DEPARTMENT OF THE ARMY
U.S. ARMY INSTALLATION MANAGEMENT COMMAND
HEADQUARTERS, UNITED STATES ARMY GARRISON, FORT DETRICK
810 SCHREIDER STREET, SUITE 212
FORT DETRICK, MARYLAND 21702-5000

REPLY TO
ATTENTION OF

July 21, 2020

Environmental Management Division

Phillip Anderson
Maryland Department of the Environment
Land Restoration Program
1800 Washington Boulevard
Baltimore, Maryland 21230

Re: Submittal of the Final Proposed Plan for FTGL-06 (PCB Contamination North of Linden Lane), Forest Glen Annex, Silver Spring, Maryland

Dear Mr. Anderson:

Enclosed please find the Final Proposed Plan for FTGL-06 (PCB Contamination North of Linden Lane). Copies of this submittal have been furnished to Ms. Laurie Haines-Eklund of the U.S. Army Environmental Command and Mr. Russell Marsh of the U.S. Army Corps of Engineers, Baltimore District.

If you have any questions, please feel free to contact me at (301) 619-3196.

Sincerely,

Chief, Environmental Management Division
Directorate of Public Works

Enclosure

Defense Environmental Restoration Program

U.S. Army Installation Restoration Program

NO FURTHER ACTION PROPOSED PLAN

U.S. Army Fort Detrick – Forest Glen Annex

FTGL-06

PCB Contamination North of Linden Lane

HQAES Number 24605.1006

July 2020

NO FURTHER ACTION PROPOSED PLAN
FTGL-06: CONTAMINATION NORTH OF LINDEN LANE (HQAES Number 24605.1006)
FOREST GLEN ANNEX
SILVER SPRING, MARYLAND
(JULY 2020)

INTRODUCTION AND PURPOSE

This ***Proposed Plan (PP)*** identifies the preferred environmental cleanup action for Installation Restoration Program (IRP) Site Number FTGL-06 (Polychlorinated Biphenyl [PCB] Contamination North of Linden Lane; Headquarters Army Environmental System Number 24605.1006). FTGL-06 is comprised of three investigation areas located north and east of Linden Lane in Silver Spring, Maryland (**Figure 1**). This PP is intended, by the United States (U.S.) Army, to inform the public so that they may be involved in the process at FTGL-06. FTGL-06 is one of seven IRP sites at the Forest Glen Annex (FGA) under investigation and being remediated, as necessary. The location of the IRP sites at the FGA are presented on **Figure 2**.

The U.S. Army, with input from the Maryland Department of the Environment (MDE), issued this PP under Section 117(a) of the ***Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)*** of 1980, as amended by the ***Superfund Amendments and Reauthorization Act (SARA)*** of 1986; the ***National Oil and Hazardous Substances Pollution Contingency Plan (NCP)***, Section 300.430(f)(2); and the Defense Environmental Restoration Program. Besides this PP, the U.S. Army has made other environmental documents associated with FTGL-06 available to the public, as discussed further in this PP. The U.S. Army and MDE encourage the public to review this PP, as well as all the documents relevant to activities conducted at FTGL-06, in order to assist the U.S. Army in the selection of an appropriate response action.

This document uses acronyms and abbreviations for technical terms typically used in environmental programs, specifically conducted under CERCLA. A list of acronyms and abbreviations are provided at the end of this PP. Additionally, a glossary of selected terms, which are bolded and italicized in the text, is also provided at the end of this PP to define the terminology used.

IMPORTANT DATES AND LOCATIONS

Public Comment Period: July 23, 2020 to August 21, 2020
The U.S. Army will accept written comments on the PP during the public comment period.

Public Meeting: Thursday August 6, 2020
Due to safety concerns associated with COVID-19, the public meeting will be held virtually using Microsoft Teams. E-mail Katrina Harris at kharris@bridgeconsultingcorp.com for instructions on how to join the meeting.

The *Administrative Record*, containing information used in selecting the Preferred Alternative, is available for public review online at the following links:

- https://home.army.mil/detrick/index.php/about/Garrison/directorate-public-works/environmental-management-division *(Scroll down and navigate to Forest Glen Restoration Program tab)*
- https://www.nab.usace.army.mil/EnvironmentalNotices/

The *Administrative Record* is also available for public review at:

Silver Spring Public Library
900 Wayne Road
Silver Spring, Maryland 20910

The Administrative Record/Information Repositories for DERP activities are available for public review at:

Fort Detrick Installation Restoration Program Office
Building 262
Fort Detrick, Maryland 21702-5000

Please note, Government identification and a private vehicle search are required to enter Fort Detrick. Public spaces are subject to closures and restricted hours of operation due to COVID-19 precautions.

The U.S. Army is the ***lead agency*** for site activities at the FGA, and MDE is the ***support agency***. Under the Defense Environmental Restoration Program and CERCLA, the U.S. Army is required to follow a process consisting of the following steps:

- ***Remedial Investigation (RI)***: A study to identify and delineate the amount of contamination and estimate the degree of risk to human health and the environment.
- ***Feasibility Study (FS)***: If unacceptable risk is identified and cleanup is needed, an FS is performed to compare the cleanup alternatives.

- ***Proposed Plan (PP)***: A summary, for public review and comment, of the U.S. Army's preferred cleanup action or recommendation that no cleanup is needed.
- ***Record of Decision (ROD)***: A short report that describes the U.S. Army's selection of a cleanup action or decision that no cleanup is needed.

There are no unacceptable risks or hazards for the current or reasonably anticipated future uses based on chemical concentrations measured in soil, sediment, surface water, or groundwater. Therefore, under the CERCLA/NCP process, no cleanup action or response is needed to be protective of human health and the environment.

Relevant documents used in the preparation of this PP are listed in the "References" section found at the end of this document.

SITE BACKGROUND

The FGA is located in Montgomery County, Silver Spring, Maryland, approximately eight miles north of Washington, District of Columbia. The FGA lies approximately one mile south of the Capital Beltway (i.e., Interstate 495) and immediately east of the Rock Creek Regional Park. A site map is provided on **Figure 1**. Currently, the FGA covers approximately 136 acres and is primarily a medical research and development facility. The property is currently under the authority of the Installation Commander, Fort Detrick, Maryland.

FTGL-06 is comprised of three investigation areas located north and east of Linden Lane, south of Interstate 495, and west of CSX railroad tracks, oriented northwest-southeast along the eastern FGA property boundary. The FTGL-06 investigation areas are identified on **Figure 3**, and include the following:

- An unnamed stream located off-FGA property and designated as Stream A. This investigation area includes Stream A's tributaries (Streams A1 and A2), the valley adjacent to the stream, and a former source area between the former FGA Building 138 and Stream A. Collectively, these areas are hereinafter referred to as the Stream A Investigation Area.
- The Salt Dome Storage Area (SDSA) located on FGA property north of Linden Lane and at the end of Smith Drive.
- The Building 178 Former Transformer Platform located on FGA property north of Linden Lane and south of the SDSA.

The Stream A Investigation Area is located on the former National Park Seminary (NPS) property, which was excessed by the U.S. Army, via Montgomery County, to the Forest Glen Venture, LLC (FGV) in 2004 in anticipation of residential redevelopment. Presently, the property within the FTGL-06 site boundary is largely owned by the NPS Master Association, Inc. and a private owner. Downstream, Stream A extends beyond the NPS property boundary and on to Parcel 749, an undeveloped property owned by the Maryland-National Capital Parks and Planning Commission. The FGA property north of Linden Lane and east of Smith Drive is operated as part of the FGA.

Site History

The U.S. Army acquired the FGA property (including the NPS property) in 1942. Prior to this acquisition, the NPS property was privately owned and operated as a school. Development of the NPS campus originated when a resort hotel was constructed in 1887. After iterations as a resort and a casino, a girls' finishing school was established in 1894. In 1937, a new owner renamed the school to the National Park College. In 1942, the U.S. Army acquired the FGA property for use as a convalescent facility for returning soldiers as an annex to the Walter Reed Army Medical Center. Many of the existing campus buildings were utilized for housing.

Efforts to conserve the NPS buildings resulted in its registration as a National Historic District in 1972. In 2004, the historic NPS property was transferred to the FGV via Montgomery County for renovation and residential development. Since that time, the FGV has redeveloped campus buildings for residential use and constructed new residential buildings. Residents presently occupy several buildings, many of which are privately owned. Renovations and residential development are ongoing.

The FGA property north of Linden Lane has been primarily used for storage since the 1940s. Storage buildings were initially constructed in the 1940s on the property and later replaced by warehouse Building 178 in the early 1960s. Building 178 was in the process of renovation in 2012 but was reportedly utilized at one time for storage of overage chemicals and pharmaceuticals (JV 2017). The salt dome, also known as Building 179,

was constructed in the 1980s for the storage of road salt for winter snow/ice storm application.

Site Description

FTGL-06 was identified for investigation and incorporated into the IRP based on PCB contamination detected in Stream A sediment and surface water; and in former Building 138 soil and groundwater. Independent of Stream A and former Building 138, a PCB release was discovered adjacent to the salt dome on the FGA property north of Linden Lane. Data collected also indicated the presence of 1,2,4-trichlorobenzene (1,2,4-TCB) in subsurface soils co-located with PCB-contaminated soils at former Building 138. The source of PCB and 1,2,4-TCB contamination at the former Building 138 is not documented. However, PCBs were commonly used as di-electric fluids and 1,2,4-TCB was used as a diluent for ***Aroclors***. This is considered evidence that leaking transformers at or near this location were the likely source of PCB and 1,2,4-TCB contamination. Environmental investigation at the Stream A Investigation Area began in 2005. Two removal actions have been conducted to date under the ***Toxic Substances Control Act of 1976*** (ECS Mid-Atlantic 2009). In total, approximately 8,000 tons of PCB-impacted soil has been excavated and disposed of off-site eliminating the source of contamination at the Stream A Investigation Area. The horizontal limits of excavation are presented on **Figure 4**.

In 2009, PCB contamination was discovered in soils adjacent to the SDSA on the FGA property north of Linden Lane and east of the NPS (see **Figure 3**). The source of the PCB-contaminated soil was leaking pole-mounted transformers staged at the Site. The transformers were removed from the Site by the U.S. Army. All visibly contaminated soil was removed and shipped off-site for proper disposal. The SDSA is an approximately 100 by 150-foot (ft) paved area with a large circular salt dome structure surrounded by a security fence. The release area is located adjacent to the northwest corner of the paved storage area and the extent of contamination was unknown.

Soils beneath a former transformer platform located near the southern corner of Building 178 were investigated during the RI for potential PCB contamination (see **Figure 3**). The platform, still present at the Site, is constructed of lumber laid across two beams suspended above ground on two wood columns. No transformers currently exist on the platform, although an active transformer is adjacent to it. No releases were known to have occurred at this location and no sampling was conducted at this location prior to implementation of the RI in 2012.

CURRENT AND FUTURE LAND USE

Land use surrounding the FGA and NPS properties is a mix of residential, commercial, industrial, and conserved recreational areas. Major transportation arteries, including the Capital Beltway (Interstate 495) and the CSX railroad line pass within its immediate vicinity. The Linden Historic District, consisting of historic and recently constructed residential properties, is located east of the FGA, opposite the CSX railroad line. Residential single-family homes and townhouses are the predominant use of land to the west of the NPS and to the north opposite Interstate 495.

Current land use at the Stream A Investigation Area and the FGA-property north of Linden Lane is forested land and commercial/industrial, respectively. Future development of the forested glen comprising the Stream A Investigation Area is not anticipated based on the following lines of evidence:

- Based on information provided in the Montgomery County Master Plan and the development plan submitted to Montgomery County prior to redevelopment of the NPS property, development of the forested glen (specifically within the boundaries of the Stream A Investigation Area) for residential purposes was not proposed.
- During municipal approval of the development plan for this property, forest conservation easements were applied to 8.7 of the 11.7 total acres of the forested glen to protect its historic value, visual contributions, and environmental benefits.
- The National Register of Historic Places, Montgomery County's listing of historic places, and the Montgomery County's Master Plan have designated the entire former NPS property north of Linden Lane as a historic district. Further, the Montgomery County Historic Preservation Commission has the right to review any changes to structures within the historic district. Since the developers received federal historic preservation tax credits, the National Park Service also has the authority to review all future redevelopment of the property.

- Topography and the presence of Stream A and its tributaries likely preclude future development in this area.

Future land use of the FGA properties north of Linden Lane is anticipated to remain commercial/industrial under the operation of the U.S. Army.

IDENTIFICATION OF ENVIRONMENTAL CONTAMINATION

Table 1 provides a chronology of events related to environmental investigation at the three investigation areas comprising FTGL-06.

Table 1: Chronology of Investigatory Events

Year	Activity
2005	Brownfield Site Assessment and focused sampling completed at Stream A Investigation Area (MDE 2006)
2006	Emergency cleanup action authorized under Toxic Substances Control Act including excavation and off-site disposal of 393 tons of PCB-impacted soil from behind former Building 138 (Stream A Investigation Area) (ECS Mid-Atlantic 2009).
2007 - 2008	Self-Implementing Cleanup Action completed including excavation and off-site disposal of 7,588 tons of PCB-impacted soil from behind former Building 138 (i.e., Stream A Investigation Area) (ECS Mid-Atlantic 2009).
2012	RI sampling at Stream A Investigation Area, SDSA, and Building 178 Transformer Platform (PIKA International – Arcadis U.S., Inc. Joint Venture [JV] 2019)
2016	Supplemental RI sampling at the SDSA (JV 2019)
2018	Confirmatory groundwater sampling at MW-02 (JV 2019)
2019	Confirmatory sediment and groundwater sampling (JV 2020)

The following subsections summarize the data collected during the RI field effort at the Stream A Investigation Area, SDSA, and the Building 178 Transformer Platform by media. A complete summary of the RI field activities and associated analytical results is presented in the RI Report (JV 2019).

Stream A Investigation Area

Soil (surface and subsurface), groundwater, sediment, and surface water samples were collected during the 2012 RI field effort to characterize the nature and extent of impacted media within the Stream A Investigation Area.

Surface Soil. A total of 11 surface soil samples were collected near Stream A. Consistent with historical site investigations, PCB Aroclor 1260 was the only Aroclor detected in surface soils. The detected concentrations ranged from 0.066 milligrams per kilogram (mg/kg) to 4.7 mg/kg. Arcolor 1260 was detected at concentrations exceeding the residential ***Regional Screening Level (RSL)*** (U.S. Environmental Protection Agency [USEPA] 2017) of 0.24 mg/kg in 9 of the 11 surface soil samples and the industrial RSL of 0.99 mg/kg in 3 of the 11 surface soil samples. Two of the three industrial RSL exceedances fall within, or adjacent to, the former source area at former Building 138.

Subsurface Soil. A total of 18 subsurface soil samples were collected from nine borings advanced near Stream A. Three separate Aroclors (PCB Aroclor 1242, 1254, and 1260) were detected in subsurface soil at three different boring locations. The three boring locations (MW-06, MW-07, and SB15) were all downgradient of the former source area and sample detections ranged from an estimated concentration of 0.018 mg/kg to 0.37 mg/kg at depths ranging from 2 ft to 4 ft below ground surface (bgs). PCB Aroclor 1254 exceeded the residential RSL of 0.24 mg/kg in the duplicate sample collected from soil boring MW-06 at 4 ft bgs (duplicate concentration of 0.27 mg/kg; parent concentration 0.24 mg/kg). PCB Aroclor 1260 also exceeded the residential RSL of 0.24 mg/kg at SB-15 (2 ft bgs). No concentrations of PCB Aroclors or total PCBs were detected at concentrations above the industrial RSL.

Groundwater. The monitoring well network at FTGL-06 is comprised of eight monitoring wells (MW-01 through MW-08). However, MW-01 has not been located since 2008, and MW-03 and MW-04 have not yielded enough water to facilitate sampling since 2012 and 2008, respectively. A monitoring well location map is provided on **Figure 5**.

During the 2012 RI, groundwater samples were collected from five shallow monitoring wells near Stream A. Groundwater samples were analyzed for PCB ***congeners***. PCB ***homologs*** were detected in four of the five samples and three of the detections were above the tapwater RSL of 0.044 micrograms per liter (µg/L). No PCBs were detected in monitoring well MW-05, located upgradient from Stream A. Non-detect PCB sample results were also observed in upgradient monitoring wells FG303, FG218, FG219, and FG220 associated with site FTGL-03 during the 2011-2012 RI (JV 2017).

Total PCBs were above the USEPA's ***Maximum Contaminant Level (MCL)*** of 0.5 µg/L at one location, MW-02. MW-02 is located within the former source area. Total PCBs in MW-02 were significantly higher during the previous sampling event conducted in January 2008 (17.9

µg/L). In January 2008, total PCBs were also detected above the MCL in monitoring well MW-03, located along Stream A at a concentration of 0.79 µg/L. MW-03 did not contain sufficient volume for sampling during the 2012 RI. However, samples were collected from nearby monitoring wells MW-07 and MW-08 located along Stream A. These wells exhibited PCB concentrations of 0.475 µg/L and 0.422 µg/L, respectively.

To supplement the RI Report and document more recent concentrations of total PCBs, a groundwater sample was collected from MW-02 in January 2018. The groundwater sample was analyzed for PCB Aroclors. The sample was field filtered with a 10-micron filter to minimize potential bias associated with elevated sample turbidity. The turbidity at sample collection was 19 nephelometric turbidity units. A post-filtration turbidity reading was not collected. Consistent with surface soil results in the vicinity of Building 138, Aroclor 1260 was the only Aroclor detected. Aroclor 1260 was detected at a concentration of 2.3 µg/L, exceeding both the tapwater RSL (0.044 µg/L) and the USEPA MCL (0.5 µg/L) for total PCBs. MW-03 exhibited insufficient water for sampling in January 2018; thus, no additional samples were collected.

Well rehabilitation and sampling was conducted in September 2019 to confirm concentrations of total PCBs remaining at MW-02 above the USEPA MCL of 0.5 µg/L at completion of the RI Report, and to further evaluate the effects of sample turbidity on PCB concentrations in groundwater. Both chemical and mechanical (i.e., brushing and flushing) well rehabilitation was conducted to clean the well screen and remove sediment that had accumulated at the bottom of the well. Following well rehabilitation activities, filtered and unfiltered samples were collected and analyzed for PCB Aroclors and congeners. In the unfiltered sample, Aroclor-1260 was detected at an estimated concentration of 0.37 µg/L, below the USEPA MCL of 0.5 µg/L. All other Aroclors were not detected above laboratory reporting limits. In the filtered result, no Aroclors were detected above laboratory reporting limits. A total of 119 individual PCB congeners were detected in the unfiltered groundwater sample and total PCBs were below the MCL of 0.5 µg/L (0.489 µg/L). In the unfiltered sample, 37 individual PCB congeners were detected, and at lower concentrations, which resulted in a total PCB concentration of 0.006 µg/L. The results of the 2019 well rehabilitation and groundwater sampling activities are presented in the Confirmatory RI Data Report (JV 2020) and presented on **Figure 6**.

. The results of the monitoring well rehabilitation and sampling activities conducted in 2019, specifically the comparison of unfiltered and filtered results, confirmed that concentrations of total PCBs in groundwater are the result of 1) an incorrectly sized slotted well screen; 2) accumulated sediment at the well bottom; 3) use of a submersible pump during previous low-flow sampling events; and 4) ultimately suspended sediment within the sample. The former source area was previously removed during removal actions in 2006 and 2008 (JV 2020). There are no active drinking water supply wells located within two miles of the FGA. The FGA obtains its potable water from the Washington Suburban Sanitary Commission municipal water supply.

Sediment. Sediment samples were collected from 23 locations on Stream A and its tributaries. Sediment samples were analyzed for PCB congeners and total organic carbon to characterize the sediment and assess the condition of the benthic community.

PCBs were detected in all 23 sediment sample locations along Stream A and its tributaries, and 15 of the locations had concentrations above the USEPA Region III ***Biological Technical Assistance Group Screening Benchmark*** value (59.8 micrograms per kilogram [µg/kg]). The highest concentrations of total PCBs in sediment were detected in Stream A from the area adjacent to the former source area at former Building 138, downstream to the confluence with tributary Stream A1. Results from this segment of stream, corresponding to sample locations SE01 through SE14, ranged in concentration from 88 to 10,205 µg/kg.

Downstream of the confluence with Stream A1 (sample locations SE17 through SE23), total PCB concentrations in Stream A sediments were lower in concentration (15 to 86 µg/kg). Sample locations SE17, SE18, and SE20 filled the sample data gap between previous 2008 downstream sample locations CR-26 and CR-27; sample locations SE21 through SE23 were collected to investigate contamination downstream of CR-27; and sample location SE19 was collected to investigate tributary Stream A2.

The remaining two sample locations, SE15 and SE16, collected to investigate Stream A1, had the lowest detected PCB concentrations overall, 2 µg/kg and 1 µg/kg, respectively. Sample location SE14 was also collected in Stream A1; however, it was collected closer to the confluence with Stream A and exhibited a higher

total PCB concentration. A widening of Stream A is observable at SE14 at the confluence with Stream A1. This opening coupled with slowing of the stream velocity acts as a natural settling pool for the deposition of sediments transported from upstream during storm events. **Figure 7** presents a summary graphic of the detected total PCB concentrations in sediment in Stream A and its tributaries for the 2008 and 2012 sampling events.

In addition to the total PCB results, RI PCB congener results for sediment samples were screened against available residential and industrial soil RSLs and no congeners exceeded their associated RSLs.

Supplemental sediment analytical data was collected in March 2019 to confirm current site conditions. Sediment samples were collected at ten former sampling locations to provide coverage of the whole site including SE-03 and CR-11 (co-located), CR-5, CR-16, SE-14, CR-23, CR-24, CR-26, CR-27, CR-19, and 06-SE02. Total PCBs were detected in each sample (specifically, Aroclor-1260), except for 06-SE14 located in Stream A1 prior to its confluence with Stream A, which did not exhibit total PCB concentrations above laboratory reporting limits. Detected total PCB concentrations ranged between 0.035 mg/kg at CR-25 and 1.2 mg/kg at co-located sample locations 06-SE03 and CR-11. Consistent with previous sampling results, the highest concentrations of total PCBs in sediment in Stream A were observed at locations adjacent to the former source area at former Building 138 in 2019 (i.e., 06-SE03/CR-11 and CR-5). In general, concentrations decreased downstream with distance from the former source area. When comparing 2019 total PCB concentrations to historical results, concentrations decreased, most notably in areas adjacent to the former source area behind former Building 138. At co-located sediment sampling location 06-SE03/CR-11, the maximum historical concentration of total PCBs occurred in 2012 at a concentration of 10.2 mg/kg observed in surface sediment. In 2019, total PCBs were observed at a concentration of 1.2 mg/kg, a total reduction of 88 percent (%). Concentrations also decreased at several downstream locations including CR-5 (82%) and CR-16 (83%). PCB concentrations are summarized for each of the ten sampling locations including in the supplemental sediment sampling event on **Figure 8**.

The soil removal actions conducted in 2006 and 2008 effectively removed the source area of PCBs to the Stream A Investigation Area. Results of the supplemental sediment investigation conducted in 2019 demonstrated that PCB concentrations in sediment have decreased by an average of 76% across the site. Specifically, at co-located sampling location 06-SE03/CR-11, total PCB concentrations decreased from a maximum concentration of 10.2 mg/kg in 2008 to 1.2 mg/kg in 2019.

Surface Water. Surface water samples were collected from 20 locations on Stream A and its tributaries. Samples were analyzed for PCB homologs, which were summed to evaluate total PCB concentrations. PCBs were detected in 18 of the 20 surface water sample locations and all of the detections were above the ***National Recommended Water Quality Criteria (NRWQC)*** (USEPA 2016) human health value protective of the consumption of water and aquatic organisms (0.000064 µg/L). The two non-detect results were at sample locations SW15 and SW16 located on tributary Stream A1. These non-detect surface water locations correspond to the co-located sediment samples (SD15 and SD16) with the lowest PCB concentrations (see previous section). Consistent with sediment sampling results, the highest concentrations of PCBs in surface water were detected in Stream A from the area adjacent to the former source area at former Building 138 downstream to the confluence with tributary Stream A1. This segment of stream corresponds to sample locations SW03 through SW14, ranging in concentrations from 0.0013 µg/L to 0.4779 µg/L. The six most upgradient samples on this segment (SW03 through SW08), ranging in concentration from 0.0187 µg/L to 0.4779 µg/L, exceeded the NRWQC freshwater chronic value for the protection of aquatic life for total PCBs (0.014 µg/L). These results are within an order of magnitude of the three Stream A samples (CR-1 through CR-3) collected in 2008 adjacent the former source area, which ranged in concentrations from 0.106 to 1.84 µg/L. Total PCB concentrations decline with distance downstream towards Rock Creek, where Stream A ultimately discharges. Upstream samples taken from Stream A1 were non-detect for total PCBs. **Figure 9** presents a summary graphic of the detected total PCB concentrations in surface water in Stream A and its tributaries for the 2008 and 2012 sampling events.

Salt Dome Storage Area

A total of 38 soil samples were collected from 11 borings advanced at the SDSA during two discrete sampling events. Aroclor 1260 was detected in 37 of the 38 soil samples collected with concentrations ranging between

0.017 mg/kg to 13 mg/kg. A total of 16 of the 38 soil samples exhibited concentrations of Aroclor 1260 above the industrial soil RSL of 0.99 mg/kg. **Figure 10** illustrates the sample locations and PCB concentrations detected in surface and subsurface soils at the SDSA.

Building 178 Transformer Platform

A total of eight surface and subsurface soil samples were collected from four borings advanced under the transformer platform. Aroclor 1260 was the only PCB Aroclor detected and it was detected in three of the eight soil samples collected at the transformer platform. Detected concentrations ranged from an estimated concentration of 0.045 mg/kg to 0.18 mg/kg. All detected concentrations of Aroclor 1260 remained below the residential and industrial RSL of 0.24 and 0.99 mg/kg, respectively. **Figure 11** illustrates the sample locations and PCB concentrations detected in surface and subsurface soils at the Transformer Platform.

SUMMARY OF THE SITE RISKS

As presented in the RI (JV 2019), baseline risk assessments were conducted to determine the current and future effects of contaminants on human health and the environment in accordance with 40 Code of Federal Regulations (CFR) 300.430(d)(4) and USEPA guidance.

The baseline risk assessments provide an estimated level of risk the Site may pose to human health and the environment if no action were taken to address on-site contamination.

Two separate risk assessments were performed as part of the baseline risk assessment — a **Human Health Risk Assessment** and an ***Ecological Risk Assessment***. Both risk assessments were conducted in accordance with guidance developed by the USEPA. Summaries of these two risk assessments are discussed separately in the following subsections.

Human Health Risk Assessment

In accordance with USEPA guidance (USEPA 2001), the BHHRA was completed in a four-step process including 1) hazard identification, 2) exposure assessment, 3) toxicity assessment, and 4) risk characterization (refer to **Inset 1**). The BHHRA evaluated current and potential future reasonable maximum exposures by human receptors to chemicals of potential concern (COPCs) in environmental media (e.g., groundwater, soil, surface water, sediment). No COPCs were identified at the Former Transformer Platform near Building 178. The human ***receptor*** groups with potentially complete exposure pathways to COPCs identified at the SDSA and Stream A Investigation Area are summarized in the table below.

Investigation Area	Human Health Receptors Evaluated
SDSA	- Current/Future Trespasser (Adolescent) - Current/Future Outdoor Worker (Landscaper) - Future Construction Workers – Excavation Scenario - Future Hypothetical Commercial Worker (Indoor and Outdoor) - Future Hypothetical Resident (Child and Adult)
Stream A Investigation Area	- Current/Future Recreational Users (Child and Adult) - Future Outdoor Worker (Landscaper) - Future Construction Workers - Future Hypothetical Commercial Worker (Indoor and Outdoor)

In accordance with federal regulations, cancer risk within the benchmark range of 0.000001 to 0.0001 (commonly written as $1x10^{-6}$ to $1x10^{-4}$ or in scientific notation as 1E-06 to 1E-04) may be considered acceptable. ***Risk levels*** that are less than one excess cancer in one million people (1E-06) are generally considered acceptable, while risks greater than one excess cancer in ten thousand people (1E-04) are generally considered significant. Therefore, a cumulative site risk level of 1E-04 is generally used as the remediation "trigger" for a site (USEPA 2001). MDE uses a value of one in one hundred thousand ($1x10^{-5}$ or 1E-05) as the regulatory risk threshold for managing carcinogenic risk at sites subject to its jurisdiction. Non-cancer hazard drivers are chemicals that contribute significantly to a total receptor target organ hazard index that exceeds 1.

No human receptors (refer to the table above) were identified with carcinogenic risk estimates greater than MDE's cancer risk threshold (1E-05) or the upper limit of the USEPA's acceptable risk range (1E-04) and noncarcinogenic hazard indices of greater than 1. That is, no unacceptable risk was identified for human health receptors at the SDSA or the Stream A Investigation Area. The BHHRA is provided in its entirety as Appendix K to the RI Report (JV 2019).

Ecological Risk Assessment

The SERA was conducted based on the USEPA 8-Step Process (USEPA 1997) guidance with support from other guidance, as necessary. Under the USEPA 8-Step

Process, Steps 1 and 2 constitute Tier I of the ecological risk assessment, the SERA. The purpose of the SERA is to identify chemicals of potential ecological concern (COPECs) associated with site activities that may pose adverse effects to ecological receptors, riparian/wetland sediment, surface water (e.g., wetlands, creeks, and tributaries), and surface soil. The potential risks associated with the COPECs identified were evaluated further in Tier II of the risk assessment process.

Receptors evaluated include benthic invertebrates living in or on aquatic sediment, aquatic organisms living in surface water, fish, birds, mammals exposed to sediment and water in riparian/wetland habitats, and terrestrial organisms exposed to soil. The results of the Site-specific Tier II BERA for the FTGL-06 soil, sediment, and surface water show minimal potential risk of adverse effects to surface water and sediment invertebrates from the presence of total PCBs. The presence of PCBs in sediment and surface water is confined to a relatively small stretch of Stream A and does not appear to be impacting downstream areas. Based on this, potential risk to aquatic receptors is considered minimal. The level of total PCBs in surface water presents a marginal risk of adverse effects to piscivorous mammals represented by the mink. However, no unacceptable risks were estimated for the remaining mammals evaluated. This estimate of risk to the mink is very conservative given the size of the area evaluated relative to the home range of the mink. The area evaluated would likely only support a limited number of individuals, and would, therefore, not be contributing to a population risk. Based on this assessment, potential ecological risks associated with the Stream A Investigation Area are considered minimal and no further evaluation is recommended.

SUMMARY OF THE PREFERRED ALTERNATIVE FOR FTGL-06

When an unacceptable risk to human health or the environment is identified in the risk assessments, remedial alternatives are developed and evaluated to address the identified risks. Based on the results of the risk assessments completed for FTGL-06, no response action is needed.

This determination is based on the findings of the BHHRA, that current or potential future site conditions at all three investigation areas pose no unacceptable risks to human health or ecological receptors. The site-related hazard estimates associated with non-carcinogenic COPCs are below the risk-management threshold for all receptor groups. The conclusions of the BHHRA are based on unrestricted future use; no controls, restrictions, or future reviews are required. Finally, the SERA determined no unacceptable risks to wildlife populations at FTGL-06 and no further action is required.

Inset 1
What is Risk and How is it Calculated?
Forest Glen Annex, Maryland

WHAT IS RISK AND HOW IS IT CALCULATED?

A SARA BHHRA is an analysis of the potential adverse health effects caused by hazardous substance releases from a site in the absence of any actions to control or mitigate these under current- and future-land uses. A four-step process is utilized for assessing site-related human health risks for reasonable maximum exposure scenarios.

Step 1 – Hazard Identification

In this step, the contaminants of concern at the site in various media (i.e., soil, groundwater, surface water, and air) are identified based on such factors as toxicity, frequency of occurrence, and fate and transport of the contaminants in the environment, concentrations of the contaminants in specific media, mobility, persistence, and bioaccumulation.

Step 2 – Exposure Assessment

In this step, the different exposure pathways through which people might be exposed to the contaminants identified in the previous step are evaluated. Examples of exposure pathways include incidental ingestion of and dermal contact with contaminated soil. Factors relating to the exposure assessment include, but are not limited to, the concentrations that people might be exposed to and the potential frequency and duration of exposure. Using these factors, a reasonable maximum exposure scenario, which portrays the highest level of human exposure that could reasonably be expected to occur, is calculated.

Step 3 – Toxicity Assessment

In this step, the types of adverse health effects associated with chemical exposures, and the relationship between magnitude of exposure (dose) and severity of adverse effects (response) are determined. Potential health effects are chemical-specific and may include the risk of developing cancer over a lifetime or other non-cancer health effects, such as changes in the normal functions of organs within the body (e.g., changes in the effectiveness of the immune system). Some chemicals can cause both cancer and non-cancer health effects.

Step 4 – Risk Characterization

This step summarizes and combines exposure information and toxicity assessments to provide a quantitative assessment of site risks. Exposures are evaluated based on the potential risk of developing cancer and the potential for non-cancer health hazards. The likelihood of an individual developing cancer is expressed as a probability. For example, a 10^{-4} cancer risk means a one in ten thousand excess cancer risk; or one additional cancer may be seen in a population of 10,000 people because of exposure to site contaminants under the conditions explained in the Exposure Assessment. Current Superfund guidelines for acceptable exposures are an individual lifetime excess cancer risk in the range of 10^{-4} to 10^{-6} (corresponding to a one in ten thousand to a one in a million excess cancer risk). MDE uses a value of one in one hundred thousand ($1x10^{-5}$) as the regulatory risk threshold for managing carcinogenic risk at sites subject to its jurisdiction.

For non-cancer health effects, a hazard index (HI) is calculated. An HI represents the sum of the individual exposure levels compared to their corresponding reference doses. The key concept for a non-cancer HI is that a threshold level (measured as an HI of less than or equal to 1) exists below which non-cancer health effects are not expected.

COMMUNITY PARTICIPATION

Public participation is an important component of remedy selection. The U.S. Army and MDE are soliciting input from the community on the preferred remedial action for FTGL-06, which is no further action. The comment period extends from July 23, 2020 to August 21, 2020 (30 days). This period includes a virtual public meeting where the U.S. Army will present the PP as agreed to by the USEPA and MDE. The U.S. Army will accept both verbal and written comments at this meeting and written comments following the meeting through August 21, 2020.

Public Comment Period

The U.S. Army is providing a 30-day comment period from July 23, 2020 to August 21, 2020, to provide an opportunity for public involvement in the decision-making process for the proposed action. If any significant new information or public comments are received during the public comment period, the U.S. Army, in consultation with MDE, may modify the recommended action outlined in this PP. During the public comment period, the public is encouraged to review reports and other documents pertinent to FGA and the CERCLA process at FTGL-06 This information is available at the FGA Administrative Record maintained at the Silver Spring Public Library (located at 900 Wayne Avenue, Silver Spring, Maryland 20910).

To obtain further information, the following representative may be contacted:

Mr. Joseph Gortva
Chief, Environmental Management Division
Directorate of Public Works
U.S. Army Garrison, Fort Detrick
9255 Amber Drive
Fort Detrick, Maryland 21702-5000
(301) 619-3196

Written Comments

If the public would like to comment in writing on the PP or other relevant issues, comments should be delivered to the U.S. Army at the public meeting or mailed (postmarked no later than August 21, 2020) to Mr. Joseph Gortva at Fort Detrick using the address provided.

Public Meeting

Due to safety concerns associated with COVID-19, the public meeting will be held virtually using Microsoft Teams on August 6, 2020 between 6:30 and 7:30 PM. For instructions on how to join the virtual meeting and meeting reference materials, please e-mail Katrina Harris at kharris@bridgeconsultingcorp.com. This meeting will allow the U.S. Army to present the PP, answer questions, and provide an opportunity for the public to provide written and verbal comments on the proposed action. Comments made at the meeting will be transcribed. A copy of the transcript will be included in the ROD ***Responsiveness Summary*** and will be added to the Administrative Record file and information repositories.

U.S. Army's Review of Public Comment

The U.S. Army will review the public's comments as part of the process in reaching a final decision on the most appropriate action to be taken. The U.S. Army's final choice of action will be issued in a ROD. A Responsiveness Summary, documenting and responding to written and oral comments received from the public, will be issued with the ROD. Once community response and input are received and the U.S. Army and USEPA sign the ROD, it will become part of the Administrative Record.

ACRONYMS AND ABBREVIATIONS

1,2,4-TCB	1,2,4-trichlorobenzene
µg/kg	micrograms per kilogram
µg/L	microgram per liter
BERA	baseline ecological risk assessment
bgs	below ground surface
BHHRA	baseline human health risk assessment
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
COPC	chemical of potential concern
COPEC	chemical of potential ecological concern
FGA	Forest Glen Annex
FGV	Forest Glen Venture, LLC
ft	foot or feet
HI	hazard index
HQ	hazard quotient
IRP	Installation Restoration Program
JV	PIKA International – Arcadis U.S., Inc. Joint Venture
MCL	Maximum Contaminant Level
MCLG	Maximum Contaminant Level Goal
MDE	Maryland Department of the Environment
mg/kg	milligram per kilogram
NCP	National Oil and Hazardous Substances Pollution Contingency Plan
NPL	National Priorities List
NPS	National Park Seminary
NRWQC	National Recommended Water Quality Criteria
PCB	polychlorinated biphenyl
PP	Proposed Plan
RAB	Restoration Advisory Board
RI	remedial investigation
RSL	Regional Screening Level
SARA	Superfund Amendments and Reauthorization Act
SDSA	Salt Dome Storage Area
SERA	screening-level ecological risk assessment
U.S.	United States
USEPA	U.S. Environmental Protection Agency

GLOSSARY OF TERMS

Administrative Record: A collection of documents (including plans, correspondence, and reports) generated during site investigation and remedial activities. The Administrative Record contains the basis for the lead agency's selection of Response Actions and is required to be made available for public review.

Aroclor: The trade name of the commercial PCB mixtures manufactured by the Monsanto Chemical Company and sold in the U.S. An Aroclor PCB mixture might consist of over 100 different individual PCB congeners, although 10 to 20 might make up over 50% of the mixture.

Biological Technical Assistance Group Screening Benchmarks: These values were developed to facilitate consistency in SERAs throughout USEPA Region III. Benchmark values have been established for compounds that are considered bioaccumulative. Values are provided for freshwater and marine sediments. For additional information please refer to the following website: https://www.epa.gov/risk/biological-technical-assistance-group-btag-screening-values

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA): This federal law was passed in 1980 and is commonly referred to as the Superfund Program. It provides for liability, compensation, cleanup, and emergency response regarding the cleanup of inactive hazardous waste disposal sites that endanger public health and safety or the environment. CERCLA becomes applicable to sites through a process where the USEPA calculates a Hazard Ranking Score and then proposes that sites with a high enough Hazard Ranking Score be placed on the National Priorities List (NPL). FGA is not on the NPL; however, the U.S. Army environmental program is required to follow the CERCLA process even if not on the NPL.

Congener: Any single, unique, well-defined chemical compound in the PCB category is called a "congener." The name of a congener specifies the total number of chlorine substitutes and the position of each chlorine. There are a total of 209 congeners.

Ecological Risk Assessment: An ecological risk assessment is the process for evaluating how likely it is that the environment may be impacted as a result of exposure to one or more environmental stressors, such as chemicals, land change, disease, invasive species, and climate change.

Feasibility Study (FS): The FS documents the development, screening, and detailed evaluation of alternative remedial actions.

Homolog: A way of grouping PCB congeners by the number of chlorine atoms they have.

Human Health Risk Assessment: The 1990 NCP requires a site-specific baseline risk assessment to be conducted, as appropriate, as part of the RI. The baseline risk assessment characterizes the current and potential threats to human health and the environment that may be posed by contaminants migrating to groundwater or surface water, releasing to air, leaching through soil, remaining in the soil, and bioaccumulating in the food chain. The primary purpose of the baseline risk assessment is to provide risk managers with an understanding of the actual and potential risks to human health and the environment posed by the site and any uncertainties associated with the assessment.

Lead Agency: The agency that provides the on-scene coordinator/remedial project manager to plan and implement response actions under the NCP; the lead agency for remedial actions and removal actions other than emergencies (40 CFR 300.5).

Maximum Contaminant Level or Maximum Contaminant Level Goal (MCL or MCLG): The MCLs are legally enforceable standards that are set by the USEPA for drinking water quality. An MCL is the legal threshold limit on the amount of a substance that is allowed in public water systems under the Safe Drinking Water Act. The MCLG is the maximum level of a contaminant in drinking water at which no known or anticipated adverse effect to human health of would occur, allowing an adequate margin of safety. The MCLGs are not legally enforceable.

National Oil and Hazardous Substances Pollution Contingency Plan (NCP): These regulations were developed by the USEPA with public input, and they provide the rules for implementing CERCLA. They give the federal government the authority to respond to the problems of abandoned or uncontrolled hazardous waste disposal sites as well as to certain incidents involving hazardous wastes (e.g., spills). The NCP specifies a framework of sequential steps for performing investigation and remediation/cleanup of an environmental site, including RI, FS, PP, ROD/Decision Document, Remedial Design, Remedial Action. Environmental restoration/cleanup at FGA is required to be conducted consistent with this framework.

National Recommended Water Quality Criteria (NRWQC): USEPA's compilation of NRWQC is presented as a summary table containing recommended water quality criteria for the protection of aquatic life and human health in surface water for approximately 150 pollutants. These criteria are published pursuant to Section 304(a) of the Clean Water Act (CWA) and provide guidance for states and tribes to use to establish water quality standards and ultimately provide a basis for controlling discharges or releases of pollutants.

Preferred Alternative: The alternative identified tentatively based on the analysis presented in the RI/FS Report and ongoing discussions between the lead and support agencies and the affected community.

Proposed Plan (PP): The proposed plan is a document used to facilitate public involvement in the remedy selection process. The document presents the lead agency's preliminary recommendation concerning how best to address contamination at the site, presents alternatives that were evaluated, and explains the reasons the lead agency recommends the Preferred Alternative.

Receptor: A population, community, or ecosystem that is exposed to a contaminant or other stressor.

Record of Decision (ROD): This legal record signed by the U.S. Army that provides the cleanup action or remedy selected for a site, the basis for selecting that remedy, public comments, the lead agency's responses to comments, and the estimated cost of the remedy.

Regional Screening Level (RSL): Calculated safe exposure standards for contaminants in soil, water, and air that are based on standardized exposure scenarios (e.g., residential or industrial). RSLs are updated semi-annually by the USEPA and published on the internet. They are designed to be safe-sided so that if the concentrations of contaminants at a site do not exceed the RSLs, then the site generally needs no further environmental investigation or action. A site could have concentrations greater than the RSLs and still not require environmental cleanup because the estimated risks for the site are in the CERCLA allowable range.

Remedial Investigation (RI): An investigation under CERCLA that involves sampling environmental media, such as air, soil, and water, to determine the nature and extent of contamination and human health and the environmental risks that result from the contamination.

Responsiveness Summary: A summary of oral and/or written public comments received by the U.S. Army during a comment period on the PP and the U.S. Army's response to those comments.

Risk Levels: Risk levels define the probability of health risks to humans and ecological receptors from chemical contaminants and other stressors that may be present in the environment.

Superfund Amendments and Reauthorization Act (SARA): A congressional act that modified CERCLA to, among other things, require that federal properties comply with CERCLA just as private properties do. It also created the Department of Defense Environmental Program and required that it be performed consistent with CERCLA. SARA was enacted in 1986 and again in 1990 to authorize additional funding for the Superfund Program. Funding for environmental work at Defense properties, like FGA, comes from the Defense budget and not from Superfund.

Support Agency: The support agency that is consulted by the lead agency throughout the response process (40 CFR 300.5).

Toxic Substances Control Act of 1976: A law passed by the United States Congress in 1976 and administered by the USEPA, that regulates the introduction of new or already existing chemicals, including PCBs.

REFERENCES

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FIGURES

CITY: SAN FRANCISCO DIV/GROUP: ENV/IM DB: AVI00976 LD: PIC: PM: TM:
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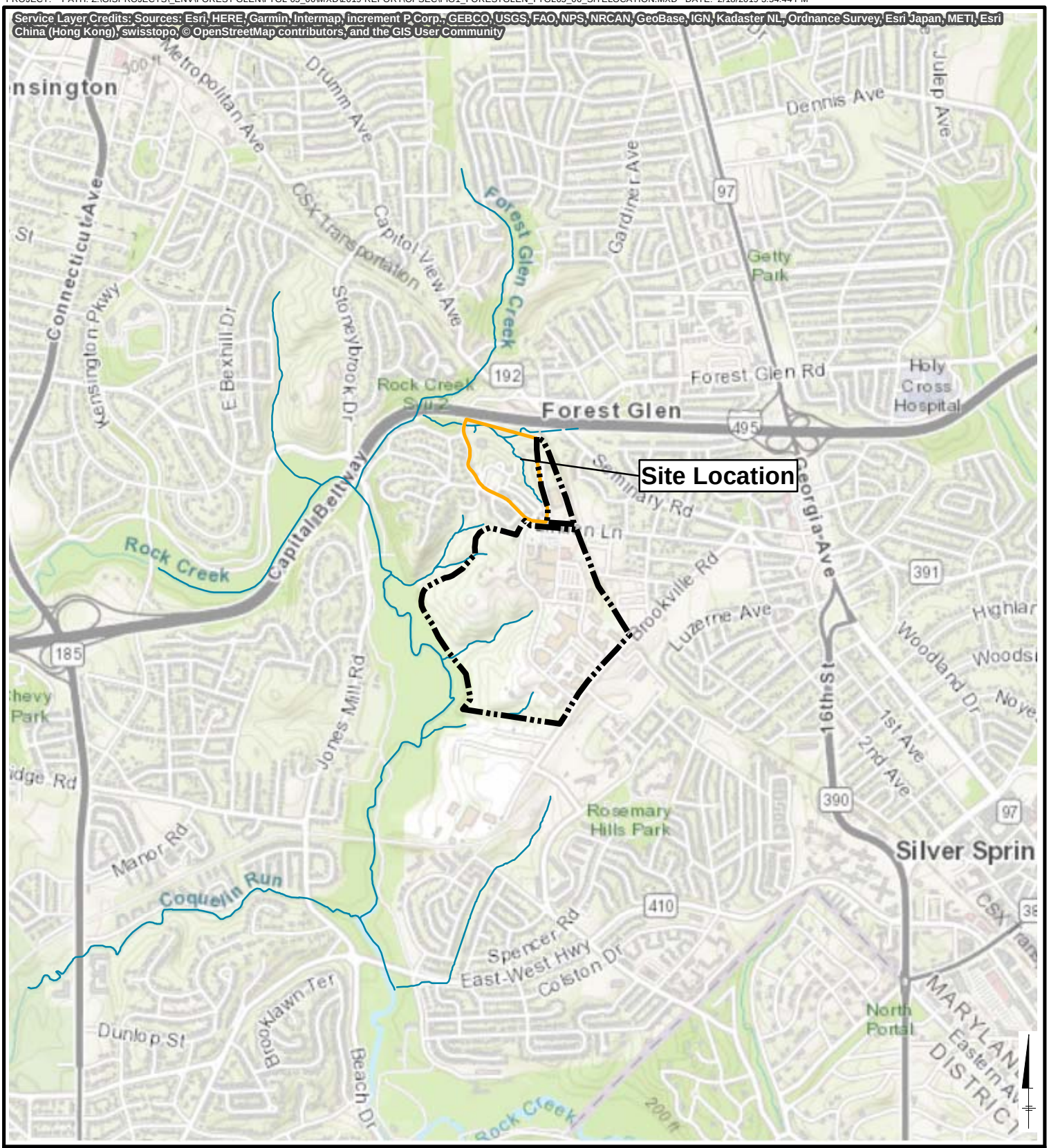


LEGEND:

- Stream
- National Park Seminary
- Property Boundary

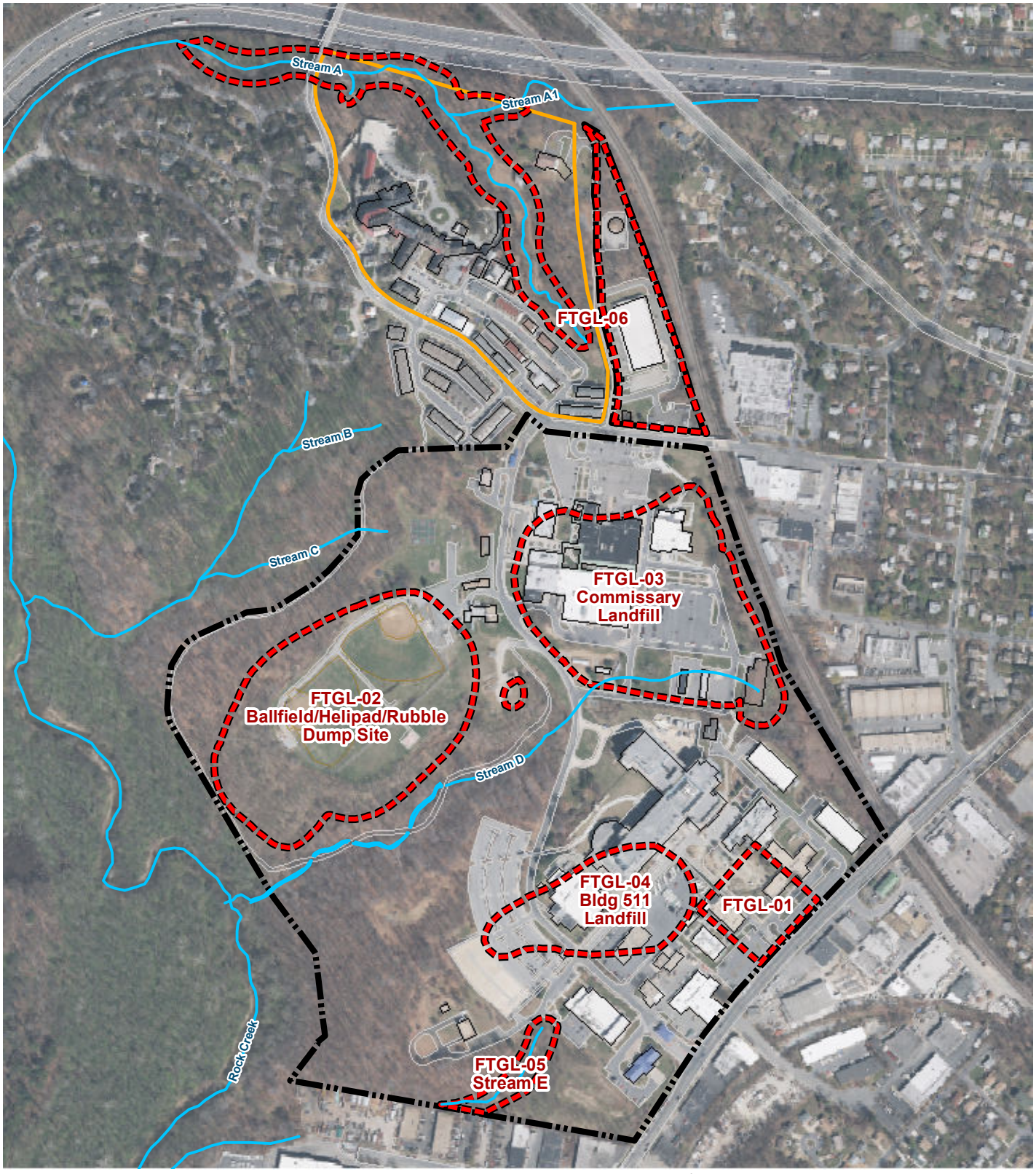
FOREST GLEN ANNEX
SILVER SPRING, MARYLAND

FOREST GLEN ANNEX
SITE LOCATION MAP

ARCADIS

FIGURE
1

DIV/GROUP: ENV/IM DB: SBELL LD: PIC: PM: TM: DATE: 5/10/2017 1:45:21 PM
PROJECT: PATH: \\CORPSTORAGE\DATA\ARCGISDATA\GISPROJECTS_ENV\FOREST GLEN\FTGL 05_06\MXD\2016 REPORT\OPSEC\FIG1-2_IRP_SITES_LOCATION_MAP.MXD



LEGEND:

- Pavement
- Stream
- Ball Field
- Buildings
- National Park Seminary
- Property Boundary
- Site Boundary

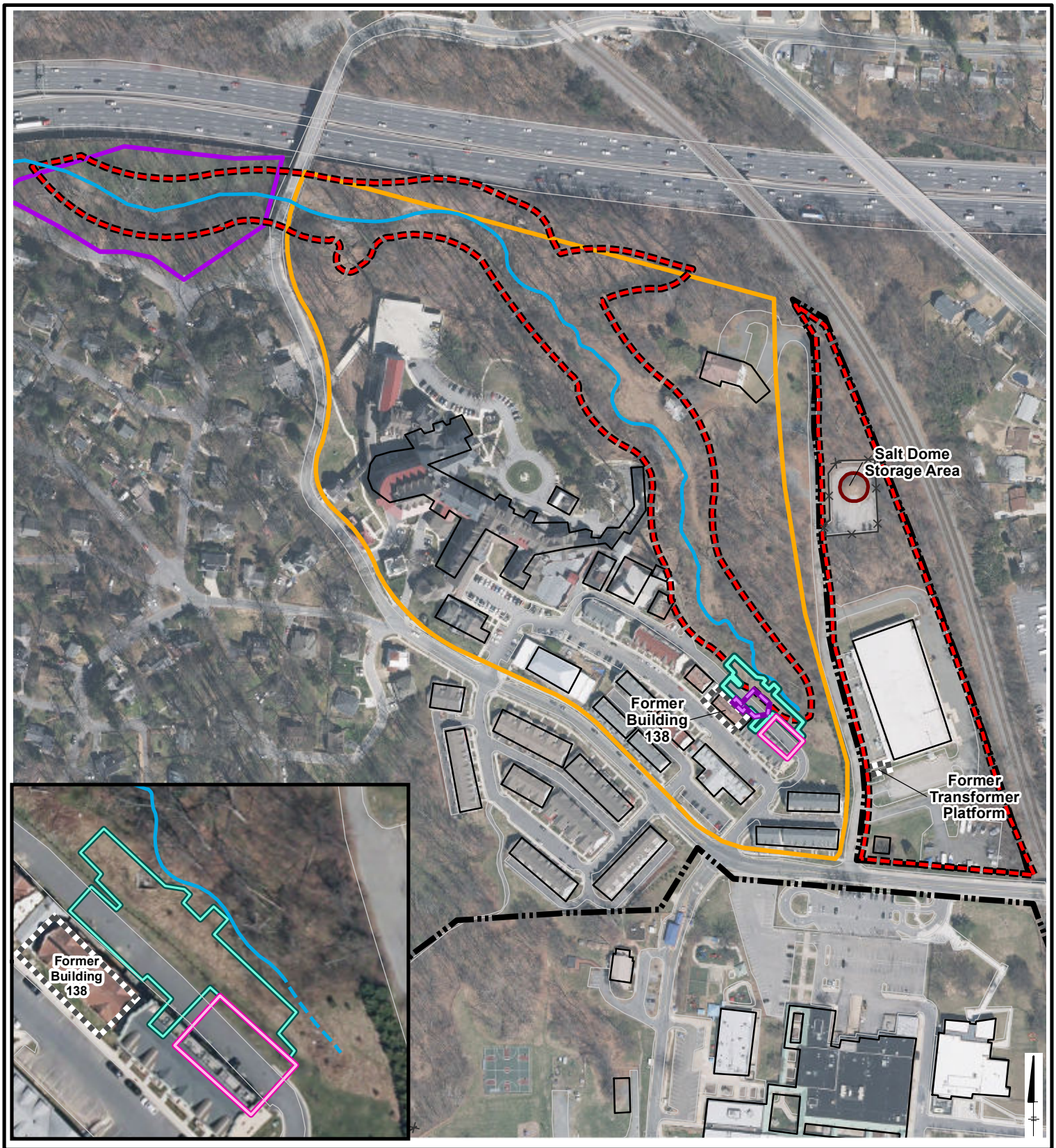
FOREST GLEN ANNEX
SILVER SPRING, MARYLAND

IRP SITES LOCATION MAP

ARCADIS

FIGURE
2

CITY: SAN FRANCISCO DIV/GROUP: ENV/IM DB: SBELL LD: PIC: PM: TM:
PROJECT: PATH: \\CORPSTORAGE\DATA\ARCGISDATA\GISPROJECTS_ENV\FOREST GLEN\FTGL 05_06\MXD\2016 REPORT\OPSEC\FIG2-1_FORESTGLEN_FTGL06_SITEMAP.MXD DATE: 5/10/2017 3:37:22 PM



LEGEND:

- Stream A
- Fences

Approximate Extent of Excavation

- June 2006
- March 2007
- March 2007 - Deep Excavation

- National Park Seminary Property
- Parcel 749 Property (M-NCPPC)
- Property Boundary
- FTGL06 Site Boundary

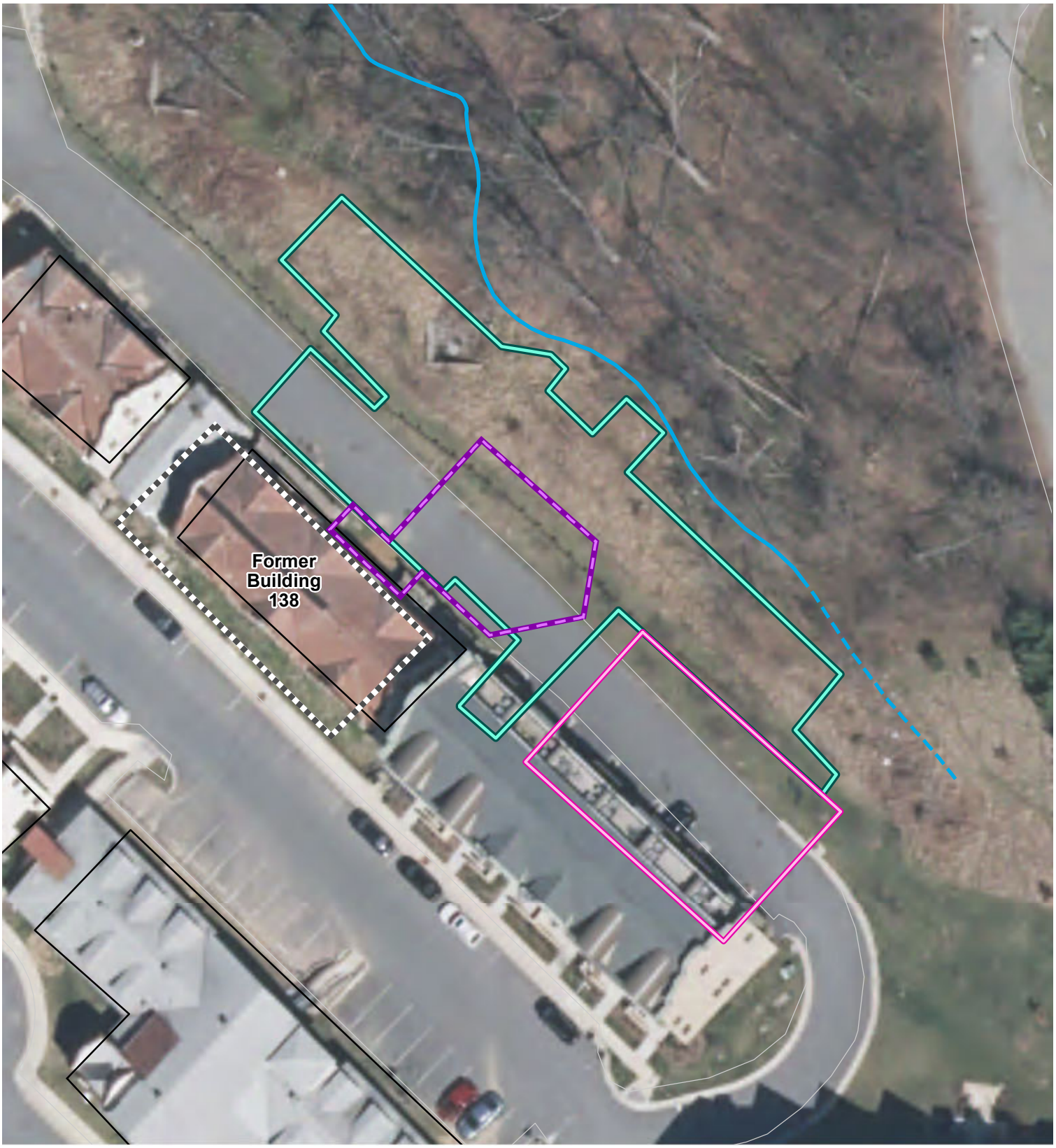
Note:
1. M-NCPPC - Maryland-National Capital Parks and Planning Commission

FOREST GLEN ANNEX
SILVER SPRING, MARYLAND

SITE LOCATION MAP

ARCADIS

FIGURE
3



LEGEND:

Stream A

Approximate Extent of Excavation

June 2006

March 2007

March 2007 - Deep Excavation

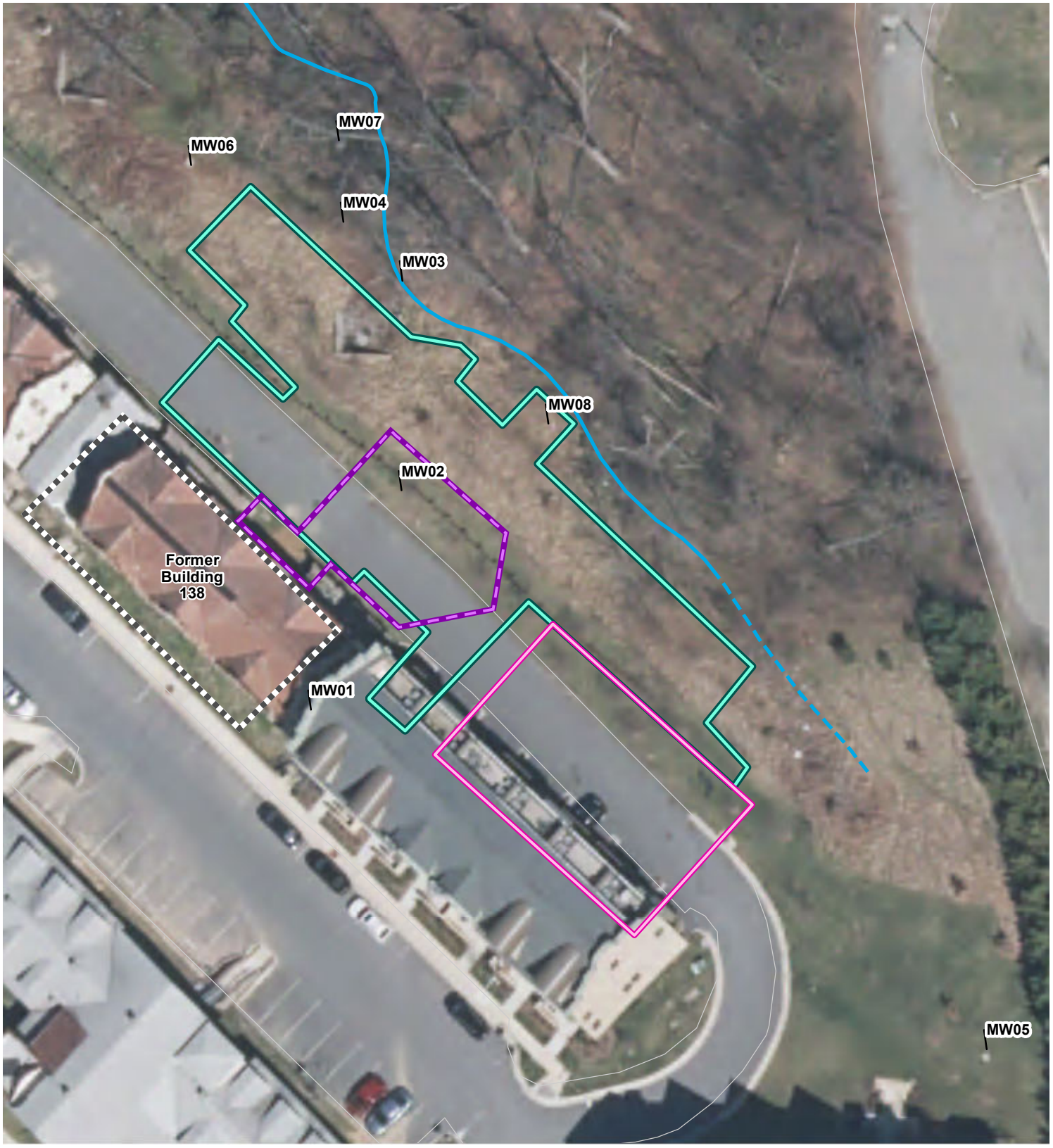
FOREST GLEN ANNEX
SILVER SPRING, MARYLAND

2006 - 2008 SOIL EXCAVATION AREAS

ARCADIS

FIGURE
4

CITY: SAN FRANCISCO DIV/GROUP: ENV/IM DB: SBELL LD: PIC: PM: TM:
PROJECT: PATH: \\CORPSTORAGE\DATA\ARCGISDATA\GISPROJECTS_ENV\FOREST GLEN\FTGL 05_06\MXD\2016 REPORT\OPSEC\FIG2-5_08_MONITORINGWELLS.MXD DATE: 5/10/2017 2:15:06 PM



LEGEND:

- Monitoring Point
- Stream A

Approximate Extent of Excavation

- June 2006
- March 2007
- March 2007 - Deep Excavation

FOREST GLEN ANNEX
SILVER SPRING, MARYLAND

MONITORING WELL LOCATION MAP

ARCADIS

FIGURE
5

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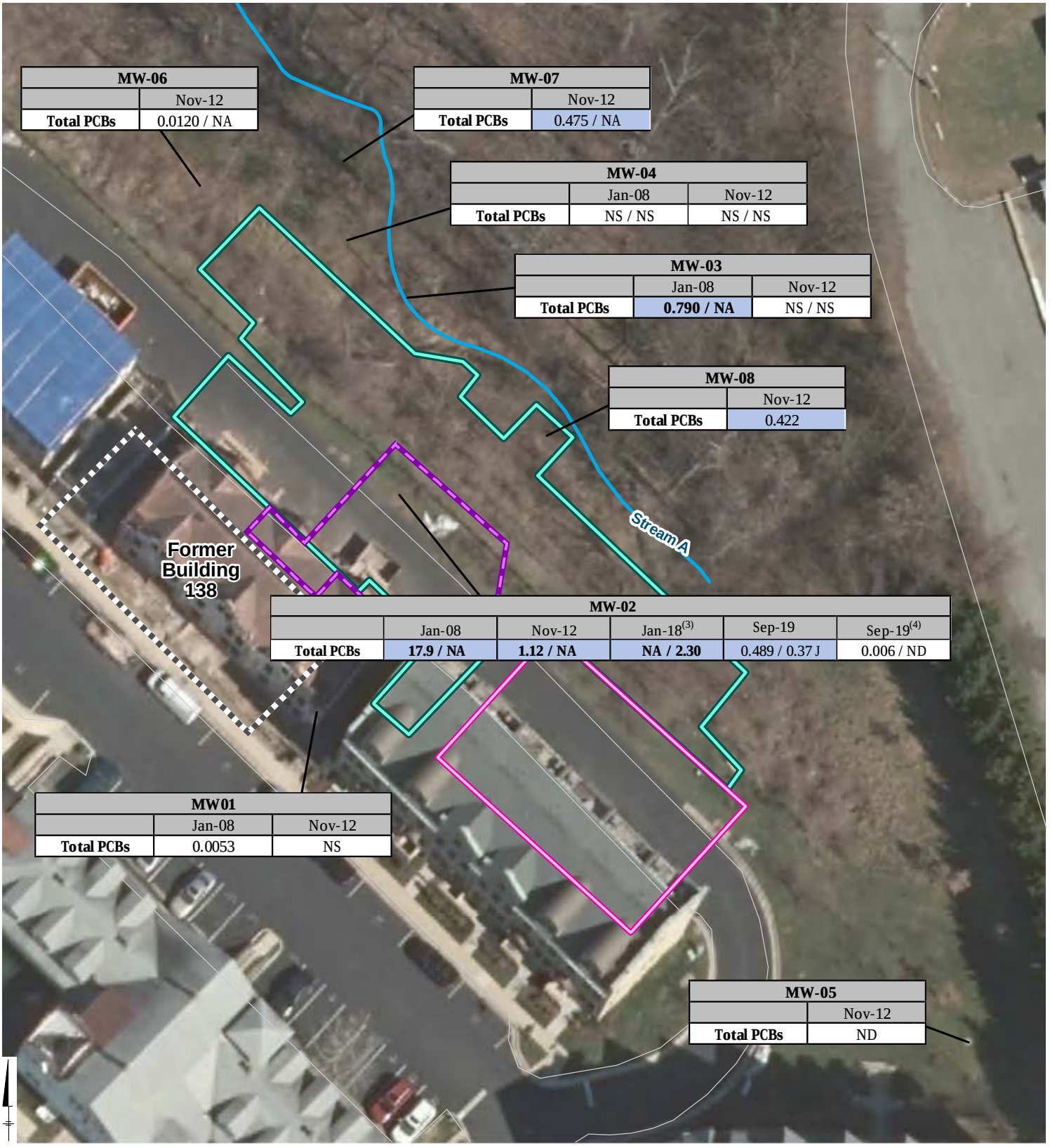


LEGEND:

Monitoring Point

Stream A

Approximate Extent of Excavation

June 2006

March 2007

March 2007 - Deep Excavation

Notes:
1. Concentrations are presented in microgram per liter (µg/L).
2. Total PCB concentrations represent a summation of detected homologue / arclor concentrations.
3. Sample was field-filtered with a 10-micron filter.
4. Sample was field-filtered with a 0.45-micron filter.
5. NA = Not Analyzed
   NS = Not Sampled
   ND = Not Detected

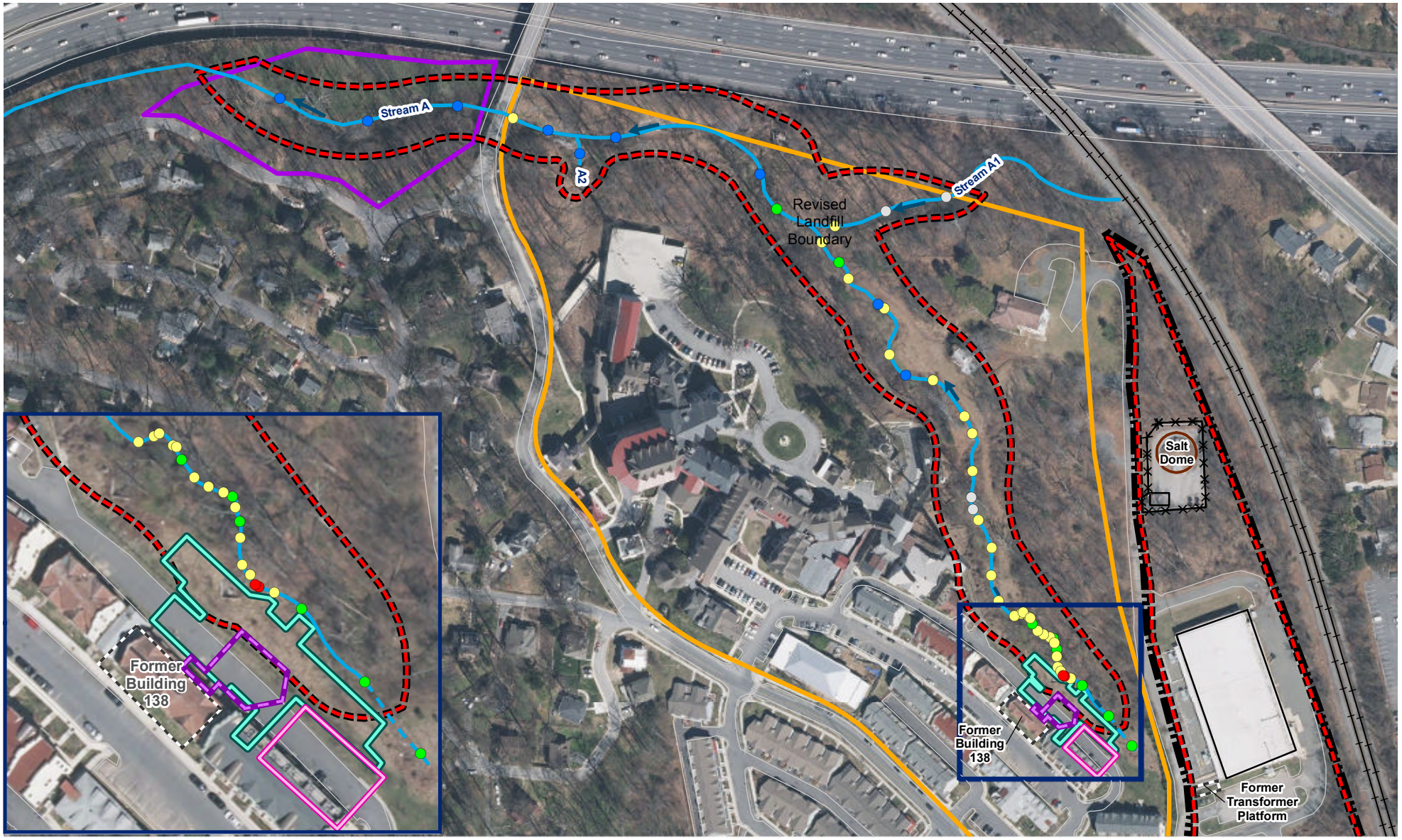
FOREST GLEN ANNEX
SILVER SPRING, MARYLAND

2019 STREAM A GROUNDWATER TOTAL PCB CONCENTRATIONS

ARCADIS

FIGURE 6

CITY: SAN FRANCISCO DIV/GROUP: ENV/IM DB: SBELL LD: PIC: PM: TM:
PROJECT: PATH: \\CORPSTORAGE\DATA\ARCGISDATA\GISPROJECTS_ENV\FOREST GLEN\FTGL 05_06\MXD\2016 REPORT\OPSEC\FIG6-7_STREAMA_SEDIMENT_TOTALPCB.MXD DATE: 3/1/2018 10:30:05 AM



LEGEND:

Total PCB Concentration (µg/kg)

- <10
- 10 to <100
- 100 to <1,000
- 1,000 to < 10,000
- >10,000

- Fences
- Railroad
- Stream A

Approximate Extent of Excavation

- June 2006
- March 2007
- March 2007 - Deep Excavation

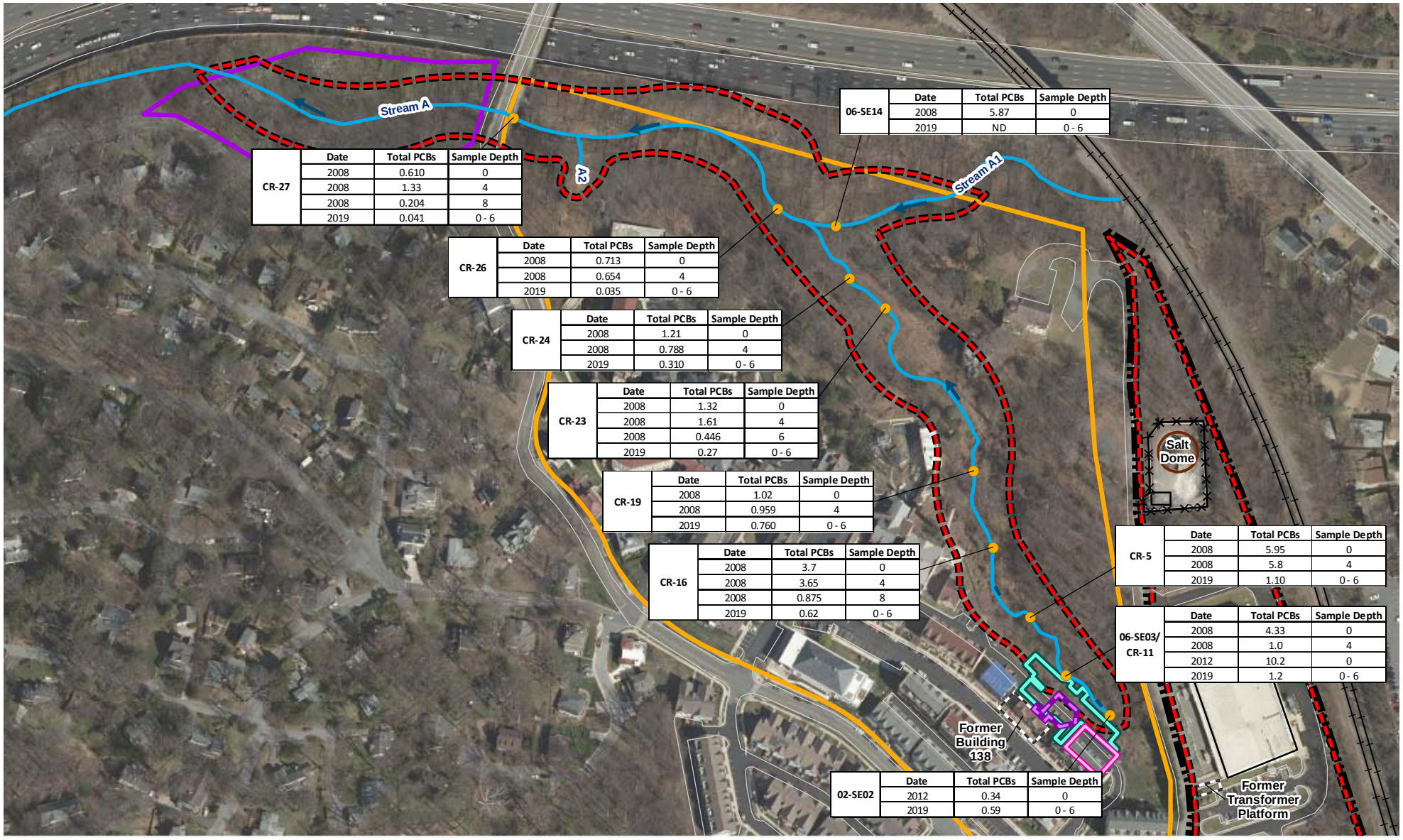
- FTGL06 Site Boundary
- National Park Seminary Property
- Parcel 749 Property (M-NCPPC)
- FGA Property Boundary

FOREST GLEN ANNEX
SILVER SPRING, MARYLAND

SUMMARY OF STREAM A SEDIMENT TOTAL PCB CONCENTRATIONS (2008 AND 2012)

ARCADIS

FIGURE
7



CR-27	Date	Total PCBs	Sample Depth
	2008	0.610	0
	2008	1.33	4
	2008	0.204	8
	2019	0.041	0 - 6

CR-26	Date	Total PCBs	Sample Depth
	2008	0.713	0
	2008	0.654	4
	2019	0.035	0 - 6

CR-24	Date	Total PCBs	Sample Depth
	2008	1.21	0
	2008	0.788	4
	2019	0.310	0 - 6

CR-23	Date	Total PCBs	Sample Depth
	2008	1.32	0
	2008	1.61	4
	2008	0.446	6
	2019	0.27	0 - 6

CR-19	Date	Total PCBs	Sample Depth
	2008	1.02	0
	2008	0.959	4
	2019	0.760	0 - 6

CR-16	Date	Total PCBs	Sample Depth
	2008	3.7	0
	2008	3.65	4
	2008	0.875	8
	2019	0.62	0 - 6

06-SE14	Date	Total PCBs	Sample Depth
	2008	5.87	0
	2019	ND	0 - 6

CR-5	Date	Total PCBs	Sample Depth
	2008	5.95	0
	2008	5.8	4
	2019	1.10	0 - 6

06-SE03/ CR-11	Date	Total PCBs	Sample Depth
	2008	4.33	0
	2008	1.0	4
	2012	10.2	0
	2019	1.2	0 - 6

02-SE02	Date	Total PCBs	Sample Depth
	2012	0.34	0
	2019	0.59	0 - 6

LEGEND:

- 2019 Sediment Sample Location
- Fences
- Railroad
- Stream A

Approximate Extent of Excavation

- June 2006
- March 2007
- March 2007 - Deep Excavation

- FTGL06 Site Boundary
- National Park Seminary Property
- Parcel 749 Property (M-NCPPC)
- FGA Property Boundary

NOTES :
1) All analytical results are presented in milligram per kilogram (mg/kg).
2) Sample depths are presented in inches below the sediment surface.
ND - non detect
NS - not sampled

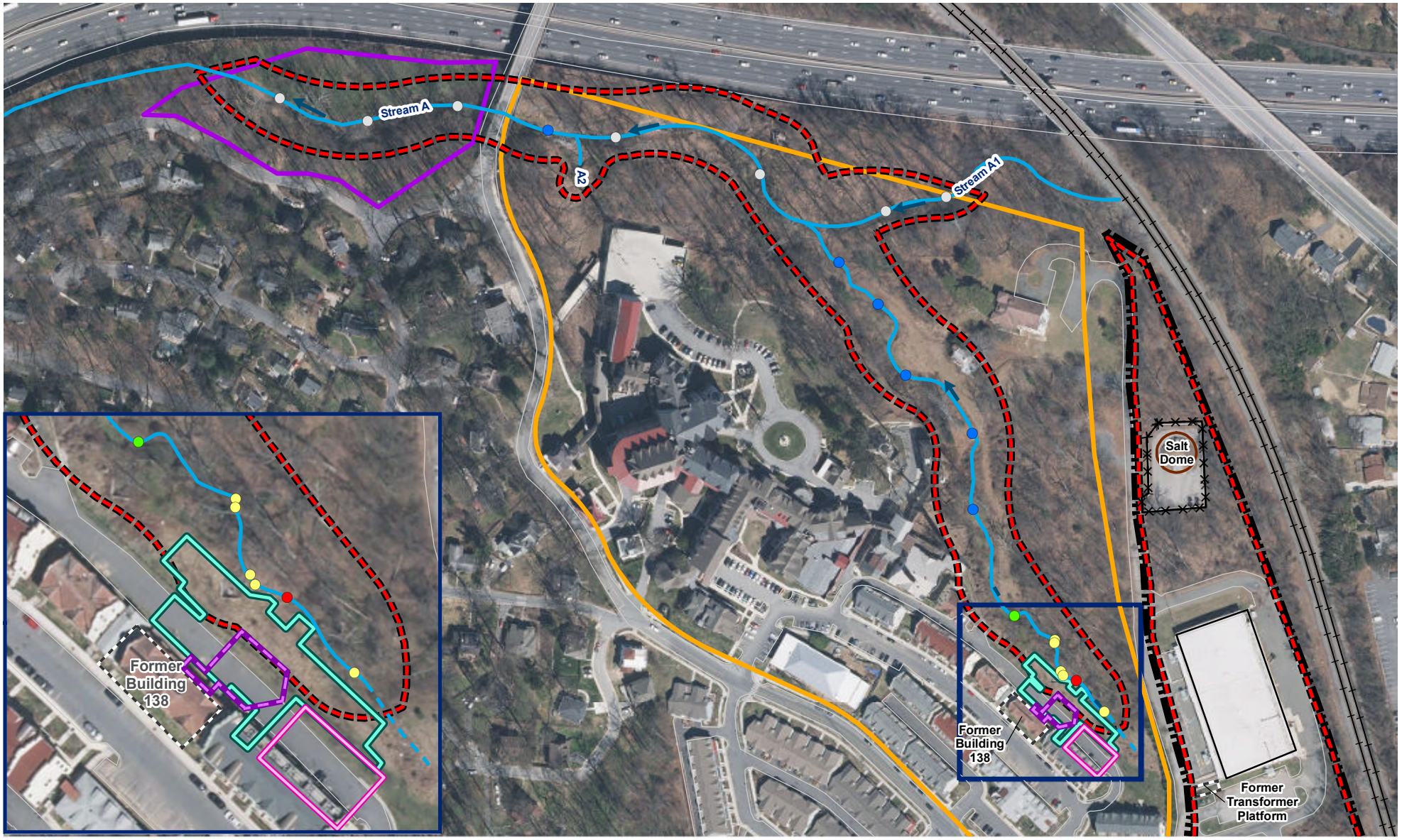
FOREST GLEN ANNEX
SILVER SPRING, MARYLAND

2019 STREAM A SEDIMENT SAMPLE RESULTS

ARCADIS

FIGURE 8

CITY: SAN FRANCISCO DIV/GROUP: ENV/IM DB: SBELL LD: PIC: PM: TM:
PROJECT: PATH: \\CORPSTORAGE\DATA\ARCGISDATA\GISPROJECTS_ENV\FOREST GLEN\FTGL 05_06\MXD\2016 REPORT\OPSEC\FIG6-11_STREAMA_SURFACEWATER_TOTALPCB.MXD DATE: 3/1/2018 10:35:04 AM



LEGEND:

Total PCB Concentration (ug/L)
- <0.001
- 0.001 to 0.01
- 0.01 to 0.1
- 0.1 to 1
- > 1

- Fences
- Railroad
- Stream A

Approximate Extent of Excavation
- June 2006
- March 2007
- March 2007 - Deep Excavation

- FTGL06 Site Boundary
- National Park Seminary Property
- Parcel 749 Property (M-NCPPC)
- FGA Property Boundary

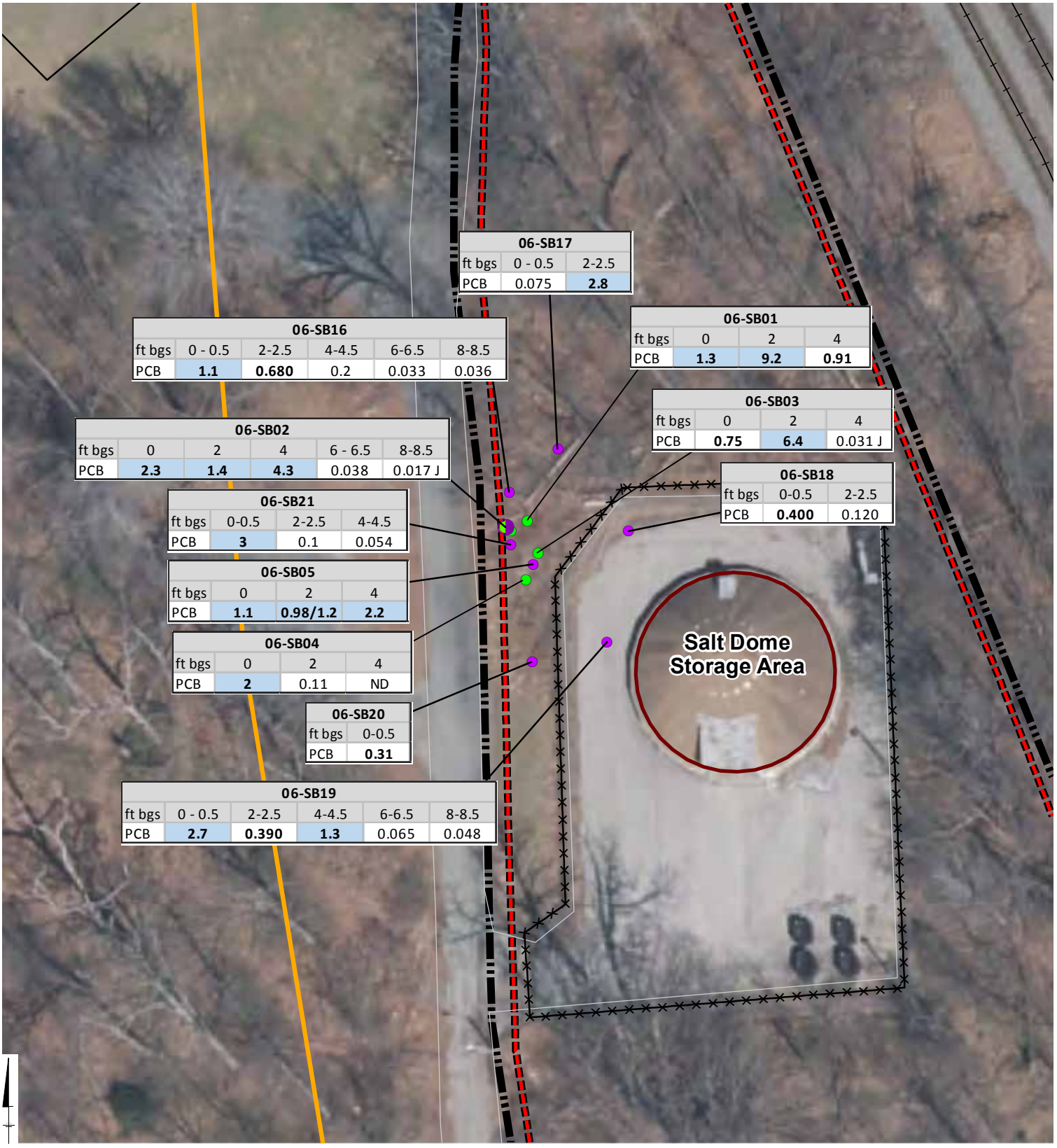
FOREST GLEN ANNEX
SILVER SPRING, MARYLAND

SUMMARY OF STREAM A SURFACE WATER TOTAL PCB CONCENTRATIONS (2008 AND 2012)

ARCADIS

FIGURE 9

CITY: SAN FRANCISCO DIV/GROUP: ENV/IM DB: SBELL LD: PIC: PM: TM:
PROJECT: PATH: \\CORPSTORAGE\DATA\ARCGISDATA\GISPROJECTS_ENV\FOREST GLEN\FTGL 05_06\MXD\2016 REPORT\OPSEC\FIG6-12_FORESTGLEN_SALTDOME_PCB.MXD DATE: 3/1/2018 10:37:07 AM



LEGEND:

- 2016 Soil Sample Location
- 2012 Soil Sample Location
- FTGL06 Site Boundary
- National Park Seminary Property
- FGA Property Boundary

Total PCBs (mg/kg)	Residential Soil RSL	Industrial Soil RSL
	0.23	0.94

Note:
1. Total PCB results exceeding the residential and industrial regional screening level (RSL) are boldfaced and highlighted blue, respectively.
2. ND = Not Detected
ft bgs = feet below ground surface.

FOREST GLEN ANNEX
SILVER SPRING, MARYLAND

SALT DOME STORAGE AREA TOTAL PCB CONCENTRATIONS IN SOIL

ARCADIS

FIGURE
10

CITY: SAN FRANCISCO DIV/GROUP: ENV/IM DB: SBELL LD: PIC: PM: TM:
PROJECT: PATH: \\CORPSTORAGE\DATA\ARCGISDATA\GISPROJECTS_ENV\FOREST GLEN\FTGL 05_06\MXD\2016 REPORT\OPSEC\FIG6-13_FORESTGLEN_TRANSFORMER_PCB.MXD DATE: 3/1/2018 10:38:42 AM

LEGEND:

- Soil Boring/Surface Sample
- FTGL06 Site Boundary
- National Park Seminary Property
- FGA Property Boundary

Total PCBs (mg/kg)	Residential Soil RSL	Industrial Soil RSL
	0.23	0.94

Note:
1. Total PCB results in miligrams per kilogram (mg/kg).
2. ND = Not Detected
   J = estimated result
   ft bgs = feet below ground surface.

FOREST GLEN ANNEX
SILVER SPRING, MARYLAND

FORMER TRANSFORMER PLATFORM TOTAL PCB CONCENTRATIONS IN SOIL

ARCADIS

FIGURE 11