

U.S. Department of the Interior
Fish and Wildlife Service
Sacramento River National Wildlife Refuge

FINDING OF NO SIGNIFICANT IMPACT

For

Final Environmental Assessment for Proposed M&T Chico Ranch/Llano Seco Rancho
Pumping Plant Maintenance of Channel Alignment River Mile 192.5

The U.S. Fish and Wildlife Service (USFWS), California Department of Fish & Game (CDFG), M&T Chico Ranch, and Llano Seco Rancho are proposing a management action to place 1,520 feet of rock toe and tree revetment on the west side of the Sacramento River at River Mile 192.5 on lands owned and managed by USFWS as part of the Capay Unit of the Sacramento River National Wildlife Refuge. River meander and sediment deposition jeopardizes the continued operation of the M&T Chico Ranch/Llano Seco Rancho pumping facility. The M&T Chico Ranch/Llano Seco Rancho pumping facility was relocated from Big Chico Creek to the present location in 1997 to reduce impacts on spring-run and winter-run Chinook salmon with funds made available pursuant to the Central Valley Project Improvement Act, Bay-Delta Accord Category III, Wildlife funds, Wildlife Conservation Board funds, and Ducks Unlimited funds. Continued sediment deposition also threatens the operation of the City of Chico's wastewater treatment plant by burying the diffusers which are part of the outfall located downstream of the M&T Chico Ranch/Llano Seco Rancho pumping facility. The rock and tree revetment is intended to stabilize the site, thereby protecting the M&T Chico Ranch/Llano Seco Rancho pumping facility until a long-term solution is developed.

The proposed project would also include the removal of gravel bar materials from the river to allow parallel sweeping flows at the pumping facility ensuring compliance with NMFS and CDFG fish screen criteria and protecting the City of Chico's wastewater treatment plant outfall.

In addition to providing water for agricultural lands, diversions at the M&T Chico Ranch/Llano Seco Rancho pumping facility also provide an important source of water for over 4,000 acres of wetlands owned and managed by USFWS and the California Department of Fish and Game (CDFG). Key wetland habitat for waterfowl and other wetlands species depends upon a reliable water supply that is made available from the M&T Chico Ranch/Llano Seco Rancho pumping facility. The proposed action benefits USFWS by contributing to the purposes of the Sacramento National Wildlife Refuge Complex and by enabling USFWS to maintain and restore the ecological integrity of the habitats and populations on the Refuge consistent with its vision and goals for the Refuge. The proposed action is a result of an investigation by a California Bay-Delta Authority appointed team of multidisciplinary experts using the best scientific knowledge available to provide a balanced and unbiased view of the issues.

Decision

Following comprehensive review and analysis, the Service selected the Proposed Action for implementation because it is the alternative that best achieves the purpose and need.

Alternatives Considered

The USFWS analyzed the following alternatives to the proposed action. For a complete description of each alternative, see the Environmental Assessment/Initial Study - Mitigated Negative Declaration (USFWS/CDFG 2007).

Alternative 1, No Action

Alternative 1 (No Action), would include actions, practices and land uses that would assume to occur at the project site without the availability of federal funding. No bank stabilization or dredging would occur. The No Action Alternative would result in continued erosion of the west bank and growth of the in-channel gravel bar directly upstream of the diversion. This alternative was not selected because continued erosion and sediment deposition would adversely affect the ability of the M&T Chico Ranch/Llano Seco Rancho pumping facility to divert water to both the ranches and State and Federal wildlife refuges. Impairment of diversions at M&T Chico Ranch/Llano Seco pumping plant would result in the reduction of dedicated bypass flows in Butte Creek under the terms of the 1991 agreement for the relocation of the pumping plant thereby potentially impacting listed species. Continued sedimentation would also adversely affect the operation of the City of Chico's wastewater treatment plan by burying the diffusers.

Alternative 2, Dredging

Under Alternative 2, a gravel bar adjacent to Bidwell-Sacramento River State Park would be excavated to about five feet below the fall low-flow (4,000 cfs Sacramento River Flow) water surface elevation. During excavation a 5- to 10-foot berm would be left on the outer edge of the dry bar to separate the Sacramento River and Big Chico Creek from construction activities. Winter flood flows would capture the excavated area and scour the outer berm completing the reconfiguration of the bar. Approximately 120,000 tons of material would be expected to be removed once within the five-year project implementation period. Gravel removed from the bar would be relocated to an existing spoil area within the floodplain of the river. Access to the project site would be accomplished by constructing a temporary stream crossing over Big Chico Creek. This alternative was not selected because it would not address the potential impact to the facility resulting from river meander and would only contribute incrementally to the overall goal of the proposed project.

Alternative 3, 1,520 Feet Stone Toe and Tree Revetment plus Dredging

Under Alternative 3, 1,520 feet of rock and tree revetment would be placed on the west side of the Sacramento River. Approximately 9,120 tons of rock would be placed to about half of the bank height to an elevation of about 120 feet above mean sea level and the base of the revetment would be about 30 feet in width. The top of the bench would be an average of 10 feet wide. The brush portion of the revetment would consist of multiple, alternative clusters of trees spaced approximately 10 to 15 feet apart at two elevations. One layer would be installed on the top of the rock toe and the second layer would be installed at an intermediate elevation to provide instream and object cover at a range of flows. Currently, there is very little Shaded Riparian Area (SRA) occurring on the impacted bank and there are active State threatened bank swallow colonies using the clear vertical banks. The propose project will implement a 0.35 acre restoration planting of SRA immediately upstream of the project on the Capay Unit of the Sacramento River NWR where it would be protected in perpetuity. However, it is anticipated that the planting will not fully mitigate for the removed riparian habitat. Therefore, additional riparian habitat mitigation would occur at a ratio of 2:1 on the Llano Seco Rancho. Removed grassland would be mitigated at a ratio of 1:1 on the Capay Unit and an additional 6.8 acres on the Rio Vista Unit of the USFWS Sacramento River National Wildlife Refuge.

Because the west bank of the Sacramento River is suitable habitat for Bank Swallows (BANS), and nesting colonies often (almost annually) have been observed using the site, the Proposed Action/Project includes mitigation for the temporary loss of BANS habitat through the acquisition of a permanent 1,520-foot long, 600-foot wide conservation easement on the M&T Chico Ranch (discussed below). Because the Proposed Action/Project is a short-term project, mitigation included for the loss of habitat is proposed to offset a short-term loss.

Rock for the toe protection would be placed in the channel with a long-reach excavator or dragline. Tree and brush would be placed in the revetment area with a crane or other appropriate machinery. The dredging proposed in Alternative 2 is also an element of this alternative. The primary factor used to differentiate the alternatives was the ability to achieve the purpose of protecting the M&T Chico Ranch/Llano Seco Rancho pumping facility and the City of Chico's wastewater treatment plant outfall while reducing the potential adverse effects of the proposed action. The proposed action met the objectives without increasing the adverse and socioeconomic effects.

Effects of the proposed action on the environment

As described in the EA, implementing the proposed action will have no significant impacts on any of the environmental resources identified in the EA. A summary of the impact analysis and conclusions in the EA follows. Implementation of the proposed action would be expected to result in the following environmental effects

Fisheries and Aquatic Resources

The original objectives of the pumping plant and fish screen project are undermined unless additional measures are taken to address the effects of river meander and sedimentation. These objectives include elimination of fish entrainment and mortality of special status fish species, improvement of stream flow condition in Butte Creek for spring-run Chinook salmon, and a reliable water supply to federal and state wildlife refuges. Therefore, the proposed action would have a beneficial effect on fisheries in Butte Creek.

Potential impacts on fish species could occur during short-term construction-related activities associated with gravel bar dredging and from habitat alteration over a 5-year period associated with bank revetment. These impacts are considered less than significant because of the short-term nature of construction, the inclusion of best management practices in the Proposed Action to protect aquatic resources, the inclusion of embedded trees and/or brush clusters in the bank revetment, riparian restoration, and the removal of bank revetment after 5 years. The specific best management practices are described in the section on Mitigation Measures under Water Resources and Quality. Additional mitigation is described under Fisheries and Aquatic Resources.

Terrestrial Resources

Potential impacts resulting from land disturbing activities would temporarily affect 1.73 acres of valley/foothill riparian and 1.75 acres of grassland habitat. The stone toe and tree revetment would impact 1,520 linear feet of shaded riverine aquatic habitat. Potential impacts to two elderberry shrubs would result from access improvements associated with the installation of the rock toe and tree revetment. Potential impacts on 1,520 linear feet of bank swallow nesting habitat would occur due to construction of the stone toe and tree revetment.

The mitigation measures listed below are included in the proposed action and reduce these impacts to less than significant.

Air Quality

Potential impacts to air quality are considered less than significant because the proposed action would not involve substantial construction activity around residential areas or sensitive receptors, and the construction activities are short-term. However, to minimize

dust generation, several best management practices are included in the proposed action and are described below.

Water Resources and Quality

Potential impacts resulting from construction activities would have minimal effects on water quality because of the short-term nature of the action and because of the best management practices that are incorporated into the proposed action. Specific best management practices are listed below.

Cultural Resources

The Archaeological Survey Reports previously conducted for the project area concluded that there would be no known effect on archaeological resources within the surveyed area. However there is the potential for unknown cultural and/or historical resources to be disturbed or uncovered during the construction activities. Therefore, a mitigation measure is included in the proposed action to halt construction should any cultural artifacts be discovered during construction. This mitigation measure is described below.

Aesthetics/Visual Resources

The presence of construction equipment would degrade the visual quality of scenic vistas from the bank top and river. However, this effect is temporary and would last no longer than the construction period. The proposed action would add 1,520 linear feet of rock and tree revetment to areas that are presently in a natural state. This impact will be less than significant because of the inclusion of tree and/or shrub clusters incorporated into the revetment as described under Fisheries and Aquatic Resources below.

Geomorphology and Soils

The vegetation clearing and placement of construction materials would result in ground and soil disturbance. These disturbances would increase the hazard of erosion and could temporarily increase erosion and sedimentation rates. Most earthwork would be conducted on or immediately adjacent to the top of the western river bank. Dredging activities would remove only the inside portion of the gravel bar, leaving a ring of gravel around the outside of the bar. During winter flows, the outside edge will be eroded, but any increased turbidity would be masked by high flow conditions. Therefore, accelerated erosion and sedimentation resulting from construction-related ground and vegetation disturbance would not result in significant impacts. Best management practices would also be adhered to as described below under Water Resources and Quality.

Noise

There are no significant impacts to the environment from construction noise. Noise and vibration would be limited to daytime hours and would not subject residences to prolonged noise exposure above 55 to 65 dBA, or severe noise levels above 80 dBA.

There are no sensitive receptors, including schools, day care, or senior housing, in the vicinity of the study area.

Recreation and Navigation Safety

Impacts to recreational uses such as fishing, boating, and swimming would be minimal because construction would take place in the fall/winter when use is minimal. In addition, measures will be incorporated into the design of the bank revetment to ensure there is no significant impact to recreation or navigation safety. Those measures are described below.

Traffic and Circulation

Construction equipment required for the dredging component of the proposed action would access the site from a dirt road off of River Road. Once the equipment and machinery are on-site, it will remain on-site until completion of construction activities. While these trips would take place during business hours of 7:00 a.m. to 5:00 p.m., most trips would occur during off-peak traffic hours, from 9:00 to 4:00. Mitigation measures to avoid any potential delays or safety issues on haul routes are described below.

Mitigation Measures

The Service will ensure impacts to the human environment are minimal and less than significant through implementation of appropriate mitigation measures during construction activities and through project design. Specific measures to mitigate and/or minimize adverse effects are included in the proposed action as follows (measures in *italics* were added or modified in response to public comments):

Fisheries and Aquatic Resources

- A tree revetment, in the form of orchard trees and native trees and shrubs will be incorporated into the revetment, alternating clusters of trees spaced approximately 10 to 15 feet apart at two elevations. One layer would be installed on the top of the rock toe and the second layer would be installed at an intermediate elevation to provide instream and object cover at a range of flows.

- Installation of the revetment material will be done using a long-reach excavator or dragline in order to place material in a specific area as opposed to dumping from the top of bank to avoid the potential take of any special status fish species. Tree and brush would be placed using a crane or other appropriate machinery.

Terrestrial Resources

- Qualified biologists will conduct Pre-construction surveys for sensitive biological resources;

- Potentially impacted elderberry shrubs will be transplanted to an approved area on sight under the supervision of a USFWS approved biologist;
- Elderberry shrubs within 100 feet of construction activities will be identified and fenced with high-visibility plastic fencing;
- Temporary construction fencing will be placed around nearby vegetation to provide protection from construction activities;
- The project biologists will conduct environmental awareness training programs. Construction workers will be informed by a qualified environmental monitor about any sensitive biological resources associated with the project and that the disturbance of sensitive habitat or special-status species is a violation of federal Endangered Species Act (ESA) and Section 404 of the Clean Water Act;
- Restoration and enhancement of Valley/Foothill riparian habitat at the ratio of two (2) acres for every acre removed will be provided within the affected area through planting of valley oak, cottonwood, alder and willows and other appropriate native planting material. Restoration planting will be maintained and monitored for five years;
- Restoration or enhancement of grassland habitat temporarily disturbed by construction activities will be provided at a ratio of one (1) acre for every acre removed through the planting of appropriate native plantings on the Capay Unit of the SRNWR. In addition, 6.8 acres of native grassland habitat will be planted on the Rio Vista Unit of the SRNWR.
- The Proposed Action/Project includes mitigation for the loss of BANS habitat through the acquisition of a permanent *1,520-foot long, 600-foot wide conservation easement on the M&T Chico Ranch*. Because the Proposed Action/Project is a short-term project, mitigation included for the loss of habitat is proposed to offset a short-term loss.
- Construction will be done consistent with the 1999 USFWS Conservation Guidelines for Valley Elderberry Longhorn Beetle. If avoidance is not possible, affected bushes will be transplanted within the mitigation area under the authority of the programmatic Section 7 consultation #1-1-98-F-13 within the Capay Unit.

Air Quality

- A water truck will be present in the project area to water roadways in order to minimize dust and other particulate matter.
- Standard mitigation and best management practices will be incorporated as detailed in the Butte County Air Quality Management District's *Indirect Source Review Guidelines*;

- An Erosion Control Plan and Post Construction Storm Water Management Plan will be prepared and implemented;

Water Resources and Quality

- A Storm Water Pollution Prevention Plan will be prepared and implemented as required by the conditions of a National Pollution Discharge Elimination System permit;

- A Hazardous Materials Control, Spill Prevention and Response Plan to reduce the potential effects of hazardous materials use and spill and that establish strict on-site handling rules to keep construction and maintenance materials out of the drainage and waterways will be prepared and implemented;

- Training of all construction personnel in the proper use and clean up of potentially hazardous material will be conducted;

- Staging and storage areas for equipment, materials, fuels, lubricants, solvents and other possible contaminants will be away from watercourses and their watersheds;

- Conservation and avoidance measures will be implemented in accordance with the Regional Water Quality Control Board's requirements, including placement of sediment curtains around affected areas and replanting erodable areas immediately following construction.

Cultural Resources

- The existing cultural resource surveys will be amended as required by Section 106 of the National Historic Preservation Act. If buried cultural materials are unearthed during construction, the contractor will halt construction work within 100 feet of any find of buried cultural resources until a qualified archaeologist can assess its significance. If human remains are unearthed during construction, the contractor would contact the County Coroner to make the necessary findings or origin and disposition in accordance with Public Resources Code section 5097.98. In either case, the contractor would contact the lead agencies.

Recreation and Navigation Safety

Mitigation included in the project design includes the following:

- Placement of signs both upstream and downstream of the site to alert recreationists to the presence of bank stabilization structures, altered bank condition, dredging equipment, altered gravel bar conditions, and the altered access to Big Chico Creek from the Sacramento River.
- Bank revetment design would ensure local approach visibility and would incorporate the use of natural indicators, such as partially emergent portion of the instream woody material, in combination with vegetation on the low elevation areas, to act as a visual warning of the presence of shallowly

submerged hardscape so as to reduce the hazard to power boaters and paddlers.

- Instream woody material would be placed in a manner that reduces its ability to act as a “strainer”, thus reducing the risk to recreationists flowing with the river current, especially swimmers and those in canoes. Specifically, the outboard portions of the instream woody material would be oriented in a downstream direction or would be installed in the form of relatively compact rootwads that would tend to deflect watercraft and reduce the risk for entrapment or straining within the instream woody material.

Traffic and Circulation

The traffic control plan developed for the proposed action will include the following measures:

- Through access for emergency vehicles would be provided at all times.
- Access would be maintained for driveways and private roads.
- Adequate off-street parking would be provided for construction-related vehicles throughout the construction period.
- Roadway segments or intersections that are at or approaching a level of service that exceeds local standards would be identified. A plan would be provided for construction-generated traffic to avoid these locations at the peak periods, either by traveling different routes or by traveling at non-peak times.
- Traffic controls on major roads and collectors would include flag persons wearing bright orange or red vests and using “stop/slow” paddles to direct drivers.
- Access to public transit would be maintained, and movement of public transit vehicles would not be impeded as a result of construction activities.
- Construction warning signs would be posted in accordance with local standards or those set forth in the Manual on Uniform Traffic Control Devices (Federal Highway Administration 2000) in advance of the construction area and at any intersection that provides access to the construction area.
- Written notification would be provided to appropriate contractors regarding appropriate routes to and from construction sites, and weight and speed limits for local roads used to access construction sites.

In summary, the proposed project is not expected to have any significant effect on the human environment because all adverse environmental impacts have either been eliminated through project design or mitigation measures have been integrated into the proposed action that would reduce impacts to a less-than-significant level.

The proposed project has been coordinated with all interested and/or affected parties including:

- Sacramento River Conservation Area
- Sacramento River Preservation Trust

- Ducks Unlimited
- The Nature Conservancy
- California Department of Fish and Game
- U.S. Fish and Wildlife Service
- National Marine Fisheries Service
- U.S. Army Corps of Engineers
- California Department of Water Resources
- Central Valley Branch of the Regional Water Quality Control Board
- California State Parks

Public Availability: The supporting environmental assessment was available for public review and comment for a 30-day period. The document was distributed to federal, state and local agencies; public libraries; potentially affected landowners; and private groups and individuals upon their request. Comments were received from August 7, 2007 through September 7, 2007. The final environmental assessment has been modified to meet and address the concerns that were raised.


The final EA and FONSI are available from:
 U.S. Fish and Wildlife Service
 Sacramento National Wildlife Refuge Complex
 752 County Road 99W
 Willows, CA 95988
 Phone 530-934-2801

or

<http://sacramentovalleyrefuges.fws.gov>

Conclusions

Based on information contained in this environmental assessment, it is my determination that the proposed action does not constitute a major federal action significantly affecting the quality of the human environment, within the meaning of section 102(2)(C) of the National Environmental Policy Act of 1969, as amended. As such, an environmental impact statement is not required. The attached environmental assessment has been prepared in support of this finding.



 Manager, California/Nevada Operations
 Sacramento, California

10-16-07

 Date

Supporting References:

Jones & Stokes Associates, Inc. 1996. Environmental assessment/initial study for the MT&T Ranch/Parrott pumping plant and fish screen project. Prepared for U.S. Fish and Wildlife Service, Sacramento National Wildlife Refuge, California Department of Fish and Game, Ducks Unlimited and Montgomery Watson.

HDR Engineering, Inc. 2001. Initial Study and Proposed Mitigated Negative Declaration for M&T/Llano Seco Ranch/City of Chico Sacramento River Water Intake Stream Channel Maintenance. Prepared for California Department of Fish and Game and City of Chico.

HDR Surface Water Resources, Inc. 2007. M&T Chico Ranch/Llano Seco Rancho Pumping Plant Interim Maintenance Channel Alignment Sacramento River Mile 192.5. Final Environmental Assessment and Initial Study. Prepared for M&T Inc., Chico Ranch, USFWS and California Department of Fish and Game.

Galloway Consulting, Inc. 2006. M&T Chico Ranch/Llano Seco Rancho Pumping Plant Interim Maintenance Channel Alignment Sacramento River Mile 192.5 Draft Environmental Assessment and Initial Study. Prepared for M&T Inc., Chico Ranch, USFWS and California Department of Fish and Game.

CALFED PEIS/EIR (CALFED 2000a) and ROD (CALFED 2000b)