

## INITIAL STUDY FOR 2020 TEHAMA-COLUSA CANAL AUTHORITY IN BASIN WATER TRANSFERS

1. Project title: 2020 Tehama-Colusa Canal Authority In Basin Water Transfers
2. Lead agency name and address: Tehama-Colusa Canal Authority  
PO Box 1025  
Willows, CA 95988
3. Contact person and phone number: Mr. Jeff Sutton, (530) 934-2125
4. Project location: The proposed transfers could originate in Colusa, Glenn, Sacramento, Shasta, Sutter, Tehama, or Yolo counties. The transfer buyers could be in Colusa, Glenn, Tehama, or Yolo counties.
5. Project sponsor's name and address: Same as Lead Agency.
6. General plan designation: Not Applicable – Interagency Agricultural Water Transfers
7. Zoning: All lands with potential to participate in the transfers are agricultural.
8. Description of project: (Describe the whole action involved, including but not limited to later phases of the project, and any secondary, support, or off-site features necessary for its implementation. Attach additional sheets if necessary.)  
Refer to Chapter 2 of the Initial Study.
9. Surrounding land uses and setting: Briefly describe the project's surroundings:  
Refer to Chapter 2 of the Initial Study.
10. Other public agencies whose approval is required (e.g., permits, financing approval, or participation agreement.)  
The Tehama-Colusa Canal Authority will coordinate with their Member Units and the sellers identified in this Initial Study. Transfer negotiations will occur between the Authority and interested sellers. Reclamation approval is required for transfer of water subject to Reclamation contract and use of Central Valley Project facilities. As a Federal agency, Reclamation does not complete CEQA compliance; however, Reclamation will verify that buyers and sellers have complied with CEQA in accordance with Central Valley Project Improvement Act requirements. Chapter 2 describes the involvement of State agencies, including the California Department of Water Resources and State Water Resources Control Board.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

- |   |   |   |
|---|---|---|
| <input type="checkbox"/> Aesthetics               | <input type="checkbox"/> Agriculture and Forestry Resources | <input type="checkbox"/> Air Quality                        |
| <input type="checkbox"/> Biological Resources     | <input type="checkbox"/> Cultural Resources                 | <input type="checkbox"/> Geology /Soils                     |
| <input type="checkbox"/> Greenhouse Gas Emissions | <input type="checkbox"/> Hazards & Hazardous Materials      | <input type="checkbox"/> Hydrology / Water Quality          |
| <input type="checkbox"/> Land Use / Planning      | <input type="checkbox"/> Mineral Resources                  | <input type="checkbox"/> Noise                              |
| <input type="checkbox"/> Population / Housing     | <input type="checkbox"/> Public Services                    | <input type="checkbox"/> Recreation                         |
| <input type="checkbox"/> Transportation/Traffic   | <input type="checkbox"/> Utilities / Service Systems        | <input type="checkbox"/> Mandatory Findings of Significance |

DETERMINATION: (To be completed by the Lead Agency)

On the basis of this initial evaluation:

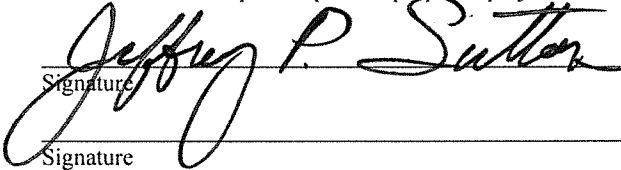
I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

  
\_\_\_\_\_  
Signature

1-28-2020  
\_\_\_\_\_  
Date

\_\_\_\_\_  
Date

## MITIGATED NEGATIVE DECLARATION FOR 2020 TEHAMA-COLUSA CANAL AUTHORITY IN BASIN WATER TRANSFERS

**LEAD AGENCY:** Tehama-Colusa Canal Authority  
PO Box 1025  
Willows, CA 95988

**AVAILABILITY OF DOCUMENTS:** The initial study for this mitigated negative declaration is available for review at: Tehama-Colusa Canal Authority, 5513 State Highway 162, Willows, CA 95988 and online at <http://www.tccanal.com/news.php>.

Questions or comments regarding this mitigated negative declaration and initial study may be addressed to:

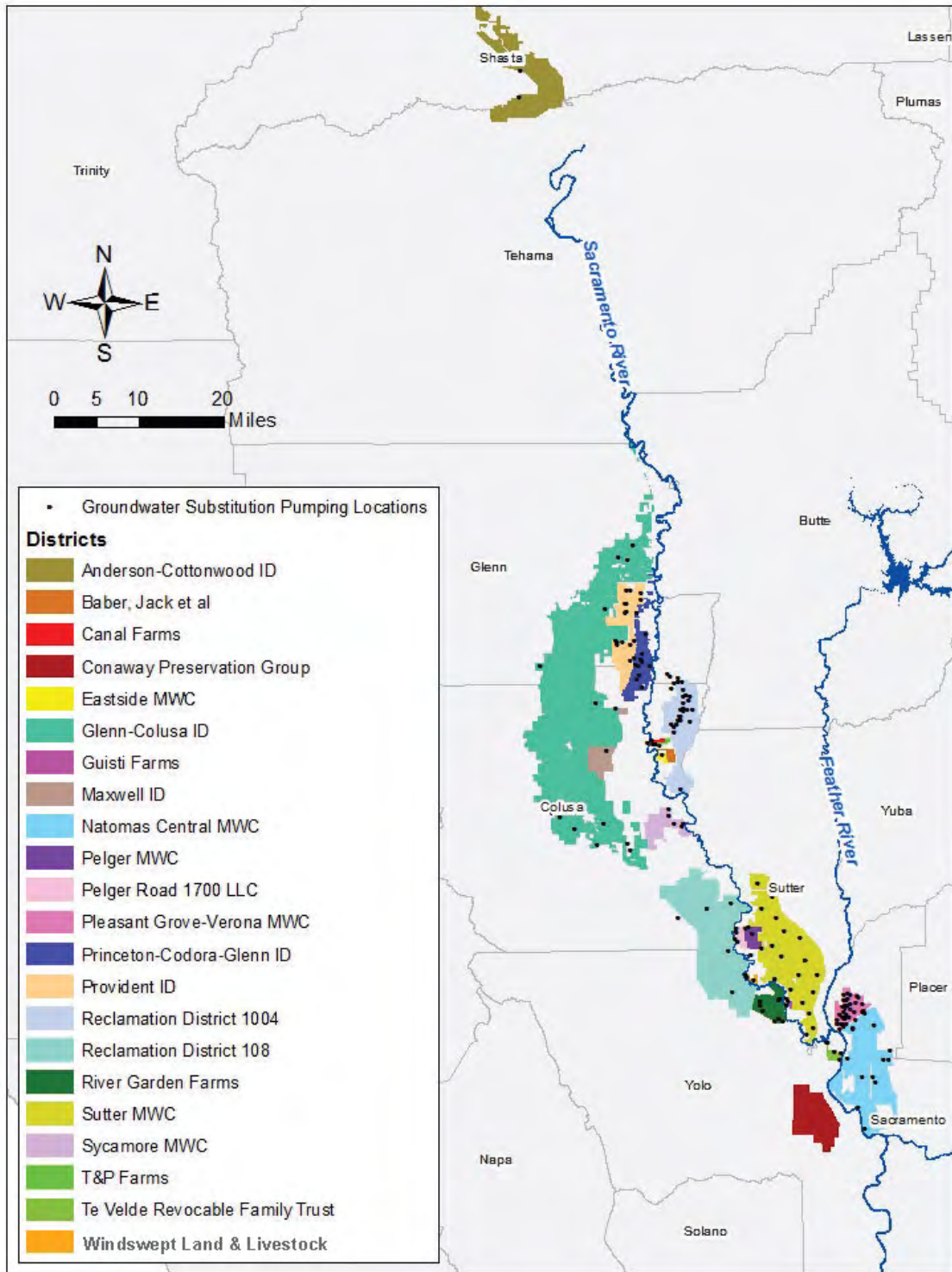
Tehama-Colusa Canal Authority  
Attention: Mr. Jeff Sutton  
PO Box 1025  
Willows, CA 95988  
Fax (530) 934-2355 or e-mail: [jsutton@tccanal.com](mailto:jsutton@tccanal.com)

**Project Description:** Unpredictable hydrologic conditions have led the Tehama-Colusa Canal Authority (TCCA) and its Member Units to solicit willing sellers to transfer water in 2020. A number of entities have expressed interest in transferring water to the Member Units of the TCCA. The TCCA would negotiate with these sellers, on behalf of the Member Units, to identify potential transfers and the specifics of each transfer arrangement, which, collectively, constitute the “proposed project” addressed in the Initial Study. Transfers would be from willing sellers within the Sacramento Valley to buyers within the Sacramento Valley. This Mitigated Negative Declaration is based on the Initial Study/ Environmental Assessment (IS/EA) that analyzes these water transfers. The water would be made available for transfer through a combination of cropland idling and groundwater substitution.

**Project Location:** The proposed transfers could originate in Colusa, Glenn, Sacramento, Shasta, Sutter, Tehama, or Yolo Counties from sellers shown on the map on the next page. The transfer buyers could be in Colusa, Glenn, Tehama, or Yolo Counties.

**Findings:** An initial study was prepared to assess the proposed transfers’ potential effects on the environment and the significance of those impacts. Based on the initial study, the TCCA has determined that the proposed project will not have a significant impact on the environment. This conclusion is supported by the following findings:

- The project will not result in impacts to agriculture and forestry resources, cultural resources, hazards and hazardous materials, land use and planning, mineral resources, population and housing, public services, recreation, transportation/traffic, and utilities and service systems
- The project will result in less than significant impacts to aesthetics, air quality, biological resources, geology and soils, greenhouse gas emissions, hydrology and water quality, and noise.



**Potential Selling Entities**

**Mitigation Measures:** The initial study incorporated the following mitigation measures:

*Mitigation Measure AQ-1:*

Selling agency would reduce pumping at diesel wells to reduce emissions to below the thresholds. If an agency is making water available for transfer through cropland idling and groundwater substitution actions in the same year, the reduction in vehicle emissions can partially offset groundwater substitution pumping at a rate of 4.25 AF of water produced by idling to one acre-foot of groundwater pumped (Byron & Buck 2009). Agencies may also decide to replace old diesel wells with cleaner (i.e., higher emission tier) diesel pumps or electric wells to reduce emission below the thresholds.

Any selling agency with potentially significant emissions, as determined by this IS/EA, will be required to submit information, prior to making water available for transfer through groundwater substitution actions, that documents the wells that would be pumped to stay below the thresholds. The selling agency must also maintain recordkeeping logs that document the specific engine to be used for making water available for transfer through groundwater substitution actions, the power rating (hp), and applicable emission factors. Emission calculations for daily emissions will be completed for comparison to the significance thresholds determined for each selling agency. In the annual report, the selling agencies will be required to submit documentation specifying that the wells would only be pumped in accordance with the transfer proposals.

*Mitigation Measure VEG and WILD-1: Protect Existing Habitat for Wildlife*

- As part of the review and approval process for proposed water transfers, Reclamation will have access to the land to verify how the water for transfer is being made available and to verify that actions to protect the giant garter snake are being implemented.
- Movement corridors for aquatic species (including pond turtle and giant garter snake) include major irrigation and drainage canals. The water seller will keep adequate water in major irrigation and drainage canals. Canal water depths should be similar to years when transfers do not occur or, where information on existing water depths is limited, at least two feet of water will be considered sufficient.
- Maintaining water in smaller drains and conveyance infrastructure supports key habitat attributes such as emergent vegetation for giant garter snake escape cover and foraging habitat. If cropland idling/shifting occurs, Reclamation will work with sellers to document that adequate water remains in drains and canals. Documentation may include flow records, photo documentation, or other means of documentation subject to approval by Reclamation and USFWS.
- Fields abutting or immediately adjacent to areas with known important giant garter snake populations (Appendix G) will not be permitted to participate in cropland idling/shifting transfers. Important giant garter snake populations are defined for purposes of this mitigation measure as populations previously identified by biologists from USFWS, USGS, and possibly contract biologists. These populations of giant garter snakes were identified early on as identified in previous consultations and are in, or connected to, areas that are considered public or protected. Most of these areas have specific management plans for giant garter snakes either for mitigation or as wildlife refuges. One factor influencing the importance of these areas is that they can provide a refuge for snakes independent of rice production. Fields abutting or immediately adjacent to the following areas are considered important giant garter snake habitat:
  - Little Butte Creek between Llano Seco and Upper Butte Basin Wildlife Area
  - Butte Creek between Upper Butte Basin and Gray Lodge Wildlife areas
  - Colusa Basin drainage canal between Delevan and Colusa National Wildlife Refuges

- Gilsizer Slough
- Colusa Drainage Canal
- Land side of the Toe Drain along the Sutter Bypass
- Willow Slough and Willow Slough Bypass in Yolo County
- Hunters and Logan Creeks between Sacramento and Delevan National Wildlife Refuges
- Lands in the Natomas Basin
- At the end of the water transfer year, Reclamation will prepare an annual monitoring report that contains the following:
  - Maps of rice production and all cropland idling actions within the seller district that occurred within the range of potential transfer methods analyzed.
  - Results of current scientific research, summary of monitoring pertinent to water transfer actions, and new giant garter snake detections.
  - Discussion of conservation measure effectiveness.
  - Cumulative history of crop idling and crop shifting specifically to make water available for transfers within the sellers' area.

The report will be submitted to the USFWS and CDFW no later than January 31, of the year following the year in which the transfer occurred.

- Reclamation will establish annual meetings with the Service to discuss the contents and findings of the annual report. These meetings will be scheduled following the distribution of the monitoring report and prior to the last day of February.
- If, upon Reclamation's review of monitoring reports or other scientific literature, it appears that the Project is having unanticipated effects on the giant garter snake, Reclamation will contact the Service to discuss the information available and effectiveness of Project conservation measures.
- Reclamation will monitor the effectiveness of the conservation measures by funding giant garter snake distribution and occupancy research. The research, conducted by USGS, includes annual sampling of giant garter snake within the action area and focuses on their distribution and occupancy dynamics. The research is designed to evaluate the effectiveness of the conservation measures to maintain giant garter snake occupancy at sites making water available for transfer in accordance with this IS/EA.

*Mitigation Measure GW-1: Monitoring Program and Mitigation Plan*

The objective of Mitigation Measure GW-1 is to avoid potentially significant adverse environmental effects from groundwater level declines such as (1) impacts to other legal users of water; (2) land subsidence; (3) adverse effects to groundwater-dependent vegetation; or (4) migration of reduced quality groundwater. The mitigation measure also requires prompt corrective action so that impacts discussed previously will be reduced to less than significant in the event unanticipated effects occur. The measure accomplishes this by monitoring groundwater levels and land subsidence in the period during which groundwater is being pumped in-lieu of diverting the surface water. Additionally, the mitigation plan identifies necessary preventative action measures if monitoring shows that identified trigger points are reached during transfer-related pumping.

Reclamation will verify that sellers implement the monitoring program and mitigation plan to avoid potentially significant adverse effects of transfer-related groundwater extraction. In addition, each entity making surface water available for transfer through groundwater

substitution actions must confirm that the proposed groundwater pumping will be compatible with state and local regulations and GMPs. As GSPs are developed by GSAs, potential sellers must confirm that the proposed pumping and the following Monitoring Program and Mitigation Plan, verified by Reclamation, is compatible with applicable GSPs.

### **Well Review Process**

Potential sellers must submit well data for Reclamation review as part of the transfer approval process. The *DRAFT Technical Information for Preparing Water Transfer Proposals (Water Transfer White Paper)* (Reclamation and DWR 2019) can be consulted to understand the information that is necessary for Reclamation to approve a transfer.

### **Monitoring Program**

Potential sellers must complete and implement a monitoring program subject to Reclamation's approval that shall include, at a minimum, the following components:

#### **Monitoring Well Network**

The monitoring program shall incorporate a sufficient number of monitoring wells, as determined by Reclamation, to accurately characterize groundwater levels from the appropriate aquifers and their response in the area before, during, and after transfer-related substitution pumping takes place. Depending on local conditions, additional groundwater level monitoring may be required near ecological resource areas. It should be noted that monitoring well networks have been established for some of the participating pumping wells (those wells being used in-lieu of diverting surface water that is being made available for transfer) that have also participated in water transfers in previous years. For wells that have not participated in water transfers previously, the sellers would identify, in the transfer proposal, suitable monitoring wells as defined below for review and approval by Reclamation. If a suitable monitoring well(s) is not identified for a participating pumping well, the well will not be allowed to participate in a water transfer until a suitable monitoring well(s) is identified.

The monitoring well network would include the participating pumping well and a suitable groundwater level monitoring well(s) in the vicinity of the participating pumping well(s). Suitable monitoring well(s) would: (1) be within a two-mile radius of the seller's groundwater substitution pumping well; (2) be located within the same Bulletin 118 subbasin as the groundwater substitution pumping well; and (3) have a screen depth(s) in the same aquifer level (shallow, intermediate, or deep) as the groundwater substitution pumping well. Wells with short historic records could be considered, but short records (that do not extend to 2014 or earlier) could limit the transfer because the historic low would not reflect the persistent dry conditions from 2011 to 2015. In this situation, the lowest groundwater level for the short period of record would be used, but because the groundwater level would likely be higher than the historic low during the prior drought period, the groundwater level triggers (described below) would be more restrictive (i.e., the lowest recorded groundwater level could be reached more quickly during transfer-related groundwater substitution pumping than occurred in the short period of record when groundwater levels were higher).

Monitoring requirements at the participating groundwater substitution pumping well and suitable monitoring well(s) would detect impacts to third parties and land subsidence. Monitoring and mitigation for impacts to groundwater dependent deep-rooted vegetation and migration of reduced quality groundwater are discussed below under "Other Monitoring".

#### **Groundwater Level Monitoring**

Sellers will collect measurements of groundwater levels in both the participating wells (those wells being used in-lieu of diverting surface water that is being made available for transfer) and monitoring wells. Groundwater level measurements will be used to identify potential concerns for both third-party impacts and inelastic (irreversible) subsidence based on the identified trigger

points. Groundwater level monitoring will include measurements before, during, and after transfer-related substitution pumping. The seller will measure groundwater levels as follows:

- Prior to transfer: Groundwater levels will be measured in both the participating pumping well(s) and the monitoring well(s) monthly from March in the year of the proposed transfer-related substitution pumping until the start of the transfer pumping. Monitoring will also be conducted on the day that the transfer pumping begins, prior to the pump being turned on.
- During transfer-related substitution pumping: Groundwater levels will be measured, in both the participating pumping well(s) and the monitoring well(s), weekly throughout the pumping period.
- Post-transfer pumping: Groundwater levels will be measured, in both the participating well(s) and the monitoring well(s), weekly, for one month after the end of transfer-related pumping, after which groundwater levels will be measured monthly through March of the year following the end of the pumping.

### **Groundwater Level Triggers**

The primary criteria used to identify potentially significant impacts to groundwater levels are the basin management objectives (BMOs) set by GMPs. In the Sacramento Valley, Shasta, Tehama, Glenn, Butte, Colusa, Sutter, Yuba, Nevada, Placer, Sacramento and Yolo counties have established GMPs to provide guidance in managing the resource.

In areas where quantitative BMO groundwater level triggers exist, sellers will manage groundwater levels to these triggers and initiate the mitigation plan (discussed below) if groundwater levels reach the trigger. In areas where quantitative BMOs do not exist, sellers will manage groundwater levels to maintain them above the identified historic low groundwater level (trigger) and will initiate the mitigation plan (discussed below) if groundwater levels reach the trigger. Most of the quantitative BMOs within the Seller Service Area are tied to historic low groundwater levels. Therefore, the use of historic low groundwater levels in areas without quantitative BMOs is consistent with the approach for areas with quantitative BMOs. As part of a seller's transfer proposal subject to Reclamation's review and approval, the seller will need to identify the monitoring wells and the specific groundwater level trigger for each well (established through the local BMO or the historic low groundwater level for that well).

Groundwater level declines due to pumping occur initially at the pumping well and then propagate outward from that location. The magnitude of groundwater level decline caused by pumping also decreases with increasing distance from the pumping well. Therefore, groundwater level declines caused by transfer-related substitution pumping would be measured first at the pumping well and subsequently at the monitoring well. The decline would be greatest at the participating well and lower at the monitoring well. Therefore, it is likely that groundwater levels in the participating well would decline to the historic low level sooner than at the monitoring well(s). The monitoring well(s) would provide information surrounding the participating well to avoid potential cumulative impacts.

### **Other Monitoring**

#### *Groundwater Quality*

For municipal sellers, the comprehensive water quality testing requirements of Title 22 are considered sufficient for the water transfer monitoring program. Agricultural sellers shall measure specific conductance in samples from each participating production well. Samples shall be collected when the seller first initiates pumping, monthly during the pumping period, and at the termination of transfer-related pumping.



### *Groundwater Pumping Measurements*

All groundwater wells pumping to replace surface water made available for transfer shall be configured with a permanent instantaneous and totalizing flow meter capable of accurately measuring well discharge rates and volumes. Flow meters will be installed and calibrated in accordance with manufacturer's recommendations and the relevant documentation will be submitted by the seller to Reclamation. Flow meter readings will be recorded just prior to initiation of transfer-related substitution pumping and no less than monthly throughout the duration of the pumping period, as close as practical to the last day of the month. Readings will also be recorded just after cessation of pumping.

### *Shallow Groundwater-Level Monitoring for Deep-Rooted Vegetation*

To avoid significant effects to vegetation and allow sellers to modify actions before significant effects occur, sellers will monitor groundwater level data to verify that significant adverse effects to deep-rooted vegetation are avoided. This monitoring is only required in areas with deep-rooted vegetation (i.e., oak trees and riparian trees that would have tap roots greater than 10 feet deep) within a one-half mile radius of the participating well and areas where groundwater levels are between 10 to 25 feet below ground surface prior to starting transfer-related pumping. This monitoring is not required in areas with no deep-rooted vegetation (i.e., oak trees and riparian trees that would not have tap roots greater than 10 feet deep) within one-half mile of the participating wells or in areas where vegetation is located along waterways or irrigated fields that will continue to have water during the period of transfer.

In their transfer proposal to Reclamation, the seller would be required to identify if monitoring for deep-rooted vegetation is a requirement. Existing resources such as DWR's groundwater dependent ecosystem maps (<https://gis.water.ca.gov/app/NCDatasetViewer/>) or any existing biological survey data in the area, and aerial imagery (e.g. Google Maps) could be used to identify deep rooted vegetation near the participating pumping well.

If deep-rooted vegetation is identified near the participating well, a groundwater level monitoring well with the following requirements would need to be identified and monitored: (1) monitoring well is within a one-half mile radius of the deep-rooted vegetation; and (2) monitoring well would measure shallow groundwater level changes (within the interval between 10 to 25 feet below ground surface). The participating pumping well can function as the monitoring well if the previously mentioned requirements are met. If monitoring data at the monitoring well indicate that groundwater levels have dropped below root zones of deep-rooted vegetation (i.e., more than 10 feet, where groundwater was 10 to 25 feet below ground surface prior to starting the surface-water transfer), the seller must implement actions set forth in the mitigation plan. However, if historic data show that groundwater levels in the area have typically fluctuated by more than this amount annually during the proposed transfer period, then the transfer may be allowed to proceed. Prior to transfer pumping, the seller must submit to Reclamation historic data showing groundwater fluctuations in the area of the deep-rooted vegetation.

If no monitoring wells with the requirements discussed in the previous paragraph exist, monitoring would be based on visual observations by a qualified plant ecologist/certified arborist of the health of these areas of deep-rooted vegetation until it is feasible to obtain or install shallow groundwater monitoring. Monitoring of these areas would include a pre-pumping vegetation assessment within a half-mile radius of the pumping well followed by an assessment near the end of the pumping season but prior to fall/autumn leaf-drop. The assessment of post-pumping impacts on deep-rooted vegetation will be conducted by a qualified plant ecologist/arborist and will take into account the existing health conditions of the vegetation prior to pumping, species present, size-class of trees, and rainfall data from the previous water years. If the qualified plant ecologist/certified arborist determines, based on site-specific circumstances, that groundwater pumping has caused significant adverse impacts to deep-rooted vegetation (that is, any loss of the deep-rooted vegetation), the seller must implement

restoration actions set forth in the mitigation plan. Findings from the pre-pumping and post pumping assessment will be reported to Reclamation.

### **Coordination Plan**

The monitoring program will include a plan to coordinate the collection and organization of monitoring data. This plan will describe how input from third-party well owners will be incorporated into the monitoring program and will include a plan for communication with Reclamation as well as other decision makers and third parties.

Additionally, Reclamation, Member Units of the TCCA, and potential seller(s) will coordinate closely with potentially affected third parties to collect and monitor groundwater data. If a third party expects that it may be affected by a proposed transfer, that party should contact Reclamation and the seller with its concern. The burden of collecting groundwater data will not be the responsibility of the third party. If warranted, additional groundwater level monitoring to address the third-party's concern may be incorporated into the monitoring and mitigation plans required by Mitigation Measure GW-1.

### **Evaluation and Reporting**

The monitoring program will describe the method of reporting monitoring data. At a minimum, sellers will provide data summary tables to Reclamation, both during and after transfer-related substitution pumping. Post-transfer reporting will continue through March of the year following the transfer. Sellers will provide a final summary report to Reclamation evaluating the effects of the water transfer. The final report will identify transfer-related effects on groundwater and surface water (both during and after pumping), and the extent of effects, if any, on local groundwater users. It shall include groundwater-level contour maps for the area in which the transfer-related pumping is located, showing pre-transfer groundwater levels, groundwater levels at the end of the transfer period, and recovered groundwater levels in March of the year following the transfer. Groundwater level contour maps for different aquifer depths should also be included where data are available. The summary report shall also identify the extent of transfer-related effects, if any, to ecological resources such as fish, wildlife, and vegetation resources.

### **Mitigation Plan**

Potential sellers must complete and implement a mitigation plan to avoid potentially significant groundwater impacts and ensure prompt corrective action in the event unanticipated effects occur. This plan must document the planned actions if there are unanticipated impacts to groundwater resources or groundwater-dependent vegetation. This plan must be submitted to Reclamation as part of the transfer approval process.

### **Groundwater Resource Mitigation**

If groundwater level triggers are reached at the participating pumping well(s) or the suitable monitoring well (s) (either BMO triggers or historic low groundwater levels), transfer-related pumping would stop from the participating pumping well that reached the trigger. Transfer-related pumping would be stopped when the trigger is first reached at either the participating pumping well(s) or the suitable monitoring well(s). Transfer-related pumping could not continue from this well (in the same year or a future year) until groundwater levels recovered to above the groundwater level trigger. Implementation of the mitigation plan thus avoids any potentially significant groundwater impacts. Other corrective actions could include:

- Lowering of pumping bowls in non-transferring wells affected by substitution pumping.
- Reimbursement to non-transferring third parties for significant increases in their groundwater pumping costs due to the groundwater substitution pumping action, as compared with their costs absent the transfer.

- Reimbursement to non-transferring third parties for modifications to infrastructure that may be affected.
- Other appropriate actions based on local conditions.

### **Deep-Rooted Vegetation Mitigation**

If shallow groundwater level monitoring suggests that groundwater levels have dropped below root zones of deep-rooted vegetation (i.e., more than 10 feet, where groundwater was 10 to 25 feet below ground surface prior to starting the transfer-related pumping), the seller must stop transfer-related pumping at the participating pumping well and cannot resume pumping until groundwater levels have recovered to levels above the root zones. However, if historic data at the location indicate shallow groundwater levels typically declined during the transfer period and remained below the root zone then the transfer may be allowed to proceed.

In areas where visual monitoring is conducted to monitor health of deep-rooted vegetation, the seller must stop transfer-related pumping at the participating well if the qualified plant ecologist/arborist, determines a loss or substantial risk of loss of vegetation.

If adverse impacts to deep-rooted vegetation occur, the seller will perform restoration activities by replanting similar vegetation at a 1:1 ratio (for every 1 inch diameter at breast height (dbh) lost, 1 inch in dbh will be planted. For example if 12-inch dbh of oak is lost then the seller would have to plant a 12-gallon oak sapling at around 1-inch dbh. Therefore, the seller would plant more trees than lost.). The seller will plant, irrigate, maintain, and monitor restoration of vegetation for three years to replace the loss(es). All plantings will be fitted with exclusion cages or other suitable protection from herbivores. Plantings will be irrigated for three years or until the survival criterion is met. If 75% of the plants survive at the end of the three -year monitoring period, the revegetation will be considered successful. If the survival criterion is not met at the end of the monitoring period, planting and monitoring will be repeated after mortality causes have been identified and corrected. Annual monitoring reports, prepared by a qualified plant ecologist/arborist, will document the status of the plantings and recommendations for remediation as necessary. The monitoring reports will be provided to the seller and Reclamation by August 31 following each year of monitoring (generally July 1 through June 30) to allow time for additional planting activities, if necessary.

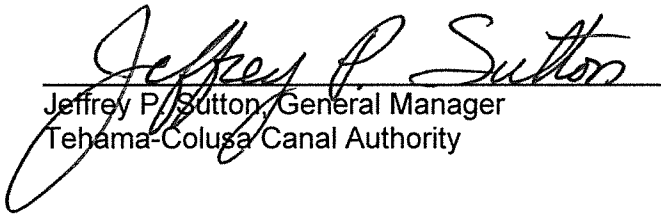
Transfer-related pumping could not continue at the subject well while vegetation restoration activities consistent with the requirements above are ongoing (i.e. three years or until the survival criterion is met). Transfer-related pumping at the subject well could not resume after restoration unless the seller provides evidence that resuming pumping will not affect deep-rooted vegetation (such as data from the installation of a new shallow groundwater level monitoring well within a one-half mile radius of the deep-rooted vegetation that indicates stable shallow groundwater levels at less than ten feet).

### **MANDATORY FINDINGS OF SIGNIFICANCE**

- No substantial evidence exists that the proposed project would have a negative or adverse effect on the environment.
- The project would not substantially degrade the quality of the environment, significantly reduce the habitat for fish and wildlife species, result in fish or wildlife populations below a self-sustaining level, reduce the number or restrict the range of a special-status species, or eliminate important examples of California history or prehistory.

- The project would not have environmental effects that would cause substantial direct or indirect adverse effects on humans.
- The project would not have environmental effects that are individually limited but cumulatively considerable.

In accordance with Section 21082.1 of the California Environmental Quality Act, the TCCA staff has independently reviewed and analyzed the initial study (attached) and proposed mitigated negative declaration for the proposed project and finds that the initial study and proposed mitigated negative declaration reflect the independent judgment of the TCCA staff.

  
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Jeffrey P. Sutton, General Manager  
Tehama-Colusa Canal Authority

1-28-2020  
Date