## Middle River Complex Photo Tour -Sediment

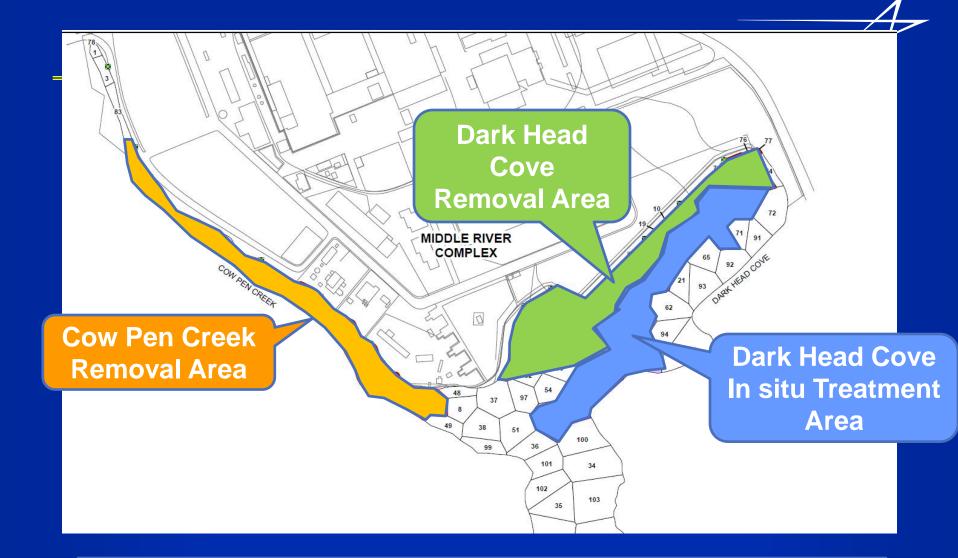
November, 2013

- Challes

Tom Blackman Project Lead

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LOCKHEED MARTIN



**Sediment Remediation** 

**Removal and Treatment Areas** 

## **Sediment Remedy Schedule**

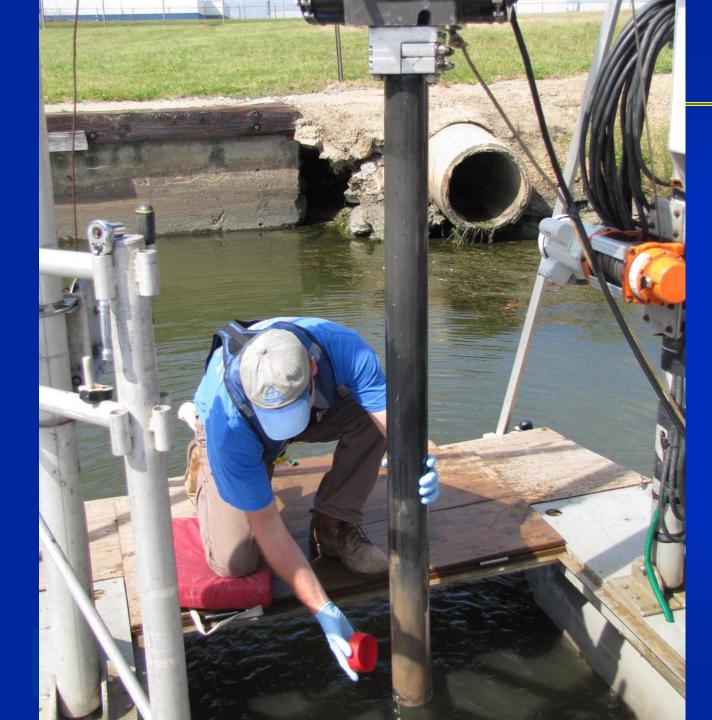
## Feasibility Study

- Submitted to Maryland Department of the Environment (MDE) and to the U.S. Environmental Protection Agency (USEPA)
- Public Information Session held on February 28, 2013
- Public and regulatory comments received and addressed
- Tentative Schedule of Remedial Action (pending remedy approval)
  - Additional sampling for the design (completed, now compiling the data and doing treatability testing)
  - Design and permitting (2014 2016)
  - Implementation of remedy (2016 2018)

## Work is being performed now to prepare for Sediment Remediation.



The project team, regulators, and researchers work together to optimize sediment cleanup plans.



**In September** 2013, sediment sampling was performed near outfalls and in Dark Head **Cove and Cow** Pen Creek to further understanding of areas where sediment remediation is being planned.



Sediment investigations are performed from a small barge. 6



Preparing to take a sediment core.



Dye Test Location #5 at outfall

In October 2013, a bulkhead dye test investigation was performed along Dark Head Cove to evaluate whether storm water drains properly (as shown here) from outfalls or other areas where storm water enters the cove.



Dye Test area #8 close up view shows area of leakage.

The tracer substance to be used is a red dye called rhodamine, which is not harmful to people or the ecosystem. Rhodamine is approved by the National Sanitation Foundation for use because it is inert and readily breaks down in the receiving waters.



Work continues in preparation for Sediment remediation. Future updates will be provided. A Citizens Guide and Feasibility Study Fact Sheet on Sediment are also available on this webpage (www.lockheedmartin/middle river).

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