

WHY THE CAD PROJECT IS NECESSARY

Duffy Duffield

In late January, the City of Newport Beach was informed that the federal government had approved funding for the Newport Harbor dredging project. It took five in-person trips to Washington, D.C. and one virtual trip this year to finally receive the good news. Congratulations to all those who worked to get this done!

Newport Harbor's main channels have been federally controlled since 1936. The U.S. Army Corps of Engineers is responsible for maintaining an authorized design depth of 10-20 feet (depending on the channel). Newport Harbor is an estuary with many thousands of acres upstream delivering sediment, vegetation (organic) and trash (inorganic) to the Lower Bay, along with water runoff throughout the year.

The U.S. Army Corps and the EPA, along with several other agencies that include the Santa Ana Regional Water Quality Control Board and the California Coastal Commission, control the dredging projects in our federal channels. Therefore, the City must comply with the strict rules and regulations set by those agencies.

Our harbor has not been comprehensively dredged to its design depth since its original construction in 1936. In 2012, 600,000 cubic yards of accumulated sediment was removed from Newport Harbor. About 130,000 cubic yards of that material was deemed "unsuitable for ocean disposal" and barged to a confined aquatic disposal (CAD) site at the Port of Long Beach where it was used as fill for a shipping terminal project.

The City has identified areas within the channels of Newport Harbor where approximately 106,000 cubic yards of unsuitable material still remain – areas adjacent to Lido Island, the Peninsula, and along W. Coast Highway.

To be clear: Unsuitable material is not considered "toxic" nor "contaminated" per the stringent definitions of the EPA. There are different criteria for determining whether sediments are harmful to animals in the harbor vs. those in the ocean. The sediments in the harbor have been tested and shown not to be harmful for the animals that live in the harbor or those that live in the ocean. However, because of the large volume of material that we need to dredge, the EPA preferred the safer alternative of keeping the material in the harbor.

Unfortunately, there are no plans in the foreseeable future at the ports of Long Beach and Los Angeles to expand operations, so there is no opportunity now or in the future to dispose our unsuitable sediment at a remote CAD site elsewhere.

Dredging this unsuitable material using an excavator, then barging to a shore-side processing area (assuming one were available), then trucking to a landfill, would potentially cost at least \$21 million and require 8,800 truck trips (assume 12 cubic yards per truck). For many reasons, including the impact of the volume of truck trips within the community and the lack of

availability of a shore-side processing area, we cannot truck the unsuitable material to a landfill or a confined disposal facility (CDF) without causing tremendous impacts to our infrastructure and our residents.

The EPA sets a mercury limit of 1.0 part per million for sediment to be placed at the federal disposal site six miles offshore, referred to as "LA-3." Our channels have sediment with mercury values between 1.5 to 5 parts per million. This is a legacy of our industrial past, and not associated with our current watershed best management practices.

Because the testing did not show any impacts to wildlife, the City negotiated with the EPA an increase from 1.0 to 1.5 parts per million that could be placed offshore, resulting in a huge cost savings. EPA officials agreed with the test results, yet they did not have any long term (20-plus years) studies to determine the correct mercury number as a threshold for ocean disposal. The City and the U.S. Army Corps worked with the EPA to potentially allow a higher threshold for ocean placement, but, ultimately, the EPA remained at 1.5. This EPA agreement also required the City develop an overall dredging plan (Sediment Management Plan) for the next several decades – a plan that also included a CAD site. Conversely, if no CAD is developed, then placing the 1.5 parts per million sediment in the open ocean would not be an option, and the more restrictive level would be imposed.

Every day in Newport Harbor, humans and wildlife are exposed to this unsuitable material, especially when sediment is stirred up during natural rain flow events or navigating at lower tides. It is not buried. Rather, this unsuitable sediment sits on top of the harbor floor and can be found in the channels adjacent to private homes and public beaches. We have been living with this material since World War II, and there have been no human or wildlife health issues as a result. Now, the City would like to move it deeper underground so that we are not exposed to it.

SEDIMENT TESTING

Several aquatic animals were studied while living in the unsuitable sediment (under strict laboratory testing protocols developed by the EPA and regulatory agencies) for weeks, and then removed to measure any toxicity or biological effects. All results were negative, which means that the animals were healthy and were not affected nor harmed by the unsuitable material. The tests also measured the animals' absorption of the mercury from the sediments, and those tests showed no impacts.

The living organisms, vegetation and wildlife in Newport Harbor are healthy and flourishing. The 2012 removal of 600,000 cubic yards of material dramatically improved water quality and resulted in the return of several fish species not seen for decades in Newport Harbor. Additionally, our eelgrass beds have not shrunk, but instead grown consistently to 112 acres (per our most recent 2020 survey) -- proving with evidence that dredging makes a healthy harbor.

OTHER HARBORS WITH CAD SITES

Long Beach, Port Hueneme, Boston Harbor, New Bedford, Chesapeake Bay, Humboldt Bay Harbor and Baltimore Harbor have implemented CAD sites in which to place their unsuitable material with the approvals from the regulatory agencies including the EPA, U.S. Army Corps of Engineers and U.S. Fish and Wildlife, etc. These projects were all successful and are being monitored and measured into the future.

The CAD method is safe and economically feasible. If we choose not to construct a CAD site, the harbor will continue to have 106,000 cubic yards of unsuitable material stirred up from the bottom, impacting our beautiful and valuable harbor forever. Likewise, we will be prevented from dredging our channels down to their intended depths so that they can be fully utilized now and in the future.