Welcome to Army, Navy & Air Force Environmental Programs

Moderator: Col. Dave Anderson, P.E., F.SAME, USA (Ret.), Bay West LLC

Speakers:
- Col. Mary Williams-Lynch, USA, Chief, Army Environmental Programs Division, Office of the Assistant Chief of Staff for Installation Management, HQ Department of the Army
- Karen Baker, SES, Chief, Environmental Division, HQ USACE
- Robert Sadorra, P.E., Director, Environmental Restoration Division, HQ NAVFAC
- Dale Clark, Deputy Director, Environmental Management Directorate, AFCEC
Society of American Military Engineers
Army Environmental Program

COL Mary Williams-Lynch
Director of Environmental Programs

The views, opinions and findings contained in this report are those of the authors(s) and should not be construed as an official Department of the Army position, policy or decision, unless so designated by other official documentation.
Army Environmental Universe

- 12.4 Million Acres Of Army Land
- 156 Installations/148 require Integrated Natural Resources Management Plans
- 363 US Operational Ranges or Range Complexes In The Inventory
- 223 Endangered Species On 118 Installations
- 13 Candidate Species On 20 Installations That May Impact Mission
- 82,605 Archeological Sites
- 1.3 Million Acres of Wetlands
- 58,887 Buildings Subject To National Historic Preservation Act
- 307,179 Acres Protected At 36 Army Compatible Use Buffer Installations
- 2,628 Environmental Permits
- 97M Lbs Of Hazardous Waste Generated
- 1,851 Formerly Used Defense Sites
- 1,309 Active Cleanup Sites
- 209 BRAC Environmental Cleanup Sites

As of 1 Feb based on FY15 Data
Environmental Cleanup
“Past Sins”

Environmental Quality
“Current Operations”

Environmental Technology
“Reduce Future Compliance Burden”

Initiatives: HQAES, Environmental Liabilities, Manpower Study, ACUB

- Environmental Cleanup meets legal obligations, makes land available for future use, and reduces the Army’s Environmental Liabilities.

- Environmental Quality supports readiness through maintaining compliance with the law and conserving natural and cultural resources while enabling industrial, testing and training missions on Army installations.

- Environmental Quality Technology invests in technologies that reduce the future compliance burden, mission impacts, and Army cost while improving health and safety.
Army Environmental Priorities

Army Environmental Programs -- Business Model

<table>
<thead>
<tr>
<th>OACSIM Business Groups</th>
<th>ENV Program Groups</th>
<th>AEP Lines of Business</th>
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<td>Base Operations &amp; Services</td>
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Program Support
- Environmental Management Systems (EMS)
- Environmental Quality Acquisition Support
- Environmental Performance Assessment System (EPAS)
- Wildland Fire Management
- Geographical Information System
- Toxic Substances

Program Support
- Environmental Quality Reporting (EQR)
- Environmental Cleanup Reporting
- Environmental Cleanup Liabilities Reporting
- Environmental Liabilities Functional Lead
- Range Management (G-3 Support)

Program Initiatives
- Emerging Contaminants
- Environmental Quality Technology
- Range Assessments
- Army Compatible Use Buffers (ACUB)
- Hazardous Materials Management Program (HMMP) (G-4 Liaison)
Environmental Program Funding

Army Environmental Program Funding Trend ($M)

- **Environmental Quality**
- **Cleanup**
- **Environmental Technology**

<table>
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<th>Year</th>
<th>FY14</th>
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Karen Baker, SES
Chief, Environmental Division
Washington DC
7 March 2017
USACE Mission Areas

BUILDING STRONG – USACE Supports the Army and the Nation

Military Programs
- Military Construction
- COCOM Support/Overseas Contingency Operations (OCO)
- Installation Support, Environmental, Energy and Sustainability

Homeland Security
- Critical Infrastructure
- Anti Terrorism Plans
- Intelligence
- Facility Security Partnership

Civil Works
- Navigation, Hydropower
- Flood Control, Shore Protection
- Water Supply, Regulatory
- Recreation, Disaster Response
- Environmental Restoration

Interagency Support
- Federal
- State
- Local
- International

Research & Development
- Warfighter
- Installations & Energy
- Environment
- Water Resources

Real Estate
- Acquire, Manage and Dispose
- DoD Recruiting Facilities
- Contingency Operations

Geospatial Support
- Support to Civil Works Programs
- Support to Military Programs
- Common Operating Picture/Environment
- Support to Emergency & Contingency Ops

USACE Has a Diverse Mission Set Driven by Diverse Customers
USACE ENVIRONMENTAL ROLES

Remediating Prior Environmental Damage
Improving environmental quality degraded by prior Federal actions during the building and defense of our Nation.

Holding the Environmental Line
Reducing environmental impacts of actions and preserving environmental quality as the Nation continues to grow and mature.

Contributing to Resiliency and Sustainability
Restoring and protecting the structure, function, and associated services of our Nation's significant ecosystems to a more robust and reliable state for the benefit of future generations.
Executed $1.6 Billion in environmental program and project management in FY16

- Formerly Used Defense Sites (FUDS)
- Installation Restoration Program (IRP) Army/Air Force
- Base Realignment & Closure (BRAC-ER)
- Environmental Quality (EQ)
- Defense State Memorandum of Agreement (DSMOA)
- Deactivated Nuclear Power Plant Program (DNPPP)
- Native American Lands Environmental Mitigation Program (NALEMP)
- Formerly Utilized Sites Remedial Action Program (FUSRAP)
- EPA Superfund
- Regional Environmental & Energy Office (REEO)
- Support to Other Federal Agencies (IIS-E)
EXTENT OF NATIONWIDE CLEAN-UP PROGRAM

*Does not include USACE clean up work at Army, AF, NGB, and Reserve Installations
FY17 PLANNED EXECUTION

$1.6 BILLION

- Pie numbers in the $ millions
- Work load does not include Overseas Contingency
• Changes in mix of services in future years as some traditional cleanup programs near completion.
• Anticipating challenges and opportunities in how our partners are contracting/organizing work. REGIONAL APPROACHES.
• Recognizing further potential in EQ and IIS-Environmental.
EMERGING TECHNOLOGY
ADVANCED GEOPHYSICAL CLASSIFICATION (AGC)
“KNOW BEFORE YOU DIG”

From This...
Innovation, Science, & Stakeholder Engagement

Magnetometer to Identify buried metal objects

Excavate hundreds of metal items for each munition recovered

...To This
AGC Demonstration at San Luis Obispo FUDS Site

Targeted excavation of munitions
STEWARDING OUR NATION’S RESOURCES: ARMY / AIR FORCE INSTALLATION PFOA / PFOS

**USACE Capability**

**Energy Security, Environment & Sustainability**

- EPA Health Advisory
  - Issued MAY 2016
- DoD and Army Memo of JUN 2016 – Test drinking water and take necessary actions where exceed EPA lifetime health advisory

**USACE Assessments & Remediation**

- Perfluorooctanoic acid (PFOA) and Perfluorooctane Sulfuric acid (PFOS) are emerging contaminants of concern
- Difficult to test; prevalent in wide range of materials
  - carpets, clothing, fabrics for furniture, fire suppressants, paper packaging, and other materials (e.g., cookware) resistant to water, grease, or stains
- Most companies phased out PFOS / PFOA production

**Exposure**

- can result from contact with contaminated consumer products, food, or drinking water
- Exposure to these chemicals may result in adverse health effects
- Prominent in fire suppressants, being phased out
PLACEMENT OF GAC UNITS AT WRIGHT PATTERSON AFB
POINTS OF CONTACT

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MISSION
Environmental Restoration delivers sustainable, innovative, cost effective remediation solutions with stakeholder engagement, to protect human health and the environment, maintain regulatory compliance, and maximize reuse of DON assets to support the warfighter.

VISION
NAVFAC Environmental Restoration is a recognized leader for responsive, best value, and sustainable remediation solutions.

Agenda
• EV Business Line Overview
• EV Challenges and Focus Areas
• EV Budget Outlook
• ER Program
• EV Business Line Acquisition Strategy

Rob Sadorra, P.E.
Director, Environmental Restoration Division, NAVFAC HQ
1 March 2017
NAVFAC Environmental Business Line

Quality Products and Services

Environmental Planning (NEPA)
– Environmental Impact Statements
– Environmental Assessments

Natural & Cultural Resources
– Integrated Conservation Plans

Environmental Compliance
– Installation Compliance with Federal, State, and Local Environmental Regulations

Environmental Restoration
– Installation Restoration
– Munitions Response
Environmental Challenges and Focus Areas

- Emerging Contaminants (e.g. PFC’s)
- Complex Groundwater Sites
- Vapor Intrusion
- Radiological Cleanup
- Munitions Response
Navy Environmental Budget ($M)

*Congressional Plus-Ups: ER,N: $7.5M in FY16
BRAC: $45M in FY15; $12.6M in FY16
NAVFAC Environmental Workload
FY12-16 Actuals FY17-21 Projected
IR Program Snapshot

- 313 ACTIVE $1,477M
- 1,756 RC $302M
- 43 RC Doc Pending $15M
- 240 RIP-RAO $650M
- 1,675 SC
- Total: 4,027 Sites
  RC 3,431 (85.2%)

MR Program Snapshot

- 232 ACTIVE $1,893M
- 70 RC $13M
- 2 RC Doc Pending $1M
- 93 SC
- Total: 398 Sites
  RC 164 (41.2%)

- Mature IR program
- Many complex sites remain
- Large cost with UW MR sites
Environmental Restoration, Navy Phase Funding Profile

IR Program Profile

- Large and ongoing IR RAO / LTMgt tail
- Complex cleanups remain
- Declining investigations
- Potential radiological requirements not yet reflected

MRP Program Profile

- Near-term focus on MR investigations
- Large underwater MR sites pushed to the right
Vision:
– Provide best contractual solutions
– Establish a balanced and diversified contract tool box to meet the broad array of program requirements

Objectives:
– Increase acquisition options and flexibility
– Effectively manage cost and risk
– Maintain an environment of competition
– Meet political and legislative contracting mandates

Highlights:
– $1,895M in FY17-19 contract requirements
– 104 new contract actions, totaling to approximately $2,863M
Environmental Acquisition Strategy

METRICs

Fixed Price – Trends and Projection

Multiple Awards – Trends and Projection
Small Business – Trends and Projection

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<tr>
<td>FY19</td>
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43% Small Business Goal
Environmental Acquisition Strategy
Looking Ahead – FY17-19

~$1,895M in contract requirements

Proposed New Contracts by Capacity

New Capacities by Contract Vehicle Type
Questions

Rob Sadorra, MBA, M.Eng., P.E.
Director, Environmental Restoration Division
NAVFAC HQ
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Acronyms
EC - Environmental Compliance
CN - Cultural and Natural Resource
P2 - Pollution Prevention
ET - Environmental Training
ER - Environmental Restoration
# Planned FY 17 EV Contracts

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<tr>
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<th>SB or UB</th>
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Air Force Civil Engineer Center

Air Force Environmental Programs

J. Dale Clark, P.E., GS-14
Dep. Director, Environmental Mgmt
7 Mar 17
Environmental Mission

Enabling the Air Force mission through proper environmental planning, sound stewardship and strict compliance with federal laws

Primary Mission Capabilities

- Environmental Media Technical Expertise
- Training
- Management System and Compliance Audits
- Planning, Programming, Budgeting, and Execution
- Environmental Planning Function
- Environmental Quality Program Management
- Environmental Restoration Program Management
- Reporting and Analysis
- Field Operations
What We Support – The Big Picture

- 161 Installations, 44 Range Complexes
  - 156K NM² SUA, 350 MTRs, 29K Acres Accident Zones, 309K Acres Noise Zones

- 200 Miles of Coastline
  - 50 Launches/yr

- 598K acres of forest, 266K acres of wetlands

- 9M Acres of Land
  - Forests, prairies, deserts, wetlands, coastal habitats

- 246 Waste Water Permits
  - 207 Storm Water Permits

- 180 Water Systems
  - Serving 1M+ AF Personnel

- 240 Clean Air Permits

- 285 Federally-Recognized Tribes

- 115 Threatened/Endangered Species on 45 installations

Natural & Built Infrastructure Provides Capacity for Mission Capability
Environmental Quality (EQ) Execution Methods

• Environmental Fence-to-Fence “F2F” Contracts
  – Covers all recurring environmental requirements
  – May include non recurring env reqs as options
  – Includes A76/BOS/BIEST contracts

• Cooperative Agreements with Federal agencies
  – Species/habitat management
  – Cultural resources surveys & inventories

• Centralized Advisory & Assistance Services contracts

• Media specific Blanket Purchase Agreements – central buys (Natural/Cultural Resources/Forestry)
FY17 EQ Budget and Service Agents

• Total - $257.5 M  
  Req’ts – 2,195
F2F Renewals
FY18-20 Strategy/Goals

• Type C/Full and Open for Base Integrated Environmental Support Task (BIEST) contracts (depot bases only)

• Strategies for all other bases (as feasible):
  – Use of ID/IQ contracts (not Type C)
  – Consolidation of current F2F contracts
  – More than one installation under one contract
  – Include existing BOS/A76 requirements
  – Identify additional tasks for F2F
    • Natural/Cultural Resources support
    • Restoration tasks (sampling, LTM, etc.)
  – One service agent per base (for non-F2F as well)
Installations F2F.....Phase 2

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<td>Shaw</td>
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- FY13/14/15/16 F2F efforts - 35 Contracts at 53 installations, ~$215.8M
- Plan to continue with a second cycle of F2F awards
- Developing strategy to more evenly distribute the number of awards
Air Force Active Installations
IRP, MMRP, BD/DR Phase Progress

FY08-FY16: Actual
FY17-FY21: Projection

Number of Sites

Percentage Response Complete

Investigation
Cleanup/RIP
Response Complete
% Response Complete

0 1,000 2,000 3,000 4,000 5,000 6,000 7,000 8,000 9,000
0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

FY08 FY09 FY10 FY11 FY12 FY13 FY14 FY15 FY16 FY17 FY18 FY19 FY20 FY21

41
Environmental Restoration Program (ERP) Execution

- ERP has ~ 350 active contracts
- Performance Based Remediation (PBR) contracts
  - Forty-six PBR contracts awarded since FY11 through 772 ESS and USACE
  - Next round of follow-on PBRs under development
- Other acquisition work
- Emerging contaminants
- Sites not covered under PBRs
- New sites
ERP Acquisition Strategy

- Next round of PBRs begin awards in FY20
- Fence to fence where possible
  - Incorporate lessons learned from 1st PBR round
- Contracting options under evaluation
  - EQ F2F contract vehicles for LTM sites
  - Service contracts (RA-O, LTM)
  - AFCEC AE-13 ES
  - Other contract types
- Regional grouping
  - Complex/long-term sites
  - RA-O/LTM

• One Size Does Not Fit All
Critical Juncture - PBR Contracts POP End Dates

- 2016: 0%  
- 2017: 0%  
- 2018: 0%  
- 2019: 0%  
- 2020: 25/54%  
- 2021: 6/13%  
- 2022: 1/2%  
- 2023: 5/11%  
- 2024: 4/9%  
- 2025: 2/4%  

Note: The graph shows the number of PBRs ending in each period.
ERP Way Ahead

• Future budgets continue downward trend
  – Program averaging $300M/year through FY22
• Program more mature; 91% of sites at RC by FY21
  – Completion of cleanup activities under PBRs
  – Reduced number of sites requiring remediation
• Emerging contaminants are wild card
  – PFOA/PFOS currently in PA/SI phase; estimated to begin RIs in FY19
QUESTIONS?