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10 Specially Appearing for Protestant Save Our Sandhill Cranes  
11 for Purposes of Presenting Part 2 Testimony

12 **BEFORE THE**  
13 **CALIFORNIA STATE WATER RESOURCES CONTROL BOARD**

14 HEARING IN THE MATTER OF  
15 CALIFORNIA DEPARTMENT OF WATER  
16 RESOURCES AND UNITED STATES  
17 BUREAU OF RECLAMATION  
18 REQUEST FOR A CHANGE IN POINT OF  
19 DIVERSION FOR CALIFORNIA WATER FIX

20 **TESTIMONY OF SEAN WIRTH**  
21 **SAVE OUR SANDHILL CRANES**

1 **I. INTRODUCTION**

2 I was one of the founding members of Save of Our Sandhill Cranes (“SOSC”) in 2005.  
3 As part of our early advocacy for Greater Sandhill Crane protection and enhancement, we  
4 became stakeholders working on the South Sacramento Habitat Conservation Plan  
5 (“SSHCP”). I attended all of the stakeholder meetings and all of the biological subcommittee  
6 meetings, which were frequent, as well as all of the economic meetings, which were not so  
7 frequent. SOSC joined the Environmental Council of Sacramento (“ECOS”) in 2006 and I  
8 became a member of their habitat subcommittee, Habitat 2020. Not long after, I was asked to  
9 fill in a vacancy on the executive committee of the Sacramento Group of the Sierra Club. I  
10 contributed my biological education and knowledge that was gleaned from my college  
11 undergraduate work as I reviewed and commented on the biological resource sections of all of  
12 the environmental review documents that ECOS, the Sacramento Group of the Sierra Club, or  
13 SOSC worked on. This work, which provided good results, resulted in my being cajoled into  
14 being the chair and then co-chair of Habitat 2020 for the last seven years. Similarly, I work  
15 with the Mother Lode Chapter of the Sierra Club, which extends through 24 northern California  
16 counties and consists of 11 groups, where I have been their Conservation Committee chair for  
17 the last five years. Throughout my entire environmental advocacy, I have focused on  
18 preserving what remains of our natural heritage in this region. And, the Greater Sandhill Crane  
19 has been a superlative focus for a lot of this work because of the wide variety of habitats that it  
20 relies upon for its natural history.

21 Because of my advocacy for Sandhill Crane habitat in our region, and my work on the  
22 various environmental boards, it had become clear that initially during the preparation of the  
23 Bay Delta Conservation Plan (“BDCP”) that the terrestrial species in our region were being  
24 ignored. Habitat 2020 met with representatives from the Defenders of Wildlife, who were  
25 regular attendees of the BDCP stakeholder meetings, and aired our concerns. This resulted in  
26 Gerry Meral requesting a meeting with us. When he asked what exactly we wanted, we  
27 explained that we thought that the impacts to terrestrial species in our region from the  
28

1 construction of the tunnels would be substantial and that the BDCP was not addressing them.  
2 He assured us that in the future it would.

3 The Friends of Stone Lakes National Wildlife Refuge (“FSL”) then requested that I  
4 attend a series of meetings with BDCP project proponents and agency staff regarding  
5 terrestrial species to provide input on mitigation approaches for species impacted in the  
6 Refuge and beyond. Knowing firsthand how much work the SSHCP had been to date at that  
7 point, I reluctantly agreed. Like many of our witnesses, my work has been on a volunteer  
8 basis because of my commitment to preserving the natural heritage in this region.

9 **II. IMPACTS FROM THE PETITIONED PROJECT WOULD BE CONTRARY TO THE  
10 PUBLIC INTEREST**

11 **A. Concerns About Impacts to the South Sacramento Habitat Conservation  
12 Plan**

13 One of the initial concerns that we had with the BDCP was the potential impact that it  
14 could have on implementing the conservation strategy of the SSHCP. While the BDCP is no  
15 longer the preferred alternative, the impacts from the Delta Tunnels (a.k.a. “Alternative 4A” or  
16 “California WaterFix”) still elicit a similar level of concern with respect to the SSHCP.

17 After nearly 24 years, 11 of which I was actively involved, the SSHCP just recently closed the  
18 90-day comment period for the public draft of the Plan as well as the companion EIR/S on  
19 September 5th, 2017. The plan area encompasses most of Sacramento County south of  
20 highway 50 (with the exception of the northern portion of Sacramento County, the northern  
21 portion of the City of Rancho Cordova, the City of Sacramento, the City of Elk Grove, the City  
22 of Folsom, the sovereign lands of the Miwok tribe, and the Sacramento County community of  
23 Rancho Murieta) and the impacts and the “take” contemplated in the Plan occur almost  
24 completely within the Urban Development Area (“UDA”), whereas the majority of the habitat  
25 acquisition for mitigation occurs outside the UDA.

26 The Plan area encompasses 317,656 acres in southern Sacramento County and it will  
27 result in the creation of an interconnected preserve system totaling 36,282 acres (34,495 of  
28 existing habitat and 1,787 of established or re-established habitat). (SOSC-14, SSHCP, pp. 1-  
8 and 7-54.) Vernal Pools arguably form the core of a lot of the conservation strategy of the

1 SSHCP, but the southwestern portion of the Plan is an extremely important area for Greater  
2 Sandhill Crane, Swainson's Hawk, White-tailed Kite and Northern Harrier. (SOSC-14, SSHCP,  
3 p. 7-88.)

#### 4 **1. Background on SSHCP**

5 It is important to understand that the SSHCP is divided into Preserve Planning Units  
6 ("PPUs"). Each unit was designed with a specific focus of protecting specific covered species.  
7 The proposed massive-scale construction in and near Stone Lakes National Wildlife Refuge is  
8 within PPU 6, which is an agricultural and grassland unit, as explained in the SSHCP:

9 PPU 6 encompasses 95,196 acres outside the UDA in the southwestern portion  
10 of the Plan Area. PPU 6 is bisected by Interstate 5. It is bordered on the west by  
11 the Sacramento River, on the south by the Mokelumne River, and Dry Creek.  
12 The dominant land covers in PPU 6 are Agriculture (58,458 acres) and Valley  
13 Grassland (17,633 acres). All of the covered birds have been documented in  
14 PPU 6, including 281 (71%) occurrences for Swainson's Hawk, 190 (92%)  
15 occurrences for Greater Sandhill Crane, and 55% or more of the occurrences for  
16 Northern Harrier and White-tailed Kite.

17 (SOSC-14, SSHCP, p. 7-88.)

18 Put simply, PPU 6 is the population stronghold for Greater Sandhill Crane and  
19 Swainson's Hawk in the SSHCP Area. PPU 6 has 92% of occurrences and almost all of the  
20 high population usage roost sites for cranes, and 71% of the Swainson's Hawks occurrences.  
21 Greater Sandhill Cranes forage extensively within a two mile radius of their roost sites (SOSC-  
22 16, Ivey 2015), and that the vast majority of roost sites in the entire SSHCP Area are within  
23 PPU 6. Since many of the impacts associated with the Delta Tunnels project would occur  
24 within the footprint of the SSHCP and PPU 6, it is important that those impacts also be  
25 mitigated within PPU 6. Specifically, foraging habitat within the crane population stronghold in  
26 the SSHCP Area needs to be mitigated within that same stronghold; mitigation for foraging  
27 habitat loss also needs to be located within two miles of an active roost site to be effective.  
28 Similarly, the impacts to Swainson's Hawks, White-tailed Kite and Northern Harrier should also  
be mitigated as proximal to the impacts as possible.

The Chapter 7 Conservation Strategy of the SSHCP lays out the habitat acquisition  
targets for each PPU in the Plan Area. PPU 6 on page 7-89 of the SSHCP ("Overview of

1 Conservation Strategy in PPU 6”) states: “Approximately 9750 acres will be preserved in PPU  
2 6.” (SOSC-14.) According to Table 7-2 (“Summary of SSHCP Preserve System and Existing  
3 Preserves by Planning unit”) on page 7-63 of the draft SSHCP, 28,079 acres of PPU 6 are  
4 already in existing preserves. And according to section 7.5.2.3 (SOSC-14, SSHCP, p. 7-88),  
5 there are currently 3,436 acres of low-density development in PPU 6. Simple math (total  
6 acreage minus the land already preserved and the land already developed) yields a total of  
7 63,657 acres of available inventory in PPU 6, not accounting for sea level or floodplain  
8 restrictions.

9 The SSHCP is only planning to acquire properties to satisfy its habitat mitigation  
10 requirements from willing sellers and the reality is that some landowners may wish to sell, and  
11 some may not. This uncertainty is encompassed in the concept of “feasibility of acquisition.”  
12 Given the need for willing sellers, “feasibility of acquisition” represents how much habitat is  
13 available compared to how much habitat is needed for mitigation. If there are 100 acres of  
14 inventory, and fifty are needed for mitigation, the feasibility for acquisition ratio is 50%. The  
15 lower the feasibility for acquisition ratio, the more likely that enough willing sellers will be found  
16 to satisfy the acquisition requirements of the Conservation Strategy of an HCP.

17 The California Department of Fish and Wildlife (“CDFW”) maintained during the  
18 preparation of the SSHCP that the Plan should strive for a ratio of 15% or less. Beyond  
19 increasing the likelihood that enough willing sellers would be available to successfully  
20 implement the Conservation Strategy, such a low ratio would go a long way to avoiding what  
21 has happened in the Natomas Basin Habitat Conservation Plan where the ratio is much higher  
22 and has resulted in exorbitant prices being paid for rice fields. These costs recently led to a  
23 developer purchasing Swainson’s Hawk mitigation within 200 feet of one of Sacramento  
24 Metropolitan Airports runways because little else was available.

## 25 **2. Delta Tunnels Would Negatively Impact “Feasibility for Acquisition”**

26 Though it is not presented in the SSHCP, all of the relevant numbers are available to  
27 determine the feasibility for acquisition ratio for PPU 6 in the SSHCP. The conservation target  
28 for PPU 6 is 9,750 acres, and there are 63,657 acres available, though not all suitable for

1 mitigation because of elevation (all Swainson's Hawk mitigation must be above sea level), after  
2 deducting the lands already preserved and developed from the figure for the total number of  
3 acres in the unit (95,196 acres). Simple division reveals that the gross feasibility for acquisition  
4 for PPU 6 is now 15.3%, just over the ratio that CDFW maintained was acceptable in the  
5 preparation of the SSHCP, and not accounting for acquisition criteria concerning sea level or  
6 floodplains. (SOSC-14, SSHCP, pp. 7-63 and 7-88.)

7 It is frankly not possible to determine exactly how much of an impact the Delta Tunnels  
8 would have on the inventory of the SSHCP in PPU 6 because these numbers do not appear to  
9 be explicitly provided by proponents. Given that there is a requirement to provide 4,512 acres  
10 of habitat mitigation for Greater Sandhill Cranes (SWRCB-111, MMRP, pp. 4-34 to 4-36), and  
11 that there are additional habitat requirements for Swainson's Hawk (SWRCB, FEIR/S, pp. 12-  
12 3581 to 12-3584), White-tailed Kite (SWRCB-102, FEIR/S, pp. 12-3615 to 12-3619), Western  
13 Burrowing Owl, etc. (SWRCB-102, FEIR/S, pp. 12-3599 12-3602), one would expect that  
14 significant acreage would be needed in PPU 6, but how much of that mitigation occurs in what  
15 county is unclear at best.

16 Additionally, it is not clear how much overlapping conservation benefit—one habitat type  
17 benefitting multiple species—is planned in the proposed mitigation; overlapping conservation  
18 is. Considering a range of possible mitigation needs in PPU 6 to mitigate for the Delta Tunnels  
19 impacts illustrates the impact the project would likely have on feasibility for acquisition for the  
20 SSHCP; feasibility of acquisition, as recognized by CDFW, is critical to the successful  
21 implementation of the SSHCP conservation strategy. Assuming a range of mitigation demand  
22 between 2,000 acres and 4,000 acres, the potential effect of the Delta Tunnels on the  
23 feasibility for acquisition would be to raise it to between 18.4% and 21.6%, well above what the  
24 CDFW considered realistic for success for the SSHCP. This increase also does not factor in  
25 floodplain or sea level restrictions, which means the actual available inventory could in the end  
26 be closer to the situation in the Natomas Basin, potentially resulting in the same inventory  
27 problems.

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### 3. Chilling Effect of Delta Tunnels Eminent Domain on Willing Sellers for the SSHCP

The Delta Tunnels would take land by eminent domain for both the project footprint and for mitigation. Concerns regarding the planned use of eminent domain on other conservation efforts in the area were brought up in the series of meetings that attempted to help address project impacts to terrestrial species. Beyond the disastrous impact to the feasibility of acquisition, the use of eminent domain to condemn properties needed for mitigation would have a substantial chilling effect on the willingness of sellers to participate in the SSHCP. Having a competing project taking land away forcibly with eminent domain for mitigation in the same small area by the Delta Tunnels would paint the SSHCP in the same negative light for many prospective sellers. The negative consequences to conservation of predictable reactions of landowners to widespread use of eminent domain cannot be overstated and it would be a grave mistake to discount them.

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### 4. The Petitioned Project Is Incompatible with and Would Interfere with Successful Implementation of the SSHCP

During the series of terrestrial wildlife meetings, we pushed for Swainson's Hawk and Greater Sandhill Crane mitigation to be done in the footprint of Elk Grove's Sphere of Influence Amendment application that was rejected by the Local Area Formation Commission ("LAFCo") in 2013. The reasoning was that it would be extraordinarily difficult for the SSHCP to acquire mitigation in that footprint because of the inflated land prices there from built up speculative pressure, and this land was prime habitat for Swainson's Hawk, Greater Sandhill Crane, White-tailed Kite, and Northern Harrier; the area is also in immediate threat of being lost in the near future to urbanization.

We suggested that purchasing mitigation acreage there would have a greatly reduced effect on the SSHCP because the Plan did not have the financial structure to purchase much in that geography—the fee structure has the cost of 1,000 such acres amortized over all of the agricultural mitigation acres. We promoted the value of creating a greenbelt south of Elk Grove to insulate the habitats found further south from urban pressure and the resultant spike

1 in pricing due to speculation, improving on the SSHCP's chances of acquiring the acres it  
2 needs there. We further argued that this would help with the success of the SSHCP because  
3 in the absence of imminent urbanization, it could increase the willingness of sellers and  
4 maintain the affordability of purchasing mitigation properties.

5 Our suggestion was rejected because this geography was not in the legislative  
6 boundary of the Delta and therefore would allegedly require legislation to amend that boundary  
7 if mitigation was to be contemplated there. Since it was not within the project area of the NOP,  
8 that would need to be redone that as well. But now, BDCP/Alternative 4 is no longer the  
9 proposed project and DWR has adopted Alternative 4A, so the legislative boundary of the  
10 Delta should no longer be a limiting factor. There would be substantial impacts from the  
11 construction and operations of the tunnels to many of the species covered by the SSHCP, and  
12 many of those impacts, and the mitigation for those impacts, would occur within the same  
13 "inventory" footprint as the SSHCP, jeopardizing the success of the SSHCP.

## 14 **5. Recommended Condition of Approval**

15 We recommend requiring that a substantial portion of the mitigation required for impacts  
16 in PPU 6 be acquired south of Elk Grove in the area that has already seen inflated property  
17 values due to speculative pressure from potential urbanization. This condition would greatly  
18 reduce the project's mitigation demand impact on the inventory of the SSHCP, as well as help  
19 ensure stable acquisition costs for the rest of PPU 6.

### 20 **B. Species Specific Comments for Greater Sandhill Crane**

21 As explained below, the avoidance and minimization measures in AMM 20 to avoid the  
22 loss of roosting and foraging sites for Greater Sandhill Crane due to construction related  
23 activities by the creation of new temporary roost site/s one mile away from original impacted  
24 site/s, and by enhancing forage opportunities, are experimental and therefore there is no way  
25 to know if they will work.

#### 26 **1. Background**

27 Roost abandonment in the North Stone Lakes wetland complex due to construction  
28 activities was a concern that was contemplated in the stakeholder process of the BDCP, and



1 was addressed, at the suggestion of stakeholders, by providing for nearby alternative roost  
2 sites with greatly increased foraging opportunities to entice the Greater Sandhill Crane to not  
3 abandon their northern most roost site in Sacramento county. The figure (SOSC-9) depicting  
4 the proximity of the proposed northernmost intake location (Intake #2) next to the North Stone  
5 Lakes wetland complex roost site for Greater Sandhill Cranes shows how close the  
6 construction, with pile driving and the ongoing operation of the intake included, would be to the  
7 northern most roost site in the County for this species. This figure (SOSC-9) also exhibits how  
8 constrained that roost already has become because of impinging urban development to the  
9 north and to the east.

## 10 **2. Greater Sandhill Cranes May Abandon the North Stone Lakes** 11 **Wetlands Complex Due to Construction Related Disturbance**

12 This was the concern that resulted in the added measures in AMM 20 to address  
13 impacts on roost and forage sites from construction related activities. (SWRCB-111, MMRP,  
14 pp. 4-34 to 4-36.) As stakeholders, we were initially told that there was no risk of  
15 abandonment of the North Stone Lakes wetland complex because noise and other  
16 construction related disturbances would be avoided within 0.75 miles of the roost site. It was  
17 pointed out during the series of meetings that the proposed AMM 20 language at that time did  
18 not prohibit such disturbances within 0.75 miles of a roost site; rather the draft language stated  
19 that such disturbances would be avoided if feasible. The language in the adopted MMRP  
20 similarly says “to the extent practicable.” (SWRCB-111, MMRP, p. 4-35.)

21 We also pointed out there was no past project that we were aware of that was anywhere  
22 near the scale of that proposed for the Delta Tunnels construction, either in expense, footprint,  
23 potential impacts, or duration. Due to the noncommittal proposed language in AMM 20, such  
24 as “if feasible” or “to the extent practicable,” there was great concern that the unprecedented  
25 magnitude of the project and the lack of evidence in the scientific literature, would create a risk  
26 that the North Stone Lakes wetland roost site might be abandoned. At that time, we were  
27 often reminded, that the Delta Tunnels project was nested in a much larger HCP/NCCP effort  
28 that was going to provide enormous benefits to the crane beyond the construction project, with

1 approximately 7,000 acres of mitigation. At that time, we were very concerned that funding for  
2 the conservation components of the BDCP would not be forthcoming and that we would be left  
3 with only a huge construction project and none of those additional “benefits.” That is now the  
4 case.

5 The proximity of the North Stone Lakes wetlands complex to a construction area where  
6 pile driving would occur was and is a major concern. We argued that, though Greater Sandhill  
7 Cranes could be said to have acclimated to some human caused noises in our region—such  
8 as traffic from I-5 for the Cosumnes River Visitor Center pond roost site, that the nature of the  
9 sound from pile driving was appreciably different in character and could not reasonably be  
10 compared to the “white noise” of freeway traffic or other consistent noises. The closest noise  
11 comparison would be to a hunting area with gun fire, and Greater Sandhill Cranes clearly avoid  
12 those. (SOSC-13, Ivey 2014.)

13 We pointed out that the North Stone Lakes wetland roost site was already the most  
14 constrained roost site in our region with substantial urbanization to the north and the east.  
15 (See SOSC-9.) We argued that abandonment of this site would constitute a reduction in range  
16 of the crane. We suggested that a temporary roost site should be installed within a mile of the  
17 North Stone Lakes roost site and that enhanced foraging opportunities should be provided  
18 nearby to entice Greater Sandhill Cranes to remain in the area. These suggestions led to  
19 additional AMM 20 language. (SWRCB-111, MMRP, pp. 4-35 to 4-36.)

20 These suggestions were based upon the knowledge that Greater Sandhill Cranes  
21 forage extensively within 1.9 km of their roost site (SOSC-16, Ivey 2015) and the fact that in  
22 New Mexico un-harvested corn is provided for cranes on National Wildlife Management Areas  
23 and National Wildlife Refuges (SOSC-19, Mitchusson 2003), which they use heavily. It was  
24 not based on any scientific literature or past example that indicated that this would work,  
25 because no such source was available.

26 The fact that Greater Sandhill Crane forage most extensively within about 1.9 kilometers  
27 of their current roost sites (SOSC-16, Ivey 2015) would suggest that Cranes would likely  
28 discover the new roosting site the first season that it was created. But there is no equivalent

1 certainty that they necessarily would use it in lieu of their original roost site when it became  
2 impacted. Cranes could still abandon the North Stone Lakes wetland complex roost site and  
3 head south to another roost site, thereby reducing their range.

4 **3. Creating New Temporary Wetlands One Season Before an Impact**  
5 **May Be Inadequate Time for the Greater Sandhill Cranes to Decide to**  
6 **Use Them**

7 We had lobbied heavily in our meetings regarding terrestrial impacts that the created  
8 wetlands in Stone Lakes NWR should be put in place well in advance of any impacts  
9 occurring. The longer that the replacement habitat would be available, the more opportunity  
10 that they might be utilized when a current roost site became impacted by construction related  
11 disturbance. There was no past example or scientific literature that could be relied upon to  
12 indicate how long a created roost site should be in place to enhance the likelihood that it would  
13 be used while a current roost site was being impacted. Given the experimental nature of the  
14 effort, it would make sense to provide for an increased likelihood of success by increasing the  
15 time that the new roosting resource was available and part of the immediate Greater Sandhill  
16 Crane landscape to more than one crane wintering season before the impact.

17 **4. Enhanced Foraging Opportunities Would Also Be More Likely to**  
18 **Prove Successful If They Were Provided Sooner Than One Year**  
19 **Before Impact to Current Foraging and or Roosting Sites**

20 We had lobbied heavily that the enhanced foraging sites should be put in place well in  
21 advance of the impacts that they were being used to avoid. (SWRCB-102, FEIR/S, Comments  
22 and Responses to Comments, Letter 2629, p.180.) Ultimately, AMM 20 requires that the  
23 enhanced foraging habitat be put in place one season before the construction begins.  
24 (SWRCB-111, MMRP, p. 4-35.) The longer that enhanced foraging sites are available, the  
25 more opportunity that they might be an effective enticement to get Greater Sandhill Cranes to  
26 ignore or tolerate construction related disturbances in the area.

27 There was no past example or scientific literature that could be relied upon to indicate  
28 how long an enhanced foraging site should be in place to improve the likelihood that it would  
be an effective incentive to keep Greater Sandhill Cranes in their current foraging landscape  
despite construction related disturbances. Given the experimental nature of the effort, it would

1 make sense to provide for an increased likelihood of success by increasing the time that the  
2 enhanced foraging opportunities were available, and part of the immediate Greater Sandhill  
3 Crane landscape, at least two years in advance of construction related impacts.

#### 4 **5. Recommended Conditions of Approval**

5 To reduce the risk of abandonment of the North Stone Lakes wetlands complex: Avoid  
6 construction related activities in the vicinity of the North Stone Lakes wetland complex from  
7 September 1 through March 15 with no exceptions.

8 To increase the likelihood that created roost sites will be effective in addressing impacts  
9 of construction related disturbances: Roost sites should be created as soon as possible, but at  
10 least two years in advance of the impacts. This would allow at least two seasons to gauge if  
11 they seem likely to be used.

12 To increase the likelihood that enhanced foraging opportunities will be effective in  
13 addressing impacts of construction related disturbances: The enhancement of foraging  
14 opportunities should begin as soon as possible, but at least two years in advance of the  
15 impacts. This would allow two seasons of enticement for the cranes before impacts. If for  
16 some reason the cranes do not gravitate towards this enhanced feeding opportunity, there are  
17 two seasons to refine the approach.

18 Though these conditions could lessen the impacts, I believe the Delta Tunnels project  
19 would impose unreasonable impacts on wildlife and would not be in the public interest from a  
20 regional conservation perspective.

#### 21 **C. Project Impacts to Wetlands**

22 The project impacts to wetland habitats are at a massive scale and largely concentrated  
23 in an area of critical wildlife concern, as identified above. The proposed project would result in  
24 permanent impacts to approximately 774 acres of waters of the U.S. and temporary impacts to  
25 approximately 1,931 acres of waters of the U.S. (LAND-121, USACE 404 Permit App., pp. 14-  
26 15.) it is difficult to understand the sheer scale of the impact, over a square mile of lost  
27 wetlands, and the utter devastation that would be focused on one of the last remaining areas  
28 of concentrated wetlands and riparian wetlands in this part of the Delta.

1 To fully appreciate the enormous scale of these impacts to wetlands, it is instructive to  
2 compare it to the proposed SSHCP and its companion Aquatic Resources Plan (“ARP”), which  
3 is a massive regional effort to look at all of the impacts from urban development mining,  
4 highways, and other large-scale projects to wetland habitat and to waters of the United States  
5 (and wetlands) under the Clean Water Act (“CWA”) and to carefully plan for those impacts.  
6 (See SOSC-15, ARP.) Future projects in the SSHCP Area will need permits to fill wetlands  
7 and the SSHCP.

8 The ARP permitting process has a series of provisions to compensate for those  
9 impacts. The SSHCP is the first HCP in the nation to integrate 404 permitting. It plans to do  
10 so through a tiered structure of permits. For projects up to two acres of impact, a project  
11 applicant can use a Programmatic General Permit (“PGP”). For a project that is between two  
12 and ten acres, a Process using a Letter of Permission (“LOP”) is available. And, for projects  
13 with impacts greater than ten acres, an “abbreviated” general permit process is available.  
14 (SOSC-15, ARP, pp. 176–179.) The ARP anticipates that the vast majority of applicants would  
15 utilize the PGP: “The SSHCP Plan Permittees anticipate that the USACE would develop  
16 programmatic approaches to processing individual CWA 404 permits for the relatively small  
17 amount of SSHCP Covered Activity projects proposed to impact waters of the U.S. that would  
18 not fit under the terms and conditions of the PGP.” (SOSC-15, ARP, p. 176.)

19 The SSHCP’s draft Programmatic General Permit for fill states: “The total loss of waters  
20 of the U.S. authorized under this PGP may not exceed 120 acres of waters of the U.S.,  
21 including wetlands, within the Plan Area.” (SOSC-12.) Since the Programmatic General  
22 Permit is being considered for sequential five-year terms, the amount of wetlands impacts  
23 associated with the Delta Tunnels project represents more than 30 years’ worth of PGP  
24 impacts in the SSHCP.

25 The scale of the wetlands impact of the Delta Tunnels is also illustrated in a recent  
26 analysis by the U.S. Army Corps of Engineers (“Corps”) of all CWA 404 wetland permits issued  
27 nationwide. (SOSC-10, Mitigation Rule Retrospective, 2015.) Nationwide, a total average of  
28 13,338 acres of wetland fill was permitted per year from 2007–2014. (SOSC-10, p. 26.) For

1 that same 7-year time-period, the average yearly projects greater than 50 acres was 42  
2 Individual Permits authorized for the entire U.S. (SOSC-10, p. 35.) The national annual  
3 average for non-tidal wetlands fill (the Corps analysis combines many wetlands into this  
4 category) for that period is 1,750 acres. (SOSC-10, p. 48.) The temporary wetland and waters  
5 impacts of the Delta Tunnels project alone (1,931 acres) would be more acres of impact than  
6 the Corps permitted to permanently impact non-tidal wetlands on average per year in the entire  
7 U.S. during the study period (1,750 acres). And, those are just the temporary impacts.

8 This is a historically destructive project that devastates a huge portion of what little  
9 remains of California's increasingly rare wetlands. "The loss of riparian vegetation throughout  
10 California, estimated to be 85%–95%, was caused by human activities, such as river and  
11 stream channelization, levee building, vegetation removal to stabilize levees, and extensive  
12 agricultural and urban development (Riparian Habitat Joint Venture 2004)." (SWRCB-102,  
13 FEIR/S, p. 12-45.) This project continues the history of removal of riparian vegetation and  
14 filling wetlands.

15 Finally, the permit application to fill these important wetlands is simply wrong.  
16 According to Item #18 of the Application: The Nature of the Activity, it identifies a project  
17 purpose or feature as "habitat creation, restoration and enhancement." (LAND-121, pp. 2-3.)  
18 The opposite is true. The only habitat creation, restoration or enhancement is from the  
19 mitigation of the destruction of wetland and Waters of the United States. While the prior  
20 Habitat Conservation Plan/Natural Communities Conservation Plan ("HCP/NCCP") proposal  
21 (Alternative 4) may have included this purpose, Alternative 4A does not include habitat  
22 creation, restoration and enhancement beyond the legal minimum required for mitigation of  
23 project impacts. Item 18 describes the wrong alternative. The mitigation for project impacts to  
24 wetlands is also ineffective since it is only a 1:1 ratio and includes no requirements for timing of  
25 the mitigation for wetland loss, among other weaknesses. (See SWRCB-111, pp. 2-38 to 2-  
26 40.)

1 As the agency responsible for implementation of the state Porter Cologne wetland  
2 permitting requirements, the SWRCB should ensure protection of, and adequate mitigation for  
3 any loss of, California's last remaining wetlands.

### 4 III. CONCLUSION

5 The impact of the Delta Tunnels take of habitat and subsequent mitigation needs within  
6 the SSHCP's PPU 6 will strain the conservation strategy of the SSHCP and also drive up costs  
7 for mitigation, increasing the costs for both conservation and urban development in southern  
8 Sacramento County (higher mitigation costs mean higher housing costs). The impact to  
9 terrestrial species in our region from this historically huge construction project will be  
10 substantial and sustained, and the avoidance and minimization measures for Greater Sandhill  
11 Crane, arguably the hardest hit species, rely on experimental approaches that have not been  
12 tested. And, the massive impacts to wetlands and the waters of the United States in the  
13 Northeastern Delta, and the ill-defined mitigations and incorrect permit application also pose  
14 dramatic conservation problems for our region. All of these impacts individually represent  
15 unreasonable impacts and would not be in the public interest from a regional conservation  
16 perspective. Combined, they appear catastrophic for our local ecosystem and our local  
17 residents who work, live, and play in the Northeastern Delta.

18 Executed on the 30th day of November, 2017, at Sacramento, California.

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21 Sean Wirth

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