



4.0 SITE INSPECTION

Section 4.0 describes general site observations from the October 23, 2014 site visit. Photographs of selected site features were taken during the site visit. Copies of select site photographs are included in **Attachment B**.

4.1 SITE BUILDINGS AND GROUNDS

The USCG housing units are located at 2, 4, and 6 East End Avenue in Avon-by-the-Sea, Monmouth County, New Jersey (**Figures 1** and **2**). The Site is composed of a stand-alone triplex, divided into single family housing units and two storage sheds located on the western portion of the Site. Each of the housing units in the triplex appear to have similar building materials. The Site building is constructed with concrete slab-on-grade foundation, brick facade and vinyl siding exterior, shingled roof, and a concrete slab parking and patio areas. A fenced barrier divides the patio areas for each of the housing units, and a chain-link fence is present around the perimeter of the Site, excluding the parking areas along the southern boundary of the Site. Interior finishes in the housing units consist of drywall and tiled walls, carpet, vinyl, and hardwood flooring, and textured ceiling material. The two storage sheds are constructed of wood with asphalt-shingle roofs. The structures observed at the Site were generally in good condition at the time of the site reconnaissance.

The grounds were generally in good condition. The grass and fencing were in good condition and no areas of stressed vegetation, disturbance, or dumping was observed during the site reconnaissance.

4.2 UTILITY AREAS, HEATING, VENTILATING AND AIR CONDITIONING SYSTEM

Each housing unit is heated by an electric furnace located in the attic of each unit. Potable water is provided by the Avon-by-the-Sea Water/Sewer Department. Electricity is supplied via overhead cables and enters the building through the southern exterior wall.

4.3 DRYWELLS/STORM DRAINS

No storm drains or dry wells were observed on the Site.

4.4 SURFACE WATER, PITS/PONDS/LAGOONS

No surface water bodies were observed on the Site during the site reconnaissance. Sylvan Lake is located approximately 225 feet northwest of the Site, and the Atlantic Ocean is located approximately 450 feet east of the Site (Google Earth 2014). No pits, ponds or lagoons were observed during the site reconnaissance.

4.5 SURFACE STAINING

No staining was observed during the site reconnaissance.



4.6 STRESSED VEGETATION

No areas of stressed vegetation were observed during the site reconnaissance.

4.7 STORAGE TANKS

No USTs or aboveground storage tanks (ASTs) were observed during the site reconnaissance. According to historical documentation, no USTs or ASTs were formerly used at or associated with the Site.

4.8 SITE RECORDS

At the time of the site reconnaissance, the Site was partially vacant. The units located at 4 East End Avenue and 6 East End Avenue were vacant, while the unit at 2 East End Avenue was occupied. The tenants of the 2 East End Avenue unit were not present at the time of the site visit. As such, Tetra Tech completed an interview with Mr. Richard Waechter, a USCG Government Housing Manager based in Atlantic City, New Jersey, on October 23, 2014. Limited records were available to Tetra Tech during completion of this Phase I EDDA. Records that were reviewed are discussed in pertinent sections of this report.

4.9 WASTEWATER

The site is connected to the municipal sewer and has been since the construction of the Site building in 1967. No historic records regarding septic tanks or wastewater discharges from the Site were identified during the site reconnaissance or records request submitted to the Monmouth County Department of Health.

4.10 ELECTRICAL TRANSFORMERS AND EQUIPMENT

U.S. Environmental Protection Agency (USEPA) Code of Federal Regulations (CFR) Title 40, Part 761, governs the manufacturing, processing and distribution of polychlorinated biphenyls (PCBs). The guideline defines a PCB transformer as any transformer that contains 500 parts per million (ppm) PCBs. PCB-Contaminated Electrical Equipment is defined as “any electrical equipment including, but not limited to, transformers (including those used in railway locomotives and self-propelled cars), capacitors, circuit breakers, reclosers, voltage regulators, switches (including sectionalizers and motor starters), electromagnets, and cable, that contains PCBs at concentrations of 50 ppm and < 500 ppm in the contaminating fluid.”

Electricity was supplied to the Site by overhead lines, and three pole-mounted electrical transformers were observed along the southern boundary of the Site. No labeling indicating PCB-content was observed on the transformers. No evidence of leaks or staining was observed adjacent to the transformers. Therefore, the transformers are not considered RECs. The area beneath the transformers was composed of a concrete driveway and grassy area. The concrete appeared to be in good condition at the time of Site reconnaissance. Tetra Tech considers the transformers to be an



Area of Concern that does not warrant further investigation. No additional evidence of PCB-containing equipment was observed in association with the Site.

4.11 PESTICIDE AND HERBICIDE USE

No pesticides or herbicides were observed during the site reconnaissance. Based on historical information, the Site was not previously used for agricultural activities. Tetra Tech does not consider the use of pesticides or herbicides to be a concern for the Site.

4.12 SENSITIVE ENVIRONMENTAL AREAS

To gather initial scoping information with regard to potential federal and state listed species that could occur within the vicinity of the project area, a list of species known to occur in Monmouth County was obtained from the U.S. Fish and Wildlife Service (USFWS) (2013a), and the Critical Habitat Portal was evaluated to determine if federally designated critical habitat occurs within or in the vicinity of the project area (USFWS 2013b). In addition, the Endangered and Nongame Species Program (ENSP) database was searched to determine federal and state listed species and natural communities with known occurrences in Avon-by-the-Sea, Monmouth County, New Jersey (NJDEP Division of Fish and Wildlife [DFW] 2014).

No critical habitat has been designated by the USFWS in Monmouth County, New Jersey. The ENSP database identifies four ecological communities in Monmouth County, including two forests, one woodland, and one coastal panic grass (NJDEP DFW 2008). Based on state rankings, these vegetative communities include two critically imperiled, one imperiled, and one rare community. Because the project area occurs in an urbanized residential area, none of these natural communities are likely to occur within the project area or immediately adjacent to it. Tetra Tech did not observe critical habitats during Site reconnaissance.

There are three federally endangered species and seven federally threatened species with known occurrence in Monmouth County (United States Fish and Wildlife Service [USFWS] 2013a). Based on the observed condition of the Site and adjacent areas, it is unlikely these species reside within the project area or would be affected by the action due a lack of suitable habitat. No federal endangered or threatened species were observed during Site reconnaissance.

The same seven federally threatened animals and insects and three plant species as currently or historically occurring in Monmouth County are also the species legally protected under state law. It is unlikely these species reside within the project area or would be affected by the action due to a lack of suitable habitat. No state endangered or threatened species were observed during Site reconnaissance.

In order to gather information on potential wetlands within or in the vicinity of the USCG properties, the following data was collected and reviewed: USGS Topographic Map, USGS National Hydrography Dataset (NHD) Viewer (USGS 2013), National Wetland Inventory (NWI) mapping (USFWS 2014), NJDEP



i-MapNJ, and recent aerial and site photographs. In addition, Tetra Tech completed an inquiry letter to the USFWS to conduct a search of critical habitats and endangered species in the vicinity of the Site. A response was not received prior to report submittal. Tetra Tech did not observe critical habitats during Site reconnaissance.

According to the above data, two wetland areas are located within a 0.25 mile radius of the Site. Sylvan Lake, a 16.55-acre freshwater pond wetland (PUBHx) is located approximately 225 feet northwest of the Site. An intertidal, estuarine and marine wetland (M2US2P) and the Atlantic Ocean, designated a marine, sub-tidal, unconsolidated bottom wetland (M1UBL), are located approximately 450 feet to the east of the Site. According to the NWI and NJDEP i-MapNJ online website, estuarine and marine deep-water wetlands (E1UBL) associated with the Shark River are also located 0.45 miles south of the Site (USFWS 2011, NJDEP 2014, Google Earth 2014). Wetland areas were not observed on the Site during Site reconnaissance.

The project area is located within the Flood Insurance Rate Map (FIRM) Panel 34025C0334F (FEMA 2009). The USCG housing property is located adjacent to the regulatory floodway of the Atlantic Ocean, and is mapped by FEMA as Zone VE, which is defined by FEMA as special flood hazard areas subject to the 1% annual chance flood where base flood elevations have been determined. Tetra Tech did not observe flood areas at the time of Site reconnaissance.

4.13 HISTORIC AND CULTURAL SIGNIFICANCE

4.13.1 ARCHAEOLOGICAL RESOURCES

In order to assess the potential for archaeological resources to be found within or in the vicinity of the project area, a records search was completed at the New Jersey State Historic Preservation Office (SHPO) in Trenton, New Jersey on Wednesday, November 19, 2014. Based on the results of the search, no archaeological sites were identified within a one-mile radius of the project area. Tetra Tech did not observe indications of historical archaeological sites at the time of Site reconnaissance.

4.13.2 ARCHITECTURAL RESOURCES

The project area contains a single standing structure built in 1967. The structure is a residential triplex comprised of approximately 4,350 square feet of living space. It has nine bedrooms and six bathrooms, and two associated sheds. The structure is greater than 50 years of age and to date has not been assessed for National Register of Historic Places (NRHP) eligibility.

A records search completed at the New Jersey SHPO and via New Jersey State's Historic Sites Online database (New Jersey Historic Preservation Office [NJHPO] 2014) on Wednesday, November 19, 2014, identified four historic resources within a one-mile radius of the project area (**Table 2**). Two of the properties are listed on the NRHP. One property is listed in the State Register of Historic places,



and a fourth property is under review (NJHPO 2014). Tetra Tech did not observe indications of historical architectural sites at the time of Site reconnaissance.

Table 2: Architectural Sites Identified Within a One-Mile Radius of the Project Area

Property Name	Address	Date	Style/Form	Year	Evaluation
Bascule Bridge over Shark River	State Highway Route 71	1932 to 1980s	Concrete Balustrades	1995	State Eligible
Bradley Beach Station	Between La Reine & Brimley Avenue	1912	Renaissance Revival	1984	NRHP Listed
New York & Long Branch Railroad Historic District	Along Long Branch Route	N/A	Historic District	N/A	Under Review
Ocean Grove Camp Meeting Association District	Bounded by Fletcher Lake, NJ 71, Lake Wesley	1870	19 th Century Planned Urban Community	1975	NRHP Listed

Notes: N/A – Not applicable; NRHP – National Registry of Historic Places

4.14 INDOOR AIR

Mold

Potential mold was not observed during the site reconnaissance.

Radon Gas

Radon gas is a colorless, odorless gas that occurs naturally from the breakdown of uranium. Radon can be found in high concentrations where there are soils and rocks containing high levels of uranium, granite, shale or phosphate. In open air or in areas with high air circulation, radon is not considered a health problem. However, in confined spaces (such as poorly ventilated basements), radon can concentrate and become a health hazard.

According to the EDR database report, the USEPA has classified Monmouth County, New Jersey as being located within the USEPA Radon Zone 1, with indoor average radon levels greater than 4 picocuries per Liter (pCi/L). A total of 102 sites were tested for radon levels in the Borough of Avon-by-the-Sea, New Jersey, and no concentrations above 4 pCi/L were detected. Based on information provided by the USCG, Site-specific radon testing has not been conducted at the Site. Because the radon concentrations in the Borough of Avon-by-the-Sea, New Jersey are typically below the USEPA threshold value and the Site building does not have a basement level, radon is not expected to be a concern at the Site.



No potential hazard dust or material that might affect the indoor air quality was observed during the site reconnaissance. Therefore, indoor air is not anticipated to be a concern at the Site.

4.15 RADIOACTIVE MATERIALS

USCG personnel were not aware of permitted radiological activities or materials at the Site. No information obtained indicated radioactive material use or storage within the neighboring properties. Therefore, radioactive materials are not a concern associated with this Site.

4.16 ASBESTOS

Information provided by the USCG indicates that an asbestos survey and condition/risk assessment has not been previously conducted at the site. As such, Tetra Tech contracted Lead Professionals to complete an inspection for suspect asbestos containing materials (ACMs) on October 23, 2014. The asbestos survey and condition/risk assessment was conducted by Mr. Joseph Perlstein of AAA Lead Professionals, LLC of Lakewood, New Jersey (State of New Jersey Department of Labor and Workforce Development Division of Public Safety and & Occupational Safety & Health Asbestos Control & Licensing Section Asbestos License Number 01200).

In its normal state, the suspect ACM were observed to be in generally good condition with a low potential for disturbance.

Of the ten samples collected at the Site, three of the samples analyzed did not contain asbestos. Based on laboratory analytical data, ACM identified in the building includes the following:

- first floor vinyl floor tile and associated mastic (located at 2, 4, and 6 East End Avenue)
- drywall joint compound (located at 2, 4, and 6 East End Avenue)
- textured ceiling material in a second floor hallway (located at 4 East End Avenue)

Please note that in accordance with the SOW, destructive sampling was not conducted. ACMs may be present in inaccessible areas such as wall cavities, under flooring systems, above ceilings, and under or behind appliances. A detailed ACM survey and condition/risk assessment report, findings and recommendations is included in the *Asbestos Containing Material Survey and Condition/Risk Assessment Report* prepared by Tetra Tech dated July 2015, submitted under separate cover.

4.17 LEAD-BASED PAINT

Information provided by the USCG indicates that a lead-based paint (LBP) inspection and risk assessment was not previously conducted at the Site. Based on the age of the housing units, it is possible that LBP was used for painting the interior and exterior walls of the structure. As such, Tetra Tech contracted Lead Professionals to complete a LBP inspection and risk assessment on October 23, 2014. The LBP inspection and risk assessment was conducted by Mr. Joseph Perlstein of AAA Lead Professionals, LLC of Lakewood, New Jersey (State of New Jersey Department of Community Affairs Lead Evaluation Contractor Certification Number 00430-E). Lead Professionals



obtained 234 (including eight calibration tests) test readings on interior coated surfaces using x-ray fluorescence (XRF).

The LBP inspection and risk assessment indicated that out of the 226 tested locations, four showed lead concentrations at or above the USEPA/U.S. Department of Housing and Urban Development (HUD) definition of lead-based paint (at or above 1.0 milligram per square centimeter [mg/cm^2]) on tested coatings.

Positive concentrations of LBP include:

- second floor bedroom on the baseboard and window sill (2 East End Avenue)
- second floor bedroom on the window sill (4 East End Avenue)
- second floor bedroom on the window sill (6 East End Avenue)

The LBP in the four locations was identified as a lead hazard for two reasons:

- cracked and peeling paint on baseboards with a concentration over $1.0 \text{ mg}/\text{cm}^2$
- window sills are considered a chewable surface above the $1.0 \text{ mg}/\text{cm}^2$ definition of LBP

The remaining tested component coatings were below $1.0 \text{ mg}/\text{cm}^2$. The LBP hazards are considered an Area of Concern. The LBP inspection and risk assessment report, findings, and recommendations are included in the Lead-Based Inspection and Risk Assessment Report prepared by Tetra Tech dated July 2015, submitted under separate cover.

4.18 LEAD IN SOIL

Based on the age of the housing units, it is possible that LBP was used for painting the exterior walls of the structures. Over time, continued contact of precipitation with exterior LBP surfaces can cause lead build-up in surface and near surface soils directly adjacent to the structure exterior and along the roof drip line. In accordance with the Scope of Work (SOW), Tetra Tech collected soil samples from eight locations along exterior structure walls. Soil sample locations were within five feet of each exterior wall, along the Site building roof drip line. Due to the configuration of the Site building, three sample locations were selected from northern and southern sides of the Site building, and one sample location was selected from the western and eastern sides of the Site building. A total of 16 soil samples were collected. Two soil samples were collected at each location, at the surface (0 inches bgs) and 6 inches bgs. The samples were containerized and shipped under standard chain of custody procedures to SanAir Technologies Laboratory located in Powhatan, Virginia. The samples were submitted for total lead analysis by USEPA SW-846 Method 3050B/7000B.

Following receipt of the analytical laboratory report, Tetra Tech compared the soil analytical results to the USEPA Direct Contact Clean up Level Criterion and the NJDEP Residential Direct Contact Soil Remediation Standard of 400 milligram per kilogram (mg/kg). Soil analytical results indicated that lead was detected in concentrations ranging between less than $1.0 \text{ mg}/\text{kg}$ and $133 \text{ mg}/\text{kg}$. The lead



in soil analytical report is summarized in the *Lead in Soil Sampling Report* prepared by Tetra Tech dated July 2015, submitted as **Appendix D**.

4.19 FACILITY DOCUMENTATION

According to information provided to Tetra Tech from GSA and USCG, the Site has been used for residential housing since purchase in 1967. No documentation of facility records associated with hazardous materials or hazardous wastes were available for review according to the Site contact. The only report available for review was the Final Environmental Compliance Due Diligence Activities Report prepared by AMEC Foster Wheeler (AMEC) on behalf of GSA, which is discussed in relevant sections throughout this report.