



One Water and Stewardship Committee

Salmonid Recovery Project

Item 6c

July 8, 2024

Item # 6c
Science
Update /
Salmon
Reorienting to
Recovery
Project

Subject

Science Update: Salmon Reorienting to
Recovery Project

Purpose

Update on project status

ESA listed
species limit
water supply
reliability

Metropolitans' Interest

- GM Business Plan FY 25, Outcome 3.2.6 and 5.2.2

Revised Bay-Delta Policy Objectives		
<ul style="list-style-type: none">• Promote a Sustainable Bay-Delta Within Metropolitan's One Water Approach• Support Statewide and Regional Actions that Further the Coequal Goals Established in the Delta Reform Act• Address the Risks Associated with Climate Change		
Revised Bay-Delta Policy Framework		
Science and Watershed Management	Water Supply Reliability and Resilience	Partnerships and Cost-Effective Investments
Protect and restore aquatic species and habitats based on best available science	Protect water supply reliability and quality while reducing reliance consistent with the Delta Reform Act	Maintain and pursue cost-effective financial investments
Partner in watershed-wide approaches to develop comprehensive solutions	Invest in actions that provide seismic and climate resiliency	Foster broad and inclusive engagement of Delta interests and beneficiaries
Advance responsible stewardship of Metropolitan's Delta islands	Seek flexible operations, water management actions, and infrastructure solutions	Promote innovative and multi-benefit initiatives

Goal: identify preferred, broadly supported scenarios that recover salmonids

Reorienting to Recovery



- Salmon populations declining
- Opportunities for coordinated efforts
- Engaging state and federal resource agencies, non-governmental organizations, Tribal Nations, & water, agricultural, and fishery industries

Diverse planning team

Organization	Staff Name
Trout Unlimited	Rene Henery, Natalie Stauffer-Olsen
CA Indian Environmental Alliance	Michelle Rivera, Sherri Norris
Compass Resource Management	Brian Crawford, Michael Harstone
Essex Partnership	Bruce DiGennaro
FlowWest	Erin Cain, Mark Tompkins, Liz Stebbins
Kearns & West	Marlys Jeane, Rafael Silberblatt
Qeda Consulting	Noble Hendrix
Metropolitan Water District	Alison Collins
NMFS Southwest Fisheries Science Center	Ann Marie Osterback
State Water Contractors	Darcy Austin
Formally The Bay Institute	Gary Bobker

Project Overview

PHASE 1

Define Salmonid Recovery¹ (Q2 – Q4 2021)

Engage scientists to define salmonid biological objectives and thresholds of recovery

PHASE 2

Engagement² (Q1-Q3 2022)

Engaging interested parties to define other ecological, social, and economic interests

PHASE 3

Decision Support^{2,3} (Q4 2022 – Q4 2024)

Adapting salmonid life-cycle models to assess the performance of different suites of actions

Identify a Suite of Actions to achieve salmonid recovery

Goal

¹Funded by State Water Contractors \$400,000, Metropolitan \$48,990, Valley Water \$34,800, The Essex Partnership \$35,000, Kearns & West \$6,158, NOAA \$41,490

^{2,3} Funded by Delta Science Program grant award \$1.5 million, Metropolitan \$194,610, Valley Water \$34,800, State Water Contractors \$20,300, The Essex Partnership \$192,000, Kearns & West \$9,750, NOAA \$86,751

Engaging with >110 agencies to collect feedback

Science Advisory Team



Bruce Herbold Consulting
Hanson Environmental
Douglas Engineering

Forum >110 agencies

Working Group



27 scientists
15 organizations
6 meetings
12 objectives



Bruce Herbold Consulting
Hanson Environmental

Phase 1 (2021): Salmonid experts defined recovery

- Objectives: abundance, productivity, spatial structure, diversity
- Performance measures
- Quantitative targets

Example Objective	Example Performance Measure
Abundance	# of fish spawning

3 part workshop
65 individuals
47 organizations
>550 value
statements
24 objectives

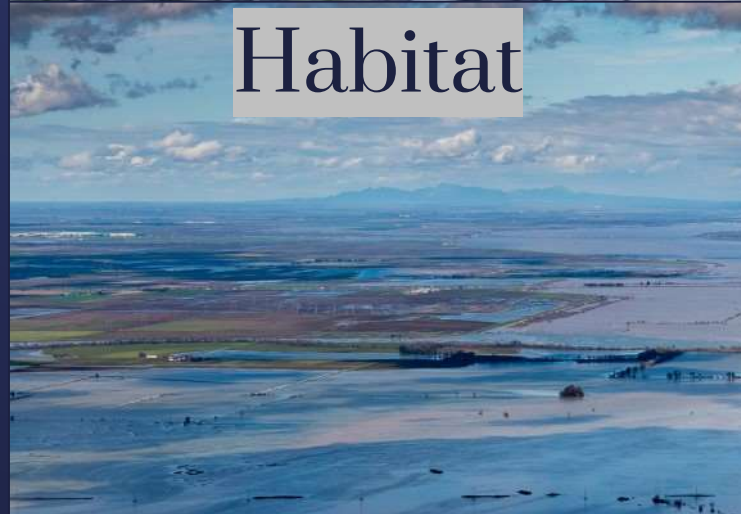
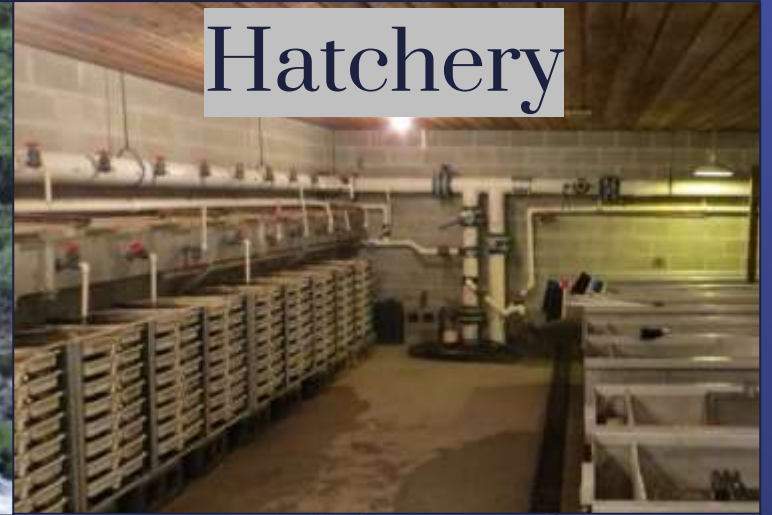
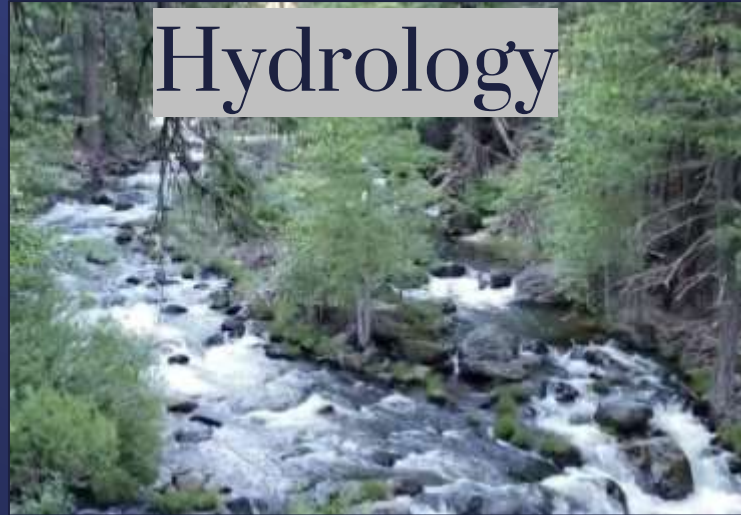
Phase 2 (2022): Forum participants defined other values and identify planned projects

5 Major Value Categories	Example Objectives	Performance Measure
Habitat & ecological processes	Ecosystem health	Marine derived nutrients
Access to land & water	Managed wetlands	Deliveries to refuges
Harvest	Ocean harvest	Harvestable adults
M&I, agriculture, and refuge	Water supply	Water delivery
Regulatory, public health & infrastructure	Flood risk	Difference in flow

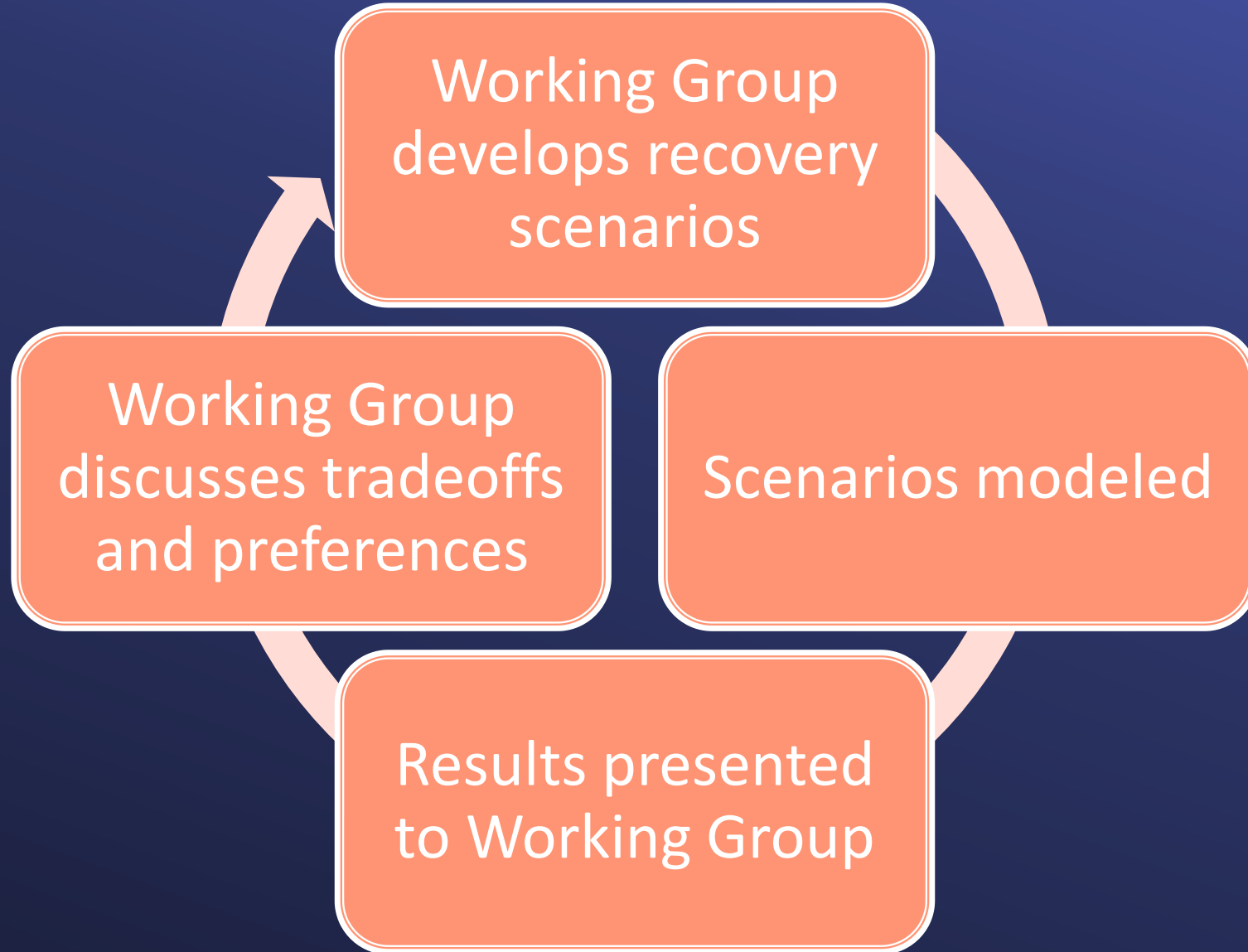
Phase 3 (2023-now): Working Group developing preferred recovery scenarios

Scenarios
combination of
actions from 4H's

Decision support
model predicts
consequences on
objectives



Scenario development is an iterative process



Modeled outcomes predict scenario performance, tradeoffs discussed, scenarios refined

Legend

More preferred

Less preferred

Example Objectives	Preferred direction	Scenario 1	Scenario 2
Adult abundance	Higher	↑	↓
Ecosystem health	Higher	↑	↓
Managed wetlands	Higher	↓	↑
Ocean harvest	Higher	↓	↑
Water supply	Higher	↓	↑
Flood risk	Lower	↓	↑

Support for a suite of actions to recover salmonids

Next Steps

- June finalize scenarios
- July-Aug modeling final scenarios
- Fall workshop 2024
- November final report
- Applying for implementation funding

