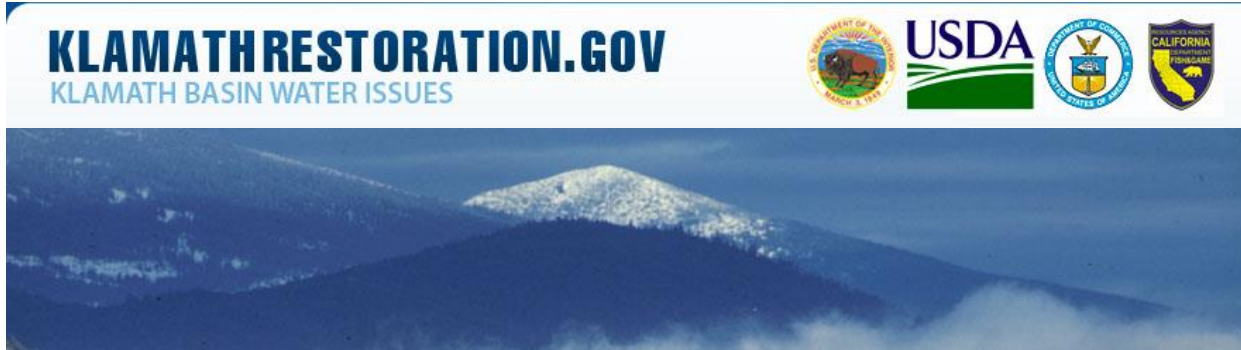


<http://klamathrestoration.gov/keep-me-informed/secretarial-determination/role-of-science/secretarial-determination-studies>



Secretarial Determination Studies

[Final Secretarial Determination Overview Report \(October 2012\)](#)

Secretarial Determination Studies

The following studies/reports have been conducted as part of the Secretarial Determination Process

[Engineering, Geomorphology/Construction Studies & Information](#)

[Water Quality Studies & Information](#)

[Background Information on Sediments](#)

[Biological \(Fish and Wildlife\) Studies & Information](#)

[Economic Studies & Information](#)

[Cultural/Tribal Reports \(Associated with Federally Recognized Tribes\)](#)

[Real Estate Studies & Information](#)

[Additional Background Documents](#)

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Final Secretarial Determination Overview Report (October 2012)

- Final Klamath Dam Removal Overview Report for the Secretary of the Interior: an Assessment of Science and Technical Information
 - Executive Summary (PDF, 2.6 MB)
 - Complete Version (PDF, 10 MB)
- Individual Sections for faster download
 - Table of Contents (PDF 255 KB)
 - Section 1 - Introduction (PDF, 945 KB)
 - Section 2 - Technical Input and Public Outreach Process (PDF, 306 KB)

- [Section 3 - Science and Engineering Process \(PDF, 273 KB\)](#)
- [Section 4 - Secretarial Determination Findings of Technical Studies \(PDF, 6.4 MB\)](#)
- [Section 5 - Summary and Conclusions \(PDF, 471 KB\)](#)
- [Section 6 - References \(PDF, 378 KB\)](#)

Water Quality Studies & Information

- [Sediment Chemistry Investigation: Sampling, Analysis, and Quality Assurance Findings for Klamath River Reservoirs and Estuary, October 2009 - January 2010 \(PDF, 8.7 MB\)](#)
- ["Screening-Level Evaluation of Contaminants in Sediments from Three Reservoirs and the Estuary of the Klamath River, 2009-2011". \(PDF, 5 MB\)](#)
- ["Model Development and Estimation of Short-term Impacts of Dam Removal on Dissolved Oxygen in the Klamath River." \(PDF, 3.1 MB\)](#)
- ["Assessment of Long Term Water Quality Changes for the Klamath River Basin Resulting from KHSA, KBRA, and TMDL and NPS Reduction Programs". \(PDF, 908 KB\)](#)
- [Quality Assurance Project Plan, Sediment Contaminant Study, Klamath River Sediment Sampling Program](#)
- [Simulating Water Temperature of the Klamath River under Dam Removal and Climate Change Scenarios By Russell W. Perry, John C. Risley, Scott J. Brewer, Edward C. Jones, and Dennis W. Rondorf \(PDF, 5.4 MB\)](#)

Background Information on Sediments

- [Klamath Reservoir Sediment Investigation](#)
- [Q and A's for Klamath Reservoir Sediment Investigation](#)
- [Summary of Klamath Secretarial Determination preliminary dioxin findings](#)
- [Aug. 30, 2011 -- Memo from Dennis Lynch: Infeasibility of the mechanical removal of reservoir bottom sediments if Klamath River dams are removed in 2020](#)
- Documents Referenced in Memo
 - [Feasibility, Risk, and Uncertainty of Mechanical Sediment Removal with the Proposed Action \(Full Facility Removal\)](#)
 - [Klamath Sediment Process, Sediment Management in the Reservoirs](#)
 - [Klamath Dam Removal Drawdown Scenario 8: Potential impacts of suspended sediments on focal fish species with and without mechanical sediment removal. Final Technical Memorandum](#)
- [EPA Memo: Compilation and discussion of sediment quality values for dioxin, and their relevance to potential removal of dams on the Klamath River 1/13/10, \(PDF, 90 KB\)](#)

Biological (Fish and Wildlife) Studies & Information

- [Forecasting the response of Klamath Basin Chinook populations to dam removal and restoration of anadromy versus no action \(Hendrix 2011\)](#)

- [Evaluation of long-term changes in Klamath Basin Chinook populations from dam removal and restoration of anadromy versus no action \(Hendrix 2012\)](#)
- [Klamath River Chinook Salmon Production Models Summary of Stakeholder Review and Compilation of Comments Received](#)
- [Technical Memo \(Hendrix\): Model runs of EDRRA without KBRA effects on productivity](#)
- [Using model selection and model averaging to predict the response of Chinook salmon to dam removal \(Lindley and Davis, 2011\)](#)
- [Center for Independent Experts \(CIE\) Peer Review \(E. Eric Knudsen, 2011\)](#)
- [Center for Independent Experts \(CIE\) Peer Review \(Marc Labelle, 2011\)](#)
- [Center for Independent Experts \(CIE\) Review \(John G. Williams, 2011\)](#)
- [FINAL -- Synthesis of the Effects to Fish Species of Two Management Scenarios for the the Secretarial Determination on Removal of the Lower Four Dams on the Klamath River 6/13/11, PDF 1.04 MB\)](#)

[Peer Review 8/4/10 \(PDF, 1.1 MB\)](#)

- [PBS&J - Final Report from Expert Panel on Lamprey 1/14/11, \(PDF 3.5 MB\)](#)
- [PBS&J - Final Report from Expert Panel on Resident Fish 4/11/11, \(PDF, 2.6 MB\)](#)
- [PBS&J - Final Report from Expert Panel on Coho/Steelhead 4/25/11, \(PDF, 4.25 MB\)](#)
- [PBS&J - Final Report from Expert Panel on Chinook Salmon - Addendum, 7/20/11, \(PDF, 5.9 MB\)](#)
- [Effects of the Klamath Basin Restoration Agreement to Lower Klamath, Tule Lake and Upper Klamath National Wildlife Refuge, Mauser and Mayer, June 7, 2011 \(PDF 73 MB\)](#)
- [Compilation of Information Relating to Myxozoan Disease Effects to Inform the Klamath Basin Restoration Agreement \(Bartholomew and Foott, 2010\)](#)
- [Conceptual Model for Disease Effects in the Klamath River \(PDF, 1.6 MB\)](#)
- [Klamath Dam Removal Drawdown Scenario 8: Potential Impacts of Suspended Sediments on Focal Fish Species with and without Mechanical Sediment Removal. \(Stillwater Sciences 2011\) \(PDF, 1.5 MB\)](#)

Expert Review Documents of Existing Studies and Reports

- [Nov. 15, 2010 - Expert Review of Hetrick, et.al.2009.](#)
- Document [Compilation of Information to Inform USFWS Principals on the Potential Effects of the Proposed Klamath Basin Restoration Agreement \(Draft 11\) on Fish and Fish Habitat Conditions in the Klamath Basin, with Emphasis on Fall Chinook Salmon, Hetrick, et.al., Feb. 2010 \(PDF, 7.2 MB\)](#)
 - [Memo](#)
 - [Cover Page](#)
 - [Executive Summary](#)
 - [Abstract](#)
 - [Main Body \(pdf, 7.2 MB\)](#)

Economic Studies & Information

2012 Updates

- [Reclamation 2012. Hoopa Valley Tribe Sociocultural/Socioeconomics Effects Analysis Technical Report For the Secretarial Determination on Whether to Remove Four Dams on the Klamath River in California and Oregon](#) (PDF, 4.8 MB)
- [Reclamation 2012. Yurok Tribe Sociocultural/Socioeconomics Effects Analysis Technical Report For the Secretarial Determination on Whether to Remove Four Dams on the Klamath River in California and Oregon](#) (8.3, MB)
- [Reclamation 2012. Resighini Rancheria Tribe Sociocultural/Socioeconomics Effects Analysis Technical Report For the Secretarial Determination on Whether to Remove Four Dams on the Klamath River in California and Oregon](#) (PDF, 5.6, MB)
- [Reclamation 2012. Karuk Tribe Sociocultural/Socioeconomics Effects Analysis Technical Report For the Secretarial Determination on Whether to Remove Four Dams on the Klamath River in California and Oregon](#) (PDF, 9.8 MB)
- [Reclamation 2012. Klamath Tribes Sociocultural/Socioeconomics Effects Analysis Technical Report For the Secretarial Determination on Whether to Remove Four Dams on the Klamath River in California and Oregon](#) (PDF, 8.5 MB)
- [NOAA Fisheries Service. 2012b. Hoopa Valley Tribe Fishery Socioeconomics Technical Report for the Secretarial Determination on Whether to Remove Four Dams on the Klamath River in California and Oregon.](#)(PDF, 243 KB)
- [NOAA Fisheries Service. 2012c. Karuk Tribe Fishery Socioeconomics Technical Report for the Secretarial Determination on Whether to Remove Four Dams on the Klamath River in California and Oregon.](#) (PDF, 254 KB)
- [NOAA Fisheries Service. 2012d. Klamath Tribes Fishery Socioeconomics Technical Report for the Secretarial Determination on Whether to Remove Four Dams on the Klamath River in California and Oregon.](#) (PDF, 286 KB)
- [NOAA Fisheries Service. 2012e. Resighini Rancheria Fishery Socioeconomics Technical Report for the Secretarial Determination on Whether to Remove Four Dams on the Klamath River in California and Oregon](#) (PDF, 233 KB)
- [NOAA Fisheries Service. 2012f. Yurok Tribe Fishery Socioeconomics Technical Report for the Secretarial Determination on Whether to Remove Four Dams on the Klamath River in California and Oregon](#) (PDF, 643 KB)
- [Reclamation 2012. Benefit Cost and Regional Economic Development Technical Report for the Secretarial Determination on Whether to Remove Four Dams on the Klamath River in California and Oregon. Bureau of Reclamation Technical Services Center, Denver CO.](#) (PDF, 6.9 MB)
- [National Oceanic and Atmospheric Administration \(NOAA\) Fisheries Service. 2012a. Commercial Fishing Economics Technical Report for the Secretarial Determination on Whether to Remove Four Dams on the Klamath River in California and Oregon.](#) (PDF, 738 KB)
- [Reclamation 2012. Economics and Tribal Summary Technical Report for the Secretarial Determination on Whether to Remove Four Dams on the Klamath River in California and Oregon. Bureau of Reclamation Technical Services Center, Denver CO.](#) (PDF, 3.3 MB)
- [Reclamation. 2012. Hydropower Benefits Technical Report for the Secretarial Determination on Whether to Remove Four Dams on the Klamath River in California and Oregon. EC-2011-02. Bureau of Reclamation Technical Services Center, Denver CO.](#) (PDF, 798 KB)
- [NOAA Fisheries Service. 2012g. In-River Sport Fishing Economics Technical Report for the Secretarial Determination on Whether to Remove Four Dams on the Klamath River in California and Oregon.](#)(PDF, 683 KB)

- [Reclamation. 2012. Irrigated Agriculture Economics Technical Report for the Secretarial Determination on Whether to Remove Four Dams on the Klamath River in California and Oregon. Bureau of Reclamation Technical Services Center, Denver CO. \(PDF, 803 KB\)](#)
- [Klamath River Basin Restoration Non-use Survey Final Report, RTI International, 2012. \(PDF, 2.1 MB\)](#)
- [FWS, Refuge Recreation Economics Technical Report for the Secretarial Determination on Whether to Remove Four Dams on the Klamath River in California and Oregon. 2012.](#)
- [DOI. 2012. Whitewater Boating Recreation Economics Technical Report for the Secretarial Determination on Whether to Remove Four Dams on the Klamath River in California and Oregon. \(384 KB\)](#)
- [NOAA Fisheries Service. 2012h. Ocean Sport Fishing Economics Technical Report for the Secretarial Determination on Whether to Remove Four Dams on the Klamath River in California and Oregon. \(PDF, 723 KB\)](#)
- [Reclamation 2012. Reservoir Recreation Economics Technical Report for the Secretarial Determination on Whether to Remove Four Dams on the Klamath River in California and Oregon. Bureau of Reclamation. \(PDF, 557 KB\)](#)

2011 Studies

- [Klamath River Restoration Nonuse Value Survey Final Report \(PDF, 2 MB\)](#)
- [Economics and Tribal Summary Technical Report For the Secretarial Determination on Whether to Remove Four Dams on the Klamath River in California and Oregon -- Updated Jan. 2012 \(PDF, 6.2 MB\)](#)
- [Benefit Cost and Regional Economic Development Technical Report For the Secretarial Determination on Whether to Remove Four Dams on the Klamath River in California and Oregon - Updated Jan. 2012\)\(PDF, 6.2 MB\)](#)
- [Irrigated Agriculture Economics Technical Report For the Secretarial Determination on Whether to Remove Four Dams on the Klamath River in California and Oregon](#)
- [Commercial Fishing Economics Technical Report For the Secretarial Determination on Whether to Remove Four Dams on the Klamath River in California and Oregon](#)
- [In-River Sport Fishing Economics Technical Report For the Secretarial Determination on Whether to Remove Four Dams on the Klamath River in California and Oregon](#)
- [Ocean Sport Fishing Economics Technical Report For the Secretarial Determination on Whether to Remove Four Dams on the Klamath River in California and Oregon](#)
- [Reservoir Recreation Economics Technical Report For the Secretarial Determination on Whether to Remove Four Dams on the Klamath River in California and Oregon](#)
- [Hydropower Benefits Technical Report For the Secretarial Determination on Whether to Remove Four Dams on the Klamath River in California and Oregon](#)
- [Refuge Recreation Economics Technical Report for the Secretarial Determination on Whether to Remove Four Dams on the Klamath River in California and Oregon, 2011](#)
- [Hoopa Valley Tribe Sociocultural/Socioeconomics Effects Analysis Technical Report](#)
- [Karuk Tribe Sociocultural/Socioeconomics Effects Analysis Technical Report](#)
- [Klamath Tribes Sociocultural/Socioeconomics Effects Analysis Technical Report](#)
- [Resighini Rancheria Tribe Sociocultural/Socioeconomics Effects Analysis Technical Report](#)

- [Yurok Tribe Sociocultural/Socioeconomics Effects Analysis Technical Report](#)
- [Hoopa Valley Tribe Fishery Socioeconomics Technical Report](#)
- [Karuk Tribe Fishery Socioeconomics Technical Report](#)
- [Klamath Tribes Fishery Socioeconomics Technical Report](#)
- [Resighini Rancheria Fishery Socioeconomics Technical Report](#)
- [Yurok Tribe Fishery Socioeconomics Technical Report](#)
- [Whitewater Boating Recreation Economics Technical Report for the Secretarial Determination on Whether to Remove Four Dams on the Klamath River in California and Oregon. U.S. Department of the Interior, Office of Policy Analysis, September 2011.](#) (PDF, 286 KB)

Cultural/Tribal Reports (Associated with Federally Recognized Tribes)

- [Current Effects of PacifiCorp Dams on Indian Trust Resources and Cultural Values](#) (PDF, 850 KB)
- [Background Technical Report Informing the Secretarial Determination Overview Report: Current Effects of PacifiCorp Dams on Indian Trust Resources and Cultural Values, June 2011](#) (PDF, 498 KB)
- [Appendices, June 2011](#), (PDF 414 KB)
- [Background Technical Report Informing the Secretarial Determination Overview Report: Potential Effects of Implementing the KHSA and KBRA on Indian Trust Resources and Cultural Values, June 2011](#) (PDF, 5.52 MB)

Real Estate Studies & Information

- [Market Study of Potential Impacts to Private Land Values](#) (PDF, 6.5 MB)
- [DOI 2012 Assessment of Potential Changes to Real Estate Resulting from Dam Removal: Klamath Secretarial Determination Regarding Potential Removal of the Lower Four Dams on the Klamath River: DOI 2012](#) (PDF, 595 KB)
- [Dam Removal Real Estate Evaluation Report for US Dept. of the Interior Office of Valuation Services...As of December 2004 and December 2006. BRI. 2012.](#) (PDF, 346 KB)