

ATTACHMENT VIII

(SECTION J)

CORRECTIVE ACTION FOR SOLID WASTE MANAGEMENT UNITS

(Updated February 2011)

J-1. Solid Waste Management Units

SITE NO.	NAME	STATUS
SWMU 01/12	Mustard Gas Burial Grounds (MGBG)	LTM ¹
SWMU 02/11	Dye Burial Grounds (DBG)	LTM ¹
SWMU 03/10	Ammunition Burning Grounds/Jeep Trail Area (ABG)	CMS ²
SWMU 04/02	McComish Gorge (MCG)	RFI ³
SWMU 05/03	Old Burn Pit (OBP)	CMS ²
SWMU 06/09	Demolition Area (DEMO)	NFA ⁴
SWMU 07/09	Old Rifle Range (ORR)	CMS ²
SWMU 08/17	Load and Fill Area, B-106 Pond (B106P)	RFI ³
SWMU 09/05	Pesticide Control Area/R-150 Tank (PCA)	RFI ³
SWMU 10/15	Rockeye (RKI)	LTM ¹
SWMU 11/00	Old Storage Building, B-225 (B225)	NS ⁵
SWMU 12/14	Mine Fill A (MFA)	RFI ³
SWMU 13/14	Mine Fill B (MFB)	RFI ³
SWMU 14/00	Sanitary Landfill and Lithium Battery Burial (SLF&LB)	NFA ⁴
SWMU 15/06	Roads and Grounds Area (R&GA)	NFA ⁴
SWMU 16/16	Cast High Explosives Fill/B146 Incinerator (B146)	RFI ³
SWMU 17/04	PCB Capacitor Burial & Pole Yard (PCB-PY)	RFI ³
SWMU 18/13	Load and Fill Area Buildings (L&FAB)	NS ⁵
SWMU 19/00	Pyrotechnic Test Area/Annex/Rocket Range Impact Area (PTA)	NS ⁵
SWMU 20/00	CAAA QA/QC Test Area (CAAA)	NS ⁵
SWMU 21/00	DRMO Storage Lot (DRMO)	NS ⁵
SWMU 22/00	Lead Azide (PbA)	NS ⁵
SWMU 23/00	Battery Shop (BS)	NS ⁵
SWMU 24/00	Sludge Drying Beds A & B (SDBA&B)	NFA ⁴
SWMU 25/07D	Highway 58 Dump Site A (H58A)	NS ⁵

SWMU 26/08D	Highway 58 Dump Site B (H58B)	NS ⁵
SWMU 27/00	Illuminant Building B-126 (B126)	NS ⁵
SWMU 28/00	Maintenance Shop, B-1820 (B1820)	NS ⁵
SWMU 29/07	PCP Dip Tank, B-56 (B56)	NS ⁵
SWMU 30/00	Land Farm (LF) Sludge Application Site	NFA ⁴
SWMU 31/00	Compressed Gas Cylinder Site (CGC)	NFA ⁴
SWMU 32/00	Tank Farm (TF)	NS ⁵
SWMU 33/00	Bioremediation Facility (BRF)	NFA ⁴
SWMU 34/00	Old Gun Tub Storage Lot (OGTSL)	NS ⁵
AOC 01/00	Grit Blast Site – B3220 (GBS)	NS ⁵
AOC 02/00	B-2044 Drop Tower/Test Rail (B2044)	NFA ⁴
UXO 06/00	Test Pads on Hill East of B198	NFA ⁴
UXO 07/00	Old Rifle Range (Ranges and Berms)	RFI ³
UXO 08/00	Pyro Area Test Burn Pads	RFI ³

¹LTM = Long-Term Monitoring;

²CMS = Corrective Measures Study

³RFI = RCRA Facility Investigation

⁴NFA = No Further Action (i.e., based upon current conditions and knowledge of the site, there is no further clean up required under RCRA Corrective Action).

⁵NS = Not Started (i.e., site remediation activities are not yet funded).

J-1a Characterize the Solid Waste Management Units and Areas of Concern

Exhibit J-1, located at the end of this Attachment, is a drawing of the facility showing the location of all the SWMUs and AOCs.

J-2. Releases

A. SWMU 01/12 MUSTARD GAS BURIAL GROUNDS (MGBG)

The site was previously used to bury mustard gas rounds, chemical agent identification sets, and small quantities of thorium nitrate used for flares. Two previous investigations have removed all materials from this site. A RCRA Facility Investigation (RFI) incorporating a baseline human health and a screening level ecological risk assessment (RA) has been completed for all media. Risk drivers are from volatile organics in ground water. The RFI was approved by the U. S. Environmental Protection Agency (EPA) on June 21, 2005. A Corrective Measures Study (CMS) was approved by the U.S. EPA on August 22, 2005. The CMS recommended alternative includes two main components: (1) Land Use Controls (LUCs) and (2) Groundwater Monitoring throughout the 12-acre MGBG. Land use controls would restrict future site development and prohibit groundwater use. Land use controls would also include regular site inspections to verify that effective controls stay in place until it is appropriate to remove them. Groundwater monitoring would consist of periodically collecting and analyzing groundwater samples from monitoring wells located at the site. The analytical data would be used to evaluate

site conditions, especially the contaminant concentrations. The controls and inspections would be implemented and enforced by NSWC Crane with oversight from the Indiana Department of Environmental Management (IDEM). NSWC Crane would be responsible to periodically report on site conditions to IDEM. The objective of this corrective action would be to monitor and assure the public that acceptable solvent contaminant concentrations are eventually achieved through natural mechanisms while at the same time protecting the public and the environment by prohibiting groundwater use. This remedy proposal was submitted for public comment as a Statement of Basis (SB) in August/September 2006 and was approved by the U. S. EPA on November 9, 2006 with no public comments received. A revised final Corrective Measures Implementation Plan (CMIP) was submitted to the U. S. EPA and IDEM on December 4, 2006 and approved March 14, 2007. Site status is currently in LTM.

B. SWMU 02/11 DYE BURIAL GROUNDS (DBG)

Approximately 50 tons of pyrotechnic dyes were buried at this site. An RFI incorporating a baseline human health and a screening level ecological RA was prepared for all media and approved March 15, 2005. A RCRA cap has been placed as an Interim Measure (IM). The CMS determined the cap can be used as a final remedy and the recommended alternative included two main components: (1) Land Use Controls (Site Monitoring, Institutional Controls, and Engineering Controls) and (2) Groundwater Monitoring. Site monitoring would be conducted through regular inspections to check the continued compliance with institutional and engineering controls and to verify the proper operation and/or continued integrity of whatever remedial system or structure might be in place. Institutional controls would consist of formulating and implementing site-specific controls that would prohibit disturbance of the existing cap, control future site development, and restrict groundwater use. Engineering controls would consist of installing and maintaining a fence to control site access and maintaining the existing cap. Groundwater monitoring would consist of collecting and analyzing groundwater samples from monitoring wells located upgradient and downgradient of the existing burial ground cap as well as within the capped area itself. The analytical data would be used to evaluate site conditions, especially contaminant concentrations. The controls and inspections would be implemented and enforced by NSWC Crane with oversight from IDEM. NSWC Crane would be responsible for submitting regularly scheduled reports on site conditions to EPA. The objective of this corrective action would be to warn of groundwater contamination from dyes underneath the cap and to protect the public and the environment by prohibiting groundwater use and inappropriate use of the site. The CMS was approved by the U. S. EPA on May 10, 2005. This proposed remedy was submitted for public comment as a SB in August/September 2006 and was approved by the U. S. EPA on November 9, 2006 with no public comments received. A revised final CMIP was submitted to the U. S. EPA on December 4, 2006 and approved March 14, 2007. Site status is currently in LTM.

C. SWMU 03/10 AMMUNITION BURNING GROUNDS (ABG)

This unit consists of a permitted open burning unit (ABG), the Old Jeep Trail (OJT) area which is a former open burning area, and the Little Sulphur Creek (LSC). Burning at the ABG and OJT originally took place in trenches, pits, and on the ground resulting in metals, solvents, and

explosives contamination of the soils, ground water, and LSC. A multimedia RFI incorporating a baseline human health and a screening level ecological RA/CMS has been completed for the ABG, LSC, and OJT area. Explosives and solvents in ground water and explosives in surface water below Spring A are the human health risk drivers. A CMS for the OJT and LSC is in preparation. Much of the CMS hinged on acceptance or rejection of the proposed alternate concentration limit (ACL) for RDX in surface water. The ACL of 86 µg/L was approved in December 2005 along with the RFI/RA for LSC and OJT. In November 2006, a draft Corrective Measures Proposal (CMP) was submitted to the U. S. EPA. Three Surface Impoundments, formerly used for dewatering explosives, and the Ash Pile have undergone partial closure. The ABG main treatment area, including the Surface Impoundments and Ash Pile, will be addressed during closure of the unit. Ground water compliance monitoring is addressed under the Subpart X Permit.

D. SWMU 04/02 McCOMISH GORGE (McG)

Undefined amounts and types of garbage and trash were buried at this site. Burial likely included wood, paper, construction material, plaster-filled warheads, metal shavings, and industrial wastes. Previous work has partially delineated the extent of the debris. A multimedia RFI/RA report has been completed. No excess risks were identified. As the McG is not identified as a high risk site, a CMS report will not be funded until at least FY08.

E. SWMU 05/03 OLD BURN PIT (OBP)

The Old Burn Pit encompasses a narrow stream valley where material was burned in a depression or pit and the ash and metallic objects were buried in a gully to the north of the burning pit. The rubbish included wood, paper, building material, and industrial wastes. Previous work has included soil and ground water sampling and removal of some of the debris. A multimedia RFI/RA report has been completed. A CMS was submitted to the U. S. EPA to address excess human health and ecological risks from metals contamination. The OBP has two distinct physiographic areas; a gully area and a flat area. No excess risks have been identified in the flat area of the OBP and the Navy will request release of this area for unrestricted use, especially since the OBP is unencumbered by ESQD arcs and located near a major highway. The gully area however, appears to have excess risk from contaminants and is in an area of rugged terrain. A Draft CMP was submitted to the U. S. EPA on December 01, 2006.

F. SWMU 06/09 DEMOLITION AREA (DEMO)

High-explosives waste munitions are disposed of by detonation at this site. Previous work has included soil and groundwater sampling. Sedimentation ponds and surface runoff ponds are in place. The U.S. EPA reviewed and approved RFI planning documents and the subsequent report. The results defined a manganese hotspot in the ground water. The U. S. EPA determined there is no need for corrective action at this unit. The manganese hotspot work will be deferred until unit closure, if required at that time. Additionally, the sedimentation pond on the northwest side was briefly used for pyrotechnic testing. The sedimentation pond has been designated as UXO 2, H-333 Sedimentation Pond. Testing was reportedly limited and included only a few pyrotechnic items. Investigation of the pond is deferred and will be included with the closure of the Demolition Range. A No Further Action (NFA) request was approved by the U. S. EPA on October 31, 2001. Ground water detection monitoring is ongoing under the Subpart X permit.

G. SWMU 07/09 OLD RIFLE RANGE (ORR)

SWMU 7 currently consists of three engineered containment burning pits operated under a RCRA Subpart X Permit. Each pit has several burning pans in which "Yellow D" explosive and other explosive contaminated material is burned. Prior to July 1986, burning was conducted on open ground. This area was also utilized for bomb cook-off testing. The high explosive (yellow D/ammonium picrate) bulk and loaded projectiles are burned in clay lined steel pans. It was reported that black powder, red, and white phosphorous had been destroyed in this area. A multimedia RFI delineated soil contamination (predominantly metals) at the ORR and OPR. A TNT soil hot spot was removed under an IM. TNT and RDX are present in the ground water at the site. Originally, SWMU 7 covered 28 acres which also included the multiple former pistol, rifle, and shotgun ranges in the area adjoin the pans. However, changes to the Navy's Environmental Restoration program, including the standup of the Munitions Response Program (MRP) has led to the redefinition of the SWMU 7 boundary to just include the open-burning treatment units and the associated contaminated ground water. Additional SWMU 7 investigations will be required at unit closure. Ground water compliance monitoring is addressed under the Subpart X Permit. An SB is planned for 2011.

H. SWMU 08/17 LOAD AND FILL AREA, B-106 POND (B106)

Building 106 contains a cleaning process, consisting of a caustic wash, a degreaser, and an acid wash. Prior to 1972, this wastewater was discharged into a small unlined retention pond. The retention pond overflowed into surface drainage. Sometime after 1972 the pond was connected to a neutralizing system that discharged to the sanitary sewer. In 1981, cooling water from degreasers was discharged to a storm drain until the discharge was connected to the sanitary sewer in 1982. Building 107 floor drains also discharged to the pond. The RFI found high chlorinated solvent concentrations in the pond sediments and ground water. A Draft RFI report was submitted to the U. S. EPA on April 09, 2007. An IM removal of the pond sediments will begin in May 2007.

I. SWMU 09/05 PESTICIDE CONTROL AREA/ R-150 TANK SITE (PCA)

This site consists of three relatively distinct areas: a former waste underground storage tank, known as the R-150 Tank (removed); and two former pesticide mixing and storage buildings (Buildings 2189 and 55). Multimedia RFI/RA sampling has been completed for the R-150 Tank and B2189 and some excess risks were identified in ground water for chlorinated VOCs and metals at the R-150 Tank site and B2189. An RFI/RA is ongoing at the B55 site, where elevated levels of pesticides, PCBs, and fuel oil constituents have been identified. An RFI/RA report is in preparation. An IM removal of contaminated soils from the B55 area is planned for late 2007.

As part of the LUCs, annual site inspections would be conducted to verify and enforce the continued application of these controls. Monitoring would consist of regularly collecting groundwater and surface water samples and analyzing them for explosives to evaluate the progress of remediation and to verify that no plume expansion is occurring. Preliminary estimations indicate that the remediation timeframe would probably be somewhat greater than 100 years. The U.S. EPA approved the CMS on September 1, 2006. This proposed remedy was submitted for public comment as a SB. A Final CMIP will be submitted to the U. S. EPA in June 2007.

J. SWMU 11/00 OLD STORAGE, B-225 (B225)

This was the site of Building 225, which was destroyed by a fire on 13 July 1976. Stored at the building were pentachlorophenol, paints, sodium fluorescein dye, solvents, and various other items. Debris from the fire was cleaned up and the site currently remains vacant. An RFI is planned at this site for all media. The RFI is not currently scheduled.

K. SWMU 12/14 MINE FILL A (MFA)

This area was used primarily for melting and pouring explosives. Contamination from past operations includes soil, surface water, sediments, and groundwater. IM composting treated 20,834 tons of explosives contaminated soils at the CBF. An IM source removal has been completed for the adjacent Battery Dump Site and a report is in preparation. A Draft RFI/RA report was submitted to the U. S. EPA on January 30, 2006. Sampling of sumps throughout the site was conducted in late 2006. A Revised Draft RFI with sump sampling information will be submitted pending resolution of comments on the Draft RFI. An IM removal for lead contaminated soils from the Battery Dump Site is planned for 2008.

L. SWMU 13/14 MINE FILL B (MFB)

This area was used primarily for melting and pouring explosives and differed only slightly from operations at MFA. A Therminol Boiler containing PCBs was located at MFB and removed in 1990. Contamination from past operations includes soil, sediments, and possibly groundwater. IM composting treated 22,115 tons of explosives contaminated soils at the CBF. A Draft RFI/RA report was submitted to the U. S. EPA on July 18, 2005. Sampling of sumps throughout the site was conducted in late 2006. A Revised Draft RFI with sump sampling information was

submitted to the U. S. EPA on April 19, 2007. An Draft IM Work Plan for remediation of PCB contaminated soils and sediments was submitted to the U. S. EPA on March 23, 2007. The IM removal is currently programmed for FY08.

M. SWMU 14/00 SANITARY LANDFILL/LITHIUM BATTERY BURIAL (SL&LB)

Lithium batteries originally buried at the site that is now the Bioremediation Facility (SWMU 33) have been removed by IM. U.S.EPA approved a request for NFA on October 31, 2001.

N. SWMU 15/06 ROADS AND GROUNDS AREA (R&GA)

This SWMU consists of an assortment of buildings used to store fuels, oils, and pesticides in support of the maintenance of the facilities' roads and grounds. An asphalt batch plant was also located here prior to 1972. Furthermore, an assortment of material was deposited into two ravines. The material was construction rubble and other debris including fuel oil tanks. The unknown contents of this site, along with the pesticide residues, indicate that the site could potentially have contaminants in the soil that could migrate to surface water or groundwater. A paved parking area was approved as an IM to limit leaching of contaminants to ground water. An additional IM was implemented to remove the hillside debris. An RFI/RA sampling effort recently focused on soils, surface water, and sediment. Little contamination was found. A Final RFI report was submitted to IDEM with an NFA recommendation on November 23, 2006. Approval of the NFA was received from IDEM on January 23, 2007.

O. SWMU 16/16 CAST HIGH EXPLOSIVES FILL/B146 INCINERATOR (B146)

This complex has been used for loading, demilitarization, and renovation of a variety of munitions. An ash pile and settling basins (sumps) were present at the site. A variety of contaminants have been released to the soil, sediments, surface water, and groundwater. IM work removed large quantities of contaminated soil and sludge and treated chlorinated solvent contaminated water flowing into 2 sumps. A multimedia RFI identified significant chlorinated organic contamination in subsurface soils and ground water. A Draft RFI report was submitted to the U. S. EPA on July 30, 2005. Based upon comments receive on the Draft RFI report, an indoor air monitoring plan is in preparation for B146.

P. SWMU 17/04 PCB CAPACITOR BURIAL/POLE YARD (PCB-PY)

Poles and transformers are stored in this area. Reportedly, PCB capacitors were also buried here. Two separate attempts have been unsuccessful in locating the buried capacitors. IM sampling identified PCB contamination in soils. Subsequently, an IM was conducted to remove up to 24 inches of PCB contaminated soils. Over 3,000 tons of soil were excavated and disposed off-site in 2003. Additional RFI sampling conducted in 2006 lead to an expansion of the investigation area. It was determined that the former Transformer Repair Shop had released PCB oils to a drainage ditch behind the shop. This east-west trending drainage ditch was also impacted by the

activities at the Pole Yard and is a tributary to the head waters of Boggs Creek. Lake Gallimore, an erosion control structure at the southern boundary of Crane, is formed by a dam on Boggs Creek. On May 02, 2007, the U.S. Fish and Wildlife Service (U.S. FWS) collected fish tissue samples for PCB analysis from Lake Gallimore. Results are expected in mid-August. Additionally, samples from various points along Boggs Creek will be collected and analyzed for PCBs, pending results from U.S. FWS. Results of the fish tissue samples and the Boggs Creek samples will be used to determine the extent of an Interim Measures removal of PCB contaminated soils and sediments.

Q. SWMU 18/13 LOAD AND FILL AREA BUILDINGS (L&FAB)

This was the site of explosives load and fill operations, and is currently used for renovation, rework, and loading of munitions items. Explosives and metals contamination exist in the soil, sediments, surface water, and possibly groundwater. This SWMU also included test pads on the hill behind B-198. The test pads were originally to be investigated as part of SWMU 18. However, munitions response program funding became available and the test pads were investigated in September 2009 (see UXO 06 below). SWMU 18 covers approximately 1 square mile and includes over 100 buildings. In order to more efficiently investigate the site, SWMU 18 has been divided into ten subareas based on similar operations and geographic proximity. The ten subareas are as follows:

1. Subarea A: Buildings 101, 102, and 103
2. Subarea B: Building 104
3. Subarea C: Building 105
4. Subarea D: Inert Operation Area
5. Subarea E: Building 200
6. Subarea F: Buildings 2084 and 2085
7. Subarea G: ASD I Area
8. Subarea H: Building 198
9. Subarea I: ASD II Area
10. Subarea J: SP Area

The subareas will be prioritized and investigated accordingly as funding is available. An RFI is planned to address all media at each of the subareas. This RFI for part of the subareas (yet to be determined) is currently scheduled for early 2012.

R. SWMU 19/00 PYROTECHNIC TEST AREA/ANNEX/ROCKET RANGE IMPACT AREA (PTA)

This site is also known as the Ordnance Test Area and consists of three physically separate areas [the Ordnance Test Area (OTA), OTA Annex, and Rocket Range] that perform related functions. Each area consists of a large open field and a concrete building used for quality assurance test burning of pyrotechnic lots. Boggs Creek flows through the center of or nearby each area. Contamination from pyrotechnic testing includes chlorates, dyes, oxidizers, fuels, and other by-products of flares and smoke. In addition, low-level radioactive material may be present in

the soils at the OTA Annex due to an accidental release of thorium in 1984. An RFI Workplan has been prepared for the site, but field work is not currently scheduled. In 2004, the site was declared ineligible for ER,N funding.

S. SWMU 20/00 CAAA QA/QC TEST AREA (CAAA)

QA/QC testing of pyrotechnics devices is conducted at Building 2167. Lead chromate contamination has been identified on the surface of the ground from testing MARK1-3 flares. There is an indication of stressed vegetation from past operations. An RFI for all media is not currently scheduled. In 2004, the site was declared ineligible for ER,N funding.

T. SWMU 21/00 DRMO STORAGE LOT (DRMO)

This SWMU is a level gravel pad which is approximately a 20 acre area. It is used as a scrap metal salvage area. Metal shavings containing cutting oil are placed on a pad, which collects the oil for recycling. Prior to the late 1960's the oil in metal shavings drained onto the ground in the area. An RFI for all media will be needed for this site. This RFI is not currently scheduled.

U. SWMU 22/00 LEAD AZIDE (PbA)

This SWMU is an unlined pond that received wastewater containing lead salts. The pond was closed in 1981, and contaminated effluent and soil were removed. An RFI is planned to address all media. This RFI is not currently scheduled.

V. SWMU 23/00 BATTERY SHOP (BS)

Spent battery acid and waste oil from forklift servicing was disposed by allowing it to flow down the hill onto a bank behind the Battery Shop, Building 36. Surface drainage from the bank flowed into a storm drain, which drains into Lake Greenwood. As an Interim Measure, surface debris was removed from the hillside and land filled as trash. An RFI Workplan is planned to address all media. This RFI is not currently scheduled.

W. SWMU 24/00 SLUDGE DRYING BEDS A & B (SDBA&B)

This SWMU consisted of cells that were used for sewage sludge drying prior to land application of the sludge. The sludge applied was apparently produced prior to the treatment system that is currently in place, and may have contained certain hazardous constituents from industrial effluent. As an Interim Measure, the sludge/soils of sludge beds A and B were characterized. Sludge bed A was considered not contaminated. A section of sludge bed B was contaminated with a slight amount of DDT. Under and IM, the entire sludge bed B area was excavated and removed including the chain link fence and concrete retaining walls. A request for an NFA determination was approved by the U. S. EPA on October 31, 2001.

X. SWMU 25/07D HIGHWAY 58 DUMP SITE A (H58A)

Debris at this site consists of paper; cardboard containers; empty containers of paints, thinners, lubrication and hydraulic fluids; scrap metal; concrete block; and transite. This site has undergone an IM partial debris removal. The debris was contaminated with asbestos, so was disposed as a special waste at an offsite permitted landfill. Debris removal was not completed due to concerns of undermining Highway 58. Site renovation included backfilling, seeding, and mulching to prevent soil erosion. An RFI will be conducted at this site to determine if further remedial action is needed. This RFI is not currently scheduled.

Y. SWMU 26/08D HIGHWAY 58 DUMP SITE B (H58B)

This is a dump site at the base of a massive sandstone outcrop (probable former quarry). The debris consisted of paper; cardboard containers; empty containers of paints, thinners, lubrication and hydraulic fluids; scrap metal containers and drums; corrugated pipe, and transite siding. Fifteen crushed and rusted drums (contents unknown) were seen at the site. An IM removed all of the waste down to bedrock, and a request for an NFA determination for soils was approved by the U. S. EPA on October 31, 2001. An RFI will investigate impacts to the ground water and the need for further remedial action. This RFI is not currently scheduled.

Z. SWMU 27/00 ILLUMINANT BUILDING B-126 (B126)

Contamination at this site includes red phosphorous, chlorates, dyes, oxidizers, and fuels for flares and smoke munitions. The building used sump pits which were pumped out by trucks and taken to the burning grounds. All sump overflows drained into the Boggs Creek watershed. A metal plating shop utilizing metals, caustics, acids, and cyanides is also present nearby. Significant heavy metal contamination (zinc and cadmium) has been experienced from wastewater being discharged into open ditches. There are also burn areas; one behind Building 126 and one across Highway 5. An RFI will investigate impacts to all media and the need for remedial action. This RFI is not currently scheduled.

AA. SWMU 28/00 MAINTENANCE SHOP, B-1820 (B1820)

This is an automotive repair shop. Adjacent to the building was a large metal drip pan on wooden posts, which drained into an underground waste oil storage tank. Waste oil from various drip pans and gallon jugs were emptied and washed in the metal drip pan. The ground beneath the unit was covered with oil stains. An RFI will investigate impacts to all media and the need for remedial action. This RFI is not currently scheduled.

BB. SWMU 29/00 PCP DIP TANK, B-56 (B56)

The PCP Dip Tank was used for dipping untreated wood into pentachlorophenol. The building also contains some solvent storage tanks. An RFI will investigate impacts to all media and the need for remedial action. This RFI is not currently scheduled.

CC. SWMU 30/00 LAND FARM (LF)

This SWMU consists of 18 miles of roadside where liquid sludge from the sewage treatment plant was land applied. The sludges were potentially contaminated with plating wastes. Sludge that accumulated was spread along 18 miles of roadside by a vacuum truck. Subsequently, NSWC Crane began land applying sludge on a permitted 2.5 acre site. Land application ceased in the late 1990s. An RFI to address the potential impact on the ground water was conducted. The field work was in the 2.5 acre Land Farm area. The results of this work would be used to determine the need for activity along the 18 miles of roadside. Ground water and soil/sludge samples were collected leading to the conclusion that no excess risk existed from the previous application of sludges. A request for a No Further Action was approved by the U. S. EPA on October 24, 2003.

DD. SWMU 31/00 COMPRESSED GAS CYLINDER SITE (CGC)

This was an abandoned compressed gas cylinder disposal area adjacent to Building 64. An interim removal measure remediated the site in 1990. Based on the currently available information no further corrective measures are required at this site.

EE. SWMU 32/00 TANK FARM

This site has had at least one release. The tanks were removed in the mid 1990s. An RFI to investigate all media is planned but not currently scheduled.

FF. SWMU 33/00 BIOREMEDIATION FACILITY (BRF)

This SWMU is an inactive treatment facility. The facility was decontaminated at the end of the CBF project. A statement of no further decontamination required was granted by the U.S. EPA on August 26, 2002.

GG. AOC 01/00 GRIT BLAST SITE - B3220 (GBS)

The unenclosed building, 3220, was used for grit blast removal of old paint from railroad cars. Waste material was allowed to fall on the ground contaminating the area. The waste material that was generated from the grit blasting consisted of residual grit blast material and paint chips that contained regulated chromium levels, and probably lead. A considerable amount of the waste material was placed together creating a non-permitted hazardous waste pile containing a DO07 waste. The waste pile has since been removed and a closure plan for the remaining area has been implemented. A Revised Draft Remediation Recommendations report was submitted to the U. S. EPA on February 05, 2007.

HH. AOC 02/00 B-2044 DROP TOWER/TEST RAIL (B2044)

Used from 1951 through 1973 for the drop testing of 20-mm cartridges as well as functional testing of cartridge actuated devices (CADs) and propellant actuated devices (PADs) used in ejection seats. The site consists of a drop tower approximately 100 feet tall and a test rail

approximately 97 feet in length. The 20-mm cartridges were dropped from the tower onto a concrete pad. The CADs and PADs were tested on the test rail. An RFI will investigate impacts to all media and the need for remedial action. A site investigation was conducted in 2007 under an approved workplan as UXO 5. An NFA request was approved by IDEM in March 2009.

II. UXO 6 TEST PADS ON HILL EAST OF B-198

This site is situated in the middle of a cleared woodland area east of B-198. Aerial photography indicates the existence of the clearing back to at least 1952. However, no documentation has been found indicating testing operations prior to the mid-1970s. From 1983 to 1985 the site was used for the development and testing of safe disposal methods for various types of dyes. Test procedures also indicate that a 2.75-inch colored target marker and an M18 smoke hand grenade were also tested at UXO 06. The site consisted of two circular sand covered test pads (approximately 21-feet in diameter) underlain with PVC drainage pipe leading to a small concrete holding tank (approximately 1,000 gallons). A site investigation was conducted in September 2009. No contamination was found and a request for NFA was approved by IDEM in September 2010.

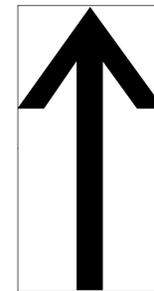
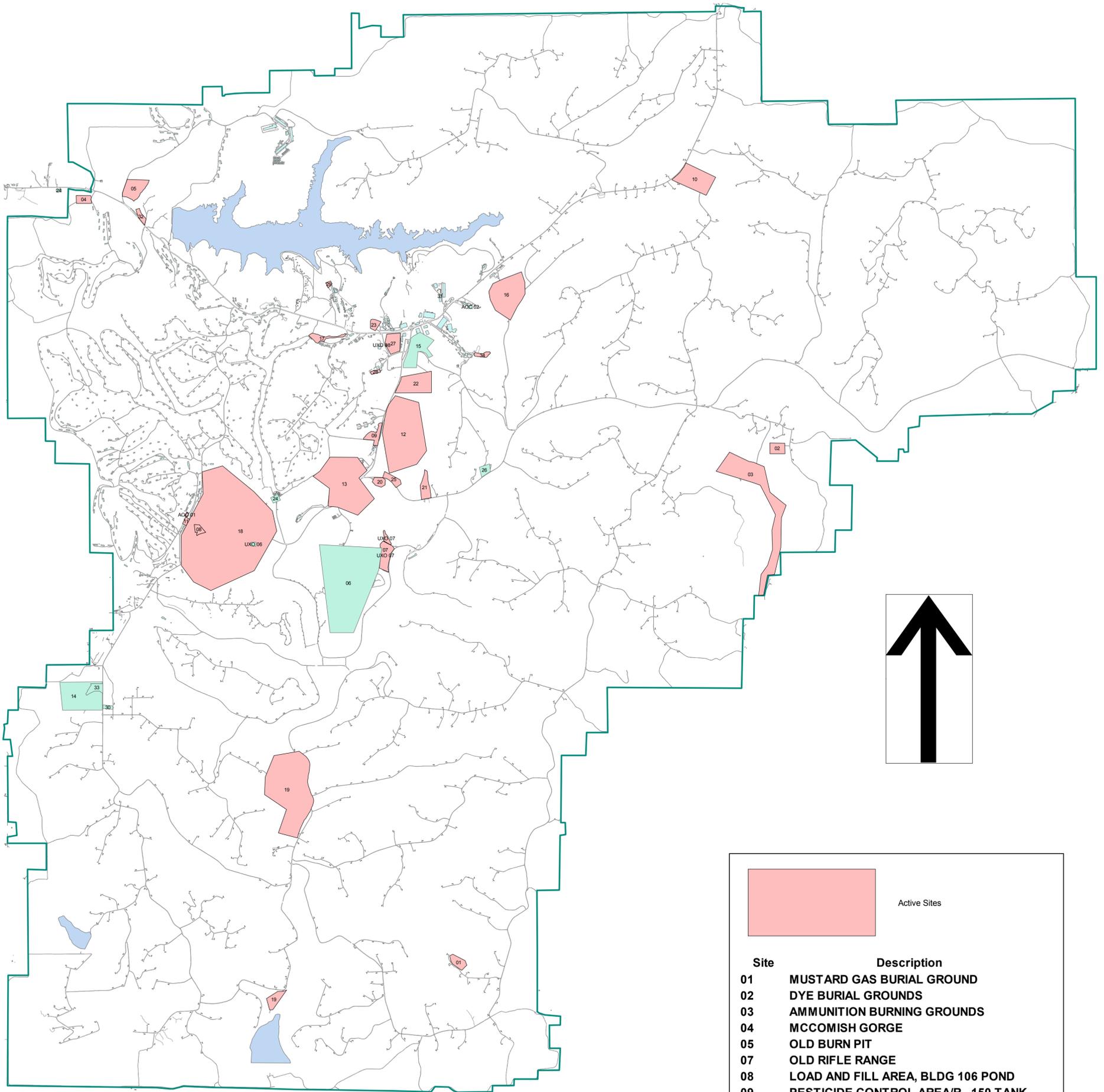
JJ. UXO 7 OLD RIFLE RANGE (RANGES AND BERMS)

UXO 7 consists of a 500-yard rifle range, a south pistol range, a north pistol range, trap range, and a skeet range. The area covered by the ranges is approximately 16 acres. Originally, UXO 7 was part of SWMU 7. However, changes to the Navy's Environmental Restoration program, including the standup of the Munitions Response Program led to the creation of a separate unit in order to address the ranges. In addition, an IM removal was conducted at the north pistol range [also known as the Old Pistol Range (OPR)] as part of SWMU 7. Under this IM, 290 tons of lead contaminated soil was removed from two backstops at the OPR. The additional ranges were investigated under the MRP in late 2007. In 2009, a draft of the UXO RFI report was submitted to the U.S. EPA and is currently under review.

KK. UXO 8 PYRO AREA TEST BURN PADS

UXO 8 lies within SWMU 27 west of B-126. Two square concrete basins that are approximately 5-feet deep and 6-foot across, were apparently used since the early 1950s to test various types of pyrotechnics. A site investigation was conducted in September 2009. Low levels of explosives were found in the residue in the concrete basins and RDX was detected at low concentrations in 1 subsurface soil sample outside the basins. In addition, low concentrations of Solvent Green 3 and Solvent Yellow 3 were detected in the basin residues and Solvent Green 3 was detected at low concentrations in one downgradient soil sample. An IM is proposed to removed the basins.

Solid Waste Management Units & Areas of Concern



Site	Description
01	MUSTARD GAS BURIAL GROUND
02	DYE BURIAL GROUNDS
03	AMMUNITION BURNING GROUNDS
04	MCCOMISH GORGE
05	OLD BURN PIT
07	OLD RIFLE RANGE
08	LOAD AND FILL AREA, BLDG 106 POND
09	PESTICIDE CONTROL AREA/R - 150 TANK
10	ROCKEYE
11	OLD STORAGE BLDG 225
12	MINE FILL A
13	MINE FILL B
16	CAST HIGH BLDG 146
17	PCB CAPACITOR BURIAL/POLE YARD
18	LOAD AND FILL AREA BLDGS
19	PYROTECHNIC TEST AREA
19	ROCKET RANGE
20	CAAA QA/OC TEST AREA
21	DRMO STORAGE LOT
22	LEAD AZIDE
23	BATTERY SHOP
25	HIGHWAY 58 DUMP SITE A
27	ILLUMINANT BLDG. 126
28	MAINTENANCE SHOP, BLDG. 1820
29	PCP DIP TANK, BLDG 56
32	TANK FARM
34	OLD GUN TUB STORAGE LOT
AOC 01	GRIT BLAST SITE (RCRA CLOSURE)
UXO 07	OLD RIFLE RANGE
UXO 08	PYRO AREA TEST BURN PADS

Site	Description
06	DEMOLITION AREA
14	SANITARY WASTE LANDFILL
15	ROADS AND GROUNDS AREA
24	SLUDGE DRYING BED B
24	SLUDGE DRYING BED A
26	HIGHWAY 58 DUMP SITE B
30	LANDFARM
31	COMPRESSED GAS CYLINDER SITE
33	BIOREMEDIATION FACILITY
AOC 02	B2044 DROP TOWER/TEST RAIL
UXO 06	TEST PADS ON HILL EAST OF B-198

