



**SIERRA CLUB**  
DELTA-SIERRA GROUP  
MOTHER LODE CHAPTER



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4.11.2020

via email to [SFBaytoStockton@usace.army.mil](mailto:SFBaytoStockton@usace.army.mil)

Re: San Francisco to Stockton Navigation Improvement Project Final General Reevaluation Report and Environmental Impact Statement (Final GRR and EIS)

The COVID 2019 Pandemic has affected the ability of the public to comment on the Final GRR and EIS. The City of Stockton closed City public offices, counters and locations following a March 12, 2020, City of Stockton Local Emergency Proclamation. Effective March 15, 2020, the hard copies of the Final GRR and EIS placed by the US Army Corp of Engineers (ACE) were not accessible to the public as the Cesar Chavez Central Library, 605 N El Dorado St, Stockton, CA 95202 was closed to the public<sup>1</sup>. The review time for these environmental documents should be extended and we appreciate the accommodation granted; however as time passes a greater extension is needed.

The Delta Sierra Group of the Sierra Club (DSG) has reviewed the Final GRR and EIS principally regarding the involvement of the Port of Stockton and cumulative effects and provided comments below with the support of Restore the Delta and California Sportfishing Protection Alliance.

**General Overview**

The San Francisco Bay to Stockton Navigation Improvement Project was originally authorized by Congress in the Rivers and Harbors (R&H) Act of 1965. The most recent navigation improvement project under review encompasses a 13.2 mile length of navigation channel area just east of the Benicia-Martinez Bridge, Pinole Shoal Channel, and Bull’s Head reach within the Suisun Bay Channel to Avon. The navigation channels from Avon to the Port of Stockton project that dredged to -35 feet mean lower low water (MLLW) was completed in 1988, according to the Final GRR and EIS<sup>2</sup>.

The original project scope authorized for the San Francisco to Stockton study was for a 78 mile long navigation project to include the John F. Baldwin and Stockton channels; however, it was re-scoped in 2016 to include navigation improvements only up to Avon (13.2 miles). In 2016, the preliminary economic analyses that included the full 78 miles indicated that deepening the navigation channel in the eastern reach of the study area to Stockton did not merit Federal interest owing to a benefit-to-cost ratio below 1.0. The 13.2 mile project economic analysis indicated a benefit to cost ratio of approximately 4 to 1.

The recommended project involving 13.2 miles has a total cost of \$57,220,000 with the following allocations:

- \$37,180,000 federal cost share (75%) after additional factors included
- \$20,010,000 local cost share (25%) after additional factors included

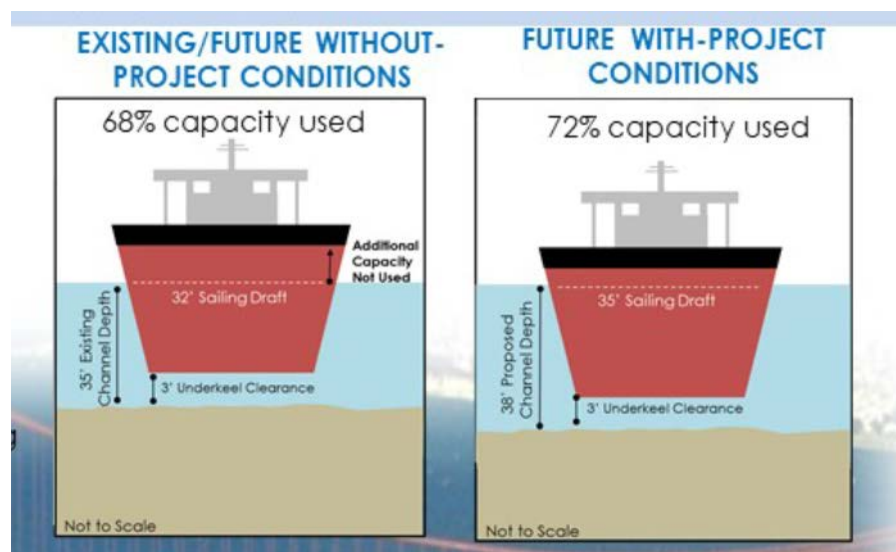
<sup>1</sup> <http://www.stockton.lib.ca.us/locations/changes.html>

<sup>2</sup> San Francisco Bay to Stockton, California, (John F. Baldwin Ship Channel and Stockton DWSC) Avon to Stockton. Interim GDM and EIS (No. 1), U.S. Army Corps of Engineers, Sacramento District, September 1980 per Final GRR and EIS.

A financial analysis is required for any plan being considered for ACE implementation that involves non-Federal cost sharing. The purpose of the financial analysis is to ensure that the non-Federal sponsor understands the financial commitment involved and has reasonable plans for meeting that commitment. By memorandum dated April 24, 2007, the Assistant Secretary of the Army (Civil Works), granted approval of the self-certification of non-Federal sponsors for their ability to pay the non-Federal share of projects. The self-certification is required prior to submission of the Project Partnership Agreement. Included with the self-certification, the financial analysis shall include the non-Federal sponsor's statement of financial capability, the non-Federal sponsor's financing plan, and an assessment of the sponsor's financial capability. The appropriate self-certification form has been provided to USACE by the Port of Stockton. ***Please provide us a copy of the Port's financing plan for this project prior to submission of the Project Partnership Agreement.***

The navigation channels within the study area are regionally significant, providing navigation access to ports, harbors, refineries, and military terminals from the San Francisco Bay through San Pablo and Suisun Bay and up the Sacramento-San Joaquin Delta and the San Joaquin River to the Port of Stockton. The bay and delta navigation channels are naturally shallow – much of this area was historically tidal wetlands. Over time, channel deepening of the natural waterways and regular maintenance dredging has facilitated modern vessels to traverse the channels.

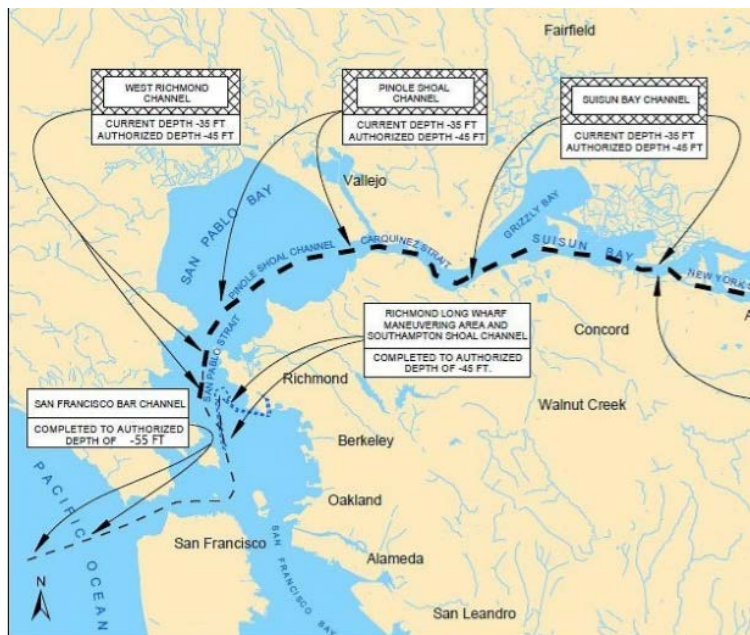
The largest modern vessels crossing the channels can require up to 55 feet of draft when fully loaded. Given that these channels are maintained at -35 feet MLLW, these large vessels must be “light-loaded”, or less than fully loaded with cargo, to navigate the channels with sufficient under-keel clearance. Light-loading increases the cost of transportation and, in turn, the cost of the shipped products because more trips must be made to carry the same volume of cargo for oversized vessels. Light-loading is not desirable. Within the study area, tankers carrying crude oil to California oil refineries and exporting petroleum are most impacted by light-loading practices. There are currently five refineries in northern California, four of which are located within the project area. The four refineries are owned by Shell, Tesoro, ConocoPhillips, and Valero. The fifth (Chevron) is located nearby at the Port of Richmond. Crude oil represented the majority of the total tonnage of import commodities that moved through the study area to port facilities in the study area. Most of the crude oil moving through the channel is imported from foreign countries, although a small percentage of crude comes from domestic sources such as Alaska. The following figure illustrates the light loading situation for the design vessel (Panamax) with a full draft capacity of -45 feet MLLW.



Lightening of petroleum products is no longer allowed in San Francisco Bay. Larger ships cannot off-load cargo to “share the load”. Light-loading reduces vessel draft so that they can safely traverse the channel. In the bay area, a 2 foot under-keel clearance is required for non-hazardous material, and a 3 foot under-keel clearance is required for hazardous material (i.e., petroleum). This safety measure helps reduce the risk for a vessel

to run aground while traversing the channel. Vessels will often wait for favorable (high) tides of up to 6 feet in a two hour window (up to 12 hours of delay) to in order to gain additional draft efficiencies. The

operational strategies riding the tide and light loading are used today by the deep draft vessels that call at the oil refineries located throughout the study area.



Instead of the current dredging to -38 feet MLLW over a span of 13.2 miles of channel, the 1998 GRR recommended a pipeline to utilize existing pipeline owned by Pacific Gas and Electric and a new pipeline between Avon and Richmond with a draft berth of -45 feet MLLW near Richmond where oil tankers could unload petroleum products. The adjacent figure shows how a minor improvement to Richmond channel with parts already at -45 feet MLLW could have accommodated for the increased petroleum imports.

A later determination found that ACE did not have authority to construct an oil pipeline. Subsequently, the oil industry determined that it was not in their interest to proceed with the pipeline because it

was not cost effective. Today, the non-Federal sponsor (Port) does not support this management measure as an alternative, and it is no longer considered within the re-scoped study area.

The statement that “the proposed 3 feet of additional dredging in the existing navigation channel does not increase the size of the vessels traveling throughout the Bay<sup>3</sup>” is not supported. Neither are these statements: “We are not anticipating an increase in ship traffic (i.e., trip frequency) or size as a result of this project. The assumption is that the existing ships that call (i.e., oil tankers) simply would be more fully loaded, leading to a reduction in vessel transits/calls with channel deepening. Increased noise which likely would be associated with larger ships (McKenna et al. 2013) is not expected to result from this project.” The economic analysis assumed growth in vessel traffic until 2040 and based annual increases in crude oil of 1.2 percent using the California Energy Commissions latest available presentation from 2011. In the last 10 years fuel economies have increased as has the market share of electric vehicles and equipment. More recent data regarding crude oil and refined products is needed to support or not the statements contained in the Final GRR EIS.

The deepening the channel can reduce delays and the vessel’s capacity can increase towards its design capacity if commodities are available to transit and vessel loading practices. This increase in vessel capacity utilization can result in fewer trips being required to transport forecasted cargo. However, more fully loaded vessels potentially create larger waves with increased shoreline erosion and increased sound. The statement growth in vessel traffic is assumed to increase until 2040 conflicts with the statement that the number of shipping vessels under both alternatives is projected to decrease slightly as compared to the no action alternative. Larger waves, increased shoreline erosion and noise should be reconsidered using the increased larger vessel traffic predicted through 2040.

The analysis ignored cumulative growth inducing effects of deepening the channel on further dredging upriver or the overall trend of larger vessels as illustrated in changes in the distribution of vessel size. In the year 2000, the three smallest classes (20k, 25k, and 35k deadweight tons) comprised 53% of the vessel fleet; in 2015 those three classes comprised just 18 percent of the fleet. If larger vessels can be

<sup>3</sup> Appendix I: Pertinent Correspondence - Part 2 Public Comments & Responses

accommodated, then larger vessels will call on affected ports. Recent improvements at the Port of Stockton and projects in planning are specifically designed to accommodate larger vessels (NuStar and Lehigh).

## **CEQA**

Although the GRR was originally intended to be integrated with both National Environmental Protection Act (NEPA) and California Environmental Quality Act (CEQA) compliance requirements, the GRR may or may not be used as CEQA documentation; CEQA compliance will be determined by the non-Federal sponsor (Port). Although the non-federal sponsor for this project is the Port of Stockton, the navigation channel users benefitting from the proposed improvements are located within Contra Costa County. According to the Final GRR and EIS, Contra Costa County has determined they are unable to complete the CEQA process. On March 11, 2019, the Port of Stockton informed the Corps they were considering acting as CEQA lead for the proposed project improvements included in the Final GRR EIS report through the issuance of a future NOP addressing project-level compliance for the recommended alternative, and programmatic compliance for future deepening of the Stockton Deepwater Ship Channel (SDWSC). This intent has since been confirmed through a series of follow-on communications between the Port and Corps of Engineers' leadership in April 2019.

The Port's intention to potentially deepen the navigation channel from Avon to Stockton was addressed in the Cumulative Effects section of the Final GRR and EIS. NEPA defines a cumulative effect as an environmental effect that results from the incremental effect of an action when combined with other past, present and reasonably foreseeable future actions, regardless of what agency (Federal or non-Federal) or person undertakes such other actions. The cumulative effects analysis consisted of lists of projects with a summary wholly inadequate to evaluate cumulative effects of the proposed project.

Since the ACE states on multiple occasions that there will be no change in the amount of fuels moving through the area, that vessel traffic will be decreased, then there will be no additional GHG emissions that will be contributing to climate change. This assumption ignores the fact that throughput can be increased with increased imports. The statement that follows misrepresents the potential of the project to increase GHG emissions affecting climate change and the decreasing the state's ability to achieve climate change goals. The "only expected irretrievable resource commitment from is the consumptive use of nonrenewable fossil fuels for the operation of dredge, tugs, and related support equipment during construction and future maintenance dredging." The position that traffic will not increase ignores the fact that there is no congestion now even with the increased size of vessels in the fleet which would require more "waiting for the right moment" to travel up into the delta. This was the evidence that congestion fees charged when high traffic results in delays unloading cargo would be ineffective at meeting the planning objectives. Congestion in the channels is not a problem and not projected to be a problem in the future. There is no way to limit the number of larger vessels that import fossil fuels to existing levels so ignoring this growth inducing change and the additional GHG fails to assess the potential impacts of the recommended project.

The project is adjacent to many areas that are not currently developed for maritime use. Some locations may be particularly subject to additional or different development pressures if this portion of the channel is deepened and vessel traffic increases. The EIS should generally discuss the degree to which the deepening project may have growth-inducing effects.

### **Avon to Stockton Cumulative Effect Final GRR EIS:**

"The Port of Stockton may propose to deepen the Stockton Deep Water Ship Channel from Avon to the Port of Stockton in the reasonably foreseeable future. The Port would have to address alternatives and their environmental effects through a separate NEPA and CEQA analysis and obtain approvals and permits from the appropriate resource agencies. The project would be responsible for avoidance, minimization, and mitigation requirements determined to be necessary



based on the outcome of the NEPA/CEQA analysis completed for the project. At this time, the project is undefined as to the proposal for navigational depth improvements, as well as timing of proposal.”

This cumulative effect is inadequate since communications with the Port have indicated that the Port intends to move forward in the process. According to the Port’s Comprehensive Annual Financial Report for Years Ended June 30, 2019 and June 30, 2018 the Port includes as outstanding construction in progress: *Dredge the Deep Water Channel to 40 Feet* with \$4,281,737 designated. This is in addition to funds already spent to fund the ACE environmental analysis for the dredging to Avon. Clearly, the Port intends to move forward with further deepening of channel access to Stockton.

The Port has not developed adequate outreach to affected communities on projects where they are deemed lead CEQA agency. For example, in these trying times the Port certified a final EIR without releasing the final EIR to the public nor posting the document on their website as reported by several environmental organizations and limiting comments to 250 words<sup>4</sup>, and none of the submitted comments were read aloud to ensure that the Commissions were informed.

CEQA compliance is a non-Federal responsibility and the Port of Stockton is reportedly pursuing this compliance on a separate timeline. In January 2020, USACE met via teleconference call with representatives of the Regional Board regarding the path forward for obtaining 401 water quality certification of the recommended plan, and the timing of completion for the final report. During this meeting, the Regional Board representatives indicated that submittal of the water quality certification application would need to be deferred until the design phase of work and committed to transmittal of a letter to USACE in February 2020 confirming inter-agency coordination and the path forward for 401 water quality certification upon completion of CEQA compliance and design detail. Upon receipt this letter will be included in the final report package prior to the Director’s signing indicating that once the design phase and CEQA certification is complete the 401 water quality certification process will begin or be certified?

### **Dredging**

To accomplish the ACE objectives the recommended plan would result in approximately 1.6 million cubic yards of dredged material, using a clamshell dredge to avoid entrainment of species and by placing all dredged material from deepening onto beneficial reuse sites to create/enhance wetland habitats and conditions for species within the delta, including delta and longfin smelt. The dredge project will include:

- Deepen the existing maintained channel depth of the Pinole Shoal Channel and Bulls Head Reach (Suisun Bay) from -35 feet to -38 feet MLLW, with approximately 13.2 miles of new regulatory depths (1,443,900 cubic yards and 38,700 cubic yards, respectively)
- Dredge a 2,600 foot sediment trap at Bulls Head Reach with a depth of -42-feet MLLW, plus 2 feet of over depth (120,600 cubic yards)
- Level the rocky obstruction located to the west of Pinole Shoal from -39.7-feet MLLW to -43-feet MLLW in the Suisun Bay Channel (40 cubic yards)

The analysis and rationale as described above resulted in three sites chosen to be carried forward for consideration as the most likely sites given current assumptions, and are briefly discussed below:

1. Cullinan Ranch. Cullinan Ranch, a 1,575-acre parcel in the San Pablo Bay National Wildlife Refuge, was originally purchased by the USFWS for the purpose of increasing habitat. Located in Solano County, the southern property boundary of the parcel is a naturally formed levee that is the

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<sup>4</sup> <https://www.sierraclub.org/sites/www.sierraclub.org/files/sce-authors/u14441/4.5.2020%20POS%20250%20Comment%20DSG%20Collective.pdf>

base for State Highway 37. The western property boundary of the parcel comprises Dutchman Slough and South Slough, both of which flow into the nearby Napa River. Cullinan Ranch is a tidal restoration project with the goal of restoring diked baylands to historic tidal marsh conditions by using dredged material to raise site elevations by approximately 6 feet. Cullinan Ranch is permitted to receive up to 9 million cubic yards of dredged material and currently has the capacity to accept up to 2.4 million cubic yards of dredged material.

The Redwood City Harbor deepening project and other maintenance dredging projects are also considering using this site. Placing material at Cullinan meets the planning objective of maximizing beneficial reuse of dredged material unlike the San Francisco Bay-Deep Ocean Disposal Site (SF-DODS) which has been contested as a go-to alternative requiring little plan and which does not support goals of the San Francisco Bay Conservation and Development Commission.

2. Montezuma Wetlands. The approximately 1,800-acre Montezuma Wetlands Restoration Project is a privately owned and operated wetland restoration project located adjacent to Montezuma Slough in northern Honker Bay. In the early 1900s, the site was diked, drained, and used for agriculture. Since the site was diked, the land has subsided up to 10 feet and dredged material is being used to raise site elevations for wetland restoration. The site can take dredged material with elevated concentrations of constituents of concern, as long as this sediment is buried under 3 feet of clean cover material. The Montezuma site currently has the capacity to accept up to 12 million cubic yards of dredged material.

However, the Redwood City Harbor deepening project is also considering using this site for dredged material. Placing material at Montezuma Wetlands meets the planning objective of maximizing beneficial reuse of dredged material unlike the San Francisco Bay-Deep Ocean Disposal Site (SF-DODS) which has been contested as a go-to alternative requiring little plan and which does not support goals of the San Francisco Bay Conservation and Development Commission.

3. San Francisco Bay – Deep Ocean Disposal Site (SF-DODS). The SF-DODS is located in the Pacific Ocean, approximately 55 nautical miles west of the Golden Gate Bridge. The site is the deepest and farthest-offshore ocean placement site in the nation. The regulatory site capacity of SF-DODS is 4.8 million cubic yards per year. Sediment placed at SF-DODS can have higher concentrations of constituents of concern compared to many beneficial-use sites. Placement of material at SF-DODS would be economically justified and material is anticipated to be suitable for this site but is not ideal since it takes material out of the natural system. Should material be unsuitable for upland placement or if upland placement is otherwise not available, material may be disposed of at SF-DODS. Appropriate coordination with EPA would be done prior to disposal. Continued efforts are needed to ensure that dredged sediments are beneficially used.

Having characterized these three locations the Final GRR and EIR included the following statement: “In addition to using dredged sediment to restore ecosystems in the Delta, a combination of existing and newly permitted beneficial reuse sites as well as existing and new upland dredged material placement sites used by USACE and the Port of Stockton for annual maintenance dredging events can be considered.” The Central Valley Regional Water Quality Control entered into an MOU regarding Port of Stockton dredging sites<sup>5</sup>. There was no meaningful discussion of those other sites.

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<sup>5</sup> <https://www.sierraclub.org/sites/www.sierraclub.org/files/sce-authors/u14441/r5-2019-0041%202019%20wdr%20cvrwcqb.pdf>

## Port Operations

Commodities brought through the Port of Stockton include bulk materials, such as aggregate, coal, petroleum coke, ores, clay, sulfur and anhydrous ammonia (Port of Stockton 2010). We have included a summary of commodity tonnage obtained from the audit reports<sup>6</sup>.

Port of Stockton Commodity Tonnages	2019	2018
Low Sulfur Coal dry bulk	1,584,111	1,636,116
Cement/Slag	704,501	901,229
Fertilizer liquid bulk	615,338	649,860
Sulfur dry bulk	229,085	270,244
Steel cargo	208,445	244,524
Food Grade Oil, liquid bulk	179,810	175,205
Molasses liquid bulk	171,216	138,653
Ammonia liquid bulk	158,314	133,412
Fertilizer dry bulk	125,157	122,890
Misc. dry bulk	106,554	180,339
Bagged Rice cargo	76,010	73,022

The Bay Area ranks as the fourth largest exporting region in the U.S. in terms of tonnage. While the Port of Oakland handles 82 percent of the region's maritime trade, the Bay Area's ports at Richmond, Benicia, San Francisco and Redwood City, plus the inland port at Stockton, also handle significant maritime trade. The Port of Stockton is the primary Northern California port for bulk cargo, with the remainder handled at San Francisco and Redwood City. Richmond and Benicia handle mostly automobiles and trucks. The following table, using data from the Port's annual audit reports (2019 report print only), summarizes the Port's tonnage in comparison with the other top ports in California:

Top Port Total Tonnage	2019	2018 <sup>7</sup>	2017 <sup>8</sup>
Los Angeles	207,338,000	194,515,000	198,077,000
Long Beach	159,475,697	180,282,413	173,938,307
Oakland	34,123,867	33,935,703	33,528,888
Richmond	5,328,045	23,393,424	244,911
Stockton	4,576,604	3,728,614	4,221,920

## ACE Objectives

The Final GRR and EIS stated that the Federal objective defining Federal interest in channel improvements is to reasonably maximize net benefits to the nation. Project specific objectives include:

- Objective 1: Reduce transportation costs and increase deep draft navigation efficiency for the shipment of commodities to and from all facilities within the study area beginning in 2020
- Objective 2: Maximize beneficial reuse of dredged material while minimizing placement costs
- Objective 3: Reduce frequency of operation and maintenance dredging in high shoaling areas
- Objective 4: Increase navigability to maintain safety

<sup>6</sup> <https://www.portofstockton.com/annual-report-archive/>

<sup>7</sup> <https://www.sierraclub.org/sites/www.sierraclub.org/files/sce-authors/u14441/port-of-stockton-cafr-fy2018.pdf>

<sup>8</sup> [https://www.sierraclub.org/sites/www.sierraclub.org/files/sce-authors/u14441/Port\\_of\\_Stockton\\_CAFR\\_FY2017\\_revised.pdf](https://www.sierraclub.org/sites/www.sierraclub.org/files/sce-authors/u14441/Port_of_Stockton_CAFR_FY2017_revised.pdf)

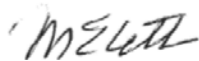
The Final GRR and EIS additionally stated that the State and local objectives in this case are consistent with the Federal and project objectives. Numerous State agencies wrote comment letters expressing other competing objectives for aspects of the project in addition to numerous non-governmental organizations and private citizens expressing values counter to these objectives recognizing other values that were not recognized by the ACE. Although, the Port greatly supports this project both financially through cost sharing and legislatively through project authorization.

There were a couple relevant reports listed relating to the Port that could not be located. Please provide links for these reports: The 2010 report titled, "Dissolved Oxygen and Water Quality Modeling for Stockton DWSC Final Report" that shows minimal changes in dissolved oxygen, which in turn would suggest the proposed project would result in minimal changes was not located<sup>9</sup>. Periodically, the Stockton Deep Water Channel at the Port of Stockton has had benthic hazardous algal blooms and is under a TMDL for dissolved oxygen with required aeration. Existing conditions indicate that the aeration established is insufficient to get the recirculation necessary to maintain adequate dissolved oxygen concentrations. The Final GRR EIS stated that this report is available upon request. Additionally, this reference was not located which we request:

[USACE] U.S. Army Corps of Engineers. 2015e. Fish and Water Quality Monitoring Report for the 2014 Port of Stockton Dredging Projects at Berths 14–15 and Berths 18–20. Jun.

Thank you for allowing us an opportunity to review these project documents. We hope that our comments will provide a local perspective.

Sincerely,



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<sup>9</sup> [https://www.waterboards.ca.gov/centralvalley/water\\_issues/tmdl/central\\_valley\\_projects/san\\_joaquin\\_oxygen/implementation\\_activities/](https://www.waterboards.ca.gov/centralvalley/water_issues/tmdl/central_valley_projects/san_joaquin_oxygen/implementation_activities/)