ADDENDUM

to the **Final Environmental Impact Report**
Bidwell-Sacramento River State Park Habitat Restoration
and Outdoor Recreation Facilities Development

Prepared for the Central Valley Flood Protection Board
Evidentiary Hearing on the Encroachment Permit
Application for Riparian Habitat Restoration on the Singh
Unit of the Bidwell-Sacramento River State Park

January 2011

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Introduction

The California Department of Parks and Recreation (State Parks) with planning assistance from The Nature Conservancy (TNC) proposes to implement the restoration of the Singh Unit, a 43-acre parcel included in the Bidwell-Sacramento River State Park. The Final Environmental Impact Report for the Bidwell-Sacramento River State Park Habitat Restoration and Outdoor Recreation Facilities Development Project (SCH#2007082160) dated September 17, 2008 included the development of recreation facilities and restoration of riparian habitat on two properties, the Nicolas property, the Singh Unit. California State Parks owns the Singh unit and the Nicolas property is owned by TNC and will be transferred to State Parks as part of the proposed project prior to habitat restoration activities and recreation facilities development on that property. The restoration of the Nicolas property is not included with the Encroachment Permit request since restoration and development of the property is delayed until the expiration of a Williamson Act contract in 2018.

The restored Singh property is planned to provide both environmental and public outdoor recreational opportunities. The parcel will be restored with native habitat (see attached Revised Planting Plan and will include unpaved, interpretive trails. The Draft Environmental Impact Report was prepared following well-attended public information and scoping meeting. The Central Valley Flood Protection Board (CVFPB) was identified as a Responsible Agency and was included in the distribution and review of the Draft EIR.

The Draft EIR was released for public review and filed with the State Clearinghouse on January 31, 2008. The public review process included multiple meetings with surrounding landowners and local agencies and a public hearing in Chico on February 19, 2008. Thirteen written comments were received to the Draft EIR and addressed in the Final EIR. As a result of the public input that was received, substantial changes were made to the project design that was incorporated into the Final EIR. The Notice of Determination was filed with the State Clearinghouse on October 16, 2008.

In late 2009, funding was secured for the restoration construction of the Singh property. In July 2009, an application was filed for an encroachment permit (#18576 BD) and notices were sent to surrounding property owners by CVFPB staff in March 2010. Seven letters were received in response to that notice. These letters largely restated concerns that had previously been raised during the public review process and that had been addressed in the Final EIR. Subsequent discussions with Central Valley Flood Protection Board staff led to the agreement that an Addendum to the Final EIR, as specified in CEQA Guidelines Section 15164 is the appropriate method to summarize the concerns expressed in these letters and to demonstrate how the concerns are addressed in the Final EIR. Accordingly, this Addendum was prepared by State Parks to provide clear documentation to the Central Valley Flood Protection Board that the requirements of

the California Environmental Quality Act had been met for the proposed encroachment permit. As noted in the Final EIR, the restoration required an encroachment permit from the Central Valley Flood Protection Board.

California State CEQA Guidelines Section 15164 provides specific guidance regarding the use of an Addendum to an Environmental Impact Report that has been previously certified by the Lead Agency. That guidance is provided below.

15164. Addendum to an EIR or Negative Declaration:

(a) The lead agency or responsible agency shall prepare an addendum to a previously certified EIR if some changes or additions are necessary but none of the conditions described in Section 15162 calling for preparation of a subsequent EIR have occurred.

(b) An addendum to an adopted negative declaration may be prepared if only minor technical changes or additions are necessary or none of the conditions described in Section 15162 calling for the preparation of a subsequent EIR or negative declaration have occurred.

(c) An addendum need not be circulated for public review but can be included in or attached to the final EIR or adopted negative declaration.

(d) The decision making body shall consider the addendum with the final EIR or adopted negative declaration prior to making a decision on the project.

(e) A brief explanation of the decision not to prepare a subsequent EIR pursuant to Section 15162 should be included in an addendum to an EIR, the lead agency's findings on the project, or elsewhere in the record. The explanation must be supported by substantial evidence.

1 Hydraulic Analysis of the Singh Unit Restoration

A complete hydraulic analysis was prepared for the Singh Unit restoration as part of the Final EIR. Ayres Associates with Tom Smith as the project manager prepared the analysis, titled Hydraulic Analysis for Flood Neutrality on the Nicholaus and Singh Properties – Sacramento River, Mud Creek and Big Chico Creek - May 30, 2008. The hydraulic analysis is included in its entirety in Appendix C. The Hydraulic Analysis uses a 2-dimensional hydraulic model that was developed by Ayres Associates for the area surrounding the Nicolaus and Sing restoration areas. Ayres was chosen for the work because they had the most extensive experience modeling the Sacramento River including significant work for the Army Corps of Engineers and the Department of Water Resources as part of the nearby Hamilton City setback levee project.

As requested by Butte County and others the original Hydraulic Analysis was expanded to consider the impacts of the proposed habitat restoration on flows from Mud Creek and Big Chico Creek as well as the Sacramento River in the Final EIR. The model was calibrated with the best available flood flow information and evaluated the proposed vegetation communities at their full growth, consistent with remnant riparian vegetation in the area. The hydraulic analysis report provides complete information related to any changes in the velocity and depth of flood flows. The hydraulic analysis was included in the Final EIR and shared with Butte County and other interested local landowners and policy decision makers.

The hydraulic analysis determined that the proposed restoration would not have a negative impact on the flood control system and the surrounding properties. The specific conclusions of the analysis related to the Singh Unit are as follows:

- The meadow flow-through in the Singh property causes a 2.0 ft/s increase, however given the low existing conditions velocities (1.0 ft/s) and planned vegetation, a resultant velocity of 3.0 ft/s will not create any harmful effects at this location.
- The hydraulic model shows very little change in water surface elevation. There are no increases in water surface as a result of this restoration.

In summary, the hydraulic analyses demonstrated that the flow-through meadow area would provide capacity to accept flood flows that compensates for the increase in roughness resulting from the full growth of the riparian forest. As a result it was determined that the Singh Unit restoration will not increase flood flow levels or cause changes in flood flow velocity that result in erosion or deposition impacts on surrounding properties. The Hydraulic Analysis is provided in Attachment A

2. Supplemental Sedimentation Analysis of the Singh Unit Restoration

The hydraulic analysis contained in the Final EIR and included as Appendix C of this Addendum documents that the restoration will not reduce the flow rate or the velocity of flood flows and therefore increased sedimentation will not occur. Tom Smith of RiverSmith Engineering prepared expanded technical interpretation of the Hydraulic Analysis results related to sedimentation. Mr. Smith was the project manager for the Hydraulic Analysis while with Ayres Associates. This analysis is provided in Appendix D.

3. Encroachment Permit Application Comment Letters and References to the Final EIR

In response to notices of the encroachment permit application for the Singh Unit habitat restoration that were sent by the Central Valley Flood Protection Board to area landowners and agencies the CVFPB received seven letters protesting the proposed habitat restoration. These letters are provided in their entirety as Attachment A. The letters raised concerns that had previously been addressed. This section of the Addendum identifies the potential impacts of the proposed restoration that are raised in each letter and indicates how these concerns are addressed in the Final EIR.

a. Letter from Laura E. Mendonca Revocable Trust dated March 17, 2010

- Removal of the existing berms is a positive action. Author's note: there are two berms located on the Singh parcel. The East Berm is parallel to River Road and is at average 11' feet high. The Southwest Berm is much smaller and averages 3' feet in height.

  Removal of the berms was discussed in the Draft EIR and was fully addressed in the Final EIR. Removal of the berms was incorporated in the hydraulic analysis in the Final EIR and considered as part of that analysis. The removal of the berms is noted in Section 3.4.2 and Exhibit 3.7 of the Final EIR and in the response to Draft EIR comments. It is noted that the berm on the east side of the site along Mud Creek was not included in the Army Corps of Engineers plan for flood protection along Mud Creek at the request of local landowners and the Reclamation Board. The berm to be removed from the Singh Unit is therefore an unpermitted structure on the floodplain. Inputs received during the public meeting process from local landowners also supported the removal of the berms.

- Restoration will slow and redirect the flow of floodwater causing erosion

  This concern was raised during the review of the Draft EIR and was fully addressed in the Final EIR. The hydraulic analysis and discussion in section 4.3.3 of the Final EIR documents that the restoration of the Singh Unit will not result in slowing or redirecting the flow of floodwaters. Common Response 6 to Draft EIR comments throughout the FEIR also addresses this concern in detail citing information from the hydraulic analysis.

- Restoration of the Peterson Unit cited as an example of potential problems

  This concern was addressed during the Draft EIR review although it relates to an area that is not a part of the proposed restoration or the proposed encroachment permit. A portion of the Peterson Unit, which lies to the south of the Singh Unit, was restored to riparian habitat in 2005-06. Neighboring landowners indicated that they feel that vegetation on that property limits the flow of floodwaters. A site analysis indicates, however, that the vegetation that may limit the flow is remnant riparian vegetation and was not part of the restoration on the Peterson Unit. Nonetheless, the California State Parks initiated a project in December of 2010 to remove natural vegetation in the subject area and increase the ability of the area to carry flood flows.

  It is also important to note that, unlike the remnant riparian vegetation on the Peterson Unit, the restoration of the Singh Unit will include a grassland flow-through corridor along the existing swale that crosses the property. State Parks will annually maintain this corridor as an open flow-through area. As demonstrated in the hydraulic analysis this flow-through area will accept flood flows such that there will not be a restriction to flood flows following restoration. See Appendix C, hydraulic analysis, for evidence to support this.

b. Letter from Paul Minasian dated March 19, 2010 (attachment letter from Paul Minasian dated October 3, 2000)

   - State Parks has not divulged specific land and vegetation changes and refuses to communicate what they intend to do

     The plans for the restoration and recreation improvements on the Singh Unit as well as the Nicolaus property were the subject of multiple public meetings attended by many local landowners and other interested parties. State Parks met with interested parties and made changes to these plans as a result of inputs received. The land use and restoration plans were a part of the Draft EIR and are included in the Final EIR. The respondent attended at least one of the public information meetings where the plans were reviewed and provided a seven-page comment to the Draft EIR that is included in the Final EIR as Comment L3. DPR has clearly informed and engaged interested parties as to their plan for land and vegetation changes. A summary of outreach activities on this project is included in Appendix E.

   - Restoration will induce drainage and flood protection impacts

     This concern was raised during the review of the Draft EIR and was fully addressed in the Final EIR. The hydraulic analysis and Section 4.3.3 of the

Final EIR document that the restoration of the Singh Unit will not result in slowing or redirecting the flow of floodwaters. Common Response 6 to Draft EIR comments also addresses this concern in detail citing information from the hydraulic analysis.

- The attached letter of October 3, 2000 cited concerns with the previous restoration of the Peterson tract and requested a 300-foot wide flow through area

  This concern was raised during the review of the Draft EIR although it relates to an area that is not a part of the proposed restoration or the proposed encroachment permit. A portion of the Peterson Unit, which lies to the south of the Singh Unit and is near the boat ramp, was restored to riparian habitat in 2005-06. Neighboring landowners indicated that they believe vegetation on that property limits the flow of floodwaters. A site analysis indicates, however, that the vegetation that may limit the flow is remnant riparian vegetation that was not a part of the restoration on the Peterson Unit. Nonetheless, the Department of Parks and Recreation initiated a project in December of 2010 to remove natural vegetation in the subject area and increase the ability of the area to carry flood flows.

  It is also important to note that, unlike the remnant riparian vegetation on the Peterson Unit, the restoration of the Singh Unit will include a grassland flow-through corridor along the existing swale that crosses the property. This corridor will be continually maintained as an open flow-through area by State Parks. As demonstrated in the Hydraulic Analysis this flow-through area will accept flood flows such that there will not be a restriction to flood flows following restoration.

c. Letter from Clint Maderos Backhoe dated March 20, 2010

- The proposed restoration will alter terrain and plug the flood control system in the area

  This concern was raised during the review of the Draft EIR and was fully addressed in the Final EIR. The hydraulic analysis and Section 4.3.3 of the Final EIR document that the restoration of the Singh Unit will not result in slowing or redirecting the flow of floodwaters. Common Response 6 to Draft EIR comments also addresses this concern in detail citing information from the hydraulic analysis.

- Converting agricultural use to recreational use constitutes an unacceptable nuisance

  This concern was raised during the review of the Draft EIR and was fully addressed in the Final EIR. Section 4.2.4 f the Final EIR addresses the

potential impacts of the change from agriculture to riparian habitat and recreation uses.

d. Letter from Les Herringer Jr. dated March 21, 2010

- The proposed Hamilton City setback levee will restrict flood flows in the vicinity of the proposed restoration

  This concern was raised during the review of the Draft EIR and was fully addressed in the Final EIR. The hydraulic analysis and Section 4.3.3 of the Final EIR document that the restoration of the Singh Unit will not result in slowing or redirecting the flow of floodwaters. Common Response 6 to Draft EIR comments also addresses this concern in detail citing information from the hydraulic analysis.

- The restoration area will become a silt trap

  The hydraulic analysis documents that the restoration will not reduce the flow rate or the velocity of flood flows so that increased sedimentation will not occur. The Sedimentation Analysis contained in Appendix D of this Addendum provides further technical interpretation of the Hydraulic Analysis results related to this point, concluding that there are no measurable changes in velocity or flow depth and therefore no changes to the existing erosion and sedimentation patterns are anticipated.

- The proposed Hamilton City setback levee and the proposed restoration will restrict flood flows and put pressure on the Big Chico Creek Levee

  This concern related to the proposed restoration raising flood levels was discussed during the review of the Draft EIR and was fully addressed in the Final EIR through the hydraulic analysis and related references. While not a part of this proposed restoration or the proposed encroachment permit, the Hamilton City setback levee project proposes to build a levee located approximately 1.5 miles west of the Singh Unit. As part of the development of plans for this project, the Army Corps of Engineers, in coordination with the Department of Water Resources, developed a two-dimensional hydraulic model for the project area. They then modeled the effects of the proposed levee for the 1, 2, 5, 10, 25, 50, 100, 200 and 500-year flood flows. A key purpose for this modeling was to ensure that the new levee would be setback sufficiently so that it would not result in higher flood levels on the east, Butte County, side of the River. Therefore that levee, if funded and constructed, will not raise flood levels or put additional pressure on the privately owned Big Chico Creek levee.

  The hydraulic analysis that is in the Final EIR and contained in Appendix C of this Addendum documents that the proposed restoration will not

increase flood levels in the area and therefore it will not raise flood levels at the Big Chico Creek levee or put additional pressure on the levee.

e. Letter from Butte County Board of Supervisors dated March 24, 2010

- Butte County previously opposed the project

  The concerns of Butte County were raised during the review of the Draft EIR and are addressed in the Final EIR in Responses to Draft EIR Comments, L1. Butte County initially indicated concerns with the potential impact of the two restoration projects (Nicolaus and Singh) on flood flows and expressed a particular concern with a proposed RV campground on the Nicolaus property. In response, State Parks removed the RV campground from the plan. State Parks staff also met with County representatives twice in 2010 and reviewed the overall plan, the restoration plan for the Singh Unit, and the hydraulic analysis.

- More time is required to analyze any environmental impacts and/or flooding impacts to Butte County

  The comment, on March 24, 2010, indicated that more time was required for review of potential environmental and/or flooding impacts and requested an additional comment period of no less than 30 days. Subsequent comments from Butte County have not been received. The comment does not raise any new environmental issues that were not adequately considered in the Final EIR.

f. Letter from Mendonca Orchards Inc. dated March 25, 2010

- The proposed restoration will lead to increased sediment deposits and increased flooding on upstream properties

  The hydraulic analysis documents that the restoration will not reduce the flow rate or the velocity of flood flows so that increased sedimentation will not occur. The grass flow through area on the Singh Unit was included per requests from the upstream neighboring property owners. The Sedimentation Analysis contained in Section 2 of this Addendum provides further technical interpretation of the Hydraulic Analysis results related to this point, concluding that there are no measurable changes in velocity or flow depth and therefore no changes to the existing erosion and sedimentation patterns are anticipated.

g. Letter from John Nock dated March 28, 2010

- The removal of the existing berms is not protested

  This consideration was raised during the review of the Draft EIR and was fully addressed in the Final EIR. Removal of the berms was noted the hydraulic analysis in the Final EIR and considered as part of that analysis. The removal of the berms is noted in Section 3.4.2 and Exhibit 3.7 of the

Final EIR and in the response to Draft EIR comments L3-3 it is noted that the berm on the east side of the site along Mud Creek was not included in the Army Corps of Engineers plan for flood protection along Mud Creek at the request of local land owners and the Reclamation Board and is therefore an unpermitted structure on the floodplain. Inputs received during the public meeting process from local landowners also supported the removal of the berms.

- Siltation will redirect flood flows on surrounding properties, increase the velocity of flood flows and increase the duration of flooding

  The hydraulic analysis documents that the restoration will not reduce the flow rate or the velocity of flood flows so that increased sedimentation will not occur. The sedimentation analysis contained in Appendix D of this Addendum provides further technical interpretation of the Hydraulic Analysis results related to this point, concluding that there are no measurable changes in velocity or flow depth and therefore no changes to the existing erosion and sedimentation patterns are anticipated.

- Restoration of the Peterson Unit cited as an example of creating a physical barrier to flood flows

  This concern was raised during the review of the Draft EIR although it relates to an area that is not a part of the proposed restoration or the proposed encroachment permit. A portion of the Peterson Unit, which lies to the south of the Singh Unit, was restored to riparian habitat in 2005-06. Neighboring landowners have indicated that they feel that vegetation on that property limits the flow of floodwaters. A site analysis indicates, however, that the vegetation that may limit the flow is remnant riparian vegetation that was not a part of the restoration on the Peterson Unit. Nonetheless, the Department of Parks and Recreation initiated a project in December of 2010 to remove natural vegetation in the subject area and increase the ability of the area to carry flood flows.

  It is also important to note that, unlike the remnant riparian vegetation on the Peterson Unit, the restoration of the Singh Unit will include a grassland flow-through corridor along the existing swale that crosses the property. State Parks will continually maintain this corridor as an open flow-through area. As demonstrated in the Hydraulic Analysis this flow-through area will accept flood flows such that there will not be a restriction to flood flows following restoration.

4. Revised Restoration Planting Plan Eliminating Rose and Blackberry

At the request of Central Valley Flood Protection Board staff, two plants, which have thorns, was eliminated from the planting mix in the restoration plan for the Singh

Unit. Additionally, the distance between the planting rows was increased from 16 feet to 30 feet. The Revised restoration-planting plan is included as Appendix F.

5. Maintenance and Monitoring Plan for the Singh Orchard Restoration

The hydraulic analysis contained in the Final EIR and in Appendix C of this Addendum documented that the proposed restoration at full growth will not restrict the flow of floodwaters. The restoration plan for the Singh Unit includes a flow-through meadow area that will be planted to native grass species. This flow-through area is important to the continued accommodation of flood flows following restoration and, therefore, State Parks will perform annual maintenance to ensure that area stays open and free of woody vegetation and flood- debris. The following Maintenance and Monitoring Plan for the Singh Orchard Restoration details the actions that State Parks will take to maintain this area.

6. Findings Related to CEQA Guidelines Section 15162

This Addendum provides an analysis of the comments that were received by the Central Valley Flood Protection Board relative to the encroachment permit application for the proposed habitat restoration of the Singh Unit. This analysis has address each comment and conclude that the comments do not raise potentially significant environmental impacts that were not adequately addressed in the Final EIR. Accordingly, it is recommended that a subsequent EIR is not required and it is recommended that the following findings be adopted in accordance with the provisions of Section 15162 of the State CEQA Guidelines.

A. Substantial changes have not been proposed in the project which will require major revisions of the Final EIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;

B. Substantial changes have not occurred with respect to the circumstances under which the project is undertaken which will require major revisions of the Final EIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects

C. New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the Final EIR was certified, has not been identified that shows any of the following:

   1. The project will have one or more significant effects not discussed in the Final EIR;

2. Significant effects previously examined will be substantially more severe than shown in the Final EIR;

3. Mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or

4. Mitigation measures or alternatives which are considerably different from those analyzed in the Final EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

Attachment A

Maintenance and Monitoring Plan for the Singh Orchard Restoration Bidwell-Sacramento River State Park

The management of California's State Park System is guided by the State Constitution, the applicable codes of California Law, proclamations, executive orders, the California Code of Regulations (CCR), Department Notices and policies of the California State Park and Recreation Commission. The State legislature provides annual funding allocations to this Department for its operation and maintenance.

The 43-acre Singh Orchard parcel is a restoration project located within the Bidwell-Sacramento River State Park at river mile 194. The property coincides with other units within the Bidwell-Sacramento River State Park in terms of access, recreational uses, facilities, operation and maintenance. The maintenance and operation for this new unit shall coincide with all current operations executed by the Department of Parks and Recreation and implemented by the Northern Buttes District.

Maintenance funding is provided by the Northern Buttes District's annual operations budget as well as potential funding earmarked under Natural Resource maintenance provided by the Department's Natural Resources Division.

The maintenance of the Singh parcel related to the accommodation of flood flows will focus on the Grassland buffer zone and the Flow through Meadow areas. This focus will ensure that the site can accommodate flood flows consistent with the Hydraulic Analysis for Flood Neutrality on the Nicholaus and Singh Properties – Sacramento River, Mud Creek and Big Chico Creek dated May 30, 2008. The two-dimensional hydraulic model cited in that Analysis was calibrated against actual flood flow records to ensure that the model accurately reflected existing conditions. The model also incorporated Manning's Roughness Coefficients for the proposed restoration planting areas that represent those vegetation communities at full growth, comparable to other remnant riparian areas in the area covered by the model. Accordingly, no unusual maintenance activities are required for the riparian forest area in the restoration. The grassland areas, the northern Grasslands Buffer Zone and the Flow through Meadow will, however, is specifically maintained by the Department to ensure that they remain open, free of woody vegetation and able to accommodate flood flows as described in the Hydraulic Analysis.

Preparation for flood events shall be initiated at first indication of flood potential from the Sacramento River, Mud Creek and Big Chico Creek, or by November 1st of each year, which ever occurs first. Staff will visually inspect the area when weather patterns indicate flood potential. This flood preparation stage coincides with the stage at which Butte County Public Works closes River Road, which provides access to the project site.

Consistent with the Department's Operation Manual, the following is a summary of operation and maintenance procedures to be implemented immediately upon the commencement of restoration at the Singh parcel with specific instructions relating to preparation for flood events:

- Maintenance staff will mow the 3.3-acre northern Grasslands Buffer Zone and the 2.6 acre Flow through Meadow annually. They will mow the Northern meadow area and the grassland buffer area prior to flood season to provide an unobstructed flow through. At the reopening of the facility after flood season, woody debris will be removed and disposed of properly off-site and outside the designated floodway.

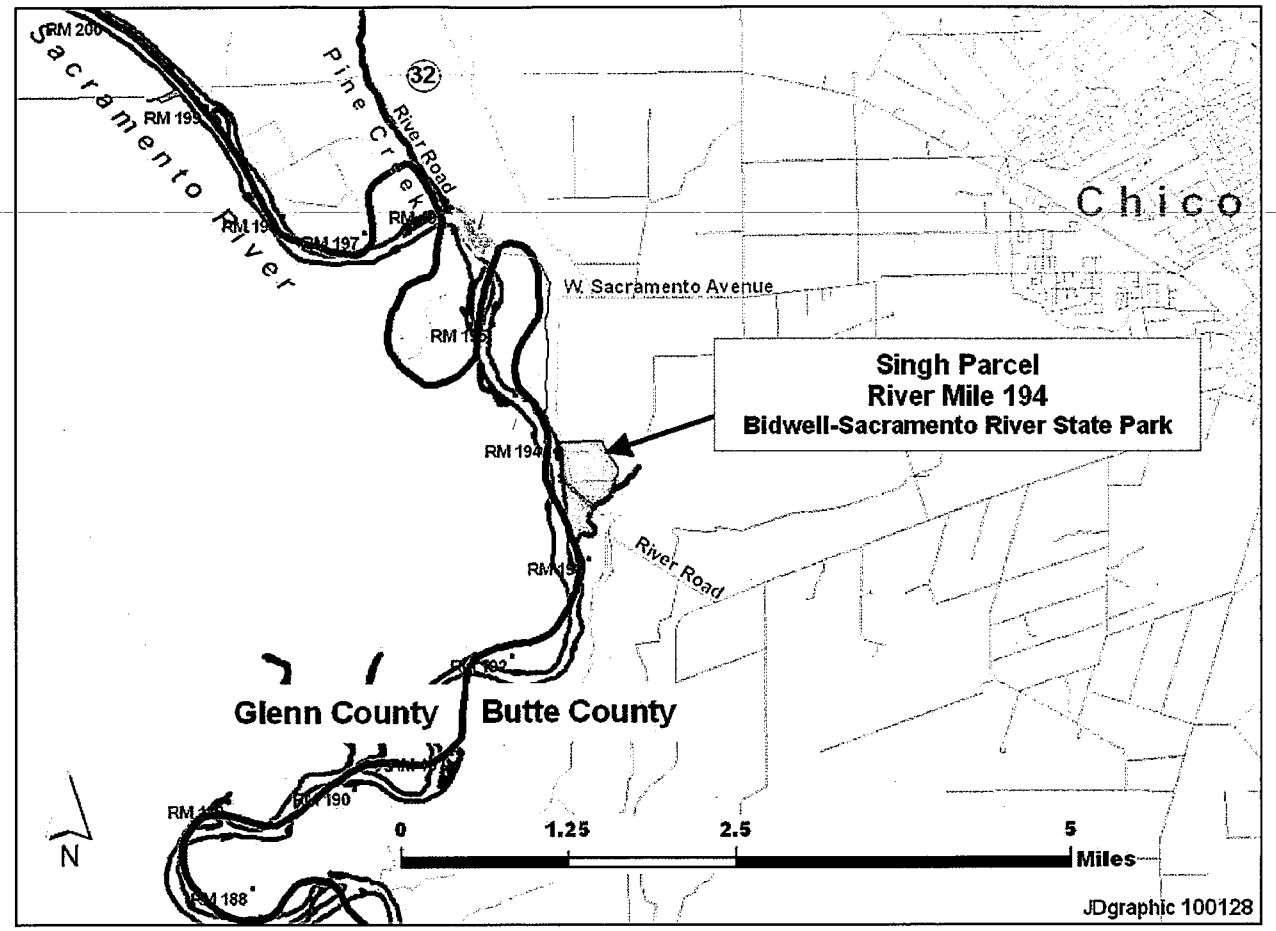
- Visual inspection of the site will be performed at the first indication of flood potential or before November 1st of each year, which ever occurs first to ensure removal of all trash and woody debris from the project site. All trash and debris shall be disposed outside of the designated floodway. This is consistent with the current maintenance operation for Bidwell-Sacramento River State Park.

- Unpaved interpretive trails will be maintained to be clear from vegetative debris, weeds, and trash after each high water event. Occasional re-grading by hand may be necessary to maintain original grades and comply with the Americans with Disabilities Act. The construction and maintenance of State Park trails are governed by the parameters within the State Parks Trail Handbook, which describes grade, base materials, tread width and trail height clearance and erosion control.

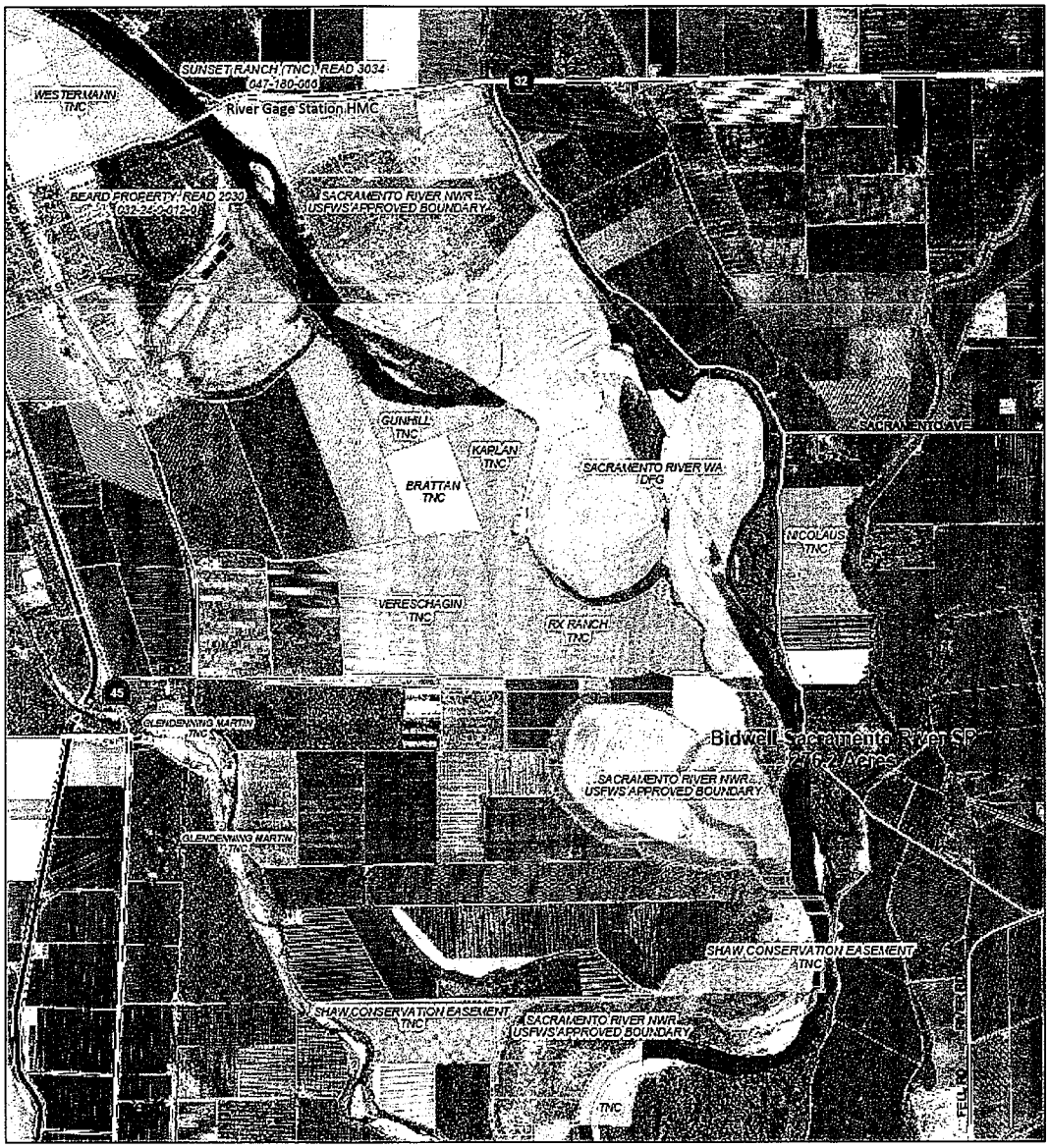
- No buildings are planned for the Singh Unit. Concrete trash receptacles will be available. For flood preparation, all trash and plastic receptacle liners will be removed from the site at the first indication of flood potential. Once the park unit is reopened after flood season, maintenance staff will remove debris as necessary and prepare facilities for operation. Significant amounts of flood debris shall be disposed of outside the designated floodway at an approved location.

- All fire protection measures will conform to the Department's Fire Management Policy and an approved wildfire management plan (DPR Operations Manual 0300 NATURAL RESOURCES SECTION 0313.2 – FIRE MANAGEMENT)

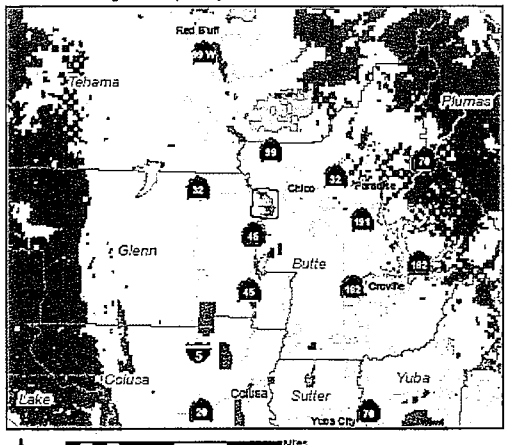
Location Map
Singh Parcel River Mile 194
Bidwell-Sacramento River State Park



Bidwell-Sacramento River State Park



Regional Map. Map area above outlined in red.



Miles
0 0.3 0.6 0.9 1.2 1.5
1 inch equals 0.5 miles

Main Map Legend

- State Park Boundary
- State Park Subunit Boundary
- USFWS Approved NWR Boundary
- California Department of Fish and Game (DFG)
- The Nature Conservancy (TNC)
- United States Fish and Wildlife Service (USFWS)
- Sunset Ranch (TNC), READ 3034
- Beard Property, READ 2030

Regional Map Legend
- State Parks
- Federal
- Other State
- Local
- Land Trusts
- Conservation Easements
- Major Roads
- Counties
- Urban Areas

Aerial Imagery: National Agricultural Imagery Program, 2005. 1 meter resolution.
Topo Maps: USGS 1:24,000, and 1:100,000 scale series.
Public and Conservation Lands: GreenInfo 2008, and Vestra, 2005.
Beard and Sunset Ranch Properties: READs 2030, 3034.

Acreage is shown along with unit name for State Parks, and other Public and Conservation Lands. These values are calculated based on Geographic Information Systems, and may differ from county assessor maps.

Calif. Dept. of Parks and Recreation
Planning Division
April, 2008

0313.1.2 Natural Resource Restoration Projects

Lands acquired for the State Park System are often ecologically degraded from previous uses, requiring their restoration to conditions that allow healing and recovery. In addition, lands that have been under the Department's management may have become degraded due to the lack of adequate resources to maintain them in a healthy condition. Such lands may be degraded to an extent that their recovery cannot be accomplished within the support-based maintenance program. Restoration of these resources is often addressed through restoration projects that meet specific objectives and are accomplished within specific timeframes.

0313.1.2.1 Natural Heritage Stewardship Program

The Natural Heritage Stewardship Program, initiated in 1984, is a bond-funded program specifically for the protection, restoration and enhancement of natural heritage resources within the State Park System. The program consists of many individual projects involving the direct management of the resource rather than its engineered protection, focusing on ecological rather than construction approaches. The program also does not include projects that are plans, studies, or data collection other than as part of project work involving direct action to a resource.

Projects are expected to resolve a problem or to reduce it to a point where it can be managed through support budget means. Projects are not for ongoing or recurring resource maintenance needs.

Natural Heritage Stewardship Program projects typically have one or more of the following objectives:

- Remove or control exotic organisms in natural areas;
- Revegetate natural areas;
- Correct excessive erosion that threatens natural systems and scenic features by restoring natural conditions;
- Reintroduce organisms extirpated from a natural system or area;
- Protect, restore, or enhance critical natural communities or rare, threatened, or endangered species and their habitats;
- Restore natural processes such as tidal action or flooding when such processes can be accomplished by a short-term corrective action.

Stewardship projects are often multi-year in scope but are designed and funded in annual phases. Projects typically compete on a statewide basis and are selected from the Department's Park Infrastructure Database (PID).

0313.2 Fire Management

Wildland fire, whether human-caused or naturally ignited, may contribute to or hinder the achievement of park management objectives. Therefore, park fire management programs will be designed to meet park resource management objectives while ensuring that firefighter and public safety are not compromised.

0313.2.1 Wildfire Management

The Department manages unwanted wildland fires to protect people, property, and the natural, cultural and scenic resources of the park system. Although lightning-caused fires and burning by Native Americans occurred for thousands of years in many California ecosystems, present day unplanned fires can have deleterious effects on natural resources due to unnatural buildups of combustible vegetation. However, fire suppression activities, such as bulldozer fire control lines, can sometimes have greater adverse impacts on park resource values than the fire itself.

The Department's goal is to prevent all unplanned human-caused fires on its lands. Given that some unplanned fires will occur, both lightning-caused and human-caused, it becomes the Department's responsibility to protect human life, and to minimize damage to park facilities and resources from wildfires and from all suppression activities.

Management actions for wildland fires on Department lands involve pre-fire planning, fuel (vegetation) management, public safety measures, fire control support, post-fire evaluation and rehabilitation.

0313.2.1.1 Wildfire Management Planning

The Department can best protect its facilities, natural and cultural resources, and personnel and visitors by maintaining a park unit wildfire management plan that provides park staff and appropriate fire suppression personnel with important information on park infrastructure, resources values, and general suppression tactics before a wildfire occurs. The format for unit wildfire management plans can be found in the Natural Resources Handbook.

A park unit's wildfire management plan, when approved by the Department of Parks and Recreation and the Department of Forestry and Fire Protection (CDF) or its agent, is designated as the local fire protection agreement for the park unit.

Since most of the firefighters on a large conflagration are unaware of the Department's ownership, land management objectives and resource concerns, park staff should describe these concerns directly to the appropriate firefighting staff during these emergencies. This combination of planning and on-the-ground communication during a wildfire incident can be highly effective in preventing unnecessary damage to park resources and facilities. It can also facilitate rapid repair of damage to parklands.

0313.2.1.1.1 Wildfire Management Planning Policy

It is the policy of the Department that each Department-operated unit that may experience wildland fires will have a wildfire management plan providing requisite information for managing wildfire events, such as the locations of sensitive park resources, facilities, water supplies and existing roads. Wildfire management plans will be reviewed by designated headquarters staff and approved by the District Superintendent.

0313.2.1.2 Vegetation Management and Fuel Modification

The Department maintains wildland properties in order to preserve the natural, cultural, and scenic features for the people of California. Many of these native ecosystems contain plants that can become flammable under specific environmental conditions of high wind, high temperature and low humidity. These ecosystems inevitably burn either from natural or human causes. Buildings constructed adjacent to park units in the wildland-urban interface zone are at risk from wildland fires. There are three principal causes of ignition of structures in this zone.

The first cause involves the ignition of accumulations of ignitable materials on, under, or next to the structure, which, in turn, ignite decking or enter attics through soffit vents. This material can be ignited via ground fires or aerial flaming brands. This threat can be eliminated by removing all flammable debris that has accumulated on or under the building, clearing the vegetation that is within 30 feet of the building, and screening all openings to the attic or under the structure.

The second cause involves aerial flaming brands, which land directly on flammable surfaces of the structure. These brands can originate from wildfires

over one half-mile away from the structure. Buildings that are constructed to strict codes of ignition-resistive materials are at very low risk of ignition from flaming brands.

The third cause is severe radiant/convective heat of burning material near the structure which can: 1) ignite the sides of the building, 2) break the windows, allowing burning embers into the interior of the building, 3) ignite the interior furnishings through the windows, or 4) burn/deform the window casings causing the windows to slip out.

Fire modeling, analysis of past wildland-urban interface zone fires, and experiments to determine the ignitability of structures have confirmed that even the radiant/convective heat of extreme flaming fronts poses low risk to any structure which is 130 feet or more distant, especially if that structure conforms to strict interface fire codes of ignitability, and window strength and reflectivity.

The Department routinely receives requests/demands from outside entities to clear wildland vegetation on Department lands in order to:

1. Reduce the threat of wildfire to private property;
2. Reduce fire insurance costs to private landowners;
3. Comply with strict local ordinances; and
4. Mitigate the threat of liability for maintaining a dangerous condition.

Department lands have also been subjected to trespass and encroachment by persons illegally attempting to modify the vegetation. Modifying ecosystems on park properties for the purpose of protecting adjacent private structures from wildland fire can significantly degrade park values and in some cases adversely impact populations of threatened endangered species and cultural resources.

0313.2.1.2.1 Flammable Vegetation/Fuel Modification Policy

It is the Department's policy to prohibit the construction and maintenance of firebreaks, fuelbreaks, and other fuel modification zones on Department lands, except when:

a. Required by state law to clear around its structures/facilities;
b. Previous legal commitments have been made to allow the creation and maintenance of fuel modification areas;
c. It is critical to the protection of life or park resources; or
d. Park vegetation 130 horizontal feet from a non-Department habitable structure is capable of generating sufficient radiant/convective heat when burning under Red Flag Warning conditions to ignite the habitable structure.

All identified and approved fuel modification zones will be described in the unit wildfire management plan and will be constructed and maintained to the Department's standards (refer to Natural Resources Handbook). All proposed fuel modification projects must be reviewed for environmental impacts (see DOM Chapter 0600, Environmental Review). All other areas previously modified for fire protection purposes but not meeting the above exceptions will be returned to natural conditions.

Fuel modification proposed by CDF and in keeping with Local Operating Plans will be carried out by CDF only after review and approval by the District Superintendent, in keeping with Department Policy. In those circumstances, CDF is to ensure all necessary permits, CEQA, and other requirements are met prior to proceeding with such work.

The Department will actively participate in the local land use decision process to prevent conflicts with this policy. DPR 181, Wildfire Protection, should be used as a template to convey the Department's objectives when corresponding with local landowners and regulatory and permitting entities.

0313.2.1.3 Closure of Fire-Damaged Areas

All or a portion of a park unit may be closed when an unwanted wildland fire is threatening or burns on Department lands (see DOM Chapter 1100, Visitor Safety). Areas of a park unit, which have burned, will remain closed until appropriate Department staff have inspected the area and rectified any public safety, property or resource protection issues.

0313.2.1.4 Reporting

Written reports and maps are needed to maintain a history of fires affecting each Department park unit. This is useful information for ecosystem research and future prescribed fire and wildfire management planning efforts. For large conflagrations, Incident Action Plans, status reports, and maps are very important de-briefing information and aid in the identification of resource damage in need of repair.

Each unwanted wildland fire that burns on, or threatens, Department lands, regardless of origin, will be recorded on a DPR 385, Public Safety Report with a completed DPR 385A, Public Safety Report Supplemental - Natural Hazards, Wildfires. In addition, a prescribed fire/wildland fire summary should be completed for each wildland fire. For reporting purposes, this does not include fires burning solely in vehicles, structures, or refuse.

Attachment B

Letters Responding to the Notice of the Encroachment Permit Application from the Central Valley Flood Protection Board

M & T CHICO RANCH • 3964 CHICO RIVER ROAD • CHICO • CALIFORNIA 95928 • (530) 342-2954 • FAX (530) 342-4138

M&T

Jon Yego, Chief
Floodway Protection Section
Division of Flood Management, DWR
Re: application # 18576 BD

3-21-2010

Dear Mr. Yego,

This is being written regarding the application the CVFPB to restore a 43 acre parcel to riparian vegetation at Sacramento River mile 194, on the east bank of the river. I have specific comments on the project that relate to flood control issues on the M&T Ranch. The ranch has a levee on Big Chico Creek-left that protects the ranch when the Sacramento River is at flood stage. Big Chico Creek's confluence with the Sacramento River is at RM 193. The USACE will soon be completing a Sacramento River Flood Control Project at Hamilton City which constructs a 7 mile set-back levee with the south end of the levee terminating at RM 192.5. This set back levee will restrict the Sacramento River Flood flows into a tighter area in the vicinity of the proposed riparian vegetation planting project at RM 194. The restoration project is adjacent to Big Chico Creek, M&T Ranch, and our Big Chico Creek Levee. If the 43 acre area is planted to riparian vegetation, over time it will fill in and become very dense and serve as a silt trap. The USACE set-back levee and the proposed restored area will eventually serve as a restriction to Sacramento River flood flows which will put additional pressure on my Big Chico Creek Levee and may cause it to fail. There are other parcels north of this 43 acres that the State Park either owns or is reported to have designs to own, that would further exacerbate our flood flow problem in the event they are someday also restored with riparian vegetation. This in combination with the USACE set-back levee could prove to be a disaster to this ranch.
This letter is my protest to this proposed riparian restoration planting if I can not be assured that someday there will not be consequences to the integrity of our Big Chico Creek Levee. May I suggest that this area be maintained as a grassland. I have enclosed a map of the new USACE set back levee.

Sincerely,

Les Heringer, Jr.

cc Paul Minasian
cc Jeff Meith

FARM DOLLARS AT WORK

- Alternative 6 -
Intermediate Setback Upstream of Hwy 32 \ Locally Developed Setback Downstream of Hwy 32

Hamilton City
Flood Damage Reduction and Ecosystem Restoration, CA

map created September 25, 2003

Clint Maderos Backhoe
Clint Maderos
12102 River Road
Chico, CA 95973

Central Valley Flood Protection Board
Jon Yego
Floodway Protection Section
Division of Flood Management
3310 El Camino Ave. Rm LL40
Sacramento, CA 95821
(916) 574-0609

March 20, 2010

PROTEST OF APPLICATION 18576 BD

In response to the plan to restore a 43-acre parcel (Singh Unit) by removing two existing "berms" and nonnative vegetation, and planting riparian vegetation and native grasses within the designated floodway (River Mile 194) of the left (east) bank of the Sacramento River, I protest this application.

I have lived and farmed walnuts for the past 24 years at 12102 River Road, upstream from the location (Section 2, T21N, R1W, MDB&M) of the proposed project. This project of the California Department of Parks and Recreation is clearly and directly oppositional to the interests of all of the neighboring farmers who succeed in their work due to the flood management infrastructure that has been constructed in the vicinity, for example, the adjacent levee. The health of our agriculture depends on minimizing the effects of flooding on our orchards and fields. The Park Department plan to alter the terrain at the above location amounts to putting a plug into to a system that has developed over decades to deal with seasonal flooding which occurs from numerous sources.

I protest the planting of vegetation in this location. This action is contrary to the interests of all of the farmers in this area. The California Department of Parks and Recreation is premature in their attempts to reclaim this area. Their plans to convert historical agricultural use land within the Butte County Green Line to a recreational use constitutes an unacceptable nuisance to the farmers who are working to make a living here.

Sincerely Yours,

Clint Maderos
530.514.8665

MINASIAN, SPRUANCE, MEITH, SOARES & SEXTON, LLP

ATTORNEYS AT LAW
A Partnership Including Professional Corporations

1681 BIRD STREET
P.O. BOX 1679
OROVILLE, CALIFORNIA 95965-1679

Writer's email: pminasian@minasianlaw.com

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M. ANTHONY SOARES
DAVID J. STEFFENSON
DUSTIN C. COOPER
ANDREW J. McCLURE

WILLIAM H. SPRUANCE,
Of Counsel

MICHAEL V. SEXTON,
Of Counsel

TELEPHONE:
(530) 533-2885

FACSIMILE:
(530) 533-0197

March 19, 2010

Jon Yego, Chief
Floodway Protection Section
Division of Flood Management
Central Valley Flood Protection Board
State of California
3310 El Camino Avenue, Room LL40
Sacramento, California 95821

Re: Department of Parks & Recreation Application No. 18576 BD to restore a 43-acre parcel (Singh Unit) by removing two existing berms and nonnative vegetation and planting riparian vegetation and native grasses within the designated floodway (River Mile 194) of the left (east) bank of the Sacramento River, west of Chico, South of Sacramento Avenue, Section 2, T21N, R1W, M.D.B.& M. (Sacramento River, Butte County)

Ladies & Gentlemen:

The Laura E. Mendonca Revocable Trust received a copy of your notification of March 9, 2010 as an adjacent landowner regarding the Department of Parks & Recreation's Application No. 18576 BD for the removal of berms and nonnative vegetation and a replanting within the designated floodway on the East bank of the Sacramento River. The Sacramento River Reclamation District in which these lands are located has never received notice of the Application made.

We would appreciate it if you would take each of the following steps regarding the Application

1. Attached you will find letters from 2000 through 2008 of the Sacramento River Reclamation District through this office to the Department of Parks & Recreation requesting consultation and an opportunity to review and work with them in regard to development of any grading, leveling or habitat restoration plan. Willingness to divulge specific land and vegetation changes has never occurred. We would appreciate it if you

would provide a full copy of those letters and of this letter to each of the Members of the Central Valley Flood Protection Board, because we believe they reflect three (3) principle themes:

A. When local interests step forward to work in providing a system for review of grading and land elevation or vegetation changes, and work in cooperation with the County and former Reclamation Board, as Sacramento River Reclamation District has done and continues to be willing to do, issues can be resolved. As your board members review this packet of correspondence and our efforts to deal with the State of California in regard to its plans, hopefully the board members will ask the questions:

(1) How can we approve this project when at every stage, the Department of Parks & Recreation refuses to communicate and specify exactly what they intend to do? How can we turn the Nature Conservancy as a contractor and Parks & Recreation loose, when over eight (8) years there have been repeated attempts by the local interests to work with the Department Parks & Recreation that have been rebuffed and responded to with non-definitive responses;

(2) Mike Peterson of your Board staff indicates that your board is requesting additional plans, profiles and specifications of the vegetation which is actually to be installed. We have been asking for this same information repeatedly, including the enclosed March 17, 2008 letter relating to the CEQA process and have received no specific plans for the Singh or Nicholas properties. The Department of Parks & Recreation is going to induce a drainage and flood-protection disaster because they refuse to work with the parties who know this area and know its flow characteristics. The only question is whether the Reclamation Board is going to be a party to this disaster.

(3) In 2000, Butte County and the Reclamation Board entered into a Memorandum resolving litigation which contemplated the formation of the Sacramento River Reclamation District and its involvement at the basic level to reduce load upon the County and the Reclamation Board and to provide an interface with landowners so they would understand the importance of choosing crops or vegetation and

choosing leveling or grading plans which would allow for maintenance of the existing flow functions of this land which is often flooded, either from Mud Slough or from the Sacramento River. The landowners within the area work with the Sacramento River Reclamation District and Butte County before they make changes. We have an agency of the State of California – the Department of Parks & Recreation – that is now proposing to remove berms, to plant vegetation in an area which has been open and undulating and has easily taken care of flows from each direction, and they cannot communicate with either the neighbors, the Sacramento River Reclamation District, Butte County, nor apparently can they supply the information to the Reclamation Board because they are "the State". Public funds are so limited that we cannot afford this attitude. Your Board can correct this situation.

(4) This is a matter which should be taken off of the Agenda of the Central Valley Flood Protection Board until such time as the Department of Parks & Recreation has fully explored and elucidated its plan for the Singh property and the adjacent Nicholas property with Sacramento River Reclamation District and Butte County. If we are being unreasonable or obstructionist in the opinion of your staff, the Flood Protection Board can then place the matter back on your Agenda. At this point, however, it is obvious that the Department of Parks & Recreation and perhaps the Nature Conservancy, who wishes to be employed by the State, are attempting to run over the locals and – we believe – the Central Valley Flood Protection Board as well, by its vagueness and uncertainty. The exact role of the Nature Conservancy in this stonewalling is unknown to us at this time.

Very truly yours,

MINASIAN, SPRUANCE,
MEITH, SOARES & SEXTON, LLP

- dictated but not read; signed in writers' absence to avoid delay -

By: _____
PAUL R. MINASIAN

PRM:dd
Enclosures: Correspondence 2000 through 2008
cc w/enclosures: Board of Trustees, Sacramento River Reclamation District
S:\Denise\Sacrec\Central Valley Flood Conservation Board.1.wpd

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WILLIAM H. BABER III, INC.
JEFFREY A. MEITH
M. ANTHONY SOARES
MICHAEL V. SEXTON
JESSICA H. PHILLIPS
LISA A. GRIGG

PAUL JACKSON MINASIAN, 1933-1981
DAVID H. MINASIAN, RET. 1989

pminasian@minasianlaw.com

FILE COPY

October 3, 2000

Stuart Edell, Manager
Land Development Division
Butte County Public Works Department
7 County Center Drive
Oroville, California 95965

Rob McKenzie and Neil H. McCabe
Assistant County Counsel
County of Butte
25 County Center Drive
Oroville, California 95965

Re: Development Permit, Department of Parks & Recreation, for the Peterson Addition to the Bidwell-Sacramento River State Park

Ladies and Gentlemen:

A very productive meeting was held with Woody Elliott of the Department of Parks & Recreation and the Board of Directors of Sacramento River Reclamation District ("SRRD") on October 2, 2000. As you know, both the County and the SRRD are feeling their way along in regard to the Development Permit process. The fact that the first Development Permit to come before the Butte County and the SRRD involve an intensive revegetation proposal by the Department of Parks & Recreation makes the effort even more important and demands logical treatment.

We believe that as a result of the meeting and discussion that there was a substantial recognition on the part of the Department of Parks & Recreation, which recognition of course pre-existed the meetings, that the planting of intensive vegetation in low lying areas could result in blockage and structural changes in flood elevations and the retention and lack of drainage of flood waters in Mud Creek upon the decline in river levels in the Sacramento River.

The Board of Directors and the Department of Parks & Recreation recognize that not all vegetative developments, including agricultural developments, will involve these potential impacts, nor will all revegetation plans have the potential of being equivalent to structural impediments to flood flows or drainage. Mr. Elliott indicated that if the SRRD would suggest alternatives, the prospect of obtaining a Permit from Butte County might well be advantageous compared to going through the Reclamation Board. After extensive discussion, the SRRD agreed that if a Development Permit Application was made by the Department of Parks & Recreation to the County of Butte (in which Permit they may reserve any claims that no permitting authority exists because it is difficult to show the flood and drainage changes as a result of intensive revegetation work resulting in a structure or levee equivalent), and if that Permit showed the maintenance of at least 100 yards (300 feet) of open space Savannah development instead of the planting of trees, bushes and Himalayan blackberry bushes in the low-lying areas of Fields 1, 2 and 3 so that water may leave Mud Creek near the Northeast corner of the Singh property and the Peterson Addition, and proceed during drainage phases in which the level of the Sacramento River is dropping across the Peterson Addition towards the Sacramento River, that with the other mitigation measures proposed by the SRRD and the existing plan of the Department of Parks & Recreation, that no significant detrimental impact will arise as a result of flood or drainage characteristics.

This 300' wide area need not be in one open swath (which of course would be preferable), and the Department of Parks & Recreation may locate it in two or three parallel areas in the low points of its existing property. One excellent portion of this plan is that there is no intent to provide for extensive leveling or contouring of the property to change the drainage pattern in an unnatural way.

We believe, therefore, that the Department of Parks & Recreation will shortly be asking that you issue a Permit based upon the CEQA process and the Development Plan alternatives. Although the density of planting is extremely high in those areas in which planting will occur, the above change should be located in a fashion in which little impact will occur on adjoining agricultural lands to change either the flooding pattern or the drainage pattern after floods.

As soon as you have received the Application for Permit, we would appreciate receiving a copy of it to conform that this change which was discussed has been included. The District will be happy to review the plan and the hydrologic work of Mr. Countryman, and report to the County our recommendations, thus reducing the investment of time by the County. We will notify the surrounding landowners and incorporate their views.

The issuance of a Permit by Butte County is in fact a betterment and improvement upon the conditions faced by the Department of Parks & Recreation. If Parks & Recreation were required to submit this matter to the Reclamation Board, it seems unlikely that they could get their project moving this fall and winter when the planting conditions will be ideal.

We commend the Department of Parks & Recreation and Mr. Elliott for their cooperative attitude, and look forward to receiving a copy of the Permit Application with this modification so that we may send a final letter of approval on behalf of the Reclamation District and aid the County in processing so that there is no duplication of effort.

Very truly yours,

MINASIAN, SPRUANCE, BABER,
MEITH, SOARES & SEXTON, LLP

By: _____
PAUL R. MINASIAN

PRM:df
cc: Boar d of Directors, SRRD
Woody Elliott, State of California Department of Parks & Recreation

LETTER OF PROTEST

Mendonca Orchards, Inc.
3685 Chico River Road
Chico, CA 95928
Ph (530) 342-4771 Fax (530) 893-3274

March 25, 2010

Central Valley Flood Control Board
3310 El Camino Avenue Room LL40
Sacramento, CA 95821

Attention: Central Valley Flood Control Board

I am writing this "Letter of Protest" to you in response to a letter from the Central Valley Flood Control Board pertaining to an application for proposed land activities by the California Department of Parks and Recreation. We own and operate farm land north (up stream) from the proposed land project. The project description is to restore a 43 acre (Singh Unit) by removing two existing berms and nonnative (agricultural) vegetation and planting riparian vegetation and native grasses within the designated floodway (River Mile 194) of the left (east) bank of the Sacramento River. The location of this proposed land application is West of Chico and South of Sacramento Avenue Section 2, T21N, R1W, MDB&M (Sacramento River, Butte County).

The type of vegetation and other property changes that is being proposed for this location will eventually lead to increased sediment deposits from flood water in the project property as well as a denser plant habitat which will in result cause increased flooding on up-stream properties including our land just north of Sacramento Avenue. This increased flooding will make our land less farmable as a result of increased disease pressure from increased flooding on our existing orchard. Increased flooding will also negatively impact public roads and residences in the area. Depending on the degree of changes, the proposed modifications could make our farm land less usable and restrict its uses for crop thus reducing its value.

Again we strongly appose as stated in this Letter of Protest the requested land changes listed above for the reasons stated on the land which the California Department of Parks and Recreation has filed an application.

Sincerely,

Steven Mendonca
Chief Financial Officer

Laura E. Mendonca Revocable Trust
3437 Chico River Road
Chico, CA 95928

March 17, 2010

Central Valley Flood Protection Board
3310 El Camino Avenue, Room LL40
Sacramento, CA 95821

SUBJECT: PROTEST

I am totally opposed to the project that California Department of Parks and Recreation is applying for a permit to perform works on property known as the Singh Unit located on the designated floodway (River Mile 194) of the left bank of the Sacramento River.

The removal of the man made berms could allow good drainage flow, by not allowing water to back-up. But the removal of producing walnut trees and replacing with riparian vegetation and native grasses will only create a huge problem for my land.

The 'natural habit' will slow the flow of water causing it to be redirected as debris builds up and large amounts of silt are deposited. Since my land is open farmland, water that is redirected will take the path of least resistance, flowing across my land causing extreme erosion to my property and loss of income for myself.

For a direct example of what will happen to the Singh Unit if this permit is allowed, take a look at the Peterson Unit on the south side of the Singh Unit. This was planted with riparian vegetation 'natural habitat'. As the debris and silt built up on the Peterson Unit, it also filled the existing sloughs causing water began to back up and stand on both properties to the north of the Peterson Unit. This is the direct result of not maintaining the natural drain sloughs. I am asking that this permit be denied.

I ask that if you have any questions please direct them to my son Larry Mendonca (contact information below) as he is my spokesperson and will be happy to speak on my behalf regarding my concerns on this matter.

Sincerely,

Laura E. Mendonca
Farmer/Property owner

Larry Mendonca
654 Reavis Avenue
Chico, CA 95928
530-228-7625
530-342-7625

John J. Nock
4033 Ord Ferry Road
Chico, CA 95928

March 28, 2010

Central Valley Flood Protection Board
3310 El Camino Ave, Rm LL40
Sacramento, CA 95821

RE: Application No. 18576 BD
Protest based on flood control concerns

I am writing in protest to the proposed changes to the Singh Unit to riparian vegetation and native grasses. I do not protest the removal of the existing berms.

As a neighboring property owner, I object to the creation of new property uses that will create obstructions to flood flows that divert waters onto my property and to that of other farmers who wish to continue in production agriculture.

The application refers to the existing walnut orchard as "nonnative vegetation". The use of the this field as a walnut orchard requires the trees to be maintained in a certain way that, as a consequence, allows increased water flow during flood events. The walnut tree orchard canopy must be pruned with enough clearance to allow tractors and other orchard equipment to pass underneath. Also, major silt accumulations must be removed in order for orchard operations to proceed. These practices are in contrast with what will occur with "native vegetation". The native vegetation will not be maintained. The vegetation canopy will be low to the ground with no clearance. Silt accumulations will be allowed and go unmitigated. The result is the hydrological roughness will increase over time as native vegetation creates a physical barrier to flows. The native vegetation will catch brush and debris from upstream and further constrict flows. Silt laden flood waters will slow in this area due to the increased hydrological roughness and thereby raise the level of the property over time. The increase in property elevation will necessarily shift flood flows to surrounding properties and will destroy the current drainage patterns which allows surface water to drain off from agricultural properties to the north (the Mendonca properties).

The result of this project will be increase flooding to neighboring farming operations and the destruction of the current drainage pattern that allows the Mendonca property to drain. The increased flood flows will be felt both as increased velocity of flood flows (due to the creation of increased hydrological roughness on the Singh Unit) and increased duration of flood events (due to the destruction of the natural drain patterns across the Singh Unit). Neither of these consequences should be allowed.

The property immediately to the South of the Singh Unit is known as the Peterson Unit and is now part of State Parks. It was restored to riparian vegetation and is creating a

physical barrier to flood flows. The Peterson Unit demonstrates that flood flows become restricted, silt accumulates and land levels rise, and that eventually neighboring property owners received increased flooding due to this type of land use change. The addition of the Singh Unit to the physical barrier created by the Peterson Unit will create increased flooding conditions which will marginalize surround farming property, potentially to the point of becoming un-economic.

As a neighboring property owner and on behalf of my neighbors, I ask you to consider this application carefully in view of the proposed change in land use and how it will be maintained and act in a way that maximizes flow across the Singh Unit. Please do not allow the California Department of Parks and Recreation to harm the surrounding lands. Please deny the request to transform this property to another piece of un-maintained riparian vegetation that will create addition flooding in this critical drainage area.

John J. Nock

BOARD OF SUPERVISORS

ADMINISTRATION CENTER
25 COUNTY CENTER DRIVE - OROVILLE, CALIFORNIA 95965
TELEPHONE: (530) 538-7224

BILL CONNELLY, CHAIR
First District

JANE DOLAN
Second District

MAUREEN KIRK
Third District

STEVE LAMBERT
Fourth District

KIM K. YAMAGUCHI
Fifth District

March 24, 2010

Jon Yego, Chief
Floodway Protection Section
Division of Flood Management
Central Valley Flood Protection Board
3310 El Camino Ave., Rm. LL40
Sacramento, CA 95821

RE: Application to Remove Two Berms Near Proposed Sacramento-Bidwell State Park

Mr. Yego,

On March 23, 2010, the County learned that the California Department of Parks and Recreation (CDPR) sent an application to the Central Valley Flood Protection Board (CVFPB) for the project as described below:

Description: To restore a 43-acre parcel (Singh Unit) by removing two existing berms and nonnative vegetation and planting riparian vegetation and native grasses within the designated floodway (River Mile 194) of the left (east bank of the Sacramento River

Location: The project is located west of Chico and south of Sacramento Avenue. Section 2, T21N, R1W, MDB&M (Sacramento River, Butte County)

Letters from CVFPB sent to adjacent property owners, dated March 9, 2010, gave them 20 days to protest the project or the matter may be approved on the CVFPB's consent agenda.

The area in question pertains to the proposed Sacramento-Bidwell State Park. Butte County has previously sent a letter of opposition to this project and sent a delegation to Sacramento to oppose it. The County also sent a lengthy response to the State's Environmental Impact Report on the project. Nonetheless, neither CDPR nor CVFPB notified the County on the application by CDPR.

The deadline to comment of the application was March 29, 2010. However, the County found out

about the application on March 23, 2010. The County's engineer needs time to study the application to analyze any environmental impacts and/or the flooding impacts to Butte County. Therefore, the Butte County Board of Supervisors requests an extension of the comment period of no less than 30 days.

Sincerely,

Bill Connelly

Bill Connelly, Chair
Butte County Board of Supervisors

cc: Butte County Board of Supervisors
Stuart Edell, Deputy Director, Butte County Public Works Department

Enclosure

Attachment C

Hydraulic Analysis for Flood Neutrality on the Nicolaus and Singh Properties, Sacramento River, Mud Creek, and Big Chico Creek, May 30, 2008, Prepared for The Nature Conservancy by Ayers Associates

HYDRAULIC ANALYSIS FOR FLOOD NEUTRALITY ON THE NICOLAUS AND SINGH PROPERTIES

SACRAMENTO RIVER, MUD CREEK, AND BIG CHICO CREEK

May 30, 2008

Prepared For:

The Nature Conservancy
Protecting nature. Preserving life.

REGISTERED PROFESSIONAL ENGINEER
THOMAS WEST SMITH
No. 20,525
Exp 09.30.09
CIVIL
STATE OF CALIFORNIA

AYRES ASSOCIATES

HYDRAULIC ANALYSIS FOR FLOOD NEUTRALITY ON THE NICOLAUS AND SINGH PROPERTIES

SACRAMENTO RIVER, MUD CREEK, AND BIG CHICO CREEK

May 30, 2008

Prepared For:

The Nature Conservancy
Protecting nature. Preserving life.

500 Main Street
Chico, California 95928

Prepared By:

AYRES ASSOCIATES

2150 River Plaza Drive, Suite 330
Sacramento, CA 95833
(916) 563-7700

Ayres Associates Project Number: 33-0577.00

Table of Contents

1.0 INTRODUCTION

1.1 General

This report summarizes the findings of a 2-dimensional hydraulic analysis on the Sacramento River from approximate river mile (RM) 191 to RM 196.5 and includes Big Chico Creek and Mud Creek, as shown in Figure 1. This report was prepared to assist The Nature Conservancy (TNC) in analyzing of the hydraulic effects of riparian restoration and the removal of small berms along Mud Creek within the Sacramento River floodplain.

To determine the hydraulic effects of these changes on the floodplain of the river, an existing 2-dimensional (2D) hydraulic model was modified and used. The previous two-dimensional model was developed for TNC to analyze levee setback options and restoration (Ayres Associates, 2002). Then new model included the tributary flows of Mud Creek and Big Chico Creek.

The riparian restoration areas and the berms are located on the left side of the Sacramento River floodplain at approximately RM 194 – 195 as shown in **Figure 2**. In Figure 2, the land use change areas are outlined, and the yellow lines show the locations of the berms. The project area consists of two areas, the northern area is known as the Nicolaus Planting Zone, and the southern area is the Singh Planting Zone.

1.2 Purpose and Scope

The purpose of this project was to use an existing two-dimensional hydraulic model to evaluate the hydraulic effects of habitat restoration and berm removal. This modeling was initially developed and calibrated for the J-levee project. The model was the extended and re-calibrated for the U.S. Army Corps of Engineers project (USACE). For more efficiency in running the model, the limits were reduced to RM 191 to 196.5, as shown in Figure 1. The project was accomplished as laid out in the scope items listed below.

- Develop and calibrate the 2-D hydraulic model to the 1995 Flood Event with the updated land use map (2006). Based on the previous 2-D hydraulic model developed by Ayres Associates in 2002, the updated model was modified with 2006 year land use.

- Develop an existing condition hydraulic model – This hydraulic model simulated the 1995 flood flow using post-January 1995 topography, river configuration and 2006 land use.

- Proposed alternative hydraulic model run – This hydraulic simulation analyzed the impacts of the potential land use changes and the removal of berms on two parcels in conservation ownership in the reach between RM 194 and RM 195.

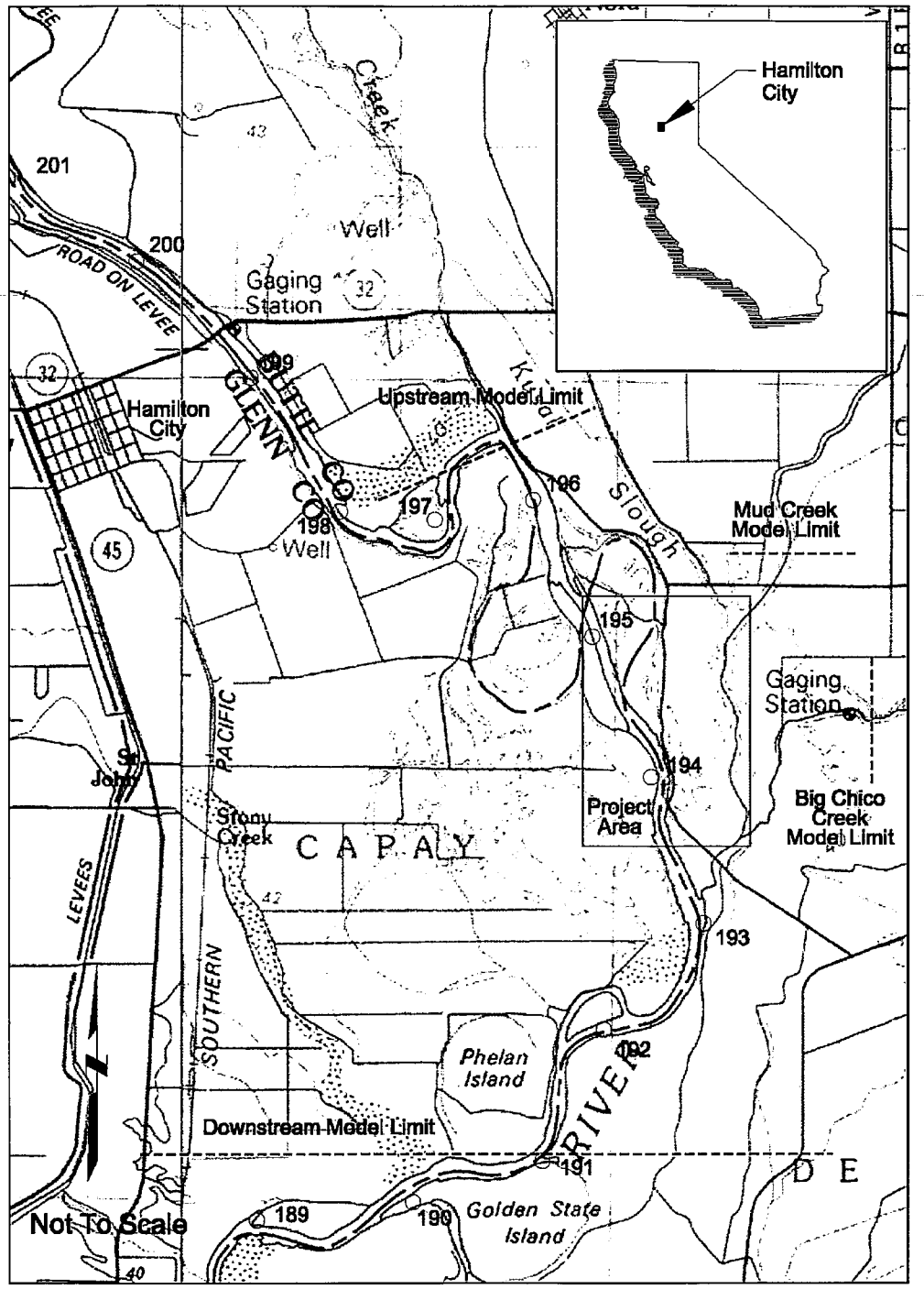


Figure 1. Location Map showing project area

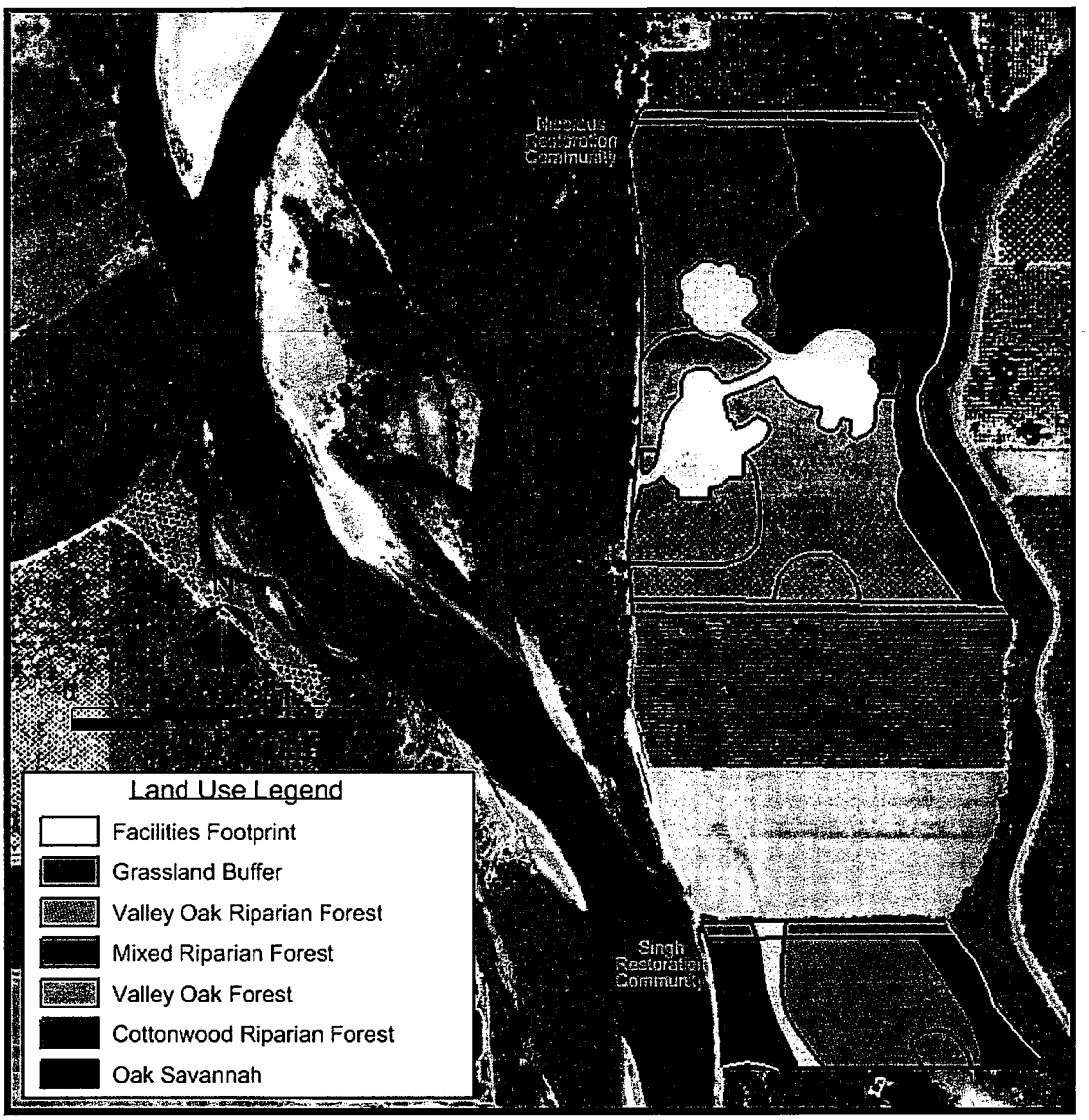


Figure 2. Project Area showing Proposed Habitat Restoration Communities

1.3 Acknowledgements

This analysis was authorized by The Nature Conservancy (TNC) through the Sacramento River Projects office in Chico, California. The point of contact for TNC is Mr. Ryan Luster in Chico, California. The hydraulic modeling was conducted by the Sacramento office of Ayres Associates under the direction of Mr. Thomas W. Smith, PE, GE.

2.0 TWO-DIMENSIONAL HYDRAULIC MODEL RUNS

2.1 Existing Condition

The existing condition hydraulic model represents the land use in 2006 (based on aerials developed by the U.S. Department of Agriculture) and the river configuration that existed following the 1995 flood events. The existing conditions land use in the project area is shown in **Figure 3**. The model uses the topographic mapping data developed for USACE following the 1997 flood event. This run will serve as a baseline for comparison to the with-project condition.

2.2 With-Project Condition

The with-project condition model incorporates proposed land use changes within two conservation ownership parcels (see **Figure 4**). In the Nicolaus Planting Zone, the land is currently covered by orchard, and will be converted to campground and forest, with a grassland buffer for the with-project condition. In the Singh Planting Zone, the proposed land use change is from orchard to mostly riparian forest, with a grass buffer at the north edge, and a meadow flow through. The rest of the model has the same land use for both the existing condition and the with-project condition.

The with-project condition model also removes the berms along the right bank of the Mud Creek, in the Sacramento River floodplain near RM 194, and the southern boundary of the Singh property. These berms are shown in Figure 2. The sizes and locations of berms were field verified by Ayres Associates in May 2007.

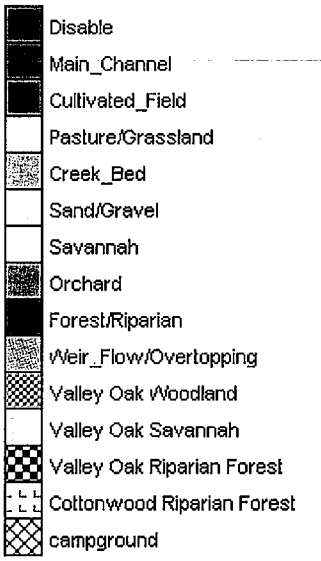


Figure 3. Existing Conditions Land Use

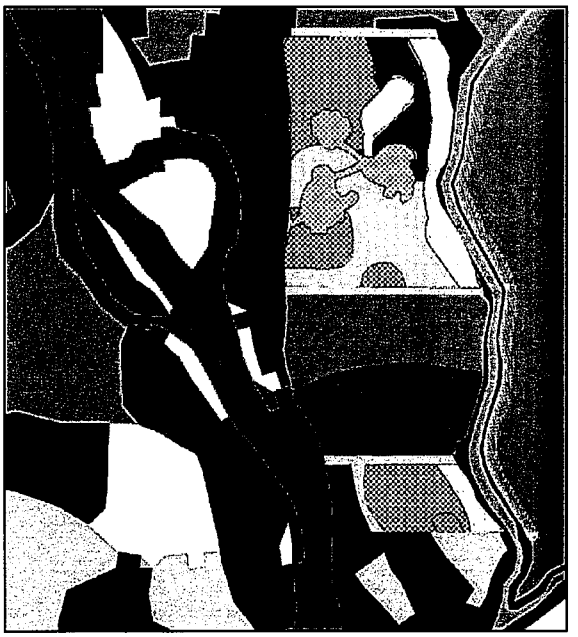


Figure 4. With-Project Land Use

3.0 HYDRAULIC MODELING

3.1 General

The 2-dimensional hydraulic modeling tool used for this project was the RMA-2V program, maintained and distributed by the USACE and modified by Ayres Associates. The program has been used extensively for similar projects on the Sacramento River and has proven to be an effective model for representing river flow conditions. The Surface-Water Modeling System (SMS) version 9.2 pre- and post-processor was used to develop the model geometry file and to view model results.

3.2 Model development

The geometric definition of the project reach is given in the form of a finite element network of triangular and quadrilateral elements, known as a mesh, as shown in **Figure 5**. The elements were sized and oriented to represent hydraulic features, breaklines, structures, and topographic changes. Each element contains corner and mid-side nodes, which represent points in space (X, Y, Z) and define the topography of the project reach. These nodes were laid out using topographic mapping and aerial photography as a reference for element size and orientation. Elevation values were assigned to the nodes using a digital terrain model of the river reach.

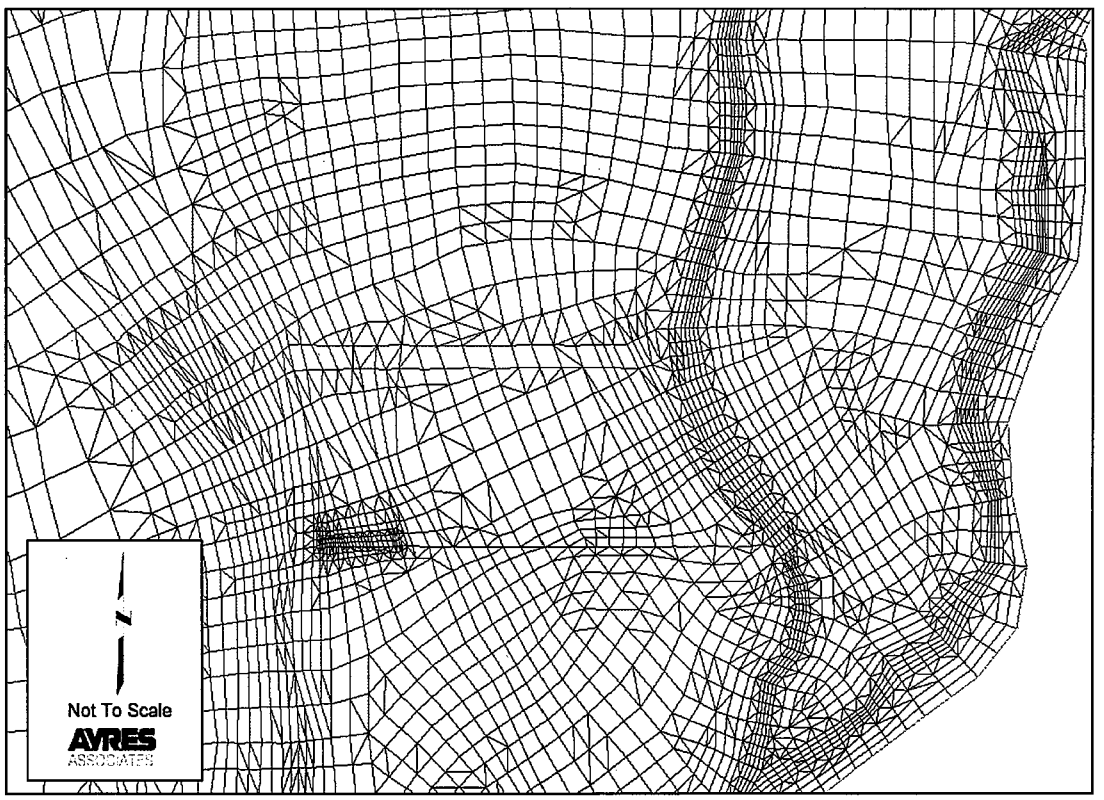


Figure 5. Plan view of the Finite Element Mesh

3.3 Material Roughness

Material types were assigned to each element based on land use and roughness characteristics. The land uses are represented in the model by Manning's roughness coefficients. The material types were assigned to each of the elements in the finite element mesh using 2006 aerial photograph. A field visit was also made to confirm land usage. For each material type, a Manning's roughness coefficient (n value) was assigned to represent a roughness type. These values were determined primarily from the previous modeling effort, and originally were derived using standard engineering protocols and references. Material types and corresponding Manning's n values used in the model are listed in **Table 1**. The land uses for the existing and with-project condition is shown in Figures 3 and 4. The material roughness of the campground is between Valley Oak Woodland and Scrub. Therefore, the Manning's n value of campground is determined as the average n of those two materials.

Table 1. Manning's Roughness Coefficients

Landscape Description	Manning's Roughness Coefficients
Levee/Road	0.025
Main Channel	0.035
Cultivated Field	0.035
Pasture/Grassland	0.035
Creek Bed	0.035
Pine Creek Bed	0.035
Sand/Gravel	0.04
Stony Creek Bed	0.04
Savannah	0.05
Scrub	0.10
Orchard	0.15
Forest/Riparian	0.16
Buildings/Structures	0.20
Valley Oak Woodland	0.12
Valley Oak Savanna	0.05
Valley Oak Riparian Forest	0.15
Cottonwood Riparian Forest	0.16
Campground	0.11

3.4 Boundary Conditions

The hydraulic model for this study extends from River Mile (RM) 196.5 at the upstream end to RM 191 at the downstream end, with the lower 3 miles on both Mud Creek and Big Chico Creek as shown in Figure 1. The RMA-2 program requires input parameters for the upstream and downstream ends of the model.

The upstream flow data used for this model was the peak flow data from the January 1995 flood event, published by USGS, of 170,000 cfs. For Mud and Big Chico Creek, flow data from the 1995 event was not available, so the channel design flows were simulated. The design flow on Mud Creek was 15,000 cfs and on Big Chico Creek, it was 7,000 cfs.

Downstream water surface elevation boundary conditions were referenced from previous 2-dimensional modeling conducted for the Butte Basin reach of the Sacramento River. The water surface elevation assigned to the downstream end of the model was 130.5 ft

3.5 Calibration

Two calibrations were performed by the previous studies, one for the initial J-levee project to a historic flood flow and again for the USACE project to a more recent flow event. The model used in this project is the latest version after calibration.

4.0 HYDRAULIC MODELING RESULTS

The velocity contours for the existing condition and the with-project condition are shown in **Figures 6** and **7**, respectively. The velocity differential plot is shown in **Figure 8**. The velocity differential equals the existing condition values subtracting from the with-project condition values. The velocity contours show that the velocity is between 0.0 ft/s and 3.5 ft/s in the project areas for both the existing condition and the with-project condition.

For the with-project condition, the land use change causes slight velocity increases. The largest velocity increase is 2.0 ft/s and is located in the meadow flow through passage in the Singh property. The existing velocity in that area is roughly 1.0 ft/s, and as long as the passageway remains vegetated, this increase should not have any harmful effects. There are increases adjacent to Mud Creek of up to 0. 5 ft/s (from 0.5 ft/s to 1.0 ft/s). The grass buffers cause an increase on the west side of the properties, with the greatest increase being 1.2 ft/s (from 1.0 ft/s to 2.2 ft/s) at the southern end of the Nicolaus Community. The removal of the berm from the Singh property causes an increase in that area of up to 0.7 ft/s (from 0.7 ft/s to 1.4 ft/s) and also slightly reduces the velocity on the east bank of the Sacramento River adjacent to the site. Velocity vector plots for existing and with project condition are shown in **Figures 9** and **10**. These do not show any significant change in the flow path of the river and floodplain.

The water depth plots for the existing condition and the with-project condition are shown in **Figure 11** and **12**, respectively. The water surface differential plot is shown in **Figure 13**. The water surface elevation differential shows no increases within either the Nicolaus or the Singh Planting Zone. A decrease of 0.10 ft occurs at the top of the Oak Savannah planting within the Nicolaus Community.

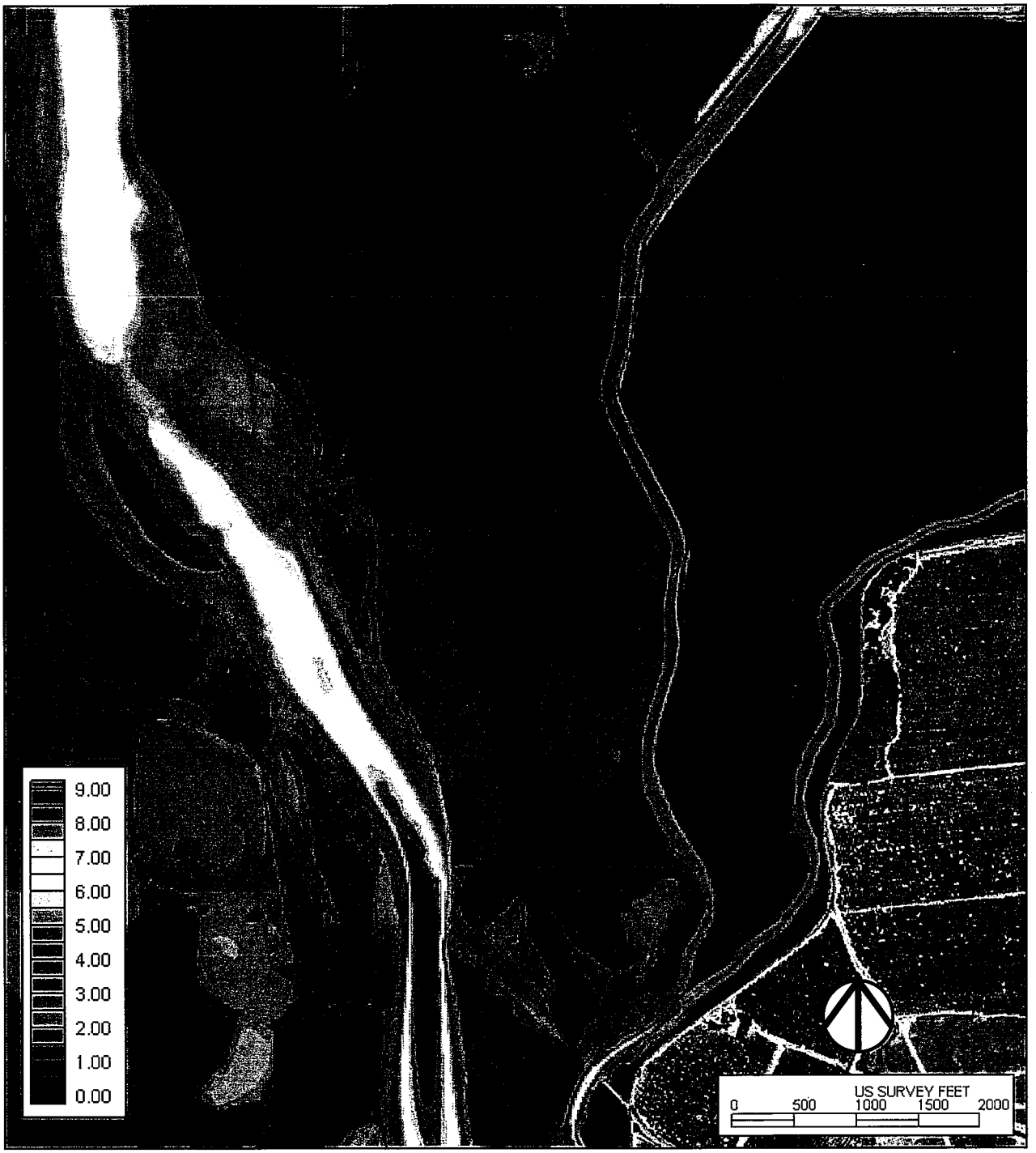


Figure 6. Existing Conditions Velocity

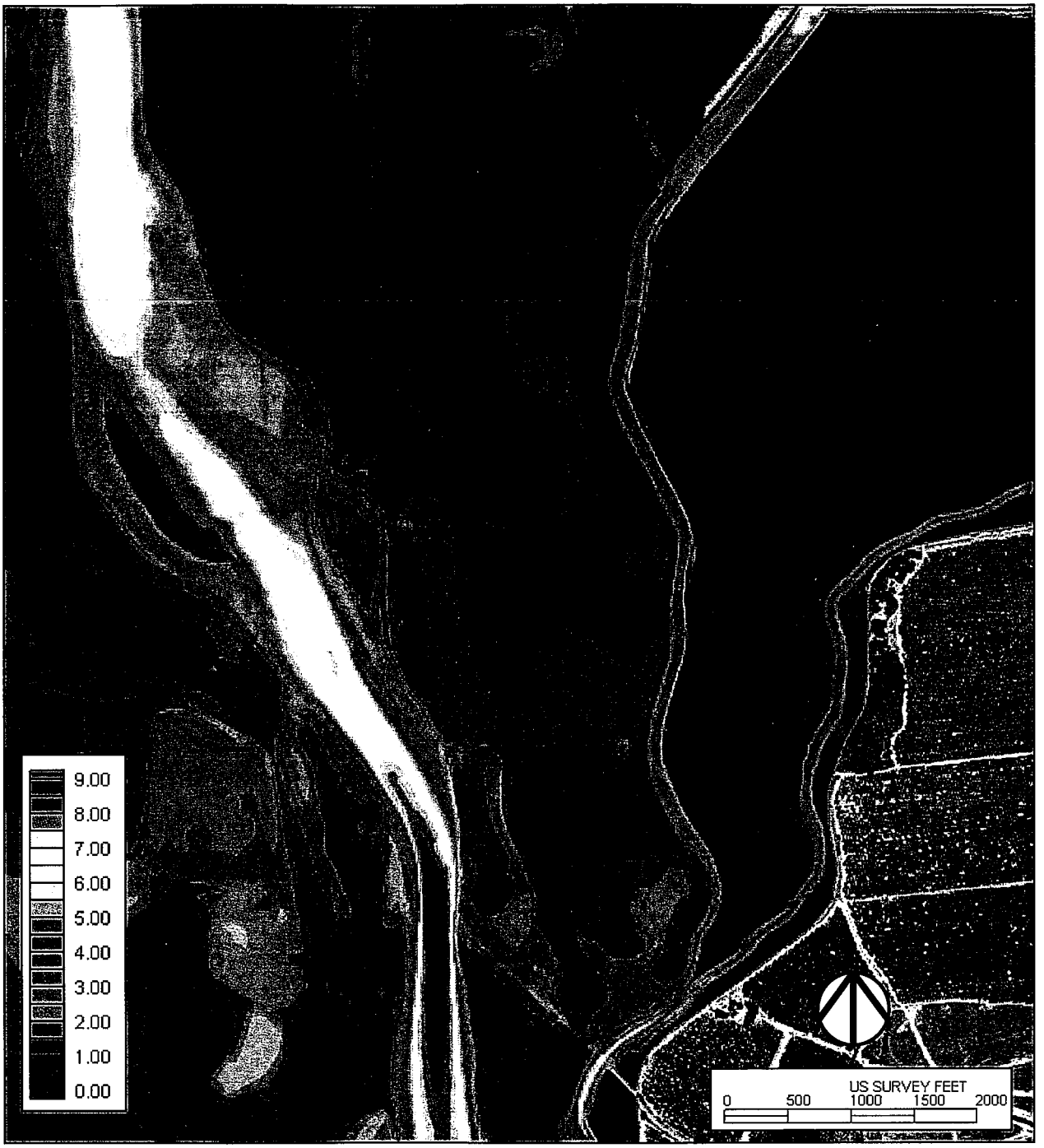


Figure 7. Restoration Conditions Velocity

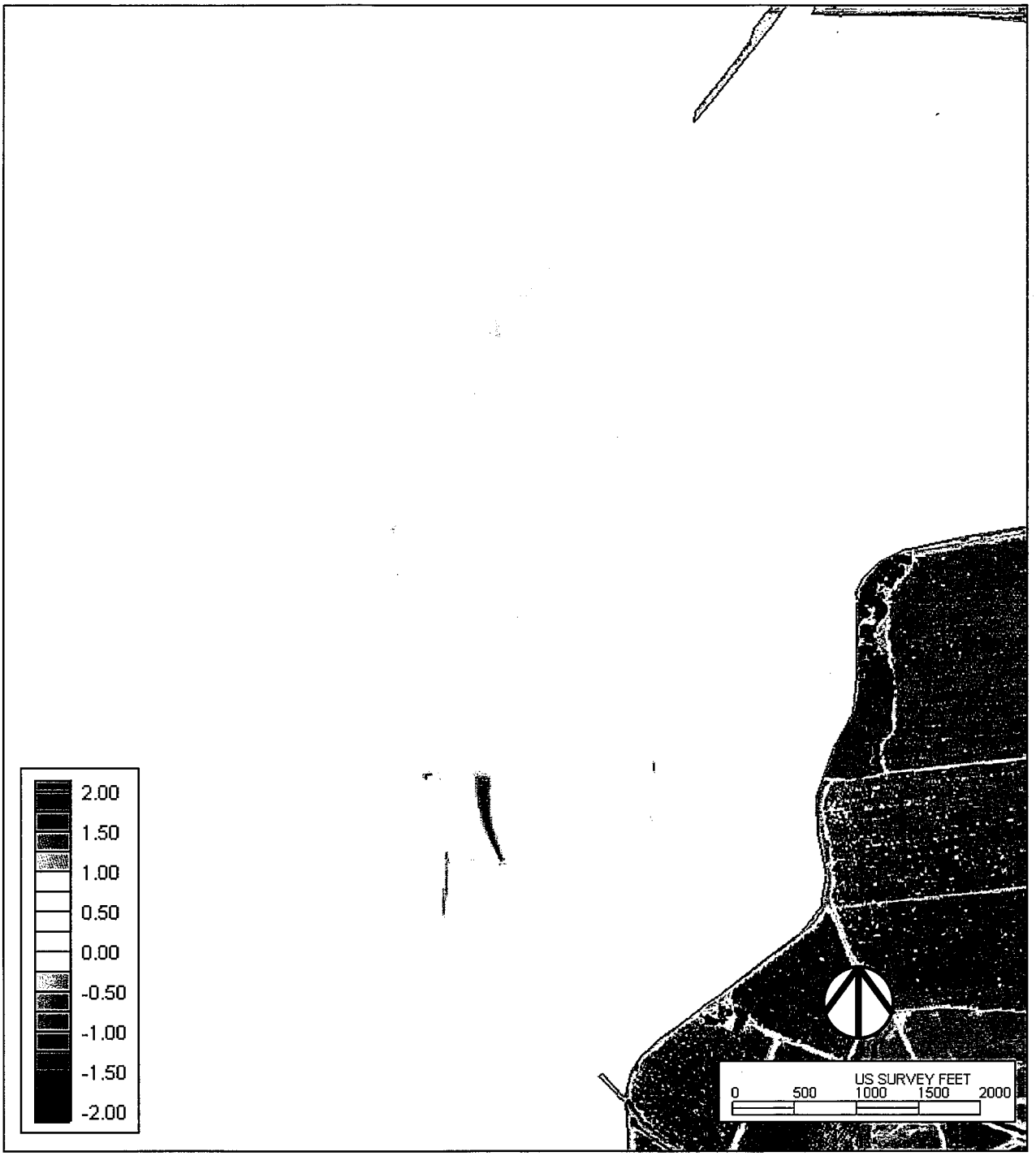


Figure 8. Velocity Differential – Resto ration to Existing

Figure 9. Existing Conditions Velocity Vectors

Figure 10. Restoration Conditions Velocity Vectors

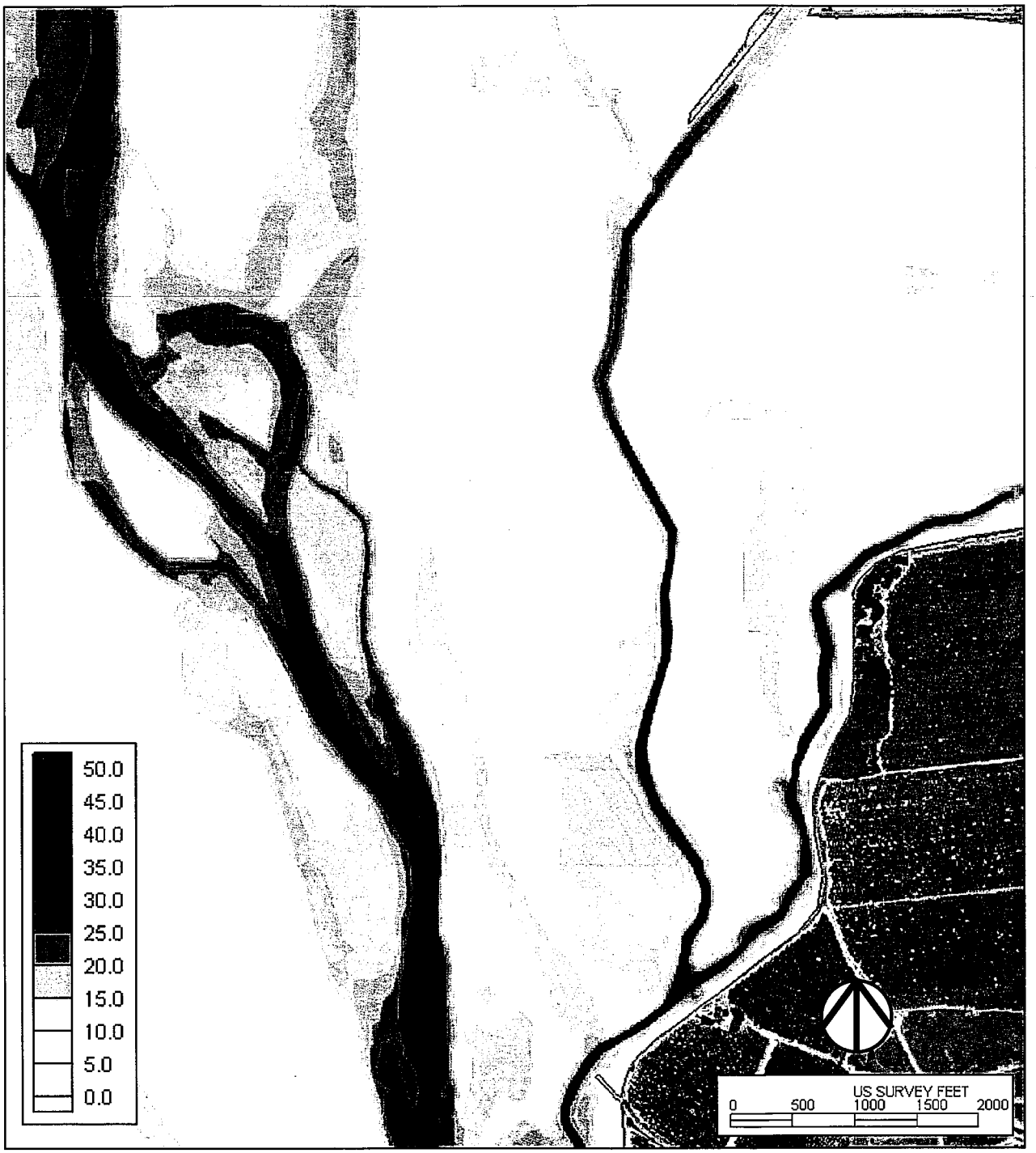


Figure 11. Existing Conditions Water Depth

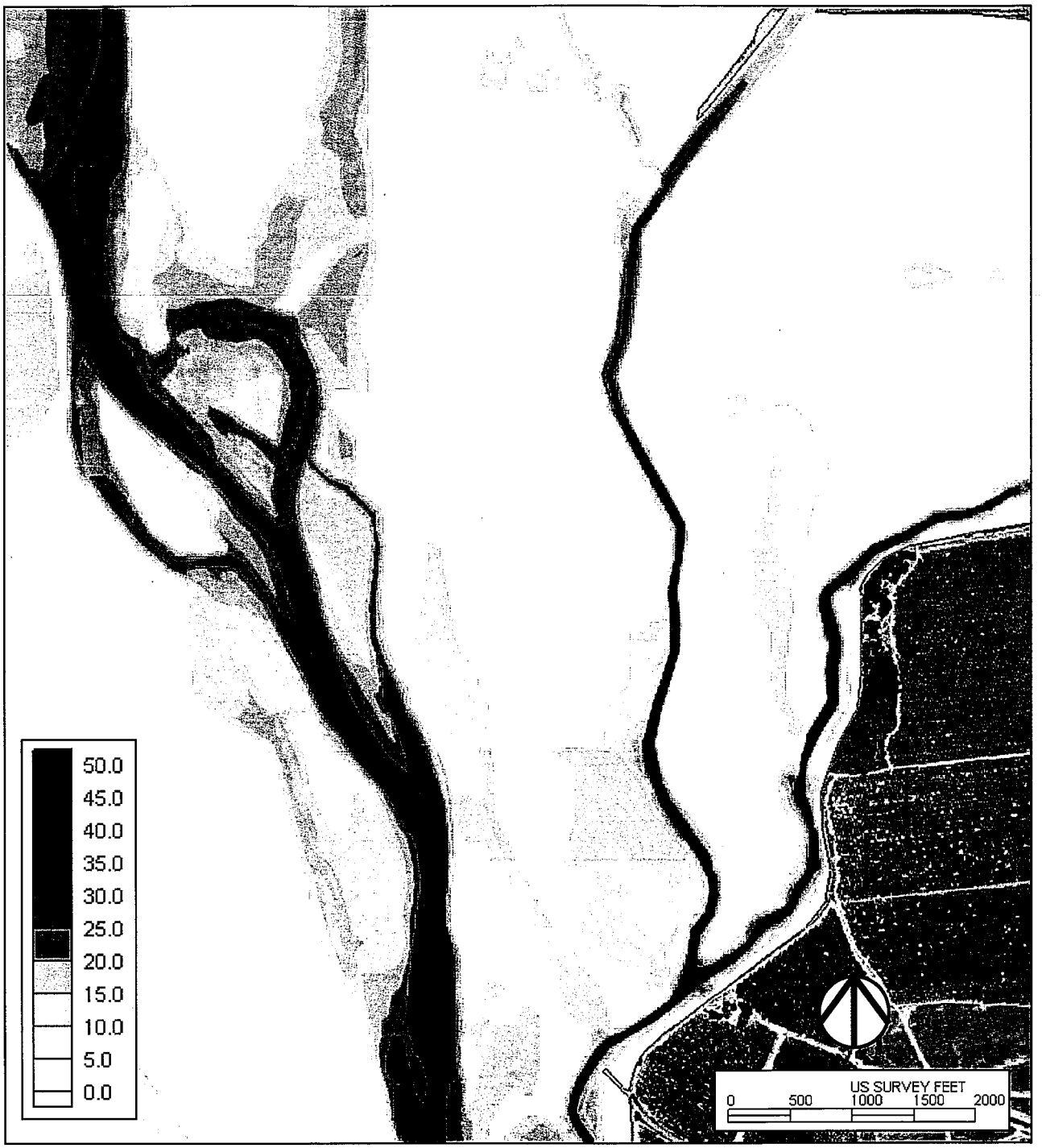


Figure 12. Restoration Conditions Water Depth

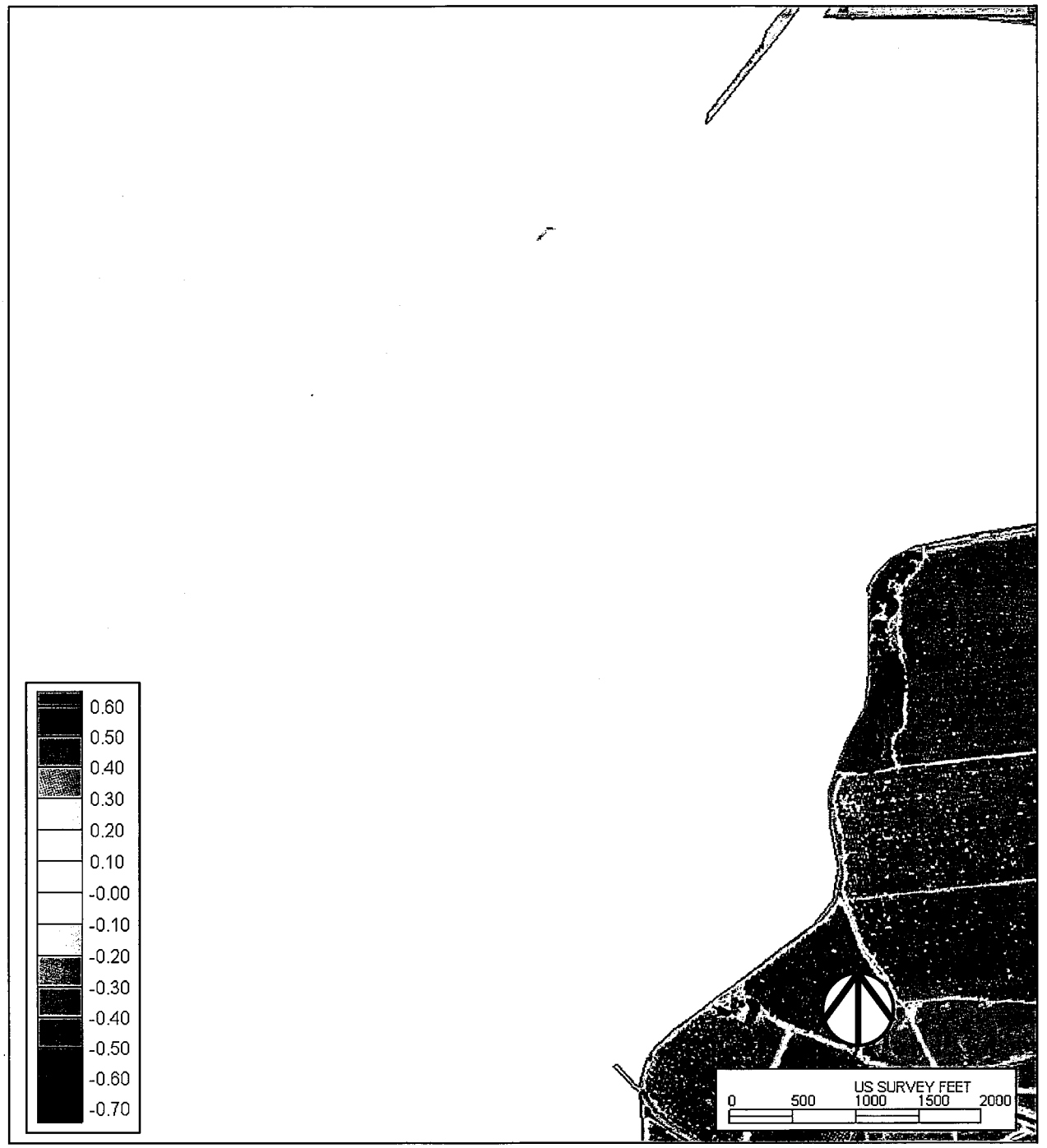


Figure 13. Water Surface Elevation Differential – Restoration to Existing

5.0 CONCLUSIONS

Based on the analysis performed and results presented in this report, we offer the following conclusions.

- The meadow flow-through in the Singh property causes a 2.0 ft/s increase, however given the low existing conditions velocities (1.0 ft/s) and planned vegetation, a resultant velocity of 3.0 ft/s will not create any harmful effects at this location.

- The with-project condition model shows a slight increase in velocities in the oak savannah area, campground area, grass buffers, and the locations of berm removals. These are considered less than significant and should cause no erosion problems.

- The hydraulic model shows very little change in water surface elevation. There are no increases in water surface as a result of this restoration. There is a small section of decrease of about 0.1ft in the Nicolaus Planting Zone.

6.0 REFERENCES

Ayres Associates, Two-Dimensional Hydraulic Modeling of The Upper Sacramento River, RM 194.0 To RM 202.0 Including Riparian Restoration, Two Setback Levee Alternatives, And East Levee Removal. Glenn and Butte Counties, California, 2002.

U.S. Department of Agriculture, 2006, Sacramento River Aerial Imagery

Attachment D

Sedimentation Analysis – Supplemental documentation

RiverSmith

ENGINEERING

MEMORANDUM

To: Gregg Werner, Senior Project Director – Central Valley and Mountains

From: Thomas W. Smith, PE, GE

Date: January 5, 2011

Re: Singh Restoration Sedimentation Review and Analysis

REGISTERED PROFESSIONAL ENGINEER
THOMAS WESLEY SMITH
NO. 20,525
exp 09.30.11
CIVIL
STATE OF CALIFORNIA

Project Scope

This review of the proposed restoration on the Singh Unit of the Bidwell-Sacramento River State Park was requested by the Chico office of The Nature Conservancy as a follow-up to a previous hydraulic modeling report prepared by Ayres Associates in May, 2008. That report summarized the findings of 2-dimensional hydraulic modeling and contained graphical outputs showing where changes in vegetation and land use would be and how that would affect flow paths, velocities and water depths.

However that report did not address, in detail, whether or not there would be changes in sedimentation and erosion patterns as a result of the proposed project on the Singh Unit. Since the 2008 hydraulic modeling report was released, neighbors to this Unit have voiced concerns that there may be changes in sediment and erosion patterns created by the proposed Singh project.

The excerpt below is from a letter sent by Medonca Orchards, Inc (March 25, 2010), located to the north of the Singh Unit which expresses a concern that the proposed land use changes will cause increased flooding on their parcel:

> The type of vegetation and other property changes that is being proposed for this location will eventually lead to increased sediment deposits from flood water in the project property as well as a denser plant habitat which will in result cause increased flooding on up-stream properties including our land just north of Sacramento Avenue. This increased flooding will make our land less farmable as a result of increased disease pressure from increased flooding on our existing orchard. Increased flooding will also negatively impact public roads and residences in the area. Depending on the degree of changes, the proposed modifications could make our farm land less usable and restrict its uses for crop thus reducing its value.

RiverSmith Engineering Inc
1004 Corporate Way, Sacramento, CA 95831
Voice (916) 395.4455, Fax (916) 395.4401

The following excerpt from a letter representing the Laura E. Mendonca Revocable Trust (March 17, 2010) expresses concerns that increased sedimentation on the Singh parcel will cause erosion on the upstream parcel:

> The 'natural habit' will slow the flow of water causing it to be redirected as debris builds up and large amounts of silt are deposited. Since my land is open farmland, water that is redirected will take the path of least resistance, flowing across my land causing extreme erosion to my property and loss of income for myself.

Hydraulic Modeling Results

The results in the hydraulic modeling report showed very little change in velocity and water depth over the area modeled as shown in the figures that follow from the 2008 Ayres Report.

Making the project 'flood neutral" was by design. In developing the final configuration for the proposed planting on the site, an iterative process was used and the layout was revised until a configuration was developed that contained any hydraulic changes to the project parcel. This was done by mimicking existing vegetation roughnesses as nearly as possible (within the hydraulic model) and then making additional adjustments to the planting scheme where needed to make sure no off-site impacts resulted.

The roughnesses used in the hydraulic modeling process have come from a previously calibrated, 2-dimensional model performed for the US Army, Corps of Engineers for the proposed setback levee at Hamilton City.

The values for Riparian Forest and the Cottonwood Riparian Forest are slightly higher than that for orchard and an open area of grassland was added to maintain the overall flow capacity through the site and neutral floodplain hydraulics on adjoining parcels.

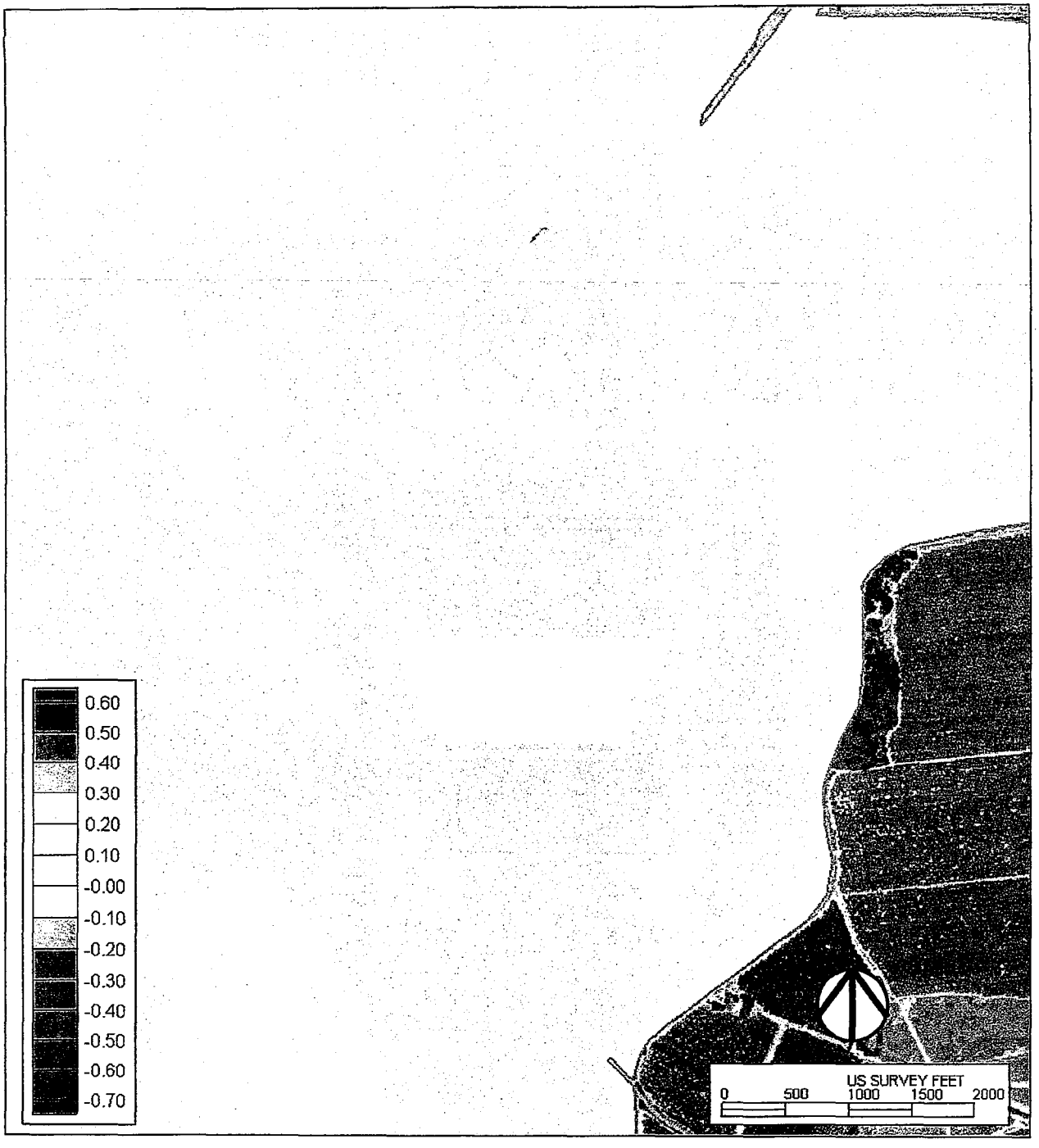
The largest change is within the grassland area of the Singh Unit and the differential velocity figure shows an increase of up to 2 fps for this area. This makes the new velocity over the grassed area approximately 3 fps which is not considered erosive for grass cover.

Effects on Sedimentation and Erosion

Issues of sedimentation and erosion are directly related to floodplain velocities, therefore any changes to the existing erosion and sedimentation patterns would be the direct result of changes in velocity and, to a lesser extent, flow depths. A review of the differential velocities plot shows negligible change on any of the adjoining parcels. There are some changes within the Singh parcel primarily within the grassed corridor where there is an increase of +2.0 fps (total velocity of approximately 3.0 fps).

For the most part, existing velocities within this floodplain area are less than 2 fps and in the existing condition some areas of deposition are expected to occur. This will remain the same for the proposed plan.

There are no measurable changes in flood depth on the floodplain for the before and after conditions, so no changes are expected in sediment transport in this area in relationship to flow depth.



Water Depth Differential – Restoration to Existing (Figure 8, p.10, Ayres, 2008)

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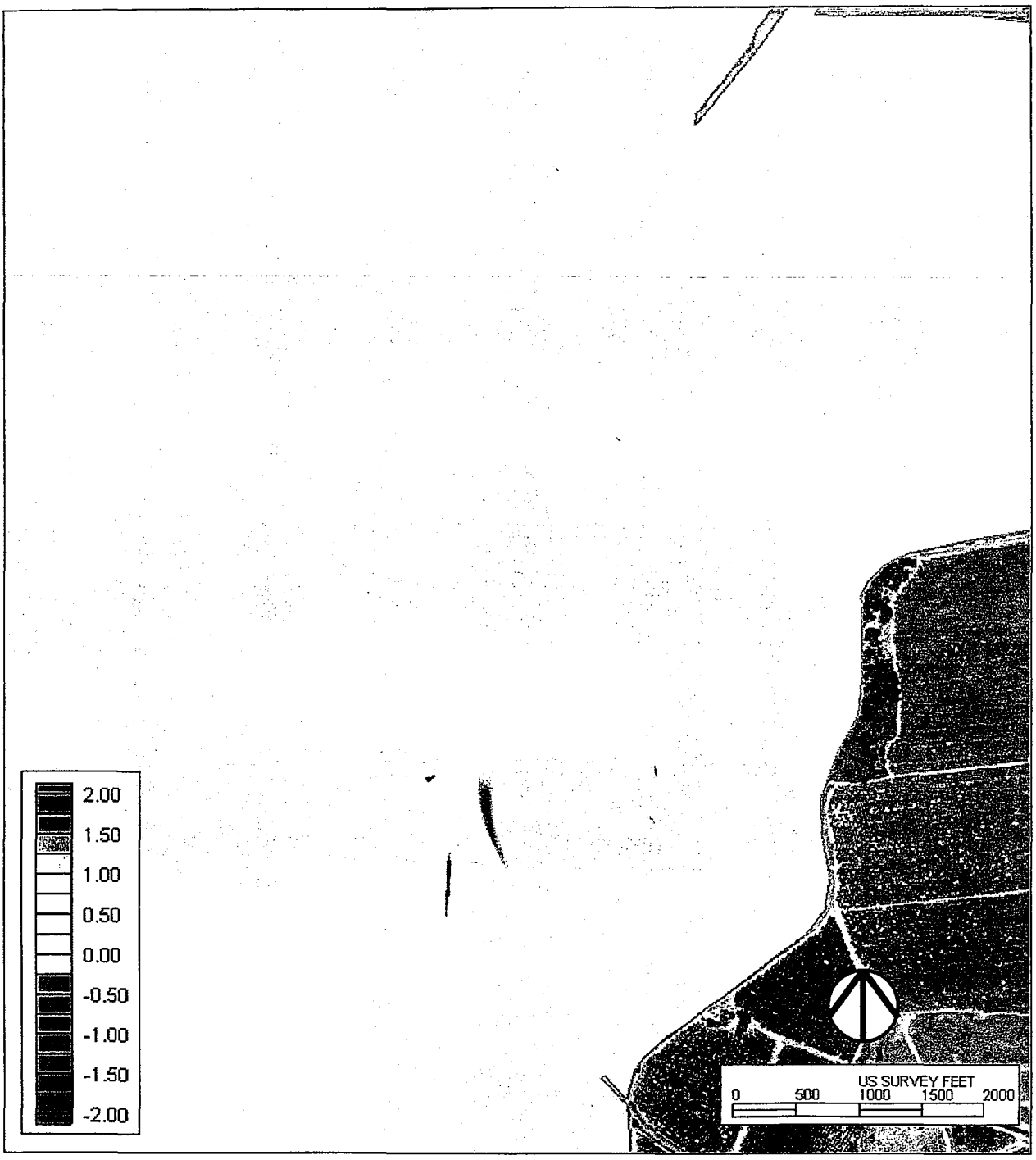

Velocity Differential – Restoration to Existing (Figure13, p.15, Ayres, 2008)

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Conclusions

Based on a further review of the hydraulic modeling results from the Ayres 2008 Report, I offer the following conclusions:

1. Most all changes to hydraulics (velocities) within the floodplain are contained on the Singh parcel, with the exception of a small reduction along the riverbank area downstream of the site and a small reduction along Mud Creek adjacent to the site.

2. Since there are no measureable changes in velocity or flow depth for the parcel immediately north of the Singh parcel (Mendonca property), no changes to the existing erosion and sedimentation patterns are predicted.

3. Overall floodplain velocities in the project area are slow (approximately 2 fps or less) in the existing condition and as a result, some deposition may be occurring in the presently. This is not expected to change for the proposed restoration condition.

4. The increased velocity within the grassland corridor on the Singh Unit raises the total velocity to approximately 3 fps within this area and this is not considered erosive for grass cover.

5. Since there are no major reductions in velocities, no new areas of deposition are anticipated.

6. There is no change in the depth of flooding on adjoining parcels.

7. It is likely that the existing riparian forest downstream of the Singh parcel (Peterson Unit) has some control over the overall floodplain hydraulics on the parcels of concern.

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Attachment E

Summary of Outreach Activities
For Grant ERP-02D-P16D to The Nature Conservancy

Summary of Outreach Activities for grant ERP-02D-P16D to TNC

The following is a summary of outreach activities that were conducted in 2007 and 2008. All outreach activities were conducted within the context of preparing the Environmental Impact Report to comply with CEQA. During this process, TNC and the California Department of Parks and Recreation shared information on hydraulic modeling results, habitat restoration plans, and recreation plans with neighbors of the project area as well as interested agencies. Feedback given to TNC and State Parks during public meetings and in one-on-one meetings was incorporated into the overall planning process to produce final versions of the hydraulic modeling report, restoration plans, and recreation plans.

Outreach activities are divided into two timeframes: 1. pre-award and 2. post-award. Pre-award outreach was conducted by TNC during the development of the original CALFED proposal in summer 2001 while post-award outreach was conducted in 2007 and 2008 during the development of the Task 2 and Task 3 deliverables.

1. Pre-Award Outreach

August 10, 2001: Presentation to the Sacramento River Reclamation District Board of Directors

TNC presented the original CALFED proposal on August 10, 2001 to the Sacramento River Reclamation District Board of Directors meeting, and included local landowners in attendance. Michael Madden, Butte County Emergency Services Officer, was present on August 10, 2001, when TNC introduced this proposal to the Sacramento River Reclamation District Board of Directors.

Butte County Supervisor and SRCA Board member, Jane Dolan, was notified of the original proposal submission.

August 16, 2001 and September 19, 2001: Presentation to the Sacramento River Conservation Area Forum Technical Advisory Committee

The proposal was also presented at the SRCA's Technical Advisory Committee meeting on August 16, 2001 and again on September 19, 2001. In addition, TNC provided an update in the SRCA Notes sent to approximately 650 individuals and organizations. TNC attends SRCA Board and sub-committee meetings and will continue to give regular updates to the SRCA Board and interested SRCA stakeholders through these meetings and the SRCA Notes.

August 23, 2001: Presentation to the Sacramento River Conservation Area Forum Board of Directors

The original CALFED proposal was presented at the August 23, 2001, Sacramento River Conservation Area Forum (SRCAF) Board of Directors meeting.

August 27, 2001: Stakeholder meeting at TNC office.
The CALFED proposal was discussed at a stakeholder meeting held on August 27, 2001. All landowners in the project area were invited and numerous landowners and other interested parties were in attendance. Local organizations represented at the stakeholder meeting include Sacramento River Preservation Trust and Big Chico Creek Watershed Alliance.

2. Post-Award Outreach

August 2007: Notice of Preparation and Final Project Description distributed
The EIR Notice of Preparation (NOP) and final project description was filed with the State Clearinghouse and postcards were mailed to interested parties informing them of the NOP and project description availability.

September 19, 2007: Public Scoping Meeting
A public scoping meeting was held at the California Department of Parks and Recreation Headquarters in Chico on September 19, 2007. At this meeting, a conceptual plan for the Nicolaus and Singh properties was presented and comments from the public were received. Approximately 30 people attended the meeting.

October 10, 2007: TNC and State Parks meets with neighbors to the south of Nicolaus and north of Singh properties
TNC and State Parks met with members of the Mendonca family at the Nicolaus property to discuss their concerns regarding the restoration design for the properties.

January 31, 2008 – March 17, 2008: Distribution and Comment Period for Public Draft EIR
On January 31, 2008, State Parks distributed to public agencies and the general public the Draft EIR pursuant to CEQA for the proposed project. A 45-day public-review period, as required by Section 15105 of the State CEQA Guidelines, was provided on the Draft EIR that ended on March 17, 2008. A notice of availability was mailed to approximately 45 individuals and agencies along with hard copies sent to approximately 15 individuals and agencies.

In addition, hard copies of the DEIR and the Park Plan were available for review at the following locations:

California Department of Parks and Recreation
525 Esplanade
Chico, California 95926
(530) 895-4304

Chico Branch of the Butte County Library
1108 Sherman Avenue
Chico, California 95926

Oroville Branch of the Butte County Library
1820 Mitchell Avenue
Oroville, California 95966

Colusa County Free Library
738 Market Street
Colusa, California 95932

Princeton Branch Library
232 Prince Street
Princeton, California 95970

Tehama County Library
645 Madison Street
Red Bluff, California 96080

Scotty's Landing
12609 River Road
Chico, California 95973

California State Parks Website: http://www.parks.ca.gov/

Thirteen letters providing comments on the document were received by March 17, 2008.

February 19, 2008: Public Hearing on Draft EIR
Consistent with Section 15202 of the State CEQA Guidelines, a public hearing was held by State Parks on February 19, 2008 from 6:30 p.m. to 8:30 p.m. at the Bidwell Mansion SHP Visitor Center located at 525 The Esplanade, Chico, CA 95926, during which time agencies and the public were given the opportunity to provide oral and written comments on the Draft EIR. At this meeting, TNC presented results from the hydraulic modeling as well as the restoration and recreation planning process.

State Parks received thirteen letters providing comments on the Draft EIR in addition to comments received at the Public Hearing. The written and oral comments received on the Draft EIR and the responses to those comments are provided in Chapter 8 of the EIR. All comment letters were reproduced in their entirety and oral comments provided during the public-hearing were summarized. Each comment is followed by a response to the comment, with the focus of the response being on substantive environmental issues.

March 4, 2008: TNC and State Parks presents proposed project to the Sacramento River Conservation Area Forum
TNC and State Parks presented the draft hydraulic modeling report, restoration plans, and recreation plans to the Sacramento River Conservation Area Forum's Technical Advisory Committee.

July 3, 2008: TNC meets with Butte County Department of Public Works
TNC met with Stuart Edell, Butte County Deputy Director of Public Works to discuss results of the draft hydraulic modeling report. Based on feedback from Butte County, TNC conducted another round of modeling.

August 20, 2008: TNC meets with Butte County Department of Public Works
TNC met with Stuart Edell, Butte County Deputy Director of Public Works and Steve Troester, To discuss issues concerning the Williamson Act contract for the Nicolaus property and a proposed timeline for restoring both the Nicolaus and Singh properties.

September 17, 2008: Final EIR Distributed to interested parties and published at the State Clearinghouse (SHC# 2007082160).

October 17, 2008: EIR Certified
The Final EIR was certified by the Department of Parks and Recreation on October 17, 2008 when they filed a Notice of Determination to the State Clearinghouse. This triggered a 30-day period during which time interested parties could contest the findings of the Final EIR. All individuals and agencies who commented on the Public Draft EIR are notified of this step.

November 17, 2008: EIR Completed
The Final EIR was not contested during the 30-day contest period and therefore was completed on November 17, 2008.

Attachment F

Revised Singh Planting Plan

Revised Singh Planting Plan

Notes:
1. All rows are spaced 30ft apart.
2. Tree rows will be parallel to the direction of overbank flow as indicated on the attached map.

Valley Oak Riparian Forest (VORF)

Phase 1 - Manual Planting

Density (plant by row)	11' x 30'
Emitter Density per Acre	132
Acres	18.9
Target Planting Date	Spring, Project Year 2
Total Locations	2,495
Total Plants	4,615

Canopy Structure	Species		Frequency	Total
Overstory	*Platanus racemosa*	Western sycamore	19%	474
	Quercus lobata	Valley oak	35%	873
Midstory	*Acer negundo*	Box elder	10%	249
	Fraxinus latifolia	Oregon ash	10%	249
Understory	*Baccharus pilularis*	Coyote brush	6%	150
	Toxicodendron diversilobum	Poison oak	5%	125
			85%	2121
Herbaceous	*Carex barbarae*	Santa Barbara sedge	40%	998
	Muhlenbergia rigens	Deergrass	10%	249
Forbs	*Artemisia douglasiana*	Mugwort	10%	249
	Euthamia ocidentalis	California goldenrod	10%	249
	Urtica dioecia	Hoary nettle	5%	125
	Oenothera hookeri	Primrose	5%	125
Vines	*Aristolochia californica*	California pipevine	13%	324
	Clematis ligusticifolia	Clematis	5%	125
	Vitis californica	California grape	2%	50
			100%	2495

Mixed Riparian Forest (MRF)

Phase 1 - Manual Planting

Density (plant by row)	11' x 30'
Emitter Density per Acre	132
Acres	6.1
Target Planting Date	Spring, Project Year 2
Total Locations	805
Total Plants	1,151

Canopy Structure	Species		Frequency	Total
Overstory	*Platanus racemosa*	Western sycamore	22%	177
	Populus fremontii	Fremont cottonwood	14%	113
	Quercus lobata	Valley oak	12%	97
Midstory	*Acer negundo*	Box elder	12%	97
	Baccharis salicifolia	Mule fat	6%	48
	Fraxinus latifolia	Oregon ash	10%	81
	Salix gooddingii	Goodding's willow	5%	40
	Salix lasiolepis	Arroyo willow	5%	40
Understory shrubs	*Baccharus pilularis*	Coyote brush	2%	16
	Toxicodendron diversilobum	Poison oak	5%	40
			93%	749
Herbaceous	*Carex barbarae*	Santa Barbara sedge	20%	161
	Muhlenbergia rigens	Deergrass	5%	40
Forbs	*Artemisia douglasiana*	Mugwort	10%	81
	Euthamia ocidentalis	California goldenrod	5%	40
	Urtica dioecia	Hoary nettle	3%	24
	Oenothera hookeri	Primrose	2%	16
Vines	*Aristolochia californica*	California pipevine	2%	16
	Clematis ligusticifolia	Clematis	2%	16
	Vitis californica	California grape	1%	8
			50%	403

Cottonwood Riparian Forest (CWRF)

Phase 1 - Manual Planting

Density (plant by row)	11' x 30'
Emitter Density per Acre	132
Acres	5
Target Planting Date	Spring, Project Year 2
Total Locations	660
Total Plants	891

Canopy Structure	Species		Frequency	Total
Overstory	*Platanus racemosa*	Western sycamore	18%	119
	Populus fremontii	Fremont cottonwood	23%	152
	Quercus lobata	Valley oak	12%	79
Midstory	*Acer negundo*	Box elder	4%	26
	Alnus rhombifolia	White alder	2%	13
	Baccharis salicifolia	Mule fat	5%	33
	Fraxinus latifolia	Oregon ash	5%	33
	Salix gooddingii	Goodding's willow	5%	33
	Salix lasiolepis	Arroyo willow	4%	26
Understory	*Baccharus pilularis*	Coyote brush	2%	13
	Toxicodendron diversilobum	Poison oak	5%	33
			85%	561
Herbaceous	*Carex barbarae*	Santa Barbara sedge	20%	132
	Carex praegracilis	Slender sedge	5%	33
	Muhlenbergia rigens	Deergrass	2%	13
Forbs	*Artemisia douglasiana*	Mugwort	4%	26
	Urtica dioecia	Hoary nettle	10%	66
Vines	*Aristolochia californica*	California pipevine	5%	33
	Clematis ligusticifolia	Clematis	3%	20
	Vitis californica	California grape	1%	7
			50%	330

Extracted Figure 10 from the Final Nicolaus and Singh Hydraulic Model Report (Ayres Associates, 2008). Figure 10 indicates direction of overland flow with restoration conditions.

Figure 10. Restoration Conditions Velocity Vectors

Singh restoration communities showing direction of tree rows parallel with direction of overland flow indicated in Figure 10 on the previous page.