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NAS CECIL FIELD
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POWERPOINT PRESENTATION SLIDES FROM TIER II UPDATE AT BRAC REALIGNMENT
AND CLOSURE TEAM MEETING NAS CECIL FIELD FL
4/30/2011
TETRA TECH

Tier II Update Cecil Field BCT



Tier II Update

- Overview
- Recent Accomplishments
- Sites of Interest
- Challenges
- Exit Strategy



Overview

- Cecil Field
- BCT Members
- Installation Restoration Program
- Petroleum Program

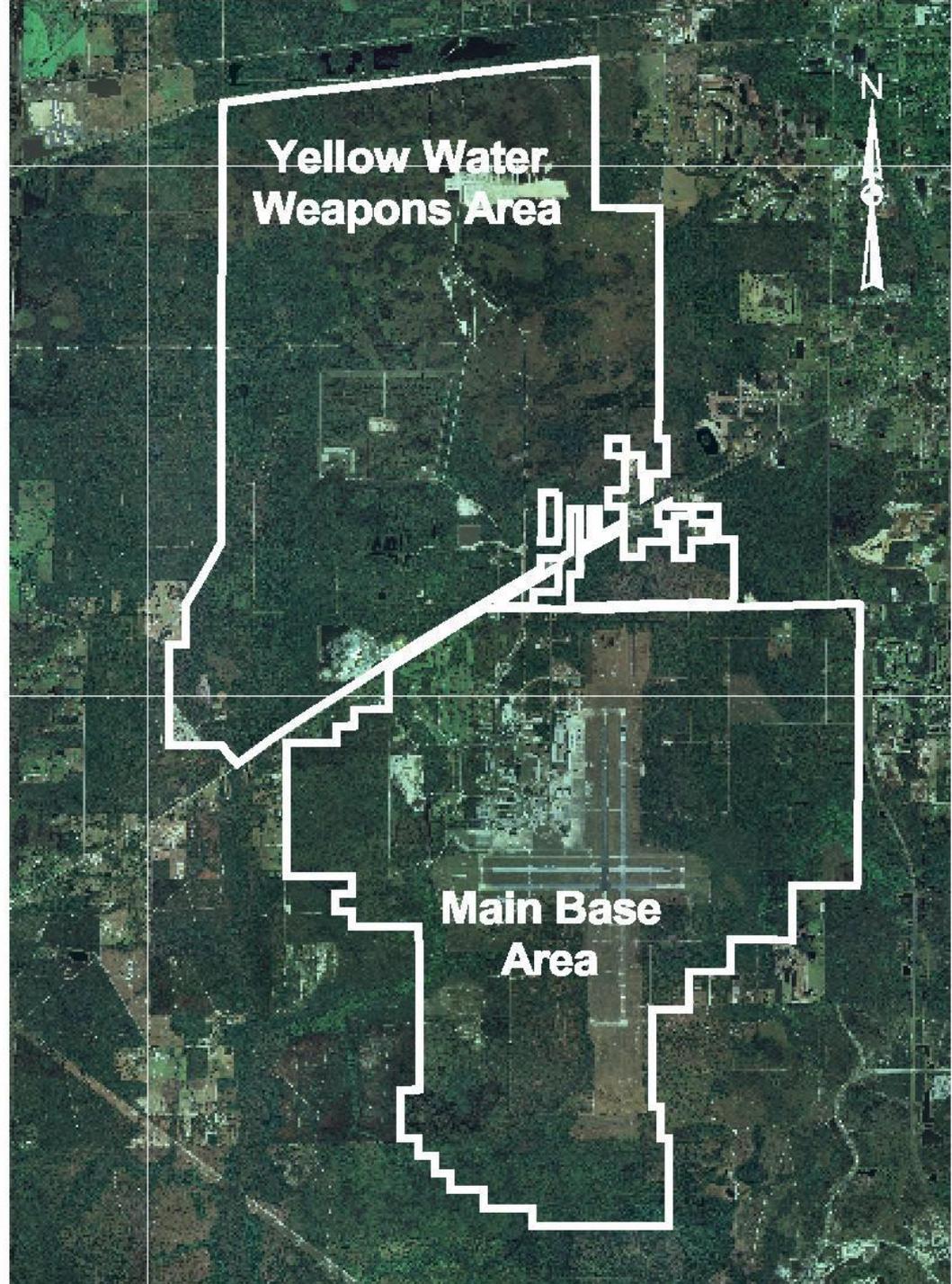
Facility Area 17,225 acres

**Yellow Water
Weapons Area**

**Main Base
Area**

**NAS CECIL FIELD
JACKSONVILLE, FLORIDA**

1 0 1 Miles



BCT Members

- Current BCT Members:
 - Mark Davidson, Navy BEC*
 - Art Sanford, Navy BRAC and Petroleum RPM*
 - Debbie Vaughn-Wright, EPA RPM*
 - David Grabka, FDEP RPM
 - Rob Simcik, CLEAN PM*
 - Michael Halil, RAC PM
 - Self facilitated since February 2005

* indicates Personnel change since last Tier II Update (June 2008)

Installation Restoration Program

- 12 OUs, 25 Sites
- Approximately 99% of 17,225 acres transferred
 - Site 15 - only site with EBS/FOST remaining
- Conducting LTM at 11 groundwater sites
 - Sites 8 and 25 obtained their goals and are now NFA
 - All known source areas have been addressed
- Implementing FFA and other reporting requirements
 - SMP; Admin Record; 5-Year Review; HSWA Permit; Tier II update; NIRIS updates; LUC Tracker; Partnering; JAA and COJ meetings with BCT

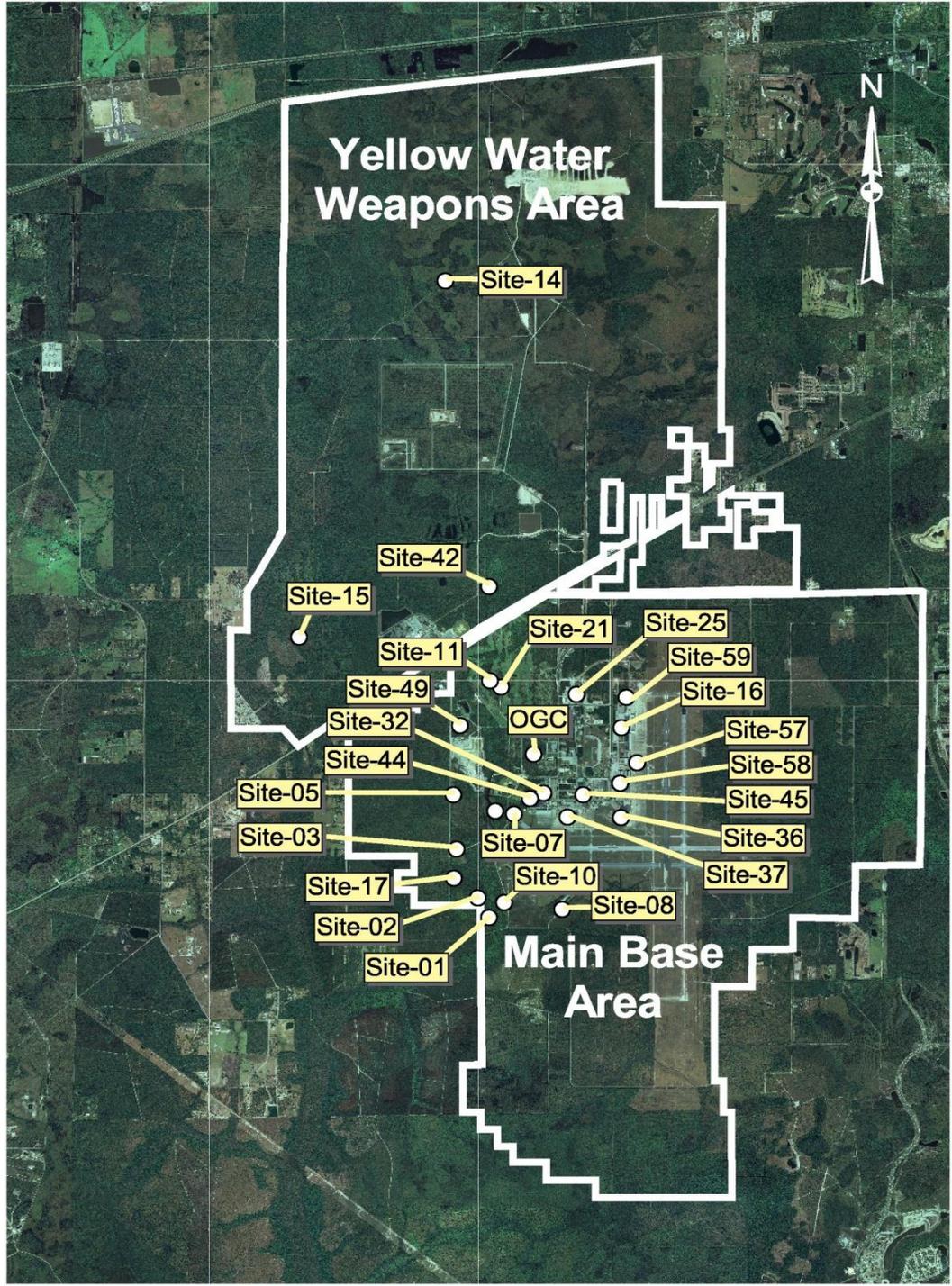
All Remedies In Place

Legend

 Remedy In Place

**NAS CECIL FIELD
JACKSONVILLE, FLORIDA**

1 0 1 Miles



Petroleum Program

- All USTs/ASTs removed or transferred to the City
- 238 petroleum sites
 - 223 closed out
 - Tank 290 had source removal conducted and NFA since last update
 - 15 remain open
 - 7 are Monitoring Only sites
 - G82, BP Wells, Hangar 815, Day Tank 1, NSAP, Tanks 81 ABC, and Ocala F-18 Crash Site
 - 6 have recent Remedial Actions
 - NFF remediation system expanded , currently off, and in PARM
 - SFF, JETC, Bldg 46, and Bldg 271 systems off and in PARM
 - Tank 502 had source removal conducted; in Post Excavation groundwater sampling
 - 2 other
 - 103rd Street JP-5 Pipeline negotiations with FDOT
 - Tanks 860 Maintenance Hanger - soil LUCs remain; MEC identified

Accomplishments since June 2008

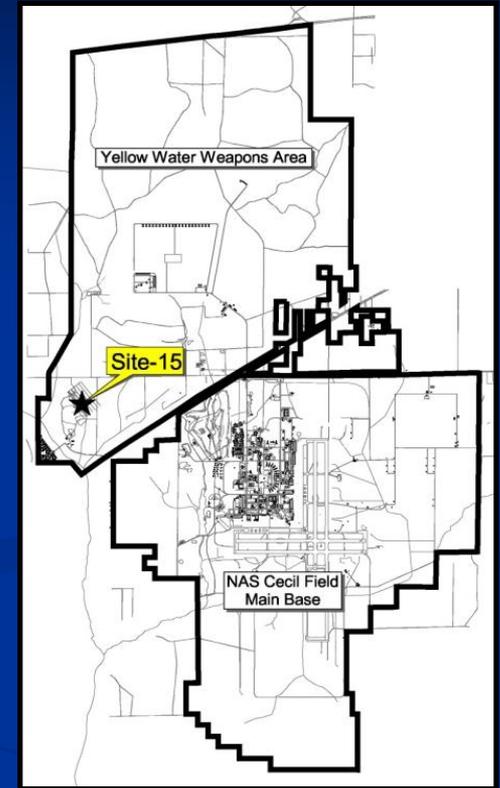
- Construction Completion achieved on August 26, 2009
 - Construction complete is a major EPA cleanup milestone and marks the physical completion of all construction actions required at a NPL site, whether or not final cleanup levels have been achieved
- Site 15 Soil Removal Action completed and RACR requesting NFA submitted
- Site 59 OPS demonstrated and approved by EPA; property transferred
- Expansions to Sites 36/37 and NFF remediation systems very effective
- 3rd Five-Year Review Report was signed and submitted as final for regulatory approval

Accomplishments since June 2008

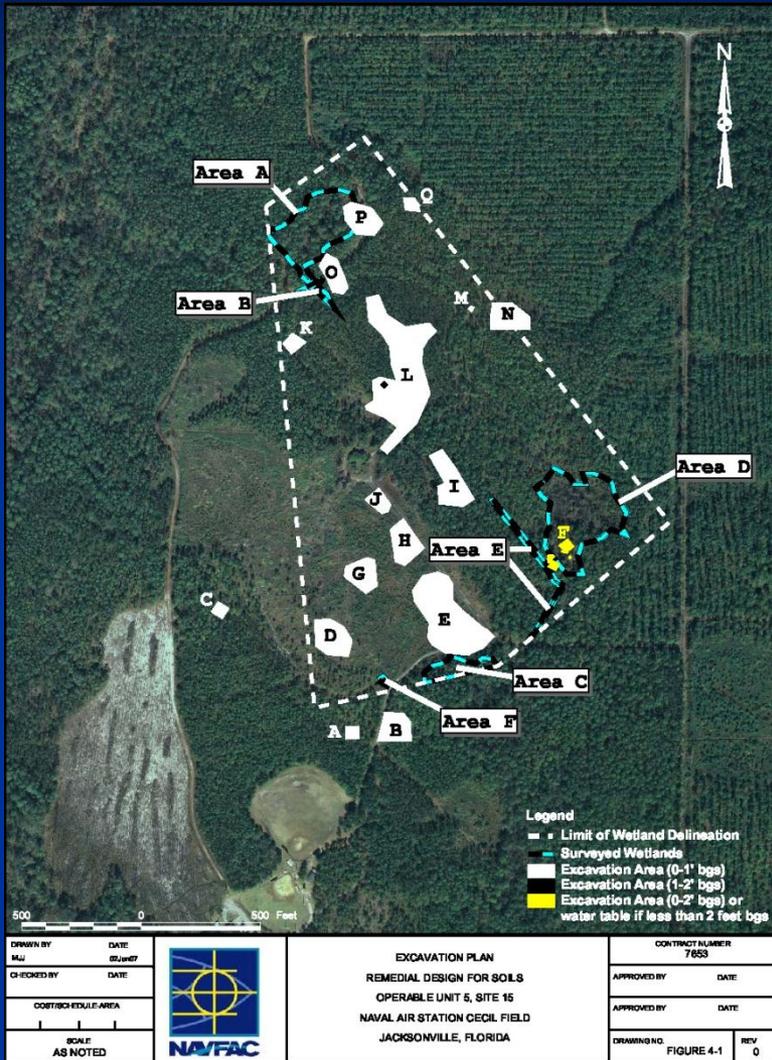
- Coordination and Partnering
 - BCT and JAA/COJ to allow redevelopment
 - Approximately 2,200 individuals employed at Cecil Field (not including 300 guardsman and 200 students)
 - JAA - \$90M in Capital Investments; \$26M in Planned Capital Projects
 - Targeted as High Priority for development within Jacksonville
 - Site visits with RAB member to maintain that relationship
- Closed more sites (Site 8, Site 25, Bldg 199, and Bldg 290) and optimized LTM programs

Site 15

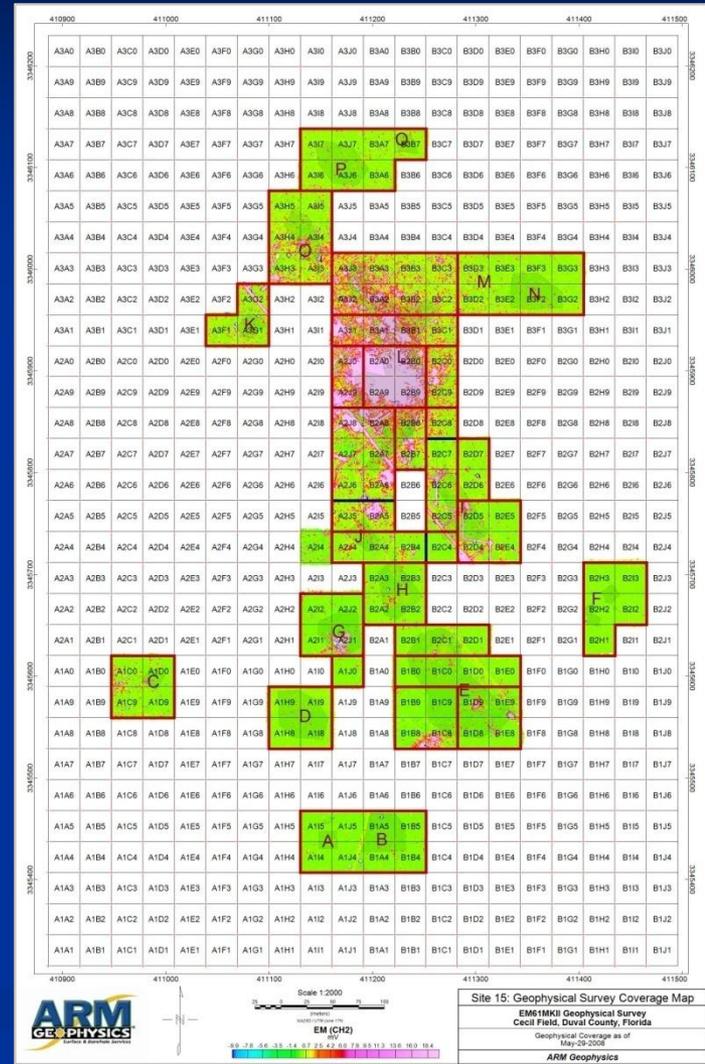
- 1940s to 1950s - Skeet Range
- 1960s to 1977 - Munitions Disposal
 - Burn Chamber(s) and Static Rocket Firing Pad
- Soil COCs: B(a)PEq, TRPH, Lead, and Arsenic
- Reuse: Low-intensity recreational use
- Remedy: Remediate 11,600 yd³ soil
- Amended Proposed Plan – April 2008
- Record of Decision – July 2008
- Remedial Design – June 2008
- LUC Remedial Design – June 2009
- ROD-specified Soil Removal Action – July 2008 to March 2009
- Post-excavation Confirmatory Groundwater Monitoring – May 2009 to September 2010
- RACR – March 2011



Site 15



Excavation Plan



Geophysical Survey

Site 15



Gopher Tortoise Relocation



Tree Removal – 46 acres

Site 15



Geophysical Survey



MDAS – 75,000 lbs

Site 15



Soil Excavation – 11,600 cy



Site 15



Onsite Lead Treatment and Stabilization

Soil Transportation and Disposal – 16,900 tons

Site 15



Backfill and Site Restoration

Sites of Interest

- MEC Sites
 - Building 365
 - Hangar 860
 - Site 15
- Site 3
 - Vinyl Chloride
- BP Wells Site
 - ORC-A Pilot Study

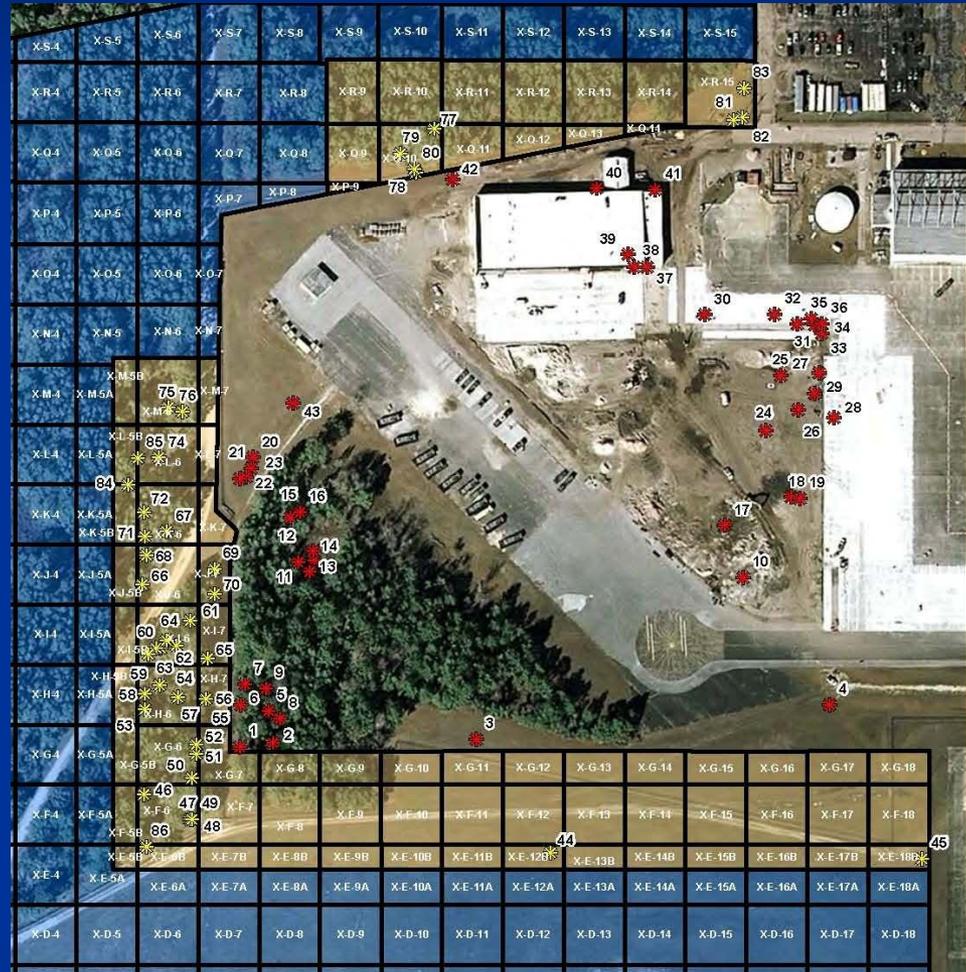
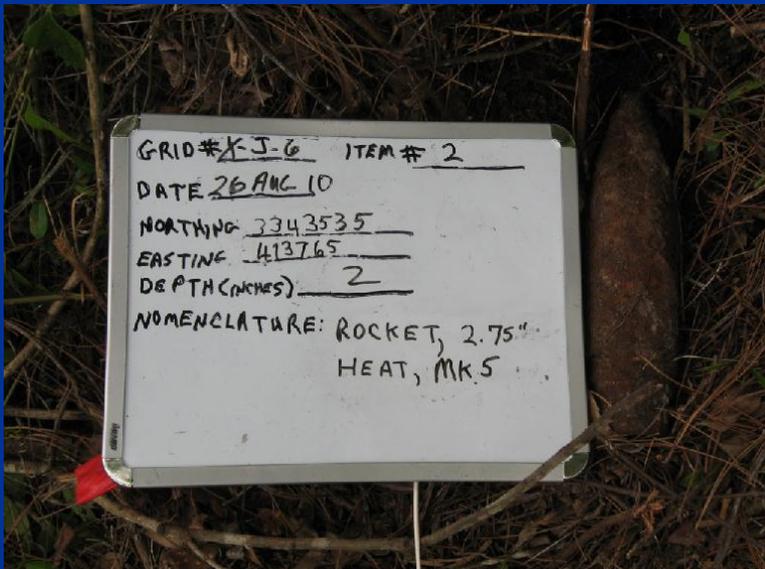
MEC Site – Building 365/Embraer Air

- Discovered September 2004
 - 20mm projectiles
 - CADs
- 25 acres cleared to date
- Up to 3-5 additional acres needed



MEC Site – Hangar 860

- Discovered February 2005
 - CAIs
 - 2.75in rocket Mk5 warhead
- 40 acres cleared to date
- Up to 10-15 additional acres needed



MEC Site - Site 15

- March 25, 2010 – Submitted Draft MEC RI SAP to USEPA/FDEP
- April 16, 2010 – Submitted Final MEC RI SAP upon USEPA/FDEP approval
- April - May, 2010 – MEC RI conducted
- August 6, 2010 – Submitted Draft MEC RI Report
- December 21, 2010 – USEPA/FDEP accepted MEC RI Report without revision
- January 14, 2011 – Submitted Final MEC RI Report
- January 14, 2011 – Submitted Supplemental RI MEC SAP to USEPA/FDEP

MEC Site - Site 15

- March 1, 2011 – USEPA comments received on Supplemental MEC RI SAP
- April 15, 2011 – FDEP accepted Supplemental MEC RI SAP without revision
- April 28, 2011 – Submitted Final Supplemental MEC RI SAP
 - USEPA/FDEP approval letters required
- Next step: Field work initiated in late May 2011
 - Start Field Work: May 23, 2011
 - NOSSA field audit: June 1, 2011

Site 3

- VC confirmed in LTM Well Point in September 2009 and 2010
- Feb-11 BCT decision to evaluate AS pilot test option to address discharge into Rowell Creek
- AS Options
 - Repair existing system/run air transfer line to treatment area
 - Run electric to treatment area/install smaller system
 - Solar powered system
- WP sampling to verify limits of discharge to creek
 - Determine length of AS curtain

Site 3 - Sampling

- WP sampling slightly modified based on field observations
- Six samples collected
- +50, +25, WP, -25, -50, and old PVC pipe #2



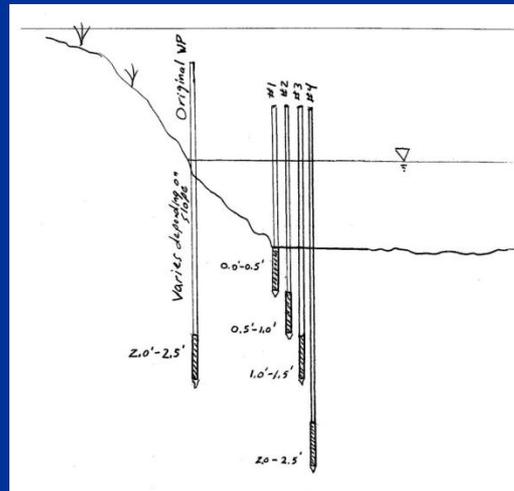
Site 3 - Sampling

- VC exceedance of GCTLs and SWCTLs in all well samples
- Decision to conduct 2nd round of sampling based on results
 - Conduct vertical delineation test to see if VC removed by sediments in creek
 - Installed four WPs with 6-inch screens to depths of 0.0'-0.5', 0.5'-1.0', 1.0'-1.5', and 1.5'-2.0'
 - Verify low detection at original WP location

Site 3 - Sampling



1st Round Setup



2nd Round Vertical Delineation

Site 3 – Sampling Results

LOCATION	SAMPLE DATE	VINYL CHLORIDE (ug/L)		
		GCTL	SWCTL_FW	RESULT
WP-UP050	4/7/2011	1	2.4	56
WP-UP025	4/7/2011	1	2.4	69
WP-UP25-RS	4/19/2011	1	2.4	32
WP-UP25-0005	4/19/2011	1	2.4	8.7
WP-UP25-0510	4/19/2011	1	2.4	12
WP-UP25-1015	4/19/2011	1	2.4	61
WP-UP25-2025	4/19/2011	1	2.4	12
WP-DUP01	4/19/2011	1	2.4	12
WP-ORIGINAL	4/6/2011	1	2.4	1.3
DUP01	4/6/2011	1	2.4	2.7
WP-ORG-RS	4/19/2011	1	2.4	45
WP2-OLD	4/6/2011	1	2.4	32
WP-DOWN025	4/7/2011	1	2.4	68
WP-DN25-0005	4/19/2011	1	2.4	0.25 U
WP-DN25-0510	4/19/2011	1	2.4	59
WP-DN25-1015	4/19/2011	1	2.4	4.2
WP-DN25-2025	4/19/2011	1	2.4	57
WP-DOWN050	4/7/2011	1	2.4	5.5

- 1st round samples highlighted yellow
- 2nd round results
 - Original WP did not verify low level
 - +25 levels lower than 1st round
 - Possible reduction in discharge to creek but 0.0'-0.5' still above SWCTL
 - -25 levels fluctuate
 - VC non-detect at 0.0'-0.5' level

Site 3 – Path Forward

- Verify 2nd round tests using passive sampling with diffusion sampler
 - Sample directly above creek bottom
- Delineate VC contamination along creek using WPs
 - Conduct same WP sampling for ± 100 , ± 150 , and ± 200
 - Continue until one sample location upstream and downstream below SWCTLs for VC
 - Continue to analyze for VC only
- Continue to evaluate AS options

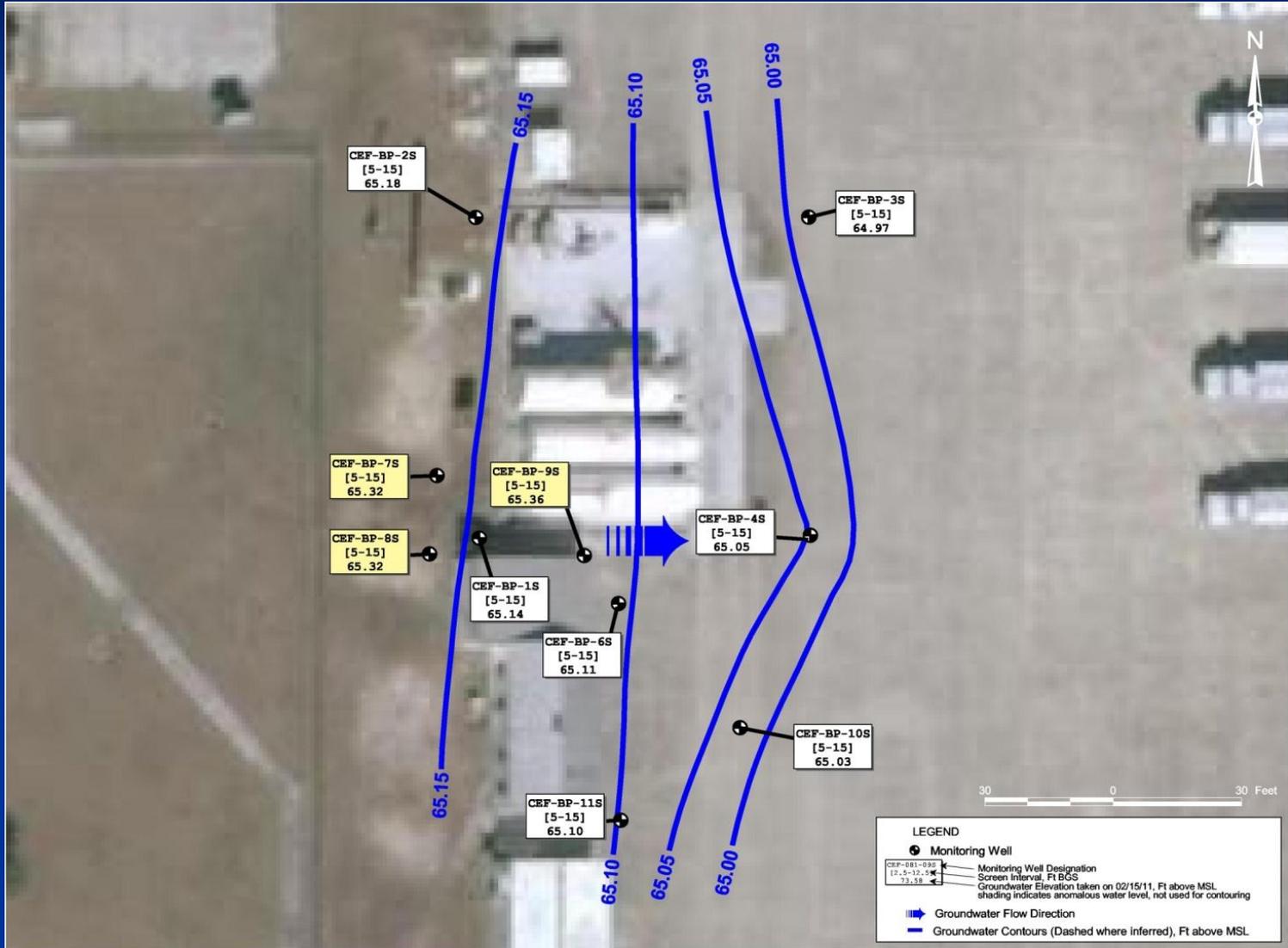


BP Wells

- Located on north-south flightline, southeast of Building 880
- Based on recent past groundwater sampling events, VOCs and PAHs in shallow zone appear to be migrating to downgradient well (CEF-BP-6S)
- Two shallow monitoring wells installed downgradient (CEF-BP-11S, CEF-BP-12S)
- Groundwater sampling conducted semi-annually
 - Four soil samples collected near CEF-BP-1S on July 19, 2010 in accordance with approved FTMR
 - Most recent groundwater sampling on January 18, 2011



BP Wells



BP Wells – January 2011 Results

Well ID	GCTL Exceedances	NADC Exceedances
CEF-BP-1S	<ul style="list-style-type: none"> •Isopropylbenzene •1,2,4-Trimethylbenzene •1,3,5-Trimethylbenzene •Ethylbenzene •Xylenes •Naphthalene 	none
CEF-BP-6S	<ul style="list-style-type: none"> •Isopropylbenzene •1,2,4-Trimethylbenzene •1,3,5-Trimethylbenzene •Ethylbenzene •Xylenes •Naphthalene 	<ul style="list-style-type: none"> •Isopropylbenzene •1,2,4-Trimethylbenzene •Xylenes

2nd Semi-Annual, Year 3 event conducted on January 18, 2011

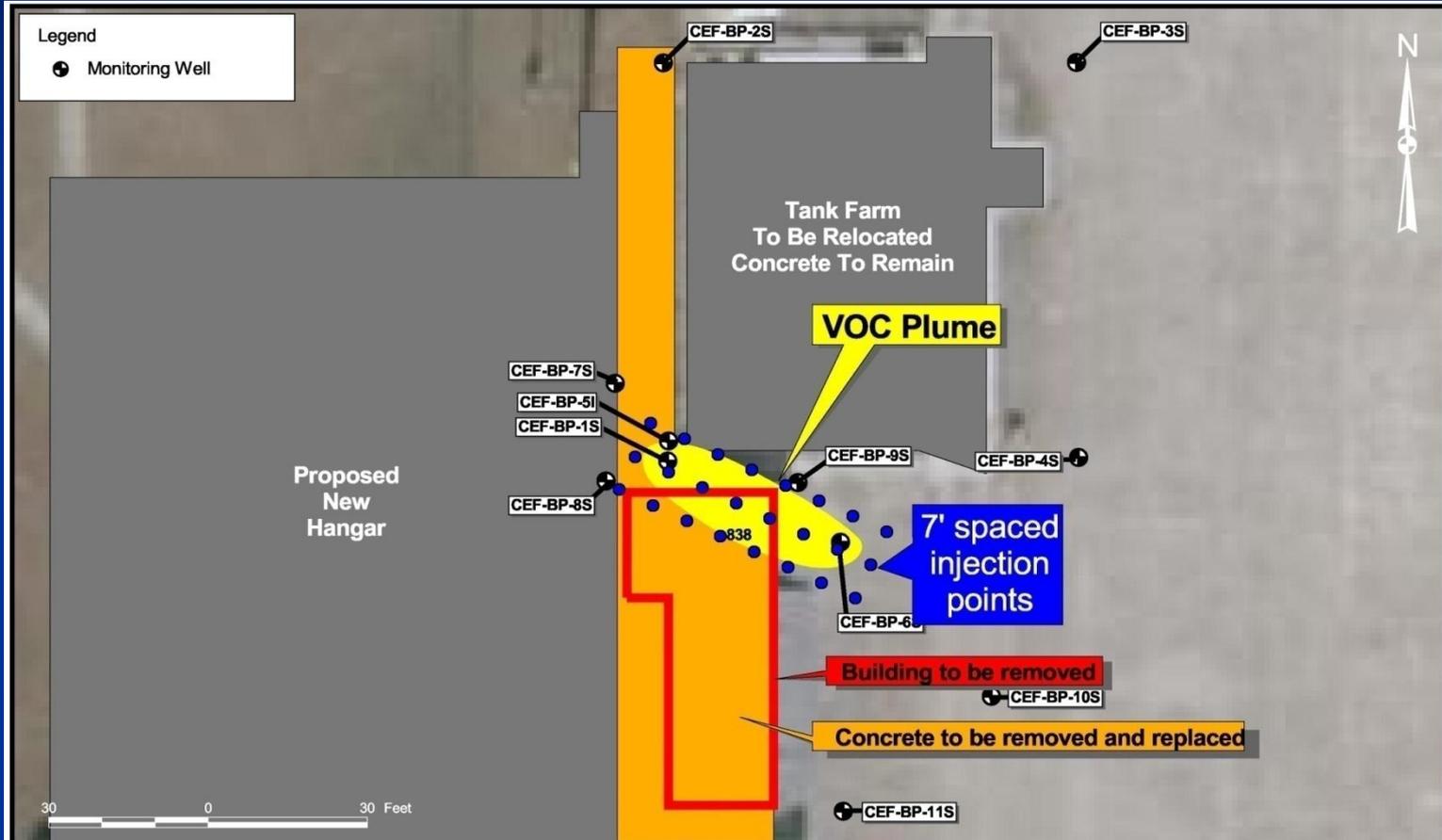
BP Wells – JAA Meetings

- Meetings with JAA have identified a proposed JetPort hangar construction project for the area:
 - Oil/water separator will be removed
 - Tank farm was relocated
 - Building 838 will be removed
 - Several monitoring wells will be abandoned associated with hangar construction
 - Need to be reinstalled after hangar completion
 - Responsibility of construction contractor
 - Pilot test proposed to test oxygen releasing agent to promote contaminant degradation

BP Wells – Pilot Test

- Injection of ORC Advanced® via DPT prior to hangar construction
 - Product will release (provide oxygen source for aerobic degradation) for 9 to 12 months
- Pilot test will consist of:
 - One injection event
 - Injection zone of 5'-20' bgs at 24 DPT points
 - Injection of 1,800 lbs of ORC Advanced® (20-30% slurry at each point)
 - Evaluation of groundwater from CEF-BP-1S and CEF-BP-6S prior to injection
 - Work Plan will be prepared and submitted for approval

BP Wells – Pilot Test



MUJ	DATE 09Apr10
CHECKED BY	DATE
COST/SCHEDULE-AREA	
SCALE AS NOTED	



MONITORING WELL LOCATION MAP
 2nd SEMI-ANNUAL, YEAR 3 EVENT - JANUARY 2011
 GROUNDWATER MONITORING REPORT
 BP WELLS SITE
 NAVAL AIR STATION CECIL FIELD
 JACKSONVILLE, FLORIDA

DRAWN BY	CONTRACT NUMBER 2267	
APPROVED BY	DATE	
APPROVED BY	DATE	
DRAWING NO.	FIGURE 1	REV 0

Challenges

- Isopropyl benzene
 - 3 petroleum sites with only IPB > organoleptic-based GCTL
- Migrating plumes and pockets
 - Site 3 VC identified in Well Point
 - Site 36/37 concentration spikes inside identified plume
- Rebounding
 - Post Active Remediation monitoring
- MEC
 - Seems to pop up out of nowhere
- Team Continuity
 - Multiple personnel changes but familiar faces

Sites 1&2 Discarded Military Munitions

- Two former unlined landfills
 - Site 1 – 9 acres; Site 2 – 5 acres
 - Operated as trench and fill landfills
 - ROD 1995; OPS 2005
- “Small bombs” noticed in May 2011 during routine ecological sampling adjacent to landfills
- EOD Mayport responded and removed (31) Mk76 practice bombs from creek
 - 23 of the 31 contained “live” spotting charges
 - Practice bombs taken to NSB Kings Bay and detonated
- Future UXO Site – UXO 3





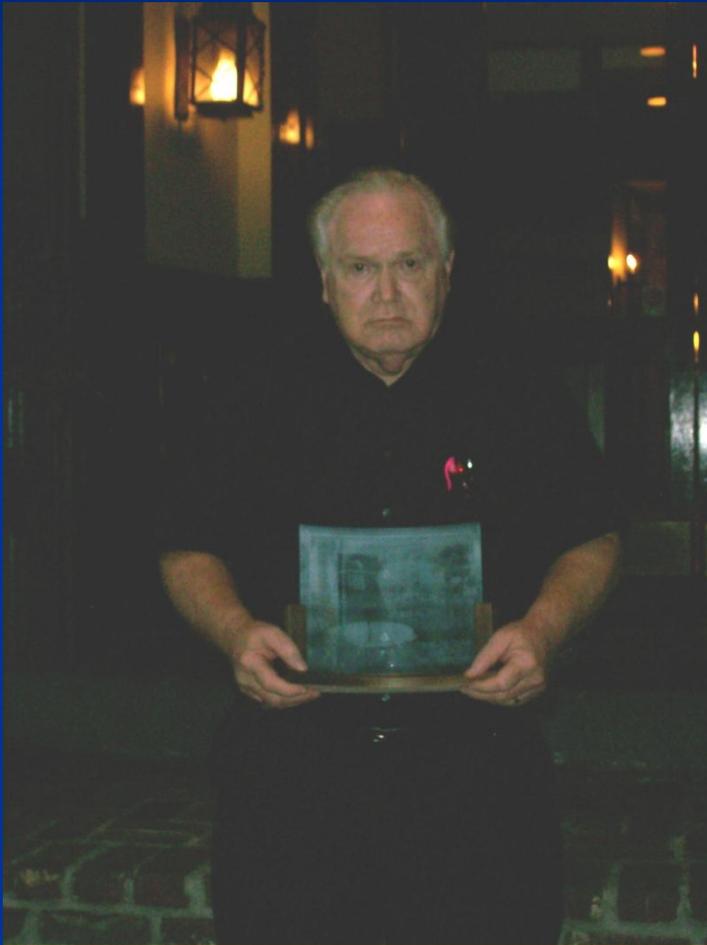
Team Continuity



Team Continuity



Team Continuity



Team Continuity



Exit Strategy

- Funding
- Property Transfer

Funding

YEAR	FUNDING
2011	\$2,684,570
2012	\$2,509,007
2013	\$1,780,621
2014	\$806,231
2015	\$803,613
2016	\$769,375
2017	\$717,965
2018	\$778,851

FOST STATUS

- Property Transferred since last update:
 - JAA Phase VI – September 2010 (3 sites)

- Remaining Property Transfer Schedule:
 - P&R Phase III – March 2012 (Site 15)

Site 15 (161 acres) - only remaining parcel to be transferred

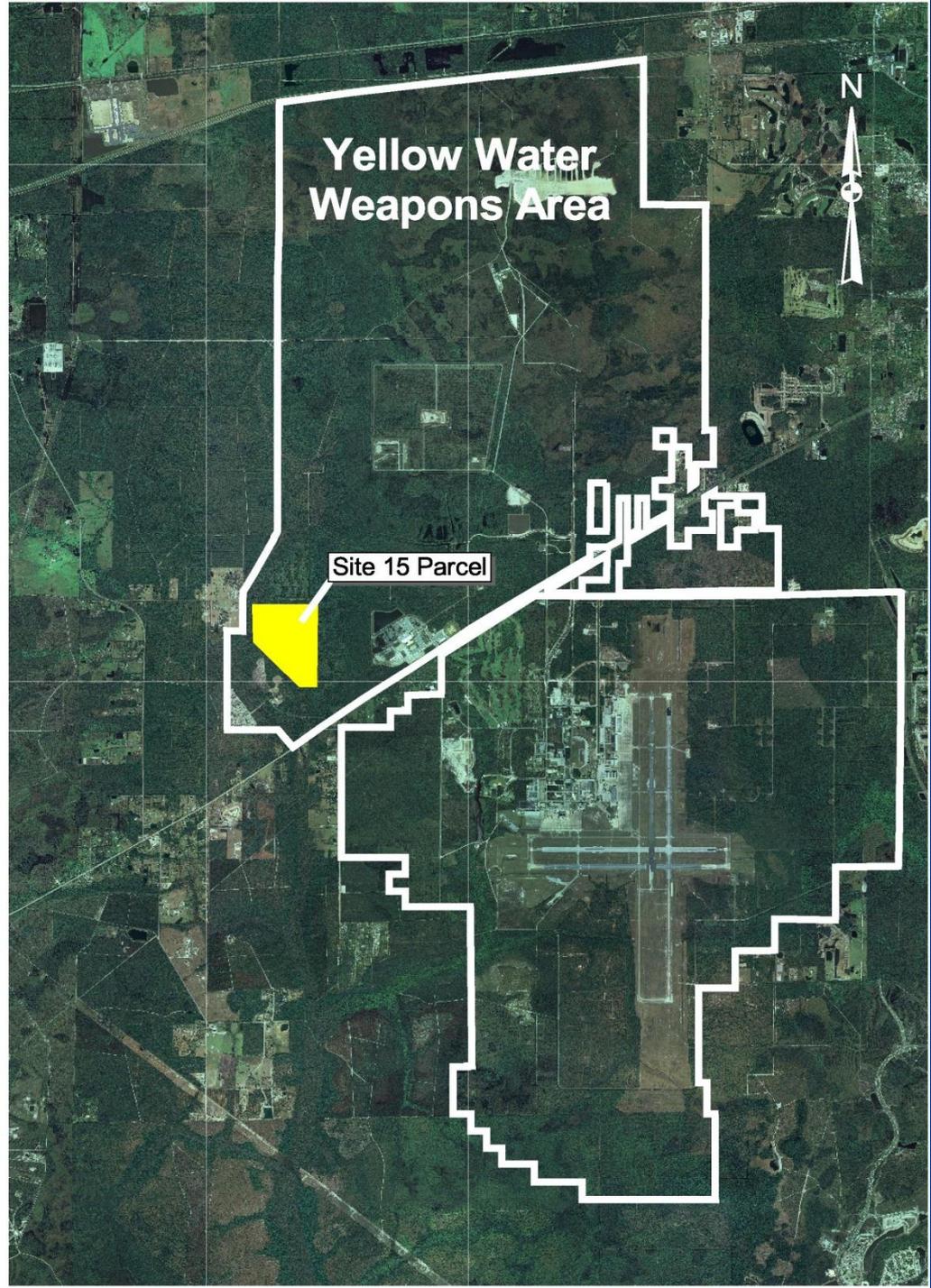
To date, 17,065 acres transferred

Legend

 Property Not Transferred

**NAS CECIL FIELD
JACKSONVILLE, FLORIDA**

 1 0 1 Miles



An aerial photograph of an airport, showing a complex network of runways, taxiways, and parking lots. The runways are light-colored, likely asphalt or concrete, and are set against a backdrop of green grass and trees. The text "QUESTIONS & ANSWERS" is overlaid on the image in a large, black, serif font, slanted diagonally from the upper left towards the lower right.

QUESTIONS & ANSWERS