Executive Summary

Purpose of the Plan

The overall purpose of the Conceptual Plan is to guide the development and selection of a preferred alternative for habitat enhancement and public access on the Jensen River Ranch. Specifically, the plan aims to:

- provide consistency with the San Joaquin River Parkway Plan (Parkway Plan);
- meet the requirements of the project grant funding agreement;
- develop a plan for riparian restoration that is creative, sustainable, and educational; and
- provide public access and recreation opportunities through creation of the Tom MacMichael Sr. Loop Trail.

The Jensen River Ranch is a 167-acre parcel owned by the San Joaquin River Conservancy (Conservancy). The site is a relict floodplain terrace bordered by the San Joaquin River, private properties, Woodward Park, and the Friant Expressway. Access to the site is provided primarily through Woodward Park.

The site is currently leased for cattle grazing and managed as irrigated pasture. However, the site provides a mosaic of wildlife habitat along its perimeter. Mixed riparian forest and scattered mature valley oak trees provides habitat for wildlife along the southern bank of the San Joaquin River. The irrigated pasture provides foraging habitat for raptors. The bluffs provide habitat for small burrowing animals and create rising air currents for raptors.

Relationship of the Conceptual Plan to the San Joaquin River Parkway Plan

The Parkway Plan articulates the vision of the Parkway and the goals, policies, acquisition priorities, and ecological restoration needs along the river. The Jensen River Ranch Conceptual Plan has been developed in keeping with the goals and policies of the Parkway Plan and is intended to provide direction on implementing restoration and public access features on the site.

Conceptual Plan Development

The development of the Conceptual Plan was initiated in August of 1999 with the preparation of a Restoration Working Paper. This document described the project goals and objectives set by the project Advisory Committee, existing resources, and restoration opportunities and constraints. Four Project Alternatives were developed and presented to the Advisory Committee. These alternatives included: Alternative 1–Oxbow Lakes, Alternative 2–High Terrace, Alternative 3–Public Use Focus, and Alternative 4–Lowered Floodplain. From these alternatives, the Advisory Committee recommended further development of a new alternative combining the restoration elements of Alternative 1 and the public access elements of Alternative 3. This new alternative was presented to the Conservancy in December 1999 as part of the Draft Conceptual Plan for Habitat Enhancement and Public Access on the Jensen River Ranch (Draft Conceptual Plan).

In 2001, at the request of the Conservancy, the Draft Conceptual Plan was revised to include a more detailed analysis of four alternatives, including:

- No-Project Alternative,
- revised Alternative 1–Oxbow Lakes (the combination of previous Alternatives 1 and 3),
- Alternative 2–High Terrace, and
- Alternative 3–Lowered Floodplain (renumbered from previous plan).

The additional analysis of these alternatives included preparation of a cost benefits analysis of the proposed habitats. This analysis is a qualitative study of habitat benefits, over time, associated with the conceptual alternatives. It is intended to provide a means of discriminating among alternatives based on each alternative's potential to provide environmental benefits in a cost-effective manner. In addition, the Conservancy clearly identified public access and recreation as key components of the project; therefore, all Project Alternatives incorporated the public access and recreation plan prepared by 2M Associates.

In addition, an evaluation of the project site's cultural resources was prepared in February 2000 to ensure the project is compliant with Section 106 of the National Historic Preservation Act. The report identifies cultural resources, evaluates the significance of the resources, and evaluates the effects of the project on the cultural resources. It was determined that the resources were ineligible for the National Register of Historic Places and the California Register of Historic Places.

Primary Goals

The Jensen River Ranch Plan is one of many projects in an ongoing effort to restore riparian habitats and increase public access along the San Joaquin River. The Jensen property is highly visible from existing overlooks in Woodward Park and along the Lewis S. Eaton Trail at the top of the bluff. Therefore, the Jensen River Ranch project should be a showcase restoration effort for the community. The elevation of the majority of the site above the 100-year floodplain limits the restoration of riparian plant communities: planting as a sole method is not possible. However, if the portions of the site are excavated, a mosaic of riparian and upland plant communities can be established to provide greater habitat diversity.

The primary project goals are summarized below.

- Provide increased wildlife habitat, high plant community diversity, and areas with minimal human disturbance. Create a wildlife corridor through the site connecting to adjacent properties.
- Locate plant communities where they will be supported by existing soils and hydrology, naturally regenerate, and require minimal long-term maintenance.
- Control non-native invasive plant species and collect seed and cutting material for restoration plantings from the Friant Dam to the Mendota Pool reach of the San Joaquin River.
- Maintain the current settling capability of the DK area channel and expand the floodplain to the extent feasible without jeopardizing adjacent land uses, increasing potential flood damage, or increasing flood potential.
- Incorporate cost-saving and innovative restoration techniques and where possible, allowing natural processes to establish the desired vegetation.
- Accommodate multi-use trails through the site while minimizing disturbances to adjacent land uses and incorporate educational features into the overall plan.
- Locate trails to where they can be visually patrolled from the bluff, provide shade for visitors, and focus public use to key areas of the site.
- Provide visual connections from Woodward Park while maintaining privacy for adjacent land uses.

Project Alternatives

The Revised Plan presents a No-Project Alternative and three Project Alternatives. The No-Project Alternative would maintain the current site uses and conditions. Alternative 1–Oxbow Lake proposes to reshape the DK area channel into a series of features that mimic old

river oxbows. These features would maintain the current settling capability of the DK area channel while using the stormwater runoff to support new mixed riparian and wetland habitats. In addition, this alternative expands riparian habitat along the existing floodplain terrace adjacent to the river and establishes valley oak/sycamore woodland and valley oak savanna habitats on the remainder of the site.

Alternative 2–High Terrace modifies the existing landforms the least. In this alternative the DK area channel is reshaped into gentle meander and incorporates mixed riparian habitat along its perimeter. Similar to Alternative 1, this alternative also expands riparian habitat along the existing floodplain terrace adjacent to the river and establishes valley oak/sycamore woodland and valley oak savannah habitats on the remainder of the site. The area of high terrace or upland habitat in this alternative is 8% greater than in Alternative 1.

Alternative 3–Lowered Floodplain significantly alters the existing landform through mining. In this alternative, the subsurface sand and gravel would be mined to create an active river floodplain across most of the site. Mining would lower the site to the desired elevation for floodplain habitat rather than maximize sand and gravel extraction. The site would be restored using stockpiled topsoil to create a backwater slough feature into the center of the site. This alternative creates the most mixed riparian habitat (60% of the site), but delays restoration of habitats and construction of public-access features for at least 10 years, when mining will be complete.

Habitat Benefits of Each Alternative

All of the Project Alternatives significantly increase the habitat benefits for five of the six target habitat types. The site in its present condition is predominantly herbaceous upland (i.e., irrigated pasture); therefore, herbaceous upland habitat is the only habitat that does not increase according to the model. The Project Alternatives convert this herbaceous upland habitat to the target habitat types, resulting in a net loss of herbaceous upland.

Alternative 1 provides the greatest habitat diversity combined with highest percentage of riparian habitat measured in area and average annual habitat units (AAHUs). It is also the most cost-effective when measured in cost per AAHU for most habitat types. In addition, it satisfies all of the project goals.

Alternative 2 provides slightly less habitat diversity and the least amount of riparian habitats (area and AAHUs). Its cost-effectiveness is slightly less than Alternative 1 and, in general, it meets all project goals. However, one could argue that it is less satisfactory in providing a creative solution that would be a showcase restoration project for the community.

Alternative 3 provides greater mixed riparian habitat (in area and AAHUs), but has the least habitat diversity. In this instance, the Conservancy will need to decide which is more important: the patch size of a specific habitat type or a more complex habitat mosaic. Both have value. The cost-effectiveness of mining to create the mixed riparian, seasonal wetland, and

open-water habitats varies. If the cost of mining and hauling the excavated material is paid for in the sale of the material, the mixed riparian habitat in this alternative is the most cost-effective per AAHU. This situation is not the case for the seasonal wetland or open-water habitats because the large area and high habitat value of mixed riparian woodland offsets the overall cost of mining to a greater degree.

Alternative 3 is the least successful in meeting all of the project goals. Mining the site would delay public access and habitat restoration for at least 10 years. Once mining was complete the site may not be accessible to the public during winter flood events. In addition, further hydraulic and hydrologic analysis is needed to determine the net effect mining would have on the potential flooding of and related damage to adjacent properties.

Recommendations

At the April 2001 Governing Board meeting, the Conservancy board members selected and approved Alternative 1–Oxbow Lakes as their preferred alternative and recommended it be implemented with the "moderate" level of construction input. It was determined that Alternative 1 was the most beneficial to wildlife; it was also determined to be the most cost-effective alternative and the alternative most consistent with the project goals. This decision was further supported by staff at the California Department of Parks and Recreation, Department of Fish and Game, and the Wildlife Conservation Board based on their review of the document and assessment of the most cost-effective wildlife enhancement and restoration alternative.

Based on this decision an initial study/environmental assessment was prepared and released as a draft for public review in February 2002. Subsequently, the Draft Conceptual Plan was made final, documenting the selection of the preferred alternative.