



# CVPIA Fisheries Program Progress



Central Valley Project Improvement Act



# CVPIA: The Doubling Goal



“...implement a program which makes all reasonable efforts to ensure that, by the year 2002, natural production of anadromous fish in Central Valley rivers and streams will be sustainable, on a long term basis, at levels not less than twice the average levels attained during the period of 1967-1991”.

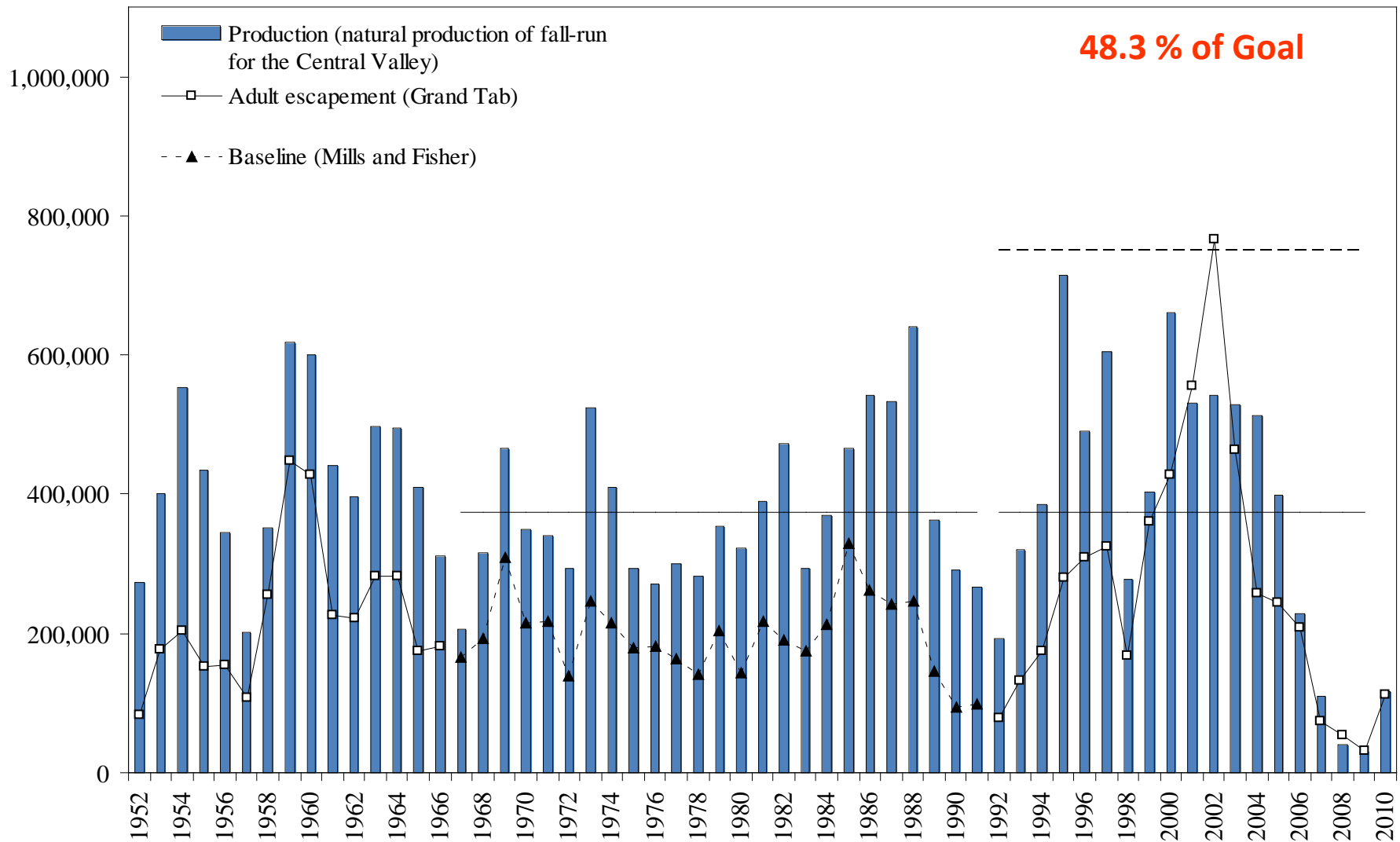
## Chinook Salmon Natural Production Targets

Central Valley	990,000
Fall Run	750,000
Late-Fall Run	68,000
Spring Run	68,000
Winter Run	110,000



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# CVPIA: The Doubling Goal



**Butte Creek 155 %**  
**Clear Creek 149 %**

**Deer Creek 56%**





# CVPIA: Doubling Goal Objectives



- Improve habitat for all life stages of anadromous fish through provisions of flows of suitable quality, quantity, and timing, and improved physical habitat.
- Improve survival rates by reducing or eliminating entrainment of juveniles at diversions.
- Improve the opportunity for adult fish to reach their spawning habitats in a timely manner.
- Collect fish population, health, and habitat data to facilitate evaluation of restoration actions.
- Integrate habitat restoration efforts with harvest and hatchery management.
- Involve partners in the implementation and evaluation of restoration actions.



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# CVPIA: Reasonable Actions



The Final Restoration Plan (FRP) focused on 26 watersheds, Misc. creeks, westside tributaries, and the Delta.

The FRP identified **289** actions (**128** CPAR) to be implemented by the Program that would help achieve the Act's anadromous fish doubling goal.

The FRP, doubling goals, objectives, and new information are used to guide the implementation of restoration actions in collaboration with others including other State and Federal agencies and Stakeholders in the Central Valley.



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# CVPIA: Progress towards 3407(d)(1) – Battle Creek

Harry Rectinwald - DFG



- 12 Total Actions, 9 CPAR Actions
- 5 of 9 or 56% Complete

**A6. Construct fish screens on all PG&E diversions, as appropriate, after both phases of upstream flow actions (see Action 1) are completed and fish ladders on Coleman and Eagle Canyon diversion dams are opened.**

**Structural**

**A7. Improve fish passage in Eagle Canyon by modifying a bedrock ledge and boulders that are potential barriers to adult salmonids, and rebuild fish ladders on Wildcat and Eagle Canyon diversion dams.**

**Structural**

**A8. Screen CNFH intakes 2 and 3 to prevent entrainment of juvenile chinook salmon and steelhead.**

**Structural**

**E1. Evaluate the effectiveness of fish ladders at PG&E diversions.**

**Non-Structural**



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# CVPIA: Progress towards 3407(d)(1) – Butte Creek



- 38 Total Actions, 34 CPAR Actions
- 29 of 34 or 85% Complete

A14. Install a fish screen at White Mallard Dam.	Structural
A17. Install screened portable pumps in Butte Creek as an alternative to the Little Dry Creek diversion.	Structural
E12. Evaluate enhancement of fish passage at a natural barrier below the Centerville Diversion Dam.	Non-Structural
E13. Evaluate fish passage enhancement at PG&E diversion dams and other barriers above Centerville Diversion Dam.	Non-Structural
E15. Evaluate juvenile and adult chinook salmon stranding in Sutter Bypass and behind Tisdale, Moulton, and Colusa weirs during periods of receding flows on the upper mainstem Sacramento River.	Non-Structural



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# CVPIA: Progress towards 3407(d)(1) – American River

- 13 Total Actions, 5 CPAR Actions
- 2 of 5 or 40% Complete



**A4. Reconfigure Folsom Dam shutters for improved management of Folsom Reservoir's cold water pool and better control over the temperature of water released downstream.**

**Structural**

**A9. Terminate current programs that remove woody debris from the river channel.**

**Non-Structural**

**E1. Evaluate the effectiveness of pulse flows to facilitate successful emigration of juvenile salmonids.**

**Non-Structural**

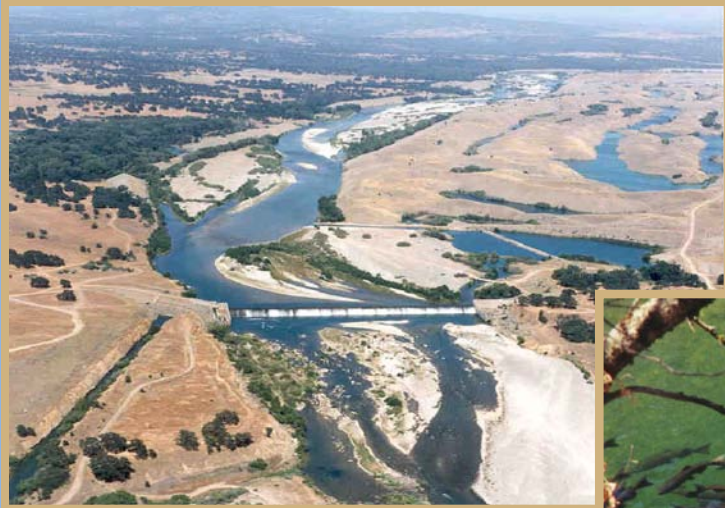


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# CVPIA Fisheries Program Revisioning



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# Problem Statement (Part I)



**An Independent Science Review of Central Valley Project Improvement Act (CVPIA) Fisheries program identified four major recommendations as part of the “Listen to the River” report. These include: (1) update and improve the program’s science-based framework, (2) reorganize program structure and management, (3) improve implementation by making full use of CVPIA authorities, and (4) improve collaboration with all related programs in the Central Valley.**



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# Problem Statement (Part II)



These recommendations identified the need to develop a new comprehensive, science-based approach that explicitly links CVPIA activities with Program objectives. The review also recommended that the framework incorporate uncertainty and allow for integration of new information to improve scientific understanding and increase the effectiveness of CVPIA activities.



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# Objectives



The project proposes to use a structured decision making approach to develop a framework that allows decision-makers to prioritize CVPIA activities and guide planning of broad scale activities. A transparent prototype decision model will be developed that (1) integrates large scale CVPIA program elements into a single science-based framework; (2) explicitly links restoration activities to ecological/environmental objectives; and (3) can be used to identify and prioritize large scale restoration activities based on programmatic objectives and constraints.



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# Deliverables



Development of a **science-based decision process** and producing an **updated implementation plan**. The science-based decision process will require (1) revisiting Program objectives and performance measures with State and Federal agencies, and stakeholders, (2) developing a system-wide conceptual/quantitative model to help guide Program decisions, (3) reassessing monitoring and evaluation efforts given revised objectives, performance measures, and models, and (4) integrating independent scientific reviews into the organizational structure of the Program. The results from the science-based decision process will provide the strategic approach and foundational pieces for the Implementation Plan that will serve as the Program's longer-term guiding document.



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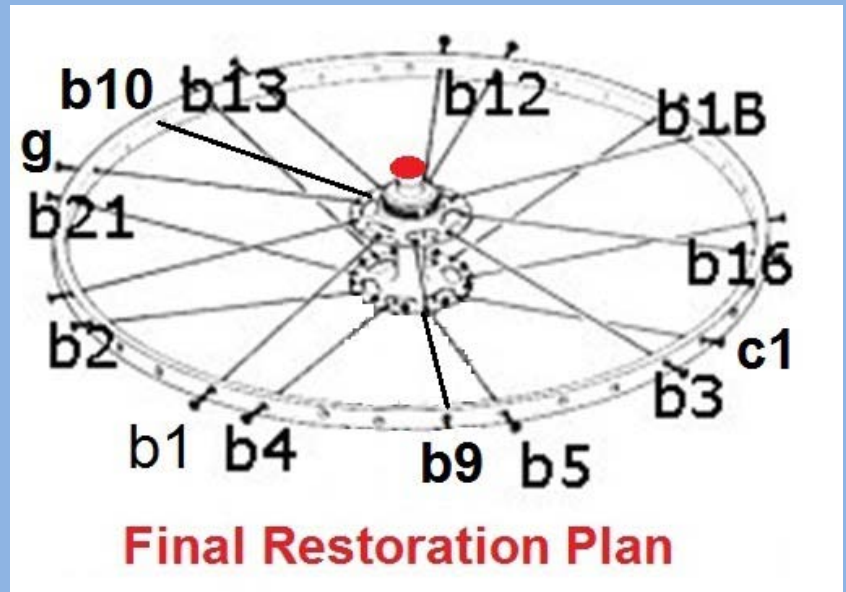


# Decision Context (Part I)

- Title 34 Public Law 102-575

- CVPIA PEIS

- The Final Restoration Plan

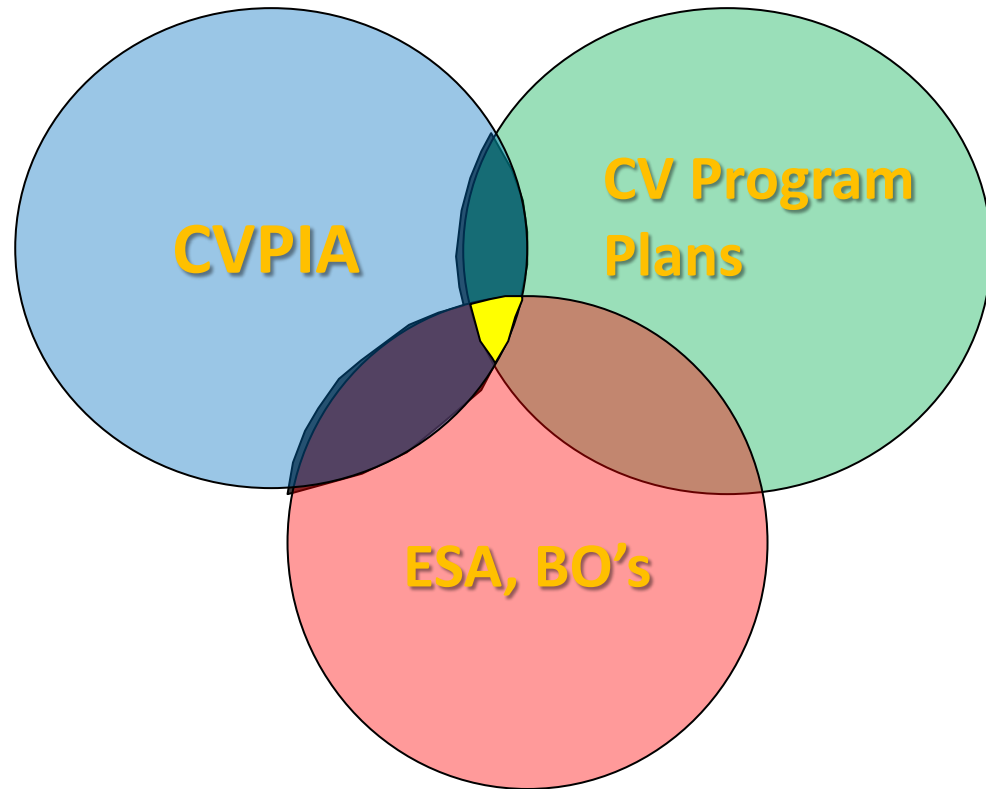


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# Decision Context (Part II)

- Compliment Recovery Plans
- Incorporate existing Watershed Plans
- Strengthen interagency & stakeholder process





# Benefits



1. Science-based decision process and updated implementation plan will provide guidance on how to realign the organizational structure of the Program.
2. Integrated plan that aligns priorities amongst the agencies allows for the examination of where agency priorities overlap.
3. Will allow for additional specificity and refinement of the Final Restoration Plan
4. Improved transparency and efficiency



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# Summary



- **Structured Decision-making (SDM)**
- **Science-based decision Process**
- **Implementation Plan**
- **Reinvigorate multi-agency collaborations**
- **Reinvigorate stakeholder collaborations**



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THE END





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