

Delta Ecosystem Revitalization Framework for Progress

Report out by the Ecosystem Work Group

Delta Vision Blue Ribbon Task Force
29 February 2008

Key Points

- **Ecosystem Work Group**

- First meeting Feb 15, several more meetings scheduled
- Clarified charge, started into the work

- **Performance Measures Workshop**

- Held Feb 21
- Recommended framework, building from existing work, types of measures to define
- Strong emphasis on linkage to *endpoints* and *strategies* for reaching endpoints

Building on the “Restoration Recipe”

The “Restoration Recipe”

Restore Habitats

In-Delta
Watershed
Bay

+

Restore Processes

In-Delta
Watershed
Bay

+

Remove Stressors

In-Delta
Watershed
Bay



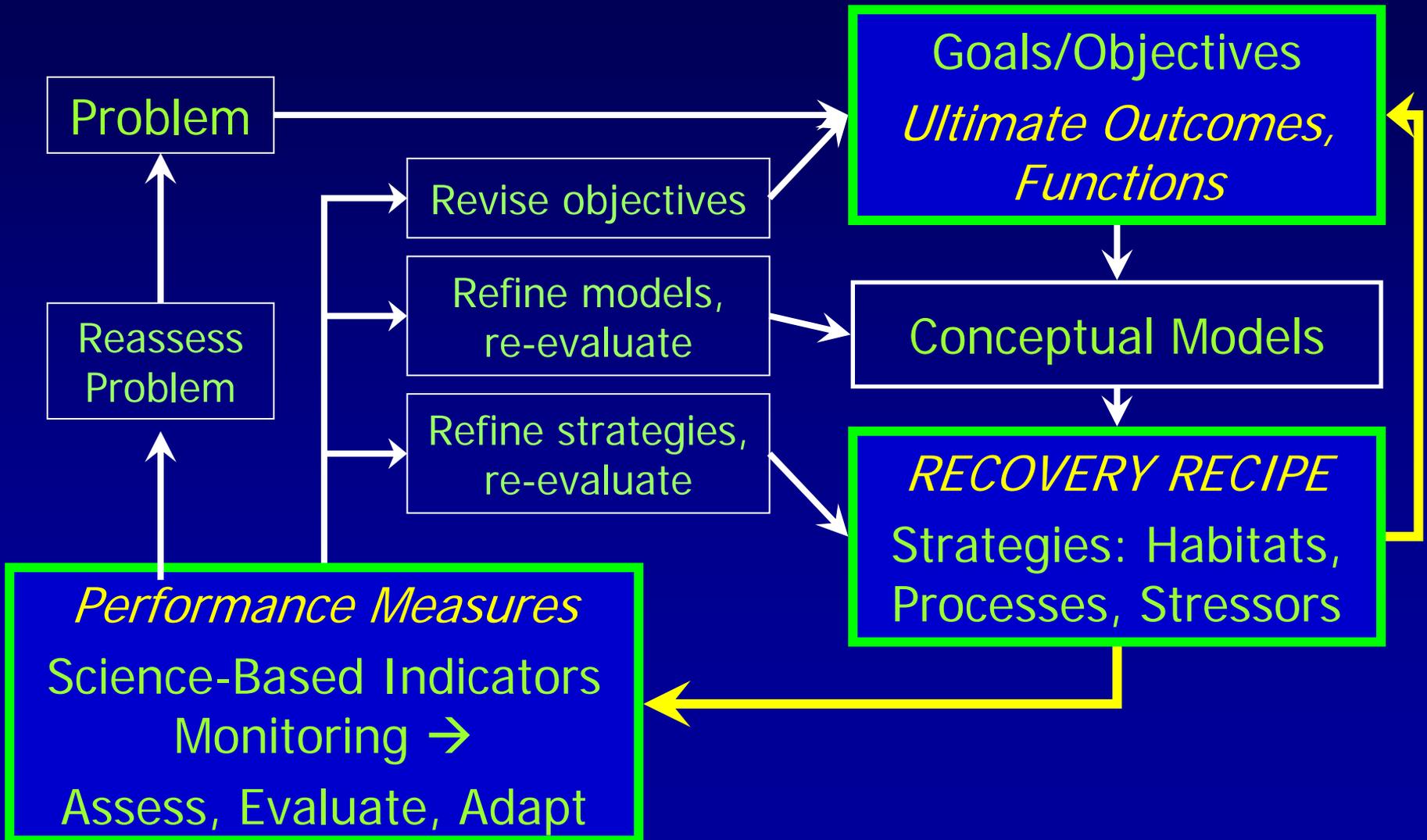
Improved and Resilient Ecosystem Functions

Water supply conveyance options dictate viability of some activities

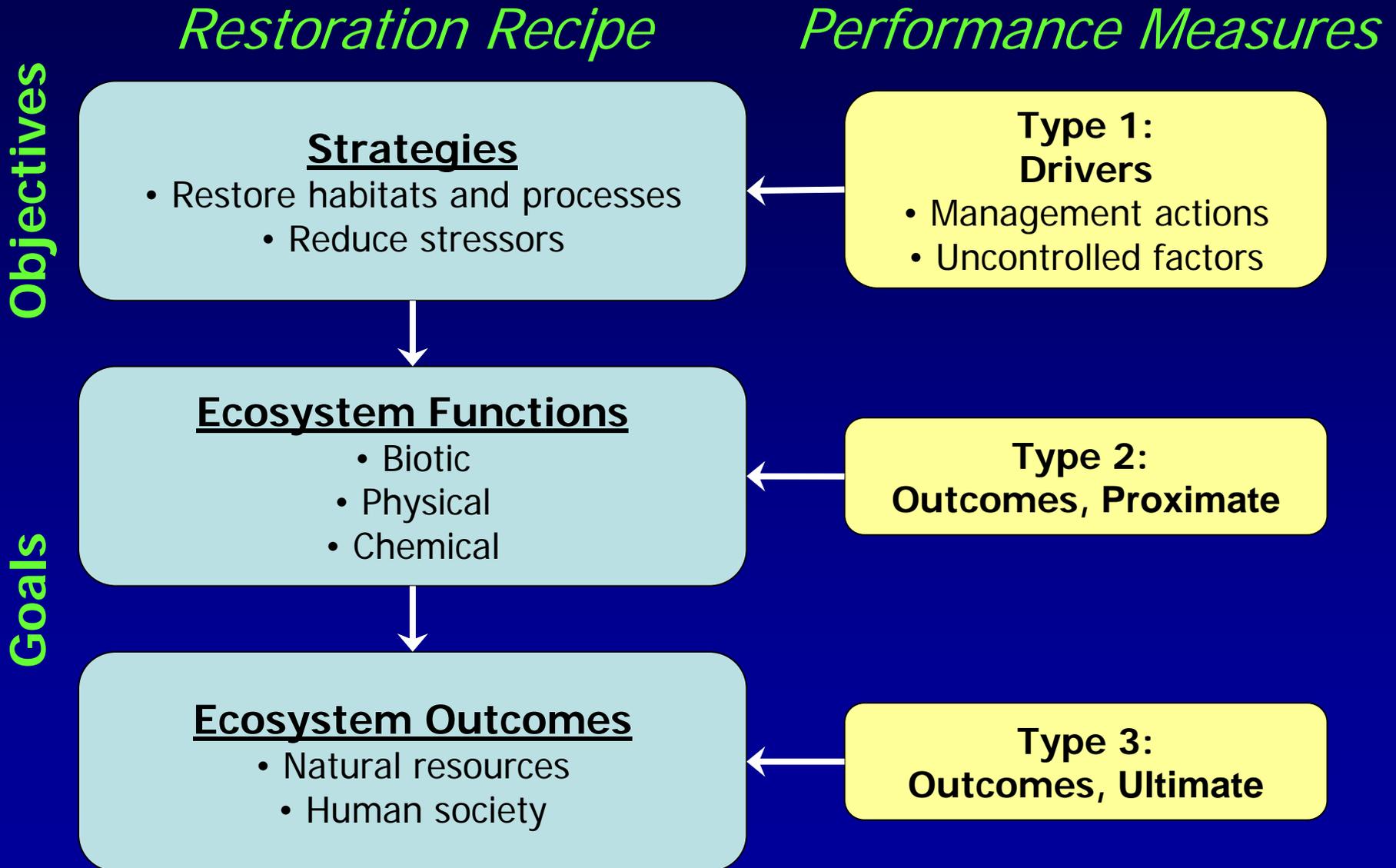
Ultimate Outcomes/Endpoints

- 1) Natural systems
- 2) Human society

Adaptive Management: Apply Established Framework



Restoration Recipe and Performance Measures



Setting Performance Measures and Defining Restoration Strategies

Part 1: Goals and Objectives

- Sources:
 - ERP Strategic Plan
 - ESA Recovery Plans
 - Pelagic Organism Decline
 - DRERIP Conceptual Models
 - BDCP
- Goals: organize clearly around ultimate and proximate outcomes
- Objectives: clear articulation of management actions

Setting Performance Measures and Defining Restoration Strategies

Part 2: Ultimate Outcomes

- Outcomes are the end results of one or more ecosystem functions
- **Natural resources**
 - Range of endpoints that capture natural communities, species, their habitats, and ecosystem resiliency
- **Human society**
 - Range of endpoints that capture the ecosystem services deemed important to the State of California

Setting Performance Measures and Defining Restoration Strategies

Part 3: Proximate Outcomes (Functions)

- Functions are manifestations of one or more ecosystem processes
- **Natural resources**
 - Range of functions that support natural resources
- **Human society**
 - Range of functions that benefit human society

Setting Performance Measures and Defining Restoration Strategies

Part 4: Strategies of the Restoration Recipe *(partial list)*

- **Restore Habitats** – Tidal marsh, floodplains, non-tidal wetlands, channel margins (wetland, riparian), open water, flooded islands, adjacent lowland grasslands, Delta waterway channel geometry modification
- **Restore Processes** – Primary production, secondary production, sediment transport, sediment accretion, vegetation colonization, nutrient cycling, inflow, outflow, etc.
- **Reduce Stressors**
 - Water quality: low dissolved oxygen, salinity, temperature, toxics (methyl mercury, selenium, pyrethroids, ammonium, other)
 - Flow/water quantity: reverse flows, entrainment, diversions, exports
 - Invasive species – fish, invertebrates, submerged and floating aquatic vegetation