V. RECOMMENDATION FOR A *GUADALUPE RIVER CORRIDOR MANAGEMENT PLAN*

Discussion:
The Science Panel recommends the creation and implementation of a *Guadalupe River Corridor Management Plan.* Such a plan would provide a more holistic vision of future conditions on the Guadalupe River, which would improve design and implementation consistency, and facilitate more relevant ecological and flood management Measurable Objectives, performance standards, or success criteria for future project evaluation.

Science Panel Recommendation:

> *Develop and implement a Guadalupe River Corridor Management Plan. The plan would integrate flood management and ecological improvement objectives to develop a long-term vision for future conditions on the Guadalupe River Corridor. The draft framework to follow identifies actions intended to improve management of the Guadalupe River and selected tributaries. Management objectives would focus on natural resources, anthropogenic uses, and flood protection.*

Draft Framework for Guadalupe River Corridor Management Plan
The rationale, goals, and draft framework of a *Guadalupe River Corridor Management Plan,* as suggested by the Science Panel, are as follows:

Rationale: The Science Panel's evaluation of the Measurable Objectives from the Adaptive Management Team (AMT) process has identified many objectives that attempt to evaluate project-related impacts. However, because there is no long-term vision of desired future conditions on the Guadalupe River, many of the Measurable Objectives do not inform improvement or degradation of ecological values of the Guadalupe River. The lack of a common future vision fosters disagreements, misunderstandings, and wasted monitoring effort, thereby increasing cost and reducing our ability to achieve joint goals of improving flood management and ecological conditions along the Guadalupe River corridor.

Goal: To integrate flood management and ecological improvement objectives to develop a long-term vision for future conditions on the Guadalupe River Corridor.

Spatial extent: Downstream of storage dams to San Francisco Bay (anadromous extent), including Los Gatos Creek, Alamitos Creek, Calero Creek, and Guadalupe Creek, but excluding Ross Creek and Canoas Creek.

Timeline: The management plan would need to be completed within a year to be available to guide future projects currently being designed and other activities in the system.

Technical topics to integrate into a future vision:

1. Fish species life history tactics, and key habitat elements

a. Native warm-water species
b. Exotic species
c. Native anadromous species (salmonids and pacific lamprey)
    i. Adult and juvenile migration
    ii. Spawning habitat (amount, location, quality, linkage to coarse sediment and channel morphology objectives)
    iii. Rearing habitat (amount, location, quality, linkage to life history tactics and channel morphology, including large wood)
    iv. Benthic macroinvertebrate production (food availability and growth)
    v. Water temperature (juvenile rearing, smolt outmigration, egg incubation)
d. Conceptual model to help assess limiting factors and inform enhancement opportunities and objectives

2. Other key species (integrate with Valley HCP)
3. Water quality (integrate SCVURPPP)
    a. Water temperature
    b. Toxics (urban runoff, return flows)
4. Channel morphology
    a. Channel pattern (different reaches, slopes, sediment supply, etc) plane-bed, meandering, braided, or anastomosing
    b. Channel geometry (different reaches, slopes, sediment supply, bank full channel, floodplains, etc)
5. Large wood recruitment, deposition, routing, and maintenance
6. Riparian vegetation
    a. Passive management
        i. Vegetation species composition and patch connectivity
        ii. Natural initiation, establishment, and recruitment
        iii. Woody vegetation structure and large wood contribution
        iv. Wildlife habitat values
    b. Active management
        i. Target species
        ii. Species composition, plantings
        iii. Exotic plant management
        iv. Wildlife habitat values
7. Fluvial processes (bed mobility, channel migration, incision/aggradation)
8. Conceptual model of physical and biological processes (these should probably be within the individual topic areas rather than a separate section)
    a. Fish life history tactics
    b. Gravel management plan
    c. Riparian management plan
9. Coarse sediment transport, deposition, routing, and maintenance

10. Fine sediment transport, deposition, routing, and maintenance
11. Flood management (hydrology, managing roughness, managing large wood, managing sediment deposition)
12. Garbage management
13. Recreation
14. Opportunities and constraints (this should be towards the beginning of the document)
    a. Space (e.g., floodway width)
    b. Land ownership
    c. Coarse sediment supply
    d. Infrastructure
    e. Hydrology
    f. Soils
    g. Etc.
15. Adaptive management
    a. Monitoring
    b. Hypothesis development
    c. Information needs and uncertainties
        i. Experiments
        ii. Studies
        iii. Data collection
    d. Alternative management process
16. Opportunities and constraints