CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE
ECOSYSTEM CONSERVATION DIVISION
POST OFFICE BOX 944209
SACRAMENTO, CA 94244-2090

CALIFORNIA ENDANGERED SPECIES ACT
CONSISTENCY DETERMINATION NO. 2080-2018-010-02

Project: Cottonwood Check and North Drainage Canal Lift Pump Station Projects

Location: Sacramento and Sutter Counties

Applicant: Natomas Mutual Water Company

Notifier: CH2M Hill

Background

The Natomas Mutual Water Company's (Applicant) Cottonwood Check Automation Project and North Drainage Canal Lift Pump Station Project (hereinafter cumulatively referred to as 'Project') includes the replacement of the existing check structure at Cottonwood Creek, and the new construction of a tailwater recovery lift pump station at the North Drainage Canal (NDC). The Cottonwood Check structure is located east of Powerline Road, north of West Elverta Road, and approximately 2.5 miles northeast of the Sacramento International Airport in Sacramento County. The NDC Lift Pump Station is located west of Powerline Road and north of Sankey Road, approximately 2.2 miles east of Verona, in Sutter County.

The Cottonwood Check Automation Project

The Cottonwood Check Automation Project includes the removal of the existing Cottonwood Check structure in the Lateral 3 canal and replacement of the structure with a self-regulating vertical leaf gate that automatically opens and closes to maintain a constant upstream water level. The Applicant will install new polyvinyl chloride (PVC) conduit for instrumentation and control equipment cables along the canal bank. The Applicant will install flow meters, water level sensors, and a solar-powered Supervisory Control and Data Acquisition (SCADA) remote terminal unit to expand the coverage and features of the applicants SCADA system. The Applicant will remove the existing broken concrete lining immediately downstream of the check structure and replace the structure with riprap. The Cottonwood Check Automation Project includes the following components:

- A new cast-in-place concrete structure for mounting the automated vertical leaf gate. After demolition of the existing structure, the Applicant will prepare the location of the structure using an excavator and/or backhoe to provide a clean surface for placement of concrete forms and reinforcing steel.

- The Applicant will install approximately 275 feet of new PVC conduit for instrumentation and control equipment (level sensors and flow meters) cables along the canal bank in a 2- to 3- foot deep, 8-inch to 12-inch wide trench. The Applicant will excavate the conduit trenches concurrently with or after placement of the new concrete structure using a backhoe or skid steer. The Applicant will place trench spoils adjacent to the trench excavation, place conduit in the trench, and backfill the trench with the spoils from the trench excavation. The conduit will transition from below grade to above grade at required termination locations such as the flow meters, level transducers, and the SCADA remote terminal unit's new concrete structure.
- The Applicant will install two flow meters and three water level sensors upstream and downstream of the new check structure and in the adjacent Lateral 3A Canal. The flow meters are surface mount type units and the Applicant will place the meters at grade. The Applicant will place level transducers in surface mounted stilling wells (vertical sections of PVC pipe with holes in them).
- The Applicant will mount a solar-powered SCADA remote terminal unit to the concrete structure.
- The Applicant will install 0.13 acres of riprap immediately downstream of the check structure.

The Applicant will conduct the demolition of the existing check structure and removal of the existing broken concrete lining using hand tools for the initial removal of surface broken gunite and concrete to a depth of approximately 1 to 2 feet. Afterwards, the Applicant will use an excavator and/or backhoe to complete the removal.

North Drainage Canal Lift Pump Station

The North Drainage Canal Lift Pump Station Project includes the construction of a new tailwater recovery lift pump station with 120 cubic-foot-per-second (cfs) capacity on the Sankey Canal near the NDC. The Applicant will construct the NDC Lift Pump Station on the southern side of the Sankey Canal currently owned and operated by the applicant. Construction of the proposed 120-cfs tailwater recovery lift pump station includes the following:

- Cast-in-place (or precast) reinforced concrete wet well and pump base slab, including pumps and motors, control cabinet, and electrical transformer;
- Cast-in-place reinforced concrete intake and trash rake with four intake pipes to the lift pump station wet well;
- Approximately 270 linear feet of buried electrical conduit; and
- Discharge pipes from the pumps through the Sankey Canal bank with cast-in-place concrete discharge structure and riprap slope protection.

The Applicant will conduct the activities associated with the intake, intake piping, and pump structure with an excavator to a depth of approximately 14 feet, but limited to an area of approximately 0.11 acres (approximately 90 feet long by 55 feet wide). The Applicant will confine the remaining earthwork activities for installation for the discharge piping to a depth of 8 feet and an area of 0.07 acre. Once excavated, crews will begin forming the structures for concrete, placing reinforced steel, and placing the intake pipe. After placing concrete and stripping forms, the crews will backfill the structures and intake pipe. Concurrent with or subsequent to placing concrete forms, the contractor will excavate through the canal bank for the discharge pipe and may place the discharge pipe while the structure concrete cures.

The Project activities may also include the handling, capture, and relocation of giant garter snake (*Thamnophis gigas;* hereafter GGS). Construction equipment may include, but is not limited to, pickup trucks, dump trucks, excavator, concrete saw, crane, dozer, cement truck, backhoe, and hand tools. For the proposed projects, the Applicant will use existing roads for transporting construction equipment. The Applicant will complete construction over 4 months, within the active and inactive season for GGS.

The California Department of Fish and Wildlife (CDFW) expects the Project activities described above to incidentally take[1] GGS where those activities take place within the Project areas. In particular, the Applicant could incidentally take GGS as a result of the activities such as clearing and grubbing, grading, excavating, capture and relocation, crushing by vehicles or heavy equipment, and entombment in burrows through the installation of Project components. GGS is designated as a threatened species pursuant to the federal Endangered Species Act (ESA) (16 U.S.C. § 1531 et seq.) and a threatened species pursuant to the California Endangered Species Act (CESA) (Fish & G. Code, § 2050 et seq.) (See Cal. Code Regs., tit. 14, § 670.5, subd. (b)(4)(E)).

GGS individuals are documented as present adjacent to the Project areas. Because of the proximity of the nearest documented GGS, dispersal patterns of GGS, and the presence of GGS habitat within the Project areas, the United States Fish & Wildlife Service (Service) determined that GGS are reasonably certain to occur within the Project areas and that Project activities are expected to result in the incidental take of GGS.

Because the Project is expected to result in take of a species designated as threatened under the ESA, the United States Bureau of Reclamation (Bureau) consulted with the Service as required by the ESA. On August 1, 2018, the Service issued a biological opinion (Service file No. 08ESMF00-2018-F-2667-1) (BO) to the Bureau. The BO describes the Project, requires the Applicant to comply with terms of the BO and its incidental take statement (ITS), and incorporates additional measures.

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[1] Pursuant to Fish and Game Code section 86, "'Take' means hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." See also *Environmental Protection Information Center v. California Department of Forestry and Fire Protection* (2008) 44 CAL.4th 459,507 (for purposes of incidental take permitting under Fish and Game Code section 2081, subdivision (b), "'take'...means to catch, capture or kill").

The Cottonwood Check Automation Project will result in the temporary loss of 0.51 acres of suitable upland and aquatic habitat. Construction of the Project will also result in the permanent loss of 0.013 acres of upland and aquatic habitat.

The North Drainage Canal Lift Pump Station Project will result in the temporary loss of 0.86 acres of suitable upland and aquatic habitat and the permanent loss of 0.12 acres of upland and aquatic habitat.

On August 10, 2018, the Director of CDFW received a notice requesting a determination pursuant to Fish and Game Code section 2080.1 that the BO, including the ITS, are consistent with CESA for purposes of the Project and GGS. (Cal. Reg. Notice Register 2018, No. 34-Z, p. 1332.)

Determination

CDFW has determined that the ITS and associated BO are consistent with CESA as to the Project and GGS because the mitigation measures contained in the BO and ITS as well as the conditions in the Biological Assessment (BA), meet the conditions set forth in Fish and Game Code section 2081, subdivisions (b) and (c), for authorizing incidental take of CESA-listed species. Specifically, CDFW finds that: (1) take of GGS will be incidental to an otherwise lawful activity; (2) the mitigation measures identified in the BO, ITS, and BA will minimize and fully mitigate the impacts of the authorized take, are roughly proportional in extent to the impact of the authorized taking, and are capable of successful implementation; (3) adequate funding is ensured to implement the required avoidance minimization and mitigation measures and to monitor compliance with, and effectiveness of those measures; and (4) the Project will not jeopardize the continued existence of GGS. The mitigation measures in the BO, ITS, and BA include, but are not limited to, the following:

<u>Avoidance, Minimization, and Mitigation Measures</u>

- For the Cottonwood Check Automation Project, the Applicant shall compensate for the temporary loss of 0.51 acres (at a ratio of 1:1 = 0.51 acres), and the permanent loss of 0.013 acres (at a ratio of 5:1 = 0.065 acres), of suitable GGS habitat. The Applicant shall purchase GGS habitat preservation credits equal to 0.575 acres of GGS habitat from a Service- and CDFW-approved mitigation bank and provide proof of purchase to the Service and CDFW.

- For the North Drainage Canal Lift Pump Station Project, the Applicant shall compensate for the temporary loss of 0.86 acres (at a ratio of 1:1 = 0.86 acres) and the permanent loss of 0.12 acres (at a ratio of 5:1 = .602 acres) of suitable GGS habitat. The Applicant shall purchase GGS habitat preservation credits equal to 1.46 acres of GGS habitat from a Service and CDFW approved mitigation bank and provide proof of purchase to the Service and CDFW.

- Prior to construction activities, the Applicant will prepare a GGS relocation plan for use in the event that a GGS is injured or trapped during construction. The relocation plan will identify the names and contact information for one or more Service- and CDFW-approved biologists responsible for handling GGS.

- Prior to construction activities, construction personnel will receive worker awareness training conducted by a Service- and CDFW-approved biologist. The education program will briefly cover GGS and their habitat that construction personnel may encounter during the proposed projects, and will cover all restrictions and guidelines that crews must follow to avoid or minimize effects.

- A Service- and CDFW-approved biologist will perform pre-construction surveys for GGS, oversee implementation of best management practices, and oversee installation of exclusion fencing. The approved biologist will be present during any earthmoving activities, including riprap placement and trenching.

- Before construction activities begin, the Service- and CDFW-approved biologist will identify and flag flooded rice fields and other potential GGS habitat adjacent to the Project action area, and erect high-visibility fencing to protect the Project areas from encroachment of personnel and equipment. The Service- and CDFW-approved biologist will inspect fencing before the start of each workday and will maintain the fencing until completion of the Project. Fencing shall be comprised of tightly woven fiber netting (mesh size 0.25 inch or smaller) or similar material will be used to ensure that GGS are not trapped or become entangled by the erosion control material. The Applicant shall not use monofilament wattles or erosion blankets.

- The Applicant will install exclusion fencing using a modified ripper capable of deliberately and accurately ripping along the fence line to minimize disturbance and effects to GGS. The Applicant will bury the edge of the material in the ground to prevent GGS from crawling underneath the material. The Applicant will monitor exclusion fencing each day prior to and during construction to ensure that openings do not develop that will allow the entry of GGS into the construction area. Prior to construction activity, a Service- and CDFW-approved biologist will inspect the area for GGS. If at any time any personnel discover GGS, a Service- and CDFW-approved biologist will notify the Service and CDFW immediately.

- Construction within canals may require dewatering using a screened sump pump. The dewatered area will remain dry for 15 consecutive days prior to construction activities. If complete dewatering is not possible, the Applicant will remove potential GGS prey (e.g. fish and tadpoles) so that GGS and other wildlife are not attracted to the construction area.

- The Applicant will complete initial excavation and removal of the broken gunite and concrete from the surface of the canal channel with hand tools under the supervision of the Service- and CDFW-approved biologist.

- During construction, the Applicant will inspect all pipes, culverts, or similar structures that are stored at the Project site overnight for trapped GGS before the Applicant buries, caps, or otherwise uses or moves the structure. The Applicant will cap pipes laid in trenches overnight.

Monitoring and Reporting Measures

- The Applicant shall submit a final monitoring report to the Service and CDFW upon completion of the Project, including a precise accounting of the total acreage of GGS habitat affected. Although not a condition of the BO, CDFW requests the Applicant submit the final monitoring report within 45 days of Project completion.

- As stated in the ITS, the Service requires the Applicant to immediately reinitiate consultation if 1 GGS are found dead or injured during Project activities. Although not a condition of the BO, CDFW requests to be included in this consultation.

Financial Assurances

The Applicant will provide proof of financial assurances consistent with CESA in the form of a completed purchase of 2.04 acres of conservation credits from the Natomas Basin Conservancy, prior to beginning work.

Pursuant to Fish and Game Code section 2080.1, take authorization under CESA is not required for the Project for incidental take of giant garter snake, provided the Applicant implements the Project as authorized in the ITS and described in the BO, including adherence to all measures contained therein, and complies with the mitigation measures and other conditions described in the BO and ITS. If there are any substantive changes to the Project, including changes to the mitigation measures, or if the Service amends or replaces the BO and/or ITS, the Applicant shall be required to obtain a new consistency determination or a CESA incidental take permit for the Project from CDFW. (See generally Fish & G. Code, §§ 2080.1, 2081, subds. (b) and (c)).

By: _____ Date: 9/6/18

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