RECLAMATION

Managing Water in the West

Environmental Assessment – Long-Term Transfers of Central Valley Project Water Among the Glenn-Colusa Irrigation District, the Holthouse Water District and the County of Colusa in Support of the Colusa Generating Station

Central Valley Project, CA
Mid-Pacific Region

U.S. Department of the Interior
Bureau of Reclamation

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Introduction

A series of transfers are proposed that will enable the County of Colusa (County) to supply up to 180 acre-feet (af) of water per year for up to 30 years to the Colusa Generating Station (CGS), a 660-megawatt combined-cycle (natural gas fueled) power plant now under construction by the Pacific Gas and Electric Company (PG&E), just south of the Colusa County and Glenn County joint boundary.

The water would be provided under a four-party agreement, in which the Glenn-Colusa Irrigation District (GCID) would transfer Central Valley Project (Project) water to the County from April through October, the Holthouse Water District (Holthouse) would transfer Project water to the County from November through March, and the County would deliver water to the CGS year-round. The Project water that the GCID would transfer to Holthouse from April through October will be equivalent to the quantity of Project water that Holthouse transferred to the County during the preceding November through March period. Water deliveries under the proposed transfers to the County, Holthouse, and the CGS would be by means of the Tehama-Colusa Canal (TCC) through existing turnouts.

The CGS would be connected to PG&E's northern California transmission grid, enabling power generated by the facility to serve energy needs throughout California. The CGS would be predominantly air cooled to reduce consumptive water use by over 90 percent and would employ a zero liquid discharge system. However, some cooling water for the facility would be required.

This Environmental Assessment (EA) addresses the environmental implications of the proposed transfers. Details concerning the design and operation of the CGS are given in the application for certification for the Colusa Generating Station Application for Certification (06-AFC-9) Colusa County (AFC) and the National Environmental Policy Act review by the U.S. Army Corps of Engineers (USACE), which are included in this EA by reference.

Contractual Background

Water Supply

On February 28, 2005, the United States of America and the GCID entered into Contract No. 14-06-200-855A-R-1 (Contract 855A), titled *Contract Between the*

United States and Glenn-Colusa Irrigation District Diverter of Water From Sacramento River Sources Settling Water Rights Disputes and Providing for Project Water. Contract 855A provides for "Project water" and "Base supply." Project water is the quantity of water identified in Contract 855A, which the GCID may divert for its use within a defined service area each month during the period April through October of each year, for which the GCID initially pays the United States for 75 percent of the contract quantity, whether the water is diverted or not. Base supply is the quantity of water available for diversion by the GCID under its water rights on the Sacramento River and Stony Creek during the period April through October of each year, which are not subject to payment to the United States. Article 3(e) of Contract 855A provides that no sale, transfer, exchange, or other disposal of any water for use on land other than the contractor's service area shall be made without first obtaining written consent of the United States.

On February 25, 2005, the United States and the County entered into Contract No. 14-06-200-8310A-LTR1 (Contract 8310A), titled *Long-Term Renewal Contract Between the United States and County of Colusa Providing for Project Water Service From the Sacramento River Division*, for 20,000 acre-feet (af) of Project water. On February 25, 2005, the County and Holthouse also entered into Contract No. 1-07-20-W0224-R-1, titled *Subcontract Between the County of Colusa and the Holthouse Water District Providing for Resale of Water Under Contract Between the United States of America and the County of Colusa*, which allocated to Holthouse 2,450 af of the 20,000 af of Project water made available under Contract 8310A. On December 17, 2007, the County, the United States, and Holthouse executed an agreement that assigned 2,450 af of Project water under Contract 8310A to Holthouse. Article 9(a) of Contract 8310A requires the written consent of the United States for all sales, transfers, or exchanges of Project water. The provisions of Article 9(a) are applicable to the proposed transfer from Holthouse to the County under the December 17, 2007, assignment.

The Project water to be transferred from the GCID and Holthouse to the County for subsequent delivery to the CGS and the associated transfer from the GCID to Holthouse would be through the previously mentioned four-party transfer agreement involving the GCID, Holthouse, the County, and PG&E.

Water Delivery

The Project water transferred from the GCID and Holthouse to the County would be transported through the TCC, an existing Project conveyance facility, and delivered to the CGS at a turnout constructed at milepost 63.21L. The Project water transferred from the GCID to Holthouse would be transported through the TCC and delivered to Holthouse through existing diversion facilities at its authorized point of delivery on the TCC at milepost 65.80L.

Place of Use

The Project water transferred to the County by the GCID and Holthouse will be used to provide water service to the CGS, which is situated within the County's service area under Contract 8310A. The Project water transferred to Holthouse by the GCID will be used within the authorized contract service area for Holthouse established by the December 17, 2007, assignment agreement.

Use

Districts that receive Project water under Sacramento River settlement or water service contracts, such as the GCID or Holthouse, are authorized under Section 3405(a) of the Central Valley Project Improvement Act of 1992 to transfer all or a portion of the Project water, subject to such contract, to any other California water user or water agency, state or Federal agency, Indian Tribe, or private nonprofit organization for project purposes or any purpose recognized as beneficial under applicable state law. The County and Holthouse, as the recipients of the proposed Project water transfers, are in turn authorized to supply Project water to municipal and industrial, as well as agricultural, water users within their respective contract service areas.

Purpose of and Need for Action

The purpose of the transfers from the GCID and Holthouse to the County is to enable the County to supply water to the CGS. The purpose of the associated transfer from the GCID to Holthouse is to replace the Project water transferred from Holthouse to the County.

These transfers are needed because the County has assigned to others all but 1 af of the 20,000 af of Project water originally made available pursuant to Article 3(a) of Contract 8310A.

Proposed Action and Alternatives

Proposed Action

The proposed action is Reclamation's approval of three long-term transfers. Two would be transfers to the County from the GCID and Holthouse that would collectively provide up to 180 af of Project water per calendar year for a period of up to 30 years and incidental right-of-way permits to allow diversion of that water

from the TCC by the County to provide water service to the CGS. The third would be the long-term transfer of up to 25 af of Project water per calendar year from the GCID to Holthouse for a period of up to 30 years.

The long-term transfers would occur as follows:

- Holthouse would transfer up to 25 af of Project water to the County during November through March.
- GCID would then transfer the same amount of Project water to Holthouse during April through October to replace the quantity of Project water previously transferred from Holthouse to the County.
- GCID would also transfer up to 155 af of Project water to the County during April through October.

Under the proposed transfer from Holthouse to the County, up to 25 af of the 2,450 af of Project water that would otherwise be available for delivery to Holthouse each year pursuant to the assignment agreement dated December 17, 2007, would be transported via the TCC during November through March for delivery to the County at milepost 63.21L on the TCC near the site of the CGS.

Under the proposed GCID transfers, up to 180 af of Project water that would otherwise be diverted by the GCID from the Sacramento River at Hamilton City each year during April through October would be diverted at the Red Bluff Diversion Dam and conveyed via the TCC for transfer and delivery to the County (155 af) and Holthouse (25 af). The point of delivery to the County would be at milepost 63.21L on the TCC near the site of the CGS. The point of delivery to Holthouse would be its existing point of delivery on the TCC at milepost 65.80L.

The approval of the proposed transfers will be contingent upon a current executed settlement or water service contract being in force for all participants for the proposed 30-year transfer.

Site Alternatives Identified But Not Evaluated Further

Two clusters of potential sites for the CGS were examined in the County: one along the Interstate 5 (I-5) corridor and the other on the Holthouse Ranch. The I-5 sites lacked the high-voltage transmission and high-pressure gas pipeline infrastructure needed for the power plant and were highly visible from the highway; therefore, they were dropped from further consideration. The proposed site was deemed the best of the sites in the second group, with the others being deemed more environmentally sensitive. None of these would have had materially different options for water supply, as the same surface water infrastructure would have supplied all sites adjacent to I-5, as well as the Holthouse Ranch. The ranch, which is now the Holthouse Water District, is

supplied water under an assignment with the County. The Project water supply for Holthouse is delivered via the TCC.

Water Supply Alternatives Not Evaluated Further

Willing sellers other than the GCID and Holthouse might be found, but the water delivery would still require either use of the TCC, leaving the environmental impacts at the site unchanged, or use of the GCID canal, with essentially the same impacts plus additional pumping requirements. Similarly, off-site impacts can be presumed to be small in any district with sufficient water to supply the CGS.

Groundwater and municipal water from the town of Maxwell, California, were considered, but neither appeared to have the desired reliability. Test wells indicated it might be possible to extract enough water to meet anticipated needs. Since a sustained safe yield was not confirmed, groundwater supplies were deemed less reliable than surface water supplies. Maxwell, the nearest alternative and a developed water source, is about 5 miles from the site and has a limited capacity to supply water. It was, therefore, deemed infeasible as a water source.

No Action Alternative

Under the no action alternative, Reclamation would not approve the long-term transfers of Project water from the GCID and Holthouse to the County or the associated transfer from the GCID to Holthouse. The County would be required to pump whatever groundwater is available, as well as tie into the municipal supply from the town of Maxwell, even though neither appears to have the desired reliability, as previously stated. Therefore, either the CGS would operate with less than an optimal reliability of water supply or the project would be abandoned.

Affected Environment and Environmental Consequences

Physical Resources

The proposed power plant site is located about 1.5 miles south of the Glenn County and the Colusa County line, very nearly midway between the TCC and the GCID Canal.

The topography is essentially flat, with slopes on the order of 2 percent; although the foothills begin to noticeably steepen about one-half mile to the west, just west of the TCC.

Groundwater supplies in the area, which are at the edge of the foothills, are not reliable even though the site lies near the junction of three groundwater units: the Colusa Basin, the Stony Creek alluvial fan, and an alluvial fan that extends from Delevan to Zamora.

Surface water in the vicinity consists of seasonal streams, the Tehama-Colusa and GCID canals and drainage water from irrigated lands. Flows in these creeks are not known, but measured flows in Stone Corral Creek and the South Fork of Willow Creek, two of the larger creeks nearby, drop below 1 cubic foot per second by June, cease altogether from August through October, and remain low through November. Temperatures can be presumed to be high by fisheries standards. Temperatures in the GCID canal at Hunters Creek are in the mid-sixties to high seventies May through October and can be expected to be this high or higher for somewhat longer periods than the much smaller creeks.

The soils on the site are a complex mixture of clays and clay loams. The soils of small, irregular portions of the site are types found on adjacent lands designated as prime agricultural land, but this site has not been so designated, and the land use prior to the CGS construction was unirrigated pasture.

Geologic risks are low. Even though the Sites-Paskenta fault, which has the potential for an estimated magnitude 6 seismic event, is located 3 miles to the south and west of the proposed power plant site, activity along the two major fault zones has historically been concentrated about 25 miles and 50 miles to the south and west respectively. Based on historic records, this appears to be a seismically quiet portion of the Central Valley. Moreover, the site is approximately 3 miles from the nearest 100-year flood zone, and the streams within a quarter to one-half mile of the site are merely tributaries of Hunters Creek, which is dry during the summer.

No known mineral deposits of commercial value occur within 2 miles of the proposed power plant site. Air quality analyses prepared in support of the AFC indicated air emissions would be in compliance with applicable standards and would not negatively affect visibility, terrestrial, or aquatic resources. (See the AFC for details.)

No important, adverse physical affects are anticipated. No unique geologic features and valuable mineral resources or prime agricultural lands would be impacted.

Biological Resources (Vegetation)

The site of the CGS is essentially at the border of large expanses of rangeland and rice fields. The nearest rice fields, and hence potential giant garter snake habitat, are about three-quarters of a mile east of the CGS site. The area between the CGS

site and the rice fields is rangeland, with the exception of an existing multi-acre PG&E Compressor Station, which lies directly between the rice fields and the CGS site. Virtually all the land east of the GCID canal is planted to rice, while virtually all land to the west of the canal is rangeland. Prior to construction, the CGS site was rangeland dominated by nonnative species, with local exceptions of vernal pool and alkali grasslands, habitats potentially holding listed species.

Small areas of alkali grassland occur immediately outside the project area to the southwest, and a band of northern clay pan vernal pools extends across the northeastern border of the site.

Dominant plant species on the nonnative grassland portion of the site include yellow star thistle (*Centaurea solstialis*), medusahead (*Taeniatherum caputmedusae*), wild oats (*Avena* spp.), ripgut brome (*Bromus diandrus*), filaree (*Erodium botrys*), and geranium (*Geranium disectum*). The vernal pools have all been grazed and heavily marked by hoofprints up to 10 inches deep, but contain vernal-pool specific species such as Popcornflower (*Plagiobothrys greeni*), meadowfoam (*Limnanthes douglasii*), and Fremont's goldfields (*Lasthenia fremontii*). The vegetation of the alkali scalds includes barley (*Avena* spp.), soft chess brome (*Bromus hordeaceus*), dwarf peppergrass (*Lepidium latipdes* var. *latipes*), California burclover (*Medicago polymorpha*), long-beaked filaree (*Erodium botrys*), and cut-leaf plantain (*Plantago coronopus*).

The federally listed plant species whose ranges overlap the site are Hoover's spurge (*Chamaesyce hooveri*), hairy orcutt grass (*Orcuttia pilosa*), and palmate-bracted bird's beak (*Cordylanthus plamatus*).

The Federal plant species of concern potentially occurring in the area are mainly species of alkali flats and vernal pools. Little mousetail (*Myosurus minimus* ssp. *apus*) and Ferris' milk vetch (*Astragalus tener* var. *ferrisiae*) are species of alkaline vernal pools. San Joaquin saltbush (*Atriplex joaquiniana*), Heckard's peppergrass (*Lepidium latipes* var. *heckardii*), brittlescale (*Atriplex depressa*), and heartscale (*Atriplex cordulata*) require alkaline soils, although not necessarily vernal pools. The vernal pool smallscale (*Atriplex persistens*), as the name implies, requires vernal pools, although the closest known occurrence is 4.6 miles from the proposed CGS site. The adobe lily (*Fritillaria pluriflora*) is a species of clay soils and occurs in chaparral, grassland, and foothill woodland vegetation, but the nearest known occurrence is 10 miles from the proposed CGS site.

All of these species of concern were sought, but not found, at the site, with several being sought at times when checks of known occurrences confirmed the plants could be readily identified, if present. The nearest occurrences of these species range from 5.6 miles to 12 miles from the site. However, the specialists surveying the area deemed the pools to likely be too shallow to be inundated long enough to support either Hoover's spurge or the hairy orcutt grass. Hoover's spurge is endemic to large vernal pools, with a median pool size of 1.4 acres. Its

closest known occurrence is 8 miles away, and the pools adjacent to the proposed CGS site are shallow and unlikely to be inundated long enough to support this species. The hairy orcutt grass pools require even larger pools, with a median pool size of 4.3 acres. The closest known occurrence is 6.8 miles away. The pools also appear to be unsuited for the palmate-bracted bird's beak, which is a hemiparasite using salt grass as a host. It was sought, and not found, near the proposed CGS site at a time in which a visit to a known site near Davis confirmed the plant could be easily recognized. Additional detail is given in the AFC and USACE documents.

Since no listed plant species were observed and the avoidance of vernal pool habitat was addressed by the USACE permitting process prior to construction, the proposed water transfer would not affect listed plant species.

Biological Resources (Wildlife)

The federally listed animal species whose ranges overlap the proposed site are Swainson's hawk (*Buteo swainsoni*), bald eagle (*Haliaeetus leucocephalus*), giant garter snake (*Thamnophis gigas*), steelhead (*Oncorhynchus mykiss*), conservancy fairy shrimp (*Branchinecta conservatio*), vernal pool fairy shrimp (*Branchinecta lynchi)*, and vernal pool tadpole shrimp (*Lepidurus packardi*). The AFC also listed three runs of Chinook salmon (*Oncorhynchus tshawytscha*) as being potentially in the area affected on the basis of the very broad designation of critical habitat for these species.

Fourteen animal species of special concern, including eight bat species, potentially occur in the area as well. However, the area lacks natural bat roosts, and the bridges, when inspected, showed no evidence of use by bats. Therefore, the bats are only expected to be present as occasional foragers, or absent altogether. The remaining species are the San Joaquin pocket mouse (*Perognathus inornatus* ssp. *inornatus*), horned lark (*Eremophila alpestris*), tricolored blackbird (*Agelius tricolor*), western burrowing owl (*Athene cunicularia hypugea*), cliff swallow (*Hirundo pyrrhonota*), and the western spadefoot toad (*Scahiopus hammondii*).

Five Swainson's hawk nests occurred within foraging distance of the proposed CGS site in 2000, and nests have been recorded within 5 miles of the site. Swainson's hawk can, therefore, be anticipated to be at least a visitor to the area; however, suitable nesting habitat appears to be absent within 1 mile of the site. No nesting habitat was found on the lands surveyed, although access was not available for a very small area (about 2,000 square feet). If construction were to begin after April 1, preconstruction surveys would be conducted to determine whether any nests had been established within 1 mile of the proposed CGS site. If so, approximately 22 acres of mitigation lands would be acquired in conformance with California Department of Fish and Game (CDFG) mitigation requirements.

The nearest bald eagle nest is on the eastern shore of East Park Reservoir, 12 miles to the west, and the vicinity of the proposed CGS site provides poor foraging habitat, so infrequent use of the proposed site by bald eagles may occur, but neither nesting nor intensive foraging use is to be expected.

Giant garter snakes are known to occur 9 to 10 miles from the proposed CGS site, and it is possible that the giant garter snake occurs near the proposed CGS site in the rice fields and ditches between the GCID canal and I-5. However, the proposed CGS site itself lacks even marginal giant garter snake habitat and is about three-quarters of a mile from such habitat. Therefore, the snake is not expected to be present on-site. Potential habitat occurs, however, along portions of the access road and at the Teresa Creek bridge, which is bordered by rice fields. The U.S. Fish and Wildlife Service's 1997 reasonable and prudent measures for work in giant garter snake habitat would be used to minimize the potential for incidental take during off-site work related to the access routes. These would include the following:

- Construction speed limits.
- Restriction of work to the May 1 to October 1 period.
- Adherence to dewatering requirements.
- Minimal clearance of vegetation.
- Biological inspections just prior to start of construction.

About 3 acres of land (maximum 200-foot radius) would be temporarily disturbed by construction, and a 40- by 40-foot area would be permanently altered by backfill to bring it up to grade.

The Chinook salmon runs are unlikely to be influenced by any events at the proposed CGS site because the local streams are too ephemeral to support successful spawning. Nor are the streams suitable for non-natal rearing since they empty into the Colusa Basin Drain (Drain), which has a series of small check dams in it that would preclude passage by juveniles, even if they were to move into the mouth of the Drain. Moreover, these streams are 30 miles from the Drain's confluence with the Sacramento River, more than twice the 12 to 13 miles distance juvenile salmon are known to migrate up tributaries with shallow gradients.

In March 2000, a steelhead was reported by the biological consultant to be in Teresa Creek, a tributary of Hunters Creek, about 2 miles from the proposed CGS site. However, this stream does not appear to offer suitable habitat, as the streambed is incised in fine-textured sediments (clays and clay loams), unsuitable for spawning. Nonetheless, construction work at the Teresa Creek bridge site would be limited to the period between June 1 and September 15 when water temperatures would exceed 70°F, which is unsuitable for salmonids. (This is based on temperature measurements in Stony Creek, the largest tributary of the Sacramento River in Glenn and Colusa Counties.) This step alone should be

sufficient to avoid adverse affects, but additional steps are also planned. (See the AFC.)

The closest known occurrences of the three vernal pool species are at the Sacramento National Wildlife Refuge, 5 miles to the east of the proposed CGS site. Given this proximity, they may occur near the proposed CGS site, although the only part of the proposed project that may impact vernal pools would be the transmission towers required for connection to the existing PG&E transmission lines, about 2,000 feet east of the proposed CGS site. The northern segment of this intertie would pass through an area of diffuse vernal pools, although there is enough flexibility with respect to siting the towers to allow avoidance of these pools. The towers will be located at least 250 feet from any pool likely to support listed species or will be located outside the watersheds of such pools. Erosion control measures would be used as necessary during construction to prevent sediment from reaching vulnerable pools during construction.

As previously noted, the bat species of concern are unlikely to occur in the area, although cliff swallows do use the undersides of the local bridges as nest sites. Swallow foraging in the CGS area can be expected, as the roost sites are 0.5 miles to 1.5 miles from the proposed power plant, but adverse affects appear unlikely.

The proposed power plant would not cause any changes at these sites other than to modestly increase motor vehicle traffic. Given the tendency of swallows to use bridges, such as the I-5 bridges over the Sacramento River, which have vastly greater traffic loads, the increases in traffic on this access road are unlikely to affect the swallows. Bridge construction at Teresa Creek, however, could impact swallows if it occurs between April 1 and August 1. If so, the bridge would be netted first to prevent occupancy. (A biological construction window would occur between August 1 and September 15.)

Horned lark habitat occurs throughout the proposed site, but the areas most likely to be used for nesting, due to the sparseness of the vegetation, are the alkali grasslands. These would be avoided by the construction to avoid affects on listed plant species and would, therefore, avoid the best horned lark nesting habitat as well.

Tricolor blackbirds may forage in the area, but large nesting colonies are unlikely to occur close to the site, as this species nests almost exclusively in freshwater marshes, although use of willow and blackberry stands also occurs. However, a permanent colony of long standing occurs on the Indian Creek arm of East Park Reservoir, about 15 miles to the southwest of the proposed CGS site.

Western burrowing owl burrows occur at several locations near the proposed power plant site, although none are known to occur in the area to be disturbed. The limiting factor on use of the site appears to be a lack of suitable burrows. CDFG mitigation measures would be used to prevent impacts to burrowing owls.

Potential western spadefoot toad habitat occurs in the previously mentioned vernal pool zone and a nearby shallow, ephemeral stock pond west of the proposed CGS site. Presence of foraging toads seems probable, although breeding habitat would be avoided by the project's conscious avoidance of vernal pools.

Listed species deemed potentially present in the area over the life of the project are either absent or not at risk. Many are confined to vernal pools, which the project plans to avoid. The others, with one exception, can be assumed to use the site only as foraging habitat, a locally abundant resource. The exception, the steelhead, if truly present, would be present only as occasional strays, which would be unable to successfully reproduce in streams close to the site even in the absence of the CGS. Thus, the larger project would not affect listed species nor would the provision of water by means of the proposed transfer.

Cultural Resources

The facility and the transportation and transmission line routes were surveyed for cultural resources, but no significant archaeological resources were identified. The only structures greater than 45 years of age within 1 mile of the proposed CGS site that were deemed to be eligible for listing on the National Register of Historic Places were portions of the 230kV transmission lines and the GCID canal and irrigation district. Detailed accounts of both are given in the AFC. The potential for affects was also evaluated by Reclamation archaeologists during review of the inclusion of the site into the County's water service area; no further review is required.

There are no adverse affects on these resources, as the proposed development is compatible with the ongoing use of both facilities.

Indian Trust Assets

The transfer would not affect Indian Trust Assets, as none are present on the site or in its vicinity.

Other Socioeconomic Resources

The CGS would increase employment temporarily by 130 to160 jobs in an area with 15 percent unemployment and create 22 skilled, full-time jobs, injecting $1.85 million per year into the local economy. This income might be spread across a 10-county area, but can reasonably be expected to actually be concentrated in Glenn and Colusa Counties.

Given the high rates of unemployment, it is likely that this economic stimulus would be absorbed by the existing population and would induce little environmental change. Similarly, the housing vacancy rate, on the order of 6 percent to 12 percent, could absorb any increase in the work force with little problem. Demands on other social services, such as schools and hospitals, would be equally small or smaller. Therefore, the project should have little socioeconomic impact, with those effects that do occur being beneficial to the local economy.

Consultation and Coordination

The California Energy Commission certification process, upon which this EA was based, included consultation with the Native American Heritage Commission, the California Office of Historic Preservation, and the Colusa County Department of Planning and Building for cultural resources and consultation, as necessary, with the Service and the National Marine Fisheries Service as part of the USACE 404 permit issuance associated with the construction and operation of the power plant itself.

As no affects on listed species are expected from the proposed action of water delivery, no consultation was required for Reclamation's proposed action. Similarly, given the extensive public review associated with the California Energy Commission's proceedings, which included mention of water usage, this document's circulation for public review was arguably not required, but this EA was posted for 30 days to ensure the details of the water supply are fully revealed prior to a decision. No comments were received.

United States Department of the Interior

BUREAU OF RECLAMATION
Mid-Pacific Regional Office
2800 Cottage Way
Sacramento, California 95825-1898

IN REPLY
REFER TO:

MP-440
WTR-4.00

Letter of Agreement
No. 10-WC-20-3983

Mr. Thaddeus L. Bettner
General Manager
Glenn-Colusa Irrigation District
P.O. Box 150
Willows, CA 95988

Subject: Consent to Long-Term Transfers of Central Valley Project Water (Project Water) from Glenn-Colusa Irrigation District (GCID) to the County of Colusa (County) and to Holthouse Water District (Holthouse) and for the Colusa Generating Station

Dear Mr. Bettner:

By letter dated December 31, 2008, GCID requested that the Bureau of Reclamation initiate the review and approval process for two proposed long-term transfers of Project Water from GCID to the County and to Holthouse, totaling 180 acre feet, and a proposed long-term transfer of up to 25 acre feet of Project Water from Holthouse to the County. The proposed transfers of Project Water are needed to enable the County to provide municipal and industrial (M&I) water-service to the Colusa Generating Station, a 660-megawatt combined-cycle (natural gas fueled) power plant that is being constructed by Pacific Gas & Electric Company (PG&E) in Colusa County, California. A maximum of 180 acre feet of water will be needed each year to operate the Colusa Generating Station.

The purpose of this Letter of Agreement is to set forth the terms and conditions for Reclamation's consent to the proposed long-term transfers of Project Water from GCID to the County and to Holthouse. The proposed long-term transfer of up to 25 acre feet of Project Water from Holthouse to the County will be addressed by a separate Letter of Agreement.

Contractor Background

On February 28, 2005, GCID and Reclamation entered into Sacramento River Settlement Contract No. 14-06-200-855A-R-1 (GCID Settlement Contract), which provides for GCID to divert up to 720,000 acre feet of Base Supply and 105,000 acre feet of Project Water from the Sacramento River for irrigation purposes each calendar year during the period April through October. The GCID Settlement Contract is effective April 1, 2005, through March 31, 2045.

On February 25, 2005, the County and Reclamation entered into a long-term CVP water-service contract, designated as Contract No. 14-06-200-8310A-LTR1 (County Contract). The County Contract, which is effective March 1, 2005, through February 28, 2030, initially provided for up to 20,000 acre feet of Project Water to be made available to the County each year during the period March 1 through February of the following year. The 20,000 acre feet of Project Water was subcontracted to Holthouse and several other entities pursuant to Article 39 of the County Contract. Through a series of partial assignments approved by Reclamation, the County subsequently assigned all but 1 acre foot of the Project Water under the County Contract to these subcontractors.

Pursuant to "Assignment of Contract, Acceptance Thereof, and Consent Thereto," dated December 17, 2007, designated as Contract No. 1-07-20-W0224-R-1 (Holthouse Contract), Reclamation approved the assignment of 2,450 acre feet of the 20,000 acre feet of Project Water made available under the County Contract to Holthouse for irrigation and M&I purposes. By accepting the assignment, Holthouse agreed to be bound by the terms and conditions of the County Contract with respect to the assigned Project Water supply.

Transfer Proposals

The County desires to provide M&I water-service to the Colusa Generating Station, which has a maximum annual water demand of 180 acre feet. However, since the County previously assigned all but 1 acre foot of its Project Water supply under the County Contract, the County intends to meet the annual 180-acre water demand for the Colusa Generating Station through a series of long-term transfers of Project Water made pursuant to "Agreement between Glenn-Colusa Irrigation, the County of Colusa, Holthouse Water District, and Pacific Gas & Electric Company for the Transfer, Conveyance and Delivery of Water," dated December 11, 2008 (Transfer Agreement). The primary term of the Transfer Agreement is 30 years. The Transfer Agreement also provides an option for PG&E to exercise two successive 10-year extensions.

In accordance with the Transfer Agreement, Holthouse would annually transfer to the County, during the period November through March, up to 25 acre feet of the 2,450 acre feet of Project Water made available under the Holthouse Contract. The Project Water transferred from Holthouse to the County would be used by the County to provide M&I water-service to the Colusa Generating Station. The Transfer Agreement also provides for GCID to transfer to the County, during the period April though October of each year, up to 155 acre feet of the Project Water made available under the GCID Settlement Contract. The 155 acre feet would also be used by the County to provide M&I water-service to the Colusa Generating Station. In addition, during the period April through October of each year, GCID would transfer to Holthouse up to 25 acre feet of Project Water for irrigation and M&I purposes. In this case, the actual quantity of Project Water to be transferred from GCID to Holthouse would be equal to the quantity of Project Water that Holthouse transferred to the County for subsequent delivery to the Colusa Generating Station during the preceeding November through March period. The proposed long-term transfer of up to 25 acre feet of Project Water from GCID to Holthouse is referred to as "Exchange Water" in the Transfer Agreement.

Review of Proposed Transfers by Reclamation

Each transfer proposal is thoroughly evaluated by Reclamation to ensure that the proposed transfer is consistent with the contract provisions, and the applicable laws, guidelines, and policies governing water-transfers. Transfer proposals are also evaluated by Reclamation to ensure that the proposed transfer does not adversely affect the operations of the Federal project or Reclamation's ability to meet its fish and wildlife obligations and contractual obligations. Reclamation's consent to any proposed transfer is also based on the potential effects of the transfer in light of activities that have previously been approved and implemented, and other conditions at the time the proposed transfer is being considered.

Article 3(e) of the GCID Settlement Contract provides that the sale, transfer, exchange, or other disposal of any of the Base Supply or Project Water made available under the GCID Settlement Contract requires the written consent of the Contracting Officer (Reclamation). The proposed long-term transfers from GCID to the County and to Holthouse are actions that are subject to the written consent requirements of Article 3(e). Paragraph 12.A of the Transfer Agreement acknowledges that the transfer of Project Water is subject to the approval of Reclamation. In addition, the water-transfer provisions of Section 3405(a) of the Central Valley Project Improvement Act (CVPIA) (Public Law 102-575) and the associated guidelines are applicable to the proposed long-term transfers. The proposed transfers from GCID to the County and to Holthouse are considered transfers of Project Water between two CVP contractors pursuant to Section 3405(a)(1)(M) of the CVPIA; therefore, GCID is deemed to have met the historical use and consumptive use and/or irretrievable loss provisions of Sections 3405(a)(1)(A) and 3405(a)(1)(I) of the CVPIA.

The Transfer Agreement refers to the Project Water transferred from GCID to Holthouse as "Exchange Water." Pursuant to Article 3(e) of the GCID Settlement Contract, exchanges of Project Water require the consent of the Contracting Officer. However, in this case, Reclamation's consent is not required because no exchange of water between GCID and Holthouse actually occurs. Rather, the transaction between GCID and Holthouse is a long-term transfer that is intended to replace the quantity of Project Water that Holthouse annually transfers to the County for subsequent delivery to the Colusa Generating Station. As noted above, the long-term transfer of up to 25 acre feet of Project Water from Holthouse to the County will be addressed by a separate Letter of Agreement.

Paragraph 7.B of the Transfer Agreement provides PG&E the option to extend the 30-year primary term of the Transfer Agreement for one or both of two successive 10-year periods. The exercise of this extension option by PG&E is outside the scope of this Letter of Agreement. As such, the transfer period covered by this Letter of Agreement will be limited to the primary term of 30 years.

Consent to Long-Term Transfers

Based upon a comprehensive review of the proposal, Reclamation consents to the long-term transfers of Project Water from GCID to the County and to Holthouse, subject to the following terms and conditions:

1. The authorized long-term transfer period will be April 1, 2010, through and including March 31, 2040. The consent for this long-term transfer period is contingent upon the GCID Settlement Contract being in full force and effect during the transfer period, and the County and Holthouse having a CVP water-service contract in full- force and effect during the transfer period.

2. Each calendar year during the authorized long-term transfer period, GCID may transfer up to 155 acre feet of Project Water to the County and up to 25 acre feet of Project Water to Holthouse during the period April 1 through October 31.

3. The quantity of Project Water to be transferred by GCID each calendar year during the April 1 through October 31 period shall not exceed the quantity of Project Water available during that period as delineated on Exhibit A to the GCID Settlement Contract.

4. The Project Water transferred from GCID to the County shall be used to provide M&I water-service to the Colusa Generating Station, which is situated within the authorized Contractor's Service Area delineated on Exhibit A to the County Contract.

5. The Project Water transferred from GCID to Holthouse shall be used for irrigation and/or M&I purposes within the authorized Contractor's Service Area for Holthouse delineated on Exhibit A-1 to the Holthouse Contract. In addition, Project Water transferred from GCID to Holthouse for irrigation purposes will be subject to the acreage limitation provisions of Federal Reclamation law and is to be delivered only to eligible lands.

6. The annual transfer of up to 155 acre feet of Project Water from GCID to the County and up to 25 acre feet of Project Water from GCID to Holthouse shall be in accordance with Reclamation's then-current, water-transfer guidelines. Each annual transfer request from GCID to the County and to Holthouse shall be reviewed and approved by Reclamation to ensure the transfer is consistent with said guidelines and the terms and conditions of this Letter of Agreement. Unless directed otherwise, GCID shall submit the annual transfer requests to the Bureau of Reclamation, Northern California Area Office, P.O. Box 988, Willows, California 95988-0988. Each annual transfer request must be approved in writing by the Northern California Area Office, prior to the transfer of any Project Water to the County and to Holthouse.

7. The Project Water to be transferred from GCID to the County and to Holthouse shall be scheduled for delivery by GCID in accordance with Article 3(c) of the GCID Settlement Contract. Unless directed otherwise by Reclamation, the water delivery schedules shall be submitted by GCID to the Northern California Area Office for review and approval.

8. GCID shall be responsible for paying to Reclamation, in advance of delivery, the applicable irrigation and M&I water rates for each acre foot of Project Water that GCID schedules for delivery to the County and to Holthouse. In addition, GCID shall be responsible for paying to Reclamation the applicable Restoration Charge and Trinity Public Utilities District Assessment (Trinity PUD Assessment) for each acre foot of Project Water that GCID transfers to the County and to Holthouse. The water rate, Restoration Charge, and Trinity PUD Assessment applicable for the Project Water transferred from GCID to the County and to Holthouse during each year will be identified

in the annual approval letter issued by the Northern California Area Office. Payments shall be made to Reclamation pursuant to Article 8 of the GCID Settlement Contract.

9. The Project Water transferred from GCID to the County will be transported through the Tehama-Colusa Canal and delivered to the County through diversion facilities at milepost 63.21L on the Tehama-Colusa Canal for subsequent delivery to the Colusa Generating Station. The measurement devices installed at milepost 63.21L will be used to measure the quantity of Project Water transferred from GCID to the County.

10. The Project Water transferred from GCID to Holthouse will be transported through the Tehama-Colusa Canal and delivered to Holthouse through existing diversion facilities at milepost 65.80L on the Tehama-Colusa Canal, which is the authorized delivery point for Holthouse under the Holthouse Contract. The measurement devices installed at milepost 65.80L will be used to measure the quantity of Project Water transferred from GCID to Holthouse.

11. The annual transfers of Project Water from GCID to the County and to Holthouse shall be consistent with the Environmental Assessment and Finding of No Significant Impact (FONSI No.10-01) prepared by Reclamation for the proposed long-term transfer actions (copy enclosed).

12. This Letter of Agreement does not establish a commitment to, nor terms and conditions relative to, any future transfer agreement nor any future water-transfers, exchanges, or other supplemental water acquisitions or arrangements.

13. This Letter of Agreement constitutes the written consent of the Contracting Officer required pursuant to Article 3(e) of the GCID Settlement Contract for the annual transfer of up to 155 acre feet of Project Water from GCID to the County and up to 25 acre feet of Project Water from GCID to Holthouse during the authorized long-term transfer period. The transfer by GCID of any portion of the 180 acre feet of Project Water to another recipient during the authorized transfer period will be considered a separate transfer action, subject to the applicable laws, guidelines, and policies governing water-transfers, and Reclamation's then-current, water-transfer guidelines.

If the above terms and conditions are acceptable to GCID, please have the appropriate GCID official sign and date the original and duplicate original of this Letter of Agreement in the space provided below. The signed duplicate original is to be returned to this office, along with a certified copy of a resolution from GCID's Board of Directors authorizing the official to sign this Letter of Agreement on behalf of GCID. The original letter is for retention by GCID. Once the properly signed and dated duplicate original and the board resolution have been received by this office, the long-term transfer will be deemed approved by Reclamation and subject to the above terms and conditions.

If you have questions regarding this Letter of Agreement, please contact Ms. Natalie Wolder, Northern California Area Office, at 530-934-1356 or nwolder@usbr.gov.

Sincerely,

Donald R. Glaser
Regional Director

In Duplicate

Acceptance:

GLENN-COLUSA IRRIGATION DISTRICT

By: _____ Date: 7-26-2010

Title: GENERAL MANAGER

cc: County of Colusa
Clerk of the Board of Supervisors
546 Jay Street
Colusa, CA 95932
(w/cy of encls)

Mr. Ron Lee
Manager
Holthouse Water District
Post Office Box 776
Tualatin, OR 97062
(w/cy of encls)