



Restoration Advisory Board Meeting -11 May 2004

Naval Station Norfolk
Installation Restoration
Program

5/11/04-01150



RAB Meeting Agenda

- TOPIC
 - Welcome & Introduction
 - Status Of NAVSTA IR Program
 - Five-Year Review
 - Site-22 Camp Allen Salvage Yard
 - Project Status (Bousch Creek, Site 3, SWMUs 12/16, SWMU 14, Site 18, and Site 23)
 - Community Involvement Opportunities
- SPEAKER
 - John Ballinger- CNRMA
 - Winoma Johnson - LANTDIV
 - Winoma Johnson - LANTDIV
 - Don Joiner - Baker Environmental
 - Holly Rosnick - CH2M HILL
 - Channing Blackwell- CNRMA



RAB Meeting Agenda

- TOPIC
 - Comments/Announcements Of Future Meetings
 - RAB Meeting:
Tuesday, November 16, 2004, 6:30 PM
 - Closing Remarks
- SPEAKER
 - John Ballinger- CNRMA



Naval Station Norfolk





Status of Installation Restoration Program

Naval Station Norfolk



Naval Station Norfolk IR Program

- National Priorities List (NPL) - 4/97
- Federal Facilities Agreement (FFA) - 2/99
 - 170 Sites Investigated
 - 18 IR sites (10 clean up Req'd; 8 Institutional Controls)
 - 5 Site Screening Areas (5 SSAs)
 - 15 Areas of Concern (AOCs)
 - 132 Sites require No Further Action (NFA)



Naval Station Norfolk Partnering Team Members

- Channing Blackwell, CNRMA
- Winoma Johnson, LANTDIV
- Todd Richardson, USEPA
- Devlin Harris, VDEQ
- Holly Rosnick and Ben Francisco, CH2MHILL
- Don Joiner, Baker Environmental

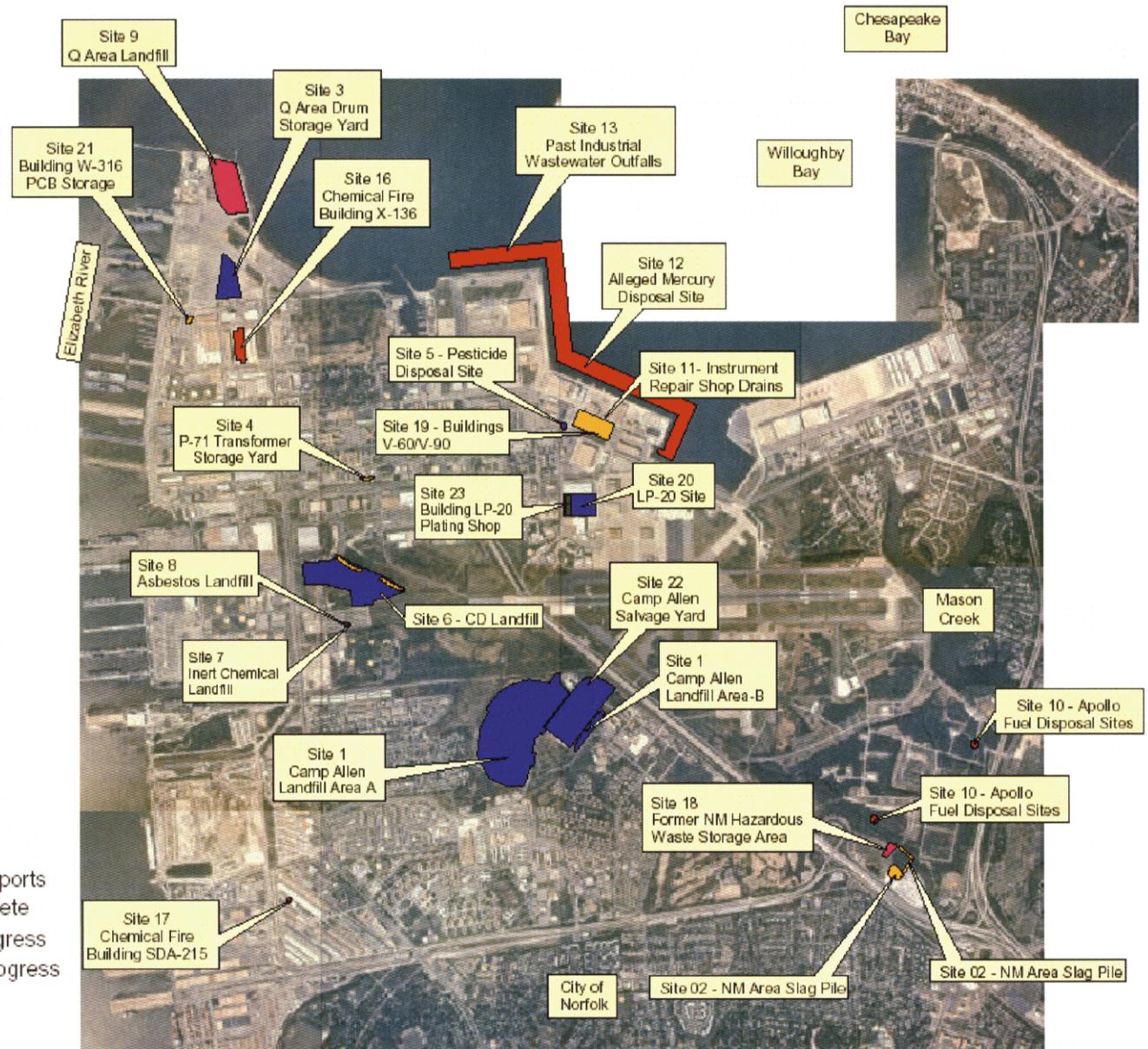


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Status of IR Sites

May 2004

- NFA Sites Per FFA Close-out Reports
- Remedial/Removal Action Complete
- Remedial/Removal Action in Progress
- Remedial/Site Investigation in Progress
- To Be Determined



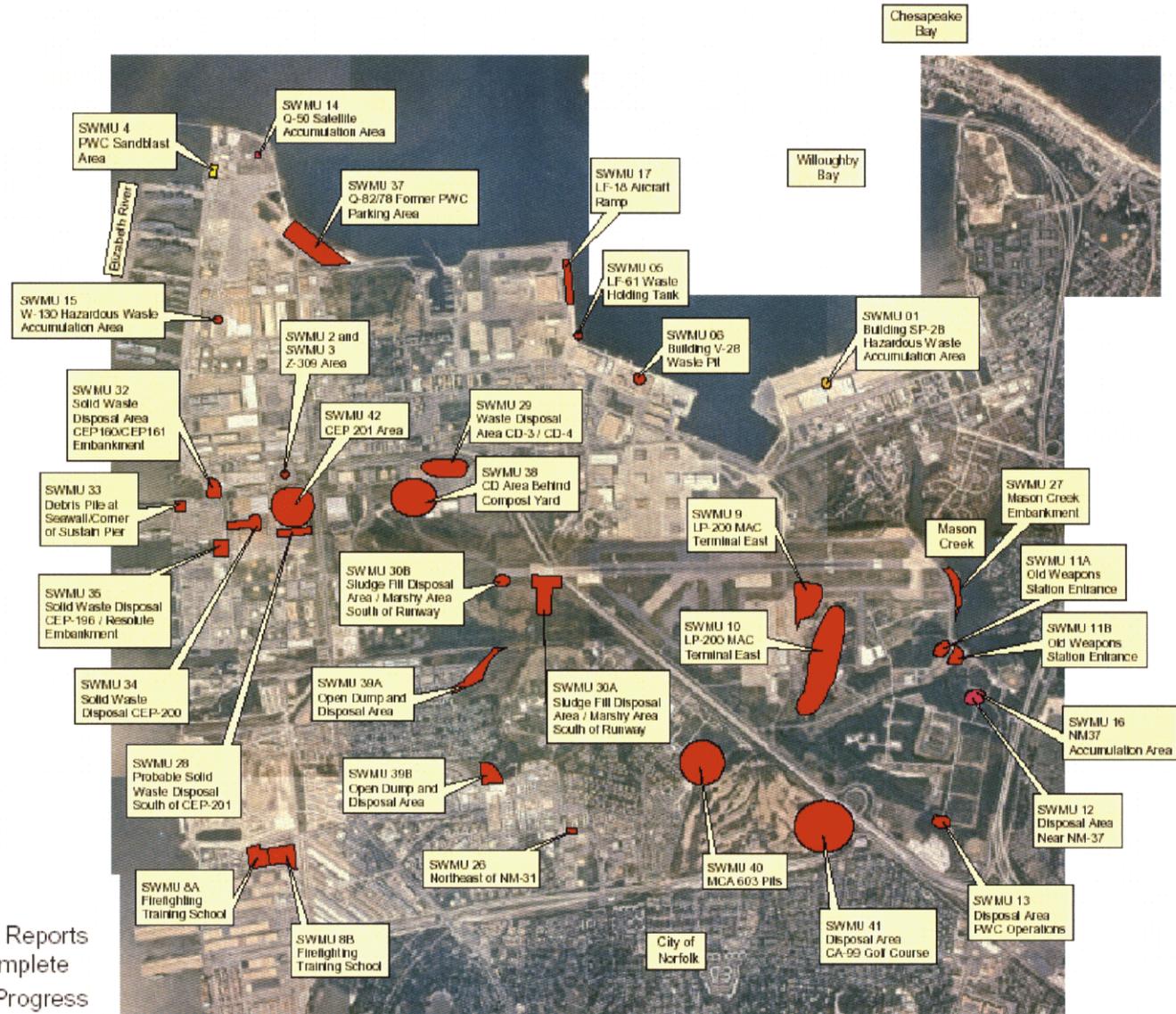
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Status of SWMUs

May 2004





Naval Station Norfolk IR Program

- Significant Accomplishments
 - 18 sites have been closed out through either remediation or Risk Assessment/Closeout reports since 1998
 - Of the 170 sites identified, only six additional sites which includes one new site (Site 23) will require further investigation
 - Innovative remediation technologies have included: air sparging, vapor extraction, dual phase extraction, soil stabilization
 - Use of on-site soils at CD Landfill remediation has resulted in savings of over \$300,000
 - Partnering with the regulators has reduced remediation costs by over \$3M and reduced the cleanup time by over 3 years



FY 2004 Goals

- Update 2005 Site Management Plan
- Finalize Ecological Risk Assessment (Step 3) for Bousch Creek
- Prepare Work Plan for additional ecological investigation of Bousch Creek
- Finalize Expanded Site Investigation for Site 18
- Finalize Remedial Investigation for SWMUs 12 and 16
- Prepare SWMUs 12 and 16 PRAP and ROD
- Finalize SWMU 14 Remedial Investigation



FY 2004 Goals

- Finalize RI Work Plan for Site 23
- Conduct investigation at Site 23
- Prepare Remedial Investigation for Site 23
- Finalize CASY PRAP and ROD



Specific Updates

Five-Year Review of Five Sites Undergoing Remediation

Naval Station Norfolk



Status of Five-Year Review

- Objectives
 - Review of remedial action sites that have restricted land use due to exceedance of acceptable risk-based levels
 - Meet CERCLA requirements for five-year reviews
 - Establish a five year review schedule for all remedial action sites
 - Evaluate the effectiveness of existing remedial action programs
 - Assess the effectiveness of existing long term monitoring programs



Status of Five-Year Review

- Five Sites Included:
 - Site 1 – Camp Allen Landfill
 - Site 2 – NM Area Slag Pile
 - Site 3 – Q Area Drum Storage
 - Site 6 – CD Landfill
 - Site 20 – LP 20 Site



Conclusions of Site Reviews

Site 1 - Camp Allen Landfill

- Groundwater extraction and treatment system is protective of human health and the environment
- Extraction system prevented migration of contaminant plume to residential areas
- Expanded treatment system to include new extraction wells to contain the plume north of the site
- Long-term monitoring has been effective in evaluating the performance of the groundwater extraction and treatment system

- Site 2 - NM Area Slag Pile

- Soil and asphalt covers are protective of human health and the environment
- Long-term monitoring has been effective in evaluating the protectiveness of the cover



Conclusions of Site Reviews

- Site 3 - Q-Area Drum Storage Yard
 - AS/SVE system is protective of human health and the environment
 - AS system achieved cleanup goals at AOC 1
 - Enhancement system downgradient AOC 1 in place to reduce VOC concentrations
 - AS system continues to remove VOC mass from groundwater at AOC 2
 - Long-term monitoring has been effective in evaluating the performance of the AS/SVE system



Conclusions of Site Reviews

- Site 6 - CD Landfill
 - Landfill cap and institutional controls protective of human health and the environment
 - Long-term monitoring has been effective in evaluating the protectiveness of the landfill cap
- Site 20 - Building LP-20
 - AS/SVE system protective of human health and the environment
 - Reduced VOC concentrations within the contaminant plume
 - Long-term monitoring has been effective in evaluating the performance of the AS/SVE system



Project Status

Site 22

Camp Allen Salvage Yard

Naval Station Norfolk



CASY Presentation Goals

- Update Site 22 project progress
- Describe Non-Time-Critical Action for sediments
- Review completed and remaining CERCLA documentation



CASY Remedial Timeline

- 1998 through 2001 Removal Action for PCBs and Metal Contaminated Soil - More than 15,000 cubic yards of soil removed from site
- 2002 – Placement of soil cover to reduce exposure to metals contamination
- 2003-2004 – Removal of contaminated sediment and placement of soil cover to reduce exposure to remaining contaminated sediment



2003-04 Sediment Removal Action

- July 2003 - Engineering Evaluation/Cost Analysis (EE/CA)
 - Addressed remaining contaminated sediment
 - Summarized studies, investigations, and performed an evaluation of alternatives
 - Presented the preferred action to the public as required by CERCLA and the National Oil and Hazardous Substances Pollution Contingency Plan
- July 2003 - Action Memorandum
 - Provided a concise written record of the action decision
 - Placed in Administrative Record at Kirn Memorial Library



2003-04 Sediment Removal Action



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2003-04 Sediment Removal Action

- Selected action is placing 1-foot soil cover over pond sediments to address ecological risk
- Minimize potential impacts to groundwater, surface water, Bousch Creek ecology from remaining sediments
- Removal action started in July 2003
- Camp Allen Elementary School & Navy Housing were notified



2003-04 Sediment Removal Action



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2003-04 Sediment Removal Action





2003-04 Sediment Removal Action





2003-04 Sediment Removal Action





2003-04 Sediment Removal Action





CASY Current Remedial Status

- Soils – work completed in 2002
 - Metals- and PCB-contaminated soils removed
 - Soil cover placed over remaining metals contamination
- Sediments - work completed in April 2004
 - Pose no threat to human health
 - Removal of 930 cy of contaminated sediment and placement of soil cover over remaining contaminated sediment
- Groundwater – to be completed
 - Will be addressed in a separate document through the CERCLA process



Completed CERCLA Documentation

February 2004 Proposed Remedial Action Plan (PRAP):

- Documents the following preferred remedial alternatives for Site 22
- Soil
 - Institutional controls
 - Land use controls
- Sediments
 - Institutional controls
 - Land use controls



Completed CERCLA Documentation

Site 22 PRAP

- PRAP completed February 2004
- Public comment period February 8 - March 7, 2004
- Public Meeting Held March 2, 2004
- No public comments received



Remaining CERCLA Documentation

Record of Decision (ROD) - Documents the following final remedial actions:

- Soil
 - Institutional controls
 - Land use controls

- Sediments
 - Institutional controls
 - Land use controls



Remaining CERCLA Documentation

ROD Schedule

- February 2004 - Draft ROD submitted to USEPA and VDEQ
- May 2004 – Finalize ROD
- June 2004 – Navy and USEPA sign ROD
- Future CERCLA documentation to address groundwater at Site 22



CASY Future Use

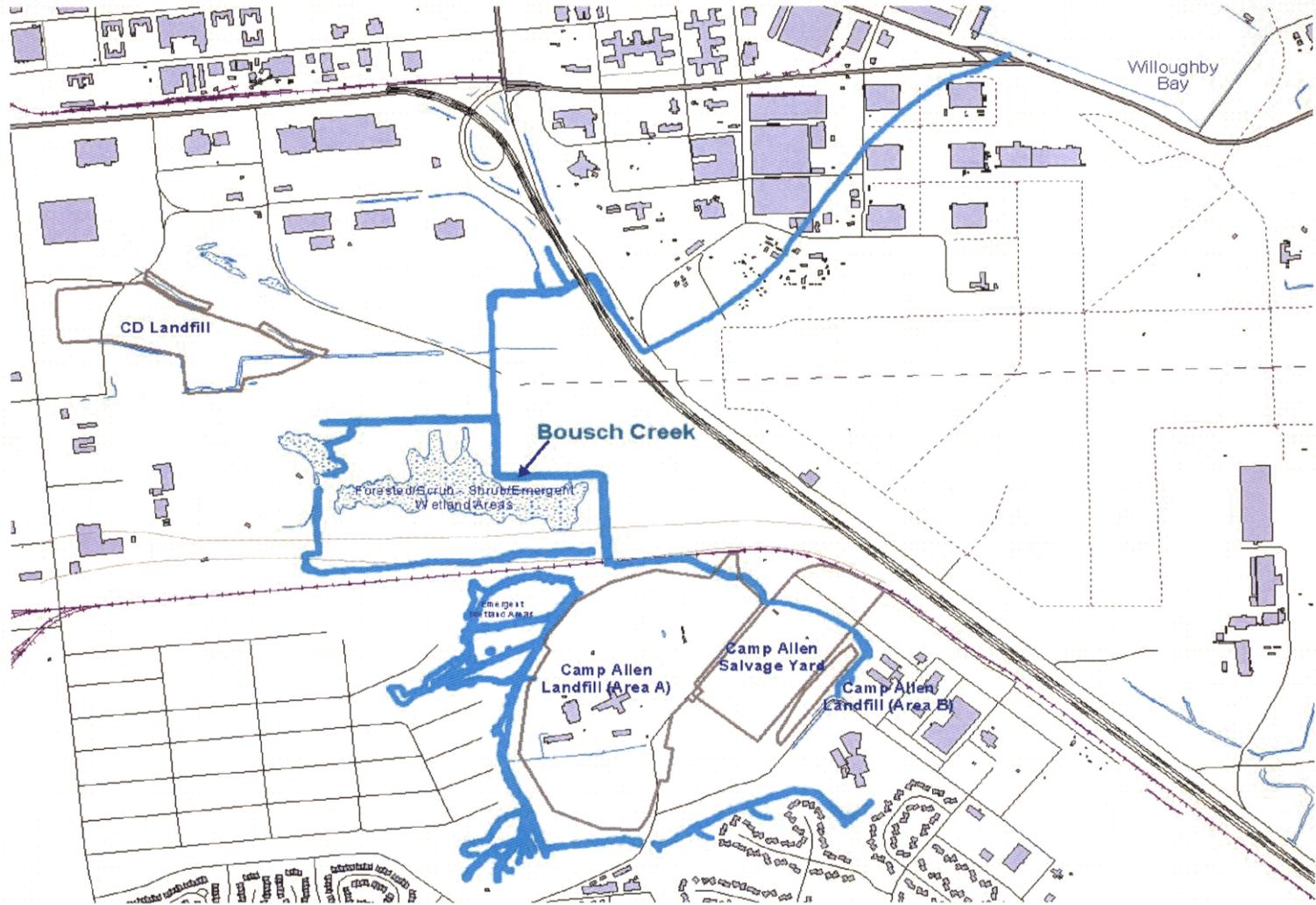
- 2005 VDOT wants to relocate Navy Fleet Recreational Park ballfields to the CASY
- Plans include ballfields, soccer fields, and other recreational facilities
- Navy plans to issue a real estate instrument (license) so that VDOT can relocate Fleet Rec Park



Project Status

Bousch Creek Ecological Risk Assessment (ERA)

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Bousch Creek ERA

- Bousch Creek is a creek system that flows through NSN adjacent to Camp Allen Landfill (CALF), Camp Allen Salvage Yard (CASY), and CD Landfill
- Creek has been channelized and flows through underground culverts over part of its length
- 29 outfalls discharge directly to Bousch Creek
- Completed first phase of the ERA in March 2004



Bousch Creek ERA

- Current Status:
 - Work Plan being prepared to detail additional ecological investigation activities to be conducted during the next phase of the ERA process



Project Status

Site 3

Q-Area Drum Storage, AOC 1

Naval Station Norfolk



Site 3



Site 3, Q-Area Drum Storage Area

01150A06Y



Site 3

- Background:
 - Site occupied approximately 5 acres and was created by dredging operations in the early 1950s
 - An earthen yard used from the 1950s until the late '80s to store thousands of drums containing petroleum products, chlorinated organic solvents, paint thinners, and pesticides
 - In November 1996, a Decision Document (DD) was signed to treat soil and groundwater and prevent offsite groundwater migration in two areas (AOC 1 and AOC 2)



Site 3

- Remedial action included installation of air sparge/ soil vapor extraction (AS/SVE) systems at AOC 1 and AOC 2
- Long-term monitoring (LTM) was implemented
- Operation of the AS/SVE systems began in August 1998
- Due to significant reduction of VOC concentrations within the first year of the operation, the SVE was shut down and the AS system was altered to a 2-week cycle of pulse pumping



Site 3 - AOC 1

- At AOC 1, one well (CMW-101) continues to show vinyl chloride concentrations exceeding cleanup goals
- In July 2002, the NSN Tier 1 Partnering Team proposed a AOC 1 closeout strategy and on April 2003, one additional AS well was installed to accelerate remediation at CMW-101
- Latest sampling (Aug 2003 and Feb 2004) showed reduced/stable concentrations of VC



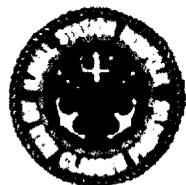
Site 3 - AOC 2

- At AOC 2, upgradient well CMW-202 continue to show TCE and VC concentrations exceeding cleanup goals
- Team currently evaluating options to determine if a closeout strategy is feasible



Site 3

- Current Status
 - AOC 1 Closeout Strategy being implemented and LTM to continue
 - AOC 2 continue LTM activities and further evaluation to determine feasibility of closeout strategies



Project Status

SWMUs 12/16

Disposal and Accumulation

Areas near NM 37

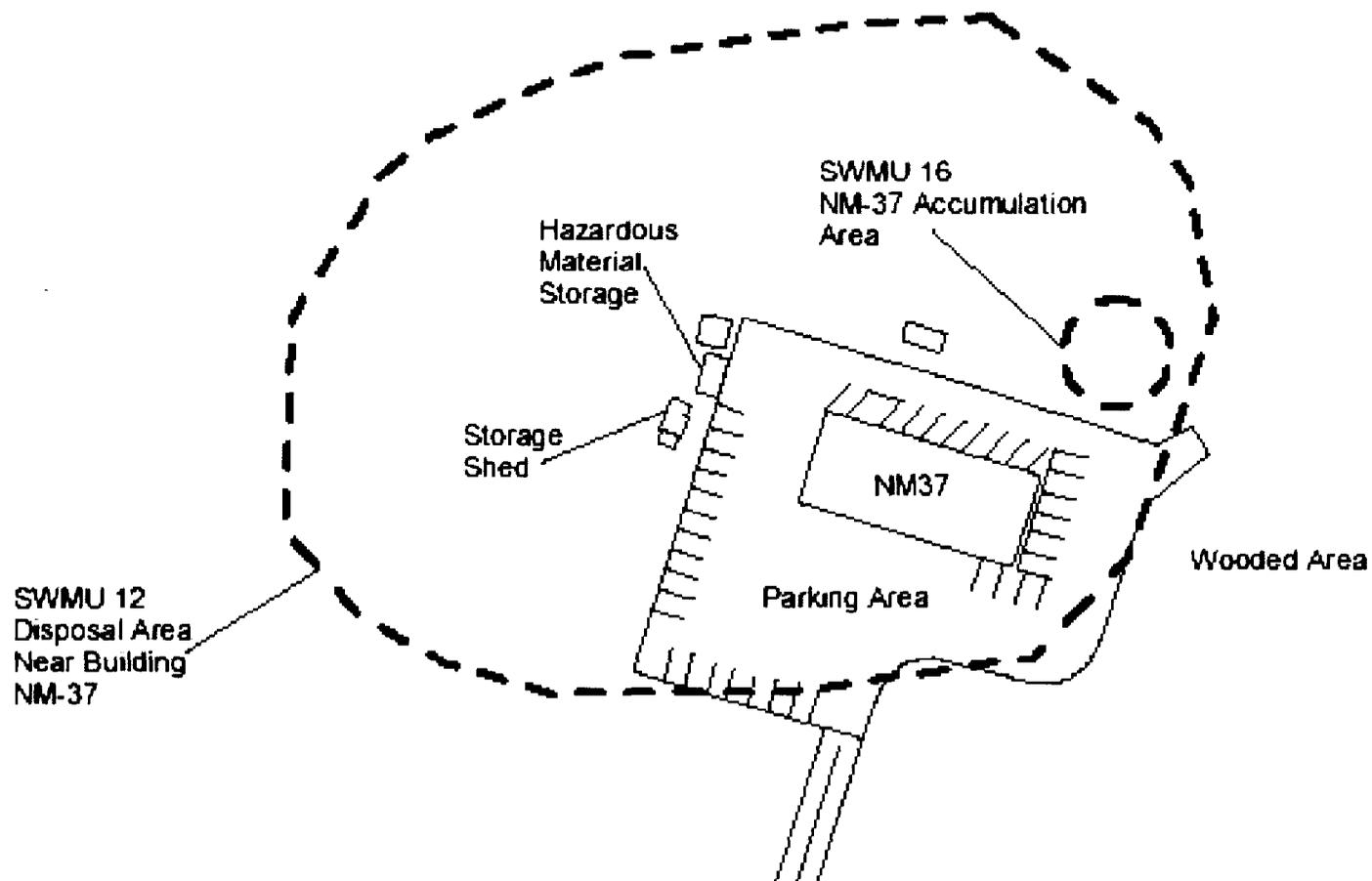
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SWMUs 12 & 16



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SWMUs 12 & 16

- Background:
 - SMWU 12 and SMWU 16 are co-located
 - SWMU 12 was a possible disposal area that was identified from a 1958 aerial photograph
 - SWMU 16 was a hazardous waste accumulation area
 - consisted of metal container used to store fuel for mowers, oils, and hydraulic fluids
 - no history of release, but stressed vegetation observed during previous site visits
 - since investigation, accumulation structure has been demolished and replaced with newer structure



SWMUs 12 & 16

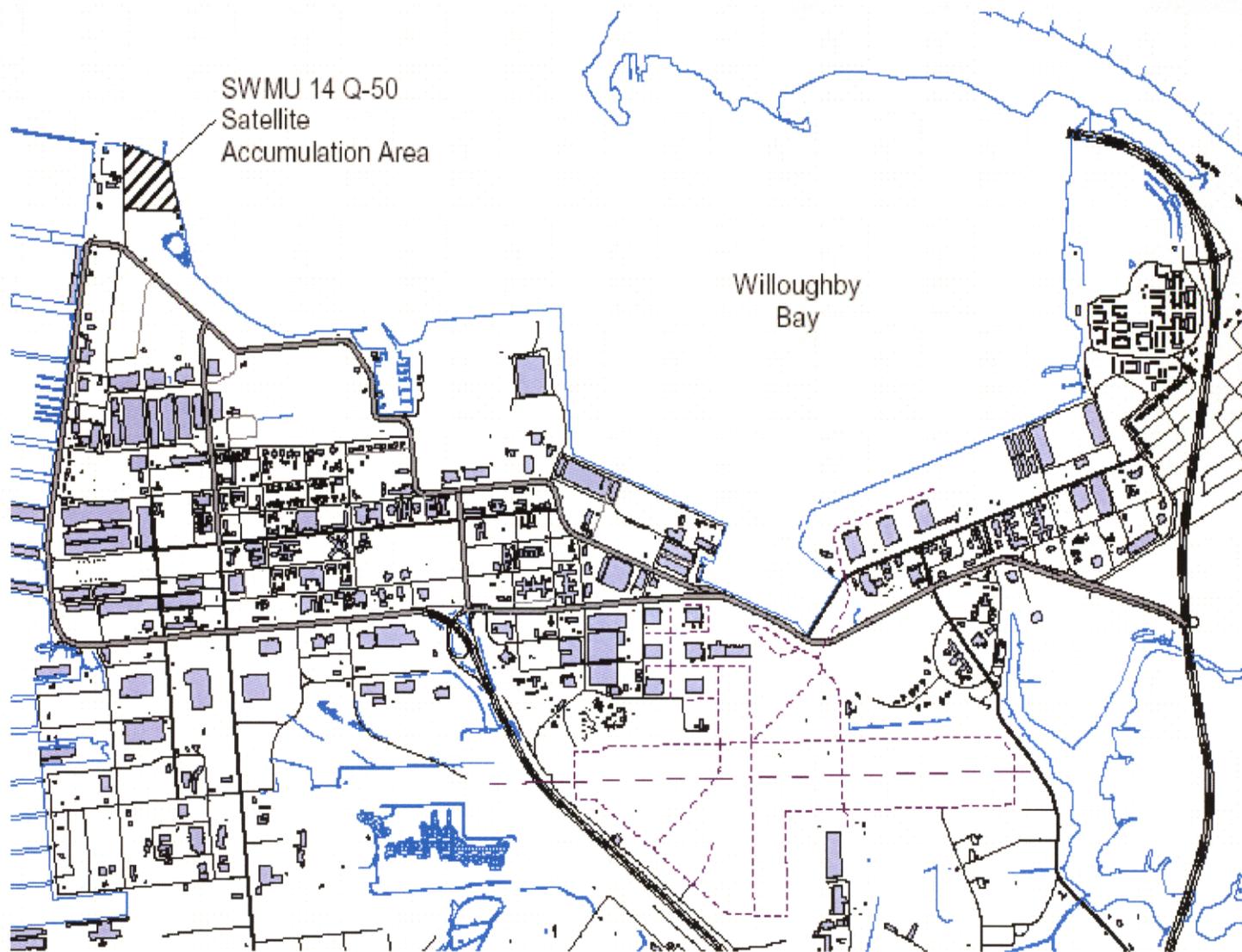
- Current Status:
 - Team agreed to No Further Action (NFA)
 - Finalizing Remedial Investigation
 - NFA PRAP and ROD to be prepared



Project Status

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

Naval Station Norfolk



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SWMU 14

Q-50 Satellite Accumulation Area





SWMU 14/Site 9

- Background:
 - SWMU 14 and Site 9 are co-located
 - Site 9 landfill operated from 1974 to 1978 to dispose of construction debris
 - These filling activities formed much of 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 accumulation area where wastes were processed before shipping for disposal
 - Pad has subsequently been removed



SWMU 14/Site 9

- Current Status:
 - Remedial Investigation currently being finalized
 - Work Plan being prepared to detail additional ecological investigation activities to be conducted



Project Status

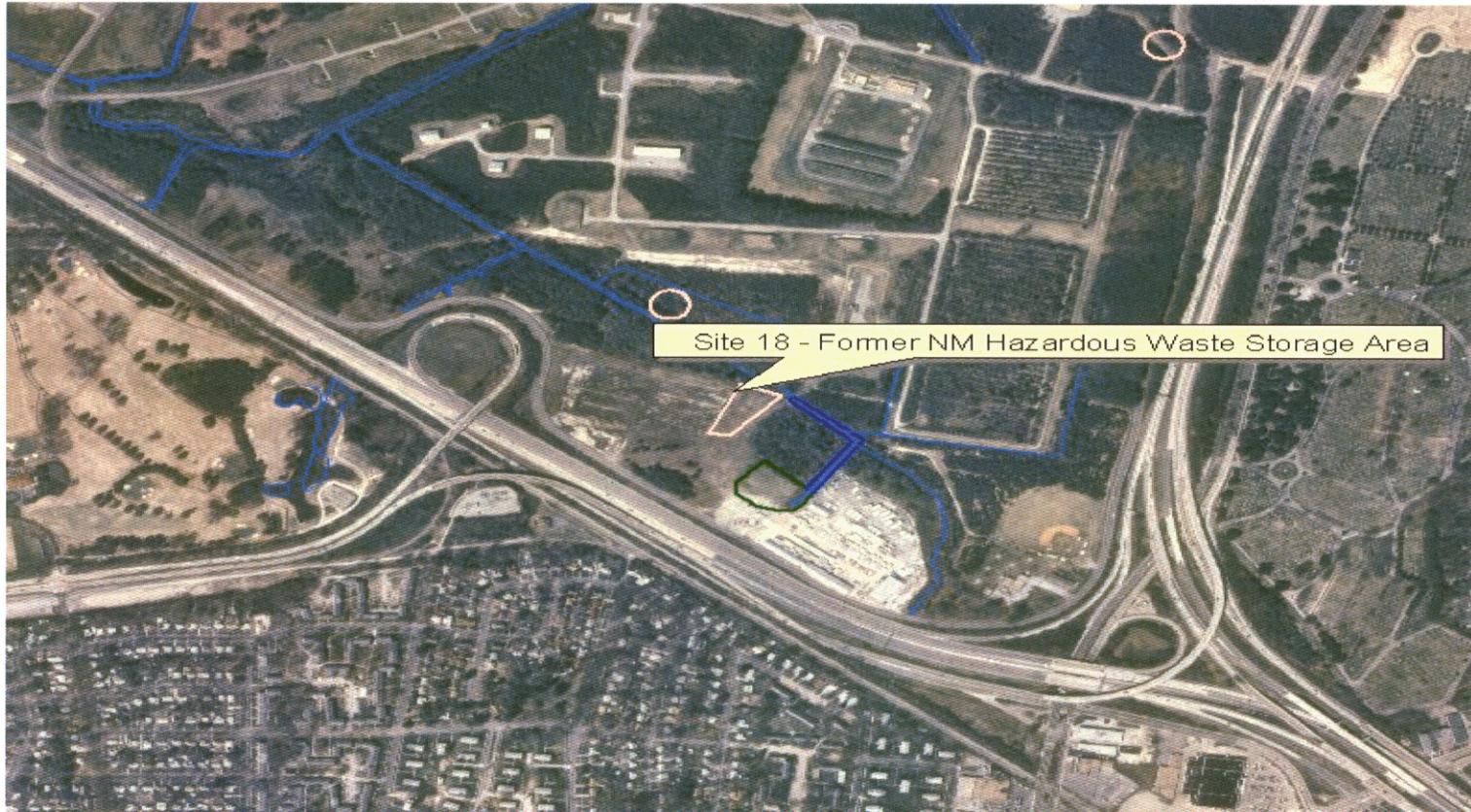
Site 18

Former NM Waste Storage Area

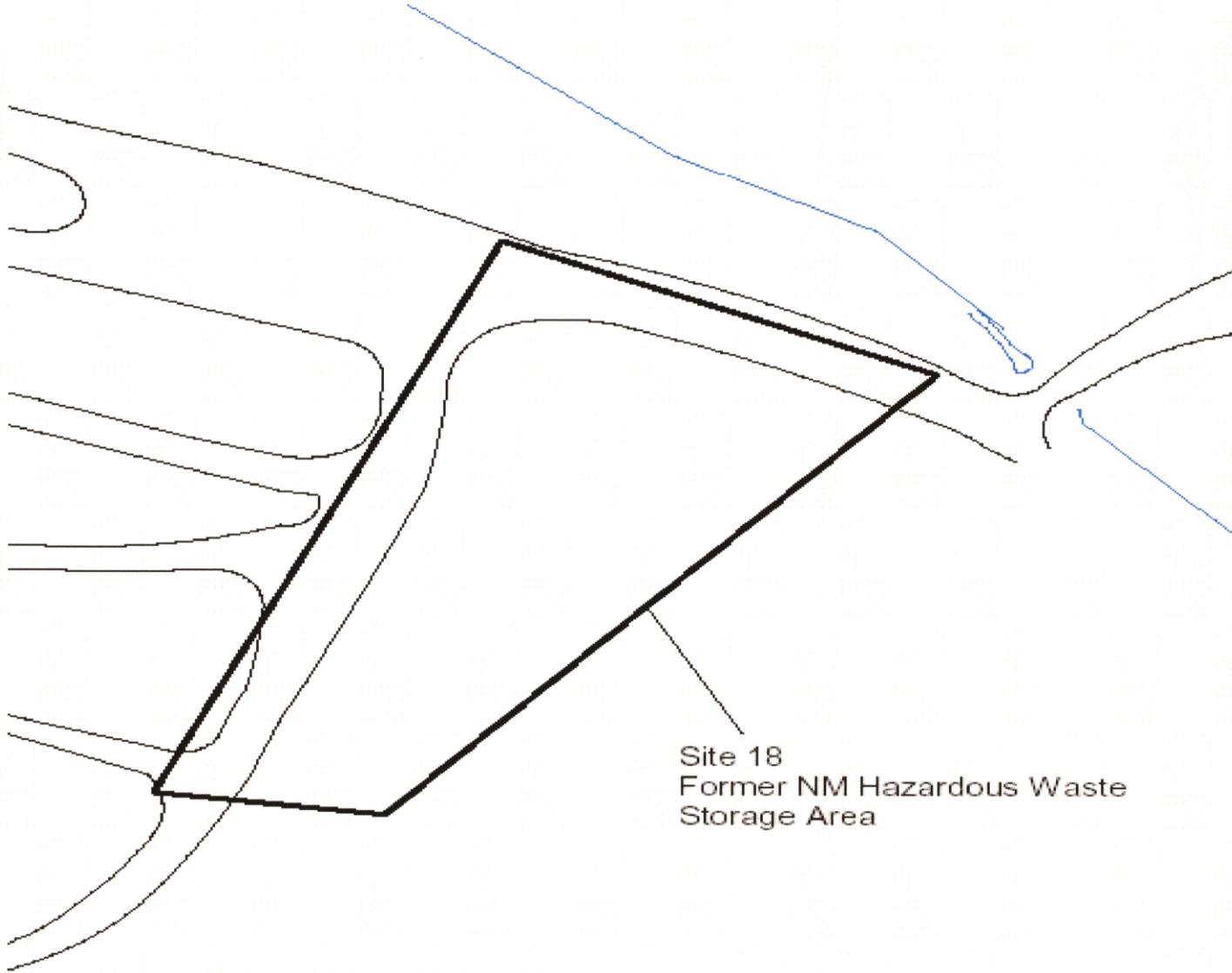
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Site 18



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Site 18
Former NM Hazardous Waste
Storage Area



Site 18

- Background:
 - Open unpaved yard that was used to store drums from 1975-1979
 - Drums contained 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



Site 18

- Current Status:
 - Work plan being prepared to detail additional investigation activities to further characterize localized groundwater VOC area

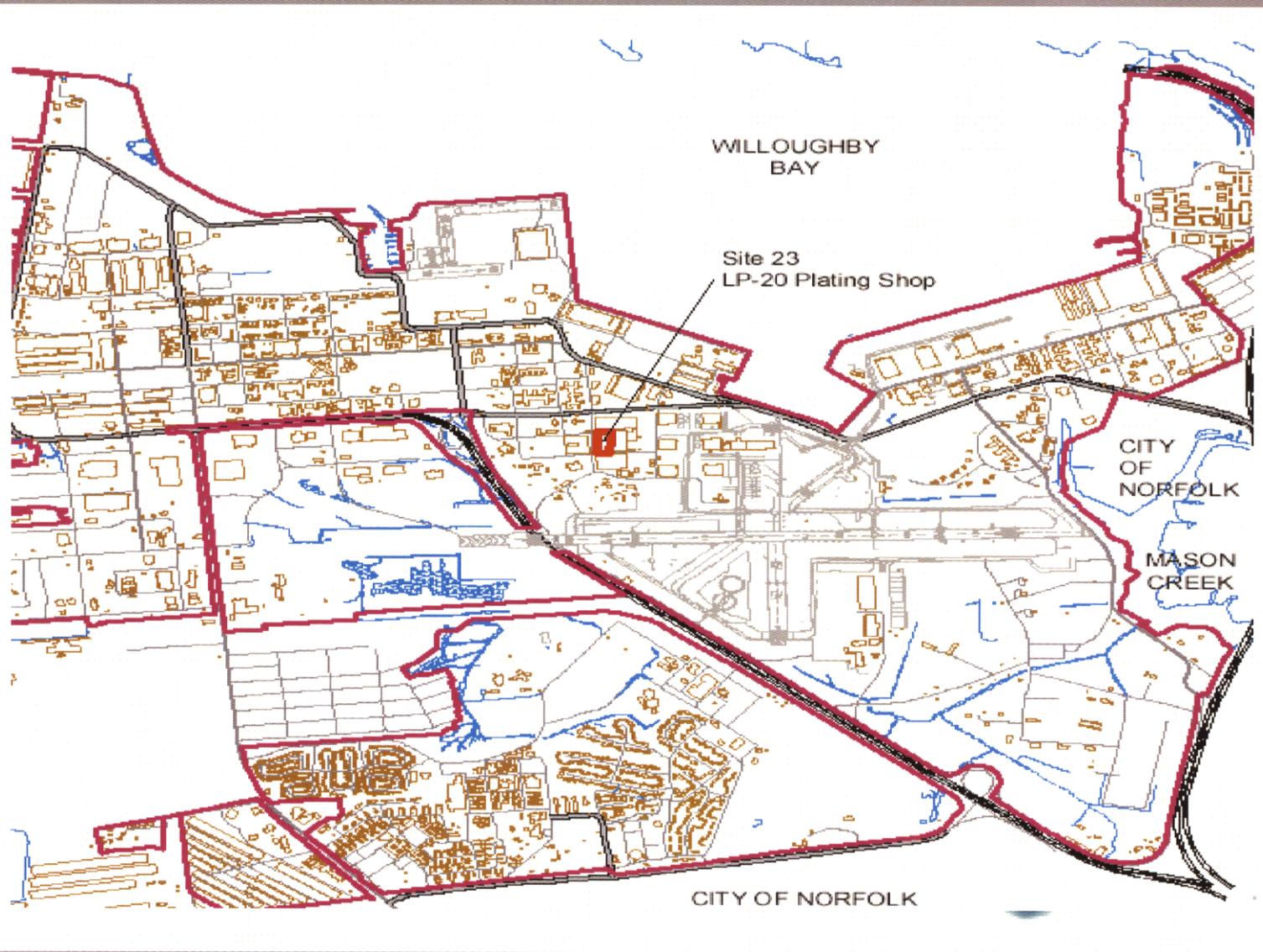


Project Status

Site 23

LP-20 Plating Shop

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Site 23

- Background
 - Site 23 is contained within Building LP-20
 - Building LP-20 currently used as a motor pool and office space; Plating Shop is currently not used
 - Plating Shop contains 7 process pits previously used for cleaning, stripping, and plating engine parts
 - Shop contains drainage system for collection of wastewater from pits and delivery to the Industrial Wastewater Treatment Plant
 - In August 2002, DEQ approved Navy request to transfer the Plating Shop from RCRA to CERCLA



Site 23

- Current Status:
 - Currently preparing work plan to detail the CERCLA investigation activities



Community Involvement Opportunities

Naval Station Norfolk



Community Involvement Opportunities

- The Administrative Record is available at Kirn Memorial library
- Fact sheets completed for Community Relations Plan and the Five-Year Review



Community Involvement Contacts

Commander Navy Region Mid-Atlantic
9742 Maryland Avenue
Norfolk, VA 23511-3095
Attention: Community Outreach
Coordinator
Mr. John Ballinger
(757) 433-3443

Remedial Project Manager
USEPA, Region III (3HS13)
1650 Arch Street
Philadelphia, PN 19103
Attention: Mr. Todd Richardson
(215) 814-5264

Commander, Atlantic Division
Naval Facilities Engineering Command
1510 Gilbert Street (Bldg. N-26)
Norfolk, VA 23511-2699
Attention: Public Affairs Officer,
Mr. John E. Peters
(757) 322-8005

Virginia Dept. of Environmental Quality
Federal Facilities Program
629 East Main Street, 4th Floor
Richmond, VA 23240-0009
Attention: Mr. Devlin Harris
(804) 698-4226

Comments/Announcements

Closing Remarks