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February 16, 2006

Peter Brundage
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Sacramento LAFCo
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Re: Draft Environmental Impact Report, Amendment of the Sphere of Influence for the Sacramento Municipal Utility District (SMUD) and Annexation by SMUD of the Cities of West Sacramento, Davis, and Woodland and Portions of Unincorporated Areas of Yolo County

Dear Mr. Brundage:

This letter contains my comments on the January 2006 Draft Environmental Impact Report ("DEIR") for the proposed Amendment of the Sphere of Influence for the Sacramento Municipal Utility District (SMUD) and Annexation by SMUD of the Cities of West Sacramento, Davis, and Woodland and Portions of Unincorporated Areas of Yolo County. I am submitting these comments on behalf of the Coalition of California Utility Employees ("CUE").

I am a professional environmental biologist and have been working in this field for 20 years, including 8 years as an environmental consultant in the private sector, and 12 years in the public sector (California Department of Transportation and US Fish and Wildlife Service: "USFWS"). During my ten years with the USFWS, I reviewed and commented on numerous Environmental Impact Reports and Environmental Impact Statements. I am currently the principal of Berryman Ecological. I have a B.S. in zoology from the University of California, Santa Barbara, and an M.A. in biology from San Diego State University.

I have reviewed the DEIR regarding its analysis of potential biological impacts. Based upon my expertise and experience in this area, I have the following comments.

Best Management Practice 2: Biological Resource Avoidance

Table I-1 of the DEIR indicates that impacts to biological resources will be less than significant with implementation of "BMP-2: Biological Resource Avoidance" [1]. The term "avoidance", when applied to biological resource impact analyses, typically indicates that a project is designed to prevent impacts to resources. The use of this term is misleading for BMP-2, which requires avoidance of rare plants or sensitive habitat *where feasible* but stipulates that unavoidable impacts will be mitigated[2].

[1] DEIR at p. I-5
[2] DEIR at p. II-21, II-22

BMP 2 relies on preconstruction surveys for special status species to determine whether impacts should be mitigated[3]. The preconstruction survey requirements in BMP 2 are not sufficient to determine presence or absence of many special status species, such as annual plants that are only observable several months out of the year and do not germinate every year. Preconstruction surveys should not be relied upon to determine whether special status species are present. Instead, the DEIR should require special status plant species surveys consistent with California Department of Fish and Game ("CDFG") protocol prior to impacting habitats typically supporting special status plant species. For special status animal species, the DEIR should assume presence in suitable habitat unless surveys consistent with CDFG and/or USFWS protocol determine otherwise. Impacts to habitat for special status species should then be mitigated accordingly.

The DEIR defers formulation of mitigation measures until coordination with CDFG, USFWS, and/or ACOE have taken place. BMP 2 states that if special status species are affected, then CDFG or USFWS will be contacted and mitigation will be negotiated with these agencies[4]. Similarly, the DEIR states that any impacts to wetlands will be mitigated as determined in the future in partnership with the US Army Corps of Engineers (USACE)[5]. As stated in California Environmental Quality Act (CEQA), Article 9, §15126.4, formulation of mitigation measures should not be deferred until some future time. An EIR may, however, specify performance standards which would mitigate the significant effect of the project and which may be accomplished in more than one specified way. If the DEIR must defer mitigation because of its programmatic nature, it should establish performance standards for the specific desired future conditions, and provide a range of options from which SMUD can choose to achieve each performance standard.

The DEIR should formulate impact avoidance and mitigation measures for specific special status species and habitat types based upon existing local, state, and federal standards and guidelines. BMP 2 describes standard mitigation measures and guidelines that have been established by CDFG for burrowing owls and Swainson's hawks, but standard avoidance and mitigation measures are also available for other biological resources that may be impacted by the program. For example, USFWS has established impact avoidance and minimization guidelines and programmatic conservation ratios for small levels of impact to giant garter snake, valley elderberry longhorn beetle, and federally listed vernal pool crustaceans. The DEIR should provide these standard measures for species and habitats, when available, among the range of avoidance and mitigation options from which SMUD can choose to achieve performance standards for each species.

Another problem related to deferring mitigation measures until they can be determined in coordination with CDFG and USFWS is that only a fraction of the special-status species identified as potentially impacted are state or federally listed. Due to staffing and workload constraints, the regulatory personnel at the wildlife agencies are rarely able to be involved in activities that are not legally mandated. While CDFG and USFWS are required to address

[3] DEIR at p. II-21
[4] DEIR at p. II-22
[5] *Ibid.*

state and federally listed species through the California Endangered Species Act ("CESA") and Federal Endangered Species Act ("FESA"), respectively, they are not mandated to coordinate with project applicants to develop mitigation measures for unlisted species except in the context of multiple species Habitat Conservation Plans in which applicants request coverage of unlisted species.

BMP 2 does not provide measures to address take of state or federally listed species. The program potentially results in take of a number of listed species, including but not necessarily limited to valley elderberry longhorn beetle, giant garter snake, palmate-bracted bird's beak, and listed vernal pool crustaceans. Any activity that results in take of federally listed wildlife species is prohibited under section 9 of FESA unless take has been authorized pursuant to section 7 or 10 of FESA. Similarly, take of state listed plant or wildlife species must be authorized under section 2081 or 2080.1 of California Fish and Game Code.

Special Status Species Potentially Occurring in the Study Area

Section IV.D.1.d(2) of the DEIR should provide a more thorough assessment of the potential for various special status species to occur in the Study Area. The DEIR should provide a clear line of reasoning as to why some species were considered but then determined not likely to occur in the study area. The DEIR should assess the potential for each species to occur in the Study Area based on the best available information regarding the species' distribution, habitat requirements, dispersal capabilities, and other relevant factors.

Table IV.D-2 of the DEIR lists species evaluated for potential to occur in the Program Study Area[6]. This table indicates whether a species has "potential to occur" or is "not likely to occur". Many of the species in this table are designated as "not likely to occur", presumably because the Program Study Area does not support suitable habitat for these species. However, the DEIR does not provide explicit reasoning as to why each of these species is indicated as not likely to occur.

The DEIR states that the Woodland-Elverta transmission line study area contains all the vegetation communities described in Table IV.D-2[7]. Table IV. D-2 describes a number of vegetation communities that are not present in the Study Area. Did the authors intend to refer to Table IV.D-1? If so, Table IV.D-1 contains several wetland habitat types. The DEIR should clarify why and how it was determined that no jurisdictional wetlands were found within the program component area even though wetland vegetation communities are present.

A number of species are listed in Table IV.D-2 as having potential to occur, while the text indicates that there are no records for these species in the Study Area. These species include black rail, California tiger salamander, Aleutian Canada goose, American bittern, American peregrine falcon, Long-legged myotis bat, Yuma myotis bat, Ferruginous hawk, Greater sandhill crane, Lewis' woodpecker, Loggerhead shrike, Long-billed curlew, mid-valley fairy shrimp, northern harrier, northwestern pond turtle, Nuttall's woodpecker, oak titmouse, short-eared owl, tricolored blackbird, western spadefoot toad, white-faced ibis, Colusa grass, Sacramento Orcutt grass, slender Orcutt grass, alkali milkvetch, brittlescale, Mason's

[6] DEIR at pp. IV-46 through IV-59.
[7] DEIR at p. IV-76

lilaeopsis, Northern California black walnut, pincushion navarretia, recurved larkspur, Suisun marsh aster, Tuolumne button-celery, and bristly sedge.

Although there are no CNDDB records for any of these species in the Study Area, these species have varying degrees of potential for occurrence in the Study Area. Factors in addition to CNDDB records should be addressed in this section of the DEIR, such as presence of suitable habitat in the Study Area, known range of the species, the nearest known occurrence for each species, contiguity of habitat in the Study Area with habitat known to support the species, species detectability, and the species' dispersal capabilities.

Temporary Impacts

The DEIR states that a maximum of 12.4 acres would be temporarily impacted through the program, plus disturbance from future reconductoring in the Annexation Territory and operations and maintenance activities[8]. For special status species that use vernal pools and swales, grasslands, agricultural lands, marshes, riparian areas, and woodland, the DEIR indicates that temporary disturbances would impact a "relatively small area"[9]. The information provided in the DEIR does not support this conclusion since impacts potentially resulting from the reconductoring and operations and maintenance activities are not quantified or otherwise characterized in any way.

Temporary disturbances from operation and maintenance activities in the Study Area would potentially result in significant impacts to biological resources. For example, PG&E easements currently cross through important habitat areas in Yolo County, including alkaline grassland habitat supporting the state and federally listed palmate-bracted bird's beak. Potential conflicts exist between operation and maintenance activities within these utility easements and the need to protect populations of this rare species, including populations that are in conservation easements. Conflicts of this nature have generally not been addressed by PG&E in Yolo County because the ongoing operation and maintenance has not required CEQA actions that would raise these issues. The DEIR should address potentially significant impacts to palmate-bracted bird's beak and other special status species that may be affected by SMUD operations and maintenance activities. A possible measure to avoid impacts to critical populations of special status species would be to realign utility easements around these sensitive areas, or to replace underground lines with overhead lines to minimize the need for ground disturbance during line maintenance.

The DEIR addresses temporary impacts to a number of habitat types supporting species status species, but does not address potential temporary impacts to alkaline habitats supporting special status plant species such as palmate-bracted bird's beak, Ferris' milk-vetch, San Joaquin spearscale, and brittlescale. The DEIR acknowledges that alkaline habitats potentially supporting these species are present in the Study Area[10]. Since the DEIR does not show locations of existing or new utility easements that would need to be operated and maintained, the reader cannot assess the potential for alkaline habitats to be impacted by such activities. However, due to the high number of rare, narrow endemic plant species found in

[8] DEIR at p. IV-86
[9] DEIR at pp. IV-86, IV-88, and IV-90
[10] DEIR at pp. IV-71, IV-81, and IV-91

alkaline soils within the Study Area, potential temporary impacts to this alkaline habitat should be specifically addressed.

The DEIR states that temporary impacts to vernal pool habitat, grasslands, agricultural lands, marshes, riparian areas, and woodland are considered significant even though the document maintains that impacts would be relatively small. The DEIR then states that BMP 2 will ensure avoidance of adverse effects to these habitats and therefore the Program will have less than significant impacts[11]. BMP 2, however, neither ensures impact avoidance nor provides for mitigation to a level below significance. As discussed above, performance standards should be provided as well as either specific mitigation measures or a range of mitigation options that could be implemented to mitigate impacts. These should be provided for each habitat type supporting special status species.

At a minimum, the DEIR should require active restoration of temporarily disturbed habitats. The DEIR, as written, only specifies active restoration (i.e., replanting rather than allowing vegetation to establish on its own) for grassland habitat, and does not require active restoration for the other habitat types. Relying solely on passive restoration following disturbance increases the risk of invasive species entering the disturbed area, preventing establishment of native vegetation. Restoration should also include recontouring prior to planting, monitoring to ensure success criteria are met, and contingency measures to be implemented if success criteria are not met.

The DEIR states that vernal pools and marshes will recover on their own within one to four seasons after disturbance, grasslands will recover within one season, and woodlands will take a decade or more to recover[12]. The DEIR does not consider the impact to special status species that may result from temporal habitat loss during the recovery period. The DEIR also does not address the possibility that small, localized colonies of rare plant species could potentially be extirpated through temporary disturbances.

Permanent Loss of Habitat Used by Special-Status Species

The DEIR should provide more specific and detailed information regarding impacts to special status species that may result from permanent habitat loss. The document addresses impacts to habitat supporting special status species in general, and states that SMUD may mitigate habitat loss to a level below significance by in-kind replacement adjacent to program components, participation in the Natomas Basin Conservation Bank, or use of one or more conservation banks (Fitzgerald Conservation Bank, and Clay Station Conservation Bank), depending on the locations and type of habitat impacted by the program[13]. However, these conservation banks only cover specific habitat types (e.g., vernal pools) and particular special status species – they do not necessarily provide mitigation opportunities for all the sensitive biological resources that may be impacted by the program.

Furthermore, the program would result in impacts to some species at a greater level of significance than others due to the nature of the impact, the rarity of the species, and possibly

[11] DEIR at p. IV-86
[12] DEIR at p. IV-90
[13] DEIR at p. IV-91

other factors. Therefore, impact significance and mitigation measures should be addressed for each species and habitat type.

The DEIR states that although the land that will be used for the Willow Slough substation is largely in agriculture, its construction could impact several special-status plant species that inhabit alkali soils, including alkali milk vetch, brittlescale, and San Joaquin spearscale. The DEIR indicates that the total loss of habitat that could be used by these species would range from 2.8 to 4.8 acres, but that BMP 2 requires SMUD to mitigate for the loss of habitat that may be used by special status species to a level below significance. BMP 2 seems to only require mitigation if special status species are found during preconstruction surveys, but the preconstruction surveys are not sufficient to determine presence or absence of special status species.

Furthermore, in addition to the special status alkaline plant species mentioned in the DEIR as potentially impacted by the Willow Slough substation, there is potential for the state and federally endangered palmate-bracted bird's beak to occur in the proposed construction area for the Willow Slough substation. As described in the recovery plan for palmate-bracted bird's beak, the northernmost known population of this species occurs in the Willow Slough vicinity, and a very limited amount of habitat remains. This population may be genetically unique and require special management considerations for species recovery[14]. Permanent impacts to this species in the Willow Slough area are potentially significant, and adequate mitigation land may be difficult to acquire because of the limited distribution of this species.

Cumulative Impacts

Table I-2 of the DEIR indicates that the Program will result in significant and unavoidable cumulative impacts to biological resources, including (1) temporary impacts to special status species that use vernal pools and swales; (2) temporary impacts to special-status species that inhabit grasslands and agricultural lands; (3) temporary impacts to special status species that inhabit marsh, riparian areas, and woodlands; (4) permanent loss of habitat used by special status species; (5) loss of special status bird species from collisions with transmission lines; (6) impacts to sensitive natural communities; (7) impacts to wetlands; (8) interference with fish and wildlife movement; (9) conflict with local policies or ordinances; and (9) conflict with habitat conservation plans. Section IV.D.f of the DEIR states that the expected amount of growth in Sacramento, Yolo, Sutter, and western Placer Counties appears to be too great to successfully provide the same level of habitat supporting sensitive biological resources as existing today, and this appears to be the DEIR's sole reasoning for stating that all biological impacts identified will be cumulatively significant and unavoidable. The DEIR should provide reasoning for each biological impact identified, as the cumulative nature of the impact differs for each type of impact, and the measures that may be taken to avoid or mitigate cumulative impacts also differ for different types of impact (e.g., permanent habitat loss differs from transmission line collisions).

[14] USFWS 1998 at pp. 32- 36

The DEIR provides minimal measures to address cumulative biological impacts[15]. There are many feasible measures that can be implemented to avoid and minimize cumulative biological impacts that could result from the program.

The following are measures that could be implemented by SMUD to mitigate for cumulative temporary impacts to special-status species that use vernal pools and swales (Impact BIO-1a):

- Limit construction crews to the right-of-way and confine disturbances to as small an area as possible.
- All development shall avoid substantial adverse impacts on vernal pool habitats where feasible.
- To the extent possible, 250-foot setbacks should be established between construction or O&M activities and surrounding vernal pools.
- Avoid effects to vernal pools and swales at all construction sites, staging areas, borrow sites, and haul routes by fencing them with orange construction fencing. Construction fencing will be placed 250 feet from the edge of vernal pools, or at the edge of construction limits if pools are within 250 feet of construction. No vehicles or storage of equipment or supplies will be placed within the zone delineated by the construction fencing. Revegetate all construction sites, staging areas, borrow sites, and haul routes with native grasses and forbes.
- Prior to construction of a proposed project within a planning area where special status species may be impacted, SMUD shall prepare a biological assessment to evaluate potential effects on any special-status plant or wildlife species. If special-status species are known to occur or have the potential to occur, impacts shall be avoided to the extent feasible. Unavoidable impacts shall be mitigated to reduce impacts to the extent possible consistent with established CDFG or USFWS guidelines where available, or as determined by a qualified biologist. Where practicable, the qualified biologist shall coordinate with the wildlife agencies in developing appropriate mitigation measures.
- SMUD shall apply for and obtain a CWA 404 permit from the Corps and a streambed alteration agreement from CDFG for any activities deemed to require such permits from those agencies.
- If an activity requires a 404 permit from the ACOE, a determination as to whether the activity is likely to adversely affect federally listed species or critical habitat will be made by the Corps in consultation with the USFWS and/or NOAA Fisheries during the permitting process. If consultation results in a determination that the Proposed Project may result in the take of listed species, take authorization pursuant to Section 7 of FESA will be required.
- If initial biological assessments for a proposed activity determine the presence or potential presence of a federally listed species and no 404 permit is required, SMUD shall coordinate directly with the USFWS for guidance on whether or not the project can avoid impacts to the species. The project shall avoid impacts through re-design where possible. SMUD will receive the appropriate take authorizations under FESA for any unavoidable impact that may result take of a federally listed species.

[15] DEIR at p. IV-95

- SMUD shall coordinate with CDFG prior to any activity that may result in take of state listed species, to ensure that appropriate avoidance measures are taken and to ensure that SMUD obtains the appropriate take authorization for any activity resulting in take of state listed species.
- If impacts cannot be avoided, the project shall incorporate mitigation to reduce impacts to the extent possible based on consultation with a qualified biologist and the resource agencies.
- Unavoidable impacts to vernal pools and swales should be mitigated through a combination of restoration/creation and preservation to achieve a mitigation ratio of no less than 2:1 preservation and at least 1:1 restoration/creation (See, CNPS Policies and Guidelines: Policy and Guidelines on Vernal Pool Mitigation, adopted 5 March 1994) or as determined in consultation with the appropriate resource agencies. SMUD may fulfill the mitigation requirements by purchasing conservation easements over areas containing vernal pools and swales, restoring vernal pool habitat to pre-project conditions, purchasing vernal pool preservation credits at a conservation bank approved by the appropriate agencies, and/or by provide funding for habitat conservation and/or restoration.
- During temporary ground disturbance, avoid activities that would puncture the underlying hardpan or claypan. If this impact is unavoidable, backfill with impermeable material designed to retain hydrologic conditions so that disturbed pools may be restored to pre-disturbance conditions.
- Stockpile topsoil prior to any ground disturbance within vernal pool habitat. Re-contour temporarily disturbed vernal pools to pre-project conditions and replace topsoil.

The following are measures that could be implemented by SMUD to mitigate for cumulative temporary impacts to special-status species that inhabit grasslands and agricultural lands(Impact BIO-1b):

- Where applicable, same as mitigation measures for Impact BIO-1a.
- Lease roadside right-of-way for agricultural purposes; place conservation easements on parcels restricting use of agricultural land from more intensive purposes.
- Plant native vegetation after disturbance and restore disturbed areas to pre-project conditions.

The following are measures that could be implemented by SMUD to mitigate for cumulative temporary impacts to special-status species that inhabit marsh, riparian areas, and woodland (Impact BIO-1c):

- Where applicable, same as mitigation measures for Impact BIO-1a.
- All development shall avoid substantial adverse impacts on vernal pool habitats.
- Require development along creeks to be set back from the entire floodway or 250 feet on either side of the creek centerline, whichever is greater. Setbacks required should allow adequate room for trails and access on both sides of the creek.
- Avoid effects to woody vegetation at all construction sites, staging areas, borrow sites, and haul routes by fencing them with orange construction fencing. Construction fencing will be placed at 1.5 times the distance of the trunk to the dripline. No vehicles or storage of equipment or supplies will be placed within the zone delineated by the construction

fencing. Revegetate all construction sites, staging areas, borrow sites, and haul routes with native grasses and forbes.

- Minimize effects to trees along the construction area by having all trimming performed by a qualified arborist to ensure tree survival after the project. In addition, a Tree Protection Plan will be prepared establishing measures required to safeguard trees from the impacts of construction activities.
- Conduct nest surveys prior to the removal of any trees or scrub shrub to ensure migratory and other birds would not be lost during construction, pursuant to the MBTA and California Fish and Game Code section 3513. Nest surveys shall be conducted in the spring and shall be adequate to ensure protection of the nests of as many birds and bird species as possible during construction. Any trees that contain nests will be removed between August 16th and February 15th (outside of the nesting season). During construction activities potentially affecting trees where birds have nested, buffer zones will be established, within which there will be no construction activity until the young have fledged. The size of the buffer zones shall be determined in consultation with DFG, but shall be at least 75 feet for trees containing songbird nests and 275 feet for trees containing raptor nests.
- Require SMUD to purchase conservation easements over areas containing marsh, riparian areas, and woodland; create replacement habitats; provide funding for habitat conservation and/or restoration.
- Actively restore temporarily impacted wetlands to pre-disturbance conditions.

The following are measures that could be implemented by SMUD to mitigate for cumulative permanent loss of habitat used by special-status species (Impact BIO-1d):

- Where applicable, same as mitigation measures for Impact BIO-1a through BIO-1c.
- When developing new projects, minimize invasion of exotic pest plants by planting native plants and non-invasive exotics in landscape plans for new development.

The following are measures that could be implemented by SMUD to mitigate for cumulative loss of special-status bird species from collisions with transmission lines (Impact BIO-1e):

- Implement design measures to reduce incidence of collisions, such as using crossarm construction with horizontal line-post insulators versus vertical conductor construction (See "When Birds and Powerlines Collide" by R Sundararajan and Ravi Gorur, Transmission & Distribution World. December 1, 2005).
- Use conductor marking and statis wire-marking to reduce risk of bird collisions (see "Rate of Bird Collision with Power Lines: Effects of Conductor-marking and Static Wire-marking" G.F.E. Janss and M. Ferrer. Journal of Field Ornithology, 69(1):8-17

The following are measures that could be implemented by SMUD to mitigate for cumulative impacts to sensitive natural communities (Impact BIO-2):

- Where applicable, same as mitigation measures for Impacts BIO-1a through BIO-1d.
- Provide funding for implementation of habitat conservation plan programs that provide for regional protection of sensitive natural communities.

The following are measures that could be implemented by SMUD to mitigate for cumulative impacts to sensitive natural communities (Impact BIO-3):

- Where applicable, same as mitigation measures for Impact BIO-1a and Bio-1c.
- Require wetland delineation studies of proposed SMUD-initiated projects that may affect potential jurisdictional wetlands.
- Require SMUD to purchase conservation easements over areas containing wetlands; create replacement habitats; provide funding for habitat conservation and/or restoration.

The following are measures that could be implemented by SMUD to mitigate for cumulative impacts related to interference with fish or wildlife movement (Impact BIO-4):

- Where applicable, same as mitigation measures for Impact BIO-1a.
- Require construction crews to maintain a 15-m.p.h. speed limit on all unpaved roads to avoid the chance of wildlife being harmed. A 15- mph speed limit will with allow wildlife to cross roads while avoiding the path of vehicles, or allow vehicle operators to see the wildlife and have sufficient time to avoid a collision.
- Participate in regional conservation planning efforts to avoid habitat fragmentation and contribute to preservation and management of large, unfragmented blocks of habitat to minimize interference with fish and wildlife movement.

The following are measures that could be implemented by SMUD to mitigate for cumulative impacts related to conflicts with habitat conservation plans (Impact BIO-6):

- Require compliance with habitat conservation plans, including measures to preserve and restore species habitat.
- Provide funding for implementation of habitat conservation plan programs.

The DEIR does not take into consideration the ongoing regional conservation planning efforts that are underway in Sacramento, Yolo, Sutter, and western Placer Counties to address the cumulative biological impacts in these regions. Participation in the existing NNHCP may mitigate cumulative impacts throughout the Natomas Basin. SMUD could also provide funding and additional assistance as needed for completion of the Yolo County HCP to mitigate cumulative impacts in Yolo County.

This concludes my comments on the DEIR. Thank you for the opportunity to review and comment on this document, on behalf of the CUE.

Sincerely,

Ellen Berryman

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Literature Cited

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