

Middle River Complex - Groundwater Treatment Remedy - Construction **Frequently Asked Questions**

Brief Project Description:

Lockheed Martin has conducted extensive groundwater investigations and is implementing plans to address areas of groundwater contamination. Three areas have been identified where the highest concentrations are found, and where *in situ* (performed in place) bioremediation will occur.

Piping will be installed in each of these three areas. The piping will transport a mixture of water and nutrients to encourage naturally occurring bacteria to break down contamination found in groundwater. Injection areas will be constructed in Tax Blocks I, G and E (the latter two are located along Chesapeake Park Plaza). Where contaminated soil is located in the construction areas for piping installation, that soil will be removed and sent to licensed disposal facilities, and replaced with certified clean soil. Construction to support this effort is scheduled to begin in May 2013 and will continue until October 2013. Injection of the mixture is anticipated in early 2014.

The attached figure shows the locations of the three pipe installation areas.

A thorough description of the project is available in the booklet *A Citizens' Guide to Understanding the Groundwater Response Action Plan for the Lockheed Martin Middle River Complex*, dated August 2011.

A 'virtual' pictorial tour of the project will be documented and made available on the Lockheed Martin website at: <http://www.lockheedmartin.com/us/who-we-are/eesh/remediation/middle-river.html>

Frequently Asked Questions

1. What impacts will the project have on local traffic?

While this project addresses groundwater, soil removal is necessary in the areas where piping will be laid. An estimated 25 trucks per day will remove soil, and a similar number will bring clean replacement soil back to the site. Trucks will enter the project area by first turning off Eastern Boulevard (Rte. 150) at the traffic light on the corner next to the Exxon station, and will be staged at one of the site's parking lots. Trucks will then load soil in each

of the three areas where digging occurs, then using Chesapeake Park Plaza, will re-enter Eastern Boulevard (Rte. 150) and either turn left to go to Route 702N or right to Route 43.

Lockheed Martin or MRA Systems, Inc., (MRAS) employees or neighbors using Eastern Boulevard, Chesapeake Park Drive or Eastern Road should be cautious and watchful for trucks and flagging personnel while the project is underway.

2. How deep will you have to excavate (dig) at the site to remove the soil exceeding the cleanup criteria?

Trenches will be dug beneath and around the locations where piping will be installed at a depth of 3 feet, and will be 7.5 feet wide. Only soils found to be contaminated above industrial cleanup levels will be removed for offsite disposal at a licensed facility. All soil found to meet industrial cleanup levels will be used for refilling excavation holes after piping is installed.

3. How many trucks will be hauling the excavated soil and what will the route be?

A maximum of 25 trucks to haul waste soil to disposal will be scheduled for any given day, with a total of approximately 225 truckloads of waste soil anticipated for the entire project, based on our projections at this time. Soil will be transported to licensed and permitted landfills, either the GROWS landfill in Pennsylvania or the Chemical Waste Management facility in Model City, NY. A similar number of trucks (approximately 225) will bring clean soil to replace the soil being removed from the site, for a total of around 450 trucks coming to and from the work site.

4. What measures will be taken to control erosion and to prevent sediments from entering water bodies and drainage ways?

The disturbed area will be isolated from the surrounding area by combinations of berms, swales and/or silt fences placed along the perimeter. The controls will route storm water around the disturbed area so that the surface water does not flow across these areas where it could erode the exposed soils. The controls also will filter runoff in these disturbed areas so that sediment does not move from these areas. The measures were designed to comply with the requirements of Baltimore County, and County staff will inspect the installation of the control measures before approval to excavate is granted. Excess soil will be removed from the trucks and equipment used in the work before leaving these areas to minimize movement of dirt to roadways. Trucks will be covered with tarps prior to leaving the site to prevent dust leaving the trucks. Trucks will have sealed tailgates to prevent spills during transport.

5. What measures will be taken to control dust and noise during the work?

Work hours will be in accordance with local ordinances. Heavy equipment is scheduled to operate between the hours of 7 a.m. and 6 p.m. Site workers and truckers will be arriving earlier for equipment warm-up and truck staging for loading. Dust will be controlled by wetting the exposed excavation surfaces. Visual inspection and dust meters will be used to monitor the effectiveness of the dust control techniques.

6. What will happen to the disturbed area when the excavation is completed?

The excavations will be backfilled to the elevation of surrounding grade when completed. Clean backfill will be obtained either onsite or from an approved off-site source of certified clean soil. The disturbed areas will be restored to their original conditions, either seeding for the grass areas or paving with asphalt in parking areas.

7. How long will the project continue?

The soil excavation and piping installation work is scheduled to be completed in approximately 14 to 18 weeks with several additional weeks required for site restoration. The final site restoration efforts may require completion in the spring of 2014 to allow for seeding in the grass areas of the project. Of course, all this work is weather dependent and rainy or stormy weather could slow the work progress. Startup of the groundwater injection system testing with water or water and tracer is expected in late 2013.

8. What will be accomplished by the Groundwater Remedial Action?

The goal is to reduce contamination located in groundwater by up to 70% by encouraging naturally occurring bacteria to breakdown contamination. The expectation is that this will occur within 5 to 7 years after the injections are begun.

9. Who can we contact if we have questions during the work?

Any issues, questions or concerns about the work, noise or dust levels should be brought to the attention of Gary Cambre, Senior Manager of Communications for Lockheed Martin at 800-449-4486 or by email at gary.cambre@lmco.com.

For more information on career opportunities at Lockheed Martin, visit <http://www.lockheedmartinjobs.com/index.aspx>

