



California Natural Resources Agency  
DEPARTMENT OF FISH AND WILDLIFE  
North Central Region  
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*EDMUND G. BROWN, Jr., Governor*  
*CHARLTON H. BONHAM, Director*



**JUL 17 2018**

Date

Elisa Sabatini  
Yolo county Natural Resources Division  
625 Court Street, Room 202  
Woodland, CA 95695

Dear Ms. Sabatini:

**Final Streambed Alteration Agreement  
Notification No. 1600-2016-0273-R2  
Cache Creek Improvement Project Gravel Removal**

Enclosed is the final Streambed Alteration Agreement (Agreement) for the Cache Creek Resources Management Plan/Cache Creek Improvement Program (Project). Before the California Department of Fish and Wildlife (CDFW) may issue an Agreement, it must comply with the California Environmental Quality Act (CEQA). In this case, CDFW acting as a responsible agency filed a Notice of Determination (NOD) within five working days of signing the Agreement. The NOD was based on information contained in the final Environmental Impact Report prepared by the lead agency.

Under CEQA, the filing of an NOD triggers a 30-day statute of limitations period during which an interested party may challenge the filing agency's approval of the Project. You may begin the Project before the statute of limitations expires if you have obtained all necessary local, state, and federal permits or other authorizations. However, if you elect to do so, it will be at your own risk.

If you have any questions regarding this letter, please contact Bob Hosea, Environmental Scientist at (916) 358-1124 or by email at [bob.hosea@wildlife.ca.gov](mailto:bob.hosea@wildlife.ca.gov).

Sincerely,

Jeff Drongesen  
Environmental Program Manager

ec: Bob Hosea, Environmental Scientist  
[bob.hosea@wildlife.ca.gov](mailto:bob.hosea@wildlife.ca.gov)

**CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE**  
NORTH CENTRAL REGION  
1701 NIMBUS ROAD  
RANCHO CORDOVA, CA 95670



**STREAMBED ALTERATION AGREEMENT  
FOR ROUTINE MAINTENANCE ACTIVITIES**  
NOTIFICATION NO. 1600-2016-0273-R2  
Cache Creek

YOLO COUNTY NATURAL RESOURCES DIVISION  
CACHE CREEK RESOURCES MANAGEMENT PLAN/CACHE CREEK  
IMPROVEMENT PROGRAM

This Streambed Alteration Agreement (Agreement) is entered into between the California Department of Fish and Wildlife (CDFW) and Yolo County Natural Resources Division (Permittee) as represented by Elisa Sabatini.

## **RECITALS**

WHEREAS, pursuant to Fish and Game Code (FGC) Section 1602, Permittee notified CDFW on 22 November, 2016 that Permittee intends to complete the project described herein.

WHEREAS, pursuant to FGC Section 1603, CDFW has determined that the project activities could substantially adversely affect existing fish or wildlife resources and has included measures in the Agreement necessary to protect those resources.

WHEREAS, Permittee has reviewed the Agreement and accepts its terms and conditions, including the measures to protect fish and wildlife resources.

NOW THEREFORE, Permittee agrees to complete the project activities in accordance with the Agreement.

## **PROJECT LOCATION**

The project is located within the Yolo County boundaries, covering approximately 14.5 miles of natural creek and channels. The project occurs within the channel of Cache Creek and the channels of associated tributaries to Cache Creek extending from the Capay Dam to the Town of Yolo. The area is encompassed by the Woodland, Madison and Esparto USGS 7.5 minute quadrangles. Latitude 38° 42' 49.22" North, Longitude 122° 05' 04.35" West (Capay Dam) to Latitude 38° 43' 35.28" North, Longitude 121° 48' 24.43" West (Town of Yolo) (Exhibit A).

The watercourses included within this Agreement are the following: Lower Cache Creek and its tributaries. The project area on any tributary is confined to a distance of no more than 300 feet upstream from its confluence with Cache Creek (Exhibit A).

## **PROJECT DESCRIPTION**

Channel Capacity Maintenance. The Permittee will conduct skimming operations on specifically identified gravel bars, and remove or redistribute sand, gravel or aggregate deposits within the channel of Cache Creek for the purposes of maintaining channel capacity and eliminating impediments to the passage of winter stormwater flows. Gravel operations may also be conducted in the main channel of any tributary to Cache Creek for the first 300 feet upstream of its confluence with Cache Creek. Permittee will also conduct identified, necessary vegetation management and debris removal activities associated with the gravel bar skimming or mixed aggregate removal operations.

## **PROJECT IMPACTS**

Existing fish or wildlife resources the project could substantially adversely affect include: nesting Neotropical migratory songbirds; tricolored blackbirds; bank swallows; nesting raptors including Swainson's hawks; seasonally present and downstream full time resident warmwater fish species (Sacramento sucker, largemouth bass, etc.); resident aquatic and semi aquatic reptile and amphibian species, and roosting migratory bat species such as Mexican free-tailed bat, Townsend's big-eared bat and western red bat (Exhibit B).

The adverse effects the project could have on the fish or wildlife resources identified above include: temporary disturbance of nesting habitat; permanent loss of nesting habitat; temporary increase in downstream turbidity during initial stormwater flows following gravel skimming or aggregate disturbance activities; potential increase in braiding of the stream channel; possible alteration to the banks of Cache Creek due to changes in stream flow following gravel disturbance activities; temporary or permanent alteration to associated wetland habitat due to gravel disturbance/removal activities.

## **MEASURES TO PROTECT FISH AND WILDLIFE RESOURCES**

### **1. Administrative Measures**

Permittee shall meet each administrative requirement described below.

- 1.1 Documentation at Project Site. Permittee shall make the Agreement, any extensions and amendments to the Agreement, and all related notification materials and California Environmental Quality Act (CEQA) documents, readily available at the project site at all times and shall be presented to CDFW personnel, or personnel from another state, federal, or local agency upon request.
- 1.2 Providing Agreement to Persons at Project Site. Permittee shall provide copies of the Agreement, the approved verification request form (VRF), and any extensions and amendments to the Agreement to all persons who will be working

on the project at the project site on behalf of Permittee, including but not limited to contractors, subcontractors, inspectors, and monitors.

- 1.3 Notification of Conflicting Provisions. Permittee shall notify CDFW if Permittee determines or learns that a provision in the Agreement might conflict with a provision imposed on the project by another local, state, or federal agency. In that event, CDFW shall work with Permittee to resolve any conflict.
- 1.4 Project Site Entry. Permittee agrees that CDFW personnel may enter the project site at any time to verify compliance with the Agreement.
- 1.5 Does Not Authorize "Take." This Agreement does not authorize "take" of any listed species. Take is defined as hunt, pursue, catch, capture, kill, or attempt to hunt, pursue, catch, capture, or kill. If there is potential for take of any listed species to occur, the Operator shall consult with CDFW as outlined in FGC Section 2081 and shall obtain the required State and federal threatened and endangered species permits.
- 1.6 Sand/Gravel Removed According to Legal Entitlement. This Agreement provides for the skimming of accumulated sand and gravel (mixed aggregate material) from the bars, and removal or redistribution of aggregate deposits within the channel of Cache Creek and its tributaries. The Permittee shall remove sand/gravel only from those areas where the Permittee has secured legal entitlement to such sand/gravel. For the purposes of this Agreement, the term "legal entitlement" is defined as all project conditions, methods, place of operation, and project descriptions contained within the project's approved Conditional Use Permit and Reclamation Plan. All work shall be as specified in the Permittee's notification, Reclamation Plan and its Amendments, and supporting environmental documents, except as otherwise indicated in the Project Conditions of this Agreement.
- 1.7 Legal Entitlement to Extraction Volume. CDFW will only issue an Agreement for amounts less than or equal to the maximum identified quantity described in the County Use Permit.
- 1.8 Extraction Methods. CDFW will only issue an Agreement for those extraction methods as described in the Reclamation Plan. In the event of conflicting provisions between this Agreement and the protective measures within the Reclamation Plan, the provision with the highest level of protection of the stream resource, as determined by CDFW, shall prevail.
- 1.9 Submittal of the Pre-Extraction Plan. Permittee shall annually provide CDFW a Pre Extraction Plan (Plan) prior to the start of extraction activities. The Plan shall include the following: a project map delineating the exact location(s) and limits of the proposed operations, survey transects as well as access roads, equipment storage areas, stockpile areas and established riparian vegetation, digital photographs of each site and recommendations from the Cache Creek Technical

Advisory Committee (TAC). The Plan shall be submitted to CDFW for review and approval no less than 20 business days prior to the onset of any extraction activities. Failure to provide a Pre-Extraction Plan could result in the termination of this agreement.

The Plan shall specify all proposed extraction methods and areas where gravel or mixed aggregate extraction is proposed for that year. The Plan shall include a quantifiable procedure approved by CDFW for determining the upcoming season's extraction volume estimates. If permanent transects are required for monitoring purposes and are too wide to provide an adequate estimate of extraction volumes, it will be the responsibility of the Permittee to ensure additional transects are made using a scientifically acceptable method for making this estimate with reasonable accuracy and precision. In addition, the Permittee or his appropriately licensed agent shall certify that such an estimate is accurate to the best of their ability.

- 1.10 Project Maps, Pre-extraction Transects and Cross Section Criteria, Sand/Gravel Replenishment Volume. Maps and cross sections shall be prepared and provided to CDFW according to the following criteria:
  - 1.10.1 The project map shall include clear delineation of the before and projected post extraction blue-line prints with starting and ending elevations within the channel.
- 1.11 Post Extraction (fall) Transects. Following cessation of extraction activities or gravel/aggregate redistribution activities, each fall, cross sections shall be prepared for those transects altered by extraction, temporary stockpiles or construction of roads and equipment storage areas. These transects shall be submitted to CDFW and **shall be submitted by December 31<sup>st</sup> of that calendar year** as part of the annual Post-Extraction Report identified in Section 4.2. The Water Surface Elevation (WSE) at the time extraction operations began shall be delineated on all post-extraction transects. **Post-extraction transects shall overlay the pre-extraction transects.**
- 1.12 Delineation of Gravel Extraction Boundaries.
  - 1.12.1 Delineation of Low Flow Channel Water Surface Elevation. Prior to the onset of extraction activities, the edges of the low flow channel (as defined by the WSE of the still or flowing water of Cache Creek or its tributary) shall be delineated and staked by the Permittee so that the channel boundaries are clearly marked throughout the extraction season. **If no water is present, or the staking was not done in June, then the channel boundaries shall be determined by physical evidence such as sediment deposition, changes or breaks in cross sectional slope, algal deposits and wetland vegetation.** If extraction of sand and gravel is confined to one side of the channel, then only the channel edge

adjacent to the proposed extraction area will require staking.

- 1.12.2 Staking the Water Surface Elevation. The WSE shall be clearly delineated on the ground by staking, flagging, painting or some other clearly visible means. For the purposes of the final inspection, the WSE points that formed the basis for specific operational criteria shall be easily verifiable (e.g. post extraction slopes, both vertical and horizontal).
  - 1.12.3 CDFW Approval of the Water Surface Elevation and Low Flow Channel Boundaries. CDFW shall modify or approve the low flow channel boundary prior to the onset of any extraction activities. Once approved by CDFW, the removal of, or change to, the location of the low flow channel boundary stakes is prohibited without the approval of CDFW.
  - 1.12.4 Documentation of the Water Surface Elevation. The WSE at the time transect data are collected shall be clearly delineated on the transect lines, maps and aerial photograph if required when the Pre-Extraction Plan is submitted to CDFW.
  - 1.12.5 Delineation of the Water Surface Elevation on Post-extraction Transects. The WSE at the time extraction operations began shall be delineated on all post-extraction transects.
  - 1.12.6 Removal of Materials Used to Delineate the Water Surface Elevation. Materials used to delineate the low flow channel (stakes, flagging) and the horizontal extent of the extraction boundary shall be removed from the active channel at the end of extraction activities for any calendar year but not before the final inspection.
  - 1.12.7 Review and Approval of Extraction Area Boundaries. The proposed extraction area shall be clearly marked by flagging, staking, painting or other clearly visible means on the day of the field inspection by CDFW staff. After extraction operations have commenced, CDFW may allow site-specific flexibility in the demarcation of the extraction area. The perimeter of the work area must be clearly discernable. Such verification shall ensure that a perimeter stake or some other acceptable marking is located along the landward perimeter boundary at the juncture of each survey transect line.
- 1.13 Conditions for Delineation of Gravel Extraction Boundaries.
- 1.13.1 Delineation of the Low Flow Channel. Delineation of the low flow channel shall be made based on the WSE before June 1, and be approved or modified by CDFW before the onset of extraction activities.
  - 1.13.2 Limitations on extraction activities in the low flow channel. Throughout the life of this Agreement, or for the specified time period during which

extraction from the floodplain or active channel occurs, except for purposes of realigning the low flow channel of the stream within the streambed during the following storm season, **no materials shall be extracted from the existing low flow channel, nor alteration of any kind made to the low flow channel without the express consent of CDFW.** Permittee may request concurrence from CDFW to conduct work within the low flow channel by submitting a written request to CDFW no less than ten (10) business days prior to the start of the proposed work. The request will provide a description of the proposed work as provided by the Permittee's certified licensed geologist or licensed professional engineer. CDFW will respond to the Permittee within seven (7) business days of receipt of the request.

1.13.3 Limitations on extraction activities adjacent to the low flow channel. The vertical and horizontal offsets define the depth and horizontal extent, below and beyond which no extraction activities shall occur unless the Permittee has supplied CDFW with a written recommendation from a Licensed Professional Geologist, Certified Engineering Geologist or Licensed Professional Engineer with training and experience in Fluvial Geomorphology, indicating that work within the exclusion zone is essential to maintaining the channel capacity or protecting the stream banks.

1.13.3.1 Horizontal buffer between extraction and WSE. In order to help preserve low flow channel confinement throughout the extraction area, a minimum horizontal offset of ten (10) feet shall be delineated and maintained between the edge of the low flow channel as defined by the WSE of the low flow channel and all project related activities. The boundary of this buffer shall be clearly marked by flagging, staking, or other clearly visible means throughout the duration of extraction activities for the calendar year.

1.13.3.2 Vertical buffer between extraction activities and WSE. In order to help preserve the low flow channel confinement and adult fish passage throughout the extraction area, during extraction activities, a minimum vertical offset of two (2) feet shall be delineated and maintained above the edge of the low flow channel as defined by the WSE and all extraction related activities. The boundary of this buffer shall be clearly marked by flagging, staking, or other clearly visible means throughout the extraction work period.

1.13.4 Limitation on extraction activities on or near stream banks. The banks of the stream channel help maintain channel confinement. By contributing structural complexity and strength, riparian vegetation similarly contributes to channel confinement and provides a recruitment source for restoration of riparian habitat. **In order to limit project impacts to the stream banks and the riparian**

**vegetation on the banks, a minimum horizontal offset of twelve (12) feet shall be maintained between all excavation activities and the outermost stream bank and its associated riparian habitat.** This offset shall be clearly marked by flagging, staking, or other clearly visible means for the duration of extraction activities for the calendar year.

1.13.5 Limitations on extraction activities at the head of gravel bars. In order to maintain the hydraulic function of gravel bars in the maintenance of channel confinement and pool development, and overall channel complexity, no aggregate materials may be extracted from the head of the bar as defined by the upstream-most twenty five percent (25%) of a gravel bar **unless the Permittee has supplied CDFW with a written recommendation from a Licensed Professional Geologist, Certified Engineering Geologist or licensed Professional Engineer with training and experience in Fluvial Geomorphology, indicating that work on the upstream portion of the gravel bar is necessary to maintain channel capacity or prevent excessive braiding of the channel.** A separate written recommendation must be submitted with the annual Pre-Extraction Plan for each gravel bar or extraction area when work on the upstream 25% of the gravel bar is planned or if there is a recommendation to completely remove a mixed aggregate deposit within the channel.

1.13.6 Limitations on the slope of the extraction area.

1.13.6.1 Post-extraction cross bar surfaces shall be left with slopes of not less than two percent (2%) as measured from the horizontal offset boundary landward of the low flow channel as specified above.

1.13.6.2 Post-extraction longitudinal bar slopes downstream from the offset boundary for the head of the gravel bar shall be left at slopes of twenty percent (20% or 5:1).

1.13.6.3 The extraction setback from California Department of Transportation (Caltrans) bridges shall be implemented. This setback shall be determined through consultation between the Permittee and Caltrans. Permittee shall provide CDFW with the approved Caltrans setback and this shall be delineated on the pre-extraction plan map.

1.14 Reclamation of Gravel Bar and Channel Slopes.

1.14.1 Reclamation Time Period. Unless by prior written agreement with CDFW, on or before 31 October of each calendar year, the extraction area shall be reclaimed in accordance with the conditions of this Agreement.

1.14.2 Stock Piles. Stockpiles shall be removed by 31 October each calendar



year and cut banks contoured to a maximum 3:1 slope.

- 1.14.3 Measurement of Extraction Area Slopes. All extraction area slopes shall be measured from the landward edge of the horizontal offset boundary delineated as described above. The extraction shall be done so that the finished slopes of the excavated areas gently blend with the existing gradient and meander pattern of the stream channel upstream and downstream of the excavation area.
  - 1.14.4 Bar Slopes in Stream. The **longitudinal slopes** of gravel bars and the channel bottom shall be left with post-extraction slopes that match those of the natural channel gradient up and downstream of the excavation area. The finished **cross bar slopes** shall be no less than two percent (2%).
  - 1.14.5 Finished Bar surfaces. Operations shall not result in a feature that will allow for the ponding of water or entrainment of aquatic species in a location separate from the main channel during high flows. The gravel bar shall be left smooth with no potholes or depressions. Natural features of streambed topography shall not be backfilled.
- 1.15 Data Collection Requirements and Conditions for Protection.
- 1.15.1 Establishment of Extraction Area and Monitoring Transects. Prior to and during excavations, Permittee shall establish elevation controls and transect cross sections for monitoring and extraction area transects throughout the project site at intervals sufficient to accurately calculate the volume of the extraction, percent of slope as specified for the final grade, stream profile within the project area. This survey information will allow CDFW to monitor and track streambed elevations and trends in the movement, deposition and removal of aggregate material in the active stream channel and floodplain.
  - 1.15.2 Elevation Controls and Survey Transect Cross Sections. The following criteria shall be applied to all monitoring and extraction transects:
    - 1.15.2.1 All survey measurements shall be made in compliance with accepted published protocols for procedures and accuracy, and with relative elevations referenced to a permanently established local benchmark. Alternative methods are acceptable provided it can be demonstrated that they produce reliable, accurate, and repeatable results.
    - 1.15.2.2 The number of required permanent and non-permanent extraction cross sections for individual extraction projects shall be based on the following guidelines.
      - The distances between the cross sections and the density of the individual transect survey data shall be sufficient to capture

changes to the geomorphic features of the stream channel with one (1) foot elevation change – including that portion below the water surface. All data shall be prepared and processed to visually discern changes from year to year.

- Unless previously established at some closer spacing, each active extraction area shall be quantified with a minimum of three (3) cross sections. Where more closely spaced cross sections or more detailed mapping is already utilized, the cross section density shall remain at the higher density.
- If it is determined that additional information is necessary to adequately evaluate project impacts or monitoring results, all survey notes, maps and drawings that have been prepared to meet CDFW requirements shall be made available upon request.
- Whenever there is a permanent bridge, instream water diversion facility or other significant permanent structure within 1000 feet upstream or downstream of the project boundaries the Permittee shall arrange with the landowner to conduct annual pre-extraction transects immediately upstream and downstream of the structure surveyed as described above. In cases where such structure(s) are on lands belonging to private landowners, the Permittee shall request permission from the landowner to conduct an annual pre-extraction transect near the structure(s) surveyed as described above.

1.15.2.3 The Permittee, in consultation and agreement with CDFW, shall determine the necessity of including additional cross sections in work areas located along bends of the stream, where changes in the channel slope occur – as made visible by dramatic changes in water velocity and depth. The sediment transport capacities of the stream varies up and downstream of these hydraulic “jumps” and “drops”, which make their location logical places to demarcate segments of monitored channels.

1.15.2.4 All transects shall be oriented perpendicular to the direction of flow.

1.15.2.5 Two (2) benchmarks (e.g. permanent monuments) shall be established for each bar, above the stream’s active banks. Benchmark elevations shall be reported or indicated relative to permanently monumented local benchmarks.

1.15.2.6 Each monitoring transect endpoint shall be located on the banks outside of the active channel and be a permanent monument. Transect endpoints shall extend beyond the active channel width (bankfull width) and; (a) onto a terrace inundated by a ten (10) year or greater flow event or (b) established riparian vegetation clearly older than ten (10) years located on the opposite side of the stream. The transect endpoints shall be clearly marked in the field,

and referenced to permanent features in the extraction area or designated mining reach.

- 1.15.2.7 The original location of the left endpoint of a monitoring line, facing downstream, shall maintain a distance of zero. All distances across the channel to the right of the original zero distance endpoint shall remain consistent throughout the history of the section unless the section is eliminated. If the left end point of a section is removed due to bank erosion, all distances to the left of the original zero distance shall be given a negative distance relative to the original zero distance location.
- 1.15.2.8 The transects must document all breaks in slope, all water surface elevations intersected by the cross section, the maximum depth of the low flow channel (thalweg) and where readily discernible; the high-water mark on the gravel bars (e.g., the previous winter's flow, tidal influence, spring runoff, snow melt), established riparian vegetation, tree, roads, ponded areas, and the toe and top of the outermost stream bank. Surveyed transects shall be accurate to 0.1 feet, or other parameter commensurate to the size of the channel and agreed to by CDFW. The maximum distance between any two elevation points along a transect shall be fifty (50) feet, inclusive of the wetted portion. Exclusive of the topographic points identified above, if the distance between elevation points is found to be level for the first five hundred (500) feet, then the distance between elevation points may be increased by one hundred (100) feet.
- 1.15.2.9 Pre-extraction (spring) transect surveys shall be made each year at the appropriate time relative to the Permittee's desire to begin extracting aggregate material, but as late in the season as possible in order to represent the final bed elevations present prior to extraction. Only those portions of each transect inundated by the previous season's high water need be resurveyed. If the highest flow of the season occurs after the transect survey is completed, another transect survey shall be completed. Pre-extraction transect information shall be submitted to CDFW annually as part of the Pre-Extraction Plan.
- 1.15.2.10 Post-extraction (fall) transect surveys are used to determine compliance with the Streambed Alteration Agreement and need only be made through those portions of the transect altered by extraction, temporary stockpiles or construction of roads and equipment storage areas. These surveys should be completed within fifteen (15) days of the completion of all extraction activities for the year or by November 15<sup>th</sup> of the calendar year, whichever is later, and before high flow events and any new gravel deposition occurs. (Note: Permittee is encouraged to have the final post-extraction transect measurements taken during the October 15<sup>th</sup>-

31<sup>st</sup> two (2) week reclamation period so that they have adequate time to correct unanticipated problems such as depressions or inaccurate post-extraction slopes. Failure to recognize and correct potential problems during the reclamation period can result in violations of the specific terms of this Agreement if the problems are not discovered and corrected prior to December 31<sup>st</sup>, the final date for submitting post-extraction transects.)

- 1.15.3 Survey Frequency. Transects shall be resurveyed each year in spring (pre-extraction) and fall (post-extraction). Transects only need to be taken for each season that an area is scheduled to be worked.
- 1.15.4 Aerial Photographic Base and Map Overlay. A vertical format aerial photograph provides a base for overlays and a reference as to the placement of the cross section lines relative to the features on the ground. The photographs will also be used to track aggregate transport and fluvial geomorphic trends, note ground disturbance relative to mining and reclamation activities and provide information on vegetative cover.
  - 1.15.4.1 Aerial photo print(s) shall be submitted that clearly show the extraction site(s) and any related stockpile areas or vehicle access roadways and temporary equipment crossings. The print(s) shall be enlarged and rectified from a standard 9"x9" negative. The original scale is 1:6,000 (1 inch on the photo equals five hundred (500) feet on the ground) or larger and the enlargement shall be scaled at 1:1200 (1"=100').
  - 1.15.4.2 End points for all documented cross sections shall be accurately photo-identified and plotted on the enlargement to facilitate registration with the overlay. A North arrow and the scale of the enlargement are required. The enlarged aerial photo shall be labeled with the project name, river or stream name, property owner, Assessor's Parcel Number(s), the California Mine Identification Number, and the Streambed Alteration Agreement number. A legend shall include the date and scale of the aerial photograph base together with the flight line and photo number. When available, the flow at the time the aerial photo was taken, measured in cubic feet per second, shall be determined from published data from the closest stream gauge and included in the legend.
  - 1.15.4.3 Only a current aerial photo base shall be used (i.e. flown within the last year). The aerial photograph shall portray low creek stage so that dry bars and channel areas proposed for aggregate extraction are exposed (above water).
  - 1.15.4.4 On a one (1): one hundred (100) scale overlay of the enlarged aerial photo, a plan view shall show all parcel lines, horizontal and

vertical control points, cross sections identified with a name and number, end points and tie points, permanent monuments such as bench marks and horizontal control points. These features shall be clearly delineated and labeled. Areas in which extraction activities are planned for that year shall be indicated. The overlay shall include a legend with the project name, river or stream name, property owner, Assessor's Parcel Number, California Mine Identification Number, the date and scale of the underlying aerial photograph, a North arrow and the scale of the overlay.

- 1.16 Emergency Work: This Agreement does not apply to emergency work by the Permittee. The Permittee shall complete any emergency work in accordance with FGC Section 1610, and comply with the Notification requirement in FGC Section 1610 by completing the Notification of Emergency Work form found on CDFW's website at <https://www.wildlife.ca.gov/Conservation/LSA/Forms> and submitting it to CDFW as instructed.
- 1.17 Extraction Work Not Covered By This Agreement: Aggregate extraction work not covered by or consistent with this Agreement shall include any extraction or redistribution activities **not identified in the annual Pre-Extraction Plan and/or outside of the Project Location** as specified in this Agreement, regardless of whether the work is otherwise consistent with this Agreement. For extraction or streambed alteration activities not covered by this Agreement and subject to FGC Section 1602, the Permittee shall notify CDFW in accordance with that section before beginning the work. See the CDFW website <https://www.wildlife.ca.gov/Conservation/LSA> for instructions and forms for providing notification of Lake or Streambed Alteration to CDFW.

## 2. Avoidance and Minimization Measures

To avoid or minimize adverse impacts to fish and wildlife resources identified above, Permittee shall implement each measure listed below.

- 2.1 Work Period: All work occurring within the active channel of a watercourse shall be restricted to the period between April 1<sup>st</sup> and October 31<sup>st</sup> when flowing water is absent from the stream or at a minimum flow. No work shall occur in the wetted portion of the stream channel except for the placement of temporary culverts for equipment crossings.
- 2.1.1 Dry Period: The work period within watercourses shall be restricted to periods of low rainfall (less than one-quarter inch per 24-hour period) and periods of dry weather. All erosion control measures shall be initiated prior to all storm events (more than a 30% chance of rain). Revegetation, restoration and erosion control work is not confined to this work period. Permittee shall monitor the National Oceanic and Atmospheric Administration (NOAA) 72-hr forecast for the project area.

- 2.1.2 Work Period Modification: Permittee may request a work period variance from CDFW. The variance request shall explain the rationale for the variance and shall be submitted no less than ten (10) business days prior to the start of the proposed variance.
- 2.2 Stream Diversion. When work in a flowing stream is unavoidable, Permittee shall divert the stream flow around or through the work area during construction operations, while maintaining appropriate flows in the natural channel for aquatic species. Permittee shall restore normal flows to the effected stream immediately upon completion of work at that location. Permittee shall implement all BMPs to minimize increases in turbidity following restoration of flows within the creek.
- 2.3 Leave Wildlife Unharmred: The Permittee shall allow any fish or wildlife it encounters during the course of maintenance work authorized by this Agreement to leave the work area unharmred.
- 2.4 Nesting Bird Survey: If project activities are scheduled during the nesting season of birds (February 15<sup>th</sup> to August 15<sup>th</sup>), focused surveys, timed appropriately for each species, for active nesting tricolored blackbirds, Swainson's hawks, bank swallows, in addition to a routine nesting bird survey, shall be conducted within 15 days prior to the beginning of project-related activities. The results of the nest survey shall be submitted to CDFW no less than 5 business days prior to the planned start of extraction activities. If a lapse in project-related work of 15 days or longer occurs, another focused survey shall be required before project work can be reinitiated. Take of individual raptors, their nests, and eggs is currently prohibited under FGC Sections 86, 3503, 3503.5, and 3513.
- 2.4.1 Nesting Birds: If nesting birds are found during the survey, no vegetation shall be disturbed that contain active bird nests, and the Permittee shall prepare an avian avoidance plan and submit to CDFW **prior to the commencement of work**. CDFW shall respond within 10 days.
- 2.4.2 Swainson's Hawk. In the event a nesting Swainson's hawk is identified within one-half (1/2) mile of the proposed extraction site, work may only proceed after 15 August of that calendar year. If Permittee wishes to proceed prior to this date, it is recommended that an Incidental Take Permit (ITP) be obtained from CDFW. If Permittee obtains an ITP from CDFW then the terms of this section are superseded by the ITP. If Permittee chooses to proceed without an ITP; a CDFW approved biologist, with stop work authority, shall monitor the nest(s) daily for signs of disturbance from ½ hour prior to the start of extraction activities until one (1) hour after extraction activities cease. Work will immediately cease if disturbance of normal nesting activities is identified and CDFW will be consulted within 24 hours. Work may not be resumed until an appropriate remediation plan has been approved by CDFW.
- 2.4.3 Tricolored Blackbird. In the event a tricolored blackbird nesting colony is

identified within three hundred (300) yards of the proposed extraction site, work may only proceed after nesting activities within the colony have concluded (usually by 15 July of that calendar year). If Permittee wishes to proceed prior to cessation of nesting activities, it is recommended that an Incidental Take Permit (ITP) be obtained from CDFW. If Permittee obtains an ITP from CDFW then the terms of this section are superseded by the ITP. If Permittee chooses to proceed without an ITP; a CDFW approved biologist, with stop work authority, shall monitor the nesting colony daily for signs of disturbance from ½ hour prior to the start of extraction activities until one (1) hour after extraction activities cease. Work will immediately cease if disturbance of normal nesting activities is identified and CDFW will be consulted within 24 hours. Work may not be resumed until an appropriate remediation plan has been approved by CDFW.

- 2.4.4 Bank Swallow. In the event a bank swallow nesting colony is identified within three hundred (300) yards of the proposed extraction site, work may only proceed after nesting activities within the colony have concluded. If Permittee wishes to proceed prior to cessation of nesting activities, it is recommended that an Incidental Take Permit (ITP) be obtained from CDFW. If Permittee obtains an ITP from CDFW then the terms of this section are superseded by the ITP.
- 2.5 Tree Pruning: The Permittee may prune tree branches up to 6 feet above the ground. When feasible, branches and limbs extending over the river shall not be pruned to avoid potential impacts to shaded riverine aquatic habitat.
- 2.6 Vegetation Removal: Disturbance or removal of vegetation shall be kept to the minimum necessary to complete project related activities. Except for trees marked for removal on plans submitted to and approved by CDFW, no native trees with a trunk diameter at breast height (DBH) in excess of four (4) inches shall be removed or damaged without prior consultation and approval of a CDFW representative. When trees of this size are removed, the root system shall be left undisturbed if the tree is located on the bank of the creek. **Perennial nest trees such as those used by eagles or other raptor species may not be removed without consultation with CDFW.** Giant cane (*Arundo* sp.) or tamarisk removed during gravel extraction activities or other maintenance activities **shall not** be chipped or left for disposal within, or adjacent to the creek banks, bed or active channel.
- 2.7 Hazardous Materials: Debris, soil, silt, bark, rubbish, creosote-treated wood, raw cement/concrete or washings thereof, asphalt, paint or other coating material, oil or other petroleum products, or any other substances which could be hazardous to aquatic life, shall not be stored where it could be washed back into the channel or where it will cover aquatic or riparian vegetation. Equipment shall be parked daily, or stored outside of the creek channel in areas such that any possible contamination from the equipment would not flow or be washed back into the channel. Drip pans shall be maintained under any equipment stationed within the

creek bed. Best Management Practices (BMPs) shall be employed to accomplish these requirements.

- 2.8 Bank Stabilization. Permittee shall construct any necessary bank stabilization with suitable non-erodible materials that will withstand wash out. The bank stabilization material shall extend above the normal high-water mark. Only clean material such as, rock riprap that is free of trash, debris and deleterious material shall be used as bank stabilization. **Salvaged or ground asphalt shall not be considered acceptable materials. Salvaged, large concrete pieces may be used, provided they are free of any inclusions of stabilizing reinforcing rods or wire mesh. The concrete must also be recessed into the bed or bank and covered by a compacted layer of no less than twenty four (24) inches of 12 inch minus cobble or quarry stone. Large round rock or heavy cobble skimmed from within the stream channel may be used and replaced as necessary through-out the life of the agreement.**
- 2.9 Minimize Turbidity and Siltation. Permittee shall take precautions to minimize turbidity/siltation during extraction and post-extraction periods. Precautions shall include, but are not limited to: pre-extraction planning to identify site specific turbidity and siltation minimization measures and best management erosion control practices; best management erosion control practices during project activity; and settling, filtering, or otherwise treating silty and turbid water prior to discharge into a stream or storm drain.
- 2.10 Equipment Crossings. Permittee shall not drive excavation or skimming equipment through the active channel(s) of Cache Creek, or its tributaries, if flowing water is present. Permittee shall install a crossing system on any channels with flowing water. Clean native rock and/or aggregate backfill will be used for approach ramps to the crossings. The crossing shall not impede fish passage or the flow of water within the channel of the creek. Upon completion of gravel extraction or redistribution for the year, the crossing(s) will be removed and area regraded to match surrounding contours.
- 2.11 Removal of Debris, Materials and Rubbish: The Permittee or its contractors/agents shall not dispose of any litter or construction debris within the riparian/stream zone. All such debris and waste shall be removed from the worksite daily and properly disposed of at an appropriate disposal site.
- 2.12 Cease Operations: If, in the opinion of CDFW, conditions arise, or change in such a manner as to be considered deleterious to the stream or wildlife, operations shall cease until corrective measures, approved by CDFW, are taken.

### 3. Compensatory Measures

To compensate for adverse impacts to fish and wildlife resources identified



above that cannot be avoided or minimized, Permittee shall implement each measure listed below.

- 3.1 **Removal of Trees.** Permittee shall mitigate for the removal of native trees four (4) inches or greater DBH or perennial raptor nesting trees with planting of similar species at a rate of 1.5:1 for canopy cover. Planted trees shall be maintained and survival monitored for no less than five (5) years. If at any time during the five (5) year period, survival rate drops below 70%, the five (5) year monitoring period will restart and dead trees shall be replaced to ensure a minimum 70% survival at the end of that five (5) year period.

#### 4. Reporting Measures

Permittee shall meet each reporting requirement described below. When submitting each reporting requirement, refer to Notification No. 1600-2016-0273-R2. Submit each report as instructed in the Contact Information section, e-mail submittal is preferred. If the Permittee fails to provide timely status reports as required by this Agreement, CDFW may suspend or revoke the Agreement.

- 4.1 The Permittee shall annually provide CDFW with a Pre-Extraction Plan identifying all sites within the Project Area where gravel or mixed aggregate extraction or redistribution activities are planned for the calendar year. The Pre-Extraction Plan shall contain the information identified in Section 1.9 above.
- 4.2 For each year this Agreement is valid, the Permittee shall submit to CDFW, by December 31<sup>st</sup>, an annual Post-Extraction Report detailing the status of the work authorized by this Agreement. The annual report shall include:
- Digital photographs of each extraction site following completion of post-extraction restoration.
  - Post-extraction cross sections, in overlay, as specified in Section 1.11 of this agreement.
  - An estimate of the total volume (cubic yards) and tonnage of gravel and mixed aggregate extracted by site.
  - A listing, by extraction site, of native tree species (>4 inches DBH) and perennial raptor nest trees removed to facilitate extraction operations. The listing shall detail the species removed, the estimated square feet of canopy cover lost, and the location of trees planted as compensatory mitigation.

CDFW shall review the annual report, and may conduct onsite inspections to confirm Permittee is in compliance with the Agreement and that the measures in the Agreement continue to protect fish and wildlife resources.

- 4.3 The Permittee shall provide a status report to CDFW every four (4) years from the effective date of this Agreement, as required in FGC section 1605(g)(2). **The status report shall be delivered to CDFW no later than ninety (90) days prior**

**to the end of each four-year period** and shall include all of the following information:

- 4.3.1 The status of the activities covered by this Agreement, including whether the activities remain the same or have been altered.
- 4.3.2 A status report with all the mitigation and restoration activities performed pursuant to conditions 3.1 of this Agreement.
- 4.3.3 An evaluation of the success or failure of the measures in the Agreement to protect fish and wildlife resources that the activity may substantially adversely affect.
- 4.3.4 A discussion of any factors that could increase the predicted adverse impacts on fish and wildlife resources, and a description of the resources that may be adversely affected.
- 4.3.5 A copy of the final Agreement.

CDFW staff shall review the four-year status report, and may conduct onsite inspections to confirm Permittee is in compliance with the Agreement and that the measures in the Agreement continue to protect fish and wildlife resources. If CDFW determines that the measures in the Agreement no longer protect the fish and wildlife resources, CDFW, in consultation with the Permittee, and within 60 days of receipt of the report, shall impose one or more new measures to protect fish and wildlife resources affected by the activity. If requested to do so by the Permittee, CDFW shall make available the information upon which it determined the Agreement no longer protects the affected fish and wildlife resources.

If the Permittee disagrees with one or more of the measures, within thirty days of receiving the new measures, it shall notify CDFW, in writing, of the disagreement. The Permittee and CDFW shall consult regarding the disagreement. The consultation shall be completed within thirty (30) days after CDFW receives the Permittee's notice of disagreement. If CDFW and Permittee fail to reach agreement, the Permittee may request, in writing, the appointment of a panel of arbitrators to resolve the disagreement. Per the provisions of FGC section 1603 (b), the panel of arbitrators shall be established and appointed within fourteen days of the completed consultation. The panel of arbitrators shall issue a decision within fourteen days of the date it was established.

## **5. FEES**

The Permittee shall provide CDFW with the **annual gravel extraction project fee** as specified in the Fee Schedule currently listed on the CDFW web site at the time the payment is made. The annual gravel fee is **due to CDFW by 31 December of each calendar year**, in conjunction with the annual post-extraction report.

## **CONTACT INFORMATION**

Any communication that Permittee or CDFW submits to the other shall be in writing and any communication or documentation shall be delivered to the address below by U.S. mail, fax, or email, or to such other address as Permittee or CDFW specifies by written notice to the other.

The Permittee shall send all VRF submittals to the person(s) specified by CDFW, electronic submission is preferred. CDFW and the Permittee shall update the distribution list as needed, modify the revision date accordingly, and provide each other with a copy of the most current list.

To Permittee:

Yolo County, Natural Resources Division  
Attn: Elisa Sabatini  
625 Court Street, Room 202  
Woodland, CA 95695  
Fax: (530) 668-4029  
Telephone: (530) 666-8150  
Email: elisa.sabatini@yolocounty.org

To CDFW:

Department of Fish and Wildlife  
North Central Region  
1701 Nimbus Road, Suite A  
Rancho Cordova, CA 95670  
Attn: Lake and Streambed Alteration Program – Streambed Desk  
Notification #1600-2016-0273-R2  
Phone: (916) 358-2885  
Fax: (916) 358-2912  
Email: r2lsa@wildlife.ca.gov

## **LIABILITY**

Permittee shall be solely liable for any violations of the Agreement, whether committed by Permittee or any person acting on behalf of Permittee, including its officers, employees, representatives, agents or contractors and subcontractors, to complete the project or any activity related to it that the Agreement authorizes.

This Agreement does not constitute CDFW's endorsement of, or require Permittee to proceed with the project. The decision to proceed with the project is the Permittee's alone.

## **SUSPENSION AND REVOCATION**

CDFW may suspend or revoke in its entirety the Agreement if it determines that Permittee or any person acting on behalf of Permittee, including its officers, employees, representatives, agents, or contractors and subcontractors, is not in compliance with the Agreement.

Before CDFW suspends or revokes the Agreement, it shall provide Permittee written notice by certified or registered mail that it intends to suspend or revoke. The notice shall state the reason(s) for the proposed suspension or revocation, provide Permittee an opportunity to correct any deficiency before CDFW suspends or revokes the Agreement, and include instructions to Permittee, if necessary, including but not limited to a directive to immediately cease the specific activity or activities that caused CDFW to issue the notice.

## **ENFORCEMENT**

Nothing in the Agreement precludes CDFW from pursuing an enforcement action against Permittee instead of, or in addition to, suspending or revoking the Agreement.

Nothing in the Agreement limits or otherwise affects CDFW's enforcement authority or that of its enforcement personnel.

## **OTHER LEGAL OBLIGATIONS**

This Agreement does not relieve Permittee or any person acting on behalf of Permittee, including its officers, employees, representatives, agents, or contractors and subcontractors, from obtaining any other permits or authorizations that might be required under other federal, State, or local laws or regulations before beginning the project or an activity related to it.

This Agreement does not relieve Permittee or any person acting on behalf of Permittee, including its officers, employees, representatives, agents, or contractors and subcontractors, from complying with other applicable statutes in the FGC including, but not limited to, FGC Sections 2050 et seq. (threatened and endangered species), 3503 (bird nests and eggs), 3503.5 (birds of prey), 5650 (water pollution), 5652 (refuse disposal into water), 5901 (fish passage), 5937 (sufficient water for fish), and 5948 (obstruction of stream).

Nothing in the Agreement authorizes Permittee or any person acting on behalf of Permittee, including its officers, employees, representatives, agents, or contractors and subcontractors, to trespass.

## **AMENDMENT**

CDFW may amend the Agreement at any time during its term if it determines the amendment is necessary to protect an existing fish or wildlife resource.

Permittee may amend the Agreement at any time during its term, provided the amendment is mutually agreed to in writing by CDFW and Permittee. To request an amendment, Permittee shall submit to CDFW a completed "Request to Amend Lake or Streambed Alteration" form and include with the completed form payment of the corresponding amendment fee identified in the current fee schedule (see California Code of Regulations, Title 14, Section 699.5).

## **TRANSFER AND ASSIGNMENT**

This Agreement may not be transferred or assigned to another entity, and any purported transfer or assignment of the Agreement to another entity shall not be valid or effective, unless the transfer or assignment is requested by Permittee in writing, as specified below, and thereafter CDFW approves the transfer or assignment in writing.

The transfer or assignment of the Agreement to another entity shall constitute a minor amendment, and therefore to request a transfer or assignment, Permittee shall submit to CDFW a completed "Request to Amend Lake or Streambed Alteration" form and include with the completed form payment of the minor amendment fee identified in the current fee schedule (see California Code of Regulations, Title 14, Section 699.5).

## **EXTENSIONS**

In accordance with FGC Section 1605(b), Permittee may request one extension of the Agreement, provided the request is made prior to the expiration of the Agreement's term. To request an extension, Permittee shall submit to CDFW a completed "Request to Extend Lake or Streambed Alteration" form and include with the completed form payment of the extension fee identified in the current fee schedule (see California Code of Regulations, Title 14, Section 699.5). CDFW shall process the extension request in accordance with FGC Section 1605(b) through (e).

If Permittee fails to submit a request to extend the Agreement prior to its expiration, Permittee must submit a new notification and notification fee before beginning or continuing the project the Agreement covers per FGC Section 1605(f).

## **EFFECTIVE DATE**

The Agreement becomes effective on the date of CDFW signature, which shall be: 1) after Permittee's signature; 2) after CDFW complies with all applicable requirements under the California Environmental Quality Act (CEQA); and 3) after payment of the applicable FGC Section 711.4 filing fee listed at [http://www.wildlife.ca.gov/habcon/ceqa/ceqa\\_changes.html](http://www.wildlife.ca.gov/habcon/ceqa/ceqa_changes.html).

## **TERM**

This Agreement shall expire **twelve (12) years from the date of CDFW signature**, unless it is terminated or extended before then. All provisions in the Agreement shall remain in force throughout its term. Permittee shall remain responsible for implementing

any provisions specified herein to protect fish and wildlife resources after the Agreement expires or is terminated, as FGC Section 1605(a) (2) requires.

## **EXHIBITS**

The documents listed below are included as exhibits to the Agreement and incorporated herein by reference.

- A) Exhibit A: Google Earth Map of Project Location
- B) Exhibit B: CDFW BIOS Map of Project Location

**AUTHORITY**

If the person signing the Agreement (signatory) is doing so as a representative of Permittee, the signatory hereby acknowledges that he or she is doing so on Permittee's behalf and represents and warrants that he or she has the authority to legally bind Permittee to the provisions herein.

**AUTHORIZATION**

This Agreement authorizes only the project described herein. If Permittee begins or completes a project different from the project the Agreement authorizes, Permittee may be subject to civil or criminal prosecution for failing to notify CDFW in accordance with FGC Section 1602.

**CONCURRENCE**

The undersigned accepts and agrees to comply with all provisions contained herein.

**FOR YOLO COUNTY NATURAL RESOURCES  
DIVISION**

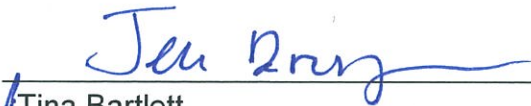
  
\_\_\_\_\_  
Elisa Sabatini

Manager of Natural Resources

7.12.18

\_\_\_\_\_  
Date

**FOR DEPARTMENT OF FISH AND WILDLIFE**

  
\_\_\_\_\_  
Tina Bartlett

Regional Manager

7/17/18

\_\_\_\_\_  
Date

Prepared by: Bob Hosea  
Environmental Scientist

Exhibit A: Google Earth Map of Project Location (Figure 1).

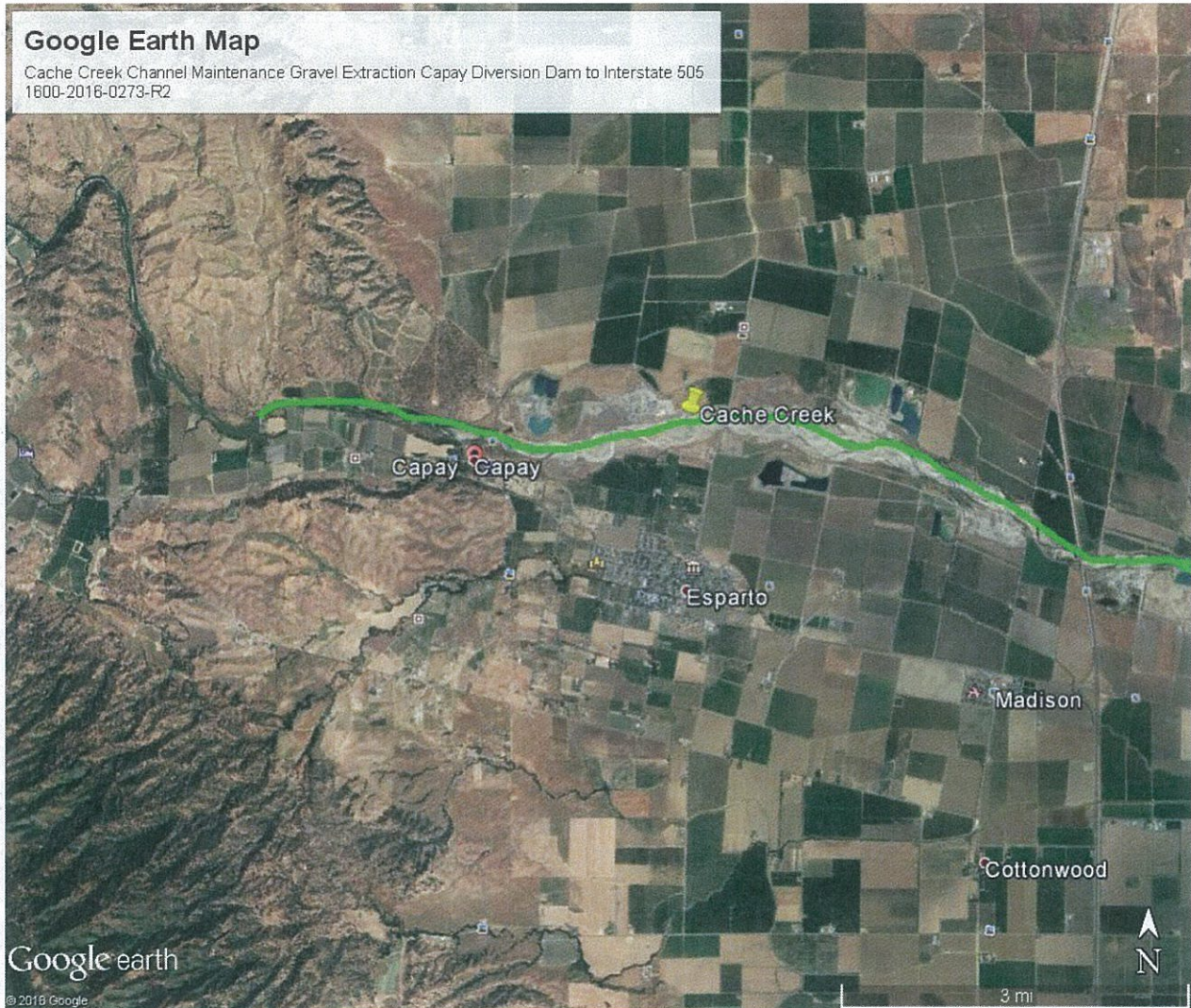




Exhibit A: Google Earth Map of Project Location (Figure 2).

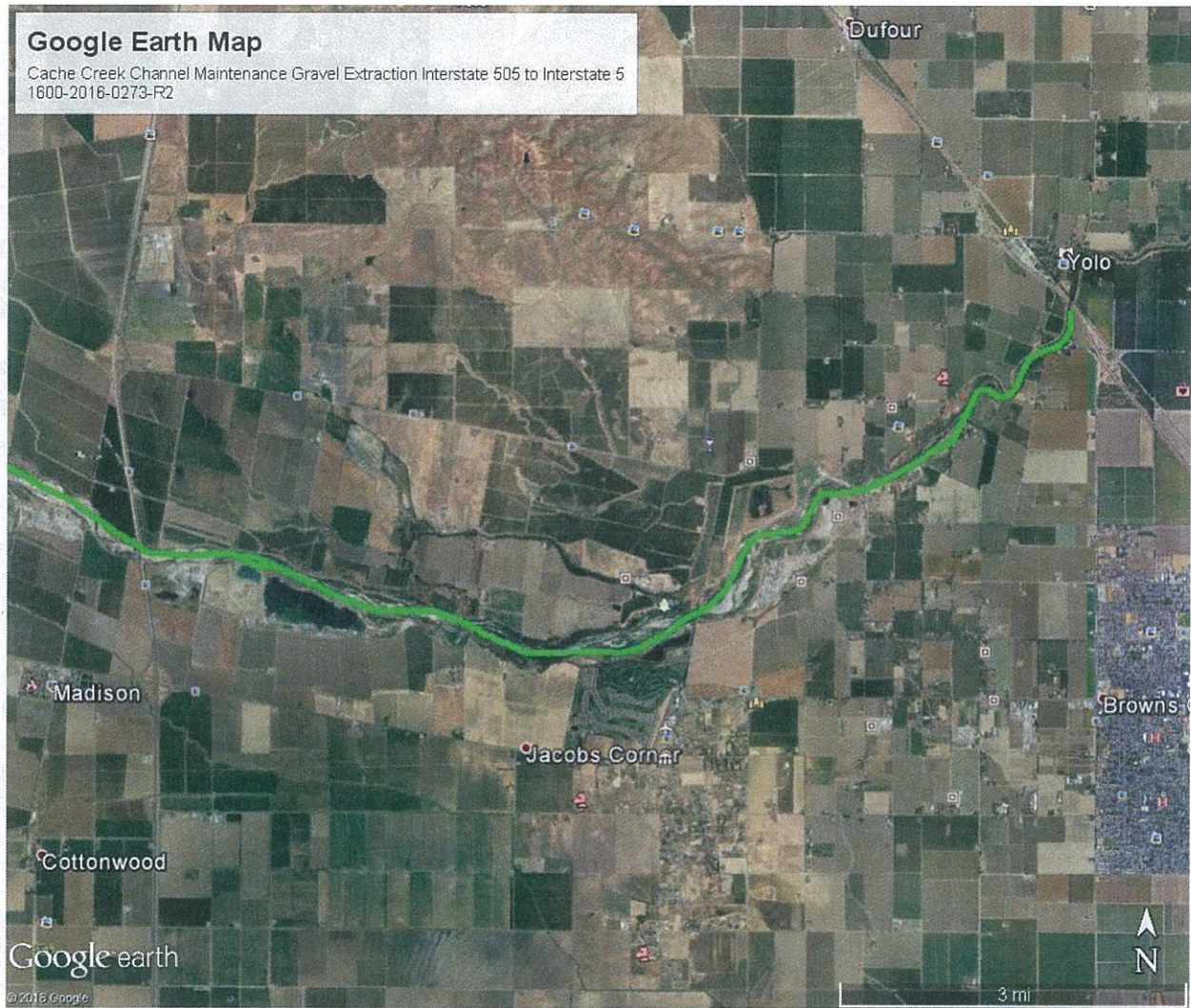
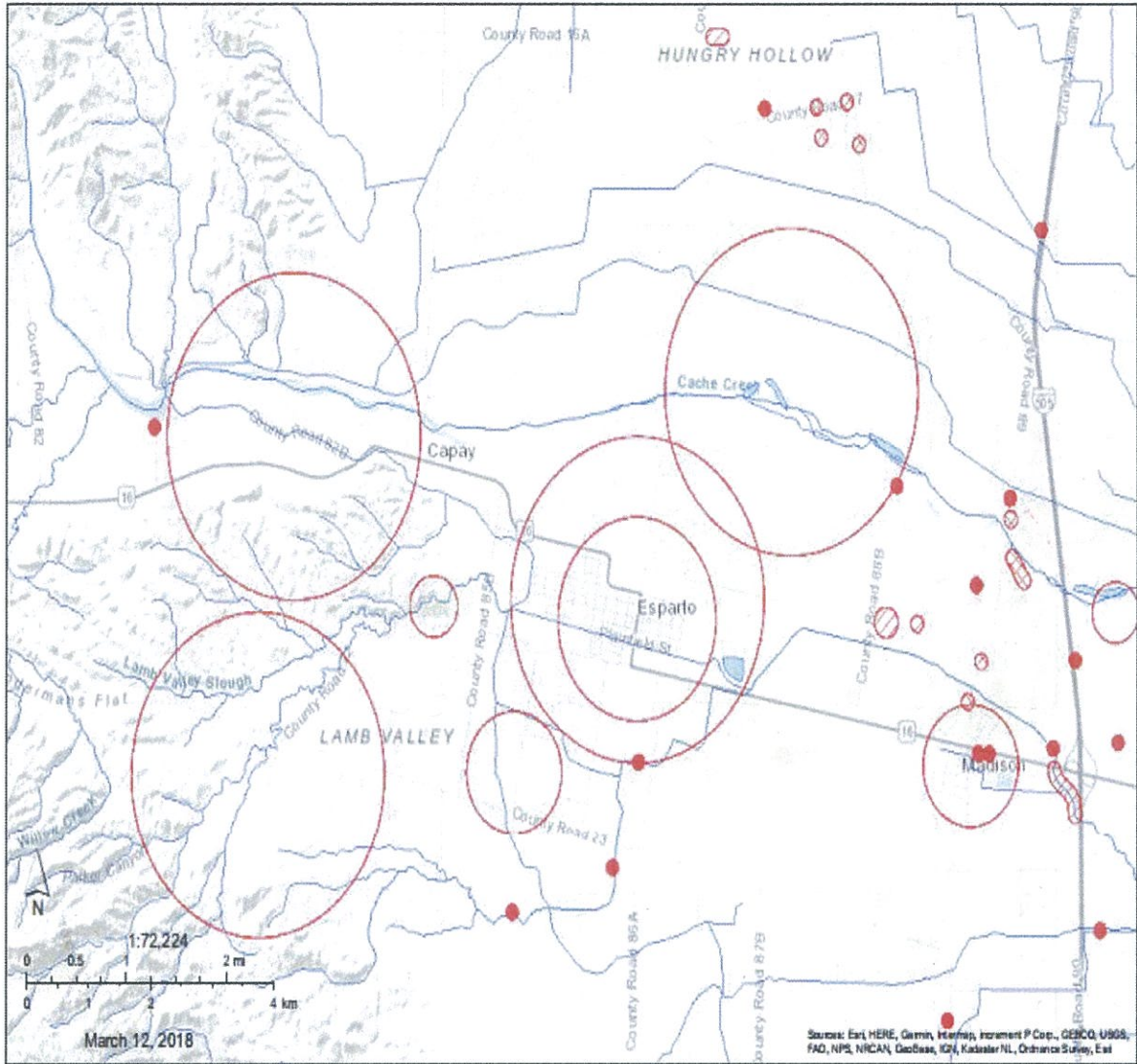


Exhibit B: CDFW BIOS Map of Project Location (Figure 1).

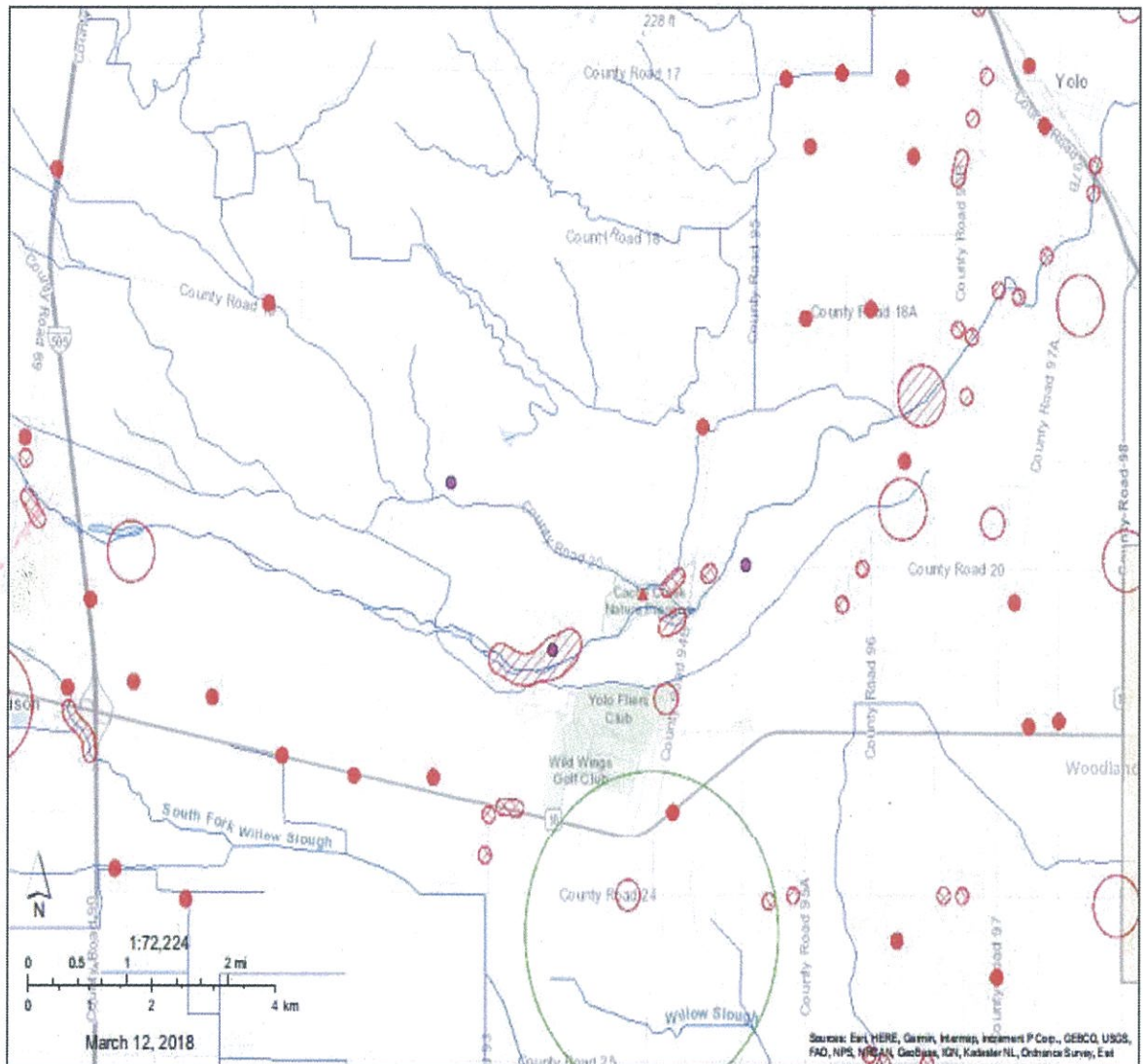
Map of Project Area 1600-2016-0273-R2 Capay to I-505



CDFW BIOS Map for Cache Creek from Capay Dam to I-505

Exhibit B: CDFW BIOS Map of Project Location (Figure 2).

Map of Project Area 1600-2016-0273-R2 I-505 to I 5



CDFW BIOS Map for Cache Creek, Interstate 505 to Interstate 5