

APPENDIX E

Scoping Meeting Handouts and Photographs

AGENDA

**ENVIRONMENTAL IMPACT STATEMENT ON THE
DRAFT LONG-TERM PLAN
FOR PROTECTING LATE SUMMER ADULT SALMON
IN THE LOWER KLAMATH RIVER**

Public Scoping Meetings

August 5, 2015
Arcata, CA

August 6, 2015
Weaverville, CA

August 11, 2015
Klamath Falls, OR

August 12, 2015
Sacramento, CA

Agenda

- 5:30 p.m. Informal Poster Session
- 6:00 p.m. Presentation
Followed by an Open House/Q&A with project personnel
- 7:00 p.m. Adjourn

COMMENT SHEET

COMMENT SHEET

Environmental Impact Statement on the Draft Long-Term Plan for Protecting Late Summer Adult Salmon in the Lower Klamath River

Thank you for your interest in the Long-Term Plan for Protecting Late Summer Adult Salmon in the Lower Klamath River. Please complete the appropriate sections of this form to provide scoping comments. Written comments can be submitted at the Scoping Meeting, faxed to (530) 275-2441, e-mailed to sha-slo-klamath-LTP@usbr.gov, or mailed to:

Paul Zedonis, Bureau of Reclamation, Northern California Area Office,
16349 Shasta Dam Blvd., Shasta Lake, CA 96019

Comments should be received by August 20, 2015, to be considered in defining the scope of the Draft Environmental Impact Statement. For more information about the project, visit http://www.usbr.gov/mp/kbao/docs/long-term_plan_protect_lower_klamath_04-2015.pdf.

Name: _____ E-Mail: _____

Organization and Address: _____

Phone (optional): _____

- I would like to stay informed about the progress of the project. Please include my name on the mailing list.
 I prefer electronic communication. I prefer paper mailings.

Please write comments, questions or concerns below. Continue on the back or a separate sheet if necessary.

All comments become part of the public record.

FACT SHEET

Draft Long-Term Plan for Protecting Late Summer Adult Salmon in the Lower Klamath River



Following a significant fish die-off event in the lower Klamath River in 2002, the Bureau of Reclamation implemented several flow augmentation actions during years when the salmon have been at risk in the lower Klamath River. In light of the need for continued actions, Reclamation drafted the *Long-Term Plan for Protecting Late Summer Adult Salmon in the Lower Klamath River* (<http://www.usbr.gov/mp/kbao/docs/long-term-plan-protect-lower-klamath-04-2015.pdf>), which was issued in April 2015. Reclamation is now initiating the process to prepare an Environmental Impact Statement (EIS) to obtain public input on the

alternatives under consideration in the Plan and evaluate those alternatives and their related impacts.

Chinook salmon are widely distributed throughout the Klamath River Basin and spawn and rear in virtually all accessible tributaries as well as in the mainstream Klamath and Trinity Rivers. The fall run accounts for the largest proportion of returning adults since the construction of Trinity and Lewiston Dams on the Trinity River as well as Iron Gate Dam on the mainstem Klamath River. Creation of these dams degraded habitat below Lewiston Dam and eliminated access to vast quantities of habitat above these dams.

Background

The Trinity and Klamath Rivers once supported large populations of fall- and spring-run Chinook salmon, as well as smaller runs of Coho salmon and steelhead. In 1958, a plan was executed to increase water supplies in California's Central Valley, in part by transferring water from the Trinity River into the Sacramento River. Completed in 1964, the Central Valley Project Trinity River Division (CVP-TRD) began a decades-long era wherein up to 90 percent of the Trinity River flow was exported each year. The Trinity River Basin Fish and Wildlife Task Force was initiated in 1984 to restore and maintain the fish and wildlife stocks of the Trinity River Basin to levels that existed just prior to construction of the CVP-TRD.

Despite continued efforts to restore and protect the various salmon and steelhead runs in the Klamath River Basin through flow releases and other habitat improvement measures, an unforeseen and unprecedented die-off occurred during a two-week period beginning in late September 2002. A subsequent U.S. Fish and Wildlife Service (USFWS) report indicated that out of the approximately 34,000 anadromous salmonids estimated to have perished during this event, nearly all (98.4 percent) were adult salmonids. Of this total, 97 percent (~33,000) were fall-run

Chinook salmon, 1.8 percent (~630) were steelhead, and 1.0 percent (344) were Coho salmon. The two fish disease pathogens leading to the die-off were identified as *Ichthyophthirius multifiliis* (*Ich*) and *Flavobacter columnare* (*Columnaris*). Due to the relatively large run size (approximately 170,000), low flows, and relatively high water temperatures, high fish densities were identified as causative factors to the rapid spread of disease. Although a larger number of Klamath River fall-run Chinook died, a greater proportion of the Trinity River run was lost because the die-off occurred during the peak of the Trinity run.

Restoring salmon and steelhead populations

The impacts of land use, dams, and very low flows combined to push the river past its regenerative capacity. By 1970, less than 10 years after the dams were completed, the extent of habitat alteration and decline in salmon and steelhead populations became evident.

Intent on reversing the decline, the USFWS, Hoopa Valley Tribe, and other agencies began studies that culminated in the *Trinity River Flow Evaluation Study*. Completed in June 1999, this study is the foundation of the Trinity River Restoration Program (TRRP), which is designed to restore the Trinity River and its populations of salmon, steelhead, and other fish and wildlife.

In 2003, 2004, 2012, 2013, and 2014, predictions of large runs of fall-run Chinook salmon to the Klamath River Basin and drier-than-normal hydrologic conditions prompted Reclamation to arrange for late-summer flow augmentation, which would increase water volumes and velocities in the lower Klamath River and reduce the probability of a disease outbreak in those years. Thirty-eight thousand acre-feet (TAF) of supplemental water was released from Trinity Reservoir in 2003, 36 TAF in 2004, 39 TAF in 2012, 17.5 TAF in 2013, and 64 TAF in 2014. In support of the need in 2014, approximately 16 TAF was also released from Iron Gate Dam on the Klamath River. While documentation of the effectiveness of these events is limited, general observations were that implementation of the sustained higher releases from mid-August to mid-September in each year coincided with no significant disease or adult mortalities. Plans for 2015 are part of a separate Environmental Assessment.

The planned EIS for the Long-Term Plan will evaluate the impacts of using increased flows from Trinity Reservoir to again provide preventative flow augmentation, as needed in the lower

Key Milestones

1955: Congress authorized CVP-TRD.

1963: Trinity/Lewiston Dams completed.

1981: Interior Secretary increased flows and initiated Trinity River Flow Study.

1984: Congress enacted Trinity River Basin Fish and Wildlife Management Act to implement salmon restoration.

1992: Congress enacted Central Valley Project Improvement Act, making 340,000 acre-feet available to the Trinity River.

1999: Trinity River Flow Evaluation Study completed, used as preferred alternative in EIS/Environmental Impact Report.

2002: Fish die-off documented. Up to 34,000 adult salmon die in the lower Klamath River.

2003, 2004, 2012, 2013, and 2014: Reclamation implements preventative flow.

2015: Reclamation issues Draft Long-Term Plan for Protecting Late Summer Adult Salmon in the Lower Klamath River.

2015: August Reclamation initiates scoping process prior to preparing an EIS on the long-term plan.

Klamath River, in late-summer to reduce the likelihood of a disease outbreak among returning adult fall-run salmon that could result in a large-scale fish die-off.

HYDROLOGY

In addition to generating hydropower at Trinity and Lewiston Reservoirs, Trinity Reservoir water is important for meeting a variety of needs in the Trinity and Klamath Rivers. Releases from deep portions of the reservoir ensure release of suitably cold water throughout the year in support of TRRP goals. Water is occasionally released from the Trinity Reservoir to augment flows in the lower Klamath River in years when risk of a potential die-off of adult salmon could occur during late summer.

The Trinity Reservoir is the primary water storage facility in the CVP-TRD. Water released from Trinity Reservoir flows to Lewiston Reservoir, a re-regulating reservoir formed by Lewiston Dam. From Lewiston Reservoir, water can be diverted for use in the Sacramento River Basin via the Clear Creek Tunnel, or pass through Lewiston Dam to flow 112 miles to the Klamath River, which then flows approximately 43 miles before entering the Pacific Ocean.

Water diverted from Trinity Reservoir to the Sacramento River Basin supports environmental, irrigation, and municipal and industrial needs of the Sacramento River Valley, extending through the Sacramento-San Joaquin Delta. The period of greatest temperature reduction need in the Sacramento River Basin occurs during the warmer months when irrigation, municipal, and industrial demands are highest and water temperature concerns of the main stem Sacramento River exist for several fish species listed under the Endangered Species Act.

Socioeconomics and Indian trust assets

Socioeconomic resources that may be impacted by the proposed action in the Long-Term Plan include commercial, agricultural, recreational, and tribal use of the Trinity and Klamath Rivers and surrounding area. In addition, the Plan could impact water dedicated to consumptive use and hydroelectric power.

Existing Federal and State Storage and Conveyance Systems in California



The EIS will evaluate the risk of disease susceptibility to the large run of adult salmon returning to the Klamath River in the late summer and, in turn, the potential for adverse effects to fisheries-related socioeconomic resources. Recreational activities in the Trinity River that may be influenced by the proposed action include pleasure rafting, fishing (boating), and recreational fishing.

The EIS will also evaluate impacts to Indian Trust Assets. Specifically, the EIS will analyze how the proposed action would affect the risk of disease vulnerability to the large returning run of adult salmon to the lower Klamath River in the late summer, and therefore how the tribal trust fishery, as well as commercial and recreational fisheries and the associated environmental justice, would be affected.

Predictive tools

Predictive tools are mathematical models that can help forecast potential impacts and reactions. To evaluate the complex issues related to the proposed action, the EIS may use a variety of predictive tools, such as:

- Hydrology
- Hydropower
- Biology
- Water Temperature
- Socioeconomics

Public involvement

As part of the environmental review process, the public is provided opportunities to submit their comments on the proposed action and the Draft EIS. Public input is solicited beginning at the public scoping period and again when the Draft EIS is issued, which is currently planned for 2016. Public scoping meetings are being held at the following locations:

- August 5, Arcata, California
- August 6, Weaverville, California
- August 11, Klamath Falls, Oregon
- August 12, Sacramento, California

Written comments on the Plan will be accepted at the meetings or can be e-mailed to sha-slo-klamath-LTP@usbr.gov, faxed to 530-275-2441, or mailed to:

Paul Zedonis
Bureau of Reclamation
Northern California Area Office
16349 Shasta Dam Blvd.
Shasta Lake, CA 96019

Comments are due by Thursday, August 20, 2015. The Draft Plan is available at http://www.usbr.gov/mp/kbao/docs/long-term_plan_protect_lower_klamath_04-2015.pdf.

For more information:

For additional information, please contact Paul Zedonis at the above address or at 530-275-1554 (TTY 800-877-8339).

MEETING PRESENTATION

Long-Term Plan for Protecting Late Summer Adult Salmon in the Lower Klamath River

Environmental Impact Statement

Public Scoping Meetings

Presented by Paul Zedonis
Supervisory Natural Resource Specialist
Bureau of Reclamation, Northern California Area Office

Long-Term Plan for Protecting Late Summer Adult Salmon in the Lower Klamath River

Environmental Impact Statement Public Scoping Meetings

August 5, 2015
Arcata, CA

August 6, 2015
Weaverville, CA

August 11, 2015
Klamath Falls, OR

August 12, 2015
Sacramento, CA

**Scoping Meetings will be held from 5:30 p.m. – 7:00 p.m.
6:00 p.m. a short presentation will be provided**

About Today's Meeting

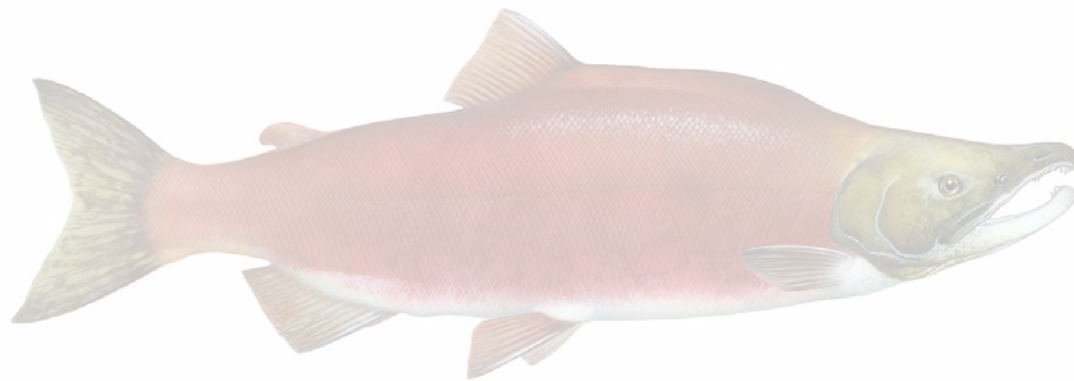
- Welcome and Introduction
- Registration and Open House
- Meeting Room Logistics
- Non-interactive presentation will be provided at 6 pm
- Open House Stations
- Ground Rules

Today's Meeting is to obtain public input on the Environmental Impact Statement Long-Term Plan

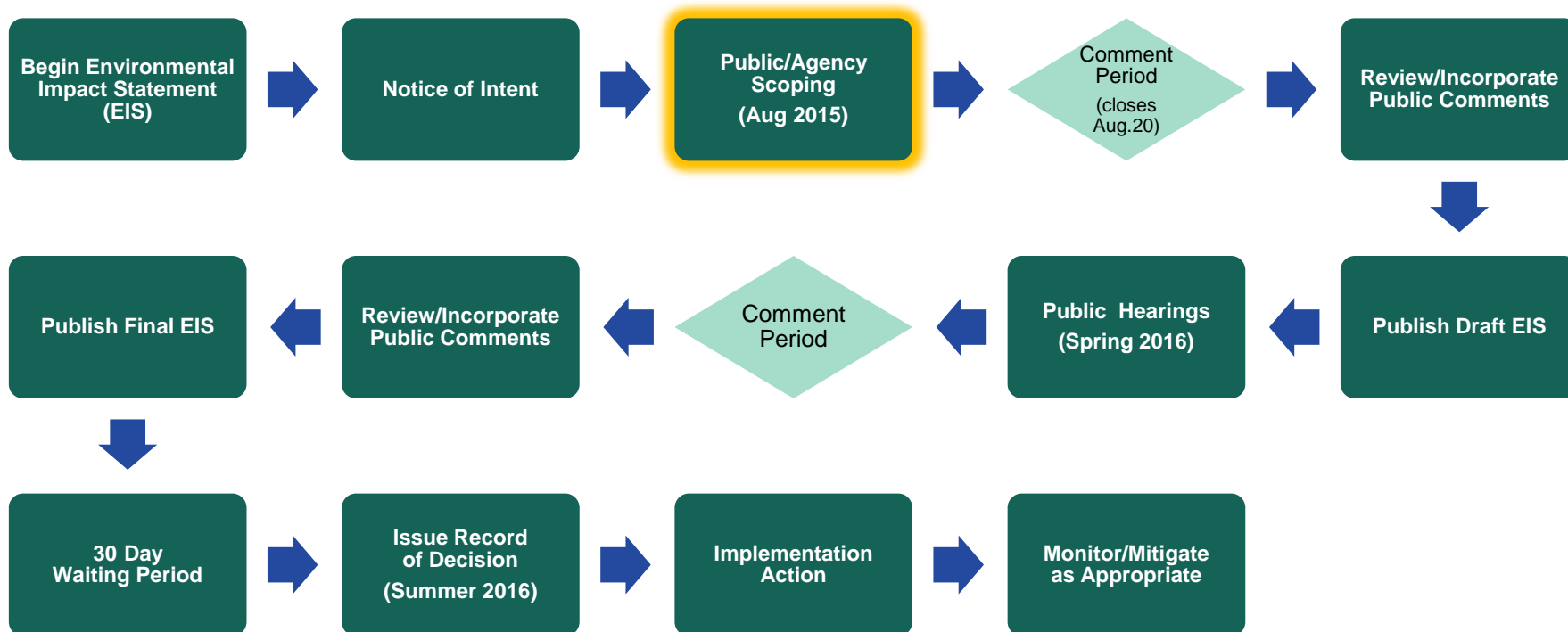
Not to be confused with the Environmental
Assessment Comment period, which closes this
Friday (August 7).

Meeting Objectives

- Solicit early input from the public to help determine the scope and significant issues for the environmental review for the Long Term Plan to Protect Adult Salmon in the Lower Klamath River; and
- Convey how you can be informed and involved in the environmental review process



The National Environmental Policy Act: Environmental Review Process / Timelines



Background

- Klamath River Basin support populations of Chinook salmon, Coho salmon, and steelhead
- 2002 Unprecedented die-off of adult salmon
- Supplemental flow actions: 2003, 2004, 2012, 2013, 2014, (2015).
- 2015 Draft Long Term Plan for Protection of Adult Salmon in the Lower Klamath River released
- Environmental review (Environmental Impact Statement) on Long Term Plan

Proposed Action

The proposed action is to increase lower Klamath River flows to reduce the likelihood, and potentially reduce the severity, of any fish die-off in future years due to crowded holding conditions for pre-spawn adults, warm water temperatures, and presence of disease pathogens.

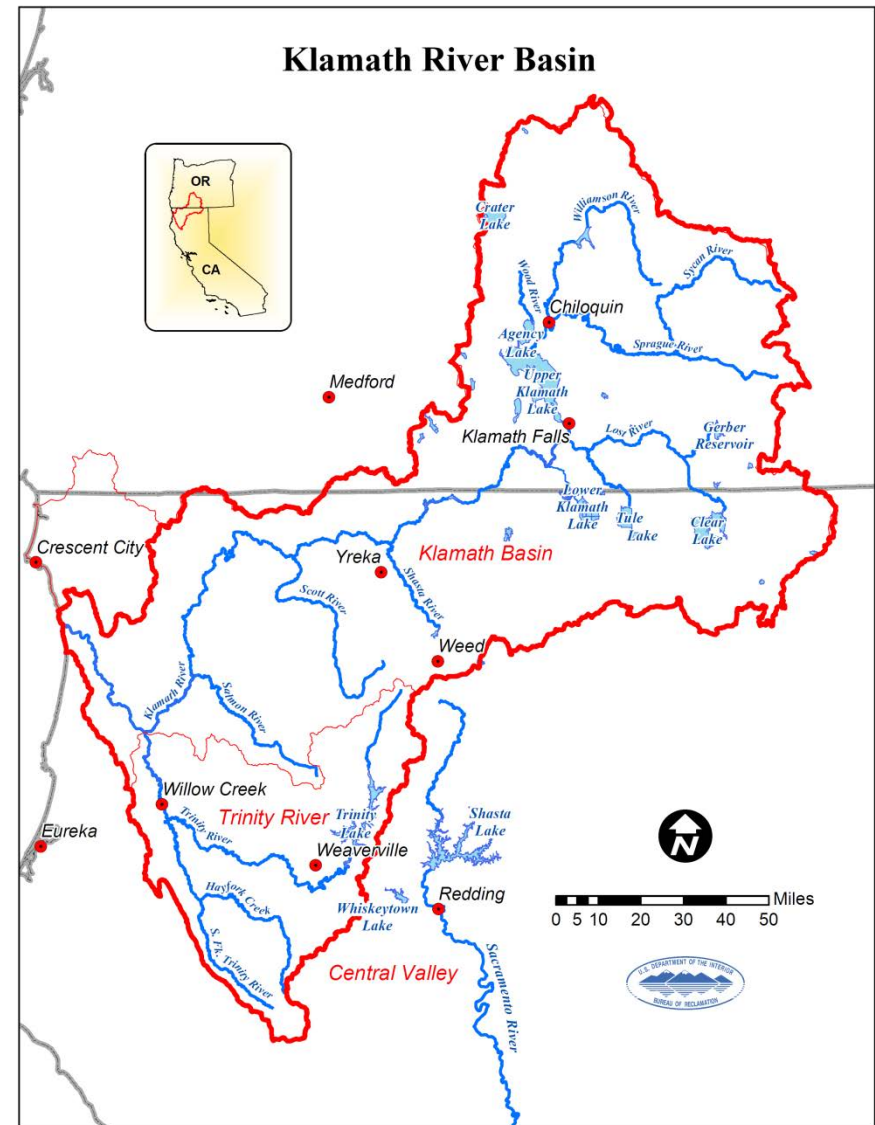
The purpose of the proposed Federal action is to reduce the likelihood of an Ich epizootic event that could lead to an associated fish die-off in future years.

Anticipated Resource Areas for Impact Analysis:

- Water Resources (hydrology)
- Fish (and Wildlife) Resources
- Indian Trust Assets
- Environmental Justice
- Socioeconomics
- Cumulative Impacts (no poster)

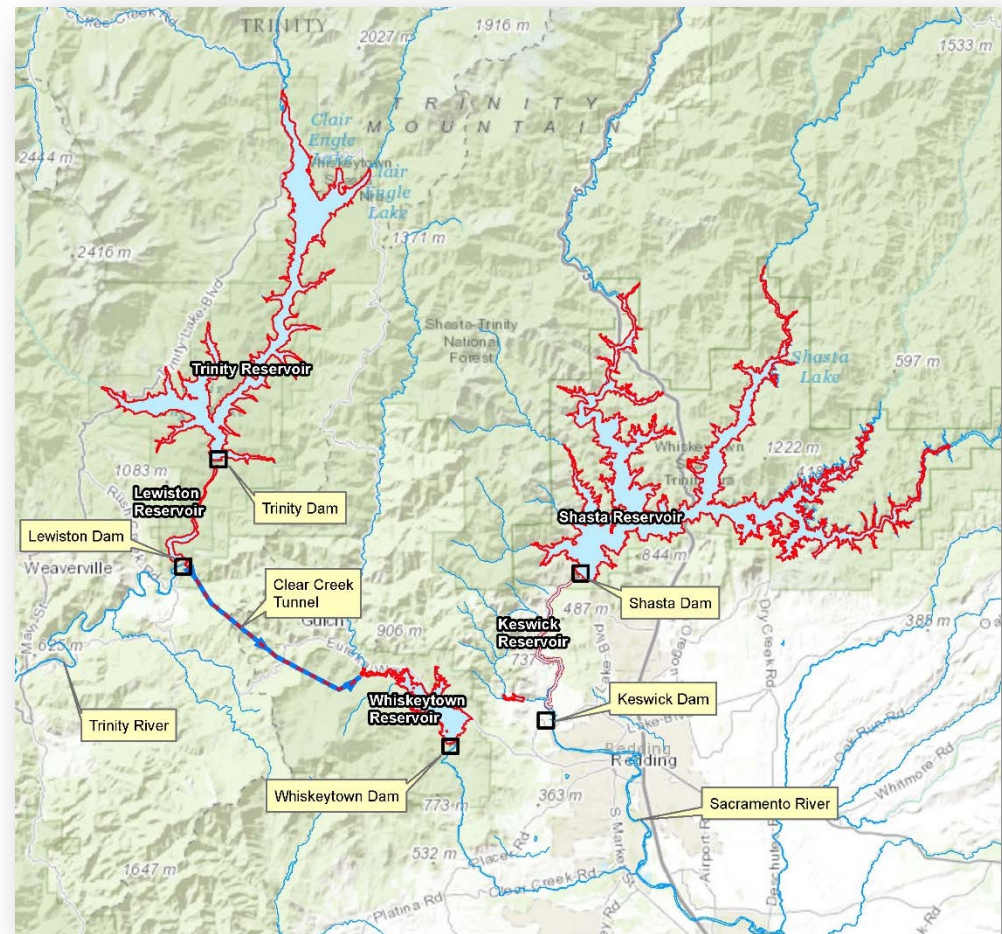
Hydrology Klamath River Basin

- Klamath River Basin:
 - Regulated water sources
 - Iron Gate Dam on Klamath River
 - Lewiston Dam on Trinity River
 - Unregulated water sources (tributaries)
 - Combined = flow in the lower Klamath River
- In 2014, approximately 16,000 acre-feet of water was released from Iron Gate Dam in the early fall to help improve river habitat for infected adult salmon.



Hydrology Trinity River Basin

- Trinity Reservoir is a primary water storage facility of the Central Valley Project.
- Water released from Trinity Reservoir flows to Lewiston Reservoir
- From Lewiston Reservoir, water can be diverted to the Sacramento River Basin via the Clear Creek Tunnel, or pass through Lewiston Dam to the Trinity River.
- Releases from deep portions of the reservoir ensure release of cold water throughout the year.
- Trinity Reservoir has been the primary water source for past supplemental flow actions for the lower Klamath River.



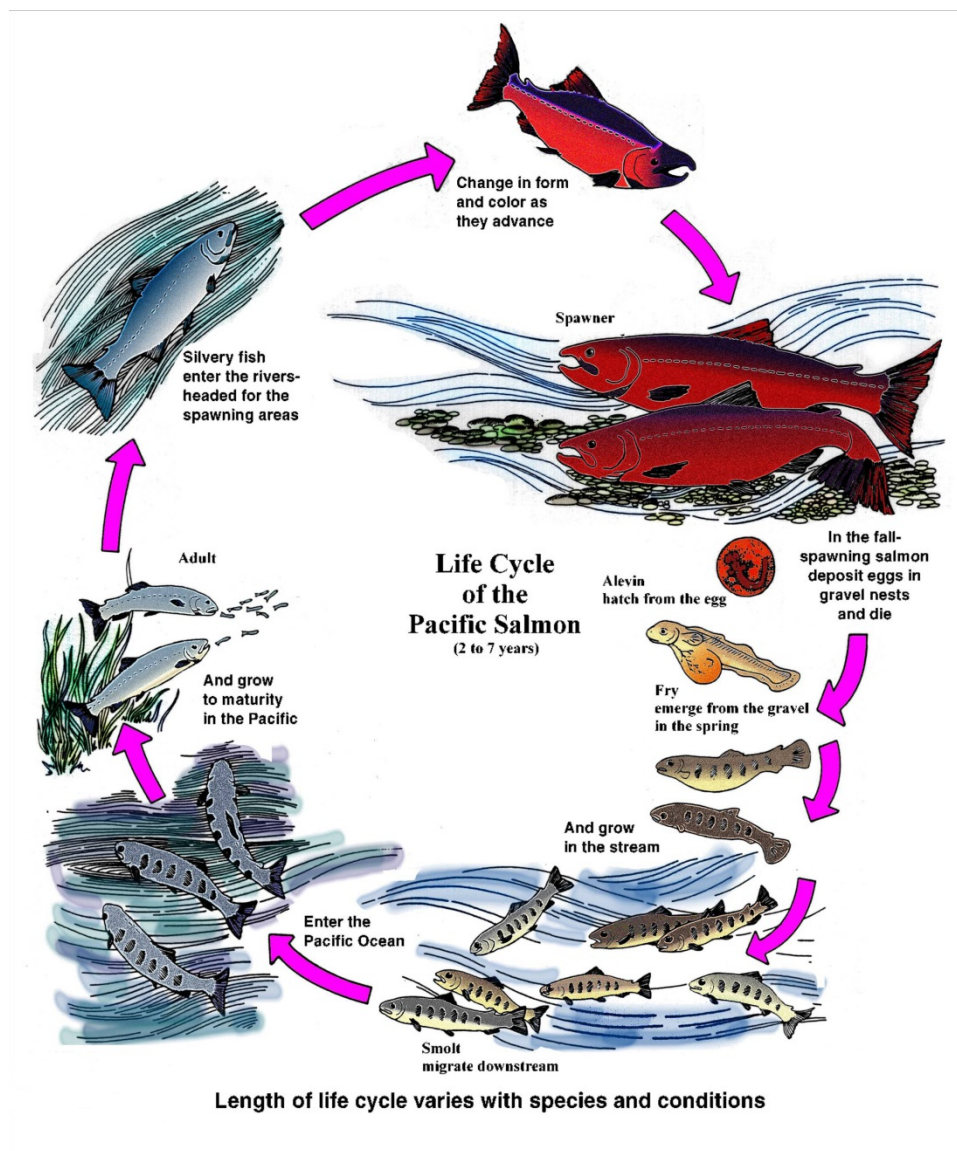


Hydrology Central Valley

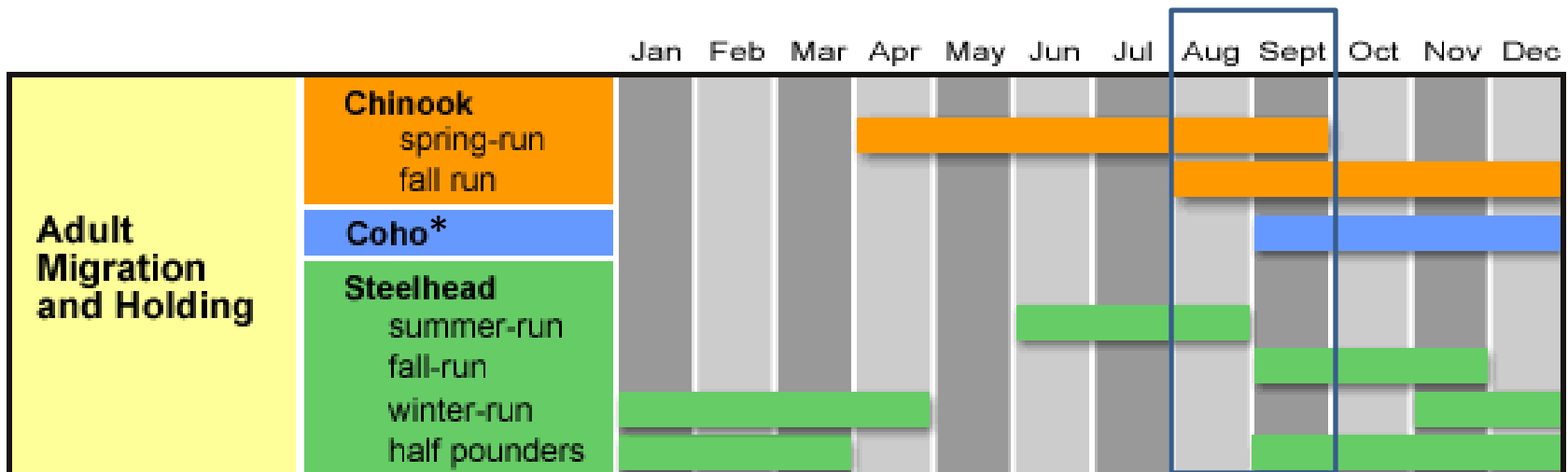
- From Clear Creek Tunnel, Trinity Reservoir water is routed to the Sacramento River Basin
- Here, Trinity Reservoir water supports some of the environmental, irrigation, and municipal and industrial needs of the Sacramento River Valley extending through the Sacramento – San Joaquin Delta

Anadromous Fish Life Cycle

Born in fresh water, an anadromous fish spends most of its life in the sea and returns to fresh water to spawn

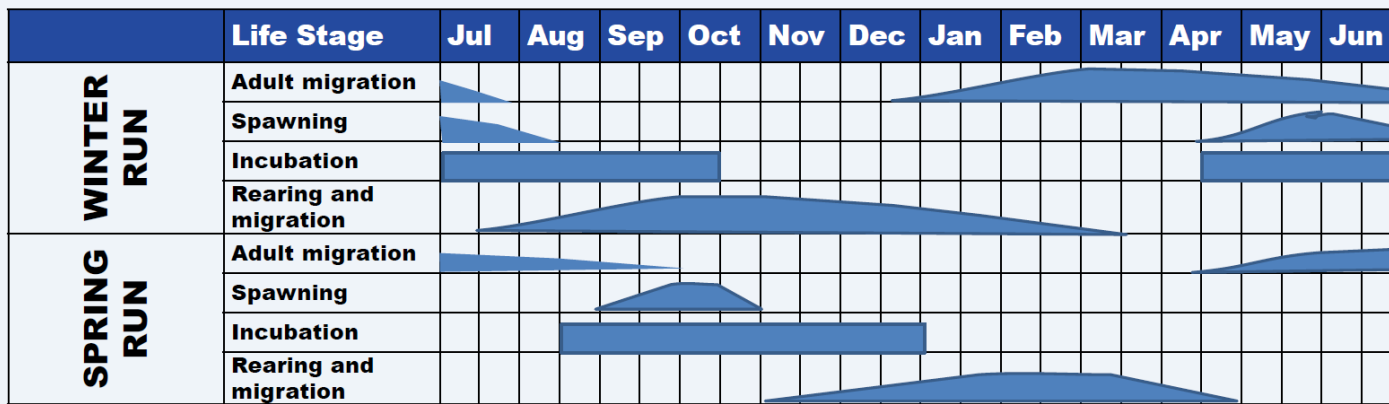


Adult Migration and Holding in the Klamath River Basin – Trinity River



* Coho salmon is a federally listed threatened species.

Sacramento Basin Central Valley Chinook salmon



Denotes presence and relative magnitude

Denotes only presence

- Winter-run salmon is a federally listed endangered species
- Spring Chinook Salmon are threatened
- Other sensitive fish species are present too (Green Sturgeon, Steelhead, and Delta smelt).

2002 Die-off

- 33,000 Chinook salmon, 630 steelhead, and 345 Coho salmon perished in late September.
- Flow in the lower Klamath River August 2002, flows in the lower Klamath River were approximately 2,500 cubic feet per second (cfs), decreasing to approximately 2,000 cfs by September

