



One Water and Stewardship Committee

# Salmonid Recovery Project

Item 6a

August 19, 2024

## Subject

Science Update: Salmon Reorienting to Recovery Project

## Purpose

Update on project status

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

ESA listed species limit water supply reliability

# Metropolitans' Interest

- GM Business Plan FY 25, Outcome 3.2.6 and 5.2.2

<i>Revised Bay-Delta Policy Objectives</i>		
<ul style="list-style-type: none"> <li>• Promote a Sustainable Bay-Delta Within Metropolitan's One Water Approach</li> <li>• Support Statewide and Regional Actions that Further the Coequal Goals Established in the Delta Reform Act</li> <li>• Address the Risks Associated with Climate Change</li> </ul>		
<i>Revised Bay-Delta Policy Framework</i>		
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 Governments, & water, agricultural, and fishery industries



# Diverse planning team

Organization	Staff Name
Trout Unlimited	Rene Henery, Natalie Stauffer-Olsen
California 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 Recovery (Q2 – Q4 2021)

Engage scientists to define salmonid biological objectives and thresholds of recovery

## PHASE 2

### Engagement (Q1-Q3 2022)

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

## PHASE 3

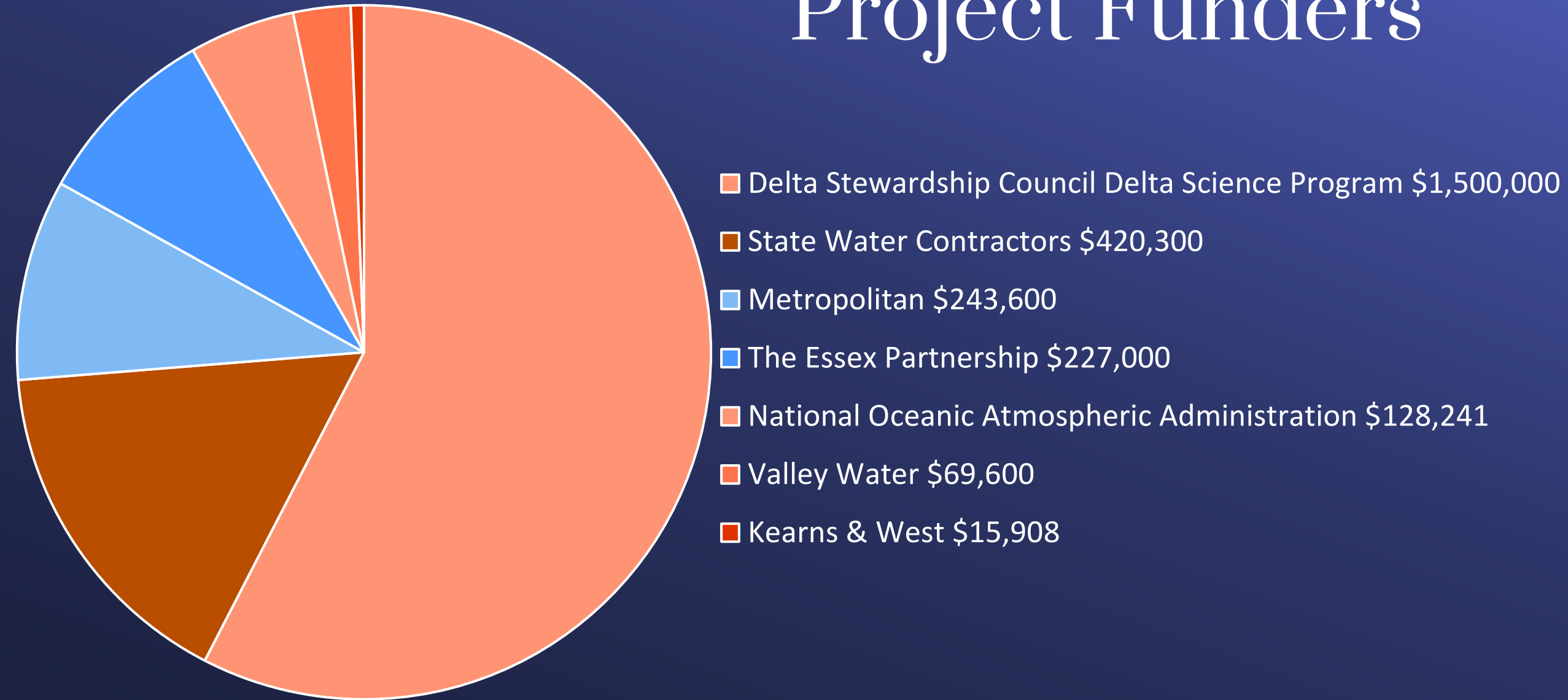
### Decision Support (Q4 2022 – Q4 2024)

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

Identify a Suite of Actions to achieve salmonid recovery

## Goal

# Project Funders



# Engaging with >110 agencies to collect feedback

## Science Advisory Team



Bruce Herbold Consulting  
Hanson Environmental  
Douglas Engineering

Forum  
>110 agencies  
Open to  
everyone  
Identify  
values and  
projects

## Working Group





# Phase 1 (2021): Salmonid experts defined recovery

27 scientists  
15 organizations  
6 meetings  
12 objectives



CALIFORNIA DEPARTMENT OF  
WATER RESOURCES  
Bruce Herbold Consulting  
Hanson Environmental

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

Example Objective	Example Performance Measure
Abundance	# of fish spawning

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

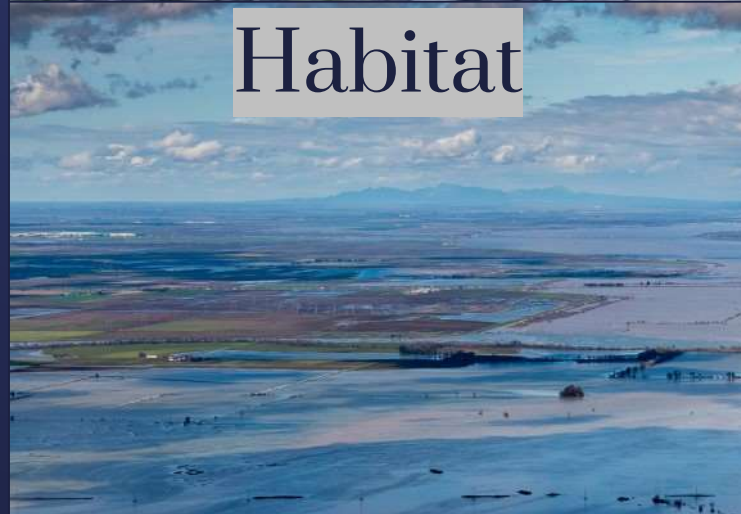
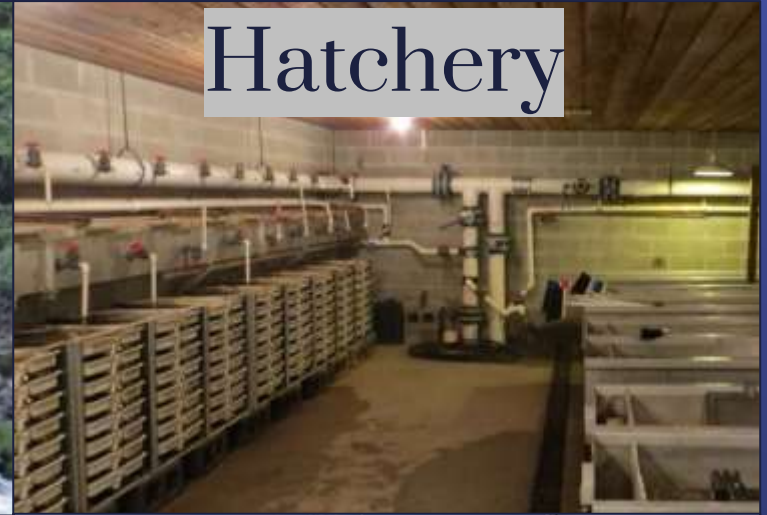
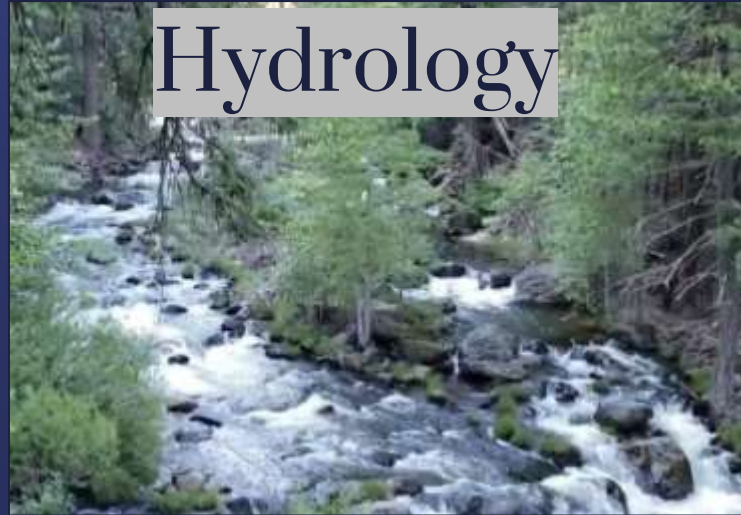
3 part workshop  
65 individuals  
47 organizations  
>550 value  
statements  
24 objectives

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

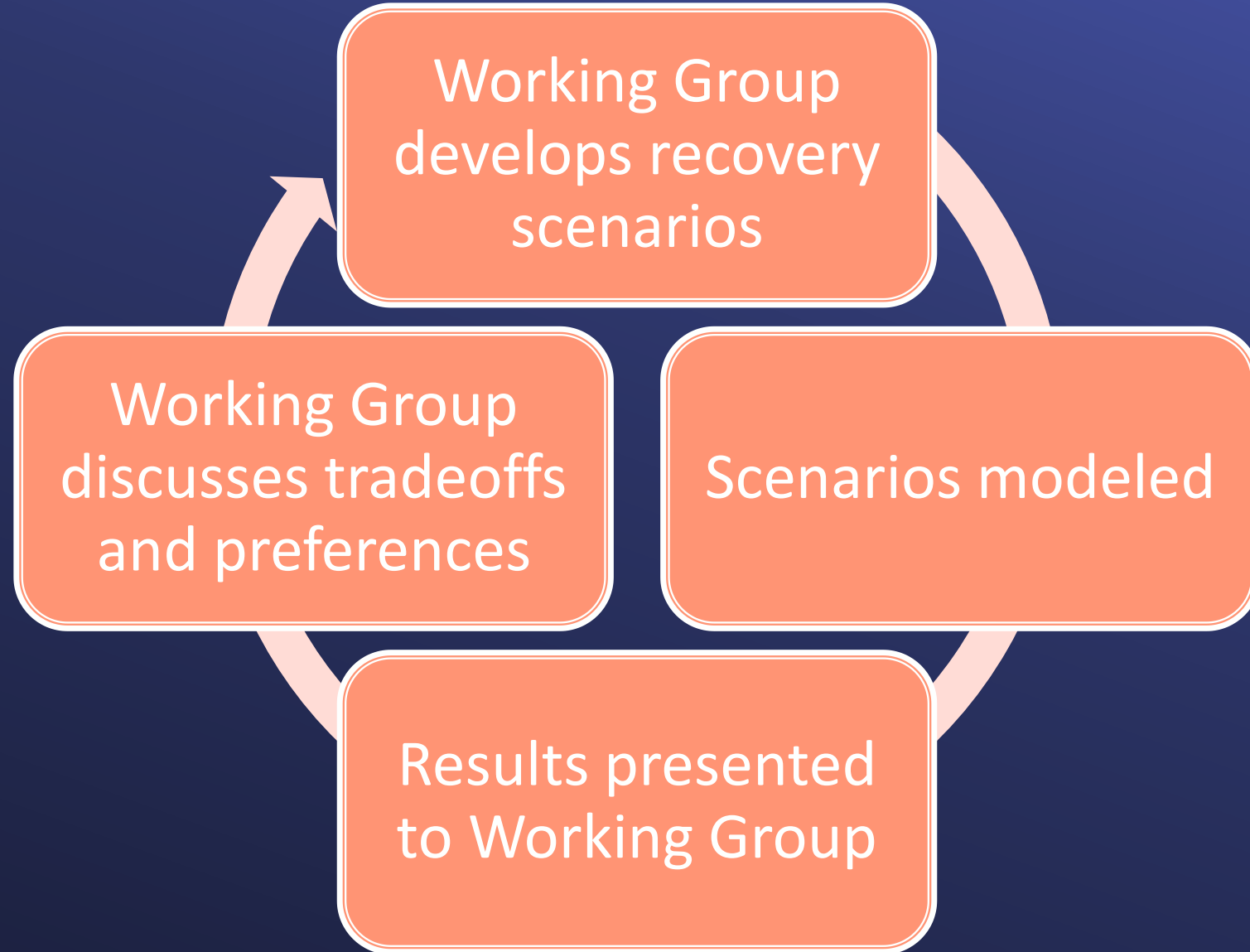
# Phase 3 (2023-now): Working Group developing preferred recovery scenarios

Scenarios are 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

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

