Action 1

Develop and implement a comprehensive, watershed-scale approach to aquatic resource protection.

Task 1.1

Develop a written framework that explains the need for watershed-based aquatic resource protection.

Task 1.2

Develop criteria to evaluate watersheds that could be used to pilot the framework.

Task 1.3

Plan and initiate the pilot project with a steering committee of local, regional, and federal agencies. CWA Section 404 guidance, proposed Section 401 procedures, and SWRP guidance provide core federal and Ca state rationale, plus opportunities to standardize methods for evaluation and tracking.

SCVWD One Water Program with established watershed monitoring (Coyote Creek), plus Marin County holistic approach to climate change adaptation (upper Richardson Bay) are two possible starting points with willing partners for pilot projects. OLUs can provide the spatial template for multi-jurisdictional, multi-benefit, adaptive resource planning and management; both candidate pilot venues are aligned with proposed OLUs.

Task 1.1

Draft argument for a framework.

- Watershed management around the Bay is conventionally parsed among four environmental objectives: flood control, water quality control, water supply, and habitat conservation.
- These four objectives have inherent conflicts necessitating tradeoffs that can only be defined and resolved at the watershed scale.
- The resolution of conflicts among the plans requires their coordination from inception to implementation.
- Coordination will require a shared vision of watershed health that can be translated into numerical metrics of status and trends.
- Population growth and accelerating climate change increase the need for coordination to assure that management actions, including regulatory review and permitting, are timely and effective.
- Without coordinated, watershed-based management of aquatic resources, their planning will lag ever further behind environmental change, and eventually fail.
- Operational Landscape Units (OLUs) can serve as the spatial template to implement the framework.

Task 1.2

Emerging criteria to assess watersheds.

• Watersheds can be assessed based on status and trends for selected metrics relative to target conditions for compatible objectives (SFEP SotER, SCVWD One Water).



Metrics of Condition

Task 1.2Details from watershed approach to compensatory mitigation

100 Gray area is difference between Percent of Target Condition target and existing conditions Target Width 50 Υ Existing Marsh Width Width 0 Metrics of Condition X **Status of metric** (X/Y) 100

Metric might be the width of tidal marsh relative to needed width to protect shoreline from Bay waves.

Task 1.3

Plan and initiate the pilot project.

- Candidate pilots (Coyote Creek and upper Richardson Bay) focus on water quality, flooding, sediment supply, and aquatic/wetland/riparian habitat connections between the Bay and local watersheds, in the context of climate change.
- Candidate pilots do not focus on water supply, land development, recreation, or other social aspects of watershed health, except perhaps through compensatory mitigation for unavoidable impacts. Social aspects can be added to the framework as goals and metrics are decided.
- Candidate pilots ignore terrestrial habitats and species. Linkage to terrestrial ecology may be possible through HCP/NCCP of USFWS and CDFW (Coyote Creek) and One Tam of TLC (Richardson Bay).
- OLUs are scientifically sound. How to use them to align policies and programs must be decided.
- TLC: California State Parks, Marin County Parks, Marin Municipal Water District, National Park Service, Golden Gate National Parks Conservancy

Action 1

Develop and implement a comprehensive, watershed-scale approach to aquatic resource protection.

Policies to protect water quality, water supplies, habitat, and to manage flood risks

Policies to protect habitat, navigation, and to manage sea level rise

