Sediment Processing Facility
Frequently Asked Questions

October 2021

Introduction
The Diamond Alkali Superfund site is being cleaned up in four phases called Operable Units. Operable Unit 2 is the lower 8.3 miles of the Lower Passaic River, which is the segment of the river from its mouth at Newark Bay to where the Second River joins the Passaic River at the Newark-Belleville border. In March 2016, the U.S. Environmental Protection Agency (EPA) selected a cleanup plan for the lower 8.3 miles that calls for installing a cap on the river bottom bank-to-bank, with dredging performed beforehand to make room for the cap and to accommodate the navigation channel.

What is the purpose of a sediment processing facility (or facilities)?
After contaminated sediments are dredged from the Passaic River, they will be brought to a sediment processing facility (or facilities) to be squeezed dry so as much water as possible is removed. The water will be treated to stringent standards set by the state of New Jersey and discharged back into the river. The dried sediment will then be shipped to a licensed disposal facility, somewhere in the United States.

There will be no incineration at the sediment processing facility or facilities.

As part of the design of the cleanup, a search was performed for properties that would be suitable for sediment processing facilities, as documented in the Site Selection and Evaluation Report (SSER, May 2018). The SSER evaluated potential parcels of land using factors that included parcel size, proximity to dredge and cap areas, quality of life impacts, and waterfront access and zoning. Several potential locations for sediment processing facilities were identified, but none would be large enough to accommodate any long-term storage of dredged sediments. EPA expects the dried sediment will be kept at the facility for days at most before it is transported off-site either by rail or truck.

The sediment processing facility is likely to use similar technology as was used for the Tierra Removal, a smaller dredging project performed in the river adjacent to 80-120 Lister Avenue in Newark. While the lower 8.3-mile cleanup is a much larger dredging project, EPA expects to apply a similarly robust air monitoring program to ensure that the dredging and sediment processing facility or facilities do not emit harmful contaminants.

The sediment processing facility or facilities will be built to withstand flooding and will take into account the busy traffic that already exists near the PVSC facility.

Where will the sediment processing facility or facilities be located?
The details of how to implement the cleanup plan are still being designed. The design explores various options for sediment processing facility locations, including:

- A sediment processing facility that could be constructed on property owned by PVSC in Newark
- Existing commercial sediment processing facilities in Kearny and Jersey City
- Additional staging areas along the banks of the lower 8.3 miles in Newark, East Newark, Kearny and Harrison.

Given the large volume of sediments that will be dredged from the river, all of these options are likely to be needed depending on where along the 8.3 miles the dredging is occurring in a given year and what type of equipment is needed to deal with the dredged sediments.

In the Site Selection and Evaluation Report (SSER, May 2018), EPA had identified existing PVSC property as a valuable location for sediment processing. Both EPA and the party performing the design of the cleanup, Occidental Chemical Corporation, discussed use of that property with PVSC. After the SSER was completed, a portion of the existing PVSC property was occupied for another use; more recently, PVSC has obtained a new property adjacent to its existing property and together, these properties could provide a uniquely favorable location for a sediment processing facility. At present, no agreement has been formalized to allow use of property owned by PVSC for sediment processing.

Who will construct and operate the sediment processing facility or facilities?
There is no agreement in place at this time on who will construct and operate the processing facility or facilities. Whoever constructs and operates the facility or facilities will be under strict EPA oversight. The existing commercial processing facilities are already operating under EPA and New Jersey regulations.

What will be the operating hours of the sediment processing facility?
The details of how to implement the cleanup plan are still being designed. Dredging is expected to occur from July 1 to January 14 of each year, weather permitting. Work at some sediment processing facilities may continue beyond January 14 to finish processing the season's dredged materials, although other facilities may operate for a shorter period of time. Work will typically be conducted 6 days per week, although a 7th day may be added occasionally to make sure that sediments are prepared for shipment off-site as quickly as possible.

How will the community be impacted by the sediment processing facility or facilities?
In 2012, Tierra Solutions, on behalf of Occidental Chemical, operated a sediment processing facility at 117 Blanchard Street in Newark to manage sediment dredged from the river during the Tierra Removal, under EPA oversight. The Tierra Removal included a robust air monitoring program. During the four months of dredging and sediment treatment, only one exceedance of air quality standards occurred at a monitor next to the dredging operation (not the sediment processing facility). Simultaneous monitoring in the neighborhood showed no exceedance of air quality standards.

From its oversight of the Tierra Removal and other Superfund dredging projects all over the United States, EPA has learned how to operate sediment processing facilities so that community health and safety are monitored and protected to the fullest extent. Measures to protect community health and safety will be documented in a Community Health and Safety Plan, in development.

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More information about the site is available:
www.epa.gov/superfund/diamond-alkali
www.ourpassaic.org