CITY OF BIGGS

BIGGS WWTP ENHANCEMENT PROJECT

FINAL ENVIRONMENTAL IMPACT REPORT

Prepared for:

CITY OF BIGGS
465 C STREET
BIGGS, CA 95917

Prepared by:

PMC®

140 INDEPENDENCE CIRCLE, SUITE C
CHICO, CA 95973

DECEMBER 2013

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EXECUTIVE SUMMARY

1.0 INTRODUCTION

2.0 COMMENTS AND RESPONSES TO COMMENTS ON THE DRAFT EIR

3.0 REVISIONS TO THE DRAFT EIR

ES Executive Summary

ES.1 PURPOSE AND SCOPE OF THE ENVIRONMENTAL IMPACT REPORT

The primary purpose of this Final EIR is to satisfy CEQA requirements by addressing the environmental effects specific to the proposed City of Biggs WWTP Enhancement Project (referred to hereafter as the proposed project). The project proposes to develop a new effluent disposal process that consists of a reclamation/land disposal system (effluent land disposal system). The net effect of the proposed project is a cessation of all effluent discharged to Lateral K, which drains into Butte Creek, which in turn connects with the Sacramento River. The proposed project would not increase the capacity of the existing WWTP beyond its current permitted design capacity of 0.38 million gallons daily (mgd) or its peak facility design flow of 1.05 mgd. The key outcome of the proposed effluent disposal process would result in compliance with NPDES Permit No. CA0078930 and dissolution of the permit. The use of a land disposal system will allow the City to eliminate the surface discharge of wastewater effluent, which would result in the release the City from the NPDES permit and convert the facility to a Waste Discharge Requirements (WDR) permit facility.

ES.2 PROJECT CHARACTERISTICS

The overall project involves two phases. Phase 1, which is not part of this effort and for which a separate environmental analysis has previously been prepared, involves onsite upgrades to the City's existing wastewater treatment plant consisting of improvements to the existing influent pump station, the addition of a new mechanical waste separation screen, improvements to the existing rock filter, improvements to the chlorine delivery system and improvements to the electrical power and controls for the treatment plant. The potential environmental effects associated with implementation of the Phase 1 portion of the project were analyzed in a previous environmental document (SCH# 2009042016). Phase 2 involves the purchase of 140 to 160 acres of additional land to facilitate the construction of a treated effluent land disposal facility and associated infrastructure (effluent pump station to support movement of the treated wastewater to the land disposal site, modifications to the irrigation, tail water, aeration system and chemical systems, and minor modifications to the existing facility controls.

The effluent land disposal process involves the design and development of an effluent land disposal system wherein treated effluent from the existing WWTP would be used to irrigate agricultural lands associated with growing fodder crops for off-site livestock animals. An irrigation method called Type I irrigation would be employed. Type I irrigation involves the application of water at a rate and volume that does not exceed the agronomic rate. The agronomic rate is the amount of water needed for photosynthesis and cellular growth and accounts for soil water losses due to vegetative transpiration and evaporation, as well as proper soil fertility management. Location, humidity, soil type, rain patterns, vegetation type, and percentage of coverage are factors that have an effect on the agronomic rate. In contrast, Type II irrigation allows the potential for a significant amount of water to percolate beyond the rooting zone into the subsoil and eventually into the groundwater. To abate potential groundwater impacts, only the Type I irrigation method would be used when irrigating with treated effluent for this project.

The City proposes to apply treated wastewater to land either located west of the WWTP (West Option) or south of the WWTP (South Option). Either option would require that the City control how the treated water is applied, the type of crops planted, and how tailwater is controlled across the site in accordance with state regulations. No NPDES permit would be needed for this treatment and disposal scheme. Instead the CVRWQCB would issue waste discharge requirements (WDRs) in accordance with the wastewater disposal/reuse criteria established by the California Department of Health Services codified in Title 22, Division 4, Chapter 3 of the California Code of Regulations. These regulations are designed to protect the public from

exposure to pathogenic (disease-causing) organisms that exist in wastewater. The proposed project would involve treatment of wastewater to similar levels as currently provided by the WWTP, seasonal storage, and irrigation of fodder crops for use in animal feed. In the case of either the South Option or the West Option, the project would utilize ammonia (nitrogen-rich effluent) to produce a feed-grade agricultural product. The effluent would serve as a nutrient and provide the required water for crop production. The amount of land necessary to accommodate the City's effluent land disposal system, in consideration of the soil types found on the lands surrounding the WWTP as well as the effluent treatment capacity at the WWTP, is at least 140 acres. The West Option property is currently in rice cultivation and the South Option property is currently fallow. Each property is larger than 140 acres.

The proposed land disposal system is relatively simple and low technology. The basic main components include a pump station at the existing WWTP, an underground transmission pipeline from the existing WWTP to the irrigation fields, effluent storage basins, an irrigation pump station adjacent to the storage basins, an irrigation water delivery system, and an irrigation tailwater collection system. Regardless of which option is employed for the proposed effluent land disposal system, the following improvements would be necessary and are proposed as part of the project.

- Addition of an effluent pump station in order to pump effluent to storage basins.
- Addition of an effluent pipeline from the new pump station to the storage basins.
- Construction of storage basins
- Addition of flood irrigation for land application of effluent.

ES.3 PROJECT ALTERNATIVES SUMMARY

CEQA Guidelines Section 15126.6 requires that an environmental impact report describe a range of reasonable alternatives to the project which could feasibly attain the basic objectives of the project and reduce the degree of environmental impact. The Draft EIR provides a qualitative analysis of alternatives as compared to the proposed project. Alternatives identified for the proposed project include the following:

- **Alternative A – Continued Year-Round Discharge to Lateral K Alternative (No Project Alternative)**. Under this alternative, the City would continue to discharge to Lateral K on a year-round basis and would not include the development of a land disposal system for disposal of treated effluent. This alternative would require further upgrades to the WWTP beyond the proposed project in order to meet all other water quality requirements of the CVRWQCB NPDES Permit No. CA0078930 ammonia nitrogen removal requirements, which limit the amount of ammonia per liter of effluent allowed to be discharged into receiving waters. The means by which Alternative A would achieve compliance with the City's current list of effluent constituents of concern under this alternative are identified in **Table 5.0-1** in Section 5.0, Project Alternatives. The inability of the City to achieve the discharge effluent standards of the NPDES would result in a continuing condition of non-compliance with the TSO and NPDES standards. This would likely result in the continuing assessment of wastewater discharge non-compliance fines for the City (currently set at $462,000).

- **Alternative B – Land Application of Effluent Alternative.** This alternative would modify the proposed project to apply treated effluent to the property adjacent to the north of the WWTP. Every aspect of the project (e.g., earthen storage basins for storing treated effluent to be land disposed for the purpose of irrigating feed-grade fodder crops) would remain the same under Alternative B, with the exception that treated effluent from the

WWTP would be pumped from the WWTP north. Alternative B would have the environmental benefit of accommodating a new effluent pipeline that would not be required to traverse any agricultural drainages or irrigation canals as is the case with the proposed project. It is noted that the property adjacent to the north of the WWTP is just under 100 acres and therefore may not be large enough to accommodate an effluent land disposal operation for the City.

- **Alternative C – Regional Wastewater Treatment Alternative**. This alternative would consist of the construction of a sewer pump station and force mains from the existing influent pump station at the existing WWTP to the wastewater treatment facility in Gridley, which also employs land application disposal. In addition to the construction of force mains from the Biggs WWTP to the facility in Gridley (a distance of approximately 6.5 miles), additional storage and disposal fields would need to be constructed to accommodate the increased flow. Alternative C would have the environmental benefit of not disturbing acres of adjacent agricultural lands as compared with the proposed project, yet the need to expand effluent storage capacity at the facility in Gridley may impact agricultural lands adjacent to it. Alternative C would also eliminate the need to place a new pipeline(s) underneath any agricultural drainages or irrigation canals adjacent to the City's WWTP. While this alterative would use the existing roadway right-of-ways for the pipelines to convey the wastewater, because of the distance to the Gridley facility, conveyance of the wastewater would likely involve additional impacts such as the need for off-site pump stations, and pipeline construction impacts. Additionally, this alternative may also result in the need for crossing drainages further down the line from the City and may result in the need for a new pipeline or an enhancement of the existing pipeline system moving the effluent under the Feather River.

ES.4 AREAS OF CONTROVERSY/ISSUES TO BE RESOLVED

Comments received on the Notice of Preparation identified areas of controversy associated with the project. These issues are summarized in **Appendix 1.0-A** of the Draft EIR.

ES.5 SUMMARY OF ENVIRONMENTAL IMPACTS

Table ES-1 presents a summary of project impacts and proposed mitigation measures that would avoid or minimize potential impacts. In the table, the level of significance of each environmental impact is indicated both before and after the application of the recommended mitigation measure(s).

For detailed discussions of all project impacts and mitigation measures, the reader is referred to the topical environmental analysis in Section 3.0 of the Draft EIR.

TABLE ES-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact		Level of Significance Without Mitigation	Mitigation Measure	Resulting Level of Significance
Agricultural Resources				
Impact 3.1.1	Implementation of the proposed project would result in the conversion of important farmlands (Prime Farmland), as designated by the Farmland Mapping and Monitoring Program, to nonagricultural use.	S	~~None available.~~ **MM 3.1.1** The City shall mitigate for impacts to the Prime Farmland acreage removed from production due to the construction of the effluent storage basins by ensuring that the project-proposed agricultural operation to grow fodder crops remains in operation throughout the life of the effluent land application method at the Biggs Wastewater Treatment Plant.	SU
Impact 3.1.2	Implementation of the proposed project would not be expected to result in indirect farmland conversion due to changes in the existing environment.	LS	None required.	LS
Impact 3.1.3	Implementation of the proposed project, in combination with other approved, proposed, and reasonably foreseeable projects, would result in the direct and indirect conversion of Prime Farmland to nonagricultural use in Butte County.	CC/SU	None available.	CC/SU
Air Quality				
Impact 3.2.1	Construction activities such as clearing, excavation and grading operations, construction vehicle traffic, and wind blowing over exposed earth would generate exhaust emissions and fugitive particulate matter emissions that would temporarily affect local	PS	**MM 3.2.1** During all phases of project development, the project shall adhere to the following basic construction mitigation measures: 1. All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall	LS

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Impact	Level of Significance Without Mitigation	Mitigation Measure	Resulting Level of Significance
air quality for adjacent land uses.		be watered two times per day. 2. All haul trucks transporting soil, sand, or other loose material off-site shall be covered. 3. All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited. 4. All vehicle speeds on unpaved roads shall be limited to 15 mph. 5. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of the California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points. 6. All construction equipment shall be maintained and properly tuned in accordance with manufacturers' specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation. 7. A publicly visible sign shall be posted with the telephone number and person to contact at the lead agency regarding dust complaints. This person shall respond and take corrective action	

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Impact		Level of Significance Without Mitigation	Mitigation Measure		Resulting Level of Significance
				within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.	
Impact 3.2.2	Project-generated operational emissions would not exceed applicable significance thresholds and would not contribute to regional nonattainment conditions.	LS	None required.		LS
Impact 3.2.3	Subsequent land use activities associated with implementation of the proposed project would not conflict with or obstruct implementation of the 2009 Air Quality Management Plan.	NI	None required.		NI
Impact 3.2.4	Implementation of the proposed project, in combination with cumulative development in the Sacramento Valley Air Basin, would not result in a cumulatively considerable net increase of ozone and coarse and fine particulate matter.	LCC	None required		LCC
Biological Resources					
Impact 3.3.1	Implementation of project-related activities could result in substantial adverse effects, either directly or through habitat modifications, to special-status plant species.	PS	**MM 3.3.1**	**Rare Plant Surveys.** The City shall retain a qualified biologist to perform focused surveys to determine the presence/absence of special-status plant species with potential to occur in and adjacent to (within 25 feet, where appropriate) the proposed impact area, including construction access routes. These surveys shall be conducted in accordance with the Guidelines for Assessing Effects of Proposed Developments on Rare Plants and Plant Communities (Nelson 1994). These guidelines require that	LS

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Impact	Level of Significance Without Mitigation	Mitigation Measure	Resulting Level of Significance
		rare plant surveys be conducted at the proper time of year when rare or endangered species are both evident and identifiable. Field surveys shall be scheduled to coincide with known flowering periods, and/or during appropriate developmental periods that are necessary to identify the plant species of concern. If any state- or federally listed, CNPS List 1, or CNPS List 2 plant species are found in or adjacent to (within 25 feet) the proposed impact area during the surveys, these plant species shall be avoided to the extent possible and the following mitigation measures shall be implemented: 1. In some cases involving state-listed plants, it may be necessary to obtain an incidental take permit under Section 2081 of the FGC (2081 permit). The City shall consult with the CDFW to determine whether a 2081 permit is required and obtain all required authorizations prior to initiation of construction activities. 2. Before the approval of grading plans or any ground-breaking activity within the PSA, the City shall submit a mitigation plan concurrently to the CDFW and the USFWS (if appropriate) for review and comment. The plan shall include mitigation measures for the population(s) to be directly affected. Possible mitigation for impacts to	

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		special-status plant species can include implementation of a program to transplant, salvage, cultivate, or re-establish the species at suitable sites (if feasible), or through the purchase of credits from an approved mitigation bank, if available. The actual level of mitigation may vary depending on the sensitivity of the species, its prevalence in the area, and the current state of knowledge about overall population trends and threats to its survival. The final mitigation strategy for directly impacted plant species shall be determined by the CDFW and the USFWS (if appropriate) through the mitigation plan approval process. 3. Any special-status plant species that are identified adjacent to the PSA, but not proposed to be disturbed by the project, shall be protected by barrier fencing to ensure that construction activities and material stockpiles do not impact any special-status plant species. These avoidance areas shall be identified on project plans.	
Impact 3.3.2 Implementation of project-related activities could result in substantial adverse effects, either directly or through habitat modifications, to giant garter snakes.	PS	**MM 3.3.2a** **Biological Monitoring and Worker Environmental Awareness Training.** A qualified biologist(s) shall monitor construction activities that could potentially cause significant impacts to sensitive biological resources. In addition, the City	LS

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			shall retain a qualified biologist to conduct mandatory contractor/worker awareness training for construction personnel. The awareness training will be provided to all construction personnel to brief them on the identified location(s) of sensitive biological resources, including how to identify species with the potential to occur in the construction area and the need to avoid impacts to biological resources (e.g., plants, wildlife, and jurisdictional waters), and to brief them on the penalties for not complying with biological mitigation requirements. If new construction personnel are added to the project, the contractor will ensure that they receive the mandatory training before starting work.	
		MM 3.3.2b	**Giant Garter Snake Habitat Mitigation. ~~Consultation with US Fish and Wildlife Service.~~ West Side Option:** The City shall consult with the USFWS and CDFW regarding impacts to giant garter snake habitat. An incidental take permit may be required. Authorization for incidental take would be initiated by formal consultation under Section 7 of the federal Endangered Species Act and Section 2081 of the Fish and Game Code. To compensate for the permanent loss of aquatic GGS habitat, the project proponent shall provide mitigation at a minimum of a 3 acre to 1 acre ratio. Mitigation would consist of permanent habitat protection by purchasing credits at a USFWS approved GGS mitigation bank or providing suitable mitigation property	

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		secured by a conservation easement with a permanent management endowment for the habitat. **West Side and Southern Option**: In addition, a management plan shall be developed for maintenance of the proposed storage ponds, and submitted to the USFWS and CDFW for review and approval. As part of the plan, the City shall work with the USDA and the Department of Pesticide Regulation, and shall follow the County Guidelines regarding the use of rodenticides and herbicides. If rodent control must be conducted, zinc phosphide or other compounds approved by the USFWS shall be used to lower the risk to giant garter snake. **MM 3.3.2c** **Implementation of Standard Avoidance Measures.** The project proponent shall implement all of the minimization and avoidance measures found in Appendix C of the 1997 *Programmatic Consultation with the US Army Corps of Engineers 404 Permitted Projects with Relatively Small Effects on the Giant Garter Snake within Butte, Colusa, Glenn, Fresno, Merced, Sacramento, San Joaquin, Solano, Stanislaus, Sutter and Yolo Counties, California* (USFWS file #1-1-F-97-149), except the restriction of construction only occurring between May 1 and October 1 (see a) below). a) Exclusionary fencing will be installed at	

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		the limits of the temporary construction zone to protect adjacent, undisturbed giant garter snake habitat. Placement and installation of the exclusionary fencing shall be approved by the USFWS during Section 7 consultation. The exclusionary fencing will be maintained by the construction contractor during all phases of construction. Any breaches in the fencing shall be fixed within a 24-hour period. b) The City or contractor will prohibit the use of plastic, monofilament, jute, or similar erosion control matting that could entangle snakes at the project site. c) Within 24 hours of the commencement of ground-disturbing activities, the project site will be inspected for giant garter snakes by a qualified biologist. The survey shall be repeated if a lapse in construction activities of two weeks or greater occurs. If a snake is encountered during construction, activities shall cease until appropriate corrective measures have been completed or it has been determined that the snake will not be harmed. All sightings and incidental take shall be reported to the USFWS immediately via telephone at (916) 414-6600.	

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		d) Any dewatered habitat shall remain dry for at least 15 consecutive days after April 15 and prior to excavating or filing of the dewatered habitat. e) After completion of construction activities, any temporary fill and construction debris shall be removed and disturbed areas restored to pre-project conditions, where feasible. Restoration work may include such activities as replanting species removed from banks or replanting emergent vegetation in the active channel.	
Impact 3.3.3 Implementation of project-related activities could result in the loss of populations or essential habitat for special-status avian species, including raptors.	PS	**MM 3.3.3a** ***Sandhill Crane Preconstruction Surveys.*** *If construction will occur during the wintering period (September to mid-March), a qualified biologist shall conduct surveys within 14 days of project initiation for the purpose of identifying feeding and/or roosting areas in the project vicinity. ~~Roosting and feeding areas shall be avoided while they are occupied by sandhill cranes.~~ If any Project area supports loafing, roosting or foraging sandhill cranes, a 250 foot no-activity buffer shall be established when the birds are present. Typically, sandhill cranes will disperse from roost sites in the morning and return during late afternoon, and will arrive at feeding areas in the morning and disperse by late afternoon.* **MM 3.3.3b** **Raptor Surveys.** If clearing and/or construction activities will occur during the	LS

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		raptor nesting season (January 15–August 15), preconstruction surveys to identify active raptor nests shall be conducted by a qualified biologist within 14 days of construction initiation. Focused surveys must be performed by a qualified biologist for the purposes of determining presence/absence of active nest sites within the proposed impact area, including construction access routes and a 500-foot buffer (if feasible). If active nest sites are identified within 500 feet of project activities, the applicant shall impose a limited operating period (LOP) for all active nest sites prior to commencement of any project construction activities to avoid construction- or access-related disturbances to nesting raptors. An LOP constitutes a period during which project-related activities (i.e., vegetation removal, earth moving, and construction) will not occur and will be imposed within 250 feet of any active nest sites until the nest is deemed inactive. Activities permitted within and the size (i.e., 250 feet) of LOPs may be adjusted through consultation with the CDFW and/or Butte County. **MM 3.3.3c** **Nesting Bird Surveys.** If clearing and/or construction activities will occur during the migratory bird nesting season (April 15–August 15), preconstruction surveys to identify active migratory bird nests shall be conducted by a qualified biologist within 14	

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		days of construction initiation. Focused surveys must be performed by a qualified biologist for the purposes of determining presence/absence of active nest sites within the proposed impact area, including construction access routes and a 200-foot buffer. If active nest sites are identified within 200 feet of project activities, the applicant shall impose an LOP for all active nest sites prior to commencement of any project construction activities to avoid construction- or access-related disturbances to migratory bird nesting activities. An LOP constitutes a period during which project-related activities (i.e., vegetation removal, earth moving, and construction) will not occur and will be imposed within 100 feet of any active nest sites until the nest is deemed inactive. Activities permitted within and the size (i.e., 100 feet) of LOPs may be adjusted through consultation with the CDFW and/or Butte County.	
Impact 3.3.4 Implementation of the proposed project-related activities would not result in the loss of riparian vegetation and/or sensitive natural communities.	NI	None required.	NI
Impact 3.3.5 Implementation of project-related activities could result in the disturbance, degradation, and/or removal of federally protected wetlands.	PS	**MM3.3.5a** **Jurisdictional Determination.** A qualified biologist shall review the chosen site option to determine if federally protected wetlands are present within the project boundaries. If potentially jurisdictional features are present	LS

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			within the project area, a formal wetland delineation shall be performed and submitted to the USACE for verification. If wetlands or other waters are present, but are not considered to be jurisdictional to the USACE, then an Approved Jurisdictional Determination Form (USACE 2007) shall be prepared and submitted to the USACE for review and approval. **MM 3.3.5b** No Net Loss of Federally Protected Waters. If federally protected waters will be impacted by project-related activities, the City shall ensure that the project will result in no net loss of federally protected waters. No net loss can be achieved through impact avoidance, impact minimization, and/or compensatory mitigation, as determined in CWA Section 404 and 401 permits and/or 1602 Streambed Alteration Agreement. Evidence of compliance with this mitigation measure shall be provided to the City of Biggs Planning Department prior to construction and grading activities for the proposed project.	
Impact 3.3.6	Implementation of project-related activities are not expected to result in impacts to the movement of native resident or migratory fish or wildlife species or established migratory corridors.	NI	None required.	NI
Impact 3.3.7	The proposed project would not conflict with Biggs Municipal Code Section 9.15.080 (Tree Preservation Regulations), which regulates the	NI	None required.	NI

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	removal and preservation of trees on public rights-of-way within the city. Nor would it conflict with any of the policies described in the Butte County General Plan or the City of Biggs General Plan.			
Impact 3.3.8	No habitat conservation plan (HCP), recovery plan, or natural community conservation plan has been adopted encompassing all or portions of the City of Biggs.	NI	None required.	NI
Impact 3.3.9	Implementation of project-related activities ~~would not~~ could reduce the number or restrict the range of an endangered, rare, or threatened plant or animal species or biotic communities, thereby causing the species or community to drop below self-sustaining levels.	~~NI~~ PS	~~None required.~~ Mitigation measures **MM 3.3.1, MM 3.3.2a** through **3.3.2c, MM 3.3.3a** through **3.3.3c,** and **MM 3.3.5a** through **MM 3.3.5b** will ensure that the proposed project does not reduce sensitive species, habitats, and/or other biological resources below self-sustaining levels and reduce the potential impacts to a **less than significant** level	~~NI~~ LS
Impact 3.3.10	The proposed project, in combination with other reasonably foreseeable projects, could result in mortality and loss of habitat for special-status species and waters of the United States.	CC	Implementation of mitigation measures **MM 3.3.1, MM 3.3.2a** through **3.3.2c, MM 3.3.3a** through **3.3.3c,** and **MM 3.3.5a** through **MM 3.3.5b** described previously will reduce the proposed project's impact and therefore result in a **less than cumulatively considerable** contribution to the cumulative impacts by mitigating the project's contribution to impacts to special-status species and sensitive habitats.	LCC
Cultural and Paleontological Resources				
Impact 3.4.1	The project site is located in an area potentially containing existing resources that are historic. However, no potential historic resources would be affected by the proposed project.	NI	None required.	NI
Impact 3.4.2	Implementation of the project could result in	PS	**MM 3.4.2** If subsurface deposits believed to be	LS

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the potential disturbance of undiscovered cultural resources.		cultural or human in origin are discovered during construction, all work must halt within a 100-foot radius of the discovery. A qualified professional archaeologist, meeting the Secretary of the Interior's Professional Qualification Standards for prehistoric and historic archaeologists, shall be retained to evaluate the significance of the find and shall have the authority to modify the no-work radius as appropriate, using professional judgment. A Native American monitor, following the Guidelines for Monitors/Consultants of Native American Cultural, Religious, and Burial Sites established by the Native American Heritage Commission, may also be required. Work cannot continue within the no-work radius until the archaeologist conducts sufficient research and data collection to make a determination that the resource is either (1) not cultural in origin, or (2) not potentially significant or eligible for listing on the NRHP or CRHR. If a potentially eligible resource is encountered, the archaeologist, lead agency, and project proponent shall arrange for either (1) total avoidance of the resource, if possible, or (2) test excavations to evaluate eligibility and, if eligible, total data recovery as mitigation. The determination shall be formally documented in writing and submitted to the lead agency as verification that the provisions in CEQA for managing unanticipated discoveries have been met.	

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Impact 3.4.3	Implementation of the proposed project could directly or indirectly destroy a unique paleontological resource or site.	PS	**MM 3.4.3**	Should any paleontological resources (i.e., fossils) be uncovered during project construction activities, all work in the immediate vicinity shall be halted or diverted to other areas on the site, and the City shall be immediately notified. A qualified paleontologist shall be retained to evaluate the finds and recommend appropriate mitigation measures for the inadvertently discovered paleontological resources. Any discovered exposed fossils could be collected along with other appropriate actions. If warranted, a sample of rock matrix will be collected for processing. The qualified paleontologist shall be equipped to allow for the rapid removal of fossil remains and/or matrix and thus reduce the potential for construction delays.	LS
Impact 3.4.4	Implementation of the project, along with any foreseeable development in the project vicinity, could contribute to cumulative impacts to cultural resources, historic rural landscapes, and previously undiscovered human remains.	PS	Implement mitigation measure **MM 3.4.2.**		LS
Impact 3.4.5	Implementation of the project, along with any foreseeable development in the project vicinity, could result in cumulative impacts to undiscovered paleontological resources in areas surrounding the project site, both in Biggs and in Butte County.	PS	Implement mitigation measure **MM 3.4.3**.		LCC

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PS – Potentially Significant LCC – Less than Cumulatively Considerable CS – Cumulatively Significant SM – Significant but Mitigatable

Impact		Level of Significance Without Mitigation	Mitigation Measure	Resulting Level of Significance
Climate Change and Greenhouse Gases				
Impact 3.5.1	Implementation of the proposed project would result in a net increase in greenhouse gas emissions, yet would not result in a significant impact on the environment.	LCC	None required.	LCC
Impact 3.5.2	Implementation of the proposed project would result in a net increase in greenhouse gas emissions and could conflict with the goals of AB 32.	PS	Implement mitigation measure **MM 3.2.1**.	LCC
Hydrology and Water Quality				
Impact 3.6.1	Construction activities associated with the proposed project could result in erosion and water quality degradation of downstream surface water resources. Compliance with the requirements of the SWRCB's General Construction Permit would minimize the potential for such degradation.	LS	None required.	LS
Impact 3.6.2	Operation of the WWTP and associated discharges would improve surface water quality in Lateral K consistent with the Central Valley Regional Water Quality Control Board's Permit No. CA0078930.	NI	None required.	NI
Impact 3.6.3	Operation of the proposed effluent land disposal system ~~would not~~ could potentially result in groundwater and surface water quality impacts.	~~NI~~ PS	~~None required.~~ **MM 3.6.3** *Prior to implementation of the proposed project, the City shall prepare a Background Groundwater Quality Study to determine baseline groundwater quality characteristics. The City shall*	~~NI~~ LS

S – Significant CC – Cumulatively Considerable LS – Less Than Significant SU – Significant and Unavoidable NI – No Impact
PS – Potentially Significant LCC – Less than Cumulatively Considerable CS – Cumulative Significant SM – Significant but Mitigatable

Impact	Level of Significance Without Mitigation	Mitigation Measure	Resulting Level of Significance
		then perform continual groundwater quality monitoring of the groundwater underlying the project site in order to identify any negative effects of the project compared with the baseline groundwater quality characteristics identified by the Background Groundwater Quality Study. If groundwater monitoring data shows that the discharge to the effluent storage basins has violated the groundwater limitations, modifications will be made to prevent further exceedance.	
Impact 3.6.4 Operation of the proposed WWTP improvements would not contribute to cumulative water quality impacts.	NI	None required.	NI
Hazardous Materials/Human Health			
Impact 3.7.1 The increased use of hazardous materials associated with the proposed project has the potential to result in an increased risk of accidental release of hazardous materials.	LS	None required.	LS
Impact 3.7.2 Implementation of the proposed project could result in the increased exposure of disease associated with mosquito vectors.	PS	**MM 3.7.2** The City shall implement all recommendations made by the Butte County Mosquito and Vector Control District for necessary measures to avoid ponding and treatments, including chemical control of the effluent storage basins. In addition, during the summer	LS

S – Significant CC – Cumulatively Considerable LS – Less Than Significant SU – Significant and Unavoidable NI – No Impact
PS – Potentially Significant LCC – Less than Cumulatively Considerable CS – Cumulatively Significant SM – Significant but Mitigatable

Impact		Level of Significance Without Mitigation	Mitigation Measure	Resulting Level of Significance
			months, the City shall monitor the effluent storage basins for mosquito larvae, remove all emergent vegetation from the effluent storage basins, and use mechanical agitation to prevent the formation of any crust on the effluent storage basins.	
Impact 3.7.3	The proposed project and projects in the surrounding area would not result in the addition of hazardous materials over planning thresholds.	LCC	None required.	LCC

S – Significant CC – Cumulatively Considerable LS – Less Than Significant SU – Significant and Unavoidable NI – No Impact
PS – Potentially Significant LCC – Less than Cumulatively Considerable CS – Cumulative Significant SM – Significant but Mitigatable

1.0 Introduction

This Final Environmental Impact Report (Final EIR) was prepared in accordance with the California Environmental Quality Act (CEQA) and the State CEQA Guidelines (Section 15132). The City of Biggs (City) is the lead agency for the environmental review of the proposed Biggs Wastewater Treatment Plant (WWTP) Enhancement Project (project; proposed project). The City has the principal responsibility for approving the project. This Final EIR assesses the expected environmental impacts resulting from approval and implementation of the proposed project, as well as responds to comments received on the Draft EIR.

1.1 BACKGROUND AND PURPOSE OF THE EIR

BACKGROUND OF ENVIRONMENTAL REVIEW PROCESS OF THE PROJECT

The following is an overview of the environmental review process for the proposed Biggs WWTP Enhancement Project that led to the preparation of this Final EIR.

Notice of Preparation/Initial Study

The Notice of Preparation (NOP) for the Draft EIR was distributed and advertised for agency and public review on May 8, 2013, with the review period ending on June 8, 2013. This notice was circulated to the public, local, state, and federal agencies, and other interested parties to solicit comments on the project. An Initial Study for the project was prepared and released for public review along with the NOP. Its conclusions supported preparation of an EIR for the project. These comments, provided in **Appendix 1.0-A** of the Draft EIR, were carefully considered in crafting the analysis and findings of the Draft EIR.

Draft EIR

The Draft EIR was released for public and agency review on October 10, 2013, and the comment period closed on November 25, 2013. The Draft EIR contains a detailed description of the project, description of the environmental setting, identification of project impacts (direct, indirect, and cumulative) and mitigation measures for impacts found to be significant, and an analysis of a reasonable range of project alternatives. Written comments on the Draft EIR were solicited and received on the Draft EIR.

Final EIR

The City received a total of four comment letters from agencies and interest groups regarding the analysis and findings contained in the Draft EIR. Section 2.0 of this Final EIR, Responses to Comments on the Draft EIR, contains copies of the letters received along with corresponding lead agency responses as required by State CEQA Guidelines Section 15088. This document also contains minor edits to the Draft EIR, which are included in Section 3.0, Revisions to the Draft EIR. Together, these chapters constitute the Final EIR.

Certification of the Final EIR/Project Consideration

The City will review and consider the Final EIR. If the City finds that the Final EIR is "adequate and complete," the City may certify the Final EIR. The rule of adequacy generally holds that the EIR can be certified if it: (1) shows a good faith effort at full disclosure of environmental information; and (2) provides sufficient analysis to allow decisions to be made regarding the project in contemplation of its environmental consequences.

Upon review and consideration of the Final EIR, the City may take action to adopt, revise, or reject the proposed project. A decision to approve the proposed project would be accompanied by written findings in accordance with State CEQA Guidelines Sections 15091 and 15093. Public Resources Code Section 21081.6 also requires lead agencies to adopt a mitigation monitoring and reporting program to describe measures that have been adopted or made a condition of project approval in order to mitigate or avoid significant effects on the environment.

1.2 INTENDED USES OF THE EIR

The EIR is intended to evaluate the environmental impacts of the project to the greatest extent possible. This EIR, in accordance with CEQA Guidelines Section 15126, should be used as the primary environmental document to evaluate all planning and permitting actions associated with the project. Please refer to Section 2.0, Project Description, of the Draft EIR for a detailed discussion of the proposed project.

1.3 ORGANIZATION AND SCOPE OF THE FINAL EIR

This document is organized in the following manner:

SECTION 1.0 – INTRODUCTION TO THE FINAL EIR

Section 1.0 provides an overview of the EIR process to date as well as an overview of the contents of the Final EIR.

Section 2.0 – RESPONSES TO COMMENTS ON THE DRAFT EIR

Section 2.0 provides a list of commenters, copies of written comments (coded for reference), and the lead agency responses to those comments made on the Draft EIR.

Section 3.0 – REVISIONS TO THE DRAFT EIR

Section 3.0 provides a list of revisions made to the Draft EIR as a result of comments received and other editorial changes.

2.0 Comments and Responses to Comments on the Draft EIR

2.1 INTRODUCTION

No new significant environmental impacts or issues, beyond those already covered in the Draft EIR for the proposed City of Biggs Wastewater Treatment Plant (WWTP) Enhancement Project, were raised during the comment period on the Draft EIR. The City of Biggs, acting as the lead agency, evaluated and responded to comments on the Draft EIR. Comments received during the comment period do not involve any new significant impacts or "significant new information" that would require recirculation of the Draft EIR pursuant to State CEQA Guidelines Section 15088.5.

2.2 LIST OF COMMENTERS

The following individuals and representatives of organizations and agencies submitted written comments on the Draft EIR:

Letter	Individual or Signatory	Affiliation	Date
A	Stacy S. Gotham	Central Valley Regional Water Quality Control Board	11/25/13
B	Tina Bartlett	California Department of Fish and Wildlife	11/22/13
C	Scott Morgan	Governor's Office of Planning and Research	11/26/13
D	Ahmad Kashkoli	California Water Resources Control Board	12/13/13

2.3 COMMENTS AND RESPONSES

2.3.1 REQUIREMENTS FOR RESPONDING TO COMMENTS ON A DRAFT EIR

State CEQA Guidelines Section 15088 requires that lead agencies evaluate all comments on environmental issues received on the Draft EIR and prepare a written response. The written response must address the significant environmental issue raised and must provide a detailed response, especially when specific comments or suggestions (e.g., additional mitigation measures) are not accepted. In addition, the written response must be a good faith and reasoned analysis. However, lead agencies need only to respond to significant environmental issues associated with the project and do not need to provide all the information requested by commenters, as long as a good faith effort at full disclosure is made in the EIR (State CEQA Guidelines Section 15204).

State CEQA Guidelines Section 15204 recommends that commenters provide detailed comments that focus on the sufficiency of the Draft EIR in identifying and analyzing the possible impacts on the environment and ways in which the significant effects of the project might be avoided or mitigated. State CEQA Guidelines Section15204 also notes that commenters should provide an explanation and evidence supporting their comments. Pursuant to State CEQA Guidelines Section 15064, an effect shall not be considered significant in the absence of substantial evidence.

State CEQA Guidelines Section 15088 recommends that where response to comments results in revisions to the Draft EIR, those revisions be noted as a revision to the Draft EIR or in a separate section of the Final EIR. As a result of the comment letters received, revisions have been made to the text of the Draft EIR. Readers are directed to Section 3.0, Revisions to the Draft EIR, of this Final EIR for details concerning the resultant changes.

2.3.2 RESPONSES TO COMMENT LETTERS

Written comments on the Draft EIR are reproduced on the following pages, along with responses to those comments. Where changes to the Draft EIR text result from responding to comments, those changes are included in the response and demarcated with revision marks (<u>underline</u> for new text, ~~strikeout~~ for deleted text).

Letter A

CALIFORNIA Water Boards

EDMUND G. BROWN JR. GOVERNOR

MATTHEW RODRIQUEZ SECRETARY FOR ENVIRONMENTAL PROTECTION

Central Valley Regional Water Quality Control Board

22 November 2013

WDID 5A040100001

Scott Friend
City of Biggs
P.O. Box 307
Biggs, CA 95917

REVIEW OF DRAFT ENVIRONMENTAL IMPACT REPORT, BIGGS WASTEWATER TREATMENT PLANT ENHANCEMENT PROJECT, SCH# 2013042029, CITY OF BIGGS, BUTTE COUNTY

The Central Valley Regional Water Quality Control Board (Central Valley Water Board) has reviewed the October 2013 Draft Environmental Impact Report (DEIR) for the Biggs Wastewater Treatment Plant Enhancement Project (Project). The DEIR was submitted to the Central Valley Water Board on 15 October 2013. The City of Biggs (City) currently operates a wastewater treatment plant (WWTP) that discharges treated municipal-wastewater effluent to surface water. The Project proposes to eliminate the surface water disposal and develop a new effluent disposal process that consists of a land disposal system. The proposed project would not increase the capacity of the existing WWTP beyond its current permitted design capacity of 0.38 million gallons per day (mgd) or its peak facility design flow of 1.05 mgd. A-1

The key outcome of the proposed modification of the City's effluent disposal process is to achieve compliance with Waste Discharge Requirements Order No. R5-2012-0083 (NPDES Permit No. CA0078930) (WDR) and Time Schedule Order R5-2012-0048 (TSO). The effluent land disposal process involves the design and development of an effluent land disposal system wherein treated effluent from the WWTP is 1) stored in new effluent storage basins and 2) used to irrigate agricultural lands associated with growing fodder crops for off-site livestock animals. Upon completion of the proposed project, the City will no longer be making effluent discharges pursuant and subject to an NPDES permit.

The Central Valley Water Board has the following comments on the Project DEIR:

The Project would require amending of the existing Waste Discharge Requirements for the WWTP in order to include the regulation of the new land discharge of treated effluent to storage basins and through surface irrigation. Additionally, the recycled water use will need to comply with the Department of Public Health Title 22 Recycled Water regulations. In order to amend the WDRs, a complete Report of Waste Discharge (Form 200) and a filing fee must be submitted to the Central Valley Water Board at least 140 days before any change in discharge location (or effluent quality or volume) takes place onsite. A-2

KARL E. LONGLEY SCD, P.E., CHAIR | PAMELA C. CREEDON P.E., BCEE, EXECUTIVE OFFICER

364 Knollcrest Drive, Suite 205, Redding, CA 96002 | www.waterboards.ca.gov/centralvalley

Letter A Continued

The DEIR designated a "No Impact" conclusion with respect to the Project's potential impact to ground water quality. The Central Valley Water Board finds that this conclusion is unsubstantiated in the DEIR and requests the basis for such a conclusion be provided. Please note, potential groundwater impacts as a result of *both* the effluent storage in unlined ponds and the disposal via irrigation must be considered. Before the Central Valley Water Board can issue WDRs for the proposed discharge, the City must be able to demonstrate that the discharge will be in compliance with the Water Quality Control Plan for the Sacramento River and San Joaquin River (Basin Plan) and applicable water quality objectives. Compliance with Basin Plan objectives is not only necessary for water quality protection but must also be substantiated for the purposes of exempting the discharge from regulation under California Code of Regulations (CCR) Title 27.

A-3

The proposed project must also satisfy the State's Antidegradation Policy (State Board Resolution 68-16) and an anti-degradation analysis on the proposed discharge to land must be submitted with the Report of Waste Discharge. The Central Valley Water Board encourages the City to perform the necessary anti-degradation analysis during this environmental review process for the Project.

A-4

If you have any questions please contact me at (530) 224-4993 or at the footer address.

Stacy S. Gotham
Water Resources Control Engineer
NPDES Unit

SSG:lmw

cc: U.S.E.P.A Region 9, San Francisco
US Army Corps of Engineers, Sacramento
CA State Clearinghouse, Sacramento
CA State Water Board, Division of Water Quality, Sacramento
CA Department of Fish and Wildlife, Region 2, Rancho Cordova
Mark Sorensen, City of Biggs, Biggs
PMC, Chico
Butte County Dept. of Resource Management, Environmental Health Division, Oroville
Butte Local Agency Formation Commission, Oroville

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Letter A **Stacy S. Gotham, Central Valley Regional Water Quality Control Board**

Response A-1: The commenter relates the project description of the WWTP Enhancement Project. This comment is noted. It is understood that this comment is an introductory comment and further elaboration is forthcoming in subsequent comments.

Response A-2: The commenter states that the project will require amending the existing Waste Discharge Requirements for the WWTP, and recycled water use will need to comply with the Department of Public Health Title 22 Recycled Water regulations. The commenter further notes that the City will need to submit a filing fee to the Central Valley Regional Water Quality Control Board at least 140 days before any change in discharge location takes place on the project site. This comment is noted.

Response A-3: The commenter states that the no impact determination with respect to potential impacts to groundwater quality is unsubstantiated in the Draft EIR. The Draft EIR has been modified to address the comment, and the commenter is referred to FEIR Section 3.0, Revisions to the Draft EIR. The following text has been revised in Draft EIR Section 3.6, pages 3.6-9 through -11, to address this comment:

> **Impact 3.6.3** Operation of the proposed effluent land disposal system ~~would not~~ could potentially result in groundwater and surface water quality impacts. ~~There would be **no impact.**~~ This is a **potentially significant** impact.
>
> The Water Quality Control Plan for the Sacramento River and San Joaquin River Basins, Fourth Edition (hereafter Basin Plan), designates beneficial uses, establishes water quality objectives, contains implementation plans and policies for protecting waters of the basin, and incorporates by reference plans and policies adopted by the State Water Resources Control Board. Pursuant to Section 13263(a) of the California Water Code, waste discharge requirements must implement the Basin Plan.
>
> Surface water drainage associated with the proposed project are currently directed to Lateral K, an agricultural drain. There are beneficial uses of Lateral K, as established by the Basin Plan, which must be protected. The existing beneficial uses of Lateral K include agriculture as well as the protection of fish, wildlife, and other aquatic resources. The beneficial uses of the underlying groundwater, as established by the Basin Plan, are municipal and domestic supply, agricultural supply, and industrial supply. The Basin Plan establishes narrative water quality objectives for chemical constituents, tastes and odors, and toxicity in groundwater. It also sets forth numeric objectives for total coliform organisms.
>
> As stated previously, the current CVRWQCB NPDES Permit (No. CA0078930) contains stringent ammonia nitrogen removal requirements and the WWTP is currently in violation of this permit. The current permit limits are ~~2.72~~ 1.23 milligrams of ammonia per liter of

effluent averaged monthly and ~~7.44~~ 2.15 milligrams of ammonia per liter of effluent discharged daily into the receiving water, ~~which is an~~ agricultural drainage channel ~~called~~ Lateral K. (Lateral K drains into Butte Creek, which eventually connects with the Sacramento River.) The City has completed numerous investigations in order to comply with NPDES Permit No. CA0078930. Based on these investigations, options for wastewater disposal were narrowed to an effluent land application solution requiring up to 148 acres as proposed by this project. The net effect of the proposed project is compliance with NPDES Permit No. CA0078930 due to the cessation of all effluent discharged to Lateral K. This is an improvement over existing conditions, and therefore surface water would not be impacted as a result of the proposed project.

The groundwater underlying the project site must also be maintained free of toxic substances in concentrations that produce detrimental impacts. State Water Resources Control Board Resolution No. 68-16 (Policy with Respect to Maintaining High Quality Waters of the State) (hereafter Resolution 68-16) prohibits degradation of groundwater unless it has been shown that:

1. The degradation is limited and will provide social and economic benefit to the people of the state;

2. The degradation will not unreasonably affect present and anticipated future beneficial uses;

3. The degradation is not expected to result in water quality less than that prescribed in state and regional policies, including violation of one or more water quality objectives; and

4. The discharger employs best practicable treatment or control (BPTC) to minimize degradation.

Resolution 68-16 prohibits degradation of groundwater quality as it existed in 1968, or at any time thereafter that groundwater quality was better than in 1968, other than degradation that was previously authorized. An Antidegradation Analysis is required for a new discharge location and/or an increased volume of waste and/or an increased concentration of waste constituents. An Antidegradation Analysis for the proposed project has been prepared as follows.

Degradation of groundwater by some of the typical waste constituents released with discharge from a municipal wastewater utility after effective source control, treatment, and control is consistent with providing social and economic benefit to the people of the state. The technology, energy, water recycling, and waste management advantages of municipal utility service far exceed any benefits derived from a community otherwise reliant on numerous concentrated individual wastewater systems, and the impact on water quality will be substantially less. Economic prosperity of valley communities and associated industry is of maximum benefit to the

people of the state, and therefore sufficient reason to accommodate growth and groundwater degradation provided in terms of the Basin Plan are met.

The City currently provides treatment and control of the discharge that incorporates:

1. Alarm and backup power systems to prevent bypass or overflow;

2. Secondary treatment of the wastewater; and

3. Disinfection.

When the project is complete, the facility will provide the following additional treatment and control measures:

1. Improved treatment reliability; and

2. Recycling of all treated effluent for beneficial reuse.

The effluent land disposal process involves the design and development of an effluent land disposal system wherein treated effluent from the WWTP would be used to irrigate agricultural lands associated with growing fodder crops for off-site livestock animals. An irrigation method called Type I irrigation would be employed, which is the application of water at a rate and volume that does not exceed the agronomic rate. The agronomic rate is the amount of water needed for photosynthesis and cellular growth and accounts for soil water losses due to vegetative transpiration and evaporation, as well as proper soil fertility management. Location, humidity, soil type, rain patterns, vegetation type, and percentage of coverage are factors that have an effect on the agronomic rate. In contrast, Type II irrigation allows the potential for a significant amount of water to percolate beyond the rooting zone into the subsoil and eventually into the groundwater. To abate potential groundwater impacts, only the Type I irrigation method would be used when irrigating with treated effluent for this project.

The City proposes to apply treated wastewater to land either located directly west of the WWTP (West Option) or directly south of the WWTP (South Option). Either option would require that the City control how treated water is applied, the type of crops planted, and how tailwater is controlled across the site in accordance with state regulations. No NPDES permit would be needed for this treatment and disposal scheme. Instead the CVRWQCB would issue waste discharge requirements (WDRs) in accordance with the wastewater disposal/reuse criteria established by the California Department of Health Services codified in Title 22, Division 4, Chapter 3 of the California Code of Regulations. Effluent pathogens are regulated under Title 22 of the California Code of Regulations, and t~~T~~hese regulations are designed to protect the public from exposure to pathogenic (disease-causing) organisms that exist in wastewater.

Under Title 22, fodder crop irrigation requires a "Secondary-23" level of treatment. The "23" refers to water that meets a median 23 MPN coliform level. The plant currently provides this level of treatment and will continue to do so under the proposed project (tThe proposed project would involve treatment of wastewater to similar levels as currently provided by the WWTP, seasonal storage, and summertime irrigation of fodder crops for use in animal feed.) Pathogen limits under Title 22 are not expected to the change in the future. In the case of either the South Option or the West Option, the project would utilize ammonia (nitrogen-rich effluent) to produce a feed-grade agricultural product. The effluent would serve as a nutrient and provide the required water for crop production. The amount of land necessary to accommodate the City's effluent land disposal system, in consideration of the soil types found on the lands surrounding the WWTP as well as the effluent treatment capacity at the WWTP, is a minimum of 140 acres, and each property is larger than 140 acres.

The proposed storage basins are proposed to be lined with 1.5 to 2 feet of native clay soils compacted to achieve an estimated saturated permeability rate of 10^{-6} centimeters per second and thereby provide a source control at the effluent storage ponds, reducing the potential for groundwater degradation. This clay lining will eliminate percolation out of the basins by acting as a barrier to resist degradation of the underlying groundwater.

Prior to the issuance of a WDR permit, the City will perform a Background Groundwater Quality Study and begin groundwater monitoring at the wastewater treatment facility site to demonstrate whether the clay liners are adequate to protect groundwater from unreasonable degradation due to leakage from the ponds (see mitigation measure **MM 3.6.3**). If groundwater monitoring data shows that the discharge to the effluent storage basins has violated the groundwater limitations, modifications will be made to prevent further exceedance. (Surrounding land uses are primarily irrigated agriculture, and these land uses predate the existing WWTF. Based on the limited data available and historic land uses, it is reasonable to expect that agricultural practices have degraded groundwater quality at both sites and that it will not be possible to determine pre-1968 groundwater quality. Therefore, determination of compliance with Resolution 68-16 for this facility must be based on existing background groundwater quality.)

The City will not be able to fully evaluate existing and potential future impacts to groundwater quality until completion of the proposed WWTF improvements and additional hydrogeologic studies (see mitigation measure **MM 3.6.3**). However, the limited antidegradation analysis below indicates that the proposed discharge will comply with the Basin Plan. It is anticipated that the WDR order will include interim groundwater limitations that will be effective immediately and do not allow exceedance of Basin Plan water quality objectives, and Final Groundwater Limitations are anticipated to meet the Basin Plan water quality objectives or existing background groundwater concentrations.

Constituents of concern that have the potential to degrade groundwater include salts (primarily electrical conductivity (EC), sodium, and chloride), nutrients, and coliform organisms, as discussed below.

Effluent salinity has the potential to have significant adverse impacts on the environment, and high salt levels will decrease crop yields. In general, irrigation tends to concentrate salts in the soil, yet treated wastewater tends to have higher salt levels than other sources of irrigation water. Therefore, there is potential for salinity levels (represented as total dissolved solids (TDS) or EC) to increase in groundwater down-gradient of the site. Currently, the EC of Biggs effluent is somewhat less than 700 millimhos per centimeter (mmho/cm). The 700 EC value has been referenced as a conservative level for protection of all types of crops without the need for flushing water. After some evaporation in the seasonal storage basins, the salt levels would be expected to increase above their current levels and fluctuate somewhat based on the water year. In order to reduce salinity levels from accumulating to impactful levels in the soil, the land disposal system would use a field rotation schedule that alternates the irrigation water source such that canal irrigation water would be used during periodic irrigation seasons (approximately one out of every three seasons). This strategy will result in a soil column beneath each field periodically receiving an infusion of canal water. The EC will be monitored and recognized as a potential to cause violation of water quality objectives for salinity (see mitigation measure **MM 3.6.3**).

For nutrients such as nitrate, the potential for unreasonable degradation depends not only on the quality of the treated effluent but on the ability of the vadose zone below the effluent storage/disposal ponds to provide an environment conducive to nitrification and denitrification to convert the effluent nitrogen to nitrate and the nitrate to nitrogen gas. Groundwater monitoring data for the WWTP site does not indicate unreasonable degradation due to nitrate, and the proposed crops to be grown at the water recycling site are anticipated to remove most of the nitrogen in the applied wastewater. However, groundwater is quite shallow at the wastewater treatment plant and the planned effluent recycling site, so there is some threat that the discharge could cause a violation of the Maximum Contaminant Level for nitrate in shallow groundwater. The Maximum Contaminant Level for nitrate will be monitored and recognized as a potential to cause violation of water quality objectives (see mitigation measure **MM 3.6.3**).

For coliform organisms, the potential for exceedance of the Basin Plan's numeric water quality objective depends on the level of disinfection provided and the ability of vadose zone soils below the treatment plant and effluent storage ponds and saturated soils within the shallow water-bearing zone to provide adequate filtration. The high hydraulic head in the effluent storage pond may increase the risk of degradation. However, as noted above, statistical analysis of the data is required to make that determination. The WWTF plans to

continue to disinfect the discharge water to the storage ponds. Disinfection, which takes place at the existing WWTF, would reduce the potential threat, but the use of sodium hypochlorite will also increase the salinity of the effluent and create trihalomethanes, neither of which is desirable. Additionally, disinfection will not prevent coliform impacts at the treated irrigation ponds because treatment will take place in clay-lined ponds prior to disinfection. Depending on the outcome of the groundwater data analysis, it may be necessary to provide less permeable liners for the treatment ponds and/or change the method of disinfection.

Biosolids are the organic solids that decompose and stabilize in the bottom of the treatment ponds over a long period of time. Biosolids are commonly used as an organic agricultural soil amendment. Given the nature of the pond treatment process, the biosolids would typically need to be removed on a cycle of decades rather than annually. Prior to application of any biosolids, a separate Biosolids Management Plan would be required to be developed, submitted, and approved by the CVRWQCB. The Biosolids Management Plan would provide information on the quantity and quality of the biosolids to be applied, the area where they would be applied, the application method, record keeping, and other information. The biosolids application rate would be limited by the agronomic demand for nitrogen of the fodder crops grown. Biosolids application would take place during the dry months of the year in accordance with CVRWQCB provisions detailed in 40CFR-Part 503, which regulates the final use of biosolids generated at publicly owned treatment works. During the years when biosolids are applied at the site, the irrigation scheduling would be adjusted to allow an appropriate period of time for the biosolids application area to "rest" before irrigation resumes.

The primary purpose of the project is to eliminate a long-standing permitted discharge to surface waters rather than to accommodate growth. It is also appropriate to allow some groundwater degradation as long as it is consistent with the Basin Plan and Resolution No. 68-16 because the social and economic prosperity of local communities and associated industry is of benefit to the people of California. It is presumed that the WDR will provide conditions of discharge to ensure the discharge does not unreasonably affect present and anticipated uses of groundwater and includes groundwater limitations that apply water quality objectives established in the Basin Plan to protect beneficial uses. The WDR will establish effluent limitations that are protective of the beneficial uses of the underlying groundwater.

~~The net effect of the proposed project is compliance with NPDES Permit No. CA0078930. In addition, the Type 1 irrigation method would be employed, which prevents water from percolating beyond the rooting zone into the subsoil and eventually into the groundwater. The project would be required to adhere to California Department of Health Services regulations designed to protect the public from exposure to pathogenic (disease-causing) organisms that exist in wastewater, as well as a separate Biosolids Management Plan~~

~~approved by the CVRWQCB. Lastly, in order to reduce salinity levels from accumulating to impactful levels in the soil, the land disposal system would use a field rotation schedule that alternates the irrigation water source such that canal irrigation water would be used during periodic irrigation seasons (approximately one out of every three seasons). For these reasons the potential water quality impacts associated with the proposed project would be beneficial in terms of water quality and therefore **no impact** would occur.~~

The following mitigation is required.

Mitigation Measures

MM 3.6.3 Prior to implementation of the proposed project, the City shall prepare a Background Groundwater Quality Study to determine baseline groundwater quality characteristics. The City shall then perform continual groundwater quality monitoring of the groundwater underlying the project site in order to identify any negative effects of the project compared with the baseline groundwater quality characteristics identified by the Background Groundwater Quality Study. If groundwater monitoring data shows that the discharge to the effluent storage basins has violated the groundwater limitations, modifications will be made to prevent further exceedance.

Timing/Implementation: Prior to grading permit approval

Enforcement/Monitoring: City of Biggs Planning Department; Central Valley Regional Water Quality Control Board

Implementation of mitigation measure **MM 3.6.3** will reduce impacts to a **less than significant** level.

Response A-4: The commenter states that the project must satisfy the State's Antidegradation Policy and that an anti-degradation analysis on the proposed discharge of effluent to land must be submitted. The commenter is referred to Response A-3.

Letter B

State of California – Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
North Central Region/Region 2
1701 Nimbus Road, Suite A
Rancho Cordova, CA 95670
www.wildlife.ca.gov

EDMUND G. BROWN JR., Governor
CHARLTON H. BONHAM, Director

November 22, 2013

Mark Sorensen
City of Biggs
465 C Street
Biggs, CA 95917

Subject: Draft Environmental Impact Report for the Wastewater Treatment Plant Enhancement Project, City of Biggs, Butte County (SCH# 2013042029)

Dear Mr. Sorensen:

On October 11, 2013, the California Department of Fish and Wildlife (Department), received the Draft Environmental Impact Report (DEIR) for the Wastewater Treatment Plant Enhancement Project for the City of Biggs, Butte County (WWTP) (Project). The Department appreciates the opportunity to provide comments on the Project. The Department offers the following comments and recommendations on this DEIR in our role as a trustee and responsible agency Pursuant to Section 15082(b) of the California Environmental Quality Act (CEQA) Guidelines, and the California Public Resource Code §21000 et seq. As a trustee for California's fish and wildlife resources, the Department has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and their habitat. As a responsible agency, the Department administers the California Endangered Species Act (CESA), the Native Plant Protection Act (NPPA), and other provisions of the Fish and Game Code (FGC) that conserve the State's fish and wildlife public trust resources. B-1

The Department's most substantial environmental concerns relate to the Project's potential impacts to State listed species and habitat, as explained below.

The comments provided herein are based on the information provided in the DEIR, our knowledge of species and habitat in the Project area, and our involvement with regional conservation planning efforts. Comments are limited to the Project and proposed alternatives which may result in biological impacts.

Project Overview and Description

The City of Biggs is located in the northern Sacramento Valley directly west of State Route (SR) 99 in the southwestern portion of Butte County, California, has a footprint of approximately 338 acres, and is surrounded by agricultural lands, including rice lands and orchards. The City's WWTP is located approximately one-half mile southwest of the City's urban development area. The City is primarily a residential community. A downtown commercial core and agriculture are the basis of the local economy. B-2

Conserving California's Wildlife Since 1870

Letter B Continued

The Project proposes to develop a new effluent disposal process that consists of a reclamation/land disposal system (effluent land disposal system). The net effect of the proposed project is a cessation of all effluent discharged to Lateral K, which connects with Butte Creek, which in turn connects with the Sacramento River. The Project would not increase the capacity of the existing WWTP beyond its current permitted design capacity of 0.38 million gallon per day (mgd) or its peak facility design flow of 1.05 mgd. The Project is needed to comply with the Central Valley Regional Water Quality Control Board (CVRWQCB) National Pollution Discharge Elimination System (NPDES) Permit No. CA0078930. The proposed effluent land disposal process included in the Project involves the design and development of an effluent land disposal system, wherein treated effluent from the WWTP would be used to irrigate agricultural lands associated with growing fodder crops for off-site livestock animals. B-2 cont.

The Project analysis will evaluate two locations where treated wastewater would be applied, either directly west of the WWTP (West Option) or directly south of the WWTP (South Option). Biosolids, the organic solids that decompose and stabilize in the bottom of the treatment ponds over a long period of time, would be disposed of according to a separate Biosolids Management Plan developed, and approved by CVRWQCB.

Threatened, Endangered, Special Concern and Fully Protected Species

The DEIR discloses that the Project will have potentially significant impacts to State-listed species and sensitive habitats. Species that may be affected by the Project include the State-threatened Giant garter snake (*Thamnophis* gigas) (GGS), the Fully Protected greater sandhill crane (*Grus canadensis tabida*) and nesting raptors. The Department has concerns regarding the impact analysis and mitigation pertaining to these species and habitat that supports them. B-3

Impact Analysis

The DEIR analysis doesn't mention how many years will be needed for staging, site preparation and construction of the Project, which may influence how species and habitat impacts would be assessed. This information should be provided in the analysis of impacts.

The DEIR mentions that the rare plant surveys would be conducted according to methodology set forth in 1994 rare plant survey guidelines. The Department recommends that the surveys be done according to the Department's updated 2009 "Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities" which are more current than the Nelson 1994 guidelines referenced in the DEIR. The 2009 guidelines are available on the Department's website at http://www.dfg.ca.gov/habcon/plant/info.html. B-4

It is unclear in the DEIR if the entire portion of the Belding Canal work needed for the Project is being performed entirely by the Gray Lodge Water Supply project. The DEIR also does not describe the time frame in which the work will be performed for the Gray Lodge project and whether this work will be completed prior to construction of the B-5

Letter B Continued

WWTP Project. If mitigation will be provided for the Gray Lodge Project then the mitigation for that portion may be used to demonstrate mitigation compliance with CEQA and CESA for the WWTP Project. Please provide the language and mitigation credits for the Belding Canal portion of the Gray Lodge project work. B-5 cont.

The DEIR does not disclose the number of acres of permanent and temporary impacts to GGS aquatic and upland habitat resulting from the Project construction. In particular, the Project West Option, if implemented, may result in 151.95 acres of direct impact to aquatic GGS habitat as a result of the conversion of an active rice field to upland use, however, there is no mention of permanent mitigation for this impact. The DEIR does provide reasonable avoidance and minimization measures to reduce construction impacts to GGS habitat, however, it does not discuss measures to mitigate for potential permanent habitat loss. Permanent impacts to GGS habitat will likely require permanent mitigation to comply with the CESA. B-6

The mitigation measure MM3.3.2b. states that the City of Biggs shall consult with the US Fish and Wildlife Service (Service) regarding impacts to GGS habitat, and to determine whether an incidental take permit may be required. The GGS is also listed as Threatened under the CESA (California Code of Regulations §670.5(b)(4)(E)). Project activities that would result in take of species or habitat for GGS would require that the City of Biggs also consult with the Department to obtain an incidental take permit (FGC §2081b.). B-7

The mitigation measure MM3.3.3a. proposes to avoid nesting greater sandhill crane, when they are present, if they are identified within the project area during a pre-project survey. The greater sandhill crane is a Fully Protected Species (FGC §3511(a)(3)(b)(8)). Take of Fully Protected Species is prohibited, as is harassment, and as currently proposed this measure fails to provide protection for greater sandhill crane. Effective avoidance of any Project area supporting loafing, foraging or roosting cranes should include establishment of a clearly described minimum 250 foot no-construction, no-Project activity buffer when the birds are present. B-8

Lastly, the DEIR reaches the conclusion that there would be no impact or additional mitigation necessary to mitigate Project impacts to Special-Status Species Populations (Impact 3.3.9) with the implementation of MM3.3.1 through MM3.3.10. The DEIR, however, does not provide specific detail on the direct and indirect, permanent and temporary impacts to the Special–Status Species habitats to reach the conclusion that the measures set forth will reduce the impacts to below the level of significance pursuant to CEQA. For instance, the DEIR states that the West Option may result in the conversion of 151.95 acres of rice, which provides habitat for GGS, yet no permanent habitat mitigation for this impact is discussed. Permanent impacts and loss of habitat would require permanent habitat protection in the form of purchasing mitigation credits from a Department approved mitigation bank or providing suitable mitigation property that is secured by a conservation easement with a perpetual long-term management endowment for the habitat. B-9

Letter B Continued

Staging, Spoils and Borrow sites

The DEIR should include an analysis of the estimated impacts to habitat and species associated with all potential staging and spoils locations. These sites would include any locations where construction equipment, soil, rock or other materials will be staged for the Project. The direct and indirect impacts associated with storage and spoils sites should be identified and analyzed as part of the Project as these sites may contribute to impacts to habitats and species and may require additional mitigation. B-10

Lake and Streambed Alteration

Notification to the Department may be required, pursuant to FGC §1602 if the Project proposes to: divert, obstruct, or change the natural flow or the bed, channel or bank of any river, stream, or lake; use material from a streambed; or result in the disposal or deposition of debris, waste, or other material where it may pass into any river, stream, or lake. Should this be the case, the Department will rely on the DEIR to issue any Lake or Streambed Agreement for this Project, if needed. B-11

Conclusion

The Department appreciates the opportunity to provide comments on the Project and we hope you will contact us if you would like to discuss our concerns, comments, and recommendations in greater detail. If you have any questions, please contact Jenny Marr, Senior Environmental Scientist (Specialist), at (530) 895-4267 or at Jenny.Marr@wildlife.ca.gov.

Sincerely

Tina Bartlett
Regional Manager

FOR

ec: Jason Hanni
Jason_Hanni@fws.gov
U.S. Fish and Wildlife Service

Jeff Drongesen
Jennifer Navicky
Jenny Marr
Department of Fish and Wildlife

State Clearinghouse

Letter B **Tina Bartlett, California Department of Fish and Wildlife**

Response B-1: The commenter relates the Department of Fish and Wildlife's role as an agency. This comment is noted. It is understood that this comment is an introductory comment and further elaboration is forthcoming in subsequent comments.

Response B-2: The commenter provides a short synopsis of the project description. This comment is noted. It is understood that this comment is an introductory comment and further elaboration is forthcoming in subsequent comments.

Response B-3: The commenter identifies that the project will have significant effects to state-listed species and sensitive habitats and requests information on the duration of the staging, site preparation, and construction of the project. The commenter is referred to pages 2.0-22 through -24 of the Draft EIR, which provide a discussion of the duration of construction activities, construction equipment staging areas (also see **Figures 2.0-3** and **2.0-5**), and construction details, including estimated areas of disturbance and construction equipment types, for each proposed construction activity.

Response B-4: The commenter requests that the rare plant survey methodology identified in mitigation measure MM 3.3.1 be updated to current DFW standards. The Draft EIR has been modified to address the comment, and the commenter is referred to FEIR Section 3.0, Revisions to the Draft EIR. Mitigation measure MM 3.3.1 on page 3.3-24 of the Draft EIR has been amended as follows:

> **Rare Plant Surveys.** The City shall retain a qualified biologist to perform focused surveys to determine the presence/absence of special-status plant species with potential to occur in and adjacent to (within 25 feet, where appropriate) the proposed impact area, including construction access routes. ~~These surveys shall be conducted in accordance with the Guidelines for Assessing Effects of Proposed Developments on Rare Plants and Plant Communities (Nelson 1994).~~ These surveys shall be conducted in accordance with Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities (CDFG 2009). These guidelines require that rare plant surveys be conducted at the proper time of year when rare or endangered species are both evident and identifiable. Field surveys shall be scheduled to coincide with known flowering periods, and/or during appropriate developmental periods that are necessary to identify the plant species of concern.

Response B-5: The commenter asks if the Belding Canal work is being undertaken entirely by the Gray Lodge Water Supply project and requests the timing of that project. The entirety of the Belding Canal work needed for the project is being performed by the Gray Lodge Water Supply project.

According to the Giant Garter Snake (*Thamnophis gigas*) Habitat and Impact Assessment for the Gray Lodge Water Supply Project (2013), the project was slated to begin in summer of 2013 and is slated for completion

around May 2015. Work may extend into 2016 depending on weather or permitting constraints. The Upper Belding segment will be the first phase of the project and is the portion adjacent to the WWTP project. Work on this portion is expected to begin in February 2014 and end in October 2014. Most of the earthwork would be done during the irrigation season, while the structural work would be done during the winter shutdown (February to April 2014).

The proposed Biggs WWTP Enhancement Project is projected to start in the spring of 2015. Based on expected schedules for these projects, the Gray Lodge Water Supply project should complete work on this portion of Belding Canal before WWTP Enhancement Project activities begin. The following text has been added to page 3.3-26 of the Draft EIR:

> The improvements associated with the Gray Lodge Wildlife Area Water Supply Project have the potential to adversely impact giant garter snakes; however, these impacts were fully mitigated for in a programmatic Biological Opinion (BO, file #1-1-99-F-0015) issued by the USFWS entitled Conveyance of Refuge Water Supply Project, West and East Sacramento Valley, California (1998). In 2009, the USFWS appended the construction of conveyance features to deliver water to the Gray Lodge Wildlife Area to the previously issued programmatic BO (file #81420-2009-TA-1164-1). The Gray Lodge Water Supply Project will restore temporarily disturbed giant garter snake habitat to a level of quality that is equal to or greater than the pre-project condition. In addition, permanent habitat loss shall be compensated through habitat preservation at a 3:1 replacement ratio. Finally, the Gray Lodge project will implement the standard giant garter snake avoidance and minimization measures. As a result, this impact analysis does not evaluate impacts ~~to~~ nor provide mitigation associated with giant garter snake habitat impacts along the Belding Lateral Canal.

Response B-6: The commenter states that permanent loss of giant garter snake habitat is not mitigated in the Draft EIR. The Draft EIR has been modified to address the comment, and the commenter is referred to FEIR Section 3.0, Revisions to the Draft EIR. Mitigation measure MM 3.3.2b on page 3.3-29 of the Draft EIR has been amended as follows:

> **MM 3.3.2b Giant Garter Snake Habitat Mitigation. ~~Consultation with US Fish and Wildlife Service.~~ West Side Option:** The City shall consult with the USFWS and the CDFW regarding impacts to giant garter snake habitat. An incidental take permit may be required. Authorization for incidental take would be initiated by formal consultation under Section 7 of the federal Endangered Species Act and Section 2081 of the Fish and Game Code. To compensate for the permanent loss of aquatic giant garter snake habitat, the project proponent shall provide mitigation at a minimum 3-acre to 1-acre ratio. Mitigation would consist of permanent habitat protection by purchasing credits at a USFWS-approved giant garter snake mitigation bank or providing suitable mitigation property secured by a conservation easement with a permanent management endowment for the habitat.

> **West Side and Southern Option**: In addition, a management plan shall be developed for maintenance of the proposed storage ponds, and submitted to the USFWS and the CDFW for review and approval. As part of the plan, the City shall work with the USDA and the Department of Pesticide Regulation, and shall follow the County Guidelines regarding the use of rodenticides and herbicides. If rodent control must be conducted, zinc phosphide or other compounds approved by the USFWS shall be used to lower the risk to giant garter snake.

Response B-7: The commenter states that project activities that result in a "take" of species or habitat for giant garter snake will require consultation with the Department of Fish and Wildlife. See Response B-6.

Response B-8: The commenter requests a 250-foot "no project activity" zone should loafing, foraging, or roosting cranes be discovered in the project area. The Draft EIR has been modified to address the comment, and the commenter is referred to FEIR Section 3.0, Revisions to the Draft EIR. Mitigation measure MM 3.3.3a on page 3.3-31 of the Draft EIR has been amended as follows:

> **Sandhill Crane Preconstruction Surveys.** If construction will occur during the wintering period (September to mid-March), a qualified biologist shall conduct surveys within 14 days of project initiation for the purpose of identifying feeding and/or roosting areas in the project vicinity. ~~Roosting and feeding areas shall be avoided while they are occupied by sandhill cranes.~~ If any project area supports loafing, roosting, or foraging sandhill cranes, a 250-foot no-activity buffer shall be established when the birds are present. Typically, sandhill cranes will disperse from roost sites in the morning and return during late afternoon, and will arrive at feeding areas in the morning and disperse by late afternoon.

Response B-9: The commenter questions the veracity of the analyses of Impact 3.3.9 specifically in respect to habitat loss. The implementation of the mitigation measures as amended in the Final EIR (specifically mitigation measure MM 3.3.3.c) will ensure impacts to special-status species populations will be less than significant (see Responses B-6 and B-8). In addition, the Draft EIR has been modified to address the comment, and the commenter is referred to FEIR Section 3.0, Revisions to the Draft EIR. The text under Impact 3.3.9 on page 3.3-39 of the Draft EIR has been revised to read:

> Implementation of project-related activities ~~would not~~ could reduce the number or restrict the range of an endangered, rare, or threatened plant or animal species or biotic communities, thereby causing the species or community to drop below self-sustaining levels. ~~As such, there would be **no impact**~~. This would be considered a **potentially significant** impact.
>
> Mitigation measures **MM 3.3.1, MM 3.3.2a** through **3.3.2c, MM 3.3.3a** through **3.3.3c,** and **MM 3.3.5a** through **MM 3.3.5b** will ensure that the

proposed project does not reduce sensitive species, habitats, and/or other biological resources below self-sustaining levels and reduce the potential impacts to a **less than significant** level. ~~As such, there would be **no impact**.~~

Response B-10: The commenter requests detail on the staging and spoils area. As discussed on page 2.0-22 of the Draft EIR, the proposed staging area is the northeast corner of the south field. It consists of two structures surrounded by landscape shrubs and bare ground that has been highly disturbed by off-road vehicle activity. This area has low habitat value for wildlife, although migratory birds may nest in the shrubs. Staging activities have the potential to directly and indirectly nesting birds; however, implementation of mitigation measure MM 3.3.3c will ensure potential impacts are less than significant.

Response B-11: The commenter states that notification to the department may be required of the proposed project. This comment is noted.

Letter C

STATE OF CALIFORNIA
GOVERNOR'S OFFICE *of* PLANNING AND RESEARCH
STATE CLEARINGHOUSE AND PLANNING UNIT

EDMUND G. BROWN JR.
GOVERNOR

KEN ALEX
DIRECTOR

November 26, 2013

Scott Friend
City of Biggs
465 C Street
Biggs, CA 95917

Subject: Wastewater Treatment Plant Enhancement Project
SCH#: 2013042029

Dear Scott Friend:

The State Clearinghouse submitted the above named Draft EIR to selected state agencies for review. On the enclosed Document Details Report please note that the Clearinghouse has listed the state agencies that reviewed your document. The review period closed on November 25, 2013, and the comments from the responding agency (ies) is (are) enclosed. If this comment package is not in order, please notify the State Clearinghouse immediately. Please refer to the project's ten-digit State Clearinghouse number in future correspondence so that we may respond promptly.

Please note that Section 21104(c) of the California Public Resources Code states that:

> "A responsible or other public agency shall only make substantive comments regarding those activities involved in a project which are within an area of expertise of the agency or which are required to be carried out or approved by the agency. Those comments shall be supported by specific documentation."

C-1

These comments are forwarded for use in preparing your final environmental document. Should you need more information or clarification of the enclosed comments, we recommend that you contact the commenting agency directly.

This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act. Please contact the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process.

Sincerely,

Scott Morgan
Director, State Clearinghouse

Enclosures
cc: Resources Agency

1400 10th Street P.O. Box 3044 Sacramento, California 95812-3044
(916) 445-0613 FAX (916) 323-3018 www.opr.ca.gov

Letter C Continued

Document Details Report
State Clearinghouse Data Base

SCH# 2013042029
Project Title Wastewater Treatment Plant Enhancement Project
Lead Agency Biggs, City of

Type EIR Draft EIR

Description The City's WWTP Enhancement Project proposes to develop a new effluent disposal process that consists of a reclamation/land disposal system (effluent land disposal system).

Lead Agency Contact

Name Scott Friend
Agency City of Biggs
Phone 530 868 0100 **Fax**
email
Address 465 C Street
City Biggs **State** CA **Zip** 95917

Project Location

County Butte
City Biggs
Region
Lat / Long 39° 24' 42.74" N / 121° 42' 46.55" W
Cross Streets West Biggs-Gridley Road
Parcel No.
Township 18N **Range** 2E **Section** 13/14 **Base** MDB&M

Proximity to:

Highways SR 99
Airports No
Railways Yes
Waterways Hamilton Slough / Belding Lateral K
Schools Biggs HS / ES
Land Use Public Facilities and Agriculture

Project Issues Agricultural Land; Air Quality; Archaeologic-Historic; Biological Resources; Drainage/Absorption; Flood Plain/Flooding; Public Services; Toxic/Hazardous; Water Quality; Wetland/Riparian; Cumulative Effects; Other Issues

Reviewing Agencies Resources Agency; Department of Fish and Wildlife, Region 2; Department of Parks and Recreation; Department of Water Resources; Resources, Recycling and Recovery; California Highway Patrol; Caltrans, District 3 N; Air Resources Board; Regional Water Quality Control Board, Region 8; Native American Heritage Commission; Public Utilities Commission

Date Received 10/10/2013 **Start of Review** 10/10/2013 **End of Review** 11/25/2013

Letter C **Scott Morgan, Governor's Office of Planning and Research**

Response C-1: The comment states that the Draft EIR has been submitted to selected state agencies for review and that comments received from responding agencies are enclosed. The comment acknowledges that the City has complied with the State Clearinghouse requirements. Comment noted.

Letter D

CALIFORNIA Water Boards

EDMUND G. BROWN JR. GOVERNOR

MATTHEW RODRIQUEZ SECRETARY FOR ENVIRONMENTAL PROTECTION

State Water Resources Control Board

Scott Friend
City of Biggs
465 C St.
Biggs, CA 95917

Dear Mr. Friend:

DRAFT ENVIRONMENTAL IMPACT REPORT (EIR) FOR CITY OF BIGGS (CITY); BIGGS WASTEWATER TREATMENT PLANT ENHANCEMENT PROJECT (PROJECT); BUTTE COUNTY; STATE CLEARINGHOUSE NO. 2013042029

We understand that the City is pursuing Clean Water State Revolving Fund (CWSRF) financing for this Project. As a funding agency and a state agency with jurisdiction by law to preserve, enhance, and restore the quality of California's water resources, the State Water Resources Control Board (State Water Board) is providing the following information on the EIR to be prepared for the Project.

Please provide us with the following documents applicable to the proposed Project following the City's California Environmental Quality Act (CEQA) process: (1) one copy of the draft and final EIR, (2) the resolution certifying the EIR and making CEQA findings, (3) all comments received during the review period and the City's response to those comments, (4) the adopted Mitigation Monitoring and Reporting Program (MMRP), and (5) the Notice of Determination filed with the Butte County Clerk and the Governor's Office of Planning and Research, State Clearinghouse. In addition, we would appreciate notices of any hearings or meetings held regarding environmental review of any projects to be funded by the State Water Board.

D-1

The State Water Board, Division of Financial Assistance, is responsible for administering the CWSRF Program. The primary purpose for the CWSRF Program is to implement the Clean Water Act and various state laws by providing financial assistance for wastewater treatment facilities necessary to prevent water pollution, recycle water, correct nonpoint source and storm drainage pollution problems, provide for estuary enhancement, and thereby protect and promote health, safety and welfare of the inhabitants of the state. The CWSRF Program provides low-interest funding equal to one-half of the most recent State General Obligation Bond Rates with a 20-year term. Applications are accepted and processed continuously. Please refer to the State Water Board's CWSRF website at:
www.waterboards.ca.gov/water_issues/programs/grants_loans/srf/index.shtml.

D-2

The CWSRF Program is partially funded by the United States Environmental Protection Agency and requires additional "CEQA-Plus" environmental documentation and review. Three enclosures are included that further explain the CWSRF Program environmental review process and the additional federal requirements. For the complete environmental application package please visit:
http://www.waterboards.ca.gov/water_issues/programs/grants_loans/srf/srf_forms.shtml. The State Water Board is required to consult directly with agencies responsible for implementing

Letter D Continued

federal environmental laws and regulations. Any environmental issues raised by federal agencies or their representatives will need to be resolved prior to State Water Board approval of a CWSRF financing commitment for the proposed Project. For further information on the CWSRF Program, please contact Mr. Ahmad Kashkoli, at (916) 341-5855.

D-2 cont.

It is important to note that prior to a CWSRF financing commitment, projects are subject to provisions of the Federal Endangered Species Act (ESA), and must obtain Section 7 clearance from the United States Department of the Interior, Fish and Wildlife Service (USFWS), and/or the United States Department of Commerce National Oceanic and Atmospheric Administration, National Marine Fisheries Service (NMFS) for any potential effects to special-status species.

Please be advised that the State Water Board will consult with USFWS, and/or NMFS regarding all federal special-status species that the Project has the potential to impact if the Project is to be funded under the CWSRF Program. The City will need to identify whether the Project will involve any direct effects from construction activities, or indirect effects such as growth inducement, that may affect federally listed threatened, endangered, or candidate species that are known, or have a potential to occur on-site, in the surrounding areas, or in the service area, and to identify applicable conservation measures to reduce such effects.

In addition, CWSRF projects must comply with federal laws pertaining to cultural resources, specifically Section 106 of the National Historic Preservation Act (Section 106). The State Water Board has responsibility for ensuring compliance with Section 106, and must consult directly with the California State Historic Preservation Officer (SHPO). SHPO consultation is initiated when sufficient information is provided by the CWSRF applicant. If the City decides to pursue CWSRF financing, please retain a consultant that meets the Secretary of the Interior's Professional Qualifications Standards (http://www.nps.gov/history/local-law/arch_stnds_9.htm) to prepare a Section 106 compliance report.

D-3

Note that the City will need to identify the Area of Potential Effects (APE), including construction and staging areas, and the depth of any excavation. The APE is three-dimensional and includes all areas that may be affected by the Project. The APE includes the surface area and extends below ground to the depth of any Project excavations. The records search request should be made for an area larger than the APE. The appropriate area varies for different projects but should be drawn large enough to provide information on what types of sites may exist in the vicinity.

Other federal environmental requirements pertinent to the Project under the CWSRF Program include the following (for a complete list of all federal requirements please visit: http://www.waterboards.ca.gov/water_issues/programs/grants_loans/srf/docs/forms/application_environmental_package.pdf):

A. Compliance with the Federal Clean Air Act: (a) Provide air quality studies that may have been done for the Project; and (b) if the Project is in a nonattainment area or attainment area subject to a maintenance plan; (i) provide a summary of the estimated emissions (in tons per year) that are expected from both the construction and operation of the Project for each federal criteria pollutant in a nonattainment or maintenance area, and indicate if the nonattainment designation is moderate, serious, or severe (if applicable); (ii) if emissions are above the federal de minimis levels, but the Project is sized to meet only the needs of current population projections that are used in the approved State Implementation Plan for air quality, quantitatively indicate how the proposed capacity increase was calculated using population projections;

Letter D Continued

B. Protection of Wetlands: Identify any portion of the proposed Project area that should be evaluated for wetlands or United States waters delineation by the United States Army Corps of Engineers (USACE), or requires a permit from the USACE, and identify the status of coordination with the USACE;

C. Compliance with the Farmland Protection Policy Act: Identify whether the Project will result in the conversion of farmland. State the status of farmland (Prime, Unique, or Local and Statewide Importance) in the Project area and determine if this area is under a Williamson Act Contract;

D. Compliance with the Migratory Bird Treaty Act: List any birds protected under this act that may be impacted by the Project and identify conservation measures to minimize impacts; and

E. Compliance with the Flood Plain Management Act: Identify whether or not the Project is in a Flood Management Zone and include a copy of the Federal Emergency Management Agency flood zone maps for the area.

D-3 cont.

Following are specific comments on the City's draft EIR:

1. This Project will have a significant and unavoidable impact upon 66 acres of prime farmland being converted to nonagricultural use. Please be sure to adopt a Statement of Overriding Consideration for this and any other significant and unavoidable impacts that will arise from this Project's implementation.

D-4

2. Biological Resources Section 3.3, Page 3.3-29: The EIR does not include any site specific surveys or consultations conducted with the California Department of Fish and Wildlife (CDFW) and the United States Fish and Wildlife Service (USFWS) for special-status species that may adversely affected by the project. Please include a discussion of any site surveys and consultations conducted with the CDFW and the USFWS of the Project's Area of Potential Effect (APE), in order to ensure that the special-status species identified will not be adversely affected.

D-5

3. Cultural Resources Section 3.4, Page 3.4-1: The EIR does not include an adequate description of the Project APE. Please include both textual and visual descriptions of the Project's three-dimensional APE.

D-6

Thank you for the opportunity to review the City's draft EIR. If you have any questions or concerns, please feel free to contact me at (916) 341-5855, or by email at AKashkoli@waterboards.ca.gov, or contact David Werner at (916) 327-9117, or by email at DWerner@waterboards.ca.gov.

Sincerely,

Ahmad Kashkoli

Ahmad Kashkoli
Senior Environmental Scientist

Enclosures (3)

Letter D Continued

1. Clean Water State Revolving Fund Environmental Review Requirements
2. Quick Reference Guide to CEQA Requirements for State Revolving Fund Loans
3. Basic Criteria for Cultural Resources Reports

cc: State Clearinghouse
(Re: SCH# 2013042029
P.O. Box 3044
Sacramento, CA 95812-3044

bcc: Ahmad Kashkoli, Division of Financial Assistance
David Werner, Division of Financial Assistance
Andrew Cooper, Division of Financial Assistance
Janice Clemons, Division of Financial Assistance

S:\Funding Programs\Environmental Review Unit\CWSRF\SCH-Letters\2013\CityofBiggs_WWTP_Pursuing

Letter D Ahmad Kashkoli, State Water Resources Control Board

Response D-1: The commenter requests several documents be provided to the State Water Resources Control Board once the CEQA process has concluded. This comment is noted.

Response D-2: The commenter notes that the State Water Resources Control Board is responsible for administering the Clean Water State Revolving Fund (CWSRF) and also provides a discussion of the purposes of the CWSRF. This comment is noted. It is understood that this comment is an introductory comment.

Response D-3: The commenter provides a discussion of required actions in order to receive a CWSRF financing commitment. This comment has been provided for informational purposes and is noted.

Response D-4: The commenter states that a Statement of Overriding Consideration needs to be adopted for significant and unavoidable impacts to Prime Farmland as well as all other significant and unavoidable impacts identified in the Draft EIR.

The comment is correct that a Statement of Overriding Consideration needs to be adopted for significant and unavoidable impacts to Prime Farmland as well as all other significant and unavoidable impacts identified in the Draft EIR. It is acknowledged that Impact 3.1.1, Loss of and Conversion of Agricultural Land, is a significant and unavoidable impact as a result of the proposed project (see page 3.1-5 of the Draft EIR), and a Statement of Overriding Consideration will be required to be adopted for this identified impact if the project is to be implemented.

However, it is noted that the agricultural acres taken out of agricultural production would accommodate the proposed treated effluent storage basins, which are a part of the project-proposed agricultural operation to irrigate the fodder crops on the remaining 80 acres of project site land. Not only would the treated effluent storage basins support agricultural operations, they would be constructed of earthen berms from on-site soils; therefore, no agricultural land would be permanently paved. Thus, the land could potentially be returned to a state suitable for agricultural use in the future. The conversion of agricultural land to earthen storage basins is reversible, since the land can be re-graded and the rice fields can be replanted. Nonetheless, Prime Farmland would be taken out of agricultural production as a result of the proposed project, and though possible, there are no plans to guarantee that the affected acreage would be reclaimed for agricultural production in the future. Therefore, this impact was identified as significant and unavoidable in the Draft EIR.

The Draft EIR has been modified to include mitigation that would lessen impacts associated with the loss of Prime Farmland, and the commenter is referred to FEIR Section 3.0, Revisions to the Draft EIR. However, as shown, the new mitigation would not reduce impacts to Prime Farmland to a level below significance. The following mitigation has been added on page 3.1-5 of the Draft EIR:

Mitigation Measures

~~None available.~~ **MM 3.1.1** The City shall mitigate for impacts to the Prime Farmland acreage removed from production due to the construction of the effluent storage basins by ensuring that the project-proposed agricultural operation to grow fodder crops remains in operation throughout the life of the effluent land application method at the Biggs Wastewater Treatment Plant.

Timing/Implementation: Ongoing

Enforcement/Monitoring: City of Biggs Planning Department

Response D-5: The commenter states that the Draft EIR does not include any site-specific surveys or consultations with the California Department of Fish and Wildlife or US Fish and Wildlife Department. The commenter is correct that the Draft EIR does not include any site-specific surveys or consultations with the California Department of Fish and Wildlife (CDFW) or THE US Fish and Wildlife Department (USFWS). As stated on page 3.3-1 of the Draft EIR, project-related documentation was reviewed to collect site-specific data regarding habitat suitability for special-status species, as well as the identification of potentially jurisdictional waters. Additional information was obtained from a variety of outside data sources and can be found in the reference list at the end of Section 3.3 of the Draft EIR. Preliminary database searches were performed to identify special-status species with the potential to occur in the area. Database searches were performed on the following websites:

- USFWS Sacramento Office Species Lists
- USFWS Critical Habitat Portal
- CDFW California Natural Diversity Database (CNDDB)
- California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants of California

A search of the USFWS Sacramento Office's database was performed for the Palermo, Biggs, Gridley, Honcut, West of Biggs, Pennington, Shippee, Oroville, and Nelson, California, US Geological Survey (USGS) 7.5-minute quadrangles to identify special-species within their jurisdiction that may be affected by project components. The USFWS Critical Habitat Portal query did not identify any critical habitat in the vicinity of the project site. A query of the CNDDB provided a list of known occurrences for special-status species within a 1- and 5-mile radius of the project site. The CNPS database was queried to identify special-status plant species with the potential to occur within the Biggs, California, USGS 7.5-minute quadrangle. (The commenter is referred to Table 3.3-1 on page 3.4-9 of the Draft EIR for a summary of the database search results and conclusions regarding the potential for each species to be impacted by project-related activities.)

Response D-6: The commenter requests both a textual and visual description of the project's Area of Potential Effects. The Draft EIR has been modified to address the comment, and the commenter is referred to FEIR Section 3.0, Revisions to the Draft EIR. The following text has been added on page 2.0-21 of the Draft EIR:

AREA OF POTENTIAL EFFECTS

The Area of Potential Effects (APE) consists of the area within which significant impacts or adverse effects to potentially present resources (e.g., biological resources, historical resources, and/or historic properties) could result from project activities. The APE has both horizontal and vertical limits. The horizontal APE consists of all areas where activities associated with the project are proposed, and in the case of the current project, equals the project area subject to environmental review under NEPA and CEQA. This includes areas proposed for facility improvements, staging, two alternative locations for effluent discharge areas, and other elements described in the official project description. The horizontal APE is illustrated in **Figure 2.0-7a**. The horizontal APE covers a total of approximately 345 acres, including both the South and West options. The vertical APE is illustrated in **Figure 2.0-7a**. The vertical APE covers a total of approximately 14 feet below grade. Ultimately, only one effluent discharge area will be selected. The results of this environmental review will contribute to that decision.

3.0 REVISIONS TO DRAFT EIR

3.1 INTRODUCTION

This section includes text revisions and other edits to the DEIR. These modifications resulted from comments received during the Draft EIR public review period.

Revisions herein do not result in new significant environmental impacts, do not constitute significant new information, nor do they alter the conclusions of the environmental analysis. Changes are provided in revision marks (underline for new text and ~~strikeout~~ for deleted text) and are organized by section of the DEIR.

3.2 MINOR CHANGES AND EDITS TO THE DRAFT EIR

The following changes are made to the Draft EIR based on comments received on the project and review of those comments by the City and by the technical experts responsible for the supporting studies.

ES EXECUTIVE SUMMARY

The following text has been revised in Draft EIR Executive Summary, page ES-4:

MM 3.1.1 The City shall mitigate for impacts to the Prime Farmland acreage removed from production due to the construction of the effluent storage basins by ensuring that the project-proposed agricultural operation to grow fodder crops remains in operation throughout the life of the effluent land application method at the Biggs Wastewater Treatment Plant.

The following text has been revised in Draft EIR Executive Summary, pages ES-9 through -10:

MM 3.3.2b **Giant Garter Snake Habitat Mitigation. ~~Consultation with US Fish and Wildlife Service.~~ West Side Option:** The City shall consult with the USFWS and the CDFW regarding impacts to giant garter snake habitat. An incidental take permit may be required. Authorization for incidental take would be initiated by formal consultation under Section 7 of the federal Endangered Species Act and Section 2081 of the Fish and Game Code. To compensate for the permanent loss of aquatic giant garter snake habitat, the project proponent shall provide mitigation at a minimum 3-acre to 1-acre ratio. Mitigation would consist of permanent habitat protection by purchasing credits at a USFWS-approved giant garter snake mitigation bank or providing suitable mitigation property secured by a conservation easement with a permanent management endowment for the habitat.

West Side and Southern Option: In addition, a management plan shall be developed for maintenance of the proposed storage ponds, and submitted to the USFWS and the CDFW for review and approval. As part of the plan, the City shall work with the USDA and the Department of Pesticide Regulation, and shall follow the County Guidelines regarding the use of rodenticides and herbicides. If rodent control must be conducted, zinc phosphide or other compounds approved by the USFWS shall be used to lower the risk to giant garter snake.

The following text has been revised in Draft EIR Executive Summary, pages ES-12 and -13:

MM 3.3.3a **Sandhill Crane Preconstruction Surveys.** If construction will occur during the wintering period (September to mid-March), a qualified biologist shall conduct surveys within 14 days of project initiation for the purpose of identifying feeding and/or roosting areas in the project vicinity. ~~Roosting and feeding areas shall be avoided while they are occupied by sandhill cranes.~~ If any project area supports loafing, roosting, or foraging sandhill cranes, a 250-foot no-activity buffer shall be established when the birds are present. Typically, sandhill cranes will disperse from roost sites in the morning and return during late afternoon, and will arrive at feeding areas in the morning and disperse by late afternoon.

The following text has been revised in Draft EIR Executive Summary, page ES-16:

Impact 3.3.9 Implementation of project-related activities ~~would not~~ could reduce the number or restrict the range of an endangered, rare, or threatened plant or animal species or biotic communities, thereby causing the species or community to drop below self-sustaining levels.

~~None required.~~ Mitigation measures **MM 3.3.1, MM 3.3.2a** through **3.3.2c, MM 3.3.3a** through **3.3.3c**, and **MM 3.3.5a** through **MM 3.3.5b** will ensure that the proposed project does not reduce sensitive species, habitats, and/or other biological resources below self-sustaining levels and reduce the potential impacts to a **less than significant** level.

The following text has been revised in Draft EIR Executive Summary, page ES-20:

Impact 3.6.3 Operation of the proposed effluent land disposal system ~~would not~~ could potentially result in groundwater and surface water quality impacts.

MM 3.6.3 Prior to implementation of the proposed project, the City shall prepare a Background Groundwater Quality Study to determine baseline groundwater quality characteristics. The City shall then perform continual groundwater quality monitoring of the groundwater underlying the project site in order to identify any negative effects of the project compared with the baseline groundwater quality characteristics identified by the Background Groundwater Quality Study. If groundwater monitoring data shows that the discharge to the effluent storage basins has violated the groundwater limitations, modifications will be made to prevent further exceedance.

1.0 INTRODUCTION

No revisions.

2.0 PROJECT DESCRIPTION

The following text has been added on page 2.0-21 of the Draft EIR:

AREA OF POTENTIAL EFFECTS

The Area of Potential Effects (APE) consists of the area within which significant impacts or adverse effects to potentially present resources (e.g., biological resources, historical resources, and/or historic properties) could result from project activities. The APE has both horizontal and vertical limits. The horizontal APE consists of all areas where activities associated with the project are proposed, and in the case of the current project, equals the project area subject to environmental review under NEPA and CEQA. This includes areas proposed for facility improvements, staging, two alternative locations for effluent discharge areas, and other elements described in the official project description. The horizontal APE is illustrated in **Figure 2.0-7a**. The horizontal APE covers a total of approximately 345 acres, including both the South and West options. The vertical APE is illustrated in **Figure 2.0-7a**. The vertical APE covers a total of approximately 14 feet below grade. Ultimately, only one effluent discharge area will be selected. The results of this environmental review will contribute to that decision.

The following figures have been added on pages 2.0-22 and -23 of the Draft EIR:

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Figure 2.0-7a Horizontal Extent
City of Biggs Wastewater Land Disposal Project
Area of Potential Effect

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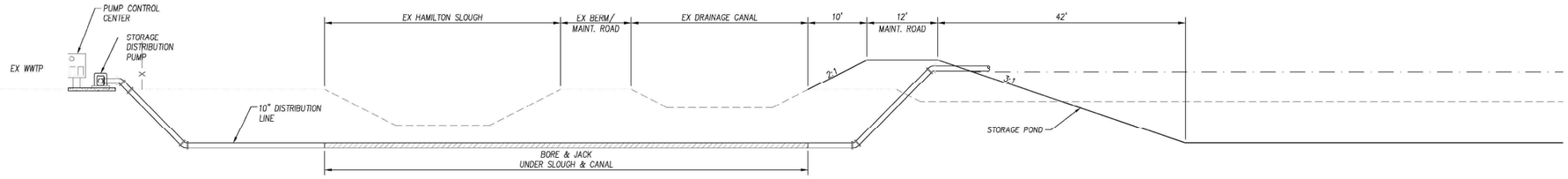
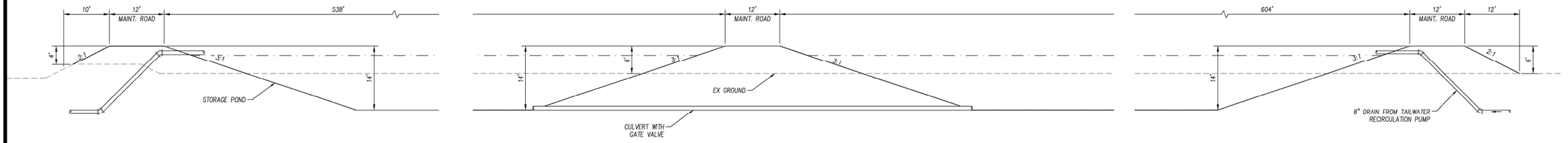
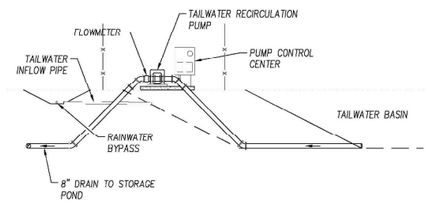


SECTION "A"



SECTION "B"



SECTION "C"

Source: BEN|EN, 2013

Figure 2.0-7b Vertical Extent
City of Biggs Wastewater Land Disposal Project
Area of Potential Effect

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3.0 INTRODUCTION TO THE ENVIRONMENTAL ANALYSIS AND ASSUMPTIONS USED

No revisions.

3.1 AGRICULTURAL RESOURCES

The following text has been added on page 3.1-5 of the Draft EIR:

Mitigation Measures

~~None available.~~

MM 3.1.1 The City shall mitigate for impacts to the Prime Farmland acreage removed from production due to the construction of the effluent storage basins by ensuring that the project-proposed agricultural operation to grow fodder crops remains in operation throughout the life of the effluent land application method at the Biggs Wastewater Treatment Plant.

Timing/Implementation: Ongoing

Enforcement/Monitoring: City of Biggs Planning Department

3.2 AIR QUALITY

No revisions.

3.3 BIOLOGICAL RESOURCES

The following text has been revised in Draft EIR Section 3.3, page 3.3-24:

Rare Plant Surveys. The City shall retain a qualified biologist to perform focused surveys to determine the presence/absence of special-status plant species with potential to occur in and adjacent to (within 25 feet, where appropriate) the proposed impact area, including construction access routes. ~~These surveys shall be conducted in accordance with the Guidelines for Assessing Effects of Proposed Developments on Rare Plants and Plant Communities (Nelson 1994)~~. These surveys shall be conducted in accordance with Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities (CDFG 2009). These guidelines require that rare plant surveys be conducted at the proper time of year when rare or endangered species are both evident and identifiable. Field surveys shall be scheduled to coincide with known flowering periods, and/or during appropriate developmental periods that are necessary to identify the plant species of concern.

The following text has been revised in Draft EIR Section 3.3, page 3.3-26:

The improvements associated with the Gray Lodge Wildlife Area Water Supply Project have the potential to adversely impact giant garter snakes; however, these impacts were fully mitigated for in a programmatic Biological Opinion (BO, file #1-1-99-F-0015) issued by the USFWS entitled Conveyance of Refuge Water Supply Project, West and East Sacramento Valley, California (1998). In 2009, the USFWS appended the construction of conveyance features to deliver water to the Gray Lodge Wildlife Area to the previously issued

programmatic BO (file #81420-2009-TA-1164-1). The Gray Lodge Water Supply Project will restore temporarily disturbed giant garter snake habitat to a level of quality that is equal to or greater than the pre-project condition. In addition, permanent habitat loss shall be compensated through habitat preservation at a 3:1 replacement ratio. Finally, the Gray Lodge Water Supply Project will implement the standard giant garter snake avoidance and minimization measures. As a result, this impact analysis does not evaluate impacts ~~to~~ nor provide mitigation associated with giant garter snake habitat impacts along the Belding Lateral Canal.

Mitigation measure MM 3.3.2b on page 3.3-29 of the Draft EIR has been amended as follows:

MM 3.3.2b **Giant Garter Snake Habitat Mitigation. ~~Consultation with US Fish and Wildlife Service.~~ West Side Option:** The City shall consult with the USFWS and the CDFW regarding impacts to giant garter snake habitat. An incidental take permit may be required. Authorization for incidental take would be initiated by formal consultation under Section 7 of the federal Endangered Species Act and Section 2081 of the Fish and Game Code. To compensate for the permanent loss of aquatic giant garter snake habitat, the project proponent shall provide mitigation at a minimum 3-acre to 1-acre ratio. Mitigation would consist of permanent habitat protection by purchasing credits at a USFWS-approved giant garter snake mitigation bank or providing suitable mitigation property secured by a conservation easement with a permanent management endowment for the habitat.

West Side and Southern Option: In addition, a management plan shall be developed for maintenance of the proposed storage ponds, and submitted to the USFWS and the CDFW for review and approval. As part of the plan, the City shall work with the USDA and the Department of Pesticide Regulation, and shall follow the County Guidelines regarding the use of rodenticides and herbicides. If rodent control must be conducted, zinc phosphide or other compounds approved by the USFWS shall be used to lower the risk to giant garter snake.

Mitigation measure MM 3.3.3a on page 3.3-31 of the Draft EIR has been amended as follows:

MM 3.3.3a **Sandhill Crane Preconstruction Surveys.** If construction will occur during the wintering period (September to mid-March), a qualified biologist shall conduct surveys within 14 days of project initiation for the purpose of identifying feeding and/or roosting areas in the project vicinity. ~~Roosting and feeding areas shall be avoided while they are occupied by sandhill cranes.~~ If any project area supports loafing, roosting, or foraging sandhill cranes, a 250-foot no-activity buffer shall be established when the birds are present. Typically, sandhill cranes will disperse from roost sites in the morning and return during late afternoon, and will arrive at feeding areas in the morning and disperse by late afternoon.

The text under Impact 3.3.9 on page 3.3-39 of the Draft EIR has been revised to read:

Impact 3.3.9 Implementation of project-related activities ~~would not~~ could reduce the number or restrict the range of an endangered, rare, or threatened plant or animal species or biotic communities, thereby causing the species or

community to drop below self-sustaining levels. ~~As such, there would be **no impact**~~. This would be considered a **potentially significant** impact.

Mitigation measures **MM 3.3.1, MM 3.3.2a** through **3.3.2c, MM 3.3.3a** through **3.3.3c,** and **MM 3.3.5a** through **MM 3.3.5b** will ensure that the proposed project does not reduce sensitive species, habitats, and/or other biological resources below self-sustaining levels and reduce the potential impacts to a **less than significant** level. ~~As such, there would be **no impact.**~~

3.4 CULTURAL RESOURCES

No revisions.

3.5 CLIMATE CHANGE AND GREENHOUSE GASES

No revisions.

3.6 HYDROLOGY AND WATER QUALITY

The following text has been revised in Draft EIR Section 3.6, pages 3.6-9 through -11:

Impact 3.6.3 Operation of the proposed effluent land disposal system ~~would not~~ could potentially result in groundwater and surface water quality impacts. ~~There would be **no impact.**~~ This is a **potentially significant** impact.

The Water Quality Control Plan for the Sacramento River and San Joaquin River Basins, Fourth Edition (hereafter Basin Plan), designates beneficial uses, establishes water quality objectives, contains implementation plans and policies for protecting waters of the basin, and incorporates by reference plans and policies adopted by the State Water Resources Control Board. Pursuant to Section 13263(a) of the California Water Code, waste discharge requirements must implement the Basin Plan.

Surface water drainage associated with the proposed project is to Lateral K, an agricultural drain. There are beneficial uses of Lateral K, as established by the Basin Plan, which must be protected. The existing beneficial uses of Lateral K include agriculture as well as the protection of fish, wildlife, and other aquatic resources. The beneficial uses of the underlying groundwater, as established by the Basin Plan, are municipal and domestic supply, agricultural supply, and industrial supply. The Basin Plan establishes narrative water quality objectives for chemical constituents, tastes and odors, and toxicity in groundwater. It also sets forth numeric objectives for total coliform organisms.

As stated previously, the current CVRWQCB NPDES Permit (No. CA0078930) contains stringent ammonia nitrogen removal requirements and the WWTP is currently in violation of this permit. The current permit limits are ~~2.72~~ 1.23 milligrams of ammonia per liter of effluent averaged monthly and ~~7.44~~ 2.15 milligrams of ammonia per liter of effluent discharged daily into the receiving water, ~~which is an~~ agricultural drainage channel ~~called~~ Lateral K. (Lateral K drains into Butte Creek, which eventually connects with the Sacramento River.) The City has completed numerous investigations in order to comply with NPDES Permit No. CA0078930. Based on these investigations, options for wastewater disposal were narrowed to an effluent land application solution requiring up to 148 acres as proposed by this project. The net effect of the proposed project is compliance with NPDES Permit No. CA0078930 due to the cessation of all effluent discharged to Lateral K. This is an improvement over existing

conditions, and therefore surface water would not be impacted as a result of the proposed project.

The groundwater underlying the project site must also be maintained free of toxic substances in concentrations that produce detrimental impacts. State Water Resources Control Board Resolution No. 68-16 (Policy with Respect to Maintaining High Quality Waters of the State) (hereafter Resolution 68-16) prohibits degradation of groundwater unless it has been shown that:

1. The degradation is limited and will provide social and economic benefit to the people of the state;

2. The degradation will not unreasonably affect present and anticipated future beneficial uses;

3. The degradation is not expected to result in water quality less than that prescribed in state and regional policies, including violation of one or more water quality objectives; and

4. The discharger employs best practicable treatment or control (BPTC) to minimize degradation.

Resolution 68-16 prohibits degradation of groundwater quality as it existed in 1968, or at any time thereafter that groundwater quality was better than in 1968, other than degradation that was previously authorized. An Antidegradation Analysis is required for a new discharge location and/or an increased volume of waste and/or an increased concentration of waste constituents. An Antidegradation Analysis for the proposed project has been prepared as follows.

Degradation of groundwater by some of the typical waste constituents released with discharge from a municipal wastewater utility after effective source control, treatment, and control is consistent with providing social and economic benefit to the people of the state. The technology, energy, water recycling, and waste management advantages of municipal utility service far exceed any benefits derived from a community otherwise reliant on numerous concentrated individual wastewater systems, and the impact on water quality will be substantially less. Economic prosperity of valley communities and associated industry is of maximum benefit to the people of the state, and therefore sufficient reason to accommodate growth and groundwater degradation provided in terms of the Basin Plan are met.

The City currently provides treatment and control of the discharge that incorporates:

1. Alarm and backup power systems to prevent bypass or overflow;

2. Secondary treatment of the wastewater; and

3. Disinfection.

When the project is complete, the facility will provide the following additional treatment and control measures:

1. Improved treatment reliability; and

2. Recycling of all treated effluent for beneficial reuse.

The effluent land disposal process involves the design and development of an effluent land disposal system wherein treated effluent from the WWTP would be used to irrigate agricultural lands associated with growing fodder crops for off-site livestock animals. An irrigation method called Type I irrigation would be employed, which is the application of water at a rate and volume that does not exceed the agronomic rate. The agronomic rate is the amount of water needed for photosynthesis and cellular growth and accounts for soil water losses due to vegetative transpiration and evaporation, as well as proper soil fertility management. Location, humidity, soil type, rain patterns, vegetation type, and percentage of coverage are factors that have an effect on the agronomic rate. In contrast, Type II irrigation allows the potential for a significant amount of water to percolate beyond the rooting zone into the subsoil and eventually into the groundwater. To abate potential groundwater impacts, only the Type I irrigation method would be used when irrigating with treated effluent for this project.

The City proposes to apply treated wastewater to land either located directly west of the WWTP (West Option) or directly south of the WWTP (South Option). Either option would require that the City control how treated water is applied, the type of crops planted, and how tailwater is controlled across the site in accordance with state regulations. No NPDES permit would be needed for this treatment and disposal scheme. Instead the CVRWQCB would issue waste discharge requirements (WDRs) in accordance with the wastewater disposal/reuse criteria established by the California Department of Health Services codified in Title 22, Division 4, Chapter 3 of the California Code of Regulations. Effluent pathogens are regulated under Title 22 of the California Code of Regulations, and t~~T~~hese regulations are designed to protect the public from exposure to pathogenic (disease-causing) organisms that exist in wastewater. Under Title 22, fodder crop irrigation requires a "Secondary-23" level of treatment. The "23" refers to water that meets a median 23 MPN coliform level. The plant currently provides this level of treatment and will continue to do so under the proposed project (t~~T~~he proposed project would involve treatment of wastewater to similar levels as currently provided by the WWTP, seasonal storage, and summertime irrigation of fodder crops for use in animal feed.) Pathogen limits under Title 22 are not expected to the change in the future. In the case of either the South Option or the West Option, the project would utilize ammonia (nitrogen-rich effluent) to produce a feed-grade agricultural product. The effluent would serve as a nutrient and provide the required water for crop production. The amount of land necessary to accommodate the City's effluent land disposal system, in consideration of the soil types found on the lands surrounding the WWTP as well as the effluent treatment capacity at the WWTP, is a minimum of 140 acres, and each property is larger than 140 acres.

The proposed storage basins are proposed to be lined with 1.5 to 2 feet of native clay soils compacted to achieve an estimated saturated permeability rate of 10^{-6} centimeters per second and thereby provide a source control at the effluent storage ponds, reducing the potential for groundwater degradation. This clay lining will eliminate percolation out of the basins by acting as a barrier to resist degradation of the underlying groundwater.

Prior to the issuance of a WDR permit, the City will perform a Background Groundwater Quality Study and begin groundwater monitoring at the wastewater treatment facility site to demonstrate whether the clay liners are adequate to protect groundwater from unreasonable degradation due to leakage from the ponds (see mitigation measure **MM 3.6.3**). If groundwater monitoring data shows that the discharge to the effluent storage basins has violated the groundwater limitations, modifications will be made to prevent further

exceedance. (Surrounding land uses are primarily irrigated agriculture, and these land uses predate the existing WWTF. Based on the limited data available and historic land uses, it is reasonable to expect that agricultural practices have degraded groundwater quality at both sites and that it will not be possible to determine pre-1968 groundwater quality. Therefore, determination of compliance with Resolution 68-16 for this facility must be based on existing background groundwater quality.)

The City will not be able to fully evaluate existing and potential future impacts to groundwater quality until completion of the proposed WWTF improvements and additional hydrogeologic studies (see mitigation measure **MM 3.6.3**). However, the limited antidegradation analysis below indicates that the proposed discharge will comply with the Basin Plan. It is anticipated that the WDR order will include interim groundwater limitations that will be effective immediately and do not allow exceedance of Basin Plan water quality objectives, and Final Groundwater Limitations are anticipated to meet the Basin Plan water quality objectives or existing background groundwater concentrations. Constituents of concern that have the potential to degrade groundwater include salts (primarily electrical conductivity (EC), sodium, and chloride), nutrients, and coliform organisms, as discussed below.

Effluent salinity has the potential to have significant adverse impacts on the environment, and high salt levels will decrease crop yields. In general, irrigation tends to concentrate salts in the soil, yet treated wastewater tends to have higher salt levels than other sources of irrigation water. Therefore, there is potential for salinity levels (represented as total dissolved solids (TDS) or EC) to increase in groundwater down-gradient of the site. Currently, the EC of Biggs effluent is somewhat less than 700 millimhos per centimeter (mmho/cm). The 700 EC value has been referenced as a conservative level for protection of all types of crops without the need for flushing water. After some evaporation in the seasonal storage basins, the salt levels would be expected to increase above their current levels and fluctuate somewhat based on the water year. In order to reduce salinity levels from accumulating to impactful levels in the soil, the land disposal system would use a field rotation schedule that alternates the irrigation water source such that canal irrigation water would be used during periodic irrigation seasons (approximately one out of every three seasons). This strategy will result in a soil column beneath each field periodically receiving an infusion of canal water. The EC will be monitored and recognized as a potential to cause violation of water quality objectives for salinity (see mitigation measure **MM 3.6.3**).

For nutrients such as nitrate, the potential for unreasonable degradation depends not only on the quality of the treated effluent but on the ability of the vadose zone below the effluent storage/disposal ponds to provide an environment conducive to nitrification and denitrification to convert the effluent nitrogen to nitrate and the nitrate to nitrogen gas. Groundwater monitoring data for the WWTP site does not indicate unreasonable degradation due to nitrate, and the proposed crops to be grown at the water recycling site are anticipated to remove most of the nitrogen in the applied wastewater. However, groundwater is quite shallow at the wastewater treatment plant and the planned effluent recycling site, so there is some threat that the discharge could cause a violation of the Maximum Contaminant Level for nitrate in shallow groundwater. The Maximum Contaminant Level for nitrate will be monitored and recognized as a potential to cause violation of water quality objectives (see mitigation measure **MM 3.6.3**).

For coliform organisms, the potential for exceedance of the Basin Plan's numeric water quality objective depends on the level of disinfection provided and the ability of vadose zone soils below the treatment plant and effluent storage ponds and saturated soils within

the shallow water-bearing zone to provide adequate filtration. The high hydraulic head in the effluent storage pond may increase the risk of degradation. However, as noted above, statistical analysis of the data is required to make that determination. The WWTF plans to continue to disinfect the discharge water to the storage ponds. Disinfection, which takes place at the existing WWTF, would reduce the potential threat, but the use of sodium hypochlorite will also increase the salinity of the effluent and create trihalomethanes, neither of which is desirable. Additionally, disinfection will not prevent coliform impacts at the treated irrigation ponds because treatment will take place in clay-lined ponds prior to disinfection. Depending on the outcome of the groundwater data analysis, it may be necessary to provide less permeable liners for the treatment ponds and/or change the method of disinfection.

Biosolids are the organic solids that decompose and stabilize in the bottom of the treatment ponds over a long period of time. Biosolids are commonly used as an organic agricultural soil amendment. Given the nature of the pond treatment process, the biosolids would typically need to be removed on a cycle of decades rather than annually. Prior to application of any biosolids, a separate Biosolids Management Plan would be required to be developed, submitted, and approved by the CVRWQCB. The Biosolids Management Plan would provide information on the quantity and quality of the biosolids to be applied, the area where they would be applied, the application method, record keeping, and other information. The biosolids application rate would be limited by the agronomic demand for nitrogen of the fodder crops grown. Biosolids application would take place during the dry months of the year in accordance with CVRWQCB provisions detailed in 40CFR-Part 503, which regulates the final use of biosolids generated at publicly owned treatment works. During the years when biosolids are applied at the site, the irrigation scheduling would be adjusted to allow an appropriate period of time for the biosolids application area to "rest" before irrigation resumes.

The primary purpose of the project is to eliminate a long-standing permitted discharge to surface waters rather than to accommodate growth. It is also appropriate to allow some groundwater degradation as long as it is consistent with the Basin Plan and Resolution No. 68-16 because social and economic prosperity of local communities and associated industry is of benefit to the people of California. It is presumed that the WDR will provide conditions of discharge to ensure that the discharge does not unreasonably affect present and anticipated uses of groundwater and includes groundwater limitations that apply water quality objectives established in the Basin Plan to protect beneficial uses. The WDR will establish effluent limitations that are protective of the beneficial uses of the underlying groundwater.

~~The net effect of the proposed project is compliance with NPDES Permit No. CA0078930. In addition, the Type 1 irrigation method would be employed, which prevents water from percolating beyond the rooting zone into the subsoil and eventually into the groundwater. The project would be required to adhere to California Department of Health Services regulations designed to protect the public from exposure to pathogenic (disease-causing) organisms that exist in wastewater, as well as a separate Biosolids Management Plan approved by the CVRWQCB. Lastly, in In order to reduce salinity levels from accumulating to impactful levels in the soil, the land disposal system would use a field rotation schedule that alternates the irrigation water source such that canal irrigation water would be used during periodic irrigation seasons (approximately one out of every three seasons). For these reasons the potential water quality impacts associated with the proposed project would be beneficial in terms of water quality and therefore **no impact** would occur.~~

The following mitigation is required.

Mitigation Measures

MM 3.6.3 Prior to implementation of the proposed project, the City shall prepare a Background Groundwater Quality Study to determine baseline groundwater quality characteristics. The City shall then perform continual groundwater quality monitoring of the groundwater underlying the project site in order to identify any negative effects of the project compared with the baseline groundwater quality characteristics identified by the Background Groundwater Quality Study. If groundwater monitoring data shows that the discharge to the effluent storage basins has violated the groundwater limitations, modifications will be made to prevent further exceedance.

Timing/Implementation: *Prior to grading permit approval*

Enforcement/Monitoring: *City of Biggs Planning Department; Central Valley Regional Water Quality Control Board*

Implementation of mitigation measure **MM 3.6.3** will reduce impacts to a **less than significant** level.

3.7 HAZARDS AND HAZARDOUS MATERIALS

No revisions.

4.0 CUMULATIVE IMPACTS

No revisions.

5.0 ALTERNATIVES

No revisions.

6. 0 LONG-TERM IMPLICATIONS

No revisions.