

Remediation and Redevelopment at the Former Fort Devens, Massachusetts, USA



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Former Fort Devens Site Description

- ◆ 9,280 acres divided into North, South and Main Posts
- ◆ Located in the towns of Ayer, Shirley, Lancaster and Harvard, MA
- ◆ Established in 1917 for training soldiers in the New England area
- ◆ Peak population during WWII of 65,000
- ◆ Operated as an Army base for over 70 years

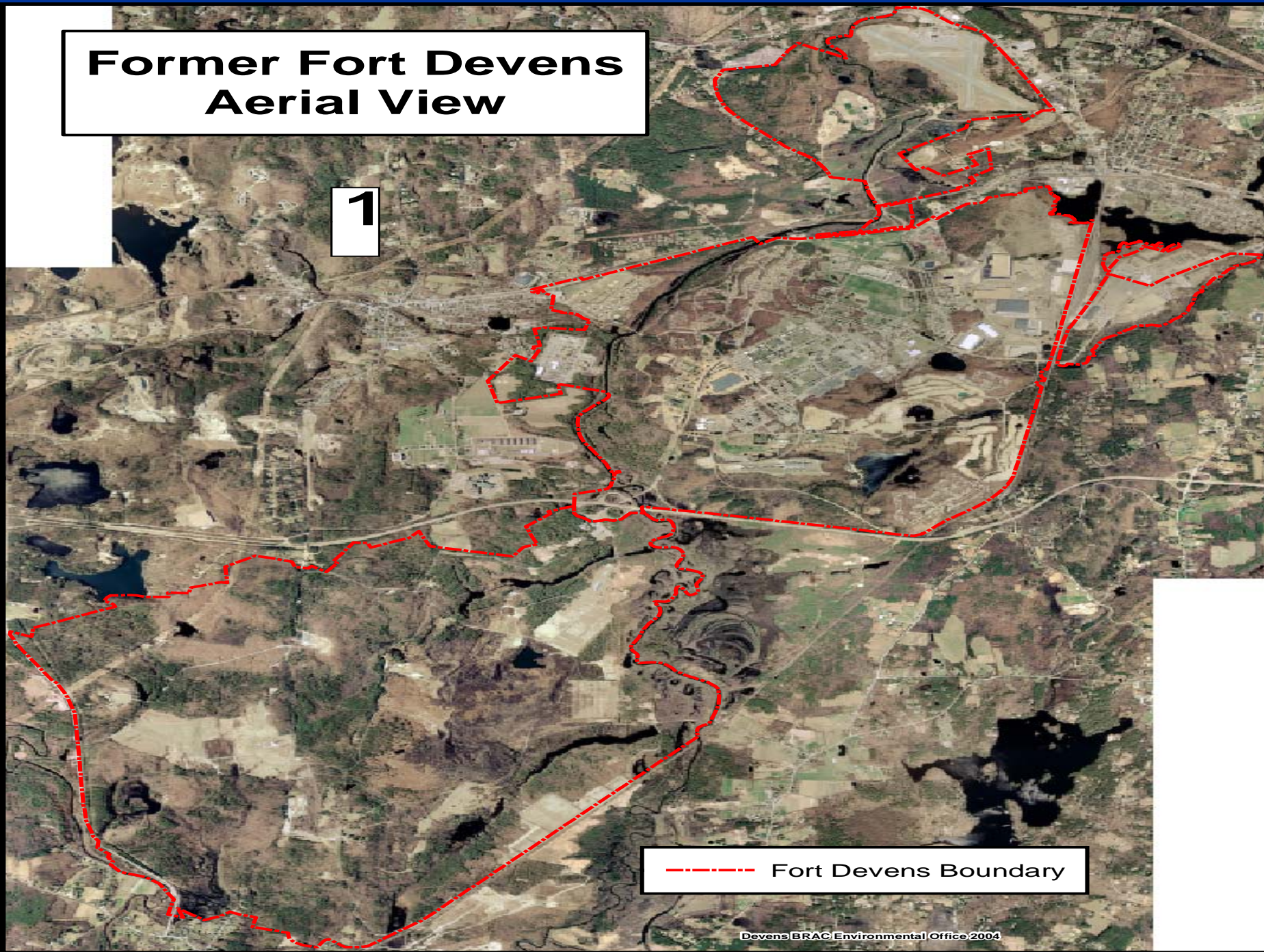
Former Fort Devens Site Description (cont.)

- ◆ December 1989 – Fort Devens listed on the National Priority List (Superfund Site)
- ◆ July 1991 – North and Main Posts were slated for closure and South Post for realignment under the Defense Base Realignment and Closure Act (BRAC)
- ◆ March 1996 – Fort Devens closed; remaining Army properties assimilated by the Devens Reserve Forces Training Area
- ◆ Closure Impacts – 7,500 jobs lost; \$260 M in annual wages lost; \$455 M in lost business annually

Former Fort Devens Aerial View

1

--- Fort Devens Boundary

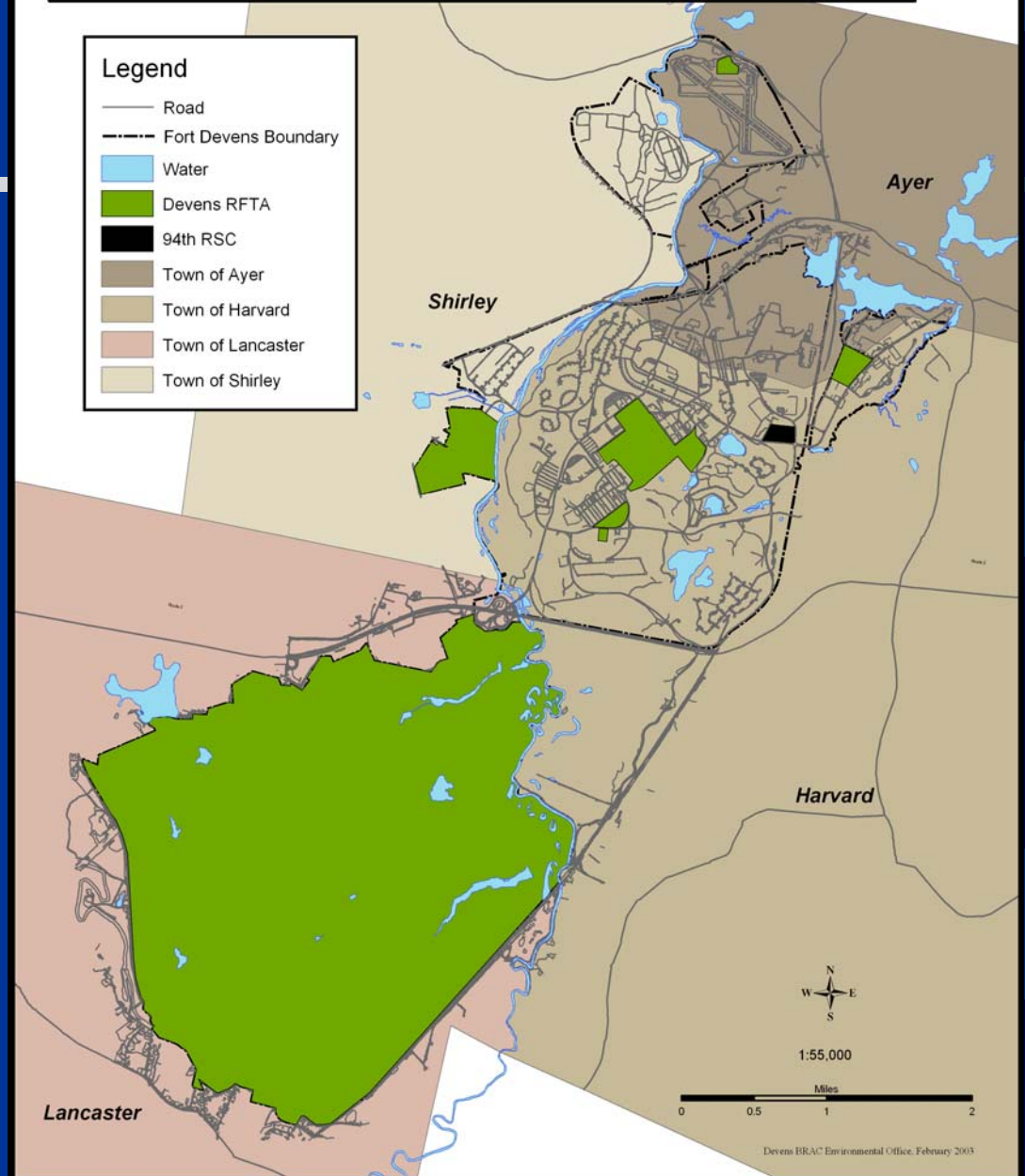


Devens Reserve Forces Training Area (DRFTA)

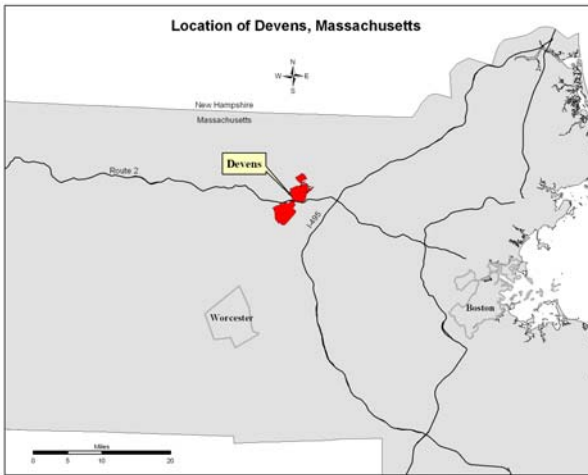
Devens Reserve Forces Training Area (DRFTA)

Legend

- Road
- - - Fort Devens Boundary
- Water
- Devens RFTA
- 94th RSC
- Town of Ayer
- Town of Harvard
- Town of Lancaster
- Town of Shirley



Location of Devens, Massachusetts



Environmental Conditions at Fort Devens

- ❖ 324 sites identified for environmental evaluation, including:
 - 69 Former Storage Tanks
 - 60 Maintenance & Waste Accumulation Areas
 - 48 Spill Sites
 - 18 Former Fueling Stations
 - 7 Electrical Transformer Leaks
- ❖ Over 300 Sites addressed in 21 Records of Decision and 113 No Further Action Decision Documents (signed by Army, EPA and State)

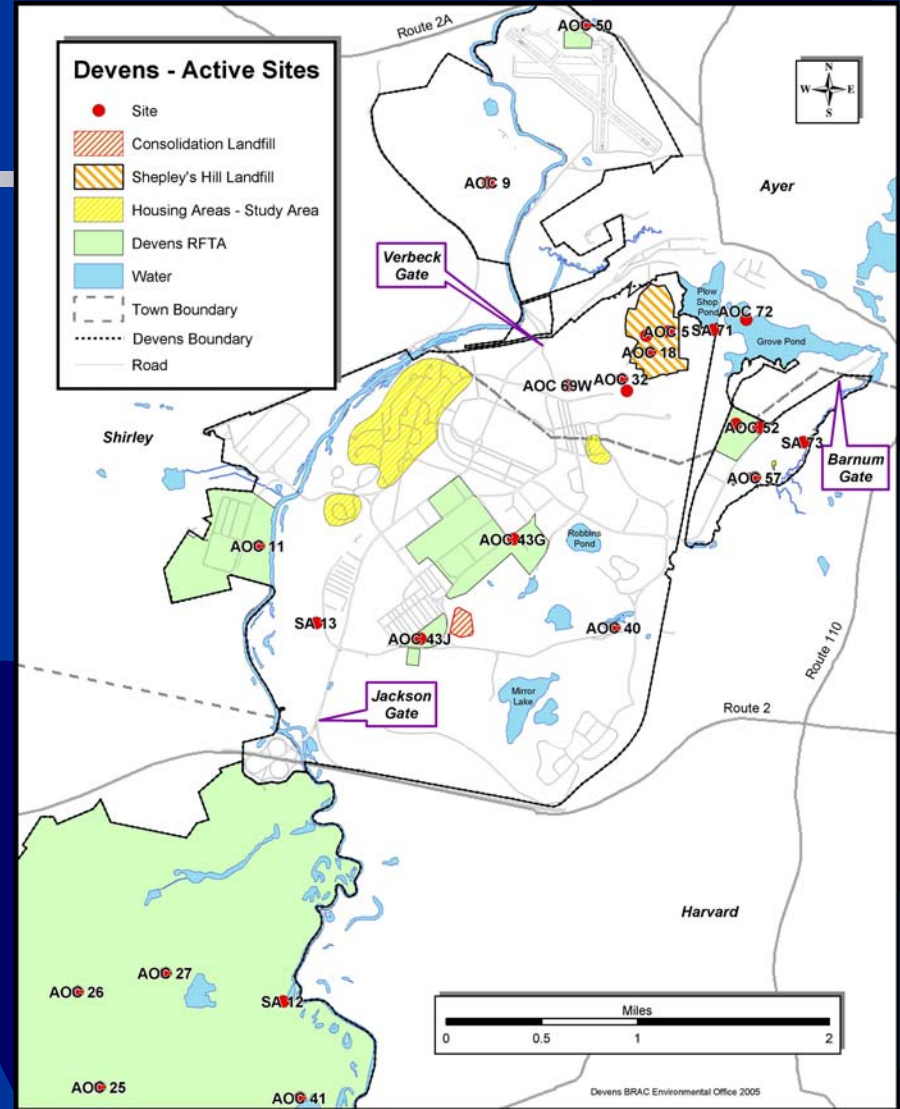
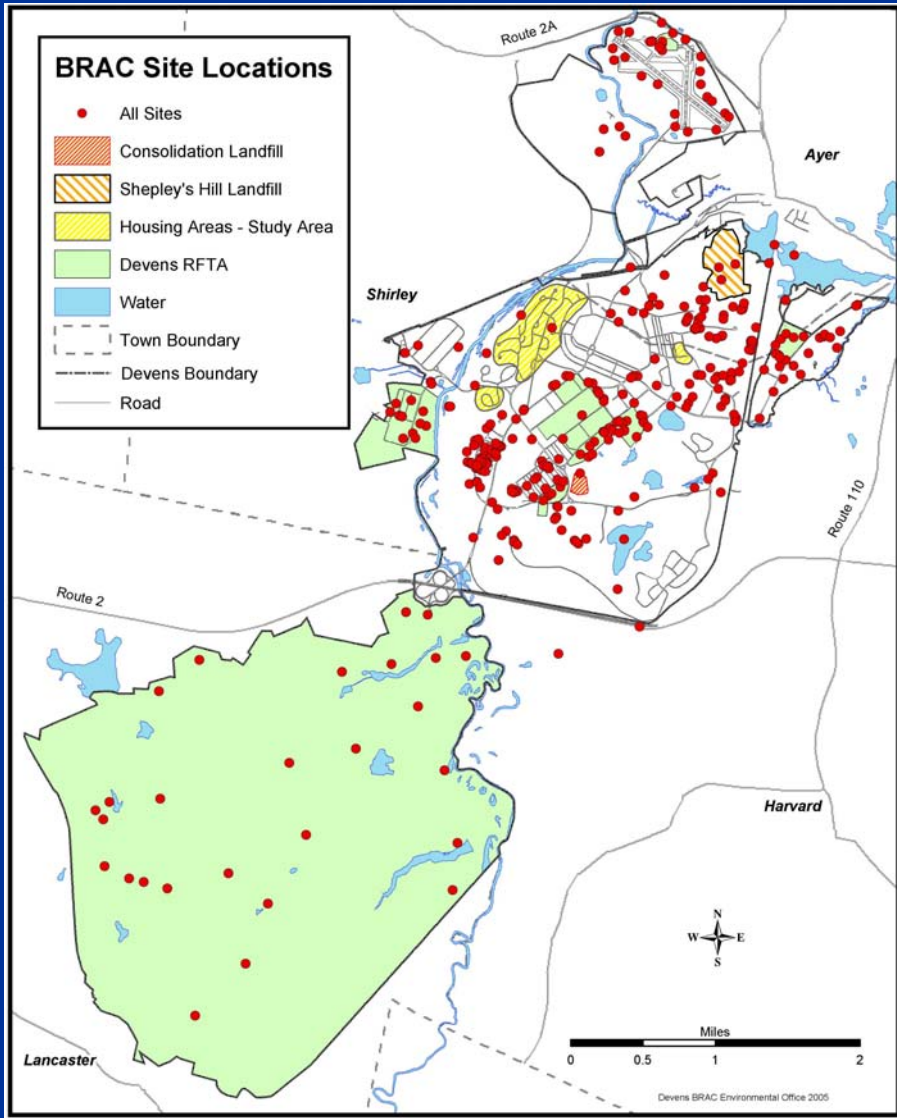
Environmental Conditions at Fort Devens (cOnt.)

- ◆ Contamination of soil and groundwater at numerous areas throughout the site
- ◆ Contaminants of Concern include:
 - Arsenic
 - PCBs
 - PAHs
 - Tetrachloroethylene
 - Unexploded Ordinance (UXO)
 - Petroleum/Fuels/Oils

Environmental Conditions at Fort Devens (cont.)

- ◆ Environmental remediation projects include:
 - Removal of Soil Contaminated by Fuel and Oil, Pesticides, Chlorinated Solvents, Etc.
 - Removal and Recycling of Construction Debris
 - Landfill waste consolidation
 - In-Situ Treatment via Reduction of Chlorinated Solvents in Groundwater
 - Restoration of Wetlands
 - Long-Term Monitoring of Groundwater
 - Groundwater Pump and Treat

Site Locations



Former Fort Devens Reuse and Redevelopment Planning

- ◆ In 1991, Fort Devens slated for realignment and closure - reuse planning begins
- ◆ In 1994, the State of Massachusetts passes legislation:
 - Creating the Devens Regional Enterprise Zone;
 - Establishing the Devens Enterprise Commission – public agency responsible for permitting redevelopment projects – one stop permitting guaranteed in 75 days;
 - Empowering MassDevelopment, a quasi-public Redevelopment agency, to oversee redevelopment planning and implementation;
 - Authorizing MassDevelopment to issue bonds and to borrow up to \$200 million to redevelop the site; and
 - Establishing incentives to stimulate private sector redevelopment

Devens Reuse Plan

- ◆ MassDevelopment worked with the public and town representatives and, in 1994, the Devens Reuse Plan was prepared.
- ◆ The Reuse Plan focused on sustainability, protecting existing natural ecosystems and working within the confines of known environmental conditions.
- ◆ Devens Reuse Plan
- ◆ The Reuse Plan provided critical future use decisions up front which facilitated remediation of contaminated sites.

Devens By-Laws

- ◆ In 1994, the Devens By-Laws were issued.
- ◆ The By-Laws built upon the sustainability goals of the Reuse Plan.
- ◆ The principles of sustainability were woven into the By-Laws through:
 - Zoning, density, dimensional requirements;
 - Floodplain, water resource, historic district, signage and wetland protection provisions.

Status of Property Transfer

- ◆ 5182 Acres Retained; 345 Main, 4,837 South Post
- ◆ 32 Properties Transferred for Reuse – Total 3,920 Acres
 - 2,840 Acres to MassDevelopment
 - 222 Acres to Federal Bureau of Prisons
 - 836 Acres to U.S. Fish & Wildlife Service
 - 22 Acres to Job Corps
- ◆ 5 Property Transfers Pending, 150 Acres
 - Shepley Hill Landfill – 118 Acres
 - Certification of Remedy Required for Remainder

American Superconductor

Before (2000)

After (2002)



Bionostics

Before (2000)

After (2002)



Anheuser Busch

Before (2000)

After (2002)



Red Tail Golf Course

Pond Liner Before (2001)

After 18th hole (2002)



C&S Wholesale Grocers

Before Webvan (2000)

After C&S (2002)



Former Fort Devens – Case Studies

- ◆ Landfill Consolidation Project
- ◆ Devens Housing Areas

Devens Consolidation Landfill

- ◆ Consolidated waste and contaminated soils from six landfill/dump sites into a New “State-of-the-Art” landfill
- ◆ All six remediation sites were characterized, remediated and restored to pre-disposal conditions and impacted wetlands restored
- ◆ Over 300,000 CY of waste disposed in New Landfill
- ◆ Over 100,000 CY of material disposed/reused off-site
- ◆ Approximately \$25 M completion cost
- ◆ Landfill Consolidation Figures

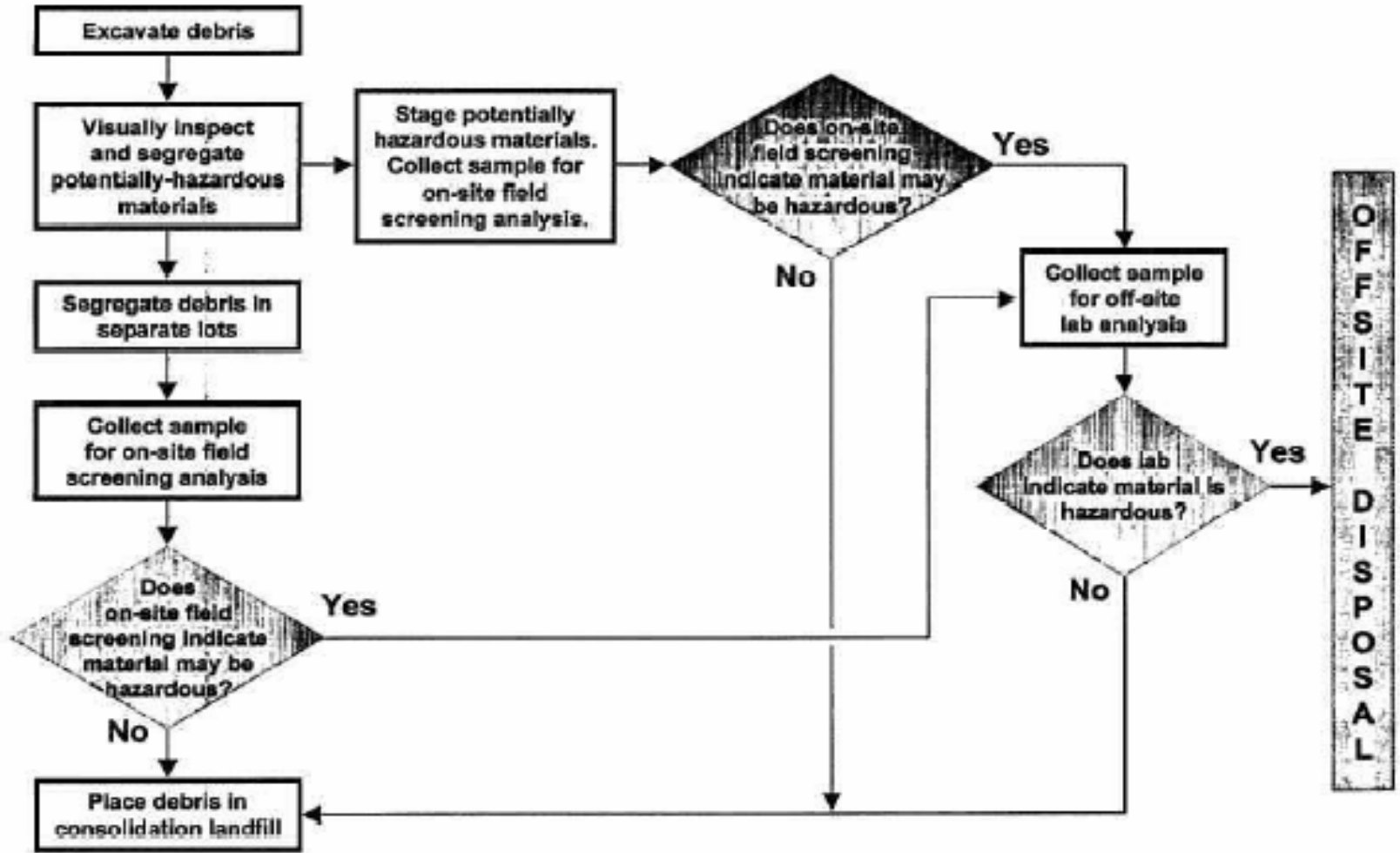


FIGURE 10
CONCEPTUAL DEBRIS SCREENING FLOW CHART
DEVENS, MA

Harding Lawson Associates

W9903001

Redevelopment/Risk/Other Drivers for Landfill Consolidation Project

- ◆ Former landfill areas available for unrestricted redevelopment = Redevelopment Driver
- ◆ Potential impacts from AOC40 to the Patton Drinking Water Well (within 600 feet of well) = Redevelopment/ Human Health Driver
- ◆ Potential impacts/expansion limitations from AOC9 to the Devens Wastewater Treatment Filter Beds = Redevelopment Driver
- ◆ Potential impacts to the Nashua River watershed from AOC9, AOC11, SA12 = Ecosystem Driver
- ◆ Community acceptance

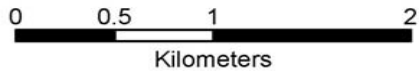
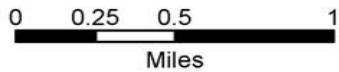
Devens Housing Areas

- ◆ Location of former military housing slated for redevelopment of new housing or commercial redevelopment (Reuse Plan)
- ◆ Property transferred to MassDevelopment from the Army in 1996
- ◆ During demolition of old housing, MassDevelopment identified pesticide and asbestos contamination
- ◆ During evaluation of pesticide/asbestos contamination, PCBs and arsenic contamination identified – Army brought back in
- ◆ Supplemental site investigation led to the identification of some of the former housing areas as historical munitions training areas = potential for unexploded ordinance (UXO)

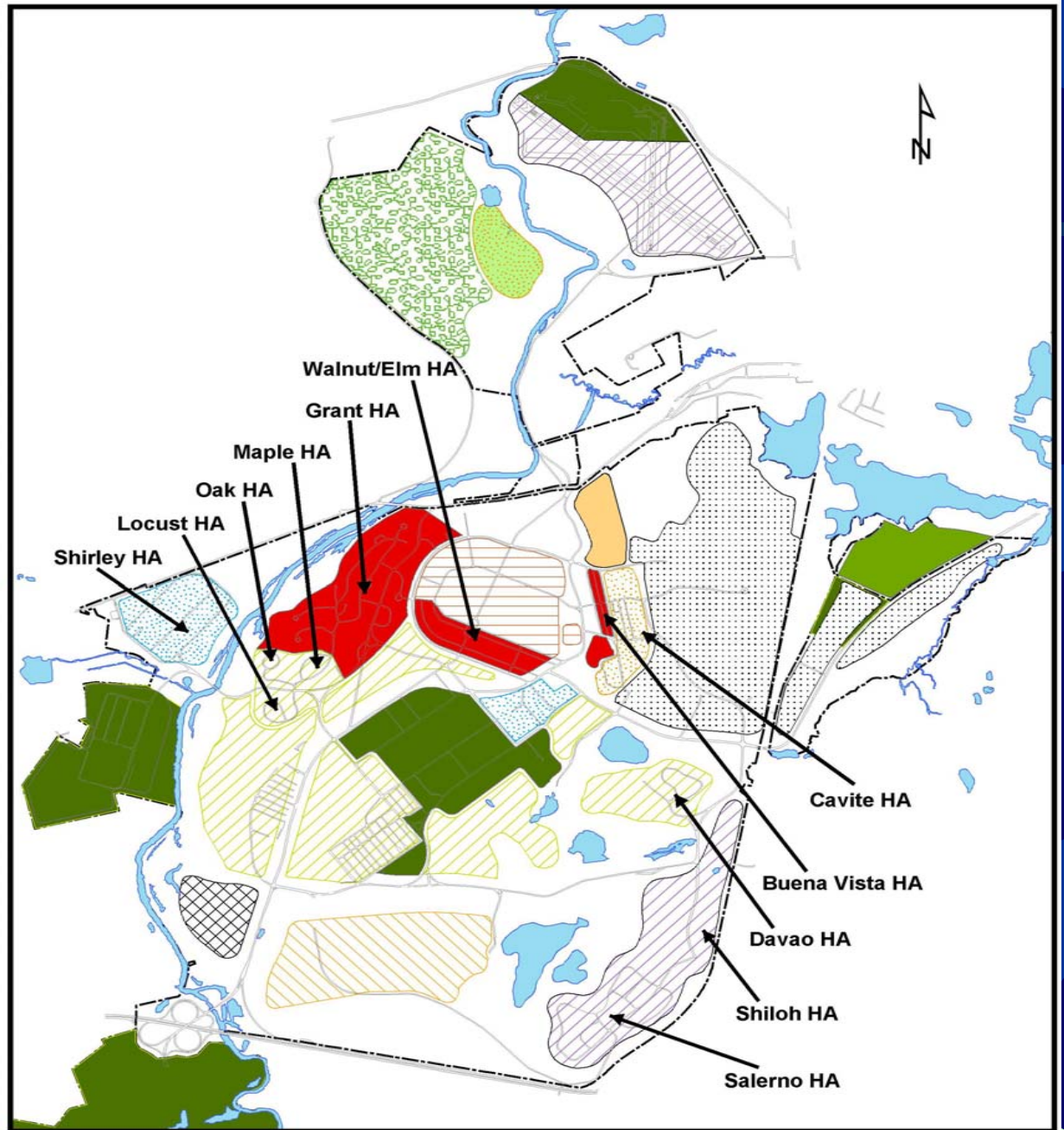
Devens Reuse Plan

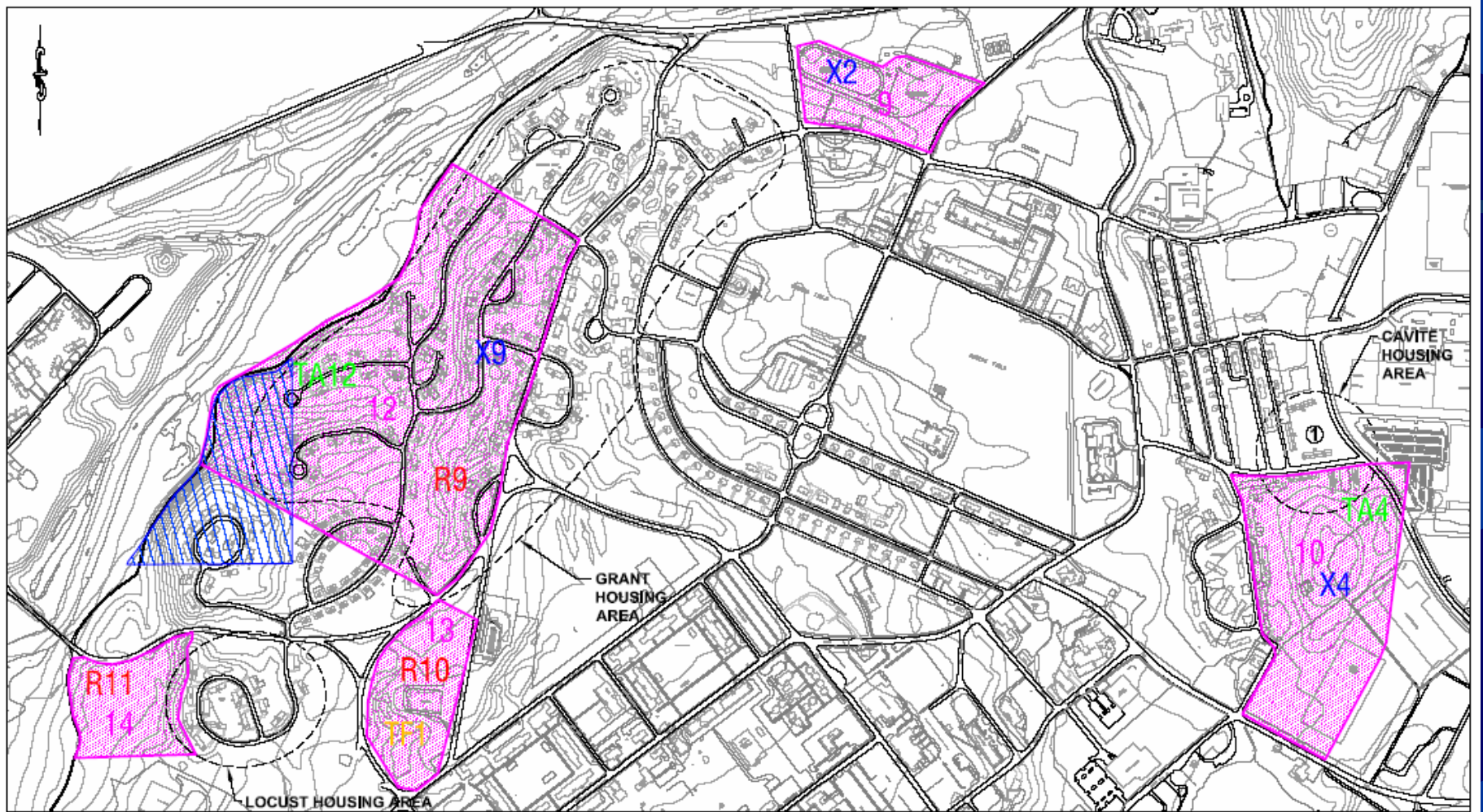
Reuse Category

-  Army Reserve Enclave
-  Business/Community Services
-  Environmental Business
-  Federal Bureau of Prisons
-  Gateway
-  Housing
-  Incubator Space
-  Innovation and Technology Busine
-  Innovation and Technology Center
-  Job Corps
-  National Guard
-  Rail, Industrial and Trade Relat
-  Special Use
-  Wastewater Treatment Plant
-  Water
-  Devens Boundary
-  Road



Devens BRAC Environmental Office 2005





GRAPHIC SCALE
 800 300 0 300 800
 APPROXIMATE SCALE IN FEET

Legend

- Investigation Area (IA) Boundary
- R RANGE
- TA TRAINING AREA
- TF TRAINING FACILITY
- X FOUND ORDNANCE


Sites recommended for Further Action (From Map M-15, Archives Search Report - Maps, Fort Devens, U.S. Army Corp of Engineers, St. Louis District, US Dept. of Defense BRAC, Ordnance, Ammunition, and Explosives, May 1995)

HFA Site 12 (From the Human Factors Applications, Inc.(HFA), Final Removal Action Report, Ordnance, Ammunition, and Explosives Removal Action, Devens RFTA, Fort Devens, Massachusetts, dated 10 October 1996)

UXO SITES AS IDENTIFIED IN ARMY DOCUMENTATION

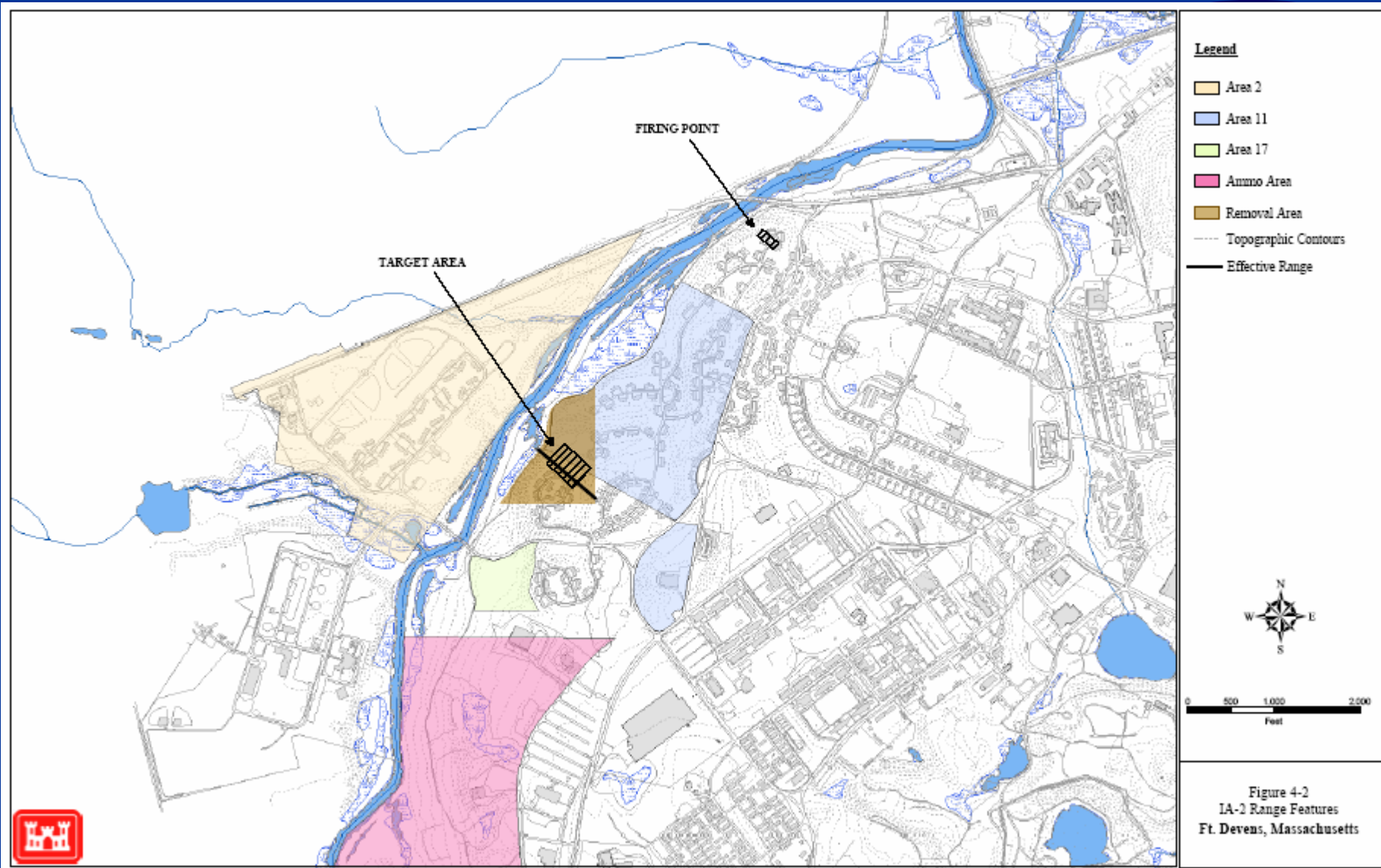
PA/SI REPORT
 STUDY AREA - GRANT, LOCUST, AND CAVITE HOUSING AREAS
 DEVENS, MASSACHUSETTS

DEPARTMENT OF THE ARMY
 NEW ENGLAND DISTRICT
 CORPS OF ENGINEERS
 CONCORD, MASSACHUSETTS



WESTON
 SOLUTIONS
 WASHINGTON NEW HAVEN

DRAWN BEG
 DATE JAN 2004
 FIGURE NO. 4-1



Devens Housing Areas (cont.)

- ◆ Market demands for housing led MassDevelopment to propose future housing development for all former housing areas = change to proposed reuse = more diligent characterization effort
- ◆ Soils contaminated with pesticides, asbestos, and PCBs being excavated and disposed – pesticide contaminated soils being evaluated for reuse for landfill regrading
- ◆ MassDevelopment sharing in costs to remediate areas slated for commercial redevelopment to residential standards
- ◆ MassDevelopment took responsibility for UXO survey and clearance

Devens - The Future “Downtown”



07 21 2004 08:18

The Future is here.....New Hotel



.....New Confererence Cener



.....New Office Building



Contact Information

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