# Restoration Advisory Board Meeting -13 May 2003

## Naval Station Norfolk Installation Restoration Program

5/13/03 - 00961

# RAB Meeting Agenda

- TOPIC
  - Welcome & Introduction
  - Site Visit
    - Site 1 - Camp Allen Landfill
    - Site 22 - Camp Allen Salvage
    - Site 6 - CD Landfill
    - SWMU 14 - Q-50 Satellite Accumulation Area
    - Site 3 - Q Area Drum Storage Yard
- SPEAKER
  - John Ballinger- Regional Environmental Group
  - Don Joiner, Holly Rosnick, Ben Francisco, and Winoma Johnson

# FACT SHEET

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| **SITE:** | **CAMP ALLEN LANDFILL** |
| **SIZE:** | **45 ACRES - AREA A** |
| | **2 ACRES - AREA B** |
| **LOCATION:** | **NAVAL STATION NORFOLK** |
| **FUNDING:** | **LANTDIV RAC III, ERN FUNDS** |
| **NAVY RPM:** | **WINOMA JOHNSON** |
| **CONTRACTOR:** | **OHM** |

**PROJECT DESCRIPTION:**

Site 1, the Camp Allen Landfill includes two distinct areas (Area A, the 45-acre landfill, and Area B, the 2-acre landfill). Area A was used by the Navy from the 1940s-1974 to dispose of wastes such as metal plating solutions, parts cleaning sludges, paint stripper residue,and incinerator ash. Area B operated from 1971-1977 and contained drums from a fire that occurred in the Camp Allen Salvage Yard. Volatile Organic Compounds (VOCs ) and metals were detected in all media (soil, sediment, surface water and groundwater). The Camp Allen Groundwater Treatment Plant (CATP) was constructed to remediate the contaminated groundwater. The objective of the system is to hydraulically control the shallow and deep aquifers to prevent offsite migration of the impacted groundwater plume and to restore the contaminated aquifers. The overall design capacity for the CATP is 300 gallons per minute (gpm). The CATP is currently operating at 185 gpm. Components of the system are metals precipitation, solids filtering, air stripping, and carbon adsorption. A long-term monitoring program is in effect to evaluate the effectiveness of the remediation system.

**KEY MILESTONES:**

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| Area B Removal Action | November 1993 |
| Area A&B Decision Document | August 1995 |
| CATP Construction Completion: | May 1997 |
| CATP Operation: | November 1998 |
| Estimated Completion: | 2020 |

**KEY HIGHLIGHTS:**

* Achieved hydraulic control of groundwater plume
* Achieved forecasted schedule milestones
* Achieved forecasted budget
* 100% compliance with discharge requirements

**REMEDIATION RESULTS:**

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| Total Volume of Groundwater Treated: | 156 million gallons (August 2002) |
| Operational Uptime: | > 98% |

# FACT SHEET

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| **SITE:** | **Camp Allen Salvage Yard - Site 22** |
| **SIZE:** | **20 acres** |
| **LOCATION:** | **Naval Station Norfolk** |
| **FUNDING:** | **LANTDIV RAC III, ERN Funds** |
| **CONTRACTOR:** | **TMS Envirocon, Inc.** |

**PROJECT DESCRIPTION:**
The Camp Allen Salvage Yard (CASY) operated from the 1940s until 1995 salvaging and processing scrap materials generated at NSN. CASY activities have included storage and management of waste oils, used chemicals, and scrap industrial/commercial equipment. Metal smelting, various recycling activities, and miscellaneous burning also occurred at the CASY. In addition, the facility was used to store acids, paint thinners, solvents, pesticides, and transformers. Furthermore, a PCB spill occurred at the CASY in 1989 when a transformer was damaged by a forklift. The PWC responded to the spill and conducted a preliminary cleanup at that time. When operations ceased in 1995, the buildings, incinerators, and rail lines were demolished.

The initial remedial action began in August 1998 with the removal of PCB-contaminated soils. In addition, during 2001 the Navy began removal of isolated metals hot spot soils in conjunction with the ongoing PCB removal action. The hot spot and PCB-contaminated soil removal continued through 2001 with the ultimate excavation of more than 16,000 cubic yards of material. At present, the Virginia Department of Transportation (VDOT) has proposed a plan to connect the existing I-564 to the Norfolk International Terminals. This work will require that local utilities, Navy-owned ballfields, and rail lines be relocated impacting the Salvage Yard. As a result, the Salvage Yard will be covered and ballfields have been proposed for construction at the site to replace those demolished during the roadway rework.

Additional remedial actions at the site consist of a 1-foot-thick engineered cover to be placed over the soil of the salvage yard and the sediment in the pond area, as well as the implementation of controls to restrict access and use of the site. In addition, the storm sewer line that transects the site has be cleaned and repaired to prevent the migration of contaminants into Bousch Creek. The groundwater is being treated as part of the ongoing groundwater remedial action for the Camp Allen Landfill.

**KEY MILESTONES:**

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| Construction of the soil cover completed | July 2002 |
| Removal of sediment from culvert | July 2002 |
| Estimated Completion: | 2020 |

**KEY HIGHLIGHTS:**
* Achieved removal of soil exposure risks
* Achieved forecasted schedule milestones
* Use of on-site borrow material for use as backfill
* Soil stabilization conducted to reduce disposal costs

**FUTURE REMEDIAL ACTIONS:**
Covering of pond sediments

# FACT SHEET

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| **SITE:** | **CD Landfill - Site 6** |
| **SIZE:** | **22 Acres** |
| **LOCATION:** | **Naval Station Norfolk<br>Naval Exchange Area** |
| **FUNDING:** | **LANTDIV RAC III<br>ERN Funds** |
| **CONTRACTOR:** | **OHM** |

**PROJECT DESCRIPTION:**

The CD Landfill site is located just east of Hampton Boulevard and south of the Naval Exchange. The site incorporates two areas of landfilling operations – the easternmost (unpermitted) section and the western (permitted) section. The unpermitted portion of the landfill operated from 1974 to 1979 and was used for demolition debris and inert solid waste, fly ash, and incinerator residue. In October 1979, the Naval Facilities Engineering Command received a permit from the Virginia Department of Health to use the landfill (western portion) for disposal of demolition debris and other inert wastes. Blasting grit used for sandblasting cadmium-plated aircraft parts was deposited at the landfill until 1981 when the blasting grit was tested and found to exceed the toxicity limit for cadmium. The grit was classified as a hazardous waste and onsite disposal of the material ceased. Landfilling operations continued in the western portion of the site until 1987.

A Decision Document was prepared in October 1996 for the removal of contaminated sediments located in the drainage channel north of the site. In September of 1998, a Record of Decision was prepared for the design and construction of the landfill cap over the 22-acre site. Institutional controls were also implemented to restrict site access and future site uses.

**KEY MILESTONES:**

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|---|---|
| Removal of sediments | Fall 1997 |
| Completion of landfill cap | June 2000 |

**KEY HIGHLIGHTS:**

*Removal of contaminated soil and sediment exposure risk

**REMEDIATION RESULTS:**

Groundwater Clean Levels:

Concentrations of VOCs in the surface water and groundwater have been reduced to below detection limits.

# FACT SHEET

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| **SITE:** | **Q-50 Satellite Accumulation Area - SWMU 14/Q Area Landfill - Site 9** |
| **SIZE:** | **8 ACRES** |
| **LOCATION:** | **NAVAL STATION NORFOLK Carrier Pier Area** |
| **FUNDING:** | **LANTDIV RAC III ERN FUNDS** |

**PROJECT DESCRIPTION:**

The Q- 50 Satellite Accumulation Area (SWMU 14) is located in the northeast corner of NSN and consisted of a concrete storage pad surrounded by a grass-covered field. The pad served as a 90-day hazardous waste accumulation area where wastes generated through various waste streams were processed (sampled, identified, labeled, and packaged) before being shipped to eventual disposal. The original concrete pad for the accumulation area has since been removed. A new pad was installed west of the original location and is used for temporary storage of investigation-derived waste materials.

In addition to the accumulation area, the peninsula at Sewell's Point is a man-made landmass formed from two distinct periods of fill activities. The first landfill activities began in the early 1950s, when the channels were dredged to allow for construction of the northernmost series of piers at the site. The resulting dredge material was used to create much of the land at Sewell's Point. The second period of filling occurred between 1974 and 1978, when the eastern portion of the site was formed from the disposal of construction debris. This landfill was later designated as Site 9, the Q Area Landfill, and reportedly used for the disposal of non-hazardous construction debris. Because Site 9 and SWMU 14 are co-located, both are currently being evaluated as part of a remedial investigation.

**INVESTIGATION MILESTONES:**

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| Phase I Relative Risk Ranking Study | Completed January 1996 |
| Phase II Relative Risk Ranking Study | Completed December 1996 |
| SWMU Supplemental Investigation | Completed July 1998 |
| Additional Investigation - RI Phase I | Completed October 1999 |
| Geophysical Survey | Completed July 2000 |
| Supplemental Investigation - RI Phase II | Completed September 2000 |
| Additional Remedial Investigation - RI Phase III | Completed August 2001 |
| Ecological Investigation RI - Phase IV | Completed February 2003 |

**KEY HIGHLIGHTS:**

*Extensive delineation of site related contaminants in soil, groundwater, and lagoon sediments.

*Adequate data collected to perform comprehensive risk assessments.

**FUTURE REMEDIAL ACTIONS:**

Completion of Remedial Investigation Report with ecological and human health risk assessments.
Determination of and implementation of appropriate remedial action, if necessary
Estimated Completion: 2006

# FACT SHEET

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| **SITE:** | **Q Area Drum Storage Yard Site 3** |
| **SIZE:** | **5 ACRES** |
| **LOCATION:** | **NAVAL STATION NORFOLK Carrier Pier Area** |
| **FUNDING:** | **LANTDIV RAC III ERN FUNDS** |
| **CONTRACTOR:** | **OHM** |

**PROJECT DESCRIPTION:**

The Q-Area Drum Storage Yard (QADSY), shown above right, was previously a compound that occupied approximately 5 acres in the northwest corner of the Naval Station Norfolk (NSN) near the carrier piers. This area of the NSN was created by dredging operations in the early 1950s. The QADSY was an open earthen yard that was used from the 1950s until the late 1980s to store tens of thousands of drums. Most of the drums contained new petroleum products, various chlorinated organic solvents, paint thinners, and pesticides. A Remedial Investigation/Feasibility Study (RI/FS) for this site was completed in 1996. The RI/FS revealed soil contaminated with total petroleum hydrocarbons (TPH), Volatile Organic Compounds (VOCs), and pesticides. In addition, VOC contamination was found in onsite and offsite groundwater. The shallow groundwater beneath the hazardous materials (HM) area and the northern portion of the petroleum products (PP) area were the most severely affected. Some low VOC levels were also observed in the deep wells. This may be due to the lack of a confining layer between the two aquifers in this area. The general extent of the groundwater plume, which affects approximately 29 acres beneath the fleet parking area west of the site, has been defined with monitoring-well and direct-push groundwater sampling.

The Decision Document for the site was signed in November 1996 and called for remediation by air sparging and soil-vapor extraction (AS/SVE). The remediation system began operations in August, 1998. A long-term monitoring program is in effect to evaluate the effectiveness of the remediation system.

**KEY MILESTONES:**

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|---|---|
| AS/SVE Operation: | August 1998 |
| SVE System Terminated: | December 1999 |
| Estimated Completion: | 2006 |

**KEY HIGHLIGHTS:**

*Rapid System Optimization

*95% Reduction in VOC levels

**REMEDIATION RESULTS:**

Groundwater Clean Levels: Concentrations of TCE and PCE in all wells sampled are below cleanup levels.

Naval Station Norfolk
Installation Restoration Program

# COMMUNITY FACT SHEET

***February 2003***

## Introduction

The Department of Defense (DoD) investigates past hazardous and toxic materials storage and disposal activities at military installations under the DoD Installation Restoration Program (IRP). The mission of the program is to identify and clean up contamination resulting from formerly accepted use and disposal practices to protect human health and the environment.

## Implementation

Naval Station, Norfolk (NSN) in Norfolk, Virginia has been actively studying sites at the complex under the IRP since 1983. Since the implementation of the IRP, 170 sites have been considered under the IRP. Site descriptions and the current status of the twelve active sites (six with remedies, and three sites and three Solid Waste Management Units (SWMUs) under evaluation) are summarized herein.

## Site 1 Camp Allen Landfill (CAL)

CAL consists of two distinct areas (Area A, the 45-acre landfill, and Area B, the 2-acre fire disposal area). The Area A landfill operated from the mid-1940s until 1974 and was used to dispose of metal plating and parts cleaning sludge, paint-stripping residue, chlorinated organic solvents, expired chemicals, pesticides, asbestos, incinerator ash, bottom and fly ash from the Base power plant, and miscellaneous debris. Area B was used to dispose of wastes from a 1971 fire at the Camp Allen Salvage Yard (Site 22). Remedial activities at the site include a removal action that was completed at Area B in 1995 to remove the primary source of contamination as well as

the installation of a groundwater extraction and treatment system in both Areas A and B. The groundwater treatment system began operation in 1998 and remains active at this time.

## Site 2 Slag Pile

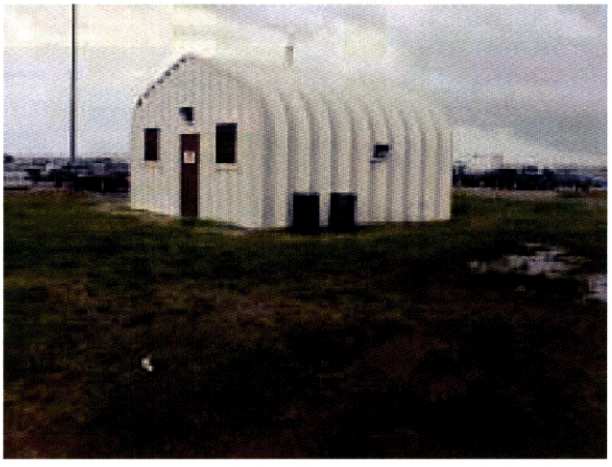
NM Slag Pile is a 1-acre disposal area for slag generated by an aluminum smelting operation during the 1950s and 1960s, which resulted in lead contamination in area soils.

In addition, fly ash and/or bottom ash was also used as fill material to create a level surface to deposit the slag. In 1999, contaminated sediments were removed from the drainage channel adjacent to the site. Addi-

tionally in 2000, soil and asphalt covers were placed over the extent of the site .

### Site 3 Q Area Drum Storage Yard (QADSY)

QADSY was a 5-acre open earthen yard used from the 1950s to late 1980s to store tens of thousands of drums containing new petroleum products, chlorinated organic solvents, paint thinners, and pesticides. In 1987, approximately 750 cubic yards of oil saturated soil was removed and this area of the site was paved. In addition, two air spage/soil vapor extraction systems were installed to treat separate source areas and prevent migration of site contaminants into the Elizabeth River. These systems began operation in 1998 and remain active.



### Site 6 CD Landfill

CD Landfill covers approximately 22 acres and incorporates two separate areas of landfill operation - the eastern section and western section. The eastern section of the landfill operated from 1974 to 1979 and was used for the disposal of demolition debris, inert solid waste, fly ash, and incinerator residue. In 1979 the Naval Facilities Engineering Command received a permit from the Virginia Department of Health (VDH) to use the western portion of the landfill for disposal of disposal of demolition debris and other inert wastes. Blasting grit was deposited in the western section of the landfill until 1981 when the grit was tested and found to exceed the toxicity limit for cadmium. Landfilling operations continued in the western portion of the land

fill until 1987. A selected amount of contaminated sediments was removed in 1997 and a cap was constructed in 1999. Post closure monitoring started in 2000.

### Site 18 Former NM Waste Storage Area

The Former NM Waste Storage Area consists of a open unpaved yard that was used from 1975 to 1979 to store drums of hazardous waste consisting of waste oil, metal plating solutions and sludges, chlorinated organic acids, and paint stripping solutions. Spillage of waste oil and hazardous wastes occurred during utilization of the site. The nature and extent of contamination at Site 18 is still under evaluation as part of the SI phase of the CERCLA process.

### Site 20 Building LP-20

Building LP-20 was used for aircraft engine overhaul and maintenance. Previous activitiesat the building included painting, x-ray facilities, as well as cleaning and blasting. Waste products from these activities were

transferred to the industrial wastewater treatment plant via underground piping. In addition, a large fuel storage area, known as the LP Fuel Farm, is also located south of the building. An underground fuel pipeline extends from the Fuel Farm to buildings east of

the site. From the 1940s to 1990s numerous spills or releases of wastewater and petroleum have been documented, with significant releases associated with damage to the underground wastewater lines during construction activities, and leakage of the underground fuel pipeline. An air sparge/soil vapor extraction treatment system was constructed in 1997 and began continuous operation in 1998.

### Site 22 Camp Allen Salvage Yard (CASY)

CASY operated from the 1940s to 1995 salvaging and processing scrap materials generated at NSN. Activities at the site included storage and management of waste oils, used

chemicals, and scrap commercial/industrial equipment. Metal smelting, various recycling activities, and miscellaneous burning also occurred at the site. Remedial activities began with a removal action conducted from 1998 to 2001 to remove PCB and metals contaminated soils. In the summer of 2002, a one-foot thick cover was placed over site soil Additional remedial action of the sediment in the pond is planned for 2003.

### Site 23 Building LP-20 Plating Shop

Building LP-20 Plating Shop and operated from 1956 until 1987 to clean and replate engine parts. The shop consisted of 6 stripping and plating tanks with associated underground piping to convey wastes to the industrial wastewater treatment plant. In 1989, the VDEQ conducted a site investigation that identified the shop tanks as a hazardous waste storage facility due to the presence of chemical solutions in the inactive tanks. Subsequent investigations determined that there was some soil contamination due to the previous plating activities. The shop has been partially closed under the Virginia Hazardous Waste Management Regulations (VHWMR) with the removal of the tanks and associated piping. This site was recently included in the IRP and is currently being evaluated.

### SWMU 12 - Disposal Area Near NM-37/SWMU 16 - NM-37 Accumulation Area.

SWMUs 12 and 16 are co-located adjacent to Building NM-37 and are being evaluated together under the CERCLA program. SWMU 16 was a Hazardous Waste Accumulation Area located northeast of building NM-37 that consisted of a metal container used to store fuel for mowers, oils, and hydraulic fluids. There is no history of releases associated with SWMU 16, however, areas of stressed vegetation were observed during previous site visits. Since initiation of the investigation, SWMU 16 has been demolished and replaced by a newer structure. SWMU 12 was initially identified from a 1958 aerial photograph as a possible disposal area (as indicated by ground surface scarring) surrounding building NM-37. These sites are currently being evaluated in the RI phase of the CERCLA process.

**SWMU 14 - Q-50 Satellite Accumulation Area/Site 9 - Q Area Landfill.**

SWMU 14 and Site 9 are co-located and are therefore evaluated together under the CERCLA program. The Site 9 landfill operated from 1974 to 1978 and was used to dispose of construction debris. These filling activities formed much of the Sewell's Point

peninsula. SWMU 14 consisted of a concrete storage pad that was constructed on top of the Site 9 landfill. The pad served as a 90-day hazardous waste accumulation area where wastes were processed (sampled, identified, labeled, and packaged) before shipping to eventual disposal. The original concrete pad for the accumulation area has since been removed. These sites are currently being evaluated in the RI phase of the CERCLA process.

## Restoration Advisory Board

NSN established a Restoration Advisory Board (RAB) to advise the support the NSN IR Program. NSN's RAB is comprised of Navy personnel, local, state, and federal officials, and community members. The RAB meets at regular intervals to review IR Program status and receive public comment.

## Community Relations

The Navy is in the process of updating their community relations plan for NSN. As part of this update, the Navy interviewed community members, local officials, and the media. The CRP and other IR Program documents are available for review at the library listed below.

## Information Repositories and Administrative Record

NSN has established an information repository so that the Base and the community have access to the IR Program documents. The information repository, listed below, typically contains study reports, fact sheets, brochures, letters, and other items of interest.

The information repository is different from the Administrative Record. The Administrative Record is the legal record of all the information reviewed and considered in order to propose site cleanup actions. The Administrative Record is available at the same location as the information repository.

Kirn Memorial Branch
Norfolk Public Library
301 East City Hall Avenue
Norfolk, Virginia 23510
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