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April 3, 2020

Paul DeMarco
US Army Corps of Engineers
701 San Marco Blvd,
Jacksonville
FL 32207-8915

Re: San Francisco Bay to Stockton, California, Navigation Improvement Project

Dear Mr. DeMarco,

Thank you for providing us an opportunity to weigh in on the proposed channel dredging project through San Pablo Bay to Avon. We would normally write a deeper technical critique, substantiated by peer reviewed citations, published news, and other literature, but we were only recently notified about this without enough time to provide a more thorough review. Under these circumstances I trust that my conservation colleagues will have pinpointed the concerns that I would highlight, and I will instead focus on a larger systematic critique, with only a few site-specific concerns addressed below.

While we understand that the larger systematic aspects of this project are not specifically in the purview of the Army Core of Engineers, or the remit of this specific project, we hope that they will temper the consideration of the many specific elements that are.

The larger prospect of subsidizing the Phillips 66 Rodeo Refinery with a $57 Million access project has been something that we have been inadvertently following this since Bay Area Air Quality Management District (BAAQMD) President Jack Broadbent - against staff advise, and against the BAAQMD Board recommendations, permitted a capacity increase for the refinery. It was at this point that I started assessing the objective of the capacity increase, even while Broadbent claimed at the time that it was more of a “means testing” rather than a tacit approval of expansion.

This was in 2018, when the Keystone XL pipeline was still tangled up in trans-border issues. In response, Trans Canada began pushing for the Trans Mountain expansion project – in order to get Alberta Tar Sands to market. In looking at the dredging project, it appears as though the purpose of the refinery expansion permits and the deepening of the channel is to make way for Panamax tankers carrying Alberta tar sand crude to the Phillips 66 Rodeo Refinery.

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This product itself has many liabilities – being too thick to pump, it initially needs to be heated up to flow, and "pre-refine" using natural gas from Alaska. So even before the tar sands hit the pipeline, they have already contributed significant CO_2 into the atmosphere. It also has a high Sulphur content – which I will address below.

The Trans-mountain pipeline is also running into resistance at the borders of the Sovereign First Nations People around the Salish Sea – on both sides of the US-Canada border.[1] These people rely on the bounty of the Salish Sea, through which the tankers carrying the Tar Sands crude will ply. The Vancouver terminal will feed into the Salish Sea and will triple the ship traffic in the area.

The Salish Sea is the home of the Southern Resident Killer Whales – which are of significant conservation concern. Food scarcity is one of the pressures on this population. But this is exacerbated by noise from ships masking the communication and bio-sonar signals that these animals depend on to successfully hunt. Tripling the shipping density of the Salish Sea will almost certainly ring the death knell on this cherished, and endangered population of Orcas.

Then there is the question of increased shipping traffic in the San Francisco Bay Area. The approaches to the Bay ply through the Cordell Banks and the Gulf of the Farallones National Marine Sanctuaries. These sanctuaries have been called 'The Serengeti of the Pacific' due to the density of marine life they support. This includes Eastern Pacific grey whales, blue whales, fin whales, minke whales, humpbacks, and an assortment of odontocetes.

The large baleen whales are subject to ship strikes. At least 10 whales were killed in the approaches to San Francisco Bay in 2018 alone[2]. Increasing shipping traffic, particularly with large Panamax tankers, would likely increase the incidents of ship strikes. This situation would be exacerbated by the recent increase in baleen whale traffic inside the Bay.

The argument in the EIS states that increasing the ship size would decrease the quantity of ships due to the larger load capacity. But this is not substantiated by any models. There may be some asymptote between the quantity of ships and the increased capacity of the refinery, but this was not discussed in the EIS.

What also belies the "ship capacity and ship traffic" calculous in the EIS is the project's complimentary plan by C.S. Land, Inc., a subsidiary of Phillips Petroleum, to "double the tanker traffic" at its wharf. This proposed project would also un-cap a toxic waste site left by Selby Slag – which has been leaching heavy metals into the

[1] Brian Cladoosby, Leonard Forsman, Teri Gobin and Jay Julius, "The Trans Mountain pipeline is a disaster – but Trudeau can make it right" The Guardian, June 14, 2019

[2] Jesse Ryan "Whales are facing a big, deadly threat along West Coast: Massive ships" Washington Post March 19, 2019

Bay for 100 years.[3] There is substantiated concern that this project will release toxic metals into the air and into the Bay.

Which brings up another point about dredging and stirring up the Selby Slag heavy metals, as well as mercury in the deep sediments of the bay. While there is a general mention of "Hazardous Materials Sites" (Section 2.2.14 in the EIS) there is absolutely no mention of these toxic sediments from the Selby Slag site in the EIS. I would like to see this addressed in terms of the cumulative damage imposed by the release of these toxins by the expansion of the docking facilities and the disturbance of these materials caused by the dredging.

So it seems from the foregoing, that a lot of effort, and a lot of environmental damage at the site, in the approaches to the Bay, in the Sanctuaries, in the Salish Sea, and all the way up the pipeline to the Alberta Tar Sands.

And then there is the Sulphur content of the product, which might be usable as bunker fuel if not refined out (which is expensive). Currently the largest consumer of bunker fuel is the shipping industry. But the demand for high-sulfur, tar-sands crude is projected to drop when the International Maritime Organization's global pollution standards become more stringent less than a year from now (January 1, 2021).

In fact, the demand for all petroleum products is decreasing, due to the need to shift away from fossil fuel - in order to save the planet from the ongoing climate catastrophe.

As of this writing the cost of "sweet Texas crude" is hovering around $20 a barrel. This is not exclusively due to the current COVID-19 pandemic; it is due to over-production in a diminishing market. As much as the industry has tried, the price of oil has not exceeded $56 a barrel since 2015. Bankruptcies in the industry have been accelerating since 2018.[4]

This dredging project is just another ill-advised link in a chain of ill-advised projects from beginning to end:

- Alberta Tar Sands are a dirty, High-Sulphur product that is CO_2 intensive.
- The Trans Mountain Pipeline is being blocked and litigated by First Nations people along the entire route.
- Increasing shipping traffic in the Salish Sea will likely lead to the demise of the Southern Resident Killer Whale family (~75 whales).
- Increased shipping traffic will result in increased whale-ship strikes in the offshore National Marine Sanctuaries and approaches to San Francisco Bay.
- The expansion of the existing wharf to accommodate more, and larger ships will release heavy metals from the Selby Slag site.

[3] Jean Tepperman "Containing the Slag" Oakland Magazine, July 9, 2018
[4] Mikaila Adams "Bankruptcies Increase." Oil and Gas Journal, Feb. 3, 2020.

- Dredging will likely kick up sediment-sequestered toxins, and newly introduced toxins from the Selby Slag site.
- Demand for fossil fuel is diminishing, and needs to diminish to save the planet.
- Despite their inertia, the fossil fuel industry is going out of business.

While many of these troubling aspects of the overall project of bringing tar sands to San Francisco refineries are not specifically in the purview of the Channel Dredging project, the project facilitates all of these environmental and planetary degradations - all at some considerable cost to American Taxpayers. Just to advance the profits of a private industry that is slowly going out of business.

In light of the foregoing, it is our opinion that this dredging project should be scuttled.

Sincerely,



Michael Stocker
Director