

APPENDIX A - Mitigation Monitoring and Reporting Plan

In accordance with CEQA Guidelines § 15074(d), when adopting a mitigated negative declaration, the lead agency will adopt a mitigation monitoring and reporting plan (MMRP) that ensures compliance with mitigation measures required for project approval. The Solano RCD is the lead agency for the above-listed project and has developed this MMRP as a part of the final IS-MND supporting the Project. This MMRP includes 1) Monitoring and reporting protocols adopted by the lead agency, and 2) Mitigation measures developed in the IS-MND that were designed to reduce environmental impacts to a less-than- significant level.

This MMRP also identifies the party responsible for implementing the measure, defines when the mitigation measure must be implemented, and which party or public agency is responsible for ensuring compliance with the measure. This form shall be kept on file by the Lead Agency and updated weekly during project implementation when operations are active.

1. Monitoring and Reporting Protocols:

Biological Monitoring: General biological monitoring shall be performed by an experienced general biologist, which may be SRCD staff or a consultant. The intent of biological monitoring is to ensure that crews are adhering to the stipulations of the MND and any applicable CDFW 1602 Permit(s). This type of monitoring typically occurs as a daily check-in, unless constant biological monitoring is required by one of the mitigation measures below.

Performance Monitoring: This type of monitoring shall be performed by SRCD staff and/or consultants and will occur annually to assess effectiveness of project treatments. Monitoring shall include site photos, quantitative data estimates for treatment success (percent control of invasives by cover and density, percent survivorship of native plantings, etc.), and a written report. Monitoring data will be used to determine when re-treatments and/or revegetation shall occur. Project work shall be considered successful if cover of invasive plants is less than 5% of the original invasive footprint by year 5. If site is maintained properly, by year 10, arundo and tamarisk cover should be less than 1%, with the goal of 100% control.

Permit-related reporting: Reporting shall be conducted to all regulatory agencies that issue a special permit for project-related work, in accordance with agency standards.

Salmonid Monitoring: The SRCD shall monitor and maintain a record of all interactions with salmon during project activities. Reporting information will include animal behavior, and any effects, location, and number observed. Project activities are scheduled to occur outside salmon presence in the system so interactions between project activities and salmon are unlikely.

2. Mitigation Measures:

The following is a list of the resources that will be potentially affected by the project and the mitigation measures made part of the Initial Study-Mitigated Negative Declaration.

MITIGATION MEASURES FOR BIOLOGICAL RESOURCES

Mitigation Measure BIO-1: Special Status Plants

- a. Focused surveys of suitable habitat shall be conducted by a qualified biologist prior to the start of work.

Surveys for **tree removal areas** shall focus on:

- g. *Fritillaria pluriflora*
- h. *Hesperolinon breweri*
- i. *Sidalcea keckii*
- j. *Viburnum ellipticum*
- k. *Delphinium recurvatum*
- l. *Trifolium amoenum*

Surveys for **arundo and tamarisk treatments** shall focus on:

- d. *Lasthenia conjugens*
- e. *Sidalcea keckii*
- f. *Trifolium amoenum*

Surveys for **crossing construction** shall focus on all of the above species.

- b. If one of the sensitive plant species listed above is detected during surveys, zones of 15 feet around the plant or outermost individual in a group of plants shall be flagged with “Special Treatment Zone” flagging.
- c. For **tree removal operations**:
- v. Tracked or wheeled equipment shall not be allowed to enter these zones except on existing roads and trails.
 - vi. Removal of trees may occur within these zones. Trees must be suspended out of the buffer zone without disturbing special-status plants; i.e., trees shall not be dragged over special-status plants, workers shall not trample special-status plants, etc.
 - vii. Chips or other woody material may not be broadcast into these special treatment zones.
 - viii. If a special-status plant species is detected during operations, all work will cease until the RPF is notified and appropriate buffer zones have been flagged as described above.
- d. For **arundo and tamarisk treatments**:
- i. Mowing shall not be allowed within plant protection zones as described in Item b above.
 - ii. Hand-cut material shall not be piled within zones described in Item b above. Invasive species may be hand-cut within zones and removed to an area outside the zone where they may be chipped, mowed, or left in place.
 - iii. Herbicide treatment within these zones shall be limited to targeted hand-spraying of glyphosate. Soil-active herbicides shall not be used.
 - iv. When spraying herbicide within plant protection zones, a 5-gallon bucket, shield, or other device shall be used to protect rare plants during application.
 - v. If a special-status plant species is detected during operations, all work will cease until the project manager is notified and appropriate buffer zones have been flagged as described above.

Schedule: Prior to operations

Responsible Party: Solano RCD

Verification of Compliance [Initials and Date(s)]: _____

Monitoring Party: Solano RCD

Mitigation Measure BIO-2: Valley Elderberry Longhorn Beetle

For all project operations:

- a) Project areas will be pre-checked for the presence of elderberry plants. Where present, individual elderberry plants with a stem diameter of 1 inch or greater or clumps of elderberry plants will be flagged for retention.
- b) A qualified biologist will provide training for all contractors, work crews, and any onsite personnel on the status of the VELB, its host plant and habitat, the need to avoid damaging the elderberry shrubs, and the possible penalties for noncompliance.
- c) A qualified biologist will monitor the work area at appropriate intervals to assure that all avoidance and minimization measures are implemented.
- d) As much as feasible, all activities that could occur within 50 meters (165 feet) of an elderberry shrub, will be conducted outside of the flight season of the VELB (March - July).
- e) The following protection measures shall be implemented within 20 feet of elderberry shrubs:
 - Target plants shall be hand cut. Invasive species less than 1 inch DBH may be pulled with a weed wrench only when doing so does not damage elderberry roots.
 - Mowing is not allowed within the 20-foot buffer.
 - Foliar spraying shall not occur. Only cut-stump applications are permitted.
 - Imazapyr or other soil-active herbicides will not be utilized.
- f) In addition to the restrictions outlined in Item 5 above, the following protection measures shall be implemented within the dripline of elderberry shrubs:
 - Mechanical weed removal within the dripline of the shrub will be done with hand tools rather than chainsaws, will be limited to the season when adults are not active (August - February) and will avoid damaging the elderberry.

Schedule: Prior to operations

Responsible Party: Solano RCD

Verification of Compliance [Initials and Date(s)]: _____

Monitoring Party: Solano RCD

Mitigation Measure BIO-3: Foothill Yellow-Legged Frog and California Red Legged Frog:

- a) For tree removal and mowing of invasive arundo and tamarisk proposed between the first October or November rain amounting to more than ¼ inch and April 31st: prior to tree removal or large woody debris removal, a qualified biologist shall assess the work area via a visual survey to determine if suitable habitat is present. If so, a field survey will be conducted

to determine presence. If presence is detected, the occupied portion of the associated watercourse shall not be operated on during the above-mentioned seasonal restriction period, and any work must occur in the presence of a biological monitor.

- b) For all temporary crossing work: If suitable habitat for CARLF or FYLF is present at the location of the proposed crossing, surveys for California red legged frog and foothill yellow legged frog shall be conducted no more than 48 hours before crossing construction. Surveys shall be conducted by a qualified biologist and shall be tailored to the life stage of the frog for the period of construction. If special-status frogs are discovered during surveys, temporary crossing work at that location shall be placed on hold and CDFW shall be consulted per the requirements of relevant Lake and Streambed Alteration Permits.

Schedule: a) Prior to operations for tree removal and mowing, b) Prior to crossing work
Responsible Party: Solano RCD
Verification of Compliance [Initials and Date(s)]: _____
Monitoring Party: Solano RCD

Mitigation Measure BIO-4: Giant Garter Snake and Western Pond Turtle

- a) **For tree removal, mowing, hand cutting, and chipping:** Suitable habitat will be surveyed no more than 72 hours before start of work. Surveys will focus specifically on identifying burrows for giant garter snake and egg-laying sites for Western pond turtle, if seasonally applicable. If occupied sites are discovered during surveys, the following shall apply:
 - 4) Occupied habitat shall be treated after individuals have left the area as determined by a qualified biologist; OR
 - 5) Occupied habitat shall be given a 30-foot avoidance zone and work may proceed with a biological monitor on site; OR
 - 6) Pursue an alternate plan that avoids harassment/mortality and minimizes other physical habitat disturbances in coordination with the written permission of the California Department of Fish and Wildlife's Lake and Streambed Alteration Agreement Program.
- b) **For herbicide application:** Pre-survey of suitable habitat is not required. Workers will be instructed to look out for wildlife and burrows and to avoid them while spraying.
- c) **For all temporary crossing work:** Surveys for Giant Garter Snake and Western Pond Turtle shall be conducted prior to crossing construction if suitable habitat exists. Surveys shall be conducted by a qualified biologist and shall be tailored to the life stage of the reptile for the period of construction. Surveys shall cover the crossing footprint and any suitable habitat within 30 feet of the crossing footprint. If giant garter snake or western pond turtle are discovered during surveys, temporary crossing work at that location shall be placed on hold and CDFW shall be consulted per the requirements of relevant Lake and Streambed Alteration Permits

Schedule: a) Prior to operations, b) During operations, c) Prior to crossing work
Responsible Party: Solano RCD
Verification of Compliance [Initials and Date(s)]: _____

Mitigation Measure BIO-5: Special Status Bats and American Badger

- a) **For arundo and tamarisk treatment:** Crews shall avoid spraying in the presence of wildlife observed in the treatment areas. Areas that are not sprayed due to the presence of wildlife may be sprayed once wildlife have left the treatment area. Areas with suspected occupied nesting or denning habitats shall also be avoided and not treated using manual plant removal methods or herbicides until wildlife have left the area.
- b) **For mowing and tree removal:** Prior to the start of operations at a project site, the area within 100 feet of mowing areas or areas where trees planned for removal, and 50 feet of landings and skid trails will be searched for American Badger denning sites. If a potential site is located, presence will be assumed and the site will have a 100 foot no operations buffer OR occupancy of the site will be determined using camera surveys. If the site is determined to be unoccupied, operations may continue unrestricted.
- c) For tree removal operations, a tiered tree removal approach will be used to create disturbance and encourage bats to mobilize before the tree is removed. This approach where operationally feasible may include:
 - i. Causing disturbance prior to felling trees which are suspected to contain bats and/or treating boles suspected to contain bats, e.g. clearing vegetation adjacent to trees suspected to contain bats the day prior to felling, leaving boles overnight between staging and chipping to provide time for egress.
 - ii. Any trees felled from November 1 through April 30 will be staged overnight prior to transport or treatment to allow hibernating bats to exit the tree.

Schedule: a) During operations. b) Prior to operations for mowing and tree removal; c) During operations, when feasible
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Responsible Party: Solano RCD

Verification of Compliance [Initials and Date(s)]: _____

Monitoring Party: Solano RCD

Mitigation Measure BIO-6: Special Status Birds or Non-listed Raptors

- a) **For tree removal operations and crossing construction:**
 - i. Trees planned for removal shall be assessed for nests prior to removal.
 - ii. If tree removal is planned during the nesting bird season (March 1st – August 15th), a walking survey of all reasonably accessible areas of the treatment site and the immediate vicinity visible from the treatment site shall be conducted by a qualified individual within 72 hours of the start of work. This survey will include examination of suitable nesting trees for nests, whitewash, or any sighting/vocalization associated with nesting birds, including raptors.
- b) **For arundo and tamarisk treatments:**
 - i. Work shall adhere to the timeline outlined in Table 2.
 - ii. Herbicide application, cutting and hauling of biomass, and chipping that occurs between July 16th and August 15th requires a pre-work avian survey as described in **item a-ii** above.
- c) **For all project activities:**

- i. If an active nest of a special status bird or non-listed raptor is identified during a pre-work survey, a temporary, species-appropriate buffer will be established around the nest. Buffer location and size will be determined by a qualified biologist and will be sufficient to prevent disturbance of breeding and nesting activities. Buffers shall be clearly flagged or otherwise delineated on the ground. Treatment activities will be implemented outside of the buffer until it is determined that the nestlings have fledged OR the nest is determined to be failed/abandoned. Factors to be considered for determining buffer location will include: presence of natural buffers provided by vegetation or topography, nest height above ground, baseline levels of noise and human activity, species sensitivity, and expected treatment activities.
- ii. If an active nest or vocal individual of a special status bird or non-listed raptor exhibiting behavior associated with nesting is discovered during operations, the contractor shall promptly cease all vegetation-disturbing activities within 200 feet of the nest and notify the project manager immediately. Buffers shall be established as described above before work can commence.
- iii. For those bird species not listed above that are protected by the Migratory Bird Treaty Act: if an active nest is encountered during the survey, a 50-foot no-activity buffer for mowing or a 25-foot buffer for hand removal shall be applied around the nest until the nestlings have fledged OR the nest is determined to be failed/abandoned.
- iv. A qualified biologist will monitor an active raptor nest during treatment activities to identify signs of agitation, nest defense, or other behaviors that signal disturbance of the active nest is likely (e.g., standing up from a brooding position, flying off the nest). If breeding raptors show signs of nest disturbance, one of the other avoidance strategies (establish buffer, modify treatment or defer treatment) will be implemented or a pause in the treatment activity will occur until the disturbance behavior ceases.

Schedule: a-i) Prior to tree removal; a-ii) Between March 1st and August 15th, must conduct within 72 hours of start of tree removal work; b-i) Refer to Table 2 for dates; b-ii) between July 16th and August 15th, must conduct within 72 hours of herbicide, hand cutting, and chipping; c-i) Prior to operations; c-ii) During operations, c-iii) Prior to or during operations; c-iv) During operations
Responsible Party: Solano RCD
Verification of Compliance [Initials and Date(s)]: _____
Monitoring Party: Solano RCD

MITIGATIONS FOR CULTURAL RESOURCES

Mitigation Measure CR-1: For Areas Where Mowing of Invasives is Proposed:

Prior to implementation, a professional archaeologist shall complete an archeological records check and will survey the proposed treatment area and prepare an associated archaeological report. This survey report and any associated site records will be turned into the CHRIS information center and kept on file by SRCD as a confidential addendum to this MND. Any work activities near an identified site will be assessed by a qualified archaeologist prior to work activities occurring. The Tribal contact (when available) and the archaeologist will determine what invasive plant control methods may be used within the site, or if work cannot occur at the site.

Schedule: Prior to mowing operations
Responsible Party: Solano RCD

Verification of Compliance [Initials and Date(s)]: _____
Monitoring Party: Solano RCD

Mitigation Measure CR-2: For Tree Removal Treatments:

- a) Prior to implementation, a professional archaeologist shall complete an archeological records check and will survey the proposed treatment area and prepare an associated archaeological report. This survey report and any associated site records will be turned into the CHRIS information center and kept on file by SRCD as a confidential addendum to this MND.
- b) All sites shall be flagged by an archaeologist with a buffer sufficient to protect above-ground resources.
- c) Tracked or wheeled equipment will be excluded from site boundaries except at existing roads and trails. Equipment may cross linear historic era features at existing crossings, or at pre-determined crossings dictated by the archaeologist or Registered Professional Forester.
- d) Trees shall be directionally felled away from sites wherever safe and feasible.
- e) Additional mitigations may be implemented as necessary in consultation with the Archaeologist and local Native American Tribes.

Schedule: a) Prior to tree removal operations; b) Prior to tree removal operations; c) During tree removal operations; d) During tree removal operations

Responsible Party: Solano RCD

Verification of Compliance [Initials and Date(s)]: _____

Monitoring Party: Solano RCD

For All Treatments involving the use of tracked or wheeled equipment:

Mitigation Measure CR-3: Cultural Resource Sensitivity Training shall be completed by all workers prior to doing ground disturbing work.

Schedule: Prior to start of ground disturbing work

Responsible Party: Solano RCD

Verification of Compliance [Initials and Date(s)]: _____

Monitoring Party: Solano RCD

Mitigation Measure CR-4: If any previously unevaluated cultural resources (i.e., burnt animal bone, midden soils, projectile points or other lithics, historical artifacts, etc.) are encountered, work will be stopped, and a qualified archaeologist will assess the discovery and recommend/implement mitigation measures as necessary. Notification of findings to the Tribal contact will occur.

Schedule: During operations

Responsible Party: Solano RCD

Verification of Compliance [Initials and Date(s)]: _____

Monitoring Party: Solano RCD

Mitigation Measure CR-5: If any human remains are encountered during any phase of work, work shall stop within 500 feet of the find. The county coroner shall be contacted to determine whether investigation of the cause of death is required as well as to determine whether the remains may be Native American in origin. Should Native American remains be discovered, the county coroner must contact the Native American Heritage Commission (NAHC). The NAHC will then

determine those persons it believes to be most likely descended from the deceased Native American(s). Together with representatives of the people of most likely descent, a qualified archaeologist shall assess the discovered and recommend/implement mitigation measures as necessary. In coordination and agreement with landowners, the Tribe will have the final determination as to the disposition and treatment of human remains and grave goods.

Schedule: During operations

Responsible Party: Solano RCD

Verification of Compliance [Initials and Date(s)]: _____

Monitoring Party: Solano RCD

MITIGATIONS FOR GEOLOGY AND SOILS

Mitigation Measure GEO-1: For project activities involving the use of heavy equipment, the following applies:

- a) Heavy equipment use shall not occur on an unstable area. Prior to treatment operations in an area over 30% slope; the treatment area will be traversed by a Registered Professional Forester or their supervised designee to identify any unstable areas requiring avoidance.
- b) Heavy equipment use shall be limited to the following slopes:

Table 10. Maximum slope limitations for tracked and wheeled equipment.

Equipment type	Maximum percent slope
Wheeled equipment	30%
Tracked Chippers	40%
Tracked equipment	50%
Walking Excavators	65%

- c) Heavy equipment operations may not occur during Saturated Soil conditions defined as follows: Soil and/or surface material pore spaces are filled with water to such an extent that runoff is likely to occur. Indicators of saturated soil conditions may include, but are not limited to: (1) areas of ponded water, (2) pumping of fines from the soil or road surfacing material during equipment operations, (3) loss of bearing strength resulting in the deflection of soil or road surfaces under a load, such as the creation of wheel ruts, (4) spinning or churning of wheels or tracks that produces a wet slurry, or (5) inadequate traction without blading wet soil or surfacing materials.
- d) When heavy equipment is being utilized, equipment use must occur outside of periods where it has been continuously raining for more than 30 minutes.
- e) After rain ceases, the site will be allowed to dry for 24 hours before work resumes.
- f) Equipment and personnel shall use established roads, trails, and disturbed agricultural areas to enter work zones wherever possible. New equipment pathways into riparian zones shall be flagged by RPF or SRCD prior to operations.
- g) Trails created by equipment shall have waterbreaks installed per the standards below. Waterbreaks shall be installed prior to November 15th or when the National Weather Service forecasts at least

a 30% chance of rain in the next 24 hours. Waterbreaks shall be cut diagonally at a minimum of six inches into mineral soil and may be installed by hand or with equipment.

Trail Gradient (%)	≤10	11-25	26-50	<50
Maximum Distance Between Waterbreaks (feet)	200	150	100	75

Schedule: a) Prior to operations; b) During operations; c) During saturated soil conditions; d) During operations; e) During operations; f) During operations; g) Immediately following operations OR no later than November 15th OR when the National Weather Service forecasts at least a 30% chance of rain in the next 24 hours.

Responsible Party: Solano RCD

Verification of Compliance [Initials and Date(s)]: _____

Monitoring Party: Solano RCD

MITIGATIONS FOR HAZARDS AND HAZARDOUS MATERIALS

Mitigation Measure HAZ-1: Equipment Maintenance, Fueling, and Mixing of Herbicides

All mixing of herbicides and fueling/maintenance of equipment, and storage of fuels/herbicides will occur only in non-vegetated areas adjacent to existing roads/landings and/or areas with compacted/disturbed soils. These areas shall not be located in areas where an accidental spill could result in entry of fuel, herbicide, or other hazardous materials into a wet or dry stream. No mixing of herbicides, equipment maintenance, or fueling of equipment shall be performed within 25 feet of stream channels or within sensitive habitat. Fuel shall not be transported across a flowing stream. Equipment shall be checked for leaks daily prior to the start of work. If equipment is found to be leaking during this check or at any time during the operation, it shall be moved to the nearest road, landing, or area with compacted/disturbed soils to be repaired on site or removed. Any contaminated soil resulting from an excessive spill from leaking equipment shall be removed. Spill kits shall be on site at refueling and maintenance areas. Herbicide applicators shall be responsible for the immediate containment and removal of spilled material. CDFW shall be notified immediately if a spill occurs that could threaten a riparian area.

Schedule: During operations

Responsible Party: Solano RCD

Verification of Compliance [Initials and Date(s)]: _____

Monitoring Party: Solano RCD

Mitigation Measure HAZ-2: Herbicide Application

- Herbicide applications will be conducted by trained staff and supervised by an applicator that holds a current California Qualified Applicator Certificate (QAC). Application shall comply with all applicable laws and regulations set by Solano County, the Department of Pesticide Regulation, or any other agency governing herbicide use.
- Herbicide treatments will not occur when the National Weather Service forecasts at least a 30% chance of rain in the next 24 hours.

- c) Herbicide shall not exceed maximum rates dictated by the product label.
- d) Aquatic formulations of all herbicides, dyes, additives, and surfactants will be used.
- e) Dye shall be used in herbicide application to ensure adequate coverage and to monitor drift.
- f) Foliar spraying will not occur when ambient wind speeds exceed 10 miles per hour.
- g) Prior to treatment, arundo and tamarisk plants shall be physically separated from surrounding native vegetation to avoid application of herbicide to desirable species. Separation may be created by pushing, de-tangling, or trimming of vegetation. Native vegetation that is 6 inches DBH or greater shall not be trimmed.

Schedule: a, c, d, e, g) During operations; b) When the National Weather Service forecasts at least a 30% chance of rain in the next 24 hours; g) Prior to application of herbicide

Responsible Party: Solano RCD

Verification of Compliance [Initials and Date(s)]: _____

Monitoring Party: Solano RCD

Mitigation Measure HAZ-3: Fire Protection

During declared fire season, the following applies to all project activities:

- a) Operations requiring the use of a chainsaw or heavy equipment will be prohibited during red flag warning periods.
- b) During periods of the year when burn permits are required or burning is prohibited, a 3-hour walking fire patrol is required following chainsaw or heavy equipment use. During this period, operations shall cease when onsite relative humidity is less than 20%.
- c) The contractor will be required to have a sealed fire toolbox onsite, which includes one backpack pump-type fire extinguisher filled with water, two axes, two McLeod fire tools, and a number of shovels greater than or equal to the number of employees at the operation. The contractor will be required to carry a serviceable Underwriters Laboratories (UL) approved fire extinguisher containing a minimum 14 ounces of fire retardant with each operating power saw.
- d) When heavy equipment is used outside of existing roads, a tank truck or trailer, or 30 gallon or larger Compressed Air Foam System (CAFS) will be onsite. The tank truck or trailer must meet the following requirements:
 - i. Contain at least 300 gallons of water.
 - ii. Include 300 feet of 3/4-inch inside diameter rubber-covered high-pressure hose mounted on live reel attached to pump with no segments longer than approximately 50 feet, when measured to the extreme ends of the couplings.
 - iii. Shall be capable of applying a minimum of 40 pounds pressure at the nozzle on 300 feet of hose.
 - iv. Shall be capable of being transported throughout the area proposed for treatment.
- e) If a CAFS system is used, it must meet the following requirements:
 - i. Variable foam expansion ratio – 10:1 to 20:1.
 - ii. Units shall be kept fully charged with air/water and foam concentrate as recommended by the manufacturer and have the appropriate tools to service the system.

- iii. The unit shall contain enough energy to empty tank and clear hose prior to exhausting propellant.
- iv. The unit shall be capable of being completely recharged within 10 minutes.
- f) All heavy equipment shall be equipped with 1 shovel (> 46", sharp, handle smooth, size O or larger) 1 axe (> 28", > 2 1/2 lbs +, sharp, handle smooth) Two 4-A:60-B:C or larger fire extinguishers
- g) The SRCD project manager, Applicators, and all workers shall comply with all applicable fire safety standards as found in Public Resources Code Division 4, Chapter 6, (PRC's 4427, 4428, 4429, 4431, 4442, list not all inclusive).
- h) Vehicles shall not be parked in tall grass or any other location where heat from the exhaust system could ignite a fire.
- i) All motorized equipment shall have approved spark arrestors.
- j) A dependable radio or phone communication shall be available on site to report any emergency which may occur.
- k) Treated invasive species that have the potential to cause a significant fire risk to surrounding vegetation and structures, or the potential to cause an obstruction to any structure, may have canes, limbs or other vegetative material cut and chipped, or disposed of in a legal manner.

Schedule: During declared fire season

Responsible Party: Solano RCD

Verification of Compliance [Initials and Date(s)]: _____

Monitoring Party: Solano RCD

MITIGATIONS FOR HYDROLOGY AND WATER QUALITY

Mitigation Measure HYD-1: Soil Stabilization

For tree removal areas and mowing areas, the following applies:

Any bare areas created by tree removal operations and within 100 feet of a watercourse which supports fish or amphibian habitat, and which are larger than 400 contiguous square feet in area, shall be covered with wood chips to a depth of 2 inches with 80% coverage; or covered with seed-free straw mulch to a depth of 3 inches with 80% coverage. Mulching shall be completed immediately following operations OR no later than November 15th OR when the National Weather Service forecasts at least a 30% chance of rain in the next 24 hours

Schedule: Immediately following operations OR no later than November 15th OR when the National Weather Service forecasts at least a 30% chance of rain in the next 24 hours

Responsible Party: Solano RCD

Verification of Compliance [Initials and Date(s)]: _____

Monitoring Party: Solano RCD

Mitigation Measure HYD-2: Equipment Staging

Equipment used during project activities, including tracked/wheeled equipment, vehicles, hand tools, chainsaws, etc., shall be staged outside of the riparian area on roads, turnouts, disturbed areas, or other non-vegetated locations. Equipment shall not be staged within 25 feet of the active stream channel.

Schedule: During operations

Responsible Party: Solano RCD

Verification of Compliance [Initials and Date(s)]: _____

Monitoring Party: Solano RCD

Mitigation Measure HYD-3: Vegetation and Woody Debris Entering Stream Channel

- a) Trees shall be directionally felled away from stream channels wherever feasible.
- b) No cut woody material or mowed or mulched material shall be deposited in the active stream channel. Material that inadvertently falls in the stream channel shall be removed the same day it is deposited.
- c) Excess woody material that has fallen into the channel will be removed. Pre-fire existing large woody material in stream channels will be retained unless it is causing flow restriction. In this case, woody material shall be cut off at the bed or bank invert and removed with winch and cable or other equipment operated from the top of the bank.

Schedule: During operations

Responsible Party: Solano RCD

Verification of Compliance [Initials and Date(s)]: _____

Monitoring Party: Solano RCD

Mitigation Measure HYD-4: Crossing of Stream Channels. **NOTE:** Activities noted below are subject to a forthcoming CDFW Lake and Streambed Alteration Permit. Conditions of the permit will take precedence over Mitigation Measure HYD-4.

- a) No activities shall permanently alter the flow, dewater or modify the stream channel. All diversions shall be temporary (see item d below).
- b) Temporary crossings in fish-bearing streams shall be designed to accommodate fish passage.
- c) Crossings shall be pre-determined and flagged by the RPF (for tree removal operations or arundo/tamarisk removal) or by SRCD staff (for arundo/tamarisk removal) and shall be constructed only where necessary.
- d) Streamflow shall be diverted during crossing construction and use. Diversion may be done with temporary culverts, flex piping, etc. Refer to specifications of the Lake and Streambed Alteration Permit.
- e) Crossings shall be temporary and shall be removed prior to November 15th in any given year. No permanent crossings shall be constructed for the proposed project. Upon removal, crossings shall be hydrologically disconnected using waterbars, mulch, etc.
- f) Low water crossings shall:
 - i. Be constructed using temporary culverts topped by clean rock or gravels. No new soil or fine sediment shall be introduced into the channel or flood plain, OR
 - ii. Consist of a crane mat placed on top of wetted soils or low flows.
- g) Temporary crossings may not be constructed or used between November 15th and May 1st of

each year.

- h) Existing crossings shall be utilized wherever possible.
- i) Prior to construction of temporary stream crossings, surveys shall be conducted as dictated by BIO-1, BIO-2, BIO-3(b), BIO-4(c), and BIO-6(a).

Schedule: a, b, d, f, h) During operations; c) Prior to crossing construction; e) Remove crossings before November 15th; g) No crossing installation between November 15th and May 1st; i) Prior to crossing construction

Responsible Party: Solano RCD

Verification of Compliance [Initials and Date(s)]: _____

Monitoring Party: Solano RCD

MITIGATIONS FOR TRIBAL CULTURAL RESOURCES

Mitigation Measure TCR-1: For Areas Where Mowing of Invasives is Proposed:

Prior to implementation, a professional archaeologist shall complete an archeological records check and will survey the proposed treatment area and prepare an associated archaeological report. This survey report and any associated site records will be turned into the CHRIS information center and kept on file by SRCD as a confidential addendum to this MND. Any work activities near an identified site will be assessed by a qualified archaeologist prior to work activities occurring. The Tribal contact (when available) and the archaeologist will determine what invasive plant control methods may be used within the site, or if work cannot occur at the site.

Schedule: Prior to mowing operations

Responsible Party: Solano RCD

Verification of Compliance [Initials and Date(s)]: _____

Monitoring Party: Solano RCD

Mitigation Measure TCR-2: For Tree Removal Treatments:

- a) Prior to implementation, a professional archaeologist shall complete an archeological records check and will survey the proposed treatment area and prepare an associated archaeological report. This survey report and any associated site records will be turned into the CHRIS information center and kept on file by SRCD as a confidential addendum to this MND.
- b) All sites shall be flagged by an archaeologist with a buffer sufficient to protect above-ground resources.
- c) Tracked or wheeled equipment will be excluded from site boundaries except at existing roads and trails. Equipment may cross linear historic era features at existing crossings, or at pre-determined crossings dictated by the archaeologist or Registered Professional Forester.
- d) Trees shall be directionally felled away from sites wherever safe and feasible.
- e) Additional mitigations may be implemented as necessary in consultation with the Archaeologist and local Native American Tribes.

Schedule: a) Prior to tree removal operations; b) Prior to tree removal operations; c) During tree removal operations; d) During tree removal operations

Responsible Party: Solano RCD

Verification of Compliance [Initials and Date(s)]: _____

Monitoring Party: Solano RCD

For All Treatments involving the use of tracked or wheeled equipment:

Mitigation Measure TCR-3: Cultural Resource Sensitivity Training shall be completed by all workers prior to doing ground disturbing work.

Schedule: Prior to start of ground disturbing work

Responsible Party: Solano RCD

Verification of Compliance [Initials and Date(s)]: _____

Monitoring Party: Solano RCD

Mitigation Measure TCR-4: If any previously unevaluated cultural resources (i.e., burnt animal bone, midden soils, projectile points or other lithics, historical artifacts, etc.) are encountered, work will be stopped, and a qualified archaeologist will assess the discovery and recommend/implement mitigation measures as necessary. Notification of findings to the Tribal contact will occur.

Schedule: During operations

Responsible Party: Solano RCD

Verification of Compliance [Initials and Date(s)]: _____

Monitoring Party: Solano RCD

Mitigation Measure TCR-5: If any human remains are encountered during any phase of work, work shall stop within 500 feet of the find. The county coroner shall be contacted to determine whether investigation of the cause of death is required as well as to determine whether the remains may be Native American in origin. Should Native American remains be discovered, the county coroner must contact the Native American Heritage Commission (NAHC). The NAHC will then determine those persons it believes to be most likely descended from the deceased Native American(s). Together with representatives of the people of most likely descent, a qualified archaeologist shall assess the discovered and recommend/implement mitigation measures as necessary. In coordination and agreement with landowners, the Tribe will have the final determination as to the disposition and treatment of human remains and grave goods.

Schedule: During operations

Responsible Party: Solano RCD

Verification of Compliance [Initials and Date(s)]: _____

Monitoring Party: Solano RCD