

Middle River Complex Sediment Project Bulletin – Season 1

Fall 2016

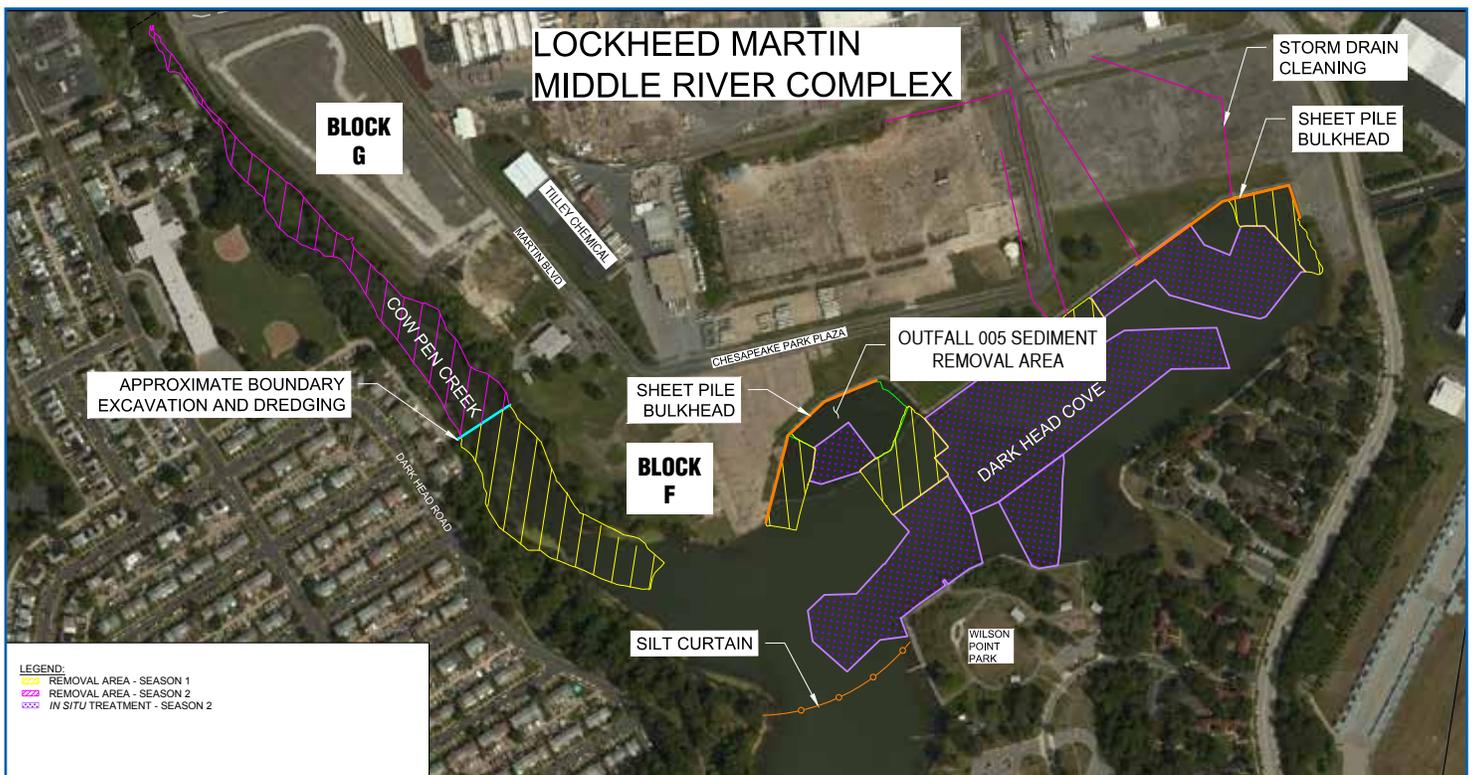
Sediment Cleanup Begins in October

Lockheed Martin will soon begin Season 1 of the final phase of sediment cleanup in Dark Head Cove and Cow Pen Creek. Plans for the work were presented to the community at the Public Information Session held at Marshy Point Nature Center on April 4, 2016. Since then, Lockheed Martin has worked to secure numerous permits required for the different aspects of the work from federal, state and local agencies. The project was approved by the Maryland Board of Public Works on September 21, and with approval of the sanitary sewer discharge permit in early October, all needed permits are in hand.

The next step in sediment cleanup is repair of the bulkheads on the north side of Dark Head Cove. The winter in-water work window begins on October 15; work on the bulkheads

begins on October 17, starting in the small inlet near Outfall 005 (where an earlier sediment cleanup project occurred), then proceeding to the bulkhead at the east end of Dark Head Cove. Marine-grade sheet metal will be placed on the water side of the old corroded sections and will be inserted using vibrating hammers operating from a barge. The sheets are tongue and groove and will interlock with each other. The gap between the old and new sheet metal will be filled with stone and topped with concrete. Storm drains on the northeastern portion of the cove will be cleaned and repaired as necessary and will be extended through the new bulkhead with new pipe.

Lockheed Martin contractors began mobilizing their equipment and materials in mid-September. Containment bins for receiving the dredged material are being placed on Block G. Silt fences and other approved controls, such as asphalt berms and stabilized construction entrances, will be placed for land-based erosion and sedimentation control.



Dark Head Cove and Cow Pen Creek, adjacent to the Lockheed Martin property, have been closed off with a silt curtain and boom as displayed above. A sediment removal dredging project is underway in this area.

Dredging also will begin on October 17 and will be done from two barges in the cove. A silt curtain will be placed across the mouth of Dark Head Cove around October 17 prior to starting any dredging or sheet pile work to isolate the work area. This will close off the cove to boat traffic. As in the past, Lockheed Martin will actively monitor the in-water work area using fixed buoys with sensors and telemetry, as well as mobile sensors deployed by hand from a boat. Silt will be controlled during dredging; and if water around the work area becomes measurably murky, an additional silt curtain could be added.

Dredging will proceed about 500 feet farther up Cow Pen Creek than originally planned because Lockheed Martin's contractor has determined that it will be more efficient and effective to dredge both the cove and the lower part of the creek in the same operation. At least 34,770 yards (an average of around 30-40 trucks per day, or approximately 1,750 total truckloads) of sediment will be removed during the Season 1 dredging operation.

Dredged material will be barged to the shore, off-loaded near the old concrete pad on Block F (former sea plane ramp) and trucked to the containment areas on Block G, where it will be allowed to drain in specially constructed bins before transport to any one of the five landfills in Virginia and Pennsylvania that have been approved by Lockheed Martin and the U.S. Army Corps of Engineers. The dredging, sediment drying and handling processes will be the same as those used in the winter of 2014-2015 to handle the contaminated sediment that was dredged near Outfall 005. However, the material being dredged this time is non-hazardous and will be mixed with municipal solid waste at the landfills. The dredging operation is expected to be complete by mid-February 2017, weather permitting. The in-water work must cease by that time to stay within the

required time frame of the winter work window.

Samples of the cove bottom will be taken during the dredging operation to ensure that the contaminated materials have been removed. Once that goal has been achieved, a layer of

Dredging equipment will be similar to that used in 2014-15.

sand will be placed on top of the dredged area to create a clean surface.

During Season 2, excavation of Cow Pen Creek will begin in June 2017, working down from the head of the creek. Over 12,600 cubic yards (or about 630 truckloads) of sediment will be excavated from Cow Pen Creek. Cofferdams, which are temporary watertight walls or water-filled bladders, will be placed on the streambed. The water within these temporary dams will be pumped out, exposing the creek bottom for excavation. The cofferdams will be installed, removed and reinstalled in sequence as the work proceeds down the creek. The Lockheed Martin team will also remove any debris and waste material it finds. Cow Pen Creek will be restored to a natural condition. The creek bed will be shaped similar to its previous form, and wetlands will be restored. Native trees, shrubs and plants will be planted. Clean sand and gravel will be placed on the channel bottom to provide good conditions for fish spawning and other aquatic organisms, and aquatic vegetation will be planted.

During the Season 2 in-water work window (October 2017 – February 2018), a layer of activated carbon granules will be distributed atop the remaining 14 acres of Dark Head Cove to treat those areas where concentrations of PCBs are so low that dredging does not make sense. (Note: Activated carbon is commonly found in the home in water filters and aquarium filters, among other uses.) The U.S. Environmental Protection Agency (EPA) has conditionally approved using this in-place treatment; it will take time for the carbon granules to integrate with the material in the bottom of the cove and become fully effective. Final approval by the EPA for the activated carbon remedy will depend on the results of its use. Samples will be taken one, three and five years after the carbon has been placed to determine how effective it is.

Middle River Project Manager Tom Blackman stated that, "If all goes well, given consolidation of the dredging project into Season 1 and its extension up Cow Pen Creek, and consequently smaller land-based Cow Pen Creek excavation project, we could very well finish cleaning up the cove and creek in 2017 and finish applying the activated carbon layer by early 2018, making the waterways available again to the community and in better condition than they have been for years."



For more information, a photo tour is available at www.lockheedmartin.com/middleriver or contact Tom Blackman, Project Lead, (301) 548-2209, Cell (240) 460-7508, Tom.D.Blackman@lmco.com or Mékell Mikell, Communications Representative, (800) 449-4486, Mekell.T.Mikell@lmco.com