

EEL RIVER RESTORATION AND CONSERVATION PLAN

Phase 1: Planning

The
Eel River
Watershed
RESTORATION AND
CONSERVATION
PROGRAM

Eel River Forum
April 4, 1:00-2:30
Public webinar



Meeting agenda

Welcome - CalTrout, RVIT President Whipple,
Rep. Jared Huffman

Program and Plan Presentation

Tools for comments, feedback

Questions and Discussion

Community Presentations and
announcements



Short presentations and announcements

Redgie Collins - California Trout, Eel Dams update

Elaine Hogan - Great Redwood Trail, Master Plan

Gabe Rossi – CalTrout/UC Berkeley, Eel monitoring framework

Marisa McGrew – Wiyot Tribe, Pikeminnow update

Tim Caldwell – Applied River Sciences, Eel flow needs

An aerial photograph of a wide river delta, likely the Columbia River, showing a large expanse of water meeting a vast, flat landscape of green fields and forests. The river branches out into multiple channels, creating a complex network of waterways. In the background, a range of mountains is visible under a cloudy sky. The word "WELCOME" is overlaid in large, white, sans-serif capital letters across the center of the image.

WELCOME

The Eel River Watershed

RESTORATION AND
CONSERVATION
PROGRAM

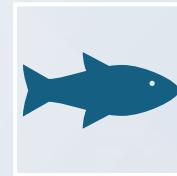


Upcoming



April 4, 2024

Draft ready for review
Eel River Forum webinar –
overview of Plan and
public feedback process
Web map of data and
analysis ongoing in the
watershed



June 30, 2024

Final report ready



Autumn 2024-2027

Next phase funding (for
prioritization and program
development)

[Forum Meetings | California Trout \(caltrout.org\)](#)

Eel River Restoration and Conservation

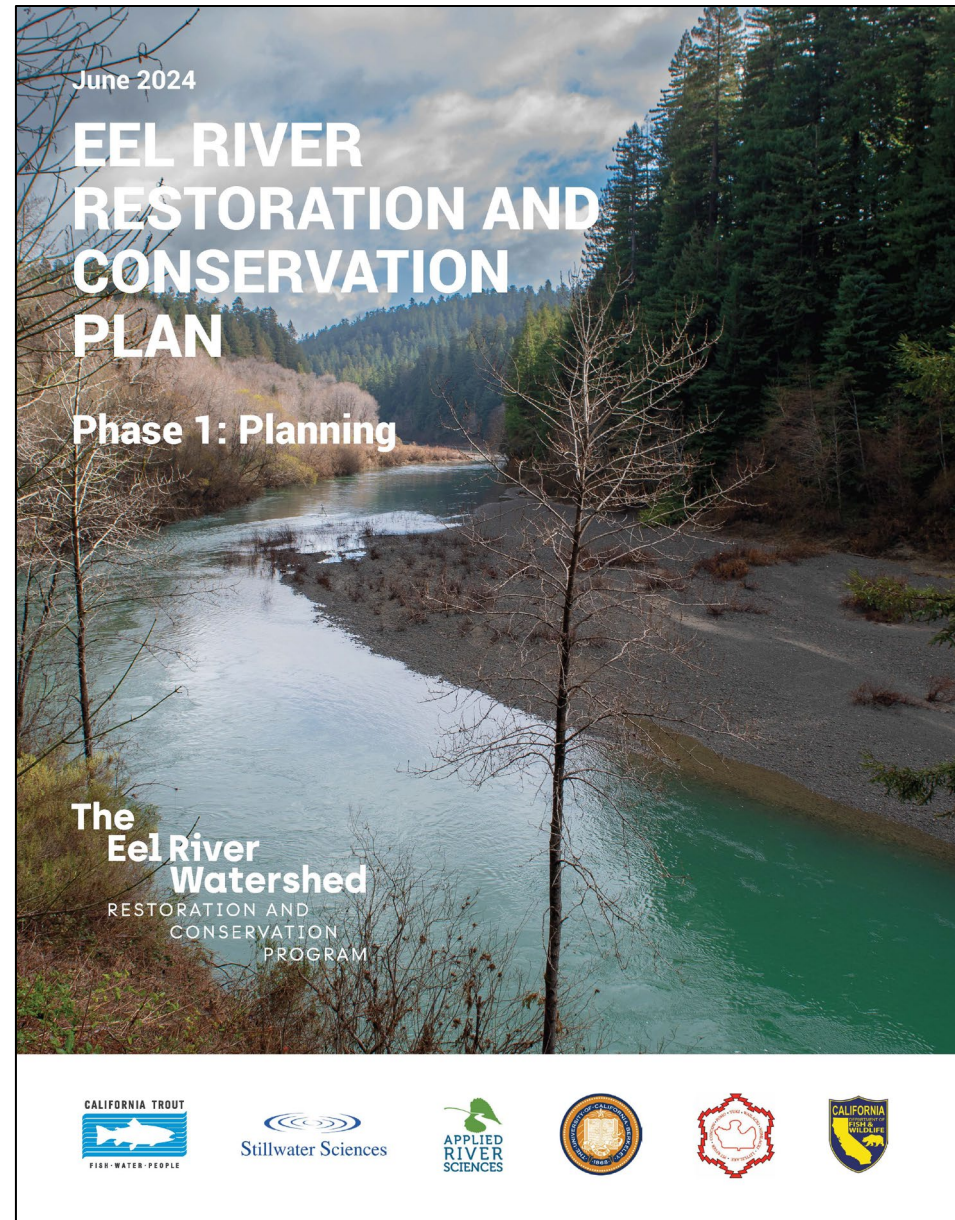
Draft Plan

Review and comment period

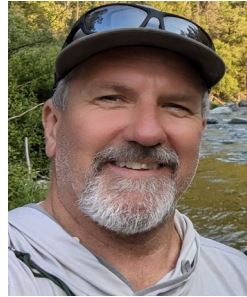
April 4-30th.

Link to view plan and comment:

[Eel River Watershed Program | California Trout \(caltrout.org\)](https://caltrout.org)



The Planning Team



Darren Mierau
North Coast
Regional Director



Christine Davis
Project Manager



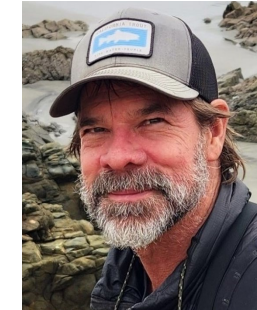
Dr. Gabe Rossi
Aquatic Ecologist
(UC Berkeley & CalTrout)



Dirk Pedersen
Aquatic Ecologist/
Project Manager



Abel Brumo
Fisheries Biologist



Jay Stallman
Geologist/
Geomorphologist



Scott McBain
Fluvial
Geomorphologist



Dr. Tim Caldwell
Aquatic Ecologist



Dr. Suzanne Rhoades
Aquatic Ecologist

The Eel River watershed – 3rd largest watershed in California



State and Federal Initiatives
(e.g., California Salmon Strategy,
30x30, Climate.gov)

Potter Valley Project Studies
(e.g., FERC relicensing,
feasibility, and
decommissioning studies;
Jared Huffman's Ad Hoc
process)

Species Recovery Plans
(NFMS, CDFW)

**Eel River Restoration and
Conservation Program
2024**

The Eel River Forum
Community-based Science
and Advocacy

Watershed and Local
Restoration Strategies and
Species Management Plans
(e.g., SHaRP, RVIT, Wiyot
Tribe, Forest Service, BLM,
NCRP, CDFW, GRT)

Larger-scale Research and
Monitoring Efforts
by Agencies, Tribes,
Academia, NGOs
(e.g., California Monitoring
Program, pikeminnow
management)

Eel River Restoration and Conservation Program (ERRCP)

How is
ERRCP
different?

- Basin-wide Plan and Program
- Pulls together information from different planning and species recovery plans
- Integrates the needs of *multiple* species
- Incorporates spatial planning and prioritization
- Recommends action areas
- Builds a framework to prioritize large scale focal needs
- Identify potential conservation areas
- Emphasizes fish life history diversity
- Riparian climate refugia and river corridor planning
- Monitoring framework to assess success of actions
- Collaborative program management

CDFW funded the scope to develop the 1st framework, then CDFW funded Phase 1 of the “Eel Program”

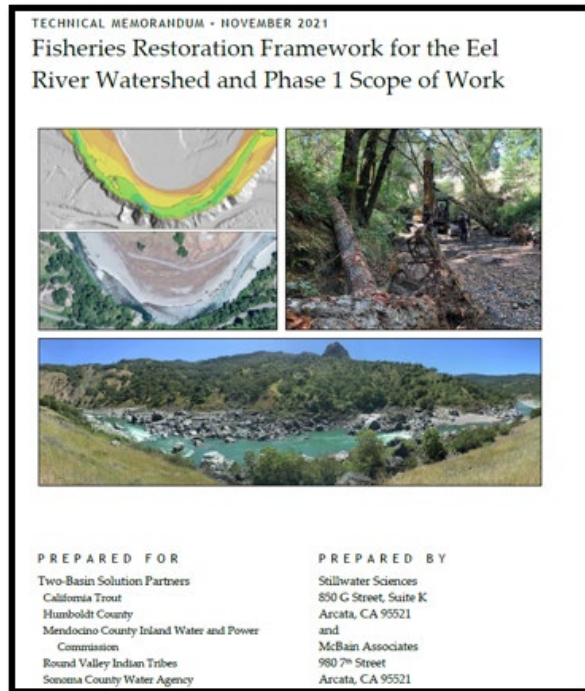


2021

2022-2024

2024-2027

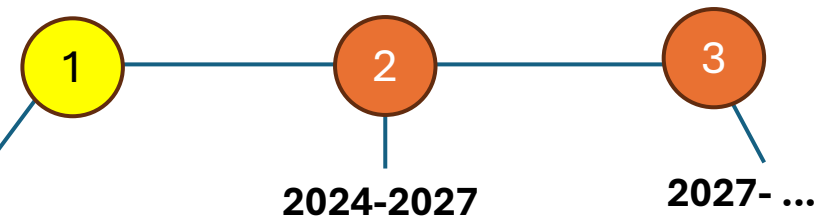
2027- ...



Framework

The Eel River Watershed

RESTORATION AND CONSERVATION PROGRAM



PHASE 1

Planning

- Develop program vision, goals, and objectives
- Compile spatial data
- Identify spatial data organization
- Select focal species
- Develop species conceptual models
- Characterize life history diversity
- Describe restoration and conservation objectives and actions
- Develop prioritization framework
- Develop monitoring and assessment framework
- Construct program administrative and management framework
- Integrate community and Technical Advisory Committee feedback

Outcome:
 EEL RIVER RESTORATION AND CONSERVATION PLAN



PHASE 2

Program Formation & Prioritization

- Form restoration program entity and bylaws
- Identify program leadership and staff
- Finalize and execute prioritization process
- Develop prioritized restoration and conservation objectives and actions
- Continue and expand existing salmonid baseline monitoring
- Integrate community and Technical Advisory Committee feedback

Outcome:
 PROGRAM FORMATION AND EEL RIVER PRIORITY ACTION PLAN



PHASE 3

Implementation, Monitoring & Assessment

- Program governance, funding and resource allocation
- Program level monitoring:
 - Fish populations (escapement, production)
 - Life History diversity and survival
- Project level monitoring:
 - Habitat quality and quantity
 - Biological response to restoration
- Program assessment and refinement
- Integrate community and TAC feedback

Outcome:
 IMPLEMENTATION & REFINEMENT OF RESTORATION PROCESS AND ACTIONS



Plan



PHASE 1 Planning

- Develop program vision, goals, and objectives
- Compile spatial data
- Identify spatial data organization
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- Develop prioritization framework
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Outcome:
EEL RIVER
RESTORATION AND
CONSERVATION PLAN



PHASE 2 Program Formation & Prioritization

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Outcome:
PROGRAM FORMATION
AND EEL RIVER PRIORITY
ACTION PLAN



PHASE 3 Implementation, Monitoring & Assessment

- Program governance, funding and resource allocation
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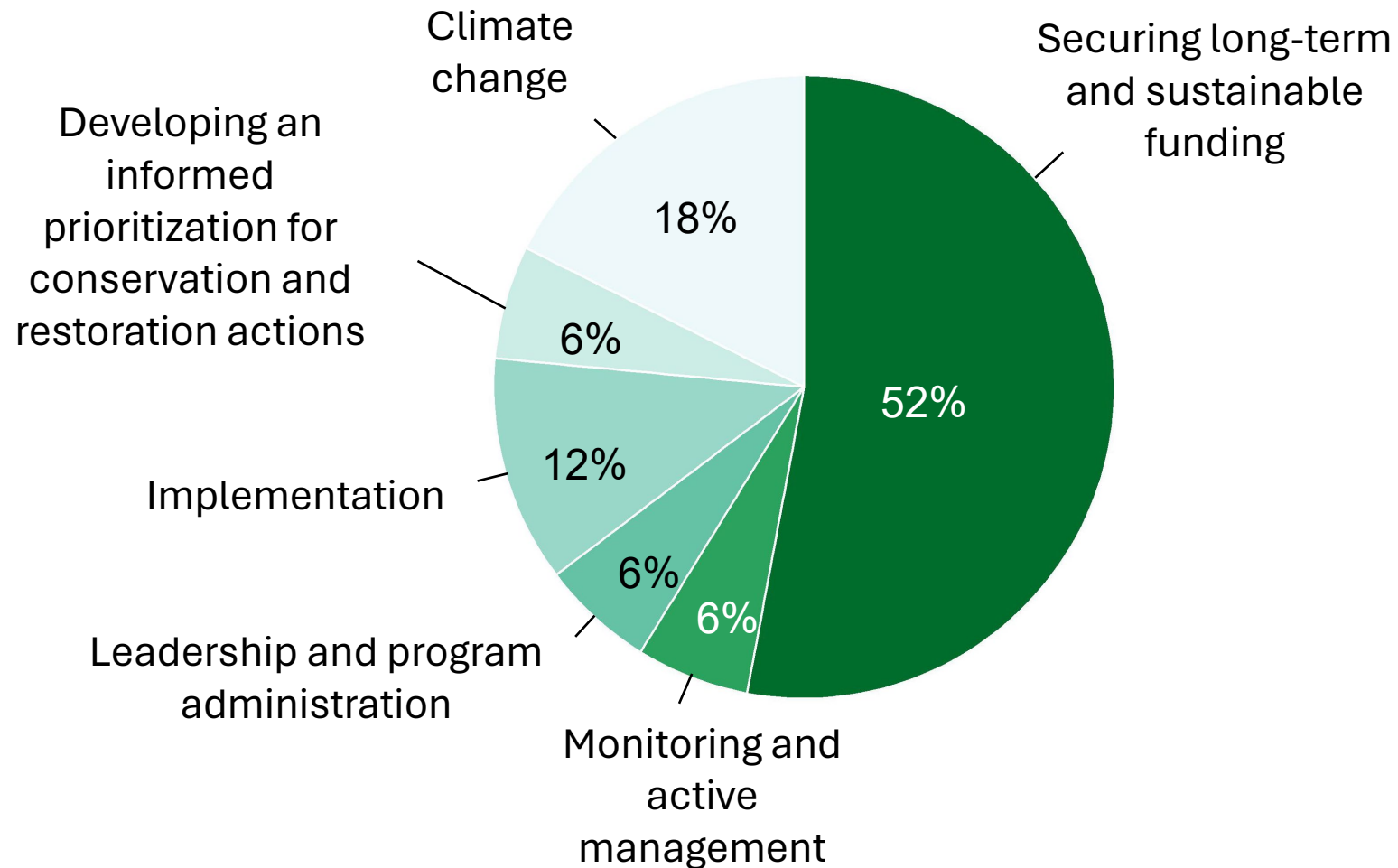
Outcome:
IMPLEMENTATION & REFINEMENT
OF RESTORATION PROCESS
AND ACTIONS

Reevaluate goals and objectives
Refine species conceptual models
Reassess key limiting factors

Refine designs and reassess priorities

Eel River Forum – In Fortuna, January 2023

Largest challenges to success for this Restoration Program?



Eel River Restoration and Conservation Program Phase 1

PHASE 1

2022-2024



THE
PLAN

**Eel River Watershed
Restoration and
Conservation Plan**

- Develop Program goals and vision
- Select focal anadromous fish species
- Develop conceptual fish life cycle models
- Identify actions for restoration and conservation
- Develop prioritization process
- Develop monitoring framework
- Program management framework

Table of Contents ×

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 - ▶ 1 INTRODUCTION
 - ▶ 2 SPATIAL ORGANIZATION FOR PLANNING
 - ▶ 3 FOCAL FISH SPECIES CHARACTERIZATION
 - ▶ 4 RESTORATION AND CONSERVATION ACTIONS
 - ▶ 5 PRIORITIZATION FRAMEWORK
 - ▶ 6 PROGRAM MANAGEMENT FRAMEWORK CONSIDERATIONS
 - ▶ 7 MONITORING AND ASSESSMENT FRAMEWORK
 - ▶ 8 RECOMMENDATIONS AND NEXT STEPS
 - 9 REFERENCES
- ▶ Eel Restoration Plan APPENDICES.pdf



The draft Plan has 9 chapters and 6 appendices.

The Plan is long and detailed. Use the Table of Contents to view different sections.

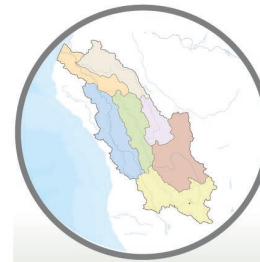
Chapters:

1. Introduction
2. Spatial organization for planning
3. Focal fish species characterization
4. Restoration and conservation actions
5. Prioritization framework
6. Program management framework
7. Monitoring and assessment framework
8. Recommendations and next steps
9. References

Chapter 2. Spatial organization for planning



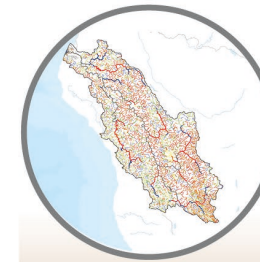
**EEL RIVER
WATERSHED**
9,538 km²



**7 SUB-
WATERSHEDS**
~1,500 km² each



**113 HUC-12
SUB-BASINS**
~50 km² each



**CHANNEL
SEGMENTS**
<1 km each



**COUNTY
PARCELS**
size varies



**EEL RIVER
WATERSHED**

9,538 km²



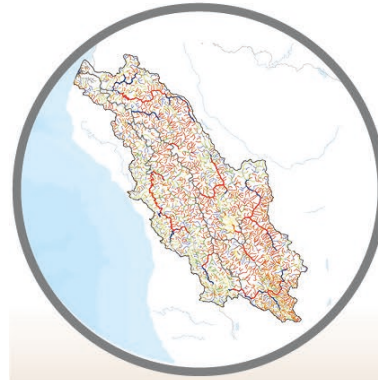
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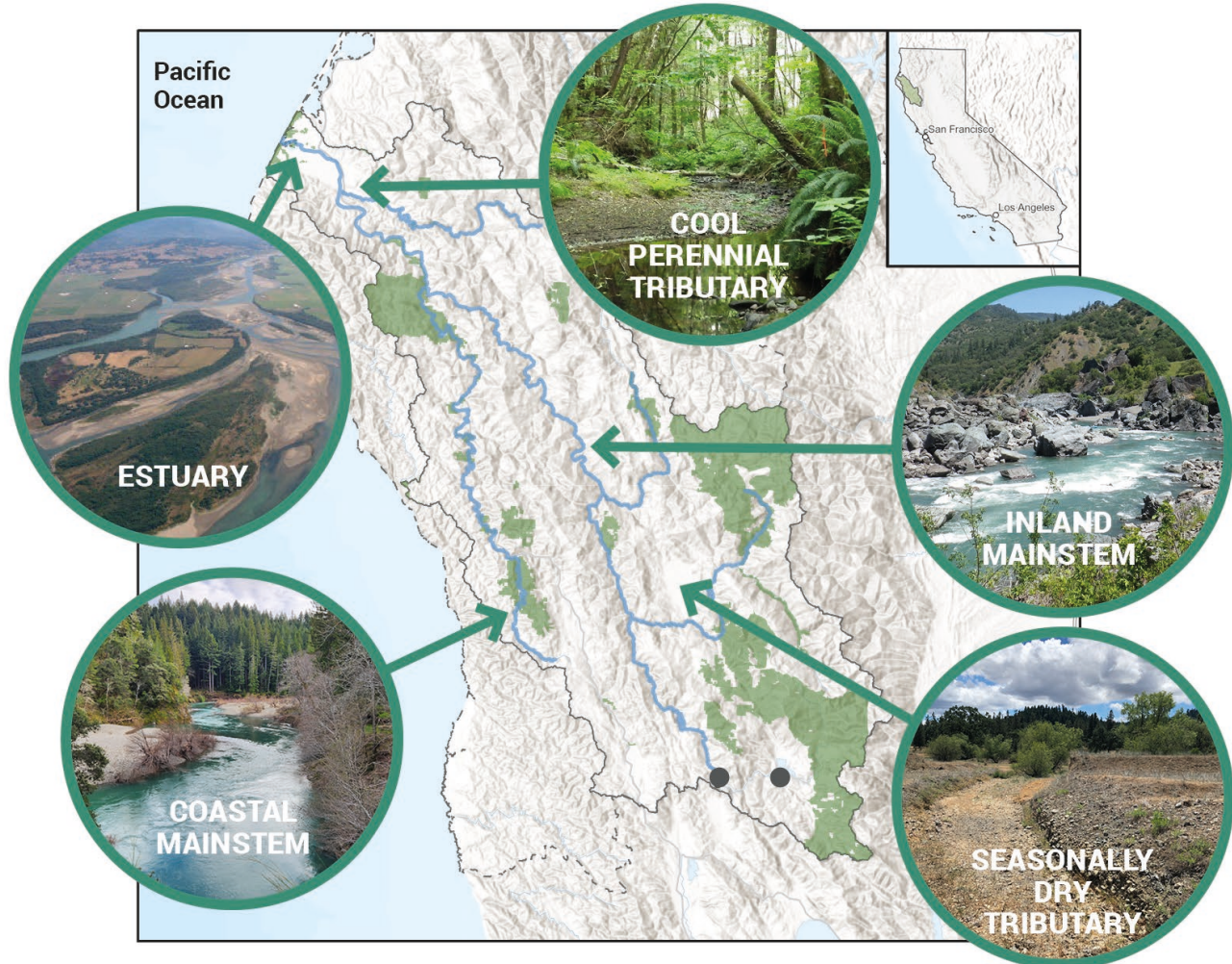
<1 km each



**COUNTY
PARCELS**

size varies

O. MYKISS LIFE HISTORY DIVERSITY



Focal species Channel Archetypes

“Channel archetypes” are functionally unique due to:

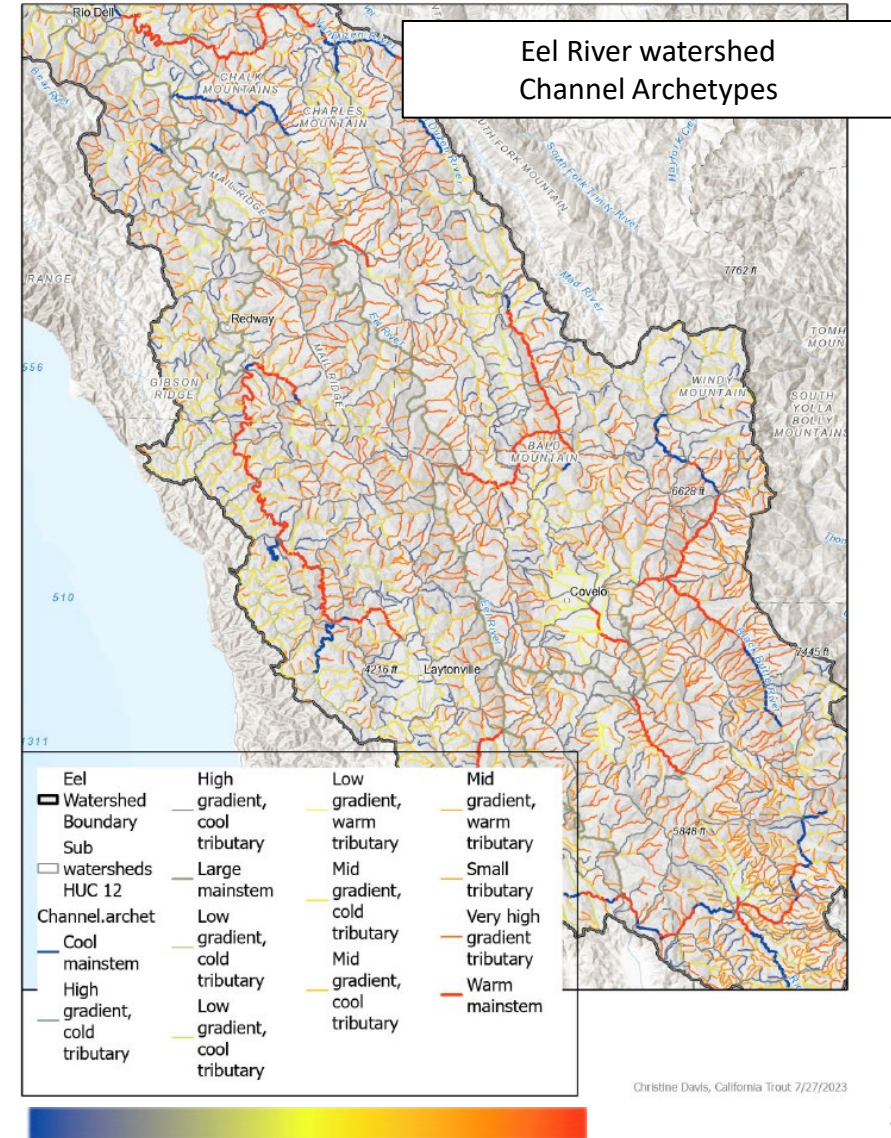
- geomorphic,
- hydrologic, and
- thermal properties

Groupings were developed based on:

- drainage area,
- slope,
- temperature regime

Channel archetypes differ in:

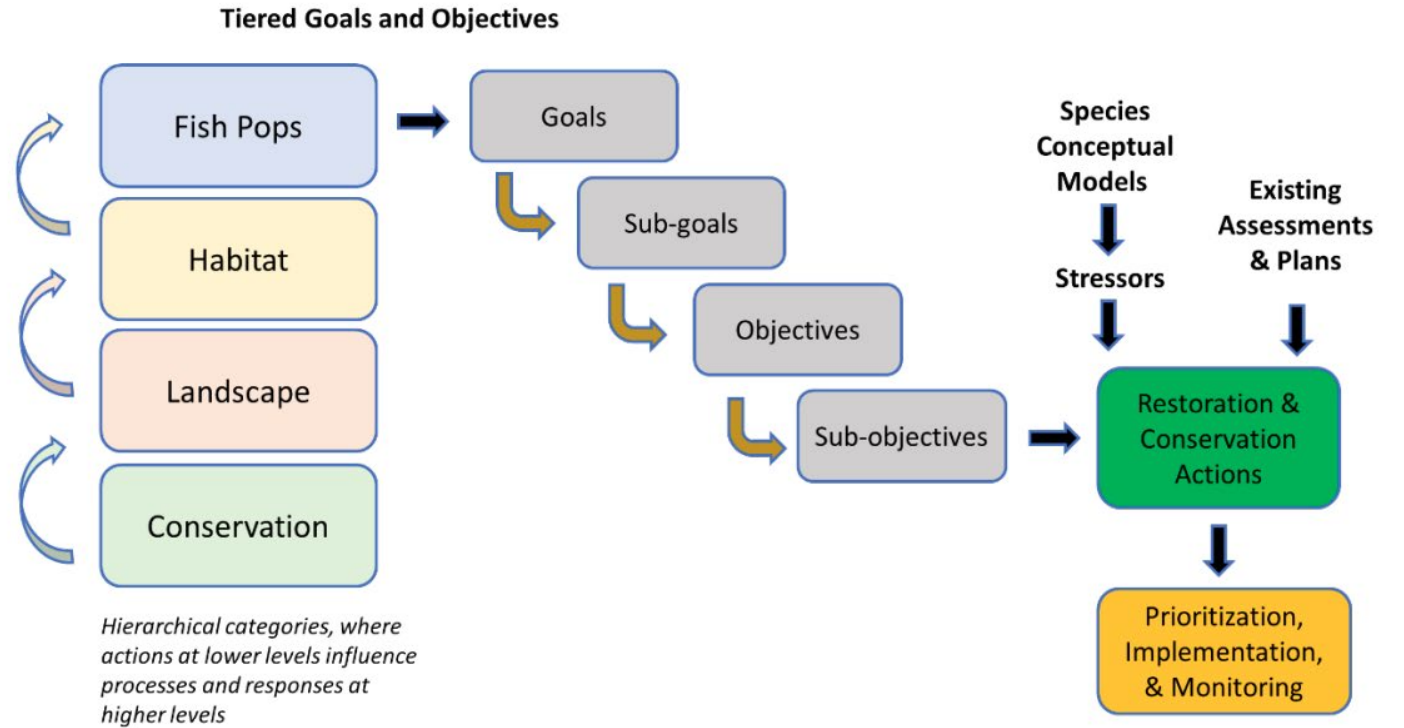
- species and life history tactics they might be able to support
- possible restoration actions



Chapter 3. Focal Fish Species Characterizations



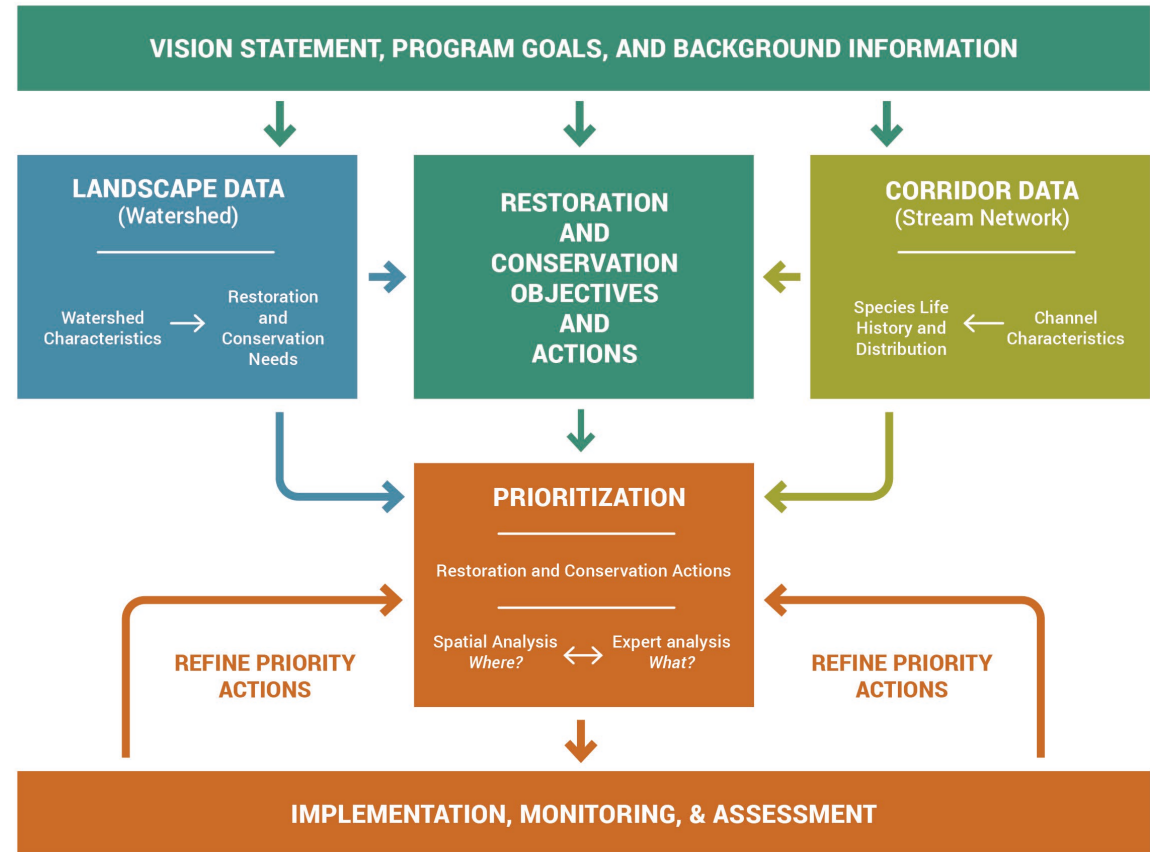
Chapter 4. Restoration and Conservation Actions

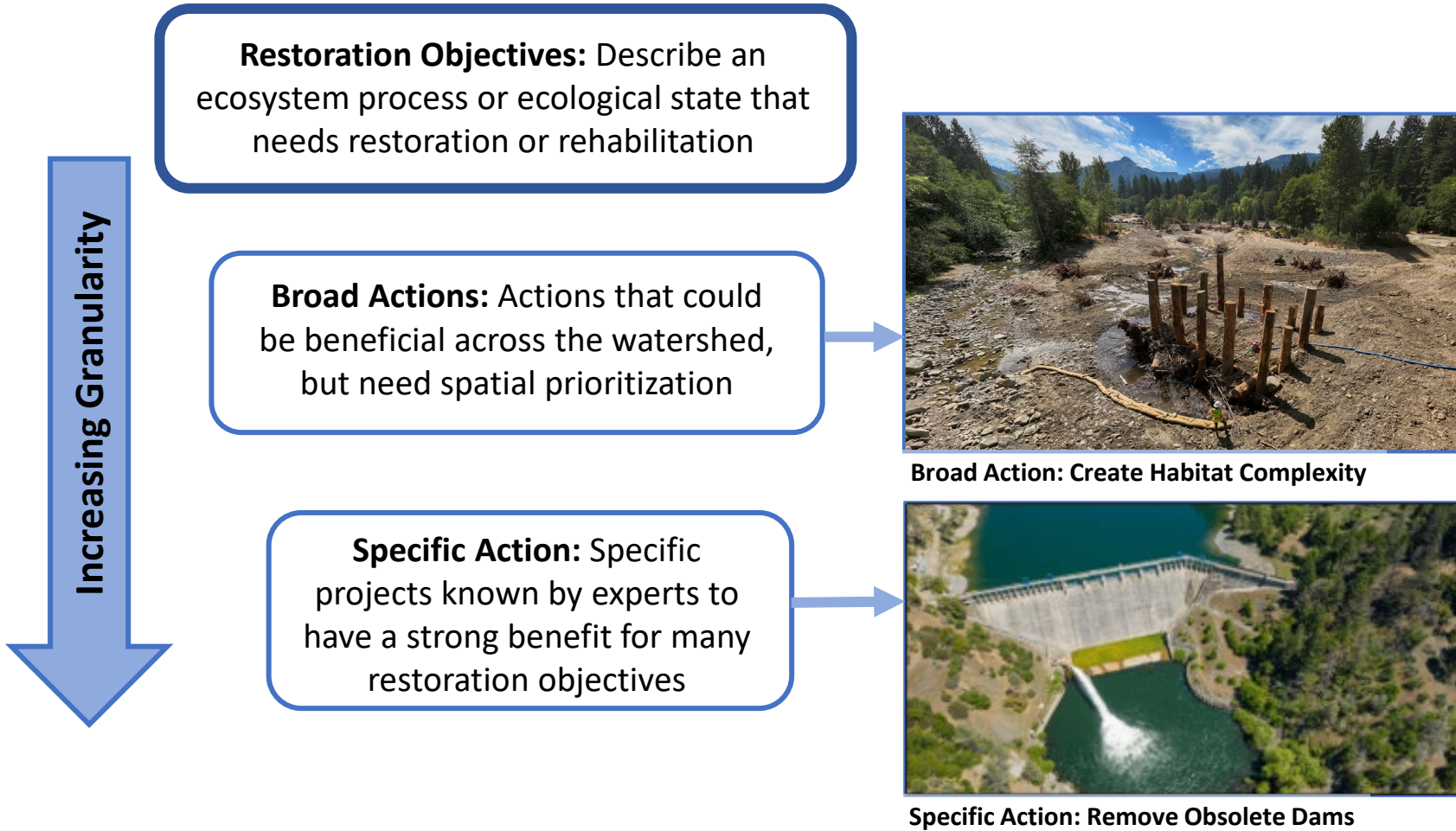


Chapter 5.

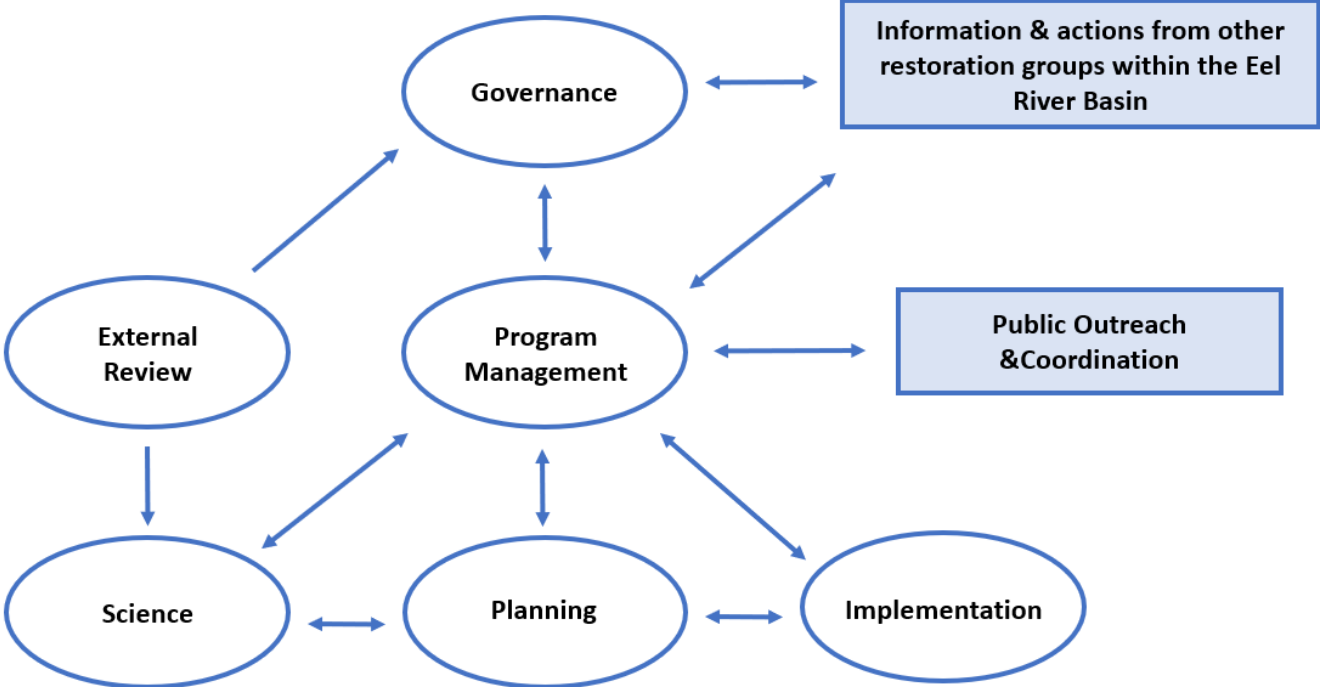
Prioritization Framework =

Not just the **WHAT** needs to be done, but also the **WHERE** and the **WHEN**.

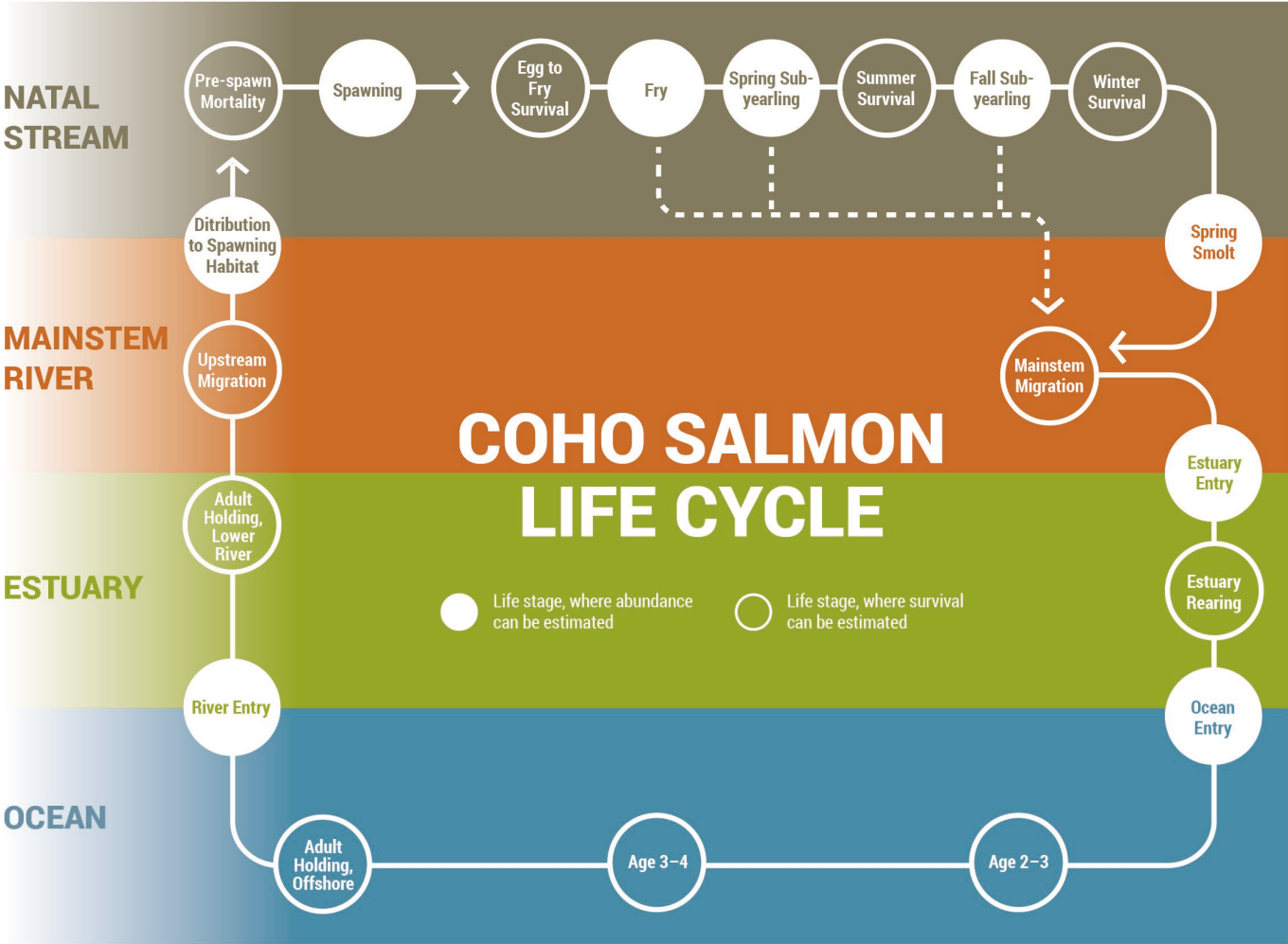




Chapter 6. Program Management Framework (& Implementation)



Chapter 7. Monitoring and Assessment Framework



The goals for a future Eel River monitoring program are as follows:

1. Evaluate whether restoration and conservation actions are working to meet the Program's vision and goals for native anadromous fish recovery;
2. Use key focal species populations and habitat metrics to adapt, refine, and/or reprioritize restoration and conservation actions, as needed; and
3. Share the recovery trajectory of anadromous fish in the Eel River watershed with the public in accessible ways that inform and engage the community.

Chapter 8. Recommendations and Next Steps



Explore data

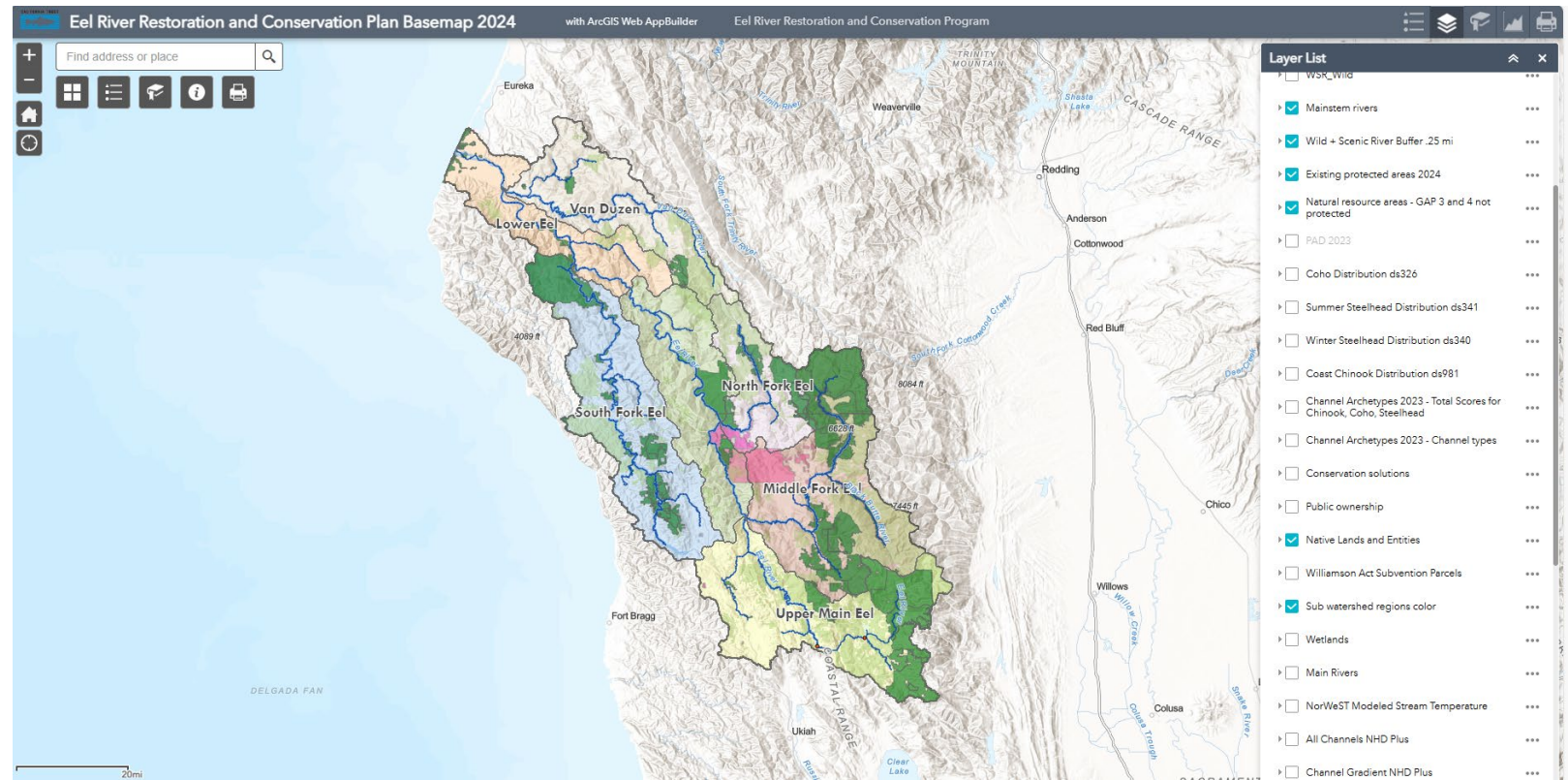
WEB MAP:

Conservation opportunities (30x30)

Preliminary channel archetypes

Other watershed data

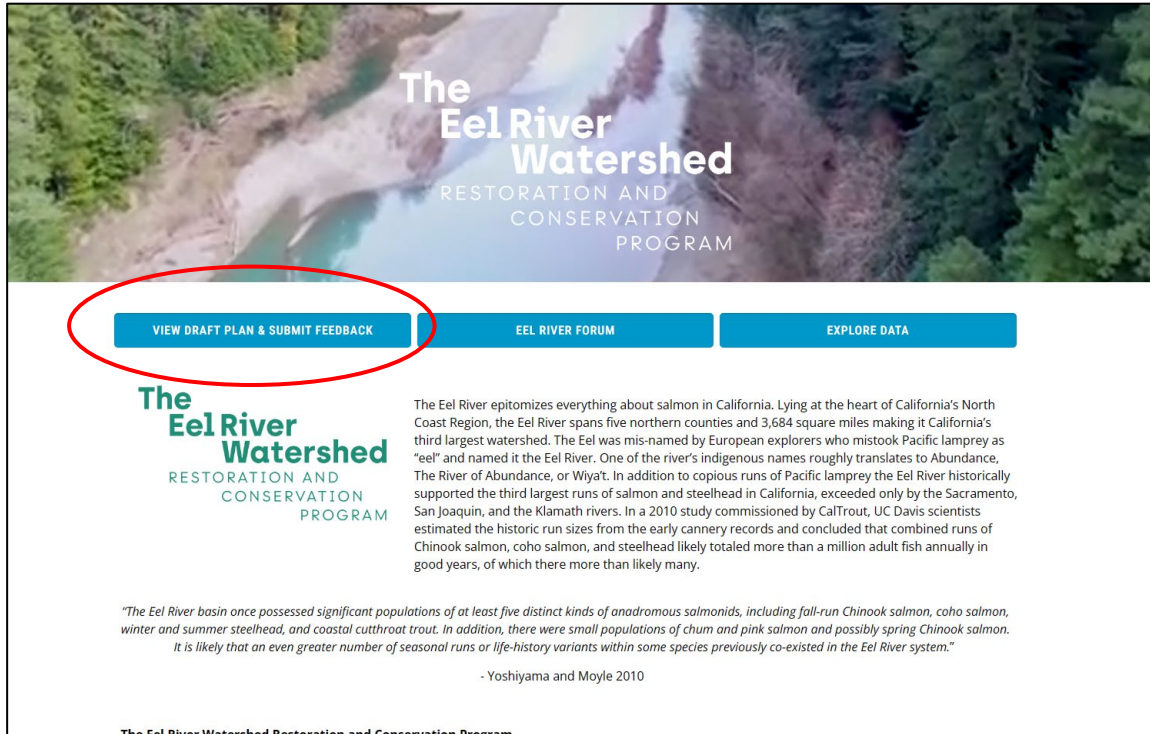
We are building on this foundation in the next 3 years in Phase 2 of the Eel Program.



[Eel River Restoration and Conservation Plan Basemap 2024 \(arcgis.com\)](https://arcgis.com)

Provide feedback on the draft Plan until April 30th.

[Eel River Watershed Program | California Trout \(caltrout.org\)](https://caltrout.org)



PROGRAM OVERVIEW | EEL RIVER FORUM | EXPLORE DATA

View Draft Plan

This is a draft of the Eel River Restoration and Conservation Plan. After exploring the plan, feel free to submit feedback as we prepare for a final version of the Plan to be released in June 2024.

[CLICK HERE TO VIEW THE DRAFT PLAN](#)

Submit Feedback By April 30

Email Address (Required)

Last Name (Required)

How are you connected to the Eel River watershed? (Required)

- I work in the restoration field
- I fish the Eel River
- I am a member of a Tribe in the Eel River watershed
- I live in or near the Eel River watershed
- I am not personally connected to the Eel River watershed

What county do you reside in? (Required)

Employer, agency, or other (unemployed)

Job title, or other

1. This draft Plan has sufficient background for me to understand the restoration and conservation issues being addressed. (Required)

Strongly disagree | Disagree | Neutral | Agree | Strongly agree | I don't know

Additional comment box for Question 1:

2. The draft Plan is logical and well-supported by science. (Required)

Strongly disagree | Disagree | Neutral | Agree | Strongly agree | I don't know

Additional comment box for Question 2:

CalTrout Eel River Forum past meeting slides: [Eel River Forum | California Trout \(caltrout.org\)](https://caltrout.org)

Explore Data web map: [Eel River Restoration and Conservation Plan Basemap 2024 \(arcgis.com\)](https://arcgis.com)

Connect with the Eel River watershed community

Link to sign up to the Eel River Forum mailing list: <http://eepurl.com/dL6qUs>

Eel River Forum general email: ERF@caltrout.org



Questions?

Please put your questions in the chat.

Link to view plan and comment:

[Eel River Watershed Program | California Trout \(caltrout.org\)](https://caltrout.org)

June 2024

EEL RIVER RESTORATION AND CONSERVATION PLAN

Phase 1: Planning

The Eel River Watershed RESTORATION AND CONSERVATION PROGRAM

CALIFORNIA TROUT
FISH-WATER-PEOPLE

Stillwater Sciences

APPLIED RIVER SCIENCES

CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE