

**STATE OF CALIFORNIA
CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY
STATE WATER RESOURCES CONTROL BOARD**

DIVISION OF WATER RIGHTS

PERMIT FOR DIVERSION AND USE OF WATER

PERMIT 20281

Application 30358 of **Woodland-Davis Clean Water Agency**
1717 Fifth Street
Davis, CA 95616

filed on **April 19, 1994**, has been approved by the State Water Resources Control Board (State Water Board) SUBJECT TO PRIOR RIGHTS and to the limitations and conditions of this permit.

Permittee is hereby authorized to divert and use water as follows:

1. Source of water

Source:	Tributary to:
Sacramento River	Suisun Bay

within the County of Yolo.

2. Location of point of diversion

By California Coordinate System of 1983, Zone 2	40-acre subdivision of public land survey or projection thereof	Projected Section	Township	Range	Base and Meridian
North 2,008,200 feet and East 6,667,300 feet	NE¼ of NW¼	34	10N	3E	MD

3. Purpose of Use	4. Place of Use	Projected Sections	Township	Range	Base and Meridian	Acres
Municipal	City of Davis and University of California, Davis, and City of Woodland.		8N	2E, 3E	MD	
			9N	2E, 3E		
			10N	2E, 3E		
Irrigation	City of Davis and University of California, Davis, and City of Woodland.		8N	2E, 3E	MD	23,950
			9N	2E, 3E		
			10N	2E, 3E		
Fisherles and Aquaculture Research	University of California, Davis	16, 21	8N	2E	MD	

The place of use is shown on map dated March 28, 2011 filed with the State Water Board.

Abbreviations used in this permit:

Division of Water Rights – Division
State of California Department of Fish and Game – CDFG
United States Fish and Wildlife Service – USFWS
National Marine Fisheries Service – NMFS
Army Corps of Engineers – ACOE
Woodland-Davis Clean Water Agency – WDCWA
October 2007 Davis-Woodland Water Supply Project Final Environmental Impact Report (includes the
April 2007 Draft Environmental Impact Report and Appendices) – Water Supply EIR

5. The water appropriated shall be limited to the quantity which can be beneficially used and shall not exceed a 30-day average diversion rate of **80.1** cubic feet per second and an instantaneous diversion rate of **100** cubic feet per second, to be diverted from **January 1 to December 31** of each year. The maximum amount diverted under this permit shall not exceed **45,000** acre-feet per year. (0000005A)
6. The amount authorized for appropriation may be reduced in the license if investigation warrants. (0000006)
7. Construction work and completed application of the water to the authorized use shall be prosecuted with reasonable diligence and completed by December 31, 2040. (0000009)
8. Progress reports shall be submitted promptly by Permittee when requested by the State Water Board until a license is issued. (0000010)
9. Permittee shall allow representatives of the State Water Board and other parties, as may be authorized from time to time by said State Water Board, reasonable access to project works to determine compliance with the terms of this permit. (0000011)
10. Pursuant to California Water Code sections 100 and 275, and the common law public trust doctrine, all rights and privileges under this permit and under any license issued pursuant thereto, including method of diversion, method of use, and quantity of water diverted, are subject to the continuing authority of the State Water Board in accordance with law and in the interest of the public welfare to protect public trust uses and to prevent waste, unreasonable use, unreasonable method of use, or unreasonable method of diversion of said water.

The continuing authority of the State Water Board may be exercised by imposing specific requirements over and above those contained in this permit with a view to eliminating waste of water and to meeting the reasonable water requirements of Permittee without unreasonable draft on the source. Permittee may be required to implement a water conservation plan, features of which may include but not necessarily be limited to (1) reusing or reclaiming the water allocated; (2) using water reclaimed by another entity instead of all or part of the water allocated; (3) restricting diversions so as to eliminate agricultural tailwater or to reduce return flow; (4) suppressing evaporation losses from water surfaces; (5) controlling phreatophytic growth; and (6) installing, maintaining, and operating efficient water measuring devices to assure compliance with the quantity limitations of this permit and to determine accurately water use as against reasonable water requirements for the authorized project. No action will be taken pursuant to this

paragraph unless the State Water Board determines, after notice to affected parties and opportunity for hearing, that such specific requirements are physically and financially feasible and are appropriate to the particular situation.

The continuing authority of the State Water Board also may be exercised by imposing further limitations on the diversion and use of water by the Permittee in order to protect public trust uses. No action will be taken pursuant to this paragraph unless the State Water Board determines, after notice to affected parties and opportunity for hearing, that such action is consistent with California Constitution Article X, Section 2; is consistent with the public interest; and is necessary to preserve or restore the uses protected by the public trust.

(0000012)

11. The quantity of water diverted under this permit and under any license issued pursuant thereto is subject to modification by the State Water Board if, after notice to the Permittee and an opportunity for hearing, the State Water Board finds that such modification is necessary to meet water quality objectives in water quality control plans which have been or hereafter may be established or modified pursuant to Division 7 of the Water Code. No action will be taken pursuant to this paragraph unless the State Water Board finds that (1) adequate waste discharge requirements have been prescribed and are in effect with respect to all waste discharges which have any substantial effect upon water quality in the area involved, and (2) the water quality objectives cannot be achieved solely through the control of waste discharges.

(0000013)

12. This permit does not authorize any act that results in the taking of a threatened or endangered species or any act that is now prohibited, or becomes prohibited in the future, under either the California Endangered Species Act (Fish and Game Code, §§ 2050-2097) or the federal Endangered Species Act (16 U.S.C.A. §§ 1531-1544). If a "take" will result from any act authorized under this water right, the Permittee shall obtain authorization for an incidental take prior to construction or operation of the project. Permittee shall be responsible for meeting all requirements of the applicable Endangered Species Act for the project authorized under this permit.

(0000014)

13. Permittee shall maintain records of the amount of water diverted and used to enable State Water Board to determine the amount of water that has been applied to beneficial use pursuant to Water Code section 1605.

(0000015)

14. This permit shall not be construed as conferring upon the Permittee right of access to the point of diversion.

(0000022)

15. Permittee shall consult with the Division and, within one year from the date of this permit, shall submit to the State Water Resources Control Board its Urban Water Management Plan as prepared and adopted in conformance with section 10610, et seq. of the California Water Code, supplemented by any additional information that may be required by the Board.

All cost-effective measures identified in the Urban Water Management Plan and any supplements thereto shall be implemented in accordance with the schedule for implementation found therein.

(0000029A)

16. If it is determined after permit issuance that the as-built conditions of the project are not correctly represented by the map(s) prepared to accompany the application, Permittee shall, at his expense, have the subject map(s) updated or replaced with equivalent as-built map(s). Said revision(s) or new map(s) shall be prepared by a civil engineer or land surveyor registered or licensed in the State of California and shall meet the requirements prescribed in section 715 and sections 717 through 723 of the California Code of Regulations, Title 23. Said revision(s) or map(s) shall be furnished upon request of the Deputy Director for Water Rights.

(0000030)

17. No work shall commence and no water shall be diverted, stored or used under this permit until a copy of a stream or lake alteration agreement between the CDFG and the Permittee is filed with the Division. Compliance with the terms and conditions of the agreement is the responsibility of the Permittee. If a stream or lake agreement is not necessary for this permitted project, the Permittee shall provide the Division a copy of a waiver signed by the CDFG.

(0000063)

18. The State Water Board reserves jurisdiction over this permit to change the season of diversion to conform to later findings of the State Water Board concerning availability of water and the protection of beneficial uses of water in the Sacramento-San Joaquin Delta and San Francisco Bay. Any action to change the authorized season of diversion will be taken only after notice to interested parties and opportunity for hearing.

(0000080)

19. This permit is subject to prior rights. Permittee is put on notice that, during some years, water will not be available for diversion during portions or all of the season authorized herein. The annual variations in demands and hydrologic conditions in the Sacramento-San Joaquin Delta are such that, in any year of water scarcity, the season of diversion authorized herein may be reduced or completely eliminated by order of the State Water Board, made after notice to interested parties and opportunity for hearing.

(0000090)

20. No diversion is authorized by this permit when satisfaction of inbasin entitlements requires release of supplemental Project water by the Central Valley Project or the State Water Project.
 - a. Inbasin entitlements are defined as all rights to divert water from streams tributary to the Sacramento-San Joaquin Delta or the Delta for use within the respective basins of origin or the Legal Delta, unavoidable natural requirements for riparian habitat and conveyance losses, and flows required by the State Water Resources Control Board for maintenance of water quality and fish and wildlife. Export diversions and Project carriage water are specifically excluded from the definition of inbasin entitlements.
 - b. Supplemental Project water is defined as that water imported to the basin by the projects plus water released from Project storage which is in excess of export diversions, Project carriage water, and Project inbasin deliveries.

The State Water Resources Control Board shall notify permittee of curtailment of diversion under this term after it finds that supplemental Project water has been released or will be released. The Board will advise permittee of the probability of imminent curtailment of diversion as far in advance as practicable based on anticipated requirements for supplemental Project water provided by the Project operators.

(0000091)

21. The Permittee shall obtain all necessary state and local agency permits required by other agencies prior to construction and diversion of water. Copies of such permits and approvals shall be forwarded to the Deputy Director for Water Rights.

(0000203)

22. Should any buried archeological materials be uncovered during project activities, such activities shall cease within 100 feet of the find. Prehistoric archeological indicators include: obsidian and chert flakes and chipped stone tools; bedrock outcrops and boulders with mortar cups; ground stone implements (grinding slabs, mortars and pestles) and locally darkened midden soils containing some of the previously listed items plus fragments of bone and fire affected stones. Historic period site indicators generally include: fragments of glass, ceramic and metal objects; milled and split lumber; and structure and feature remains such as building foundations, privy pits, wells and dumps; and old trails. The Deputy Director for Water Rights shall be notified of the discovery and a professional archeologist shall be retained by the Permittee to evaluate the find and recommend appropriate mitigation measures. Proposed mitigation measures shall be submitted to the Deputy Director for Water Rights for approval. Project-related activities shall not resume within 100 feet of the find until all approved mitigation measures have been completed to the satisfaction of the Deputy Director for Water Rights.

(0000215)

23. Permittee shall install and maintain devices satisfactory to the State Water Board to measure the instantaneous rate of diversion, the amounts of water diverted each day, and the cumulative quantity of water diverted under this permit. Permittee shall make daily readings of these measuring devices and record these readings. Records of all such measurements shall be maintained by the Permittee, and made available to interested parties upon reasonable request. Permittee also shall, subject to any applicable Homeland Security restrictions, post such records on a publicly accessible website within 48 hours after the measurements are made. Copies of the records shall be submitted to the State Water Board with the annual "Progress Report by Permittee" and Permittee shall submit copies of these records to the CDFG each year when these records are submitted to the State Water Board.

Permittee shall allow the CDFG, or a designated representative, reasonable access to measuring devices for the purpose of verifying measurement readings.

Although water may be diverted by both Permittee and Reclamation District 2035 ("RD 2035") at the same intake facility on the Sacramento River, the water pumped by Permittee and the water pumped by RD 2035 must be pumped through separate pumps and pipes, with separate meters, and may not be commingled after pumping.

(000000R)

24. The right to divert water under this permit is junior in priority to the following prior rights:
- a. City of Sacramento under any valid pre-1914 appropriative right and appropriation issued pursuant to Permits 992, 11358, 11359, 11360 and 11361 (Applications 1743, 12140, 12321, 12622, and 16060);
 - b. Conaway Preservation Group, LLC under any valid riparian rights and Licenses 904, 905, and 5487 (Application 1199, 1588 and 12073);
 - c. Reclamation District No. 2068 to divert water under Licenses 6103 and 9339 (Applications 2318 and 19229), and Permit 19205 (Application 24961);

- d. Reclamation District No. 1004 under any valid riparian rights and License 3165 (Applications 27), and Permit 16771 (Application 23201);
 - e. Reclamation District No. 108 under any valid riparian rights, Licenses 3065, 3066, 3067 and 7060 (Applications 576, 763, 1589 and 11899);
 - f. Pelger Mutual Water Company under Licenses 613A and 8547 (Applications 1765A and 12470);
 - g. Natomas Central Mutual Water Company under any valid riparian rights, Licenses 1050, 2814, 3109, 3110, 9794, and 9989 (Applications 534, 1056, 1203, 1413, 15572 and 22309), Permit 19400 (Application 25727); and
 - h. Sutter Mutual Water Company, under any valid riparian rights and Licenses 547, 552, 657, 882, 1110, 2240, 2817, 2818, 2819, 2820A, 2821, 2822, 2823, 4562, 5432, 8220 and 8547 (Applications 1769, 1758, 1772, 3195, 1763, 7886, 581, 878, 879, 880A, 9760, 1160, 10658, 11953, 14584, 16677, and 12470).
- (000000T)
25. No water shall be diverted under this permit until Permittee obtains a long-term water supply covering those periods when water is not available for diversion pursuant to this permit. Permittee shall submit documentation subject to review and approval by the Deputy Director for Water Rights that an alternate water supply has been secured for the development period under this permit. The alternate water supply must be equivalent to the diversion quantities scheduled for use under this permit.
- (0360900)
26. To minimize potential impacts on drainage and floodplains, Permittee shall:
- a. Prior to construction, obtain a 401 Certification issued by the State Water Board or the Regional Water Quality Control Board and provide a copy of the 401 Certification to the Division. Permittee shall also consult with the CDFG regarding the proposed upland sites where spoil material from trenching will be stockpiled. After making this consultation, Permittee shall provide the CDFG with a map of these proposed sites and Permittee's proposed conditions for using these sites.
 - b. Test any trench and tunnel spoils that are stockpiled at any upland site before replacement back into any excavated area or transportation to offsite disposal. Spoils containing high volumes of water shall be detained and allowed to settle at an upland site to reduce turbidity before the spoils are tested. If any such spoils are found to be contaminated by lubrication or hydraulic fluids, then such spoils will be collected and disposed of at a permitted waste disposal facility.
- (0400500)
27. To minimize potential impacts on agriculture, Permittee shall:
- a. Install the water conveyance pipeline and transmission pipelines at a depth (to the top of the pipe) ranging from four to seven feet below the ground surface. Installation at this depth should be sufficient to avoid conflict with expected agricultural production activities. Final depths shall be established in consultation with an agricultural specialist and landowners to ensure no conflict with future agricultural practices.

- b. Establish permanent Prime Farmland agricultural conservation easement at a ratio of 2:1 for the acreage of Prime Farmland that would be permanently displaced with Project development.

(0400500)

28. Permittee shall prepare and implement a Stormwater Pollution Prevention Plan (SWPPP), acceptable to the Central Valley Regional Water Quality Control Board, for all Project construction activities, including:

- a. Conduct all instream construction activities during the low-flow period of May 30 through October 15.
- b. Place sediment curtains around the construction or maintenance zone to prevent sediment disturbed during trenching activities from being transported and deposited outside of the construction zone.
- c. Install silt fencing, including appropriate setbacks, where feasible, in all areas where construction occurs within 100 feet of known or potential steelhead habitat. Silt fencing will be installed adjacent to all aquatic habitat.
- d. Isolate fresh concrete from wetted channels for a period of 30 days after it is poured. If a 30-day curing period is not feasible, a concrete sealant approved for use in fisheries habitat may be applied to the surfaces of the concrete structure. If a sealant is used, the manufacturer's guidelines for drying times will be followed before reestablishing surface flows within the work area.
- e. Locate spoil sites (concrete wash areas) so as to prevent drainage into the Sacramento River. If a spoil site drains toward the Sacramento River, then lined catch basins will be constructed to intercept sediment before it reaches the channel and removal of spoils will be conducted daily during routine maintenance of work sites. Spoil sites will be graded to reduce the potential for erosion.
- f. Not leave disturbed surfaces without erosion control measures (consistent with the SWPPP) in place during the wet season from October 15 through April 30. Erosion protection shall be provided on all cut and graded slopes and vegetative cover shall be established on each construction site as soon as possible after disturbance of the site.

(0400500)

29. The permit shall include the following mitigation measures based on the Mitigation Monitoring Plan from the Water Supply EIR and on the protest-dismissal agreement executed by WDCWA and CDFG. All certifications or reports necessary for approval by the Deputy Director for Water Rights shall be submitted together in one report prior to construction activities. The report shall also include the status of those measures that require approval by other agencies.

(0400500)

30. No water shall be diverted under this permit except through a fish screen on the intake to the diversion structure, satisfactory to meet the physical and operational specifications of the CDFG, USFWS, and NMFS, as specified at the time the last permit for construction is issued, to protect species of fish listed as endangered or threatened species under the California Endangered Species Act (Fish and Game Code sections 2050 to 2098) or the federal Endangered Species Act (16 U.S.C. sections 1531 to 1544). Construction, operation, and maintenance costs of the required facility are the responsibility of the Permittee.

(0140500)

31. To minimize potential impacts on biological resources, Permittee shall:
- a. Prior to construction, evaluate impacts to trees within the City of Davis city limits and submit the evaluation to the City and Deputy Director for Water Rights for review. If deemed necessary by the City, Permittee shall apply for a permit and abide by any permit requirements for tree pruning or removal. In addition, sensitive habitats and wildlife shall be identified and protected for projects within the City of Davis, under the HAB 1.1 policy.
 - b. Conform project design, construction, and operation plans with, to the greatest extent possible, biological conservation goals fundamental to the ongoing Yolo County NCCP/HCP development process.
 - c. In consultation with CDFG, prepare and implement a Revegetation Program Plan that provides for the establishment and ongoing maintenance of native riparian species in all disturbed bank-side construction areas.
 - d. Conduct site preparation and installation of the sheet pile cofferdam during the summer and fall. A pre-construction Giant Garter snake (GGS) survey shall be conducted at the intake site prior to any cofferdam staging activity. The GGS survey shall be conducted by a qualified biologist acceptable to the Deputy Director for Water Rights in accordance with USFWS survey protocols, and findings shall be reported to CDFG, USFWS and the Division. As appropriate, follow-up inspections for presence of giant garter snakes shall be conducted within 24 hours of initiating activity.
 - e. Offset the permanent loss of 0.1 acres of channel margin habitat or shallow water habitat because of installation of the diversion/intake facility, by purchasing off-site mitigation habitat in a ratio agreeable to CDFG, the Deputy Director for Water Rights and other agencies consulted. Permittee will work in consultation with CDFG, USFWS and NMFS to characterize functionally equivalent habitat for channel margin loss, and to identify the appropriate ratio of in-kind riparian corridor habitat suitable for use by wildlife species known to reside within two river miles of the intake construction site.
 - f. During installation of a cofferdam and dewatering, ensure that a qualified fisheries biologist, acceptable to the Deputy Director for Water Rights, will design and conduct a fish rescue and relocation effort to collect fish from the area within the cofferdam and return those fish to suitable habitat within the Sacramento River. To ensure compliance, the fisheries biologist will observe the initial dewatering activities within the cofferdam. The fish rescue plan will be provided for review and comment to NMFS, USFWS, CDFG and the Division prior to implementation. The success of this dewatering measure will be the effective capture and removal of fish from the area to be dewatered with a minimum of capture and handling mortality for those fish returned to the Sacramento River.
 - g. Install sheet piles and beams during construction of the cofferdam for the intake structure using a vibrating method. Prior to pile driving by any technique other than the vibrating method, Permittee will provide to CDFG, and the Deputy Director for Water Rights, a scientifically supported analysis to demonstrate that effects of the method will be limited to thresholds below that which could create sound pressure injury to juvenile salmonids in the vicinity.
- (0400500)
32. In order to prevent impacts to special status plant species (Alkali milk-vetch, brittlescale, San Joaquin spearscale (saltbrush), palmate-bracted bird's beak, Heckard's peppergrass, Ferris milk-vetch, heartscale, rose mallow, Sanford's arrowhead, and Brazilian watermeal), Permittee shall:

- a. Perform a pre-construction survey for rare plants at the selected diversion/intake site and conveyance pipeline route. The survey shall be conducted by a qualified botanist acceptable to the Deputy Director for Water Rights during the appropriate season for identification, according to California Native Plant Society Botanical Survey Guidelines, included in Appendix C2 of the Water Supply EIR. Data shall be compiled and reported to CDFG and the Deputy Director for Water Rights before initiating any construction.
 - b. Identify populations of palmate-bracted bird's beak that would be directly affected by project construction. Temporary preservation fencing shall be installed to protect individuals, and fencing shall provide a minimum 25-foot distance exclusion area. Indirect effects due to changes in hydrology or other ecological requirements for this species shall be evaluated and modifications to the project design/construction shall be incorporated to minimize indirect effects to palmate-bracted bird's beak.
 - c. Avoid specimens as feasible, or identify and protect with orange fencing, individual Ferris's milk-vetch, alkali milk-vetch, heartscale, brittlescale, San Joaquin saltbush, Heckard's peppergrass, rose-mallow, Sanford's arrowhead, Brazilian watermeal, or other special-status species without state or federal status that are detected within the proposed project area during the pre-construction survey, and notify CDFG. Where these sensitive plants cannot be avoided, additional mitigation measures shall be implemented by Permittee in consultation with CDFG, prior to construction. These measures may include, but are not limited to the following:
 - i. Minimizing impacts by restricting removal of plants to a few individuals of a relatively large population;
 - ii. Preparing a plan to relocate plants to suitable habitat outside the proposed Project area to a CDFG-approved site;
 - iii. Restoring or enhancing occupied habitat to an off-site location with appropriate ecological conditions to support the affected species.
 - iv. Locating the pipelines entirely underground and returning the ground surface to pre-project grade and contours.
 - v. Locating pipeline alignments shall be located according to paragraph 6 of the CDFG Protest Dismissal Agreement, dated October 29, 2009.
 - vi. Consulting with CDFG on constraints and opportunities for viable off-site habitat enhancement/creation for the species concerned and implement a plan for restoration and enhancement. The plan shall include a five-year monitoring and maintenance program to evaluate and support the establishment of the sensitive species, and shall include contingencies for additional recruitment, planting and monitoring, as necessary, if survivorship falls below 75%.
 - vii. Preserving occupied habitat for the species on-site or at another regional location.
- (0400500)
33. To prevent impacts to vernal pool and seasonal wetland species (Conservancy fairy shrimp, vernal pool fairy shrimp, vernal pool tadpole shrimp, California tiger salamander, and western spadefoot), Permittee shall:
- a. Prior to project construction, survey the selected diversion/intake pipeline corridor area and assess the potential to support vernal pool and seasonal wetlands. All vernal pools and wetlands within 250 feet of the selected diversion/intake pipeline corridor shall be included in the assessment.

- b. Undertake one of the following two actions for all vernal pool and seasonal wetland habitats identified during the wetland delineation:
 - i. Survey for presence or absence of vernal pool crustaceans according to USFWS survey protocol (in the February 28, 1996 Programmatic Formal Endangered Species Act Consultation on Issuance of 404 Permits for Projects with Relatively Small Effects on Listed Vernal Pool Crustaceans Within the Jurisdiction of the Sacramento Field Office, California, (see Appendix C2 of the Water Supply EIR), where those pools found to contain vernal pool crustaceans shall be mitigated by (c), (d), and (e) below. All other pools shall be mitigated at a 1:1 compensation ratio, or
 - ii. Assume that the vernal pool is occupied by vernal pool crustaceans and measures (c), (d), and (e) shall be implemented for all pools.
- c. Avoid completely all identified vernal pool and seasonal wetland habitats. The USFWS considers disturbance within 250 feet of all vernal pool wetlands to be an impact. Therefore, all wetlands shall be avoided by 250 feet and protected within that buffer. Protective measures may consist of temporary fencing such as silt fencing and plastic construction fencing. Also, best management practices (BMPs) and Stormwater Pollution Prevention Plan methods shall be implemented during construction to avoid indirect water quality impacts to wetlands. These pools shall be considered "avoided" and no further mitigation is necessary.
- d. If impacts to vernal pool and seasonal wetlands cannot be avoided but can be protected from direct fill or ground disturbance, the wetlands shall be identified and protected using temporary fencing, which shall take the form of silt fencing and temporary plastic construction fencing placed no closer than 25 feet from the edge of the pool. The distance between the pool and protective fencing shall be maximized wherever possible. These pools will be considered as "indirectly affected" by project activities and shall be mitigated in accordance with the February 28, 1996 Programmatic Formal Endangered Species Act Consultation on Issuance of 404 Permits for Projects with Relatively Small Effects on Listed Vernal Pool Crustaceans Within the Jurisdiction of the Sacramento Field Office, California (see Appendix C2 of the Water Supply EIR). Some pools may be considered avoided if it can be shown that the proposed project activity would not adversely impact their surface and subsurface hydrology. This shall be considered on a case-by-case basis by a qualified biologist and hydrologist acceptable to the Deputy Director for Water Rights.
- e. Calculate the area of impacts for pools that will be directly impacted by project activities. For the purpose of this calculation, any portion of a pool that is directly impacted by project activities would result in the entire pool being identified as being permanently impacted. Impacted pools shall then be mitigated in accordance with the February 28, 1996 Programmatic Formal Endangered Species Act Consultation on Issuance of 404 Permits for Projects with Relatively Small Effects on Listed Vernal Pool Crustaceans within the Jurisdiction of the Sacramento Field Office, California (see Appendix C2 of the Water Supply EIR).
- f. Conduct a pre-construction survey of the selected diversion/intake pipeline corridor area to assess the potential to support vernal pool and seasonal wetlands which may support California tiger salamander (CTS) and western spadefoot. The survey shall include the entire project footprint and all areas within 1.24 miles of proposed project activities (where site access allows) for the presence of CTS using the protocol provided in the October 2003 Interim Guidance on Site Assessment and Field Surveys for Determining Presence or a Negative Finding of the California Tiger Salamander (see Appendix C2 of the Water Supply EIR). Should CTS be detected in the area, all ground squirrel burrows and vernal pools shall be mapped within 1.24 miles of the project, and all vernal pool areas shall be calculated within this area.

- g. Identify vernal pools and burrows that can be protected from project activities and protect these sites from disturbance using temporary fencing. Temporary fencing shall take the form of silt fencing and temporary plastic construction fencing placed no closer than 25 feet from the edge of the habitat. The distance between the habitat and protective fencing shall be maximized wherever possible. Protective fencing around vernal pools identified as potential habitat for special-status amphibians shall be constructed in a way that allows CTS and western spadefoot to access these wetlands.
- h. Quantify impacts to vernal pools and occupied CTS burrows, impacted vernal pools and burrow habitat and mitigate and compensate in accordance with (c) above. Burrows that cannot be avoided shall be excavated by a biologist approved by USFWS and the Deputy Director for Water Rights prior to construction using hand tools. Excavated CTS shall be relocated off the project site to a USFWS-approved site.

(0400500)

34. To prevent impacts to valley elderberry longhorn beetle, Permittee shall:

- a. Survey the selected diversion/intake pipeline corridor area prior to construction for the presence of elderberry shrubs. The survey shall be conducted according to USFWS's July 9, 1999 Conservation Guidelines for Valley Elderberry Longhorn Beetle (see Appendix C2 of the Water Supply EIR). The survey may be conducted concurrently with the rare plant surveys.
- b. Avoid identified elderberry shrubs by a minimum of 100 feet during construction of the diversion/intake pipeline corridor. If complete avoidance is not feasible, USFWS shall be consulted regarding impacts to valley elderberry longhorn beetle. Compensation for disturbance within 100 feet of shrubs will be implemented in a manner approved by USFWS, CDFG, and the Deputy Director for Water Rights, and may include transplanting elderberry shrubs into a conservation area for valley elderberry longhorn beetle. The conservation area must be at least 1,800 square feet and should be planted with five additional elderberry plants plus five native associated plants for every one transplanted/impacted elderberry shrub. Refer to USFWS's July 9, 1999 Conservation Guidelines for Valley Elderberry Longhorn Beetle (see Appendix C2 of the Water Supply EIR), for details.

(0400500)

35. To prevent impacts to giant garter snake and western pond turtle, Permittee shall:

- a. Conduct a pre-construction survey of the selected diversion/intake and pipeline siting option for giant garter snake habitat suitability within one year of anticipated construction. The survey area shall include up to 200 feet of upland habitat surrounding potential aquatic habitat for giant garter snake according to the USFWS November 13, 1997 programmatic biological opinion for giant garter snake. Habitat assessments shall follow CDFG guidelines Appendix D: Protocols for Pre-Project Surveys to Determine Presence or Absence for the Giant Garter Snake and to Evaluate Habitats, as cited in the USFWS Draft Recovery Plan for the Giant Garter Snake (see Appendix C2 of the Water Supply EIR).
- b. If suitable giant garter snake habitat is present, implement the following mitigation measures in accordance with the USFWS programmatic biological opinion for giant garter snake which pertain to Level 3 impacts.
 - i. Construction activity within giant garter snake habitat shall occur between May 1 and October 1, which is the active period for the snake. Between October 2 and April 30, the USFWS Sacramento Fish and Wildlife Office and CDFG, North Central Region, shall be consulted to determine if additional measures are necessary to minimize and avoid take. Such measures might include, but are not limited to, requiring a biological monitor on site during construction within giant garter snake habitat.

- ii. Any dewatered habitat must remain dry for at least 15 consecutive days after April 15 and prior to excavating or filling of the dewatered habitat.
- iii. Construction personnel shall participate in a USFWS-approved worker environmental awareness program. Under this program, workers shall be informed about the presence of giant garter snakes and habitat associated with the species and that unlawful take of the animal or destruction of its habitat is a violation of the Act. Prior to construction activities, a qualified biologist approved by the USFWS and the Deputy Director for Water Rights shall instruct all construction personnel about giant garter snake as directed in the USFWS programmatic biological opinion for giant garter snake. Proof of this instruction shall be submitted to the USFWS, Sacramento Fish and Wildlife Office, CDFG, North Central Region and the Deputy Director for Water Rights.
- iv. Pre-construction surveys for the giant garter snake shall be conducted by a biologist approved by USFWS and the Deputy Director for Water Rights within 24 hours prior to ground disturbance. Giant garter snake encounters and field reports shall be addressed per the USFWS programmatic biological opinion for giant garter snake.
- v. Clearing of wetland vegetation will be confined to the minimal area necessary to excavate toe of bank for riprap or fill placement. Excavation of channel for removal of accumulated sediments will be accomplished by using equipment located on and operated from top of bank, with the least interference practical for emergent vegetation.
- vi. Movement of heavy equipment to and from the project site shall be restricted to established roadways to minimize habitat disturbance.
- vii. Preserved giant garter snake habitat shall be designated as environmentally sensitive areas and shall be flagged by a qualified biologist approved by CDFG, USFWS and the Deputy Director for Water Rights and shall be avoided by all construction personnel.
- viii. After completion of construction activities, any temporary fill and construction debris shall be removed and, wherever feasible, disturbed areas shall be restored to pre-project conditions. Restoration work may include replanting emergent vegetation as directed in the USFWS programmatic biological opinion for giant garter snake.
- ix. Impacts to giant garter snake habitat shall be mitigated in accordance with USFWS mitigation compensation ratios, based on described levels of impact in the programmatic biological opinion. More than two season duration and temporary or permanent losses of habitat shall be compensated at 3:1 or the ratios described in Table 1 on page 7 of the USFWS November 13, 1997 programmatic biological opinion for giant garter snake (see Appendix C2 of the Water Supply EIR) and shall meet the criteria listed in the USFWS programmatic biological opinion for giant garter snake.
- x. All wetland and upland acres created and provided for the giant garter snake shall be protected in perpetuity by a USFWS-approved conservation easement or similarly protective covenants in the deed and comply with provisions in the USFWS programmatic biological opinion for giant garter snake. Documentation of such land preservation shall be provided to CDFG and the Deputy Director for Water Rights.
- xi. The Reporting Requirements shall be fulfilled in compliance with the USFWS programmatic biological opinion for giant garter snake and the reports shall be submitted to the USFWS, CDFG and the Deputy Director for Water Rights.
- xii. Replacement of affected giant garter snake habitat shall be made at a 3:1 ratio.

- xiii. All replacement habitats must include both upland and aquatic habitat components. Upland and aquatic habitat components must be included in the replacement habitat at a ratio of 2:1 upland acres to aquatic acres.
- xiv. If restoration of habitat is a component of the replacement habitat, conduct one year of monitoring restored habitat and submit a photo documentation report, due one year from implementation of the restoration, with pre- and post-project area photos.
- xv. Conduct five years of monitoring replacement habitat and submit a photo documentation report each year to CDFG, USFWS and the Division.

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36. To prevent impacts to Swainson's hawk, Permittee shall:

- a. Conduct a pre-construction breeding-season survey (between March 1 and September 15) in the year when construction is scheduled to commence. The survey will be conducted by a qualified biologist, acceptable to CDFG and the Deputy Director for Water Rights, and according to the Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley, prepared by the Swainson's Hawk Technical Advisory Committee, dated May 31, 2000, (see Appendix C2 of the Water Supply EIR). The survey area shall include all lands with a one quarter-mile radius around any Project construction activities scheduled to occur during that breeding season. If any nesting Swainson's hawks are detected, Permittee shall establish a buffer zone of one-quarter mile around the nest site, within which there will be no construction unless one of the following has occurred:
 - i. Based on ongoing monitoring of the nest site by a qualified biologist, and subsequent consultation with the CDFG, it is determined by the CDFG that work can occur within the buffer zone, along with the conditions under which such work may be carried out. Depending on conditions specific to each nest, it may be possible to allow construction activities within the buffer zone without impacting breeding behavior. In these cases, the nest will be monitored by a qualified biologist acceptable to CDFG. The monitor will have all stop authority. If, in the professional opinion of the monitor, project activities are negatively affecting the nesting or breeding behavior of the birds, then the monitor shall stop all construction activity within the designated buffer zone, and construction activities within this designated buffer zone shall not resume until either the monitor has determined that the young have fledged and the nest is empty or as otherwise approved by CDFG; or,
 - ii. Monitoring has demonstrated, and CDFG has concurred, that adults are no longer utilizing the nest area and/or birds of the year have fully fledged.
- b. Mitigate for permanent loss of Swainson's hawk foraging habitat associated with the construction of the Water Treatment Plant facility. Compensation shall follow guidance in the May 2, 2002 Agreement Regarding Mitigation for Impacts to Swainson's Hawk Foraging Habitat in Yolo County entered into between CDFG and the Yolo County HCP/NCCP Joint Powers Agency (Habitat JPA), with the mitigation fee increase described in the January 26, 2004 staff report regarding this agreement. This agreement requires that:
 - i. Permittee shall pay an acreage-based mitigation fee into the Wildlife Mitigation Trust Account established by the Habitat JPA in an amount, as determined by the Habitat JPA Board, sufficient to fund the acquisition, enhancement and long-term management of one (1) acre of Swainson's hawk foraging habitat for every one (1) acre of foraging habitat that is lost to urban development.

- ii. A calculated fee of \$5,800.00 per acre is sufficient to fund the acquisition and preservation as of January 2004. This fee amount may be adjusted to reflect updated costs for acquisition of habitat.
- iii. With written approval of and subject to conditions determined by CDFG, an urban development Permittee may transfer fee simple title or a conservation easement over Swainson's hawk foraging habitat, along with appropriate enhancement and management funds, in lieu of paying the acreage-based mitigation fee.

(0400500)

37. To prevent impacts to western yellow-billed cuckoo, Cooper's hawk, white-tailed kite, yellow warbler, loggerhead shrike, northern harrier and short-eared owl, Permittee shall:

- a. Implement measures 36a. and 36b. above for Swainson's hawk, and apply them to western yellow-billed cuckoo. Apply these measures, but modify survey area to include 500 feet around the construction activities, and modify buffer areas to include 500 feet around any Cooper's hawk, white-tailed kite, yellow warbler or loggerhead shrike nest.
- b. Implement measure 36a. and 36b. above for Swainson's hawk and apply them to northern harrier and short-eared owl, but modify survey area to include 500 feet around the construction activities; and modify buffer areas to include 500 feet around a nest.

(0400500)

38. To prevent impacts to burrowing owl, Permittee shall:

- a. Survey the entire route of the chosen siting diversion/intake pipeline corridor and Water Treatment Plant (WTP) footprint for burrowing owls according to the October 17, 1995 CDFG Staff Report on Burrowing Owl Mitigation (see Appendix C2 of the Water Supply EIR), which includes survey guidelines for burrowing owl. The surveys must be conducted prior to project construction and shall be conducted by a qualified biologist acceptable to the Deputy Director for Water Rights. Data shall be compiled and reported to CDFG before initiating any construction activities. The guidelines include the following:
 - i. Conduct a winter survey (to be conducted between December 1 and January 31) and a survey during the breeding season (to be conducted April 15 to July 15).
 - ii. Conduct the survey beginning one hour before sunrise and two hours after, OR two hours before sunset and one hour after.
 - iii. The survey area shall include suitable habitat within a 500-foot radius around the Project construction zone.
- b. If occupied burrows are identified, implement the measures included in the October 17, 1995 CDFG Staff Report on Burrowing Owl Mitigation (see Appendix C2 of the Water Supply EIR). These include but are not limited to the following measures:
 - i. Owls shall not be disturbed from February 1 through August 31. Establish an avoidance buffer of 160 feet (September 1 through January 31) or 250 feet (February 1 through August 31) and monitor the nest burrow during construction activity. Any indication of impacts to the breeding pair as a result of construction shall be reported to CDFG whereby CDFG may have the authority to halt construction until the young have fledged from the nest.

- ii. If impacts to owls cannot be avoided, then CDFG shall be consulted on minimization measures such as using passive relocation techniques during the non-breeding season (September 1 through January 31).
 - iii. A minimum of 6.5 acres of foraging habitat must be preserved for every occupied burrow potentially impacted (within 160 feet or 250 feet of the construction activity, depending on the season). Foraging habitat shall be preserved according to CDFG guidelines.
(0400500)
39. To prevent impacts to tricolored blackbird, white-faced ibis, western snowy plover, and bank swallow, Permittee shall implement measures 36a. and 36b. above for Swainson's hawk and apply them to the above-listed species, but modify survey area to include 500 feet around the construction activities; and modify buffer areas to include 500 feet around nesting colonies/locations.
(0400500)
40. To prevent impacts to riparian habitat or other sensitive natural communities, Permittee shall:
- a. Prior to construction, conduct an assessment within the project area to provide the basis of a vegetation mitigation plan. A vegetation mitigation plan will be developed in consultation with CDFG and the Deputy Director for Water Rights. The plan shall contain species expected to be found in the vicinity of project sites. Details about the species and their past occurrence shall be included in the plan. Permittee shall comply with all terms and conditions of the plan, including additional mitigation provisions to be implemented. Permittee will follow performance standards in developing the plan. The requirements will consist of one or more of the following provisions:
 - i. Establish an oak tree conservation easement in coordination with Yolo County to protect and preserve trees commensurate with the removal of large oaks as a result of project implementation.
 - ii. Replace and maintain trees, for seven years, at a rate of 1 tree per 1-inch of tree diameter removed as measured at diameter breast height. Because this measure would only fulfill one-half of the required mitigation for the project, one or more of the other provisions would need to be implemented to fulfill the remaining mitigation requirements.
 - iii. Contribute funds to a suitable oak woodland conservation fund, as established in accordance with § 1363 of the Fish and Game Code.
 - iv. Consult with Yolo County and CDFG to determine and agree to implement other suitable measures consistent with the Yolo County Oak Woodland Conservation and Enhancement Plan 2007 and § 21083.4(a) of the California Public Resources Code.
 - b. For any drainage that would be crossed using trenchless construction techniques, the bore pits will be excavated at least 50 feet outside the edge of riparian vegetation to minimize impacts to waterways and adjacent areas.
 - c. All new project-related groundwater wells within water sellers' service areas shall be sited in areas that are not within 0.25 mile of wetlands and other sensitive biological resources that could be affected by groundwater drawdown.
(0400500)

41. To prevent impacts to federally protected wetlands, Permittee shall:
- a. Prior to construction, conduct and submit for approval a formal wetland delineation report for the proposed Project area for verification through the ACOE. Permittee shall obtain a Section 404 (Clean Water Act) permit for impacts to jurisdictional wetlands from the ACOE and a Section 401 water quality certification from the Regional Water Quality Control Board or State Water Board and shall comply with all conditions of the permit and certification. In association with either the permit or certification, compensatory mitigation for impacts to jurisdictional wetlands may be required. ACOE mitigation guidelines emphasize on-site mitigation preference, but in the potential case that on-site mitigation is not available, Permittees shall either purchase wetland mitigation credits from an ACOE - approved mitigation bank that services the area containing the proposed project or prepare a plan to implement mitigation at an off-site location.
 - b. For open trench construction crossing minor wetland ditches (less than 15 feet in width), the following measures shall be implemented:
 - i. Implement compliance measures, described in Section 3.7, Geology, Soils, and Seismicity for Impact 3.7-1, to reduce indirect impacts to wetlands and other waters during open trench construction;
 - ii. Conduct trenching and construction activities across drainages during low-flow or dry periods as feasible;
 - iii. If working in active channels, install cofferdam upstream and downstream of stream crossing to separate construction area from flowing waterway;
 - iv. Place sediment curtains upstream and downstream of the construction zone to prevent sediment disturbed during trenching activities from being transported and deposited outside of the construction zone;
 - v. Locate spoil sites such that they do not drain directly into the drainages and/or seasonal wetlands;
 - vi. Store equipment and materials away from the drainages and wetland areas. No debris will be deposited within 250 feet of the drainages and wetland areas.
 - vii. Prepare and submit to CDFG and the Deputy Director for Water Rights for approval, a revegetation implementation plan to restore vegetation in all temporarily disturbed wetlands and other waters using native species seed mixes and container plant material that are appropriate for existing hydrological conditions. All disturbed drainages will be restored to pre-construction conditions
- (0400500)
42. In addition to reporting required prior to construction activities, Permittee shall prepare and submit to the Deputy Director for Water Rights annual reports that include the status of compliance with the mitigations and monitoring required by Terms 30-41 above. Annual reports shall be submitted by October 1 of each year.
- (0400500)

This permit is issued and permittee takes it subject to the following provisions of the Water Code:

Section 1390. A permit shall be effective for such time as the water actually appropriated under it is used for a useful and beneficial purpose in conformity with this division (of the Water Code), but no longer.

Section 1391. Every permit shall include the enumeration of conditions therein which in substance shall include all of the provisions of this article and the statement that any appropriator of water to whom a permit is issued takes it subject to the conditions therein expressed.

Section 1392. Every permittee, if he accepts a permit, does so under the conditions precedent that no value whatsoever in excess of the actual amount paid to the State therefore shall at any time be assigned to or claimed for any permit granted or issued under the provisions of this division (of the Water Code), or for any rights granted or acquired under the provisions of this division (of the Water Code), in respect to the regulation by any competent public authority of the services or the price of the services to be rendered by any permittee or by the holder of any rights granted or acquired under the provisions of this division (of the Water Code) or in respect to any valuation for purposes of sale to or purchase, whether through condemnation proceedings or otherwise, by the State or any city, county, municipal water district, irrigation district, lighting district, or any political subdivision of the State, of the rights and property of any permittee, or the possessor of any rights granted, issued, or acquired under the provisions of this division (of the Water Code).

STATE WATER RESOURCES CONTROL BOARD

for James W. Kassel
Barbara Evoy, Deputy Director
Division of Water Rights

Dated: APR 14 2011