



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**

REGION 5  
77 WEST JACKSON BOULEVARD  
CHICAGO, IL 60604-3590

**JUL 09 2019**

REPLY TO THE ATTENTION OF

LU-16J

Mr. James C. Hamilton III  
Director of Public Works  
IMMC-PW  
2171 South 8<sup>th</sup> Avenue  
Fort McCoy, Wisconsin 54656

RE: Final Decision and Response to Comments  
U.S. Army Garrison-Fort McCoy, Sparta, Wisconsin  
EPA ID: WI3 210 020 563

Dear Mr. Hamilton:

Enclosed please find the Final Decision and Response to Comments (FD/RC) which addresses a federal Resource Conservation and Recovery Act (RCRA) permit modification for completion of RCRA corrective action at U.S. Army Garrison-Fort McCoy at State Highway 21 in Sparta, Wisconsin.

The U.S. Environmental Protection Agency (EPA) determined that corrective action activities under Permit # WI3 210 020 563 are complete at the Fort McCoy U.S. Army installation facility, and that monitoring activities required by the permit may be terminated. Eleven waste management units at the Fort that were identified in the original permit have been determined to meet the requirements for closure either through remediation or placement of institutional controls that would prevent potential future exposure to human or ecological receptor populations. The signed FD/RC serves as the Class III Permit Modification which will terminate corrective action activities at Fort McCoy.

If you have any questions, please contact Colleen Olsberg of my staff by email at [olsberg.colleen@epa.gov](mailto:olsberg.colleen@epa.gov), or by phone at (312) 353-4686.

Sincerely,

A handwritten signature in black ink, appearing to read "Jose G. Cisneros".

Jose G. Cisneros, Chief  
Remediation Branch  
Land, Chemicals and Redevelopment Division

Enclosure

cc: Mae E. Willkom  
Wisconsin Department of Natural Resources

**FINAL DECISION AND RESPONSE TO COMMENTS  
FOR THE  
U.S. ARMY GARRISON-FORT MCCOY FACILITY  
FORT MCCOY, WISCONSIN  
PERMIT MODIFICATION  
WI3 210 020 563**

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 5**

## I. INTRODUCTION

This Final Decision (FD) and Response to Comments (RTC) is being presented by U.S. EPA. The purpose of the FD and RTC is to provide justification for the proposed Class III Permit Modification and the EPA determination of Corrective Action Complete at the Fort McCoy facility, present concerns and issues raised during the public comment period, and provide responses to those comments. All relevant comments received were carefully reviewed, and have been answered in the RTC portion of the document. EPA's decision for a proposed Class III Permit Modification was not altered as a result of public comments.

## II. JUSTIFICATION FOR CORRECTIVE ACTION COMPLETE DETERMINATION AT FORT McCOY

Table 1 lists the 11 Solid Waste Management Units (SWMUs) at Fort McCoy requiring corrective action, as documented in the original June 1990 permit. Each SWMU has been determined to meet the requirements for closure either through remediation or institutional controls that would prevent potential future exposure to human or ecological receptor populations (residential use at Fort McCoy is limited to the South Post housing which is far removed from any of the SWMUs). Data from 10 of the 11 SWMUs, with Closed Landfill 5 (CLF5) being the exception, show that either the media cleanup standards have been reached or that remaining soil/groundwater contamination does not present an unacceptable risk to human health or the environment. Two of the original 11 SWMUs still have groundwater monitoring wells which are CLF2 and FTBP1. In December 2014, EPA agreed that the groundwater monitoring at CLF2 and FTBP1 could cease based upon low contaminant levels and no human exposures (see Section IV. JUSTIFICATION FOR CLOSURE OF CLF2 AND FTBP1 AS PART OF CORRECTIVE ACTION COMPLETE DETERMINATION).

**TABLE 1  
SOLID WASTE MANAGEMENT UNITS (SWMUs) IN 1990 FEDERAL PERMIT**

Solid Waste Management Unit	Land Use Control	WDNR Granted Closure	Closure Justification	COCs at Closure
Closed Landfill #2	Listed in the Wisconsin Remediation and Redevelopment Database (WRRD) as having WI Continuing Obligations for Cover Maintenance	June 3, 2016 USEPA agreed that groundwater monitoring could cease on December 1, 2014.	COCs are not migrating off site or entering the La Crosse River (adjacent to the facility) at levels of concern. Data show no negative impacts to aquatic life in the river. The river is functioning as Class I Trout Stream adjacent to and downstream of landfill.	Antimony (0.23 – 9.5 ppb), iron (<0.0362 – 0.584 ppm), manganese (4.7 – 343 ppb), in groundwater. These parameters exceeded MCLs at Closure.

Closed Landfill #3 & Grit Area	Listed in WRRD as having WI Continuing Obligations for Cover Maintenance	May 22, 2012 USEPA agreed that closure criteria had been met on December 16 2011	Groundwater concentrations, except for iron, are below the MCL. No direct contact risks with residual wastes.	Iron (0.163 – 2.77 ppm) in groundwater – due to naturally occurring concentrations.
Closed Landfill #4	Listed in WRRD as having WI Continuing Obligations for Cover Maintenance	June 15, 2012 USEPA agreed that closure criteria had been met on December 16, 2011	Plume margins stable to receding, COC concentrations stable within a range, and have not reached nearest ecological receptor Suukjak Sep Creek located over ½ mile from the facility. Waste is capped, therefore, there is no direct contact with the residual waste material. Minimal risk of vapor migration to buildings. The nearest downgradient potable well is located more than a mile from the site.	Iron (0.602 – 11.5 ppm), manganese (55.7 – 1,150 ppb), nitrate (4.14 – 16.7 ppm) in groundwater.
Closed Landfill #5	Cover Maintenance  Specific land use restrictions associated with closed landfills. These include potable well and cap disturbance restrictions.	Closed & Capped 1990	Closure justification is that Post-Closure Monitoring and Cap Maintenance are managed under the WDNR's oversight.	Latest data: Benzene (two exceedances 0.68 & 1.5 ppb), cis-1,2-Dichloroethene (one exceedance 8 ppb), iron (6 exceedances concentrations ranged from 2.1 to 34 ppm), manganese (exceedance concentrations ranged from 400 – 21,000 ppb), nitrogen, nitrate nitrite (two exceedances 4 & 6.6 ppm), vinyl chloride (one exceedance 0.53 ppb) in groundwater.
Closed Landfill #6	None Required	Landfill closed by complete removal. No further action letter from WDNR October 18, 1993.	All waste was removed and disposed of in accordance with State and Federal regulations at a licensed landfill.	No COCs at levels of concern remained following excavation.

<p>Pesticide Disposal Area (PDA)</p>	<p>Listed in WRRD as having WI Continuing Obligations for Cover Maintenance</p>	<p>December 1, 2008 USEPA agreed that groundwater monitoring could cease on February 13, 2008.</p>	<p>No MCL exceedances remain in groundwater. Residual soil contamination is at levels that are no longer contaminating groundwater. The soil cap, along with the fact that the unit is located in the buffer zone for the active munitions impact area, minimizes the risk of direct contact with residual soil contamination.</p>	<p>Low levels of residual concentrations of 4,4, DDT; 4,4, DDD; Dieldrin; and 4.4 DDE and related constituents in soil at depths greater than four feet below land surface.</p>
<p>Active EOD Site (AEOD)</p>	<p>Listed in WRRD as having WI Continuing Obligations for well variance, if constructed</p>	<p>October 29, 2003.</p>	<p>Chemicals remaining in groundwater have no MCLs. Persistent reports of Iron and Manganese at levels above the MCLs are likely due to naturally occurring concentrations. The nearest water supply well is over a mile from the unit. Although the La Crosse River is located 530 feet east (downgradient) of the site, discharges from the site will likely not have a significant impact on the river in relation to water quality standards. The La Crosse River downstream of the active impact area functions as a Class 1 trout stream. There were no exceedances of industrial and non-industrial direct contact concentrations in soil. The AEOD is located within the active munitions impact area and access to the unit is severely restricted and will remain so for the foreseeable future. Due to the present and future use of the Impact Zone the soil in the IEOD area is not a threat to human health through direct contact or ingestion.</p>	<p>Chemicals found in groundwater include: 2,4,6-Trinitrotoluene; 2,4-Dinitrotoluene; 2-Amino-4,6-Dinitrotoluene; 4-Amino-2,6-Diinitrotoluene; HMX; and RDX. Individual concentrations of energetics ranged from 0.26 to 19 ppb. Of these only 2,4-Dinitrotoluene has a standard set and it was no longer detected at closure. Iron (0.005 – 6.28 ppm), and Manganese (6.6 – 93.6 ppm) for dissolved concentrations.</p>

<p>Inactive EOD Site (IEOD)</p>	<p>Listed in WRRD as having WI Continuing Obligations for well variance, if constructed.</p>	<p>October 22, 2003.</p>	<p>No exceedances of USEPA Region IX Residential or Industrial Standards in soils were reported. La Crosse River is 1,600 feet east (downgradient) and the nearest water supply well is more than one mile from the site. The IEOD is located within the active munitions impact area, and access to the unit is severely restricted and will remain so for the foreseeable future. Due to the present and future use of the Impact Zone the soil in the IEOD area is not a threat to human health through direct contact or ingestion. Iron, lead, aluminum, vanadium, and cadmium were occasionally reported at concentrations above the regulatory standards. These concentrations appear to be due to naturally occurring elements, and are not related to past munitions disposal.</p>	<p>Chemicals found in groundwater include: HMX; RDX; 2,4,6-Trinitrotoluene; 2,6-Dinitrotoluene. Of these, only 2,4-Dinitrotoluene has a standard set and it was no longer detected at closure. Individual concentrations of energetics ranged from &lt;0.25 - 19 ppb. Manganese (3.4 – 11.6 ppm).</p>
<p>Fire Training Burn Pit 1</p>	<p>Listed in WRRD as having WI Continuing Obligations for vapor investigation, if site is redeveloped, and Cover Maintenance</p>	<p>June 11, 2018 USEPA agreed that groundwater monitoring could cease on December 1, 2014.</p>	<p>Chlorinated solvent plume stable to receding. Chlorinated COCs have not reached Suukjak Sep Creek (over 1,000 ft downgradient) and are not likely to ever reach the creek. No potable wells within one mile downgradient. Property boundary 2 miles downgradient. No completed human or ecological exposure pathways with regard to chlorinated solvents. Buildings are too far away for vapor migration threats to be an issue.</p>	<p>PCE (&lt;0.47 – 10.5 ppb), TCE (&lt;0.36 – 2.5 ppb), DCE (&lt;0.42 – 427 ppb).  PFCs are present at levels above the USEPA Health Advisory Levels.  PFOA + PFOS 0.0011 – 23.510 ppb. WDNR will manage the PFC investigation.</p>

Fire Training Burn Pit 2	None Required	October 27, 2003	12,700 gallons of liquid and 610 cubic yards of contaminated soil were removed. Confirmation samples showed that soil residuals do not exceed USEPA industrial PRGs or State of Wisconsin Industrial Standards.	PFCs are present at levels above the USEPA Health Advisory Levels.  PFOA +PFOS 0.0048 – 72.400 ppb. WDNR will manage the PFC investigation.
Closed Landfill X	None Required	NA	Results of geophysical surveys and evaluation of aerial photos could not confirm the existence of Landfill X, and no further investigation was performed.	NA
<sup>1</sup> Closed Landfill #7	Listed in WRRD as having WI Continuing Obligations for Cover Maintenance	April 12, 2007	There were no MCL exceedances in groundwater attributable to Closed Landfill 7 since 1994. Elevated iron and manganese concentrations common at Fort McCoy are due to naturally occurring concentrations. Elevated nitrate is flowing onto the site from an upgradient source. Landfill is capped, no waste disposed since 1964, plume is stable, property boundary is 12,000 feet to west (downgradient), no completed exposure pathways.	Iron (<0.025 – 5.6 ppm), manganese (<1.0 – 1,160 ppb), nitrate (<0.1 – 9.75 ppm).
<sup>1</sup> Closed Landfill #8	Listed in WRRD as having WI Continuing Obligations for well variance, if constructed	October 28, 2003	The unit was remediated by excavation and complete removal of all contaminated soil and debris.	Arsenic in soil (0.24 to 6.1 µg/Kg). Iron in groundwater (1.6 – 209 ppm) – both caused by naturally occurring concentrations and not associated with the waste.
<sup>1</sup> Closed Landfill #9	Listed in WRRD as having WI Continuing Obligations for well variance, if constructed	October 29, 2003.	The unit was remediated by excavation and complete removal of all contaminated soil and debris.	Arsenic (0.8 to 6.1 µg/Kg) and manganese (9.4 ppm) in soil. Iron (4 – 48 ppm) in groundwater – both caused by naturally occurring concentrations and not associated with the waste.



<sup>1</sup> Closed Landfill #10	None Required	October 27, 2003.	The unit was remediated by excavation and complete removal of all contaminated soil and debris.	Iron (.2 – 1.5 ppm) and manganese (0.02 – 0.75 ppm) in groundwater, arsenic (0.21 – 5.2 ppm) in soil—all likely caused by naturally occurring concentrations and not associated with the waste.
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<sup>1</sup>SWMU included in a September, 1995 addendum to the RFI

“Cover” is defined as clean soil which serves as barrier to prevent direct contact with contamination.

“Cover Maintenance” refers to the need to regularly inspect and maintain the cover.

Wisconsin Remediation and Redevelopment Database (WRRD) provides permanent notification of the presence of contamination.

PFCs: Perfluorinated Compounds.

PFOA: perfluorooctanoic acid.

PFOS: perfluorooctanesulfonate.

NA: Not Applicable.

MCL: USEPA Maximum Contaminant Levels.

### **III. CLOSURE JUSTIFICATION FOR FORT McCOY SITES LISTED IN TABLE 1**

#### **Closed Landfill #2 (CLF2):**

CLF2 is essentially an ash monofill located adjacent to and above the floodplain of the LaCrosse River near FM's western boundary. The landfill was used during World War II and covers nearly six acres. Waste materials were capped in 1998. Risks associated with direct contact to waste material have been eliminated. The cap minimizes the potential risk for waste to be eroded and carried away by run-off. No water supply wells are located within 1,200 feet of the unit, per WDNR NR812.08 ([https://docs.legis.wisconsin.gov/code/admin\\_code/nr/800/812/I/08](https://docs.legis.wisconsin.gov/code/admin_code/nr/800/812/I/08)). Groundwater data show that concentrations of antimony, cadmium, iron, and manganese may be leaching from the waste and that increased sulfate concentrations have likely been caused by this leaching. Concentrations of antimony, iron, and manganese in groundwater exceeded MCLs at closure. However, these chemicals are not migrating off-site or entering the La Crosse River at levels of concern (the data also show that the surface water, sediment, and aquatic biota in the La Crosse River have not been and are not being negatively impacted). The La Crosse River adjacent to Closed Landfill #2 is designated as a Class I Trout Stream. Closure required the unit to be listed on the Wisconsin Remediation and Redevelopment Database (WRRD) as having WI Continuing Obligations. WRRD provides notification of the presence of contamination on all affected properties and utilizes statutory authority to institute restrictions that carry forward to all subsequent property owners. Fort McCoy and all subsequent owners will be required to maintain the cap and obtain WDNR's prior approval if any water supply wells are to be installed near CLF2. In December 2014, EPA agreed that groundwater monitoring could cease. WDNR approved final unit closure on June 3, 2016.

#### **Closed Landfill #3 (CLF3) & Grit Area:**

CLF3 consists of the landfill area south of the Waste Water Treatment Plant (WWTP). The Grit Area is adjacent to the east side of the WWTP. CLF3 was reportedly used for one year in 1950 for disposal of ash, clinker, and noncombustible refuse. The Grit Area was utilized to dispose of solids from the WWTP.

Risks associated with direct contact to waste material have been eliminated. No water supply wells are located within 1,200 feet of these areas. Groundwater monitoring data collected over a period of 16 years show that concentrations of constituents of concern (metals and nitrates) are stable to decreasing and concentrations are all below MCLs, except iron. This indicates that the plume margins with respect to each of these constituents are stable. The length of the monitoring record, the type of waste buried, and the length of time since the landfill closed (over 60 years), all support the conclusion that future concentrations of all COCs will remain within historical data ranges and are likely to decrease.

On December 16, 2011, EPA issued a letter approving abandonment of monitoring wells at CLF3. WDNR approved final unit closure on May 22, 2012. WDNR closure required listing these two areas on the Wisconsin Remediation and Redevelopment Database as having WI Continuing Obligations, which include maintaining the cap and restricting installation of water

supply wells without prior WDNR approval. The area is also listed on the Fort McCoy land use GIS.

**Closed Landfill #4 (CLF4):**

CLF4 was reportedly used from 1951 to 1960 for disposal of foodstuffs, cans, and general kitchen refuse. The landfill is located beneath a tactical vehicle storage yard, covers an area of approximately 510 feet by 765 feet, and is approximately 2,500 feet from the nearest creek. Constituents of concern are iron, manganese, and nitrates. Risks associated with direct contact to waste material have been eliminated. No water supply wells are located within 1,200 feet of this area. Groundwater monitoring data collected over a period of 18 years show that concentrations of constituents of concern are stable to decreasing. This indicates that the plume margins with respect to each of these constituents are stable. The length of the monitoring record, the type of waste buried, and the length of time since the landfill has been closed (over 50 years), all support the conclusion that future concentrations of all COCs will remain within historical data ranges and are likely to decrease.

On December 16, 2011, EPA issued a letter stating that monitoring wells at CLF4 could be abandoned. On June 15, 2012, WDNR issued final closure approval for CLF4. WDNR closure required listing the area on the Wisconsin Remediation and Redevelopment Database as having WI Continuing Obligations, which include maintenance of the cap over the unit and restricting water supply well installation without prior approval of the WDNR. The area is also listed on the Fort McCoy land use GIS.

**Closed Landfill #5 (CLF5):**

CLF5 was a WDNR-permitted sanitary landfill that was used from 1965 to 1989. The trench and fill landfill began operation in 1965 under the WDNR Solid Waste Facility Operation Permit Number 02820 to serve the solid waste disposal needs of the installation. Remedial action in this area consisted of installing an engineered cap in 1991. The cap consisted of two feet of clay, one foot of native soils, and six inches of topsoil. Gas vents were incorporated into the cap. Final grade was designed with a 2% slope to allow surface runoff and eliminate ponding. The cap, including vegetation (grass), gas vents, and other components, is inspected annually. Repair and revegetation is conducted as necessary. Fencing and signs restricting access are present on the south end of the unit. The grass established on the cap is mowed at least annually.

Constituents of concern are benzene, cis-1,2 dichloroethene, iron, manganese, nitrogen, nitrates, nitrites, and vinyl chloride. Risks associated with direct contact to waste material are minimal. CLF5 is located approximately 1,000 feet upgradient of the nearest creek. Concentrations of chemicals of concern in groundwater are stable. No water supply wells are located within 1,200 feet of the landfill.

WDNR has the responsibility for long-term monitoring at this landfill.

**Closed Landfill #6 (CLF6):**

CLF6 was located northeast of the Cantonment Area, at the then-proposed Central Vehicle Wash Rack Facility. CLF6 was used to dispose of demolition debris and some petroleum-contaminated soil.

CLF6 was remediated by excavation during construction activities. All removed material was disposed in accordance with WDNR regulations. Risks associated with direct contact with any remaining waste material are minimal. Groundwater monitoring showed no evidence of groundwater impacts. Demolition debris and contaminated soil were excavated, removed, and properly disposed of.

The WDNR provided a letter on October 18, 1993 stating “that the landfill has been adequately excavated and no further action is necessary.” In the mid-1990s, the Central Vehicle Wash Rack Facility was constructed at that location and has been in use since that time.

**Pesticide Disposal Area (PDA):**

The PDA was an unlined disposal area located adjacent to the active impact area (area with restricted access due to firing of munitions and safety hazards from unexploded ordnance) and northwest of the Cantonment Area, approximately 1,000 feet east of the La Crosse River. The disposal area was utilized from the mid-1940s until 1965 to dispose of empty pesticide containers. Pesticides utilized at that time at the facility included DDT, diazinon, 2,4-D, lindane, dieldrin, and 2,4,5-T. Records indicate that laundry cleaning solvent may also have been disposed of at the PDA.

Risks associated with direct contact to waste material are minimal. In 1993, over 1,000 tons of contaminated soil and empty containers were excavated and removed from the unit and disposed of at licensed landfills. Groundwater monitoring data showed that the concentration of COCs was not changing and that these concentrations were below the MCLs.

In 2008, after meeting cleanup requirements, Fort McCoy received approval from EPA to cease groundwater monitoring at the Pesticide Disposal Area, and the monitoring wells were abandoned. Access, land, and groundwater use restrictions are in place at this unit as well as cover maintenance requirements. In December 2008, the WDNR granted unit closure with a requirement for listing the site on the Wisconsin Remediation and Redevelopment Database as having WI Continuing Obligations, which include maintaining the soil cap at the unit and a restriction on constructing water supply wells in the area without prior WDNR approval.

**Active Explosive Ordnance Detonation (EOD) Site (AEOD):**

The AEOD is a small pit that was originally created by the detonation of ordnance that was disposed of in the pit. This SWMU is located within the 14 square mile Fort McCoy active impact area (area where bullets, bombs, missiles, etc. impact the ground), approximately 530 feet west of the La Crosse River. The ongoing military training activities in the active impact area result in detonation of the same types of ordnance as those that were detonated during disposal activities in the AEOD pit. This results in ongoing release of the same contaminants as were

released during operation of the AEOD disposal unit. The AEOD operated as a licensed explosive ordnance treatment/disposal facility from May 1996 to June 1999. The unit was used to treat waste munitions and explosives by open detonation. Fort McCoy made the decision in December 1998 to deactivate the unit and no longer conduct treatments after June 1, 1999.

Energetic constituents of concern (liquid or solid materials with a high amount of available stored chemical energy, including explosives) found in groundwater include 2,4,6-trinitrotoluene, 2,4-dinitrotoluene, 2-amino-4,6-dinitrotoluene, 4-amino-2,6-dinitrotoluene, High Melting Explosive (HMX), and Research Department Explosive (RDX). These are the same constituents of concern that are released during the ongoing training activities within the 14 square mile active impact area. Chemicals remaining in groundwater have no MCLs. Groundwater data shows that concentrations of constituents of concern have decreased and are not rebounding. There are no exceedances of industrial and non-industrial direct contact screening levels in soil. Risks associated with direct contact to waste material are minimal. The nearest potable well is located more than a mile from the unit. The pit was filled with soil in September 1999.

There are very restrictive access controls at the AEOD due to ongoing training activities and unexploded ordnance (UXO) surrounding and within the unit. People are not allowed into the active impact area unless accompanied by Fort McCoy personnel that control training activities. The USEPA's Military Munitions Rule (40 CFR 266 Subpart M- Military Munitions) allows for the UXO, lead, copper, and accelerants to remain in place, without cleanup, in these active impact areas until training is discontinued and the area is closed. This range complex/impact area will remain operational until such time that Fort McCoy would close. If Fort McCoy were to close, this entire range complex, along with the range complex on the southern part of the installation, as well as current inactive ranges on the installation, will be evaluated and remediated. The evaluation and remediation methods to be used will depend upon specific technology available at that time and upon the proposed future use of each of these areas.

On October 29, 2003, the WDNR notified Fort McCoy that the site had "been remediated to Department standards in accordance with s. NR 726.05, Wisconsin Administrative Code", and that the "Department considers this case closed and no further investigation, remediation or other action is required at this time." This unit is listed on the Wisconsin Remediation and Redevelopment Database to document exceedances of a Lifetime Health Advisory in some groundwater wells and to provide notice of this residual contamination for future land use planning purposes. In addition, on April 2, 2004, the WDNR granted closure of the RCRA Subpart X permit (s. NR 600 Series, Wisconsin Administrative Code) for this site and that closure approval was given "without the need for long term care."

**Inactive EOD Site (IEOD):**

Fort McCoy operated the Inactive EOD Site until 1987. Exact dates of operation are unknown. The IEOD was used to treat munition and explosives by open detonation and was located south of the AEOD within the active impact area (area where bullets, bombs, missiles, etc. impact the ground). However, the IEOD did not have a RCRA Subpart X permit. The IEOD covers one acre within the 14 square mile impact area. It is located 1,600 feet west of the La Crosse River.

Energetic constituents of concern found in groundwater include 2,4,6-trinitrotoluene, 2,6-dinitrotoluene, HMX, and RDX. Energetics remaining in groundwater have no MCLs. The ongoing military training activities in the active impact area result in detonation of the same types of ordnance as those that were detonated during disposal activities in the IEOB pit. This results in ongoing release of the same contaminants as were released during operation of the IEOB disposal unit. The nearest potable well is more than one mile from the unit. Although iron, lead, aluminum, vanadium, and cadmium were occasionally reported in groundwater, the concentrations appear to be due to naturally occurring elements and are not likely related to past disposal practices at the IEOB. Soil at the unit was found to contain some energetic constituents and lead, but risks associated with direct contact to waste material are minimal.

The unit is surrounded by unexploded ordnance (UXO) and has very restrictive access controls. People are not allowed into the active impact area unless accompanied by Fort McCoy personnel that control the training. The USEPA's Military Munitions Rule (40 CFR 266 Subpart M- Military Munitions) allows for the UXO, lead, copper, and accelerants to remain in place, without cleanup, in these active impact/range areas until training ceases and the range is closed. This range complex will remain operational until such time that Fort McCoy would close. If Fort McCoy were to close, this entire range complex/impact area, along with the range complex on the southern part of the installation, as well as current inactive ranges on the installation, will be evaluated and remediated. The evaluation and remediation methods to be used will depend upon specific technology available at that time and upon the proposed future use of each of these areas.

On October 22, 2003, the WDNR notified Fort McCoy that the site "has been remediated to Department standards in accordance with s. NR 726.05, Wisconsin Administrative Code" and the "Department considers this case closed and no further investigation, remediation or other action is required at this time." The unit is listed on the Wisconsin Remediation and Redevelopment Database to document exceedances of Lifetime Health Advisories in some groundwater wells and to provide notice of this residual contamination for future land use planning purposes.

**Fire Training Burn Pit #1 (FTBP1):**

FTBP1 is located in a tactical vehicle storage yard, approximately 1,500 feet east of Suukjak Sep Creek, and more than 200 feet from the nearest building. Fire Training Burn Pit 1 was constructed sometime between 1966 and 1973. It was approximately three feet deep and had a diameter of approximately 40 feet. The pit was utilized for training Fort McCoy Fire Department personnel. Training was conducted by filling the pit with a layer of water and fuel. The fuel was ignited and extinguished, then re-ignited and extinguished several times until it was consumed.

In 1982, a portion of the contaminated soil was removed from the pit. Following soil removal, the pit was reportedly lined with plastic. Two feet of clay was then placed on top of the plastic, and a 1-foot thick clay berm was installed around the pit. After installation of the plastic liner and the clay, the pit was used until at least 1987 when it was graded flat. The pit has not been used since the late 1980s. Remediation of the soil was conducted utilizing in-situ microbial degradation. In 2006, the remaining contaminant mass (60 cubic yards) was excavated and

disposed of at a licensed landfill, and the area of the former pit was capped with 2.5 feet of gravel.

Fort McCoy has multiple potable wells located various distances from FTBP1. Eleven potable wells are located primarily to the north of FTBP1. Five wells that supply water to the Cantonment Area, Campground, and Ski Hill facility are located approximately two miles southeast of FTBP1. Two potable wells are present at the South Post Housing facility located approximately 4.5 miles southwest of the FTBP1. One well at the Fort McCoy Airfield is located approximately 6 miles southwest of the FTBP1. The nearest potable water well is 1.4 miles west of the FTBP1. These potable wells are sampled yearly, and have always been shown to be free of contaminants.

Constituents of concern in groundwater include tetrachloroethylene (PCE), trichloroethylene (TCE), and 1,2-dichloroethene (DCE). In addition, perfluorinated compounds (PFCs) found in Aqueous Film Forming Foam (AFFF) are present (See Section VII). Data from over twenty years of groundwater monitoring show that the concentration and mass of PCE, TCE, and DCE continue to decrease (Table 2). The contaminant plumes never reached the creek and are receding.

Closure required the unit to be placed on the Wisconsin Remediation and Redevelopment Database as having WI Continuing Obligations, and Fort McCoy and all subsequent owners will be required to maintain the cap and obtain prior approval from the WDNR if any water supply wells are planned to be installed near the unit. In December 2014, EPA agreed that groundwater monitoring could cease. WDNR approved final unit closure on June 11, 2018.

In September 2016, December 2016, and August 2017, sampling and analysis was done at FTBP1 for eight constituents that are typically found in groundwater at former Army fire training sites where AFFF has been used. Results of these sampling events are included in Table 4. The data show significant concentration fluctuations between sampling events for wells OW117, OW308, and OW141, located in the center of the groundwater plume flow path. Data collected so far have confirmed that PFC concentrations near and downgradient of the former FTBP1 are present at levels exceeding the HA level. WDNR issued a letter on May 25, 2018, requiring site investigation. If a future remedy is determined to be necessary following complete definition of the nature and extent of impacts, WDNR will ensure that public health and the environment are protected.

The unit is approximately 1,300 feet upgradient of Suukjak Sep Creek, the nearest downgradient drinking water well is approximately 1.4 miles west of the facility, and no non-potable wells exist close to the facility.

**Fire Training Burn Pit #2 (FTBP2):**

FTBP2 area is located on the east side (southern portion) of the north/south runway of the Fort McCoy Airfield. The area is located approximately 3,300 feet south of Silver Creek. The now excavated and backfilled pit was approximately 30 x 40 feet and was initially constructed by excavating a soil pit to a depth of approximately 3 feet. It is not known when the pit was constructed. Fire suppression training consisted of filling the pit with water and fuel followed by

ignition of the fuel source that stayed on top of the water. Fire fighters ignited and extinguished the fuel repeatedly until the fuel was considered spent.

In 1982, contaminated soil was removed from the pit. The excavated pit was then partially backfilled with clean sand. A plastic liner was placed on top as an impermeable barrier followed by a two-foot lift of clay. A one-foot thick clay berm was installed around the edge and used as a sidewall. These actions were taken in an attempt to clean up the unit and minimize future contamination during training. In 1992, fire suppressant training at FTBP2 was discontinued. In 1994, approximately 12,700 gallons of liquid, 610 cubic yards of soil, and the liner were removed and disposed of at a permitted landfill. Post remediation soil sampling showed that constituents of concern are below the industrial Preliminary Remediation Goals (PRGs), and groundwater monitoring showed that constituents of concern are below MCLs (constituents of concern included TCE, PCE, arsenic, barium, chromium, lead, and mercury). The WDNR granted final closure of the unit on October 27, 2003.

In October 2016, sampling and analysis was done at FTBP2 for eight constituents that are typically found in groundwater at former fire training sites where Aqueous Film Forming Foam (AFFF) has been used. Groundwater samples were collected from 11 Geoprobe borings in the vicinity of former FTBP2 (Figure 2) and analyzed for PFCs. The October 2016 results are summarized in Table 5. As shown, the PFC contaminant concentration at FTBP2 showed five Geoprobe samples with combined PFOA and PFOS concentrations below the Health Advisory (HA) level and six samples with PFC concentrations above the HA levels. WDNR issued a letter on May 25, 2018, requiring site investigation which will ensure that public health and the environment are protected. No known human health or ecological exposure pathways exist currently for AFFF at FTBP2 and these pathways are not expected to be complete in the future. AFFF use at FTBP2 began prior to 1982. The last time AFFF was used at FTBP2 was in 1992. Combined concentrations of PFOS and PFOA at levels exceeding the HA do not extend beyond the north/south runway of the airfield and only extend approximately 740 feet north of FTB2. This is approximately 2,400 feet south of Silver Creek. It is likely that the downgradient plume boundary has reached its maximum extent, and is stable or receding based on the fact that it has been over 34 years since AFFF has been used at the airfield. Finally, if a future remedy is determined to be necessary for FTBP2, WDNR will ensure that public health and the environment are protected.

#### **Closed Landfill X:**

The RCRA Facilities Assessment identified Landfill X as one of 11 SWMUs that should be investigated. An area northwest of the Cantonment Area is believed to be the location of Landfill X, and was identified by representatives of the US Army Corps of Engineers and Fort McCoy for investigation as to the existence of the landfill. It was believed that some wastes may have been buried at this location during the early 1950s. A search of historical records, including a review of aerial photos taken between 1946 and 1986, provided no evidence of waste disposal or landfilling activity at this location. Electromagnetic and magnetometer geophysical surveys of the 800-foot x 560-foot area found no evidence of buried waste.



The Administrative Record does not include the any information suggesting Landfill X's presence. The Remedial Investigation (1994) report states that "An area believed to be the location of Landfill X was identified by representatives of the USACE and Fort McCoy to investigate the existence of the landfill. No records or other information exists to substantiate the existence of this landfill." The Current Conditions Report (1992) states that "Landfill X was reportedly used until 1951, but it is unknown if and when the landfill was first used. Information is not available regarding specific debris which may have been placed in the landfill." It is not likely that any individuals interviewed in 1992 or 1994 witnessed activities that may have occurred in 1951.

This SWMU was not investigated any further (no sampling was conducted) during subsequent field investigations for the RFI for two reasons- first, there was no evidence of landfilling activities from review of historical aerial photos and records, and second, there were no indications of buried waste from the geophysical investigations at Landfill X. No threat to human health or the environment was detected at this suspected SWMU, and no further action was taken.

**Closed Landfill #7 (CLF7):**

Based upon evidence from aerial photographs, CLF7 was utilized to dispose of municipal waste between 1950 and 1964. The landfill was discovered during grading work in 1993, extends to as much as 18 feet below ground surface, and covers approximately 1 acre. The unit is located north of the Cantonment Area, is over two miles from Fort McCoy's western boundary, and is beneath a tactical vehicle recycling yard. The landfill is approximately 1,800 feet from Suukjak Sep Creek.

There are no potable water wells within 1,200 feet of the unit. Groundwater monitoring data indicates that the risks to public health are minimal. At the time of closure, the only chemicals of concern reported in downgradient wells above screening levels were iron, manganese, nitrate, and PCE. At that time, Mann-Kendall analysis (a test which is a non-parametric way to detect a trend in a series of values) of the iron and manganese data showed that concentrations were stable to decreasing. In addition, a review of data from downgradient wells at closure showed that PCE concentrations were stable or decreasing. These results suggest that the plume is stable.

The WDNR granted unit closure on April 12, 2007. Closure required the unit be listed on the Wisconsin Remediation and Redevelopment Database as having WI Continuing Obligations, requires Fort McCoy and all subsequent owners to maintain the cap, and places restrictions on well installation without prior WDNR approval. In January 2008, the WDNR requested that Fort McCoy abandon the monitoring wells at CLF7 due to the fact that WDNR regulations require that monitoring wells not in use, and not likely to be used in the future, be abandoned. Two of the three monitoring wells at CLF7 were abandoned in November 2008. The third well (OW145, a downgradient well for CLF7) was left in place to function as an upgradient well for FTBP1. OW145 has been utilized in that manner since that time.

**Closed Landfill #8 (CLF8):**

CLF8 is located at Fort McCoy's western edge. A private citizen brought this unit to the attention of Fort McCoy authorities. There are no records to indicate when the waste was placed at the landfill. Prior to excavation, CLF8 was verified to exist in a clearing located approximately 3,300 feet west of the La Crosse River. The waste occupied two areas totaling 0.09 acres to a depth of 3.2 feet below ground surface.

There are no records to show when this landfill was used. Based on available aerial photographic information, this location appeared to be non-vegetated from 1950 to 1964. Use of this unit may have occurred during this period. Waste materials found in Landfill #8 included glass jars and bottles, metal cans, wire, a rubber overshoe, concrete blocks, bones, wood fragments, porcelain fragments, and ash. Based upon the type of materials found in Landfill #8, past investigations suggested that Fort McCoy personnel were not the cause of the solid waste accumulation, but that filling was performed by neighboring households or passersby. All waste was removed from the unit and the area was backfilled and capped with clean soil.

Elevated levels of lead and arsenic were present in soil following waste removal. The soil cap would prevent exposure to residual concentrations of contaminants in soil, and Fort McCoy is required to maintain the soil cap over the unit. Groundwater samples indicate that only manganese and iron, both naturally occurring, were present at levels exceeding the MCLs. Background concentrations of iron and manganese in shallow groundwater throughout Fort McCoy are found at levels above MCLs. Potable wells on and off Fort McCoy access the Cambrian Sandstone bedrock aquifer which is much deeper than the alluvial material sampled by the former shallow groundwater former monitoring wells at Landfill 8. There are no potable wells located near the Landfill 8 site. There are no completed human exposure pathways for this shallow groundwater that contain concentrations of iron and manganese in excess of the MCLs at the Landfill 8 site. No access restrictions exist for this landfill.

The WDNR issued the unit closure letter on October 28, 2003. The unit was listed on the Wisconsin Remediation and Redevelopment Database with WI Continuing Obligations. If excavation is ever planned for this unit, Fort McCoy must notify the WDNR in advance and sample the excavated soil and handle and dispose of the soil in accordance with the regulatory requirements that exist at the time any excavation occurs.

**Closed Landfill #9 (CLF9):**

CLF9 is located in a gully on the western boundary of Fort McCoy, 1/4 mile north of CLF8. This unit occupied an area of approximately 10 feet x 30 feet to a depth of 3 feet. There are no records to show when this landfill was used.

There is no indication of landfill activity on available aerial photographs, nor do any past Fort McCoy employees who were interviewed recall landfill activity at this unit. Materials found in CLF9 during trenching activities conducted in July of 1993 included glass jars, bottles, barbed wire, nails, stove pipe, metal cans, buckets, and miscellaneous other items. The waste was excavated and removed, but not sampled prior to removal. Confirmation soil sampling only showed arsenic. Arsenic levels in soil were elevated although below the average background concentrations. Although several metals in groundwater, including beryllium, cadmium, iron,

lead, manganese, silver and vanadium, were occasionally reported at concentrations above the NR 140 standards, these concentrations appeared to be due to naturally occurring elements, and were not related to disposal practices at the Landfill #9.

This landfill was covered with a soil cap that would prevent exposure to residual concentrations of contaminants in soil. The landfill has been listed on the Wisconsin Remediation and Redevelopment Database with WI Continuing Obligations for soil due to the arsenic concentrations. Any soil excavated from the area will require testing and proper disposal. There are no access restrictions for this landfill. The WDNR issued the final unit closure approval on October 29, 2003.

**Closed Landfill #10 (CLF10):**

Closed Landfill #10 (CLF10) was located on the western boundary of Fort McCoy, southwest of the Cantonment Area. The unit is 1,700 feet west of the La Crosse River. This unit, prior to excavation, was verified to exist in the firebreak along the western boundary of Fort McCoy slightly north of Highway BB. The waste occupied an area of approximately 30 feet x 140 feet to a depth of between one to six feet. There are no records to show when this landfill was used.

There is no indication of landfill activity on available aerial photographs nor any past Fort McCoy employees who were interviewed recall landfill activity at this unit. Waste materials found in CLF10 during trenching activities conducted on July 20, 1993, included glass bottles, broken glass and dishes, barbed wire, cans, rusted metal debris, and ash. Nine trenches were excavated to determine the limits of waste and identification of the above stated items. Only four of the nine trenches encountered waste during the preliminary investigation. The waste was excavated and removed, but not sampled prior to removal, and the area was backfilled with clean soil. Soil samples collected following excavation showed no residual soil contaminants of concern. Groundwater samples showed MCL exceedances for manganese, a naturally occurring element that is found at elevated levels throughout Fort McCoy.

On October 27, 2003, the WDNR issued the final closure letter stating that they consider this CLF10 closed and no further investigation, remediation, or other action is required at this time.

**IV. JUSTIFICATION FOR CLOSURE OF CLF2 AND FTBP1 AS PART OF CORRECTIVE ACTION COMPLETE DETERMINATION**

In December 2014, EPA agreed that the groundwater monitoring at FTBP1 and CLF2 could cease based upon consistent low contaminant levels found in the water samples and the absence of human exposures. Institutional controls for FTBP1 and CLF2 are currently in place. The sites are listed on the Wisconsin Remediation and Redevelopment Database with WI Continuing Obligations for soil and groundwater contamination. Both SWMUs have a cap maintenance requirement to ensure that there is no direct contact with the remaining soil contamination in the case of FTBP1, or contact with waste in the case of CLF2. There are also restrictions regarding future installation of any potable wells at these sites without prior WDNR approval. If the installation ever plans to change property use at either SWMU, the Army is required to obtain approval from the WDNR in advance. If such changes would change exposure potentials, the

installation would be required to take necessary actions to protect human health and the environment, as approved by the WDNR.

**Closed Landfill #2:**

CLF2 was primarily an ash monofill. Nearly all the waste present in CLF2 was incinerator ash. A soil cover was placed on CLF2 in 1998 to prevent exposure to potential receptors as well as to provide for increased protection of the La Crosse River by reducing passage of surface precipitation through the ash. Leaving the waste in place provides the best option at this unit, because the waste is adequately covered and controlled at CLF2 and there is no reason to believe that the minimal risks to human health and the environment will increase in the future. An analysis of the data shows that there is no unacceptable risk to human health and the environment at CLF2. EPA believes that remediation at CLF2 is complete and groundwater monitoring can cease.

**Fire Training Burn Pit #1:**

Fort McCoy Fire Department personnel used FTBP1 during fire control training. Soil remediation at FTBP1 included the use of ozone injection, air sparging/soil vapor extraction, and in-situ bioremediation, followed by excavation and removal of a small volume of remaining soil that was above remedial objectives. The extent of the downgradient groundwater plume has fluctuated over time; the maximum extent of the plume was 685 feet downgradient from the former FTBP1. Monitoring results have shown that the maximum extent of contaminant migration is well-defined with regard to potential receptors. This allows for definitive determinations of current and future risks associated with the remaining contamination. Data analysis shows that the current and expected future risks to human health and the environment do not pose a threat. EPA believes that remediation at FTBP1 is complete, groundwater monitoring can cease, and the groundwater plume from the FTBP1 is not an exposure risk.

**V. PUBLIC PARTICIPATION ACTIVITIES**

On July 30, 2018, the opening of the public comment period for the Class III Modification of the Federal portion of the RCRA Permit for the U.S. Army Garrison-Fort McCoy (Fort McCoy) was announced by the United States Environmental Protection Agency (U.S. EPA). The public notice was published in the Monroe County Herald and the Tomah Journal and advised the public of its opportunity to comment on the proposed Class III Permit Modification until the end of the comment period on September 27, 2018. A Statement of Basis explained the EPA determination of Corrective Action Complete at the facility and therefore serves as a Class III Permit Modification to terminate corrective action activities at Fort McCoy.

A public meeting on the proposed modification was held on September 5, 2018 at the Sparta American Legion Hall in Sparta, Wisconsin, as an additional means for the public to provide comments to U.S. EPA.

This Final Decision document includes responses to comments received during the public comment period and this Final Decision reflects EPA's inclusion of relevant comments.

## **VI. COMMENTS RAISED AND THE AGENCY'S RESPONSES**

### **Public comment period ended on September 27, 2018.**

The Statement of Basis was revised in response to comments received from Fort McCoy and WDNR to address inconsistencies, add factual info, and update information about SWMUs, and the updated Statement of Basis has been made part of the Administrative Record for the federal permit. However, none of the changes in the Statement of Basis have affected EPA's decision to terminate the permit and acknowledge completion of Corrective Action at Fort McCoy. No comments were received on the Statement of Basis from the public.

### **Comments from Fort McCoy**

1. On page two, in the second to the last paragraph, it states that Fort McCoy is a "major mobilization site". This has changed and we are now a secondary mobilization site.  
**EPA response:** Change made to text to reflect "secondary mobilization site."
2. In Table 1, under AEOD, under Closure Justification, it states that "groundwater have no MCLs". It might be good to say "MCL exceedances".  
**EPA response:** Change made to text to reflect "MCL exceedances."
3. In Table 1, under Fire Training Burn Pit 1, it states that "Conditional WDNR Closure for Chlorinated Parameters February 15, 2016." Final WDNR Closure for Chlorinated Solvents was received June 11, 2018.  
**EPA response:** Change made to text to reflect June 11, 2018 date.
4. On page 9, 1st paragraph, it states that "these chemicals are not migrating off site or entering the La Crosse River". They actually are (migrating), but not at concentrations of concern.  
**EPA response:** Change made to text to reflect chemicals not migrating off-site at concentrations of concern.
5. Page 11, 3rd paragraph, states "unexploded ordinances", should be "unexploded ordnance."  
**EPA response:** Change made to text to reflect correct spelling "ordnance."
6. On Page 13, at the end of the 5th paragraph it should state that "The WDNR granted final closure for chlorinated constituents in June 2018."  
**EPA response:** Change made to text as stated.
7. Page 19, 2nd paragraph, last sentence, states that the WDNR participates in the annual cover inspections. While they can request to see the cap inspection records, they have never participated in the inspection.  
**EPA response:** Change made to text that removes reference to WDNR participating in inspections.
8. On Page 19, 4th paragraph, "Access" restrictions are mentioned for CLF2. There are no access restrictions for CLF2.  
**EPA response:** Change made to text that removes reference to access restrictions.
9. Page 20, last paragraph states that three of the original 11 SWMUs still have groundwater monitoring wells. The wells at CLF2 were abandoned in April 2016.  
**EPA response:** EPA has requested documentation verifying abandonment of wells at CLF2. The WDNR issued Final Closure with Continuing Obligations on June 3, 2016.

10. Do we want to include the information regarding Landfills 7, 8, 9, and 10 which were never actually in the permit? Everything is taken care of on these sites and questions should be easy to answer if this information remains in the SB.

**EPA response:** The first modification of the original June 1990 permit, which was issued in September 1997, addressed remedial alternatives for five SWMUs (Closed Landfill 2, Closed Landfill 3/Grit Area, Closed Landfill 4, Fire Training Burn Pit 2, Pesticide Disposal Area), and terminated corrective action requirements at 9 SWMUs (Closed Landfill 5, Closed Landfill 6, Landfill X, Active Ordnance Disposal Site, Inactive Ordnance Disposal Site, Landfill 7, Landfill 8, Landfill 9, and Landfill 10). Despite the fact that Landfills 7, 8, 9, and 10 were not in the original permit, they were included as part of the September 1997 modification and are therefore included in the Statement of Basis for the sake of completeness.

### **Comments from WDNR**

#### **Introduction, Objectives, Facility Background**

1. Page 2, Objectives, bullet 3. It will not be clear to the reader why EPA regards these 2 units as “remaining.”  
**EPA response:** Change wording to “...for the final two units remediated, Closed Landfill 2 (CL2) and Fire Training Burn Pit 1 (FTBP1), and document justification...”
2. Pages 4 and 6, Table 1. Date of EPA letter signed by Margaret Guerriero.  
**EPA response:** Insert “USEPA agreed that groundwater monitoring could cease on December 1, 2014.”
3. Page 6, Table 1. This CO is imposed on ANY site closed with residual soil>RCL and/or gw>ES at closure.  
**EPA response:** Change wording to “Listed in WRRD as having WI Continuing Obligations for well variance, if constructed.”
4. Page 7, Table 1. These superscripts are intended to footnote the fact that these 4 LF’s were not included in the original 1990 permit.  
**EPA response:** Footnote Closed Landfill #7, #8, #9, #10.
5. Page 7, Table 1. This isn’t important. We always direct RP2 to abandon wells, but in this case, it was done after the fact, because of RR having inadvertently transferred the site back to the Waste program, when it should not have been transferred in the first place.  
**EPA response:** Delete text “January 16, 2008 WDNR Direction to Abandon Monitoring Wells.”
6. Suggested additional changes were made by EPA in Introduction, Objectives, and Facility Background to include clarification of number of SWMU’s identified and added to the RFI, and identification of the SWMUs in first permit modification where corrective action requirements were terminated.

### **Closure Justification for Fort McCoy Sites Listed in Table 1**

1. Page 10, Closed Landfill #3 (CLF3) and Grit Area. DNR does not have authority to strictly prohibit water supply wells.  
**EPA response:** Add text “without prior WDNR approval.”
2. Page 12, Active Explosive Ordinance Detonation (EOD) Site (AEOD). According to the WDNR closure letter, this appears to be correct. However, RDX exceeded a Lifetime Health Advisory Limit in some wells.  
**EPA response:** Comment did not require change.
3. Page 14, Fire Training Burn Pit (FTBP1). It is NOT appropriate (or necessary) to speculate on whether exposure pathways are complete until the AFFF SI is complete. As stated here and in Section VII, this info is unrelated to CA requirements. I suggest this paragraph (as revised) be kept to Section VII.  
**EPA response:** Sentence on exposure pathways was removed.
4. Page 15, Fire Training Burn Pit (FTBP2). Again, it is not appropriate or necessary to speculate on pathway completion or extent of AFFF contamination until SI is complete. Please keep this info (as revised) to Section VII.  
**EPA response:** Sentence on exposure pathways was removed.
5. Suggested additional changes were made by EPA in the Closure Justification section to include clarification of Wisconsin GIS Registry at Wisconsin Remediation and Redevelopment Database (WRRD) and that this database contains WDNR Continuing Obligations.

### **Evaluation of Residual Risks at Closed Landfill #2 and Fire Training Burn Pit #1**

1. Suggested additional changes were made by EPA in Evaluation of Residual Risks section which include clarification of number of SWMUs of the 11 SWMUs in the original permit requiring corrective action as of October, 2012 and dates when final closure letters were issued from WDNR for CLF2 and FTBP1.

### **Justification for Corrective Action Complete Determination at Fort McCoy**

1. Page 22, Closed Landfill #2. The location and content of this paragraph is super confusing because it only discusses EPA’s thinking as of 2014, and it discusses both sides. I’m guessing it was from an earlier draft and that you meant for the final paragraph in this section, which is more pertinent and much clearer, to replace it.  
**EPA response:** Change made was to revise and move paragraph following section on Fire Training Burn Pit #1.

### **Ongoing Investigations Unrelated to Federal Corrective Action Requirements**

1. Page 24, FTBP1. It is not appropriate to speculate on whether exposure pathways are complete until SI is completed.  
**EPA response:** Sentence on exposure pathways was removed.

2. Page 25, Corrective Action at FTBP1, FTBP2, and FTBP3. It's not clear what this implies. Is there a process for reopening this permit closure?

**EPA response:** Change made to wording to indicate EPA was not revisiting SB but may require additional corrective action.

### **Table 3, Summary of Analytical Results for Closed Landfill 2**

1. There are no access limitations at CLF2.

**EPA response:** Change made to wording to indicate no access limitations.

## **VII. ADMINISTRATIVE RECORD**

The administrative record, which contains more detailed information about the proposed decision, is available at both the Sparta and Tomah, Wisconsin public libraries, and EPA's regional office, 7<sup>th</sup> Floor Records Center, 77 W. Jackson Blvd., Chicago. An index to the Administrative Record is attached.

## **VIII. WISCONSIN CONTINUING OBLIGATIONS AND LAND USE CONTROL**

To ensure continued protection of public health and safety, the WDNR has placed institutional controls (ICs) on several of the 11 units listed in the RCRA Permit as a condition of closure (see Table 1). The ICs will remain in place in perpetuity. These controls will be imposed through Wisconsin Continuing Obligations. The units have also been entered into the Fort McCoy GIS for land use control.

Wisconsin Continuing Obligations utilize statutory authority to institute ICs that carry forward to all subsequent property owners. The Wisconsin Remediation and Redevelopment Database is an on-line data system that is accessible to the public at any time without travel and it is updated on a daily basis. This system provides notification of the presence of contamination on all affected properties, regardless of size, with or without permission of the owner. Wisconsin Continuing Obligations allow for ICs to be updated or removed without legal representation (<http://dnr.wi.gov/botw/SetUpBasicSearchForm.do>- Facility ID 642024900).


## **IX. FUTURE ACTIONS**

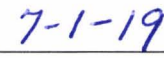
If Fort McCoy or subsequent owners of the Facility cease operations or consider demolishing buildings or pavement, or if use of the property for other than nonresidential purposes is considered, EPA will revisit all exposure scenarios and the potential need for corrective measures. EPA reserves its statutory authorities if data received in the future indicate unacceptable exposures to human or ecological receptors.



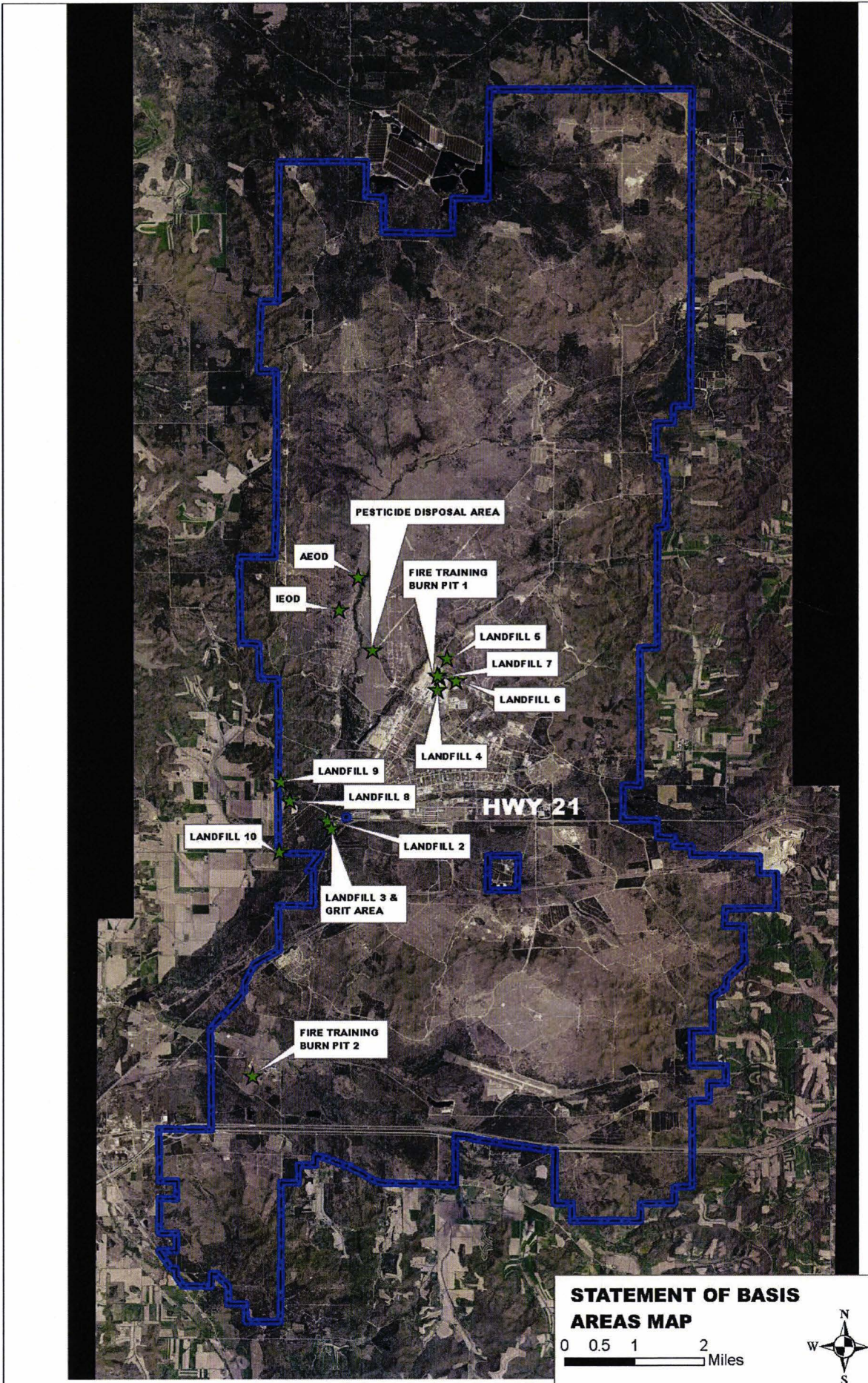
**X. DECLARATION**

Based on the information in the Final Decision and Response to Comments and the Administrative Record compiled for this corrective action decision at the U.S. Army Garrison-Fort McCoy facility in Sparta, Wisconsin, EPA has determined that corrective action is complete at each of the 11 SWMUs in the 1990 permit either through remediation or institutional controls. The Facility is suitable for continued nonresidential use, consistent with its current status.

  
\_\_\_\_\_  
Tinka G. Hyde  
Division Director  
Land, Chemicals and Redevelopment Division

  
\_\_\_\_\_  
Date





**STATEMENT OF BASIS  
AREAS MAP**

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Miles

