# Yolo Natural Heritage Program
## *In-Progress Draft Outline* - Chapter 5, Conservation Strategy

***[Note to reviewers:** This draft is a broad outline of the organization and content of Chapter 5, Conservation Strategy. Content details will evolve over the next few months as work on the chapter and related draft conservation plan documents continues]*

**Chapter 5 Conservation Strategy**

**5.1 Summary of the Conservation Strategy**

**5.2 Biological Goals and Objectives (***see already prepared section***)**

**5.2.1 Methods for Developing Goals and Objectives**

**5.2.2 Landscape-Level Goals and Objectives**

**5.2.3 Community-Level Goals and Objectives**

Grassland Communities
Shrublands and Scrub Communities
Woodlands and Forest Communities
Riparian Communities
Wetlands Communities
Agriculture Lands
Developed Lands

**5.2.4 Species-Level Goals and Objectives: Plants**

Alkali Milk Vetch
Brittlescale
San Joaquin Spearscale
Palmate-bracted Bird's Beak
[*Etc. all covered plants*]

**5.2.5 Species-Level Goals and Objectives: Wildlife**

Conservancy Fairy Shrimp
Vernal Pool Fairy Shrimp
Vernal Pool Tadpole Shrimp
Mid-valley Fairy Shrimp
Valley Elderberry Longhorn Beetle
Ancient Ant
California Tiger Salamander
[*Etc. all covered wildlife*]

**5.3 Approach to Developing the Conservation Strategy**

**5.3.1 Geographic Organization of the Conservation Planning**

Landscape Units

Planning Units

**5.3.2 Species-Habitat Predictive Models**

**5.3.3 Agricultural Forecasting Model**

**5.3.4 Approach to Habitat Conservation [***Discussion of Methods***]**

**5.4 Conservation Measures**

**5.4.1 Upland Natural Communities Conservation Measures**

Assembly Rules for Upland Conservation Areas

Land Unit Size

Geographic Distribution

Elevation Range

Habitat Diversity

Ability to Accommodate Natural Disturbance

Adjacent Sources of Disturbance

Covered Species Occurrence

Relationship to Existing Conservation Areas

Conservation Land Acquisition Objectives for Upland Landscape Planning Units

Planning Unit 1 - Little Blue Ridge

Planning Unit 2 - North Blue Ridge

Planning Unit 3 - South Blue Ridge

Planning Unit 4 - Capay Hills

Planning Unit 5 - Dunnigan Hills

Conservation within Private Lands Not Protected as Conservation Lands

Planning and Implementation of Management for Conservation Lands

Biological Resource Management

Livestock Grazing

Fire, Fuels Management, and Public Safety

Recreation and Public Use

Coordination Needs for Cultural and Visual Resources

Coordination with Adjacent Landowners and Jurisdictions

**5.4.2 Valley Natural Communities Conservation Measures**

Assembly Rules for Valley Natural Community Conservation Lands

Valley Oak Woodlands Conservation Measures

Assess Valley Oak Woodland Habitat Values in Lowland Areas and Potential for Enhancement and Restoration

Conserve, Enhance, and Restore Existing Valley Oak Woodland Habitat

Protect and Sustain Isolated Valley Oak Trees in Key Raptor Foraging Areas with Limited Tree Cover

Grasslands Conservation Measures
Conserve Larger Remnant Areas of Grassland Habitats
Conserve and Enhance Small Grassland Areas with Important Conservation Values
Vernal Pool Grasslands Conservation Measures
Conserve Vernal Pool Habitats and Associated Grassland and Pollinator Habitats
Alkali Sink Conservation Measures
Conserve Alkali Sink Habitats and Associated Grassland and Pollinator Habitats..
Fresh and Saline Emergent Wetlands Conservation Measures
Conserve Existing Fresh and Saline Emergent Wetlands
Coordinate Management of Conservation Lands with State Wetland Areas
Conservation Lands Management

**5.4.3 Riparian and Watercourse Natural Community Conservation Measures**

Riparian and Watercourse Classification
Assembly Rules for Riparian Conservation Lands
Riparian Restoration and Enhancement Concepts [*methods and expected results for restoration efforts – specific to different riparian and watercourse types - based on the riparian watercourse classification]*

Cache Creek (Planning Units 6 and 7) [*describe preservation and restoration measures for riparian habitat along Cache Creek stream channel and in the Settling Basin– acquisition/easements, corridor gaps, upland buffers, mine restoration, etc]*]

Putah Creek (Planning Units 8 and 9) [*describe preservation and restoration measures for stream channel and riparian habitat – acquisition/easements, corridor gaps, upland buffers, etc*]

Willow/Dry Slough (Planning Units 11) [*describe preservation and restoration measures for stream channel and riparian habitat – acquisition/easements, corridor gaps, upland buffers, etc*]

Upland Streams (Planning Units 1, 2, 3, 4, 5) [*describe integration with Upland Natural Communities Conservation Measures, protection of connecting corridors*]

Sacramento River and Delta (Planning Units 12, 14, 15) [*describe protection and restoration of riparian along Sacramento River and in tidal sloughs of the Delta; coordination with BDCP restoration in sloughs*]

Yolo Basin (Planning Units 17 and 18) [*protecting existing riparian; control of riparian and coordination with flood agencies in Bypass; coordination with new BDCP operations*]

Agricultural Drainages (Planning Units 10, 11, 12, 13, 14, 15, 16) [*programs to Encourage protection/enhancement of and restoration of riparian outside of conservation lands]*

Conservation Lands Management Plans [*include habitat management, allowable and prohibited uses, invasive species control*]

**5.4.4 Agricultural Lands Conservation Measures** *(incomplete as of 01-25-10)*

Conservation Needs *[summary of predicted and potential future conditions and conservation needs to be met by agricultural lands]*

Monitoring and Reporting of Crop Acreage and Habitat Values [*goals/targets, crop distribution, market tracking, habitat benefits provided*]

Land Conservation Needs [*easements needed to achieve conservation goals and objectives*]

Incentive Program [*reaction to need, results of monitoring, funding to keep specific crops in production*]

**5.4.5 Species-Specific Conservation Measures - Plants**

Alkali Milk Vetch
- Benefits of Landscape and Habitat Level Conservation
- Conservation Measure ## (*Species Specific Measure*)
- Rationale

Brittlescale
- *[As above]*

San Joaquin Spearscale

Palmate-bracted Bird's Beak

[*Etc. all covered plants*]

**5.4.5 Species-Specific Conservation Measures - Animals**

Conservancy Fairy Shrimp
- Benefits of Landscape and Habitat Level Conservation
- Conservation Measure ## (*Species Specific Measure*)
- Rationale

Vernal Pool Fairy Shrimp
- *[As above]*

Vernal Pool Tadpole Shrimp

Mid-valley Fairy Shrimp

Valley Elderberry Longhorn Beetle

Ancient Ant

California Tiger Salamander

[*Etc. all covered wildlife*]

### 5.5 Timing of Implementation of Conservation Measures

This section will describe the anticipated schedule for implementing conservation measures. Includes stay-ahead provisions and rough proportionality

### 5.6 Monitoring and Research

This section will describe commitments for implementing monitoring and conducting research to provide the information necessary to adaptively manage HCP/NCCP implementation.

### 5.7 Adaptive Management

This section will describe the adaptive management decision making structure and the purpose and scope of the adaptive management program in the context of the USFWS's Five-Point Policy for HCPs and under the NCCPA.

#### 5.7.1 Adaptive Management Activities

This section will describe the types of adaptive management-related research and studies anticipated to be implemented under the HCP/NCCP.

#### 5.7.2 Changed Circumstances and Remedial Measures

Changed circumstances are defined as "changes in circumstances affecting a species or geographic area covered by a conservation plan that can reasonably be anticipated by plan developers and the USFWS and that can be planned for..." This section would describe changed circumstances and the remedial measures that would be implemented to address them should they occur.

### 5.8 Summary of Conservation Plan Elements that Minimize and Mitigate Effects to the Maximum Extent Practicable

USFWS is required under ESA section 10 to find that the HCP minimizes and mitigates impacts of the covered activities on the covered species to the maximum extent practicable. The HCP may include an analysis to support USFWS findings.