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Attorney for Protestants Save the California Delta Alliance, et al.

BEFORE THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

IN RE CALIFORNIA WATERFIX CALIFORNIA DEPARTMENT OF WATER RESOURCES AND U.S. BUREAU OF RECLAMATION PETITION FOR CHANGES IN WATER RIGHTS, POINTS OF DIVERSION/RE-DIVERSION	**PROTESTANT SAVE THE CALIFORNIA DELTA ALLIANCE, ET Al.'s WRITTEN TESTIMONY OF CHRIS KINZEL**

I, Chris Kinzel do hereby declare:

I. Summary of Testimony: Construction Traffic Delays Will Discourage Delta Recreational Use.

The decision of California WaterFix Project planners to locate a 15,000,000 cubic yard dump and major construction staging area on Bouldin Island, off of State Route 12, combined with Project planners' major engineering error in mistaking the bridge clearance for the Highway 12 bridge over the Sacramento River, will cause substantial undisclosed traffic impacts on Highway 12 between Rio Vista and Interstate 5. An increase of 41% in traffic crossing the Rio Vista Bridge, combined with frequent openings of the Rio Vista Bridge and Mokelumne River Bridge, will back up traffic on SR 12 so severely that this major recreational gateway to the Delta will become untenable for many recreational users. Many recreational users will likely abandon the Delta as a recreational destination due to hours of traffic delay that will ensue during the eleven year construction period of California WaterFix. In light of its errors and the severe impacts, DWR should relocate the Bouldin Island Muck dump to another location where it will not cause such severe traffic impacts.

Traffic impacts on the small communities of Hood, Clarksburg, Walnut Grove, Locke, and the rural surrounding countryside are unreasonable and location of a large industrial construction zone in this designated Delta legacy region was a poor planning decision. If feasible alternatives to the WaterFix Project exist, the impacts on quiet country towns and Delta recreation are reason enough not to build the WaterFix Project.

II. At A Minimum DWR Should Relocate The Bouldin Island Muck Dump To Avoid Unreasonable Traffic Delays and Impacts on Delta Recreation.

In planning the California WaterFix Project, and accounting for the impacts of the Project on roadway traffic on State Highway 12 ("SR 12"), the California Department of Water Resources ("DWR") made a significant error in assuming that project-related barge traffic on the Sacramento River and Mokelumne River would not require additional raising of the SR 12 draw bridges over these two rivers. The Project documents state that "additional raising of the draw bridges in the

study area would not be required." (FEIR/S, p.19-232; SCDA-102[1].) This conclusion is based on Project planners' statement that the Rio Vista Bridge has 144 feet of vertical clearance above the river. (SCDA-102.) In fact, the clearance of the Rio Vista Bridge is 18 feet. (SR-12 Comprehensive Evaluation and Corridor Management Plan, SCDA-107[2], p 4-6.) This is a startling engineering error on the part of Project planners.

The Mokelumne River will be used as a major construction-related barge route, with Project barges passing under the Mokelumne SR 12 drawbridge, to reach the planned construction staging area, fueling station, concrete batch plant, and muck dump at the Meadows Slough. (SCDA-73.) The Sacramento River will be used as a construction-related barge route, with Project barges passing under the Sacramento River SR 12 drawbridge, to reach the barge dock at the intakes near Hood. (SCDA-73; SCDA-103[3], p. 151.)

There is a third draw bridge on SR 12, crossing Potato Slough at Terminous. (SCDA-73; SCDA-104[4].) Project documents are not specific about the use of Potato Slough as a barge route, however the Bouldin Island muck dump is adjacent to Potato Slough only about a half mile from the Terminous Bridge, so barge traffic requiring opening of the Potato Slough SR 12 drawbridge is a distinct possibility. With two SR 12 draw bridges certainly impacted by barge traffic and possibly a third SR 12 bridge impacted as well, the undisclosed traffic impacts of bridge openings on SR 12 road traffic will be very significant and will cause substantial undisclosed delays on SR 12.

Project documents show a 41% increase in traffic crossing the Rio Vista Bridge due to increased truck and car trips by vehicles destined to and leaving the new Bouldin Island Project staging area and muck dump. (SCDA-102, p. 19-212.) There will also be increased construction-related truck and car truck traffic on SR 12 traveling between Interstate 5 and the Bouldin Island facility. The combination of increased truck and car traffic on SR 12 with substantial delays caused by draw bridge openings at two, and possibly three, locations on SR 12 will cause an unreasonable

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[1] SCDA-102 is a true and correct copy of excerpts from the WaterFix FEIR/S.
[2] SCDA-107 is a true and correct copy of the SR-12 Comprehensive Evaluation and Corridor Management Plan (November 2012, Atkins.)
[3] SCDA-103 is a true and correct copy of excerpts from the United States National Marine Fisheries Service California WaterFix Biological Opinion describing barge routes.
[4] SCDA-104 is a true and correct copy of Figure M15-4, page 4 of 8, California WaterFix FEIR.

traffic nightmare on SR 12 between Rio Vista and Interstate 5.

This segment of SR 12 is a major gateway to the Delta, providing access from Interstate 5 to the east and from interstate 80 to the west. The SR 12 Delta gateway is used by a substantial percentage of trailer boaters who access the Delta for day or weekend use. The SR 12 Delta gateway is also used by a substantial percentage of other, non-boating, day and weekend Delta recreational users (hunters, pick and eat fruit stand visitors, etc.). Traffic impacts on SR 12 brought about by the Project will be severe enough to make its use as an access route to the Delta infeasible for recreational users. Due to the limited number of bridges and many waterways in the Delta, alternative access routes for many recreational users would add several hours to travel time and would likely be rejected by people seeking a day of boating. Instead they will likely choose one of the many other recreational lakes in Northern California that will not suffer from the extreme traffic delays brought about by tunnel construction.

Overall, a substantial decrease in recreational visits to the Delta is likely to occur over the many years of construction activity impacting SR 12. As a traffic planner, in my opinion, this impact is unreasonable. The impact is due in large measure to the location of the staging area and muck dump on Bouldin Island, which will be accessed from SR 12. (SCDA-104.) Project documents disclose that approximately 30,000,000 cubic yards of muck will be excavated from the tunnels and dumped in the Delta. **[cite]** It appears from looking at the project maps that about 10,000,000 to 15,000,000 cubic yards of this muck will be destined for the Bouldin Island site. (SCDA-104.) That would be about a million dump truck loads. It is evident that Project planners did not think through the impacts on traffic and recreation of locating this dump here. Indeed, this particular location would probably be the most effective place to put a major construction staging facility if the aim were to snarl traffic and disrupt recreational use of the Delta.

The existing Rio Vista Bridge is recognized as a significant capacity constraint for both river and highway traffic. Two relevant studies have been performed: The first was the September 2010 SR 12 Realignment / Rio Vista Bridge Preliminary Study, prepared by AECOM for the Solano

Transportation Authority (STA). (SCDA-106[5].) In November 2012 Atkins prepared the SR 12 Comprehensive Evaluation and Corridor Management Plan. (SCDA-107.) That study was prepared for five agencies: California Department of Transportation (Caltrans), Metropolitan Transportation Commission (MTC), Sacramento Area Council of Governments (SACOG), San Joaquin Council of Governments (SJCOG) and STA.

The AECOM study described the deficient nature of the Rio Vista Bridge – it is old, structurally obsolete, requires frequent openings to allow Sacramento River traffic to pass, and has inadequate vehicular capacity. Raising the bridge requires blockage of SR 12 for 10 minutes for small boats and 25 minutes for large vessels. In 2010, the bridge was raised about 10 times a day. The roadway volumes on SR 12 in 2010 were in excess of 20,000 vehicles per day, resulting in a level of service (LOS) of F. Both daily and peak hour volumes on SR 12 exceed the capacity of a two-lane roadway. The main purpose of the AECOM study was to identify alternative designs and locations for a high level bridge or tunnel crossing. Seven alternatives were identified.

The 2012 Atkins study examined the entire SR 12 corridor, including both the Rio Vista Bridge and the Mokelumne River Bridge, both drawbridges. The Mokelumne River drawbridge will be impacted by the WaterFix construction; it is located only about two miles from the route of the proposed tunnels and is expected to have major barge activity. This bridge has a clearance of only eight feet, and according the Caltrans bridge operating staff, "the Mokelumne River Bridge is the most frequently opened bridge in California." (SCDA-107, p. 4-7.) Such openings produce estimated queues in the range of 150 vehicles extending over ½ mile during peak travel times. This bridge, which was constructed in 1942, is now rated by the Federal Highway Administration National Bridge Inventory as both structurally deficient and functionally obsolete.

According to Caltrans websites, SR 12 in 2016 carried approximately 23,000 to 25,000 vehicles per day during peak months, when WaterFix construction will occur. There were up to 3,000 trucks per day, of which about 60 percent were five axle or more "big rigs."

Even though the FEIR fails to disclose the major traffic impact that will be caused by draw

[5] SCDA-106 is a true and correct copy of the SR 12 Realignment / Rio Vista Bridge Preliminary Study.

bridge openings on the Rio Vista and Mokelumne River bridges, the EIR describes traffic volumes and impacts that are substantial. Table 19-25 describes the key section of SR 12 (SCDA-102, Section CT 43, p.19-212) as operating at unacceptable traffic levels during 13 hours per day, even though it has less than 1,400 peak hour volumes, meaning worse than LOS D conditions. In reality, 2016 Caltrans volumes show this section already operating at 2,400 vehicles per hour during the peak hour, which is LOS F. This is without any project construction traffic added.

In calculating the existing volumes and level of service, the traffic study ignores the up to 10 existing Rio Vista Bridge closures per day and also does not consider the additional barge trips on the Sacramento River to haul tunnel liners to the tunnel corridor and to haul tunnel muck away from the tunnel corridor, which will require additional openings of the Rio Vista Bridge. The EIR also does not consider the many openings of the Mokelumne River Bridge that will be caused by barge traffic servicing tunnel construction.

DWR projects that there will be no more than 9400 barge trips over 5–6 years. This estimate seems low as there will be 30,000,000 cubic yards of tunnel muck to haul away from the tunnel excavation and eighty miles worth of forty foot diameter precast tunnel liners to haul in. There will also be a constant flow of tools, equipment, workers, and miscellaneous materials to and from the tunnel zone, much of which cannot be accessed by road but must be reached by water. Barge travel will be restricted to the period between June 1 and October 31 each year. It seems likely that at least two openings of the Rio Vista Bridge and Mokelumne River Bridge will be required each summer work day to accommodate barge traffic. Each 25 minute opening may snarl traffic for a half mile or more in each direction and if both the Mokelumne River Bridge and Rio Vista Bridge are open at the same time, it could cause solid gridlock on SR 12.

III. Construction Traffic in the Hood / Clarksburg / Locke Area Will Severely Impact Recreation and Overwhelm Small Delta Legacy Communities And Historic Districts.

Major construction activity will take place along Highway 160 near the towns of Hood and Clarksburg. Hood and Clarksburg are small quant communities and have been designated as legacy communities by the California Legislature. The National Historic District containing the small town

of Locke is also nearby.

Three large intake structures and associated facilities will be constructed over seven years along a six mile stretch of the Sacramento River. Several thousand construction workers will access this area daily and large construction staging yards, concrete batch plants, fuel stations, and other concentrated construction facilities are located in this large, intense construction impact zone. (SCDA-73.)

Traffic on the Hood Franklin Road, which connects Highway 160 with Interstate 5, and Highway 160 north and south of Hood is projected to increase between 500% and 1000%. Traffic on Lambert Road, which connects Highway 160 to Interstate 5 just south of Hood is expected to increase up to 5000%, and traffic on Walnut Grove Road, which connects Interstate 5 to Highway 160 at Walnut Grove, is expected to increase 400% to 500%. (SCDA-102.) Traffic across the River from the intakes, at Clarksburg, is expected to increase on Courtland Road and South River Road up to 2100% because construction workers accessing the intake sites from the west will travel on Courtland road and River Road to cross bridges at Walnut Grove (downstream from the intakes) or upstream from the intakes at the Paintersville Bridge. Traffic through Walnut Grove and Locke will increase by over 300%. (SCDA-102.)

This exponential increase in traffic on quiet two-lane country roads will change the character of the driving experience in this area as well as occasioning backups and delays. The area will be much less attractive to visit because it will lose its rural isolated quality, which is an integral part of the character of this place.

There is no way to mitigate the overwhelming impacts of flooding an area with a mass of construction workers that is several times the population of the towns. The rural recreational activity of going for a drive on quiet country roads will be lost. Visits to local wineries and other small tourist destinations will become less attractive and the attraction of driving small country roads, which is a recreational experience in itself, will be lost.

It is unclear why DWR chose to locate the intake structures right next to two small legacy communities and within range to do significant harm to the National Historic District and small town of Locke. The impact of traffic on these communities is reason enough to consider alternatives

to locating the intakes in this area and to consider alternatives to the project itself.

III. Proposed Mitigation Measures are Ineffective.

The EIR, beginning on page 19-218, lists three mitigation measures to deal with the impacts identified in the document. When considering the EIR's flawed assumption regarding the Rio Vista Bridge being a high level bridge and not requiring closure for existing or added river traffic, the titles alone of the identified mitigation measures clearly indicate their ineffectiveness to correct the massive impacts raised by the WaterFix project on SR 12:

- Mitigation Measure TRANS-1a: Implement Site-Specific Construction Traffic Management Plan
- Mitigation Measure TRANS-1b: Limit Hours or Amount of Construction Activity on Congested Roadway Segments
- Mitigation Measure TRANS-1c: Make Good Faith Efforts to Enter into Mitigation Agreements to Enhance Capacity of Congested Roadway Segments

VI. Conclusion

One can only conclude that the proposed impacts on SR 12 in the vicinity of Rio Vista and the SR 12 Delta Gateway Corridor between Rio Vista and Interstate 5 would amount to a de facto road closure of the State Highway during construction periods. The impacts are so massive as to be immitigable. Impacts would seem to extend beyond transportation to include commerce, agriculture, recreation and other issues in the region served by SR 12. In my opinion, reasonable and prudent measures in Project planning to protect Delta recreation would include re-locating the Bouldin Island facility to another location that would not have such severe traffic impacts.

The impacts on the Hood, Clarksburg, Walnut Grove, Locke, and the quiet surrounding countryside are also cannot be mitigated as a project of this scale cannot be grafted onto small rural communities without altering the character of the place including the country driving experience.

Analysis of water supply alternatives is beyond the scope of our expertise. However, we understand that expert testimony by qualified resource engineers will be offered in these WaterFix hearings to show that water supply alternatives to the WaterFix Project are feasible and cost-effective. If feasible alternatives exist, in my opinion, the massive impacts on traffic and recreation

would dictate that the Project not be built.

Executed this ___ day of _____ at Pleasanton, California,

Chris Kinzel

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Executed this 29th day of November at Pleasanton, California,

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