CEQA Addendum No. 3

Initial Study/Mitigated Negative Declaration

(SCH No: 1997052044)

Conveyance of Refuge Water Supply Project

East Sacramento Valley Study Area

Lead Agency:

California Department of Fish and Wildlife
North Central Region
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1. Introduction and CEQA Framework for an Addendum

This document constitutes an Addendum to the December 19, 1998, Conveyance of Refuge Water Supply-East Sacramento Valley Final Environmental Assessment Initial Study/Proposed Finding of No Significant Impact/Negative Declaration (Final EA/IS) originally prepared by the Bureau of Reclamation and the California Department of Fish and Wildlife and the subsequent Addendums (hereafter referred to as the Original Project). The Original Project location within Butte County, California (Figure 1) remains the same. This Addendum evaluates whether modifications/refinements to the Original Project (hereafter referred to as the Proposed Project) would result in any new or substantially more adverse impacts, and if so, require any new mitigation measures not identified in the Original Project. According to California Environmental Quality Act (CEQA) Guidelines Sections 15162 and 15164, an Addendum - rather than a Subsequent EIR or MND - can be prepared if the criteria below are true:

- No new significant impacts will result from the project or from new mitigation measures.
- No substantial increase in the severity of environmental impact will occur.
- No new feasible alternatives or mitigation measures that would reduce impacts previously found not to be feasible have, in fact, been found to be feasible.

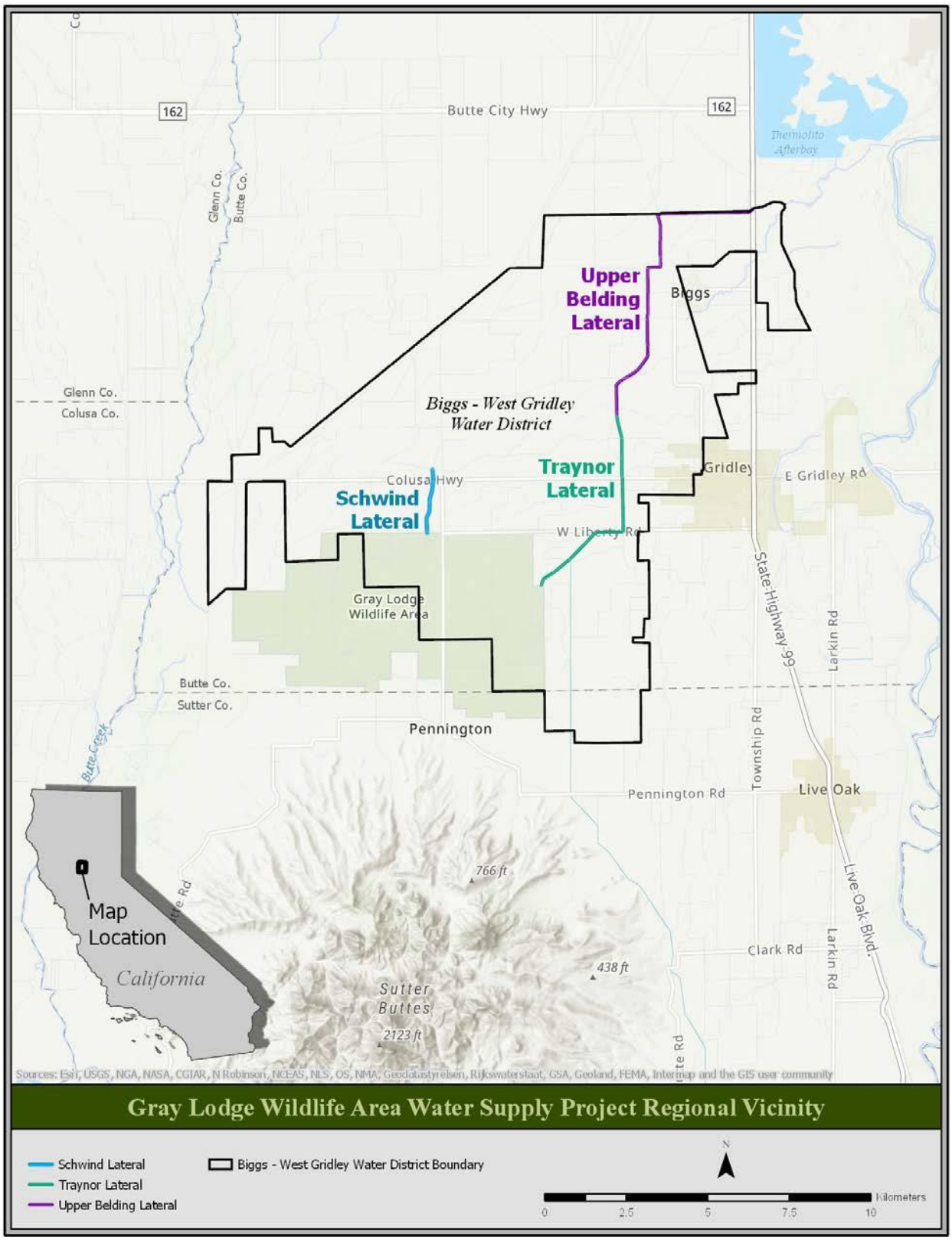
Based upon the information provided in the impacts section of this document, the changes to the Proposed Project will not result in new significant impacts or substantially increase the severity of impacts previously identified in the Initial Study/Negative Declaration and subsequent Addendums. None of the other factors set above have been triggered. Therefore, an Addendum is appropriate, and has been prepared to address the environmental effects of the modifications/refinements to the Proposed Project.

2. Original Project Description

The project description was originally developed from Alternative GRA-9 of the Final EA/IS *Conveyance of Refuge Water Supply Project East Sacramento Valley Study Area* (Reclamation; CDFW, 1997), which was prepared to address the Gray Lodge Wildlife Area (GLWA) and Sutter National Wildlife Refuge (NWR) components of the Refuge Water Supply Program (RWSP). This alternative consisted of several recommended improvements to Biggs-West Gridley Water District's (BWGWD's; District's) infrastructure to increase capacity of the canal system and accommodate anticipated peaks in the delivery period of mid-April through mid-December. The Original Project involved the structural modification of portions of the BWGWD's water conveyance facilities. The Original Project included approximately 19.2 linear miles of canals, plus a 200 foot buffer on each side of the canal centerline, and included the demolition of existing structures, excavation for new structures, numerous improvements to concrete siphons, bridges, flumes, weirs, check and head gates, raising, reshaping, and widening the canal banks.

On August 23, 2013, the CDFW adopted Addendum No. 1 to the Final EA/IS. The project description described in the Final EA/IS and 2013 Addendum No. 1 included increasing the capacity of water conveyance system canals through improvements to the canals and various structures by upgrading and/or completely replacing them to provide the necessary capacity through the existing system. The project description proposed at the time included the replacement of or improvements to nearly 60 structures including checks, siphons, weirs, culverts, railroad crossings, and county road bridges. All work was to be conducted in each calendar year of work, from October 1 through May 1, when the canal would not be delivering agricultural water and could be drained. Construction would be conducted over a three to five-year period, depending on availability of federal funding.

Figure 1. Proposed Project Location.



Additionally, some of the 20 miles of canals and laterals would be raised and/or widened. Up to four (4) staging areas were identified for materials stockpiling and the storage of construction equipment. The analysis in the Final EA/IS and Addendum No. 1 concluded that limiting the number of acres of habitat impacts, and the addition of avoidance and minimization measures would fully mitigate the impacts disclosed in the Final EA/IS and Addendum No. 1.

On April 15, 2015, the CDFW adopted Addendum No. 2 to the Final EA/IS. The Addendum was intended to fulfill obligations under the CEQA to clarify changes to the minimization and mitigation measures as presented in the previous documents. Measures described in Addendum No. 2 did not increase the amount of take to giant garter snake (*Thamnophis gigas*) (GGS) as analyzed in the Final EA/IS and Addendum No. 1. This Addendum only modified the existing avoidance and minimization measures and included new measures to reduce take of GGS, as noted above.

Due to funding constraints only a portion of the Original Project was constructed. This portion of the project is identified as Phase 1 of the project (Figure 2). Phase 1 of the construction was completed from 2013 to 2015 and included the widening and realignment of approximately 4.28 miles of the 19.24 miles of canal that were proposed in the Original Project. Phase 1 also included the replacement or modification of 12 concrete structures for water control and farm crossings. Work completed as part of Phase 1 included (Figure 2, and Table 1):

- **Upper Belding Lateral**: From the Union Pacific Railroad (UPRR) undercrossing continuing downstream to the bifurcation into the Lower Belding and Traynor Laterals south of Farris Road. Earthwork, concrete check structures, and drainage lateral crossings were completed over 3.67 miles of canal.
- **Traynor Lateral**: From the Lower Belding/Traynor bifurcation downstream to the Nugent Flume. Work included earthwork and a concrete check structure. The work completed reconstruction of 0.61 miles of the Traynor Lateral.

Table 1 - Modifications as Constructed (Phase 1), Proposed Project (Phase 2) and Eliminated

Segment	Affected Area Length (mi)	Lateral Miles			# structures (turnouts, head gates, and different crossings)		
		Constructed in Phase 1	Proposed for Phase 2	Eliminated from the Proposed Project	Constructed in Phase 1	Proposed for Phase 2	Eliminated from the Proposed Project
Upper Belding	5.60	3.67	0.13	1.8	10	4	0
Traynor	4.81	0.61	4.2	0	2	18	0
Cassady	3.12	0	0	3.12	0	0	13
Lower Belding	3.65	0	0	3.65	0	0	11
Schwind	2.06	0	1.31	0.75	0	9	2
Totals	**19.24**	**4.28**	**5.64**	**9.32**	**12**	**31**	**26**

Major structure replacements planned at road bridges, the UPRR undercrossing, and Razorback Flume located in the reaches completed from 2013 to 2015 were excluded from the scope of Phase 1 construction due to the limited funding available.

3. Proposed Project Description

The Proposed Project identified as Phase 2, was updated to eliminate the reconstruction of 9.32 miles of laterals including the entire Lower Belding and Cassady, and portions of Upper Schwind and Belding Laterals (3.65, 3.12, 0.75, and 1.8 miles, respectively). In addition to this, the Proposed Project eliminated the construction of 26 structures including turnouts and lateral head gates; road bridges; and culvert, drain and farm crossings. Figure 2 and Table 1 shows the main changes to the Original Project.

The Project includes the following activities covered under the Original Project:

- Reconstructing the Traynor Lateral from just below the Nugent Flume to just within the Gray Lodge boundary at Evans-Reimer Road (4.20 miles)
- Reconstructing the Schwind Flume and Schwind Lateral from the Schwind Flume to just within the Gray Lodge boundary at West Liberty Road (1.31 miles)
- Reconstructing the Razorback Flume on the Upper Belding Lateral
- Reconstructing the Traynor Lateral bridges at Colusa Highway, West Liberty Road, and Evans-Reimer Road
- Reconstructing the Upper Belding Lateral bridges at Afton and North Farris Roads (this also improves 0.13 mile of the Lateral)
- Boring a water conveyance tunnel under the railroad crossing of the Upper Belding Lateral

Several structure designs have been modified from the Original Project as a result of value engineering performed to improve water conveyance efficiency, reduce project costs, and GGS habitat impacts:

- **Traynor Lateral Outlet onto GLWA.** The crested weir and the associated head gate, pipeline and concrete work of the Jakey Ditch head gate supply pipeline was removed. These plans will be replaced with a Langemann gate weir located on Gray Lodge approximately 80 feet downstream of the Evans-Reimer Road Bridge, a rock overflow weir and spillway located 50-feet south of the Evans-Reimer Road Bridge, and reconstruction of the existing Jakey Ditch head gate in place.
- **Schwind Lateral Water Delivery to GLWA at West Liberty Road.** At this location the proposed construction of a siphon under West Liberty Road was cancelled. The Proposed Project would replace the two existing, dilapidated corrugated metal pipes (CMPs) with new CMPs or steel pipes of the same size and in the same location, and adds the installation of a third 36-inch diameter CMP or steel pipe to supplement flow capacity to meet the need for delivery from the Schwind Lateral onto GLWA.
- **County Road Bridge Redesigns**. The Proposed Project would increase the length of the culverts under the County roads, from the County-required minimum 32 feet, to 50 to 64 feet, depending on their location. These changes occurred due to new safety guidelines that would require the installation of 150-feet long guardrails with the previous design. These guardrails would require additional relocation of access roads and increase the Proposed Project impacts. The new design would eliminate these impacts.

Figure 2. Site Plan.

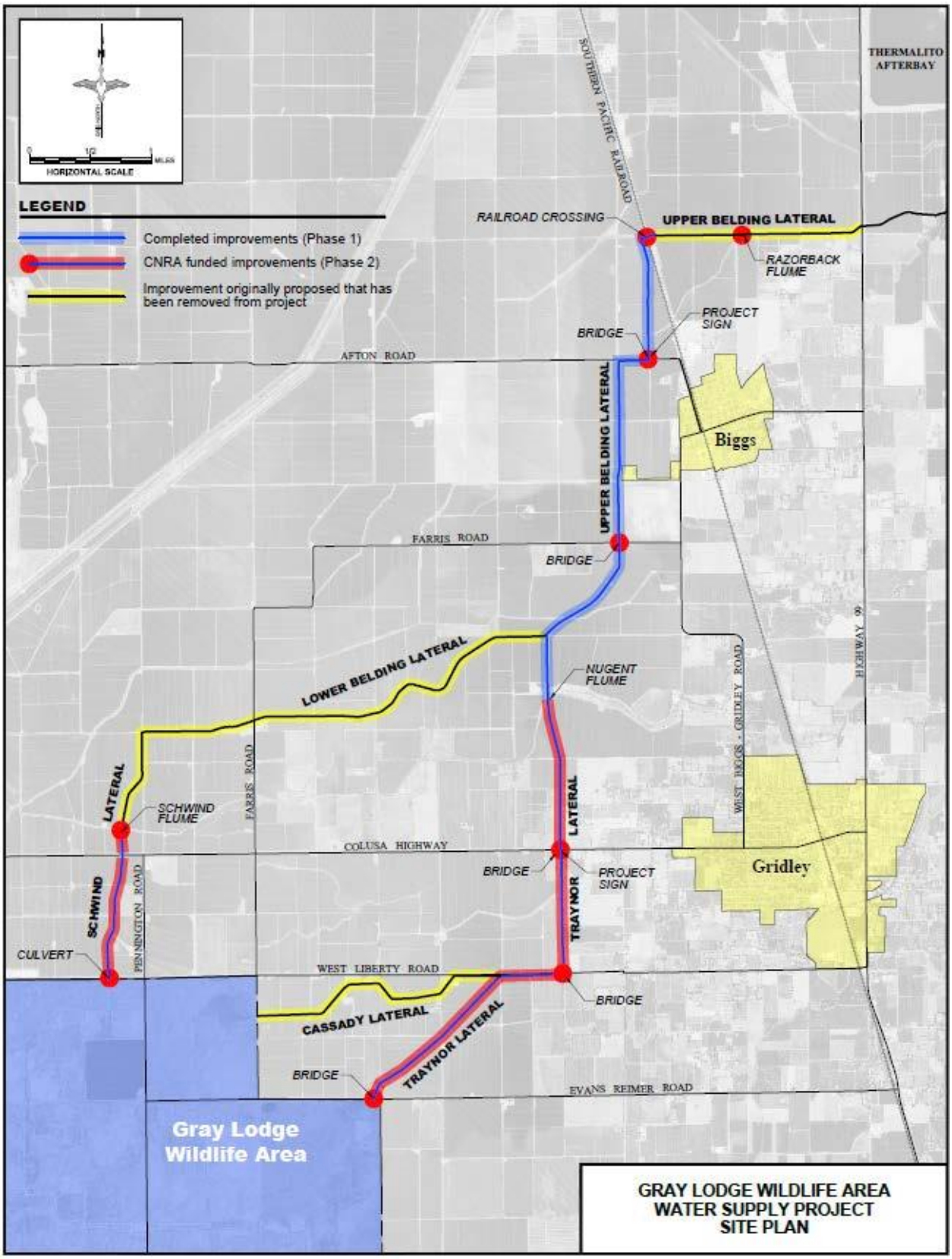
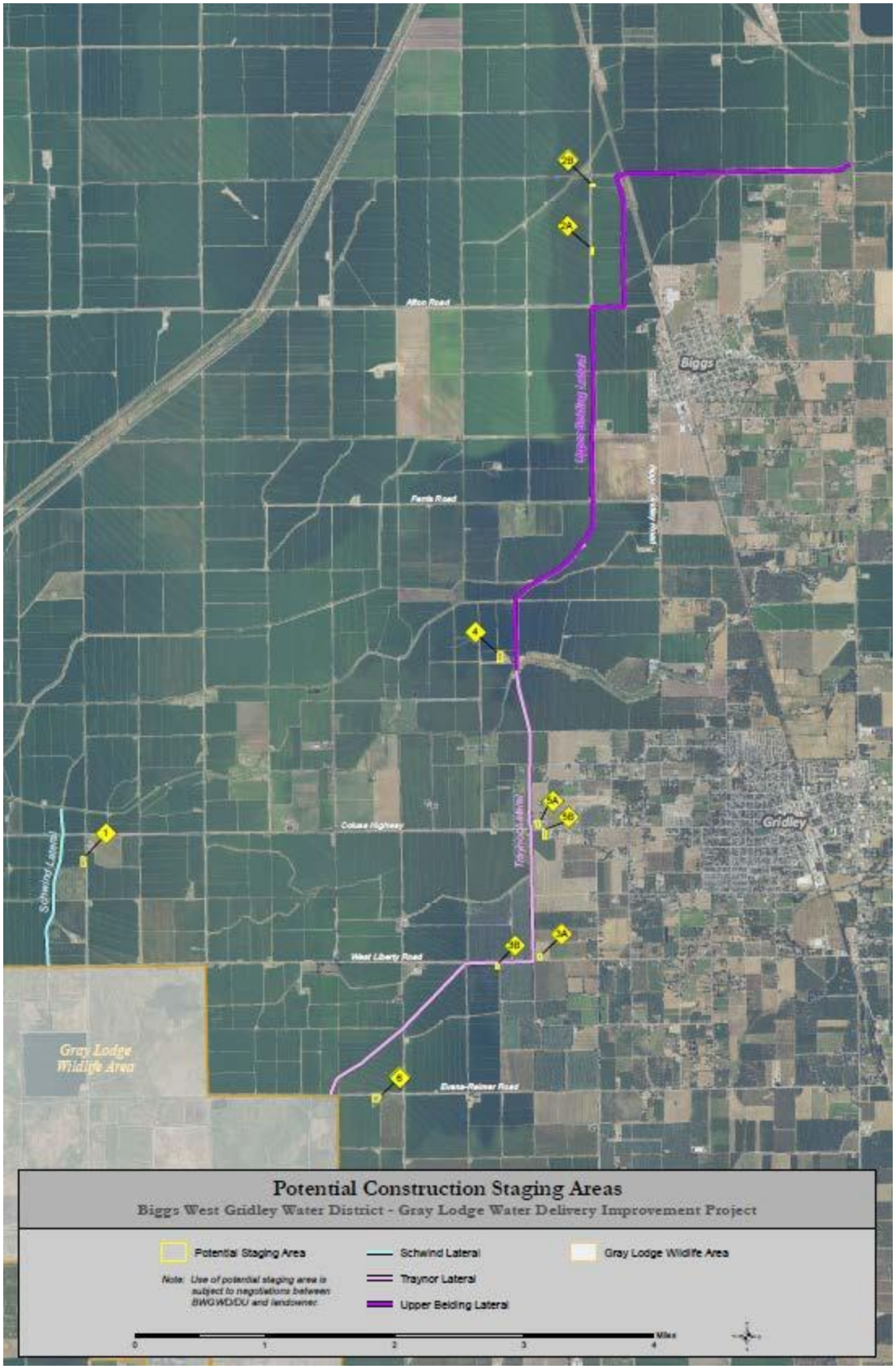


Figure 3. Staging Areas.



- **Additional Staging Areas**. Nine staging areas were analyzed for potential use during construction. Figure 3 shows the location of all the potential staging areas. These options were selected based on a combination of factors including necessity, proximity to construction, reasonable access from major roads, adequate size for trailers and large equipment, and minimal impact to potential wildlife habitat. Up to 6 of the 9 staging areas would be used by the Proposed Project, culminating in an affected area of no more than 5.18 acres, based on selection and use of the largest of the six staging area options. Each staging area is anticipated to be used for one or two construction seasons. Therefore, all six staging areas would not be used at the same time or for the entire period of performance for the Proposed Project.
- **Setback Checks.** The 20-30-foot work area corridor within rice fields would need to be protected from managed rice field flooding that occurs as typical agricultural practices in both summer (for rice irrigation) and winter (for rice straw decomposition). The water in the flooded fields would be contained by a temporary berm (setback check). The setback checks would be constructed in a similar manner to those typically used for rice farming by grading adjacent earth into a linear berm. These berms would be constructed with agricultural equipment and/or graders and tractors. Any setback checks used would be installed in October or November after harvest, if delivery of water for rice stubble decomposition is expected, or in April before planting. Upon completion of construction, the temporary setback checks would be removed with the material regraded back into the fields to restore original conditions. The use of setback checks is unique to the redesign because the Original Project construction was limited to areas that at times coincided with planned water transfers that resulted in the adjacent rice fields being in a dry, fallowed condition.

4. Proposed Project Implementation

Staging and pre-construction site preparation activities for the Proposed Project construction are scheduled to begin in late summer 2019. The Proposed Project would be completed in winter 2021-22. These dates are subject to change depending on the weather and other conditions.

5. Analysis of Potential Environmental Impacts

As described in this document, the Proposed Project footprint has been substantially reduced from the Original Project. The overall project footprint was reduced by 9.32 linear miles from the Original Project and 26 of the structures proposed in the Original Project have been removed, significantly reducing the overall Proposed Project impacts. All the modifications listed in the Proposed Project description are located within the Original Project study area except for the staging areas and some channels that would be used to divert water through a bypass system in order to facilitate summer construction. The staging areas would be located in previously disturbed areas or existing orchards.

The by-pass system will use pumps and other temporary delivery features to be installed along existing conveyance and drainage ditches to convey water to areas that would otherwise be affected by the summer Lower Traynor Lateral reconstruction work. This temporary infrastructure includes pre-cast concrete water control structures (WCS) and culverts, portable lift pumps, and above-ground delivery pipes. These features would be installed in early summer, during the GGS active season; and removed in late summer following completion of the lateral reconstruction activities. Pre-construction activities necessary to facilitate installation of the temporary by-pass infrastructure may include: a limited extent of channel cleaning to improve flow lines along portions of the existing ditches, which would be completed during the GGS active season and; hand removal/weed-eating, tractor mowing, or burning of above-ground vegetation, which would be initiated in spring but may overlap the GGS inactive season

because no below ground disturbance to vegetation would occur. Such activities are regularly carried out in these ditches by BWGWD, Reclamation District (RD) 833, RD 2054 and owners of property over which the ditches flow. The by-pass system design is depicted in Figure 4.

As explained in section 5.2, a committee of experts recommended that summer construction work is performed to the extent feasible, in order to minimize impacts to GGS. Additional setback checks would occur within the Original Project study area and would only disturb existing farmland adjacent to the work areas. The staging areas, as well as the WCSs and the setback checks, would be temporary in nature and would be removed and reverted to preexisting conditions in coordination with the property owner and BWGWD, after the completion of the Proposed Project. No permanent impacts would occur as a result of these modifications.

For the reasons stated above, no additional impacts would occur as a result of the Proposed Project to aesthetics, air quality, cultural resources, geology and soils, green house and gas emissions, hazards and hazardous materials, hydrology and water quality, mineral resources, population and housing, public services, recreation, and utilities and service systems. The analysis and conclusion from the Original Project impacts remain valid and no additional avoidance, minimization, and or mitigation measure need to be implemented.

5.1. Agriculture and Forestry

If selected by the contractor, the Proposed Project would include additional work within an existing orchard (Staging area 3A) 0.64 acres. The impacts would be small in relation to the total size of the existing orchard. All the temporarily disturbed areas would be restored to preexisting conditions or returned to the conditions agreed on between the BWGWD and the property owner.

Since the Proposed Project includes summer work it may result in the temporary disturbance of some of the farming operations of those agricultural lands next to the study area. The construction of the setbacks would enable farming operations to continue during construction and the impacts would be limited to a 20-30-foot work area corridor within the farms adjacent to the construction areas. Normal water deliveries would be available to the surrounding farmland. All these impacts would be temporary and would only affect the 1.76 miles along the Schwind and Traynor Laterals.

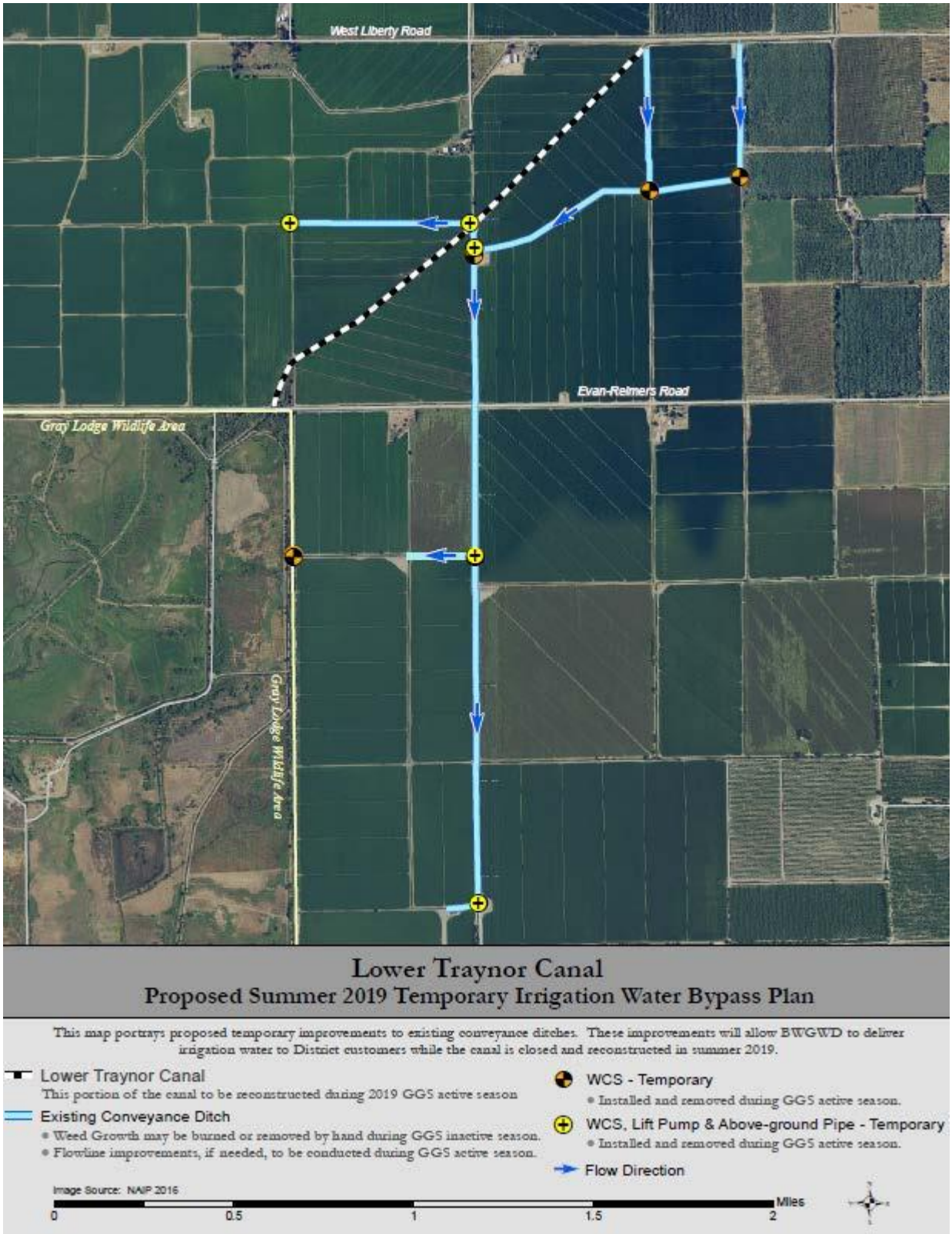
The Proposed Project would not result in new significant impacts to farmlands. The Proposed Project would not result in any farmland conversion. The Proposed Project would not permanently impact farmland operations or conflict with land in an agricultural preserve and/or enrolled in a Williamson Act contract.

5.2. Biological Resources

The Proposed Project would impact less habitat for all the species present within the Proposed Project. With the implementation of the Original Project measures there would not be any new impacts to the species analyzed in the Original Project. No new previously undisclosed species are expected to be encountered during construction activities.

BWGWD and Ducks Unlimited (DU) convened a GGS Working Group (GGSWG) to address the concerns of interested parties and identify any additional preconstruction and construction measures to be implemented to minimize impacts on GGS during Phase II construction. This group included

Figure 4 By-pass Schematic



representatives from federal and state resource agencies [Levi Johnson (Bureau of Reclamation Resources Management Project Manager), Megan Simon (Reclamation Natural Resources Specialist), Dale Garrison (Service, Refuge Water Supply Coordinator), Dave Van Baren (CDFW Environmental Scientist, and Juan Lopez Torres (CDFW Senior Environmental Scientist)]; species experts [Jeff Mitchell (Swaim Biological), Eric Hansen (Consulting Environmental Biologist),and Brian Halstead (U.S. Geological Survey)]; and interested conservation organizations [Kim Delfino and Rachel Zwillinger (Defenders of Wildlife)]. Half day meetings were held on July 30, 2018 and August 7, 2018, and an all-day meeting held on August 29, 2018.

During working group meetings, avoidance and minimization measures that were enacted during construction of the Original Project were reviewed to determine their effectiveness. It was also determined that summer work would reduce impacts to GGS, thus, the Proposed Project would include summer work. It was determined that benefits to GGS through conducting summer work outweighs the potential temporary impacts caused by the use of the water bypass.

The following avoidance and minimizations would be implemented to reduce the impacts to GGS as recommended by the GGSWG. These measures are complimentary to the measures already adopted by the Original Project:

- **Summer Work:**
  - **Traynor Lateral**. Reconstruct the lower 1.47 miles of the Traynor Lateral (Rising River Lateral) during the GGS active season. To facilitate reconstruction of the 1.47 miles of the Traynor Lateral during the GGS active season, install temporary improvements to existing conveyance ditches on properties adjoining the lower Traynor Lateral to facilitate delivery of irrigation water to rice farmers so that this portion of Traynor Lateral can be dewatered in GGS active season to facilitate its reconstruction, with affected rice farmers still receiving water.
  - **Schwind Lateral.** Reconstruct the 0.29 mile of improvements to the Schwind Lateral above the outlet onto GLWA during summer. No new temporary delivery facilities are needed to accommodate this work.
- **Riprap and Concrete Bank Lining Removal**: Remove riprap and concrete bank lining during the GGS active season (May 1 through September 30) where feasible and in a sequential manner allowing time for GGS to react to the disturbance and voluntarily vacate. Encourage voluntary vacating with staggered, manual raises in canal water level.
- **Water Control Structure (WCS) Replacement**: Remove existing WCS during the GGS active season where feasible. On a seasonal basis, temporarily remove high quality over-wintering habitat elements (vegetation and rodent burrows) from areas where WCS will be replaced, to prevent selection and occupancy of these areas by GGS prior to construction activities.
- **Vegetation Removal along Levees and Toe Ditches**: Remove vegetation that could be used as cover for GGS prior to construction activities. Sequence vegetation removal with: above-ground removal of GGS cover in the season prior to construction; grubbing and below-ground disturbances occurring no earlier than May 1; a 15-day minimum lag time between above and below-ground vegetation removal activities, and; work hours during the GGS active season limited to those during which GGS are most likely to be above-ground and active: 11:00 a.m. to 6:00 p.m.
- **Rodent Burrow Removal**: Mechanically excavate and collapse rodent burrows in the GGS active season prior to construction, with: a biologist present to observe the burrow excavation and a preceding inspection of the burrow for the presence of GGS; a 15-day minimum lag time between vegetation removal activities and subsequent rodent burrow removal; work hours limited to those

during which GGS are most likely to be above-ground and active: 11:00 a.m. to 6:00 p.m., and; a temporary work stop when wet conditions force active GGS underground.

- **GGS Handling and Relocation Plan**: A GGS handling and relocation plan will be prepared for each phase of construction and will be provided to federal and state agencies for review and approval prior to commencement of construction. The plan will identify handling and relocation procedures to be followed in the event that a GGS is encountered during project activities.

In addition to these measures, the mitigation measures were updated and the Proposed Project would purchase an additional 10.8 mitigation credits from a CDFW-approved mitigation bank prior to starting any construction activities. This mitigation is complimentary to the mitigation identified in the Original Project consisting of 10.55 mitigation credits. A total of 21.35 acres of mitigation credits would be purchased to offset the Proposed Project's impact to GGS. Avoidance, minimization, and mitigation measures that are identified in the Original Project would be still implemented unless they were modified by this Addendum.

As identified in the Original Project, western pond turtle (*Actinemys marmorata*) (WPT) is present within the Proposed Project. The following measure would further reduce the Proposed Project impacts to this species:

- **Western pond turtle Handling and Relocation Plan**: A WPT handling and relocation plan will be prepared for each phase of construction and will be provided to federal and state agencies for review and approval prior to commencement of construction. The plan will identify handling and relocation procedures to be followed in the event that a WPT is encountered during project activities.

5.3. Land Use and Planning

Butte County Regional Conservation Plan (BRCP) is currently being finalized (Formal Public Draft BRCP 2015). BWGWD is an Applicant for the BRCP and participates in the development of this plan. The Proposed Project would not conflict with the BRCP as currently proposed. No new significant impacts to land use and planning are expected to occur as a result of the Proposed Project.

6. Summary

The Proposed Project footprint has been reduced 9.32 miles from the original 19.24 miles of canal improvements. Of the 69 structures that were part of the Original Project only 43 would be constructed. The Proposed Project will generally occur within the project footprint analyzed in the Original Project. The areas that are outside of the Original Project study area would only be temporarily impacted by the Proposed Project and are located in previously disturbed areas and/or areas that are routinely maintained by the BWGWD or the property owners. All temporarily disturbed areas would be restored to preexisting conditions as coordinated with the property owners. In addition to this additional avoidance and minimization measures were incorporated to further reduce the impacts to GGS. Thus, this Addendum to the Original Project satisfies CEQA requirements for the Proposed Project.