



## REVISED PROPOSED PLAN FOR SITES FTMM-28, FTMM-54, FTMM-55, FTMM-56, FTMM-61, FTMM-64, & PARCEL 57

Fort Monmouth, Oceanport, Monmouth County, New Jersey

September 2020

### INTRODUCTION

1 The U.S. Army is presenting this **Proposed Plan\***  
2 for the public to review and comment regarding  
3 **no further action (NFA)** proposed for seven  
4 sites at Fort Monmouth (FTMM) in Monmouth  
5 County, New Jersey: FTMM-28, FTMM-54  
6 FTMM-55, FTMM-56, FTMM-61, FTMM-64, and  
7 Parcel 57. The U.S. Army (Army) is the lead  
8 agency for FTMM in accordance with the  
9 **Defense Environmental Restoration Program**  
10 **(DERP)** (10 U.S.C. §2701 et. seq.). New Jersey  
11 Department of Environmental Protection  
12 (NJDEP) is the state regulatory agency which  
13 administers the State's Site Remediation  
14 Program under the Technical Requirements for  
15 Site Remediation (**New Jersey Administrative**  
16 **Code (N.J.A.C.)** 7:26E). NJDEP, in consultation  
17 with the Army, will make the final selection of the  
18 response action for sites FTMM-28, FTMM-54  
19 (south of FTMM-18), FTMM-55, FTMM-56,  
20 FTMM-61, FTMM-64, and Parcel 57 after  
21 consideration of public input.

22 These sites are classified as **Petroleum, Oil, and**  
23 **Lubricant (POL)** Sites and therefore are exempt  
24 from the **Comprehensive Environmental**  
25 **Response, Compensation and Liability Act** of  
26 1980 (**CERCLA**, 42 U.S.C. §§9601(14) and  
27 9604(a)(2)) process. However, the Army's  
28 authority to investigate and remediate  
29 environmental contamination, as described in the  
30 DERP Manual (DoDM 4715.20, 9 March 2012),  
31 requires all such investigations and remedy  
32 selection processes be consistent with CERCLA.  
33 For POL sites, and other Resource Conservation  
34 and Recovery Act (RCRA) corrective action  
35 responses, the Department of Defense (DoD)  
36 interprets "consistent with" to mean public  
37 participation prior to remedy selection, as  
38 described in the **National Oil and Hazardous**  
39 **Substances Pollution Contingency Plan** (NCP  
40 40 CFR Part 300). The Army presents this  
41 Proposed Plan, consistent with 40 CFR

\* Words or phrases shown in **BOLD** are defined in the glossary  
at the end of this document.

#### Dates to Remember: PLEASE MARK YOUR CALENDAR

##### PUBLIC COMMENT PERIOD:

**August 10, 2020 – September 28, 2020**

The Army will accept written comments on the  
Proposed Plan during the public comment pe-  
riod. Written comments may be postmarked or  
emailed by **September 28, 2020** and sent to:

BRAC Environmental Coordinator  
U.S. Army Fort Monmouth  
Attn: Mr. William Colvin  
P.O. Box 148  
Oceanport, NJ 07757  
or  
[william.r.colvin18.civ@mail.mil](mailto:william.r.colvin18.civ@mail.mil)

The Proposed Plan can be viewed at  
[www.fortmonmouthrecords.com](http://www.fortmonmouthrecords.com) or (subject to  
COVID-19 restrictions) at the Fort Monmouth  
Environmental Restoration Public Information  
Repository (the Administrative Record) at the  
following location:

Monmouth County Library, Eastern Branch  
1001 Route 35, Shrewsbury, NJ 07702  
Phone: (732) 683-8980

43  
44 300.430(f)(2), to present to the public the remedy  
45 selected by the NJDEP.

46 FTMM-28 was also a pesticide storage site.  
47 However, the results of an environmental  
48 investigation indicated that pesticides were not  
49 **contaminants of concern (COCs)** under  
50 CERCLA and did not require additional action.  
51 Parcel 57 was also a coal storage site. However,  
52 the results of a CERCLA risk assessment  
53 indicated that there were no COCs under  
54 CERCLA. CERCLA risk assessments were not  
55 performed for the other six sites. NJDEP soil  
56 cleanup standards and **Ground Water Quality**  
57 **Standards (GWQS)** were used to evaluate the  
58 need for remediation of these seven sites. The  
59 evaluation of these sites was based on previous  
60 environmental investigations which concluded

1 that NFA is required based on NJDEP criteria and  
2 NJDEP has agreed.

3 A portion of FTMM-54 overlaps with FTMM-18,  
4 FTMM-18 is not included in this Proposed Plan.  
5 The only FTMM-54 soil with COCs was located  
6 within the FTMM-18 site boundary, and will be  
7 addressed by the engineering and institutional  
8 controls implemented for the FTMM-18 landfill.  
9 Therefore, the portion of FTMM-54 included in  
10 this Proposed Plan is the portion south of the  
11 FTMM-18 boundary.

12 This Proposed Plan provides the rationale for the  
13 NFA determination and describes the public  
14 involvement process for sites FTMM-28, FTMM-  
15 54 (south of FTMM-18), FTMM-55, FTMM-56,  
16 FTMM-61, FTMM-64, and Parcel 57.

## 17 PUBLIC INVOLVEMENT 18 PROCESS

19 As the lead agency for implementing the  
20 environmental response program at FTMM, the  
21 Army has prepared this Proposed Plan in  
22 accordance with CERCLA Section 117(a) and  
23 Section 300.430(f)(2) of the NCP to continue its  
24 community awareness efforts and to encourage  
25 public participation. This Proposed Plan is also  
26 consistent with the public outreach requirements  
27 of the N.J.A.C. 7:26C-1.7. After the public has the  
28 opportunity to review and comment on this  
29 Proposed Plan, the Army will respond to the  
30 comments received during the public comment  
31 period. Information on the public comment period  
32 is presented in the box on Page 1.

33 Local community members and other interested  
34 parties are encouraged to review this Proposed  
35 Plan and submit comments. The Army will  
36 carefully consider all comments received from the  
37 public and provide responses which will be  
38 compiled into a **Responsiveness Summary**.  
39 The decision on the appropriate action for sites  
40 FTMM-28, FTMM-54 (south of FTMM-18),  
41 FTMM-55, FTMM-56, FTMM-61, FTMM-64, and  
42 Parcel 57 will be detailed in a **Record of**  
43 **Decision (ROD)**, which will include the  
44 Responsiveness Summary.

45 This Proposed Plan summarizes information that  
46 can be found in greater detail in the Underground  
47 Storage Tank (UST) Closure Reports, **Site**  
48 **Investigations (SIs)**, **Remedial Investigations**  
49 **(RIs)**, and other documents contained in the

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50 **Administrative Record** file for FTMM and on the  
51 website listed in the box on Page 1. The Army  
52 encourages the public to review these documents  
53 to gain a more comprehensive understanding of  
54 the sites and all associated activities.

## 55 SITE BACKGROUND

56 FTMM is located in the central-eastern portion of  
57 New Jersey in Monmouth County, approximately  
58 45 miles south of New York City, New York; 70  
59 miles northeast of Philadelphia, Pennsylvania;  
60 and 40 miles east of Trenton, New Jersey. The  
61 Atlantic Ocean is approximately 3 miles to the  
62 east. FTMM was comprised of three areas: the  
63 Main Post (MP), the Charles Wood Area (CWA),  
64 (Figure 1), and the Evans Area (EA) (not shown).  
65 FTMM's MP and CWA were selected for closure  
66 by the Base Realignment and Closure (BRAC)  
67 Commission in 2005, and officially closed on  
68 September 15, 2011. The EA was closed under  
69 BRAC in 1998 and has since been transferred  
70 from FTMM.



71

72

**Figure 1: Fort Monmouth Location**

73 Numerous investigations were conducted at  
74 sites FTMM-28, FTMM-54, FTMM-55, FTMM-  
75 56, FTMM-61, FTMM-64, and Parcel 57 over the  
76 past 35 years. The locations of six sites on the  
77 MP are shown on Figure 2, and FTMM-28 on the  
78 CWA is shown on Figure 3. Generally these  
79 investigations are summarized in the most recent  
80 RI or other summary report for each site.

## 81 SITE CHARACTERIZATION

82 Major vegetation zones at FTMM consist of  
83 landscaped areas, wetlands, **riparian** areas,  
84 upland forests, and **old field habitats**. Much of  
85 the upland areas of the MP and CWA consist of  
86 extensive areas of regularly mowed lawns and

Figure 2 - Main Post Locations

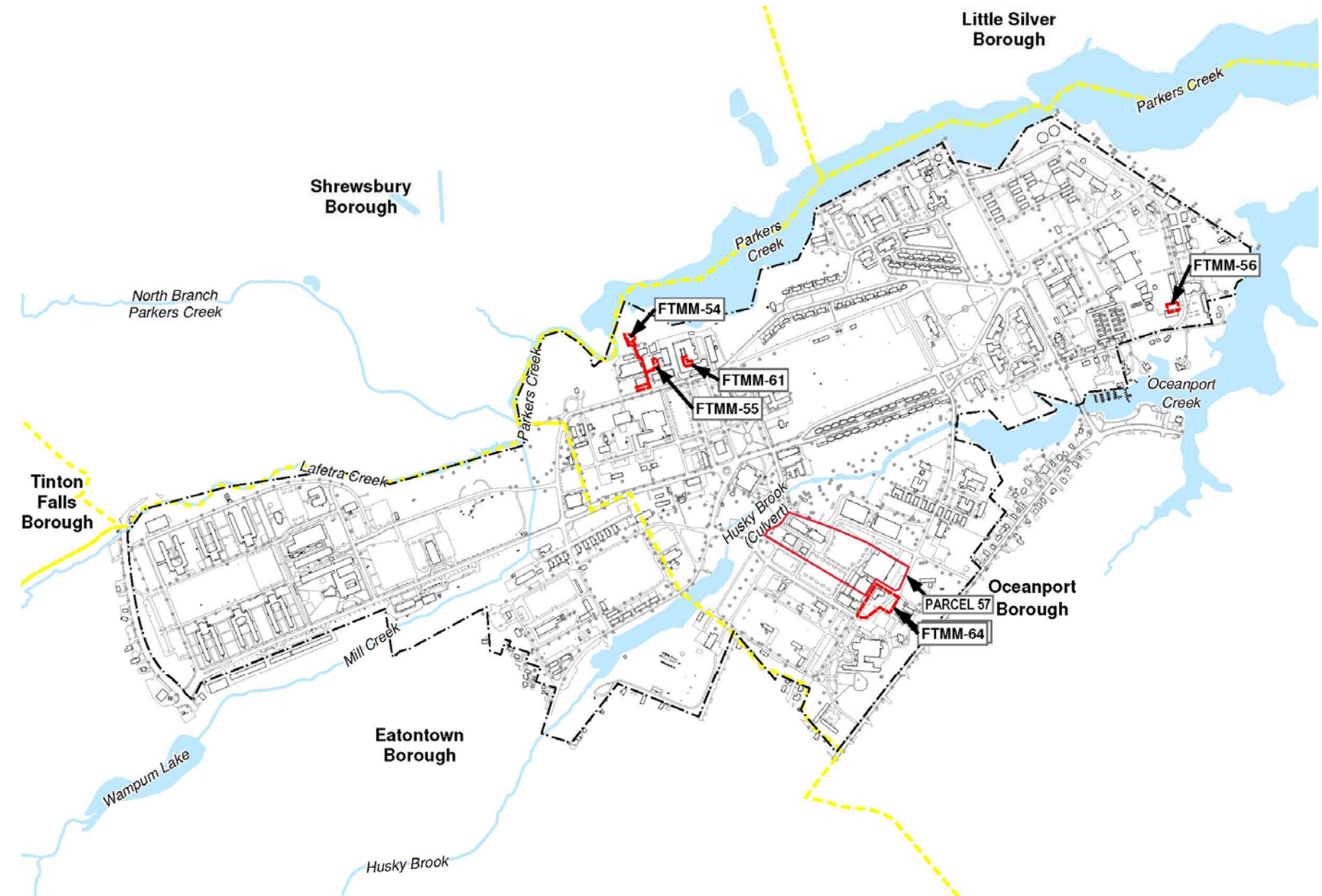
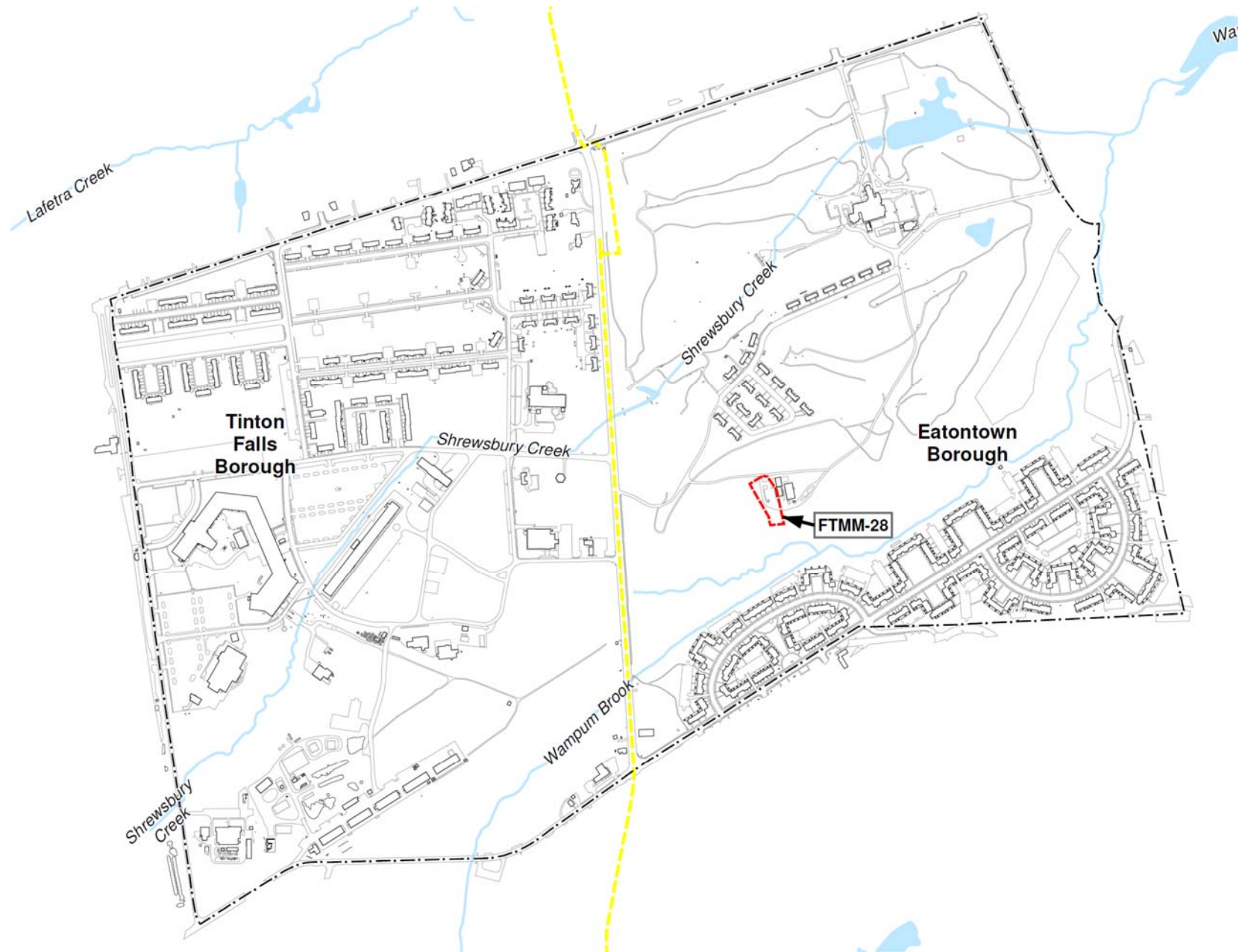




Figure 3 - Charles Wood Area Location



1 landscaped areas. Detailed vegetation  
2 information can be found in the Baseline  
3 Ecological Evaluation Report (Shaw, 2012).

4 FTMM is situated on Coastal Plain deposits  
5 which are unconsolidated material that has not  
6 been cemented or compacted. Soil encountered  
7 at FTMM is typically comprised of fine to coarse  
8 sand with fine gravel, and green/gray/black  
9 sandy silt and clay with varying amounts of sand  
10 and gravel.

11 **Groundwater** is typically encountered at the MP  
12 and in the surrounding areas at depths of 2 to 9  
13 feet below ground surface (bgs), and at depths  
14 of approximately 7 to 14 feet bgs at the CWA.  
15 Groundwater elevations fluctuate in response to  
16 precipitation events, with some tidal influence in  
17 areas near creeks (such as FTMM-54 and  
18 FTMM-56). New Jersey GWQS classify  
19 groundwater at FTMM as Class II-A: **potable**  
20 **water** with secondary uses including agricultural  
21 and industrial (NJDEP, 2010).

22 A Baseline Ecological Evaluation was performed  
23 and many of the sites were determined not to  
24 have environmentally sensitive natural  
25 resources (Shaw, 2012). However, some of the  
26 sites were determined to require additional  
27 evaluation through the Baseline Ecological  
28 Evaluation process based on the potential for  
29 contamination migration and impacts to  
30 **ecological receptors**. Of the seven sites in this  
31 Proposed Plan, only FTMM-28 and FTMM-61  
32 were determined to have the potential for  
33 impacts to ecological receptors. They were both  
34 evaluated further in the Baseline Ecological  
35 Evaluation and it was concluded that potential  
36 ecological effects were negligible. Therefore,  
37 additional ecological assessments at FTMM-28  
38 and FTMM-61 were not warranted or  
39 recommended.

40 There is no surface water or sediment within  
41 sites FTMM-28, FTMM-54, FTMM-55, FTMM-  
42 56, FTMM-61, FTMM-64, and Parcel 57.  
43 Additionally, nearby surface water and sediment  
44 that were outside but near FTMM-28 and FTMM-  
45 61 were evaluated in the Baseline Ecological  
46 Evaluation and it was determined that no further  
47 action was appropriate for surface water and  
48 sediment. Therefore, no further action for  
49 surface water or sediment is required for any of  
50 the seven sites.

51 To determine the nature and extent of  
52 contamination at each site, detected

53 concentrations of potential contaminants were  
54 compared to State (NJDEP) residential, non-  
55 residential, and **Impact to Groundwater (IGW)**  
56 screening criteria as well as FTMM-specific  
57 background concentrations for metals (Weston,  
58 1995). NJDEP comparison criteria included:

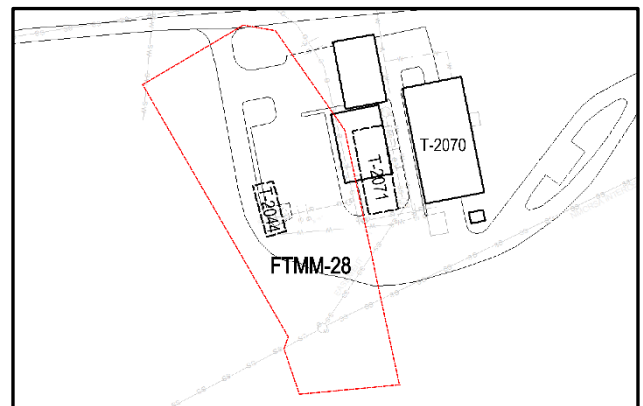
- 59 • Residential Direct Contact Soil Remediation  
60 Standards (RDCSRS), Non-Residential  
61 Direct Contact Soil Remediation Standards  
62 (NRDCSRS), and IGW screening levels  
63 (SLs) for soils; and
- 64 • GWQS for groundwater.

65 The above criteria were used to identify those  
66 chemicals that are COCs. As described below,  
67 any contaminants that were once identified as  
68 COCs for sites FTMM-28, FTMM-54, FTMM-55,  
69 FTMM-56, FTMM-61, FTMM-64, Parcel 57 have  
70 been further evaluated and/or remediated and  
71 determined to no longer be COCs, and NJDEP  
72 has agreed.

73 The following subsections describe site  
74 characterization activities for soil and  
75 groundwater for each of the seven sites covered  
76 by this Proposed Plan.

#### 77 **FTMM-28**

78 FTMM-28 is in the south-central portion of the  
79 CWA in the vicinity of former Building T-2044  
80 and has an area of approximately 0.6 acre. The  
81 site is located in the southwest section of the  
82 CWA golf course (Figures 3 and 4).



83 **Figure 4 – FTMM-28 Site Boundary and Layout**

84 FTMM-28, also known as CW-6, included former  
85 Building T-2044 that was historically used to  
86 store and mix pesticides and herbicides. Nearby  
87 Buildings T-2070 and T-2071 were used to store  
88 golf course maintenance and landscaping  
89 equipment such as tractors and mowers.

1 Storage or mixing of pesticides or herbicides  
2 was discontinued at FTMM-28 prior to 1995. The  
3 anticipated future land use at FTMM-28 is open  
4 space with the surrounding area anticipated to  
5 remain a golf course. Previous investigations at  
6 FTMM-28 included an SI (Weston, 1995), UST  
7 Closure and SI Report (ATC, 2000a), a UST  
8 Report Addendum (U.S. Army, 2002), an RI  
9 (Versar, 2005b), and an RI Report Addendum  
10 (Tetra Tech, 2010) as summarized below.

#### 11 USTs

12 Three USTs (one for fuel oil, one diesel, and one  
13 gasoline) were removed in December 1993. The  
14 Army submitted a UST Closure and SI Report  
15 (ATC, 2000a) that included the results of UST-  
16 related soil sampling (described below). NJDEP  
17 (2003) agreed that all three USTs had been  
18 properly closed and that NFA was warranted.

#### 19 Soils

20 In early 1994 post-excavation soil samples were  
21 collected at FTMM-28 to support closure of the  
22 USTs. The soil samples were analyzed for **total**  
23 **petroleum hydrocarbons (TPH)**, **volatile**  
24 **organic compounds (VOCs)**, and/or lead. No  
25 exceedances of applicable NJDEP comparison  
26 criteria were found in the soil samples.

27 Soil samples were collected from two borings  
28 near the pesticide storage area as part of the SI  
29 (Weston, 1995) and analyzed for VOCs,  
30 **semivolatile organic compounds (SVOCs)**,  
31 pesticides, **polychlorinated biphenyls (PCBs)**,  
32 and **target analyte list (TAL) metals**. Detected  
33 analytes in soil were less than the applicable  
34 NJDEP comparison criteria and no COCs were  
35 identified in soils. NJDEP (1996) agreed with the  
36 SI recommendations, which included additional  
37 long-term groundwater monitoring (discussed  
38 below), but no additional measures for soils.

39 Additional soil samples were collected from the  
40 former UST area in August 2010 and analyzed  
41 for VOCs plus 10 **tentatively identified**  
42 **compounds (TICs)** and lead, which had not  
43 been consistently sampled during post-  
44 excavation sampling in 1994. Based on the  
45 results of this and previous sampling, NJDEP  
46 (2012) determined that unrestricted use and  
47 NFA was appropriate for FTMM-28.

#### 48 Groundwater

49 Three monitoring wells were installed in 1994.  
50 Benzene, methylene chloride, arsenic, and lead

51 were detected in the groundwater at levels  
52 greater than their applicable NJDEP comparison  
53 criteria.

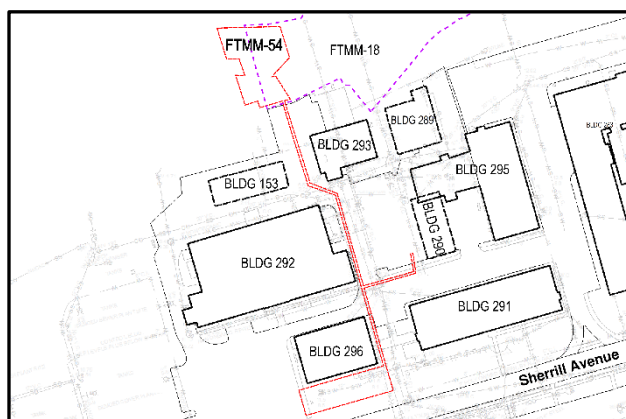
54 A fourth monitoring well was installed in 1995,  
55 and groundwater samples were collected and  
56 analyzed for VOCs, SVOCs, pesticides, and  
57 PCBs. Benzene was the only analyte detected  
58 at concentrations greater than the NJDEP  
59 GWQS and the Army implemented a long-term  
60 monitoring program (Weston, 1995).

61 An RI Report was prepared in 2005 that  
62 presented the results of the first 18 rounds of  
63 quarterly groundwater sampling at FTMM-28.  
64 These samples were analyzed for VOCs,  
65 SVOCs, pesticides, PCBs, and TAL metals. Two  
66 additional rounds of low-flow sampling were also  
67 conducted for TAL metals analysis. No COCs  
68 were identified in the 2005 RI.

69 An RI Report Addendum was prepared in 2010  
70 that presented the results of 38 additional  
71 rounds of quarterly groundwater sampling  
72 collected from May 2001 through July 2010.  
73 Again, no COCs were identified in the  
74 groundwater at FTMM-28. Based on the results  
75 of this and previous sampling, NJDEP (2012)  
76 determined that unrestricted use and NFA was  
77 appropriate for FTMM-28.

#### 78 FTMM-54 (south of FTMM-18)

79 FTMM-54, a former gasoline and diesel fuel  
80 distribution facility, is located in the central  
81 portion of the MP, north of Sherrill Avenue and  
82 south of Parkers Creek (Figures 2 and 5).



83 **Figure 5 – FTMM-54 Site Boundary and Layout**

84 FTMM-54 is associated with nearby Building  
85 296, and has also been referred to historically as  
86 Building 296 or Site 296. Building 296 is near  
87 existing Buildings 145, 283, 288, 291, 292, 293,  
88 and 295, referred to collectively as the “Squier



1 Hall Complex.” The anticipated future land use  
2 at FTMM-54 is offices and research and  
3 development (R&D). Previous investigations at  
4 FTMM-54 included UST Closure and Site  
5 Investigation Reports (Smith, 1996; Versar,  
6 2001a), a Summary RI Report (U.S. Army,  
7 2015), and additional delineation sampling as  
8 summarized below.

#### 9 USTs

10 Twelve UST closures have been completed at  
11 FTMM-54. In 1993 nine gasoline and two diesel  
12 USTs were discovered in one area south of  
13 Building 296 and removed. Excavation of  
14 stained soil was conducted during removal of the  
15 USTs and the area was backfilled and graded.  
16 In addition, excavation of associated fuel  
17 distribution piping was completed between  
18 November 1993 and January 1994; this piping  
19 extended about 0.5 mile from the UST area north  
20 to the FTMM-18 landfill. The Army submitted a  
21 UST Closure and SI Report to NJDEP (Versar,  
22 2001a) that included the results of UST and  
23 piping-related soil sampling (described below).  
24 NJDEP (2003) agreed that all 11 USTs and  
25 associated piping had been properly closed and  
26 that no further action was warranted.

27 One fuel oil UST associated with Building 296  
28 was also removed in 1993. NJDEP (2016a)  
29 agreed that this UST was properly closed and  
30 that no further action was warranted.

#### 31 Soils

32 Between November 1993 and January 1994,  
33 post-excavation soil samples were collected  
34 from locations along the base of the excavation  
35 where the USTs and associated piping were  
36 removed. These samples were analyzed for  
37 VOCs, TPH, and lead, and any detections were  
38 less than the applicable NJDEP cleanup criteria.  
39 These soil sample results provided the basis for  
40 the NFA determinations discussed above for the  
41 nine gasoline, two diesel, and one fuel oil USTs  
42 at FTMM-54.

43 The Army (2015) recommended no further  
44 action for soil for the portion of FTMM-54 located  
45 south of the FTMM-18 site boundary and NJDEP  
46 (2016a) agreed with this recommendation.

47 Additional soil samples were collected in 2016  
48 and 2017 to delineate naphthalene detections in  
49 the portion of FTMM-54 north of the FTMM-18  
50 site boundary. The soil was adequately  
51 delineated (U.S. Army, 2017d). The only FTMM-

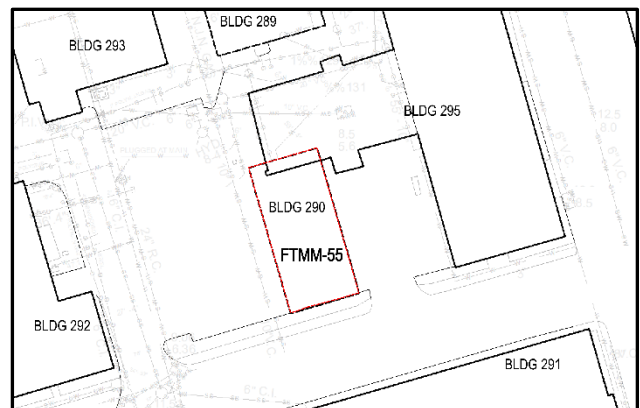
52 54 soil with COCs was located within the FTMM-  
53 18 site boundary, and will be addressed by the  
54 engineering and institutional controls  
55 implemented for the FTMM-18 landfill.

#### 56 Groundwater

57 Quarterly groundwater monitoring occurred at  
58 FTMM-54 from June 1994 to August 2011 using  
59 a network of up to seven monitoring wells. The  
60 Army (2014) recommended no further action for  
61 FTMM-54 groundwater, excluding benzene in  
62 well 296MW06 which exceeded the NJDEP  
63 GWQS for benzene and is located within the  
64 FTMM-18 landfill, and so will be addressed  
65 within the FTMM-18 landfill remedy. NJDEP  
66 (2015a) agreed with this recommendation.

#### 67 FTMM-55

68 FTMM-55 is located in the north-central portion  
69 of the MP, north of Sherrill Avenue and south of  
70 Parkers Creek. FTMM-55 is associated with  
71 former Building 290 (Figures 2 and 6), which was  
72 near existing Buildings 145, 283, 288, 291, 292,  
73 293, 295 and 296, referred to collectively as the  
74 “Squier Hall Complex.” The anticipated future  
75 land use is offices and R&D. FTMM-55 is  
76 immediately south of the FTMM-18 landfill (not  
77 included in this Proposed Plan). FTMM-55 is  
78 unoccupied and consists of landscaped  
79 vegetation and lawn area.



80 **Figure 6 – FTMM-55 Site Boundary and Layout**

81 FTMM-55 (Building 290) was a former military  
82 vehicle repair and maintenance facility that  
83 included four USTs and a gasoline dispenser  
84 island. The site formerly served as a military  
85 motor pool. Building 290 was demolished in  
86 2000. Three UST Closure and Site Investigation  
87 Reports (each for a different UST) were  
88 prepared in 1993, 2000, and 2001 (Weston,  
89 1993; ATC, 2000b; Versar, 2001b). An SI/RI  
90 Report was prepared in 1999 (SMC, 1999).

1 Previous investigations were summarized in a  
2 Final Summary RI Addendum Report submitted  
3 to NJDEP (U.S. Army, 2016).

#### 4 USTs

5 Four UST closures have been completed at  
6 FTMM-55: one waste oil UST, one diesel UST,  
7 and two gasoline USTs associated with Building  
8 290. These four USTs and a gasoline dispenser  
9 island were removed between 1991 and 1994  
10 and the excavations have been backfilled and  
11 graded. Soil and groundwater investigations  
12 were performed, and NJDEP (2000b, 2003,  
13 2015b) agreed that all four USTs were properly  
14 closed and that NFA was warranted.

#### 15 Soil

16 Soil samples were collected from 1991 to 1994  
17 as part of the UST investigations and analyzed  
18 for TPH (with some samples analyzed for lead,  
19 VOCs, priority pollutants, and TICs). Soil  
20 samples were also collected in 2016 in the area  
21 of the diesel UST and sampled for **extractable**  
22 **petroleum hydrocarbons (EPH)**. Based on  
23 these sample results, soil concentrations at this  
24 UST were less than the applicable NJDEP  
25 comparison criterion, and NJDEP (2016c)  
26 agreed with the Army's recommendation of NFA.

#### 27 Groundwater

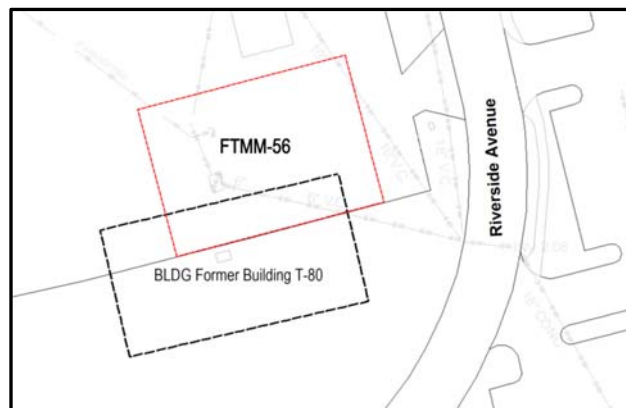
28 Two groundwater wells were initially installed at  
29 FTMM-55 in 1994 after the removal of the four  
30 USTs. Initially the wells were sampled quarterly  
31 for VOCs, SVOCs, pesticides, PCBs, and  
32 metals. Starting in 2005 only VOCs and metals  
33 were sampled because SVOCs, pesticides, and  
34 PCBs were determined not to be COCs based  
35 on the 1997 through 2004 sampling results.  
36 Exceedances of applicable NJDEP GWQS for  
37 lead and arsenic in groundwater were attributed  
38 to background concentrations. VOCs were not  
39 detected in the last four rounds of sampling from  
40 November 2010 to August 2011. NJDEP  
41 (2016c) agreed with the Army's  
42 recommendation to discontinue groundwater  
43 sampling after August 2013 and with the  
44 recommendation of NFA for groundwater.

#### 45 FTMM-56

46 FTMM-56 is in the eastern portion of the MP  
47 approximately 500 feet northwest of Oceanport  
48 Creek. The site is located north of Riverside  
49 Avenue and south of Building 166, and was also  
50 known as Site 80/166 because of the

51 association with the former fuel oil USTs for  
52 Building T-80 (which has been demolished) and  
53 existing Building 166 (Figures 2 and 7).

54 FTMM-56 is comprised of the former fuel oil  
55 tanks UST 166 and UST 80, and the associated  
56 groundwater monitoring wells. Prior to 2018 the  
57 site was used as a maintenance yard for FTMM.  
58 The anticipated future land use at FTMM-56 is  
59 open space. Previous investigations at FTMM-  
60 56 are summarized below, and include UST  
61 Closure and SI Reports (ATC, 1998 and 2000c),  
62 an RI report prepared for Site 80/166 (Versar,  
63 2005a) and a Summary RI Addendum Report  
64 (U.S. Army, 2017a).



65 **Figure 7 – FTMM-56 Site Boundary and Layout**

#### 66 USTs

67 The two FTMM-56 fuel oil USTs were removed  
68 in 1994 during an FTMM program to upgrade  
69 heating oil tanks with natural gas. Stained soils  
70 were observed, and potentially contaminated  
71 soil was removed from both UST excavation  
72 locations. Confirmation soil samples were  
73 collected at both UST excavations during tank  
74 closure. The Army submitted two UST closure  
75 reports, and NJDEP (2000a) agreed with the  
76 Army's recommendation of NFA.

#### 77 Soils

78 Post-excavation soil samples were collected in  
79 1994 after the tanks and associated piping were  
80 removed. The samples were analyzed for TPH,  
81 which was not detected at concentrations  
82 greater than applicable NJDEP cleanup criteria.  
83 Additional soil samples were collected as  
84 reported in the 2005 RI and analyzed for VOCs  
85 and 15 TICs; detections were less than  
86 applicable NJDEP cleanup criteria. NFA for  
87 FTMM-56 soils was approved by NJDEP (2008)  
88 based on the 2005 RI Report, and NFA for the  
89 entire FTMM-56 site was determined to be



1 warranted by NJDEP (2017b) based on the  
2 findings of the Summary RI (U.S. Army, 2017a).

### 3 Groundwater

4 Following removal of the fuel oil tanks, two  
5 groundwater monitoring wells were installed and  
6 two rounds of sampling for VOCs and SVOCs  
7 were performed in 1995. One well did not have  
8 any detections exceeding the NJDEP GWQS.  
9 Benzene was the only analyte detected in well  
10 80MW01 at concentrations exceeding the  
11 NJDEP GWQS. In July 2000 four additional  
12 groundwater monitoring wells were installed and  
13 analyzed for VOCs, SVOCs, pesticides, PCBs,  
14 and TAL metals (Versar, 2005a).

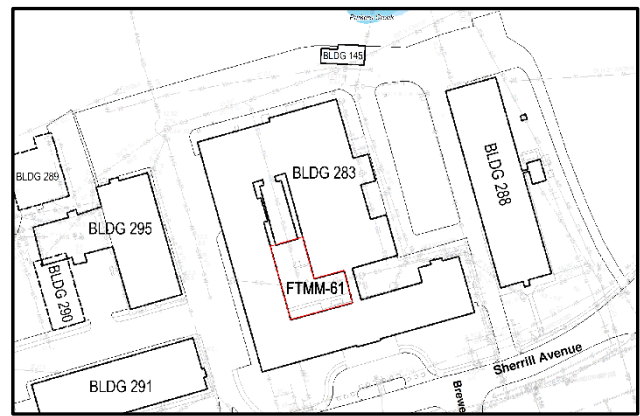
15 The analytical results for the groundwater  
16 samples collected between April 1997 and  
17 January 2001 indicated that a-chlordane, g-  
18 chlordane, arsenic and lead exceeded the  
19 NJDEP GWQS at Site 80/166 and were  
20 considered COCs (benzene was detected at  
21 concentrations less than the NJDEP GWQS and  
22 so was no longer a COC). From November 2004  
23 to August 2011, the six wells were sampled  
24 quarterly for pesticides and metals only, as  
25 agreed to by NJDEP (2004).

26 Samples collected from March 2011 through  
27 2015 were used in the Summary RI Addendum  
28 Report (U.S. Army, 2017a) which demonstrated  
29 that lead, cadmium, and pesticide  
30 concentrations were less than their respective  
31 NJDEP GWQS. Although arsenic (at 3.7  
32 micrograms per liter [µg/L]) was detected at a  
33 concentration slightly greater than the NJDEP  
34 GWQS of 3 µg/L at 80MW05, it was attributed to  
35 naturally occurring background conditions  
36 related to glauconitic soils present at FTMM, and  
37 not related to the former fuel oil USTs. NJDEP  
38 (2017b) agreed with the findings of the Summary  
39 RI Addendum and that NFA was warranted for  
40 FTMM-57.

### 41 FTMM-61

42 FTMM-61 is located on the northern side of the  
43 central portion of the MP at FTMM at the  
44 intersection of Sherrill Avenue and Brewers  
45 Avenue, and approximately 200 feet south of  
46 Parkers Creek (Figures 2 and 8).

47 FTMM-61 is associated with Building 283 Squier  
48 Hall, and has also been referred to historically as  
49 Site 283. Building 283 is near existing Buildings  
50 145, 288, 291, 292, 293, 295 and 296, referred  
51 to collectively as the "Squier Hall Complex."



52 **Figure 8 – FTMM-61 Site Boundary and Layout**

53 The anticipated future land use is offices and  
54 R&D. Building 283 functioned as the Squier  
55 Laboratory from 1934 to 1954 and then as  
56 administrative offices until FTMM closure in  
57 2011. Previous investigations at FTMM-61  
58 included UST Closure and Site Investigation  
59 reports (SMC, 1998; Versar, 2000), an  
60 **RI/Remedial Action Workplan (RAWP)**  
61 (Versar, 2005c), and a Summary RI Report (U.S.  
62 Army, 2017c) as summarized below.

### 63 USTs

64 A total of three USTs were removed from FTMM-  
65 61, including two fuel oil USTs (UST 283A and  
66 283B) and one gasoline UST from the Building  
67 283 courtyard area (UST 283C). There were no  
68 indications of releases from the two fuel oil  
69 USTs, which received approval for NFA from the  
70 NJDEP in February 2000 (NJDEP, 2000a) and  
71 May 2017 (NJDEP, 2017c).

72 A release from the gasoline UST 283C was  
73 initially reported in 1997 following removal of the  
74 tank. Stained soils were observed and  
75 approximately 400 cubic yards of potentially  
76 contaminated soil were removed from the UST  
77 excavation, followed by collection of  
78 confirmation soil samples. The Army submitted  
79 a UST closure report in 2000, and NJDEP (2003)  
80 agreed with the Army's recommendation of NFA.  
81 Groundwater contamination was addressed  
82 further through installation of monitoring wells,  
83 implementation of the 2005 RI/RAWP, and  
84 several rounds of **Oxygen Release Compound**  
85 **(ORC) Advanced™** injections as described  
86 further below.

### 87 Soil

88 Post-excavation soil samples were collected in  
89 1997 from the UST 283B excavation and from  
90 below piping associated with the UST. TPH was

1 detected at concentrations less than the  
2 applicable NJDEP cleanup criteria.

3 Post-excavation samples collected in 1997 from  
4 the initial UST 283C excavation were analyzed  
5 for TPH, lead, and VOCs, which indicated  
6 petroleum contamination was remaining in site  
7 soils. Approximately 400 cubic yards of  
8 additional soil was removed, and analysis of the  
9 final post-excavation samples indicated that all  
10 soil constituents were less than the applicable  
11 NJDEP cleanup criteria.

12 UST 283A was removed in 1990. Soil samples  
13 were collected in August 2016 and analyzed for  
14 EPH. EPH was not detected at concentrations  
15 greater than the applicable NJDEP cleanup  
16 criteria and NJDEP (2017c) agreed with the  
17 recommendation of NFA for soil.

18 Additionally, the potential for **vapor intrusion**  
19 **(VI)** at Building 283 was investigated and the  
20 NJDEP (2013) agreed that no further VI action  
21 was needed for Building 283.

## 22 Groundwater

23 Groundwater at FTMM-61 was evaluated  
24 through quarterly groundwater monitoring from  
25 September 1999 through February 2004, as  
26 reported in the 2005 RI/RAWP. The RI/RAWP  
27 identified benzene, ethylbenzene, total xylenes,  
28 and lead as COCs at Site 283 (FTMM-61), and  
29 recommended continued groundwater  
30 monitoring and sampling, the installation of  
31 additional monitoring wells, and an ORC  
32 Advanced™ injection program to reduce the  
33 concentrations of VOCs in groundwater. The  
34 injection program was implemented from 2009  
35 to 2011.

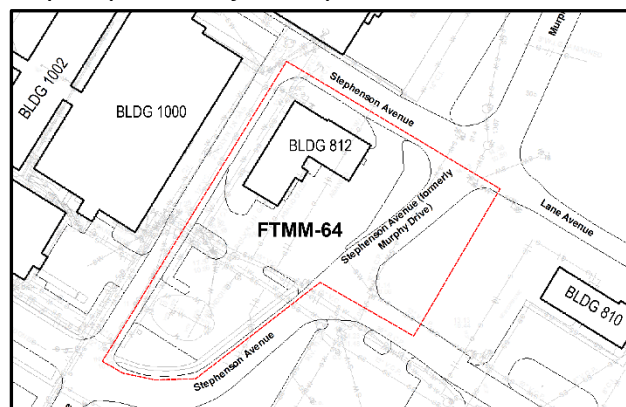
36 Subsequent groundwater monitoring occurred at  
37 FTMM-61 in August 2013 (VOCs and lead) and  
38 October 2014 (VOCs only). Benzene and lead  
39 concentrations decreased to non-detectable  
40 levels and the Army recommended the  
41 discontinuation of groundwater sampling at  
42 FTMM-61. NJDEP (2016b) subsequently  
43 concurred with this recommendation and  
44 agreed that NFA for FTMM-61 groundwater was  
45 warranted (NJDEP, 2017c).

## 46 FTMM-64

47 FTMM-64, also known as Building 812 or Site  
48 812, is approximately 2.75 acres and is located  
49 in the south-central portion of the Main Post. The  
50 site is bordered to the southeast by Stephenson

51 Avenue, and to the north and west by Lane  
52 Avenue (Figures 2 and 9).

53 Building 812 formerly served as the Army  
54 Community Center and was also a reported  
55 location of a former gas station. The anticipated  
56 future land use at FTMM-64 is low density  
57 residential. Previous investigations at FTMM-64  
58 include an RI/RAWP (Versar, 2001c), a pipeline  
59 excavation in 2010, and a Supplement to the RI  
60 Report (U.S. Army, 2018) as summarized below.



61 **Figure 9 – FTMM-64 Site Boundary and Layout**

## 62 Soil

63 An extensive soil investigation was conducted at  
64 FTMM-64 in 1999 and 2000 as part of the  
65 RI/RAWP. Soil samples were collected and  
66 analyzed for VOCs, SVOCs, pesticides, PCBs,  
67 TPH, and TAL metals, as discussed further  
68 below.

69 In 2010, the Army excavated an old pipeline that  
70 was historically used to convey fuel to  
71 dispensers located at FTMM-64. The entire  
72 pipeline except the portion directly beneath  
73 Building 812 was removed. Soil samples were  
74 collected along the pipeline excavation and  
75 analyzed for VOCs, TPH, and lead. Naphthalene  
76 was detected at concentrations greater than the  
77 applicable NJDEP cleanup criteria at two  
78 locations. Both locations were excavated further  
79 and post-excavation samples were collected. All  
80 post-excavation sample results were less than  
81 the applicable NJDEP cleanup criteria,  
82 indicating that soil contamination was removed.  
83 The excavations were backfilled with sand and  
84 stone.

85 Of the 1999 and 2000 soil samples, one sample  
86 result for lead and one sample result for TPH  
87 exceeded the applicable NJDEP cleanup  
88 criteria. Therefore, all the soil sample results  
89 associated with FTMM-64 were re-evaluated in

1 February 2018. **Compliance averaging** was  
2 applied to determine whether the current  
3 residential remedial goals for lead and EPH  
4 (which is comparable to TPH) had been  
5 achieved at FTMM-64. Consistent with NJDEP  
6 guidance on compliance averaging, **functional**  
7 **areas** were created. The average lead and TPH  
8 concentrations for each functional area were  
9 less than the applicable NJDEP cleanup criteria.  
10 Therefore, the Army recommended NFA for soils  
11 at FTMM-64 and NJDEP (2018) agreed.

## 12 Groundwater

13 To evaluate groundwater conditions at FTMM-  
14 64, 14 groundwater monitoring wells were  
15 installed during April and May 2000. The 2001  
16 RI/RAWP identified VOCs as COCs in  
17 groundwater and proposed implementation of a  
18 **Hydrogen Release Compound (HRC®)**  
19 injection program to address the groundwater  
20 contamination. The initial injections of HRC were  
21 performed between June and August 2001. The  
22 injections successfully reduced the  
23 concentrations of tetrachloroethene (PCE) and  
24 other VOCs over the first 12 months following  
25 the initial injections. To further reduce  
26 concentrations, four more rounds of injections  
27 were performed during October/November  
28 2002, September 2003, November/December  
29 2004, and January/March 2005. The injections  
30 and the decreasing VOC trends were  
31 documented in three Remedial Action Progress  
32 Reports in 2003, 2005, and 2010.

33 Long-term groundwater monitoring continued  
34 through July of 2011. PCE was successfully  
35 reduced to non-detectable levels through HRC  
36 and enhanced natural attenuation, and by 2008  
37 only benzene and vinyl chloride remained at  
38 concentrations exceeding the NJDEP GWQS in  
39 only one monitoring well (812MW04). The final  
40 detection of benzene exceeding the NJDEP  
41 GWQS was detected in October 2008. Vinyl  
42 chloride concentrations continued to decline, but  
43 still exceeded the NJDEP GWQS in 2011.

44 Groundwater sampling and analysis for VOCs  
45 was conducted annually from 2013 through  
46 2016. Metals were attributable to background  
47 concentrations and, with NJDEP concurrence,  
48 were removed from the sampling program after  
49 2013. VOCs were not detected in 2013;  
50 however, based on the historical VOC  
51 exceedances, annual groundwater monitoring  
52 for VOCs continued at 812MW04. The results of

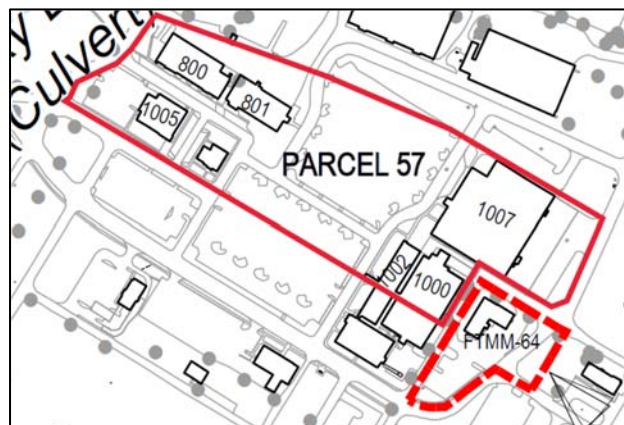
53 2015 and 2016 groundwater samples confirmed  
54 that VOCs had been reduced to concentrations  
55 less than the NJDEP GWQS. An NFA  
56 determination for groundwater (U.S. Army,  
57 2017b) was agreed to by NJDEP (2017a), and  
58 subsequently for all of FTMM-64 (NJDEP,  
59 2018).

## 60 Parcel 57

61 Parcel 57 is located in the south-central portion  
62 of the Main Post. A coal storage area and fuel  
63 unloading area formerly existed along the former  
64 railroad corridor in the vicinity of Buildings 800,  
65 801, and 1007 (Figures 2 and 10).

66 The anticipated future land use at Parcel 57  
67 includes low-to-medium density residential  
68 housing and some supporting retail, office, and  
69 civic/institutional uses (education-medical  
70 campus). Previous investigations at Parcel 57  
71 include a Spill and Site Remediation Update  
72 Report (U.S. Army, 1997), an SI (U.S. Army,  
73 2008), and an RI Report (U.S. Army, 2020) as  
74 summarized below.

75



76

77

**Figure 10 – Parcel 57 Site Boundary and Layout**

## 78 Soil

79 Petroleum-contaminated soils were  
80 encountered during construction of the  
81 Commissary (Building 1007) in 1997.  
82 Approximately 4,000 cubic yards of petroleum-  
83 contained soil were removed from Parcel 57 in  
84 1997.

85 Soil samples collected during 2007, 2010/2011,  
86 and 2015/2016 investigations were evaluated in  
87 the RI (U.S. Army, 2020). In 2016, an interim  
88 PCB removal action was performed. In 2019, a  
89 Time Critical Removal Action (TCRA) was  
90 performed to remove PAH contamination in soil,  
91 during this phase of work the TCRA



1 Memorandum was submitted for public  
2 comment.

3 The Army determined that NFA is warranted at  
4 Parcel 57 (U.S. Army, 2020) and NJDEP (2020)  
5 agreed.

#### 6 Groundwater

7 During the 2015/2016 investigation two  
8 permanent monitoring wells were installed and  
9 six wells were sampled. Groundwater sampling  
10 results were evaluated in the RI and the RI  
11 concluded that NFA with regards to groundwater  
12 is warranted under CERCLA (U.S. Army, 2020)  
13 and NJDEP (2020) agreed.

### 14 **SCOPE AND ROLE OF** 15 **RESPONSE ACTION**

16 No further action is appropriate for sites FTMM-  
17 28, FTMM-54 (south of FTMM-18), FTMM-55,  
18 FTMM-56, FTMM-61, FTMM-64, and Parcel 57.  
19 Unrestricted land use (as represented by  
20 NJDEP residential criteria) allows for full use  
21 without restrictions.

### 22 **SUMMARY OF SITE RISKS**

23 Any contaminants that were once identified as  
24 COCs for sites FTMM-28, FTMM-54 (south of  
25 FTMM-18), FTMM-55, FTMM-56, FTMM-61,  
26 FTMM-64, and Parcel 57 have been evaluated  
27 and/or remediated and determined to no longer  
28 be COCs. Therefore, soil and groundwater  
29 (there is no potentially impacted surface water or  
30 sediment) do not pose an unacceptable risk to  
31 human health and the environment for current  
32 and future intended land use.

### 33 **SUMMARY OF PREFERRED** 34 **ALTERNATIVE**

35 Based on the results of multiple environmental  
36 investigations and reports, no remedial actions  
76

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80 C-93-4297, NJDEP Case No. 94-6-16-1127-25. July.
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37 are required for sites FTMM-28, FTMM-54  
38 (south of FTMM-18), FTMM-55, FTMM-56,  
39 FTMM-61, FTMM-64, and Parcel 57. Further  
40 investigation is not warranted for the following  
41 reasons: (1) the nature and extent of  
42 contaminants detected in soil and groundwater  
43 at the sites has been characterized; (2) no COCs  
44 posing risks to human health were ever  
45 identified at the sites, or if identified are no longer  
46 COCs either through remediation or natural  
47 degradation; and (3) no further investigation or  
48 action is recommended by the Army and agreed  
49 to by NJDEP. Therefore, NFA is required at  
50 sites FTMM-28, FTMM-54 (south of FTMM-18),  
51 FTMM-55, FTMM-56, FTMM-61, FTMM-64, and  
52 Parcel 57 and unrestricted land use is  
53 appropriate for these sites.

### 54 **COMMUNITY PARTICIPATION**

55 Public participation is an important component of  
56 remedy selection. The Army is soliciting input  
57 from the community on the preferred "no further  
58 action" alternative identified for these sites. The  
59 comment period includes advertisement of this  
60 Proposed Plan and a public comment period.  
61 Written comments will be accepted during this  
62 public comment period. The Army and the  
63 NJDEP encourage the public to gain a more  
64 comprehensive understanding of the sites and  
65 the remedial activities that have been conducted  
66 at the sites. The dates for the public comment  
67 period and the location of the Administrative  
68 Record files are provided on the front page of  
69 this Proposed Plan.

70 Comments made by the public will be addressed  
71 in a Responsiveness Summary. A copy of the  
72 Responsiveness Summary will be included in  
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- 18

# 1 ACRONYMS AND ABBREVIATIONS

| ACRONYM  | DEFINITION                                                            |
|----------|-----------------------------------------------------------------------|
| µg/L     | microgram(s) per liter                                                |
| Army     | U.S. Army                                                             |
| bgs      | below ground surface                                                  |
| BRAC     | Base Realignment and Closure                                          |
| CERCLA   | Comprehensive Environmental Response, Compensation, and Liability Act |
| COC      | contaminant of concern                                                |
| CWA      | Charles Wood Area                                                     |
| DERP     | Defense Environmental Restoration Program                             |
| DoD      | Department of Defense                                                 |
| EA       | Evans Area                                                            |
| EPH      | extractable petroleum hydrocarbons                                    |
| FTMM     | Fort Monmouth                                                         |
| GWQS     | Ground Water Quality Standard(s)                                      |
| HRC      | Hydrogen Release Compound                                             |
| IGW      | impact to groundwater                                                 |
| MP       | Main Post                                                             |
| NCP      | National Oil and Hazardous Substances Pollution Contingency Plan      |
| NFA      | no further action                                                     |
| N.J.A.C. | New Jersey Administrative Code                                        |
| NJDEP    | New Jersey Department of Environmental Protection                     |
| NRDCSRs  | Non-Residential Direct Contact Soil Remediation Standard              |
| ORC      | Oxygen Release Compound                                               |
| PCB      | polychlorinated biphenyl                                              |
| PCE      | tetrachloroethene                                                     |
| POL      | Petroleum, Oil, and Lubricant                                         |
| RAWP     | Remedial Action Workplan                                              |
| RCRA     | Resource Conservation and Recovery Act                                |
| R&D      | research and development                                              |
| RDCSRs   | Residential Direct Contact Soil Remediation Standard                  |
| RI       | Remedial Investigation                                                |
| ROD      | Record of Decision                                                    |
| SI       | Site Investigation                                                    |
| SL       | screening level                                                       |
| SVOC     | semivolatile organic compound                                         |
| TAL      | target analyte list                                                   |
| TCRA     | Time Critical Removal Action                                          |
| TIC      | tentatively identified compound                                       |
| TPH      | total petroleum hydrocarbons                                          |
| UST      | underground storage tank                                              |
| VI       | vapor intrusion                                                       |
| VOC      | volatile organic compound                                             |

2

# GLOSSARY OF TERMS

**Administrative Record** – A file that contains all information used by the lead agency to make its decision on the selection of a response action under CERCLA. A copy of this file is to be available for public review at or near the site, usually at the information repository.

**compliance averaging** – The average contaminant concentration in an area of concern may be used to determine compliance with remediation standards or soil cleanup criteria rather than the contaminant concentration of individual samples.

**Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA, otherwise known as Superfund)** – A federal law that addresses the funding for and remediation of abandoned or uncontrolled hazardous waste sites. This law also establishes criteria for the creation of key documents such as the Remedial Investigation, Proposed Plan, and Record of Decision.

**contaminant of concern (COC)** – A chemical that is present at sufficient concentrations to exceed NJDEP cleanup standards and so may pose a risk to human health or the environment.

**Defense Environmental Restoration Program (DERP)** - Under DERP, DoD conducts cleanup at active installations, Formerly Used Defense Sites, and BRAC locations. The Army manages the cleanup programs at their active installations and BRAC locations.

**ecological receptor** - a plant, animal, or habitat exposed to an adverse condition.

**extractable petroleum hydrocarbon (EPH)** – Collective fractions of hydrocarbon compounds. EPH is comprised of C9 through C18 Aliphatic Hydrocarbons, C19 through C36 Aliphatic Hydrocarbons, and C11 through C22 Aromatic Hydrocarbons.

**functional area** – A specified area used in compliance averaging. Usually 0.25 acres representing the size of a residential lot.

**groundwater** – Water found beneath the earth's surface that fills pores between materials such as sand, soil, or gravel. In aquifers, groundwater occurs in sufficient quantities that it may be used for drinking water, irrigation, and other purposes.

**Ground Water Quality Standards (GWQS)** – NJDEP GWQS, N.J.A.C 7:9C, establish the designated uses of the State's groundwater and specify the water quality (criteria) necessary to attain those designated uses. The ground water quality criteria are numerical values assigned to each constituent (pollutant) discharged to groundwater of the State. The GWQS also contain technical and general policies to ensure that the designated uses can be adequately protected. Groundwater is classified according to its hydrogeologic characteristics and designated uses.

**Hydrogen Release Compound (HRC®)** – A proprietary technology from Regenes Bioremediation Products, Inc. HRC is a chemical which, upon hydration, undergoes chemical reactions to ultimately generate hydrogen, which is used by microorganisms to degrade chlorinated compounds in groundwater.

**impact to groundwater (IGW)** – A NJDEP soil cleanup standard that is applied in soil above the groundwater table that is designed to be protective of groundwater quality.

**National Oil and Hazardous Substances Pollution Contingency Plan (NCP)** – National Oil and Hazardous Substances Pollution Contingency Plan, "National Contingency Plan" (40 CFR 300). Provides the organizational structure and procedures for preparing for and responding to discharges of oil and releases of hazardous substances, pollutants, and contaminants.

**New Jersey Administrative Code (N.J.A.C.)** – The collection of all rules and regulations made by the executive branch agencies of the State of New Jersey.

**no further action (NFA)** – the culmination of a property's environmental remediation, or determination of no need for environmental remediation.

**old field habitats** – Old field habitats include formerly mowed areas where the vegetation includes grasses, forbes and often immature trees. Old field habitats at the MP include grasses, many forbes

1 including Queen Ann's lace (*Daucus carota*), pokeweed (*Phytolacca americana*), goldenrod (*Solidago sp.*),  
2 milkweed (*Asclepias syriaca*), and sparse saplings of tree species including eastern red cedar (*Juniperus*  
3 *virginiana*) and winged sumac (*Rhus copallinum*).

4 **Oxygen Release Compound (ORC)** - A proprietary technology from Regenesi Bioremediation Products,  
5 Inc. ORC Advanced® is an engineered, oxygen release compound designed specifically for enhanced  
6 bioremediation of petroleum hydrocarbons in groundwater and saturated soils.

7 **Petroleum, Oil, and Lubricant (POL)** – A broad term that includes all petroleum and associated products  
8 used by the Armed Forces.

9 **polychlorinated biphenyls (PCB)** – A group of persistent chemicals used in transformers and capacitors  
10 for insulating purposes and in gas pipeline systems as a lubricant.

11 **potable water** – Water of a quality suitable for drinking.

12 **Proposed Plan** – A plan that identifies the preferred remedial alternative(s) for a site, and is made available  
13 to the public for comment.

14 **Record of Decision (ROD)** - A public document that explains which cleanup alternative(s) will be used at  
15 a site.

16 **Remedial Action Workplan (RAWP)** – A work plan that includes a site summary, a summary of cleanup  
17 goals, and information required for the implementation of remedial action.

18 **Remedial Investigation (RI)** – Exploratory inspection conducted at a site to define the nature and extent  
19 of contamination present, and to assess potential related hazards and risks.

20 **Responsiveness Summary** – A component of the Record of Decision that summarizes information about  
21 the comments and views of the public and support agency regarding both the remedial alternatives and  
22 general concerns about the site submitted during the public comment period. It also documents in the  
23 record how public comments were integrated into the decision-making process.

24 **riparian** – Riparian areas are ecosystems adjacent to a river or waterway that, in an undisturbed state,  
25 provide habitat for wildlife and help improve water quality. Riparian areas are usually transitional zones  
26 between wetland and upland areas and are generally comprised of grasses, shrubs, trees, or a mix of  
27 vegetation types that exist within a variety of landscapes (e.g., natural, agricultural, forested, suburban,  
28 and urban).

29 **semivolatile organic compounds (SVOC)** – An organic compound which has a boiling point higher than  
30 water and which may vaporize when exposed to temperatures above room temperature.

31 **Site Investigation (SI)** - Exploratory inspection conducted at a site to determine absence or presence of  
32 contamination.

33 **target analyte list (TAL) Metals** - A list of 23 inorganic target analytes: aluminum, antimony, arsenic,  
34 barium, beryllium, cadmium, calcium, chromium, cobalt, copper, iron, lead, magnesium, manganese,  
35 mercury, nickel, potassium, selenium, silver, sodium, thallium, vanadium, and zinc.

36 **tentatively identified compound (TIC)** – A compound that can be seen by the analytical testing method,  
37 but its identity and concentration cannot be confirmed without further analytical investigation.

38 **total petroleum hydrocarbons (TPH)** - a large family of several hundred chemical compounds that  
39 originally come from crude oil. Crude oil is used to make petroleum products. Because there are so many  
40 different chemicals in crude oil and in other petroleum products, it is not practical to measure each one  
41 separately. However, it is useful to measure the total amount of TPH at a site

42 **vapor intrusion (VI)** – The migration of released volatile chemicals from the subsurface into overlying  
43 buildings.

44 **volatile organic compound (VOC)** – Organic chemical compound whose composition makes it possible  
45 for it to evaporate under normal indoor atmospheric conditions of temperature and pressure.



1   **USE THIS SPACE TO WRITE YOUR COMMENTS**

2   Your input on the Proposed Plan for FTMM-28, FTMM-54 (south of FTMM-18), FTMM-55, FTMM-56, FTMM-61,  
3   FTMM-64, and Parcel 57 is important to the Army. Comments provided by the public are valuable in helping the Army  
4   select a remedy for these sites.

5   You may use the space below to write your comments. Comments must be postmarked by September 28, 2020.  
6   Mailed comments should be sent to Mr. William Colvin at the address listed on Page 1. Comments may also be  
7   emailed to Mr. Colvin by September 28, 2020 via the following e-mail address:  
8   [william.r.colvin18.civ@mail.mil](mailto:william.r.colvin18.civ@mail.mil). If you have any questions about the comment period, please contact Mr. Colvin at:  
9   [william.r.colvin18.civ@mail.mil](mailto:william.r.colvin18.civ@mail.mil).

10   Name: \_\_\_\_\_  
11   Address: \_\_\_\_\_  
12   City: \_\_\_\_\_  
13   State and Zip: \_\_\_\_\_

14  
15   **Comments:**