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NAS KEY WEST, FL
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**MINUTES FROM THE 23 JULY 2019 RESTORATION ADVISORY BOARD
MEETING NAS KEY WEST FL**

07/23/2019
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NAS KEY WEST RESTORATION ADVISORY BOARD

23 JULY 2019 MEETING SUMMARY

LOCATION: Florida Keys Eco-Discovery Center, Key West, Florida

RESTORATION ADVISORY BOARD MEMBERS

Ron Demes	NAWCAD ATMO/NAS Key West, Navy Co-Chair	305-293-2886 Ron.Demes@navy.mil
Mimi Stafford	RAB Community Member, Community Co-Chair, Citizen	305-296-5947 simi01@bellsouth.net
Margaret Romero	RAB Community Member, City Commissioner District 5	305-809-3844 keywestquestions@yahoo.com
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Mark Songer	RAB Community Member, Citizen	305-394-3807 MarkSonger72@gmail.com
Roger Durham	FDEP Remedial Project Manager	850-245-8998 Roger.Durham@FloridaDEP.gov
Ed Russell	NAS Key West Installation Restoration Manager	305-797-4461 Edward.O.Russell@navy.mil
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Bob Eadie	RAB Community Member, Monroe County Health Department	305-809-5610 Bob.Eadie@flhealth.gov

* Absent

OTHER PARTICIPANTS/COMMUNITY ATTENDEES

Donald Hardison	NAVFAC SE	904-542-6169 Donald.Hardison1@navy.mil
Ed Barham	NAS Key West	305-293-2911 Edward.Barham@navy.mil
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Ray Blasovich	Key West Resident	
Derek Jans	NAS Key West	305-293-3231 Derek.A.Jans@navy.mil
Patrick Rice	College of the Florida Keys	305-809-3228
Kevin Wilson	Monroe County	Wilson-Kevin@MonroeCounty.FL.gov
Clayton Lopez	Commissioner, City of Key West	clopez@cityofkeywest-fl.gov
Simon Stafford	Key West Resident	305-296-5947
CMDR Brooke Grant	USCG Logistics Officer	

These minutes are a summary based on informal notes taken at the meeting. They are not intended as a verbatim transcript and may not have captured everything that was discussed.

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WELCOME AND INTRODUCTIONS

Ron Demes brought the meeting to order at 6:00 PM with the Pledge of Allegiance. Ron introduced several key attendees, which included NASKW new Commanding Officer, Captain Mark Sohaney; USCG Logistics Officer, Commander Brooke Grant and Key West City Manager, Mr. Jim Scholl.

Ron asked that the presentation be given without interruption; after which, the RAB members will be invited to ask their questions about the presentation followed by questions from the general audience.

The Restoration Advisory Board (RAB) members introduced themselves.

An informal question and answer period will be conducted after the conclusion of the RAB meeting.

A poster board map of all the Installation Restoration sites was available for meeting attendees and was used throughout the presentations to reference site locations.

REVIEW OF LAST MEETING

RAB members were provided with copies of the 2018 RAB meeting minutes. Ron asked if there were any corrections to those minutes. There was a motion to approve the 2018 RAB meeting minutes as provided, and the motion carried.

INSTALLATION UPDATES, ED RUSSELL, NAS KEY WEST

Ed Russell, Installation Restoration / Munitions Response Programs Manager provided an update on some highlights of NASKW's activities since the last Restoration Advisory Board meeting. This update was provided to inform the Community Members and public about other activities occurring at NASKW in addition to the Installation Restoration work, which is the focus of the RAB meeting.

The following are highlights taken from the presentation information.

- Environmental Award
 - Secretary of the Navy 2018 Environmental Award: Natural Resources Conservation Small Installation
 - Airfield Habitat Restoration and Lower Keys Marsh Rabbit Conservation
- Natural Resources
 - Crocodile population Study with Florida Fish and Wildlife Conservation
 - Exotic/Invasive Vegetation Removal
 - 2018 Old Boca Chica Road in conjunction with State grant
 - Around Taxiway Kilo, Solid Waste Management Unit (SWMU 9), Behind Nose Hangars, Shoreline IR-8 and Rabbit Habitat
- DLA Boca Chica Fuel Projects – Tank Farm and Truck Fill Stand
- RCRA/HSWA Permit Renewal
 - Minor modification 2018 – Update to our Corrective Action Tables
 - 2019 Permit Renewal is underway (every 5 years)
- Public Event Participation
- Land Use Control (LUC) Inspections
 - 2018 LUC certification submitted to FDEP and EPA 03Jan19
 - 2019 quarterly LUC inspections completed and current
- Air Show – March 2019

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Questions, Answers, and Comments:

Q: Simon Stafford, Key West Resident. Where the exotic species were killed, will the dead trees be removed?

A: Ed Barham, NAS Key West. One contractor was hired to apply herbicide to the exotic species. Another contractor will come in and remove the dead trees.

INSTALLATION RESTORATION PROGRAM UPDATES, ED RUSSELL, NAS KEY WEST

Ed Russell noted that the Navy would be providing the presentations during the meeting but that their environmental contractors were also present at the meeting to help provide additional information and guidance should any be needed.

Ed's presentation highlighted some of the key items discussed during the RAB meetings in 2017 and 2018 and provided an update on where events stand currently with those sites. The focus of the presentation included discussions on any setbacks to planned milestones and also current paths forward including projected closure dates.

The presentation was paused during the discussion on UST 10 to allow for questions from the RAB membership since this item was newly introduced during the 2018 RAB meeting and was one reason the RAB members approved carrying the RAB forward another year. Any questions on UST 10 are captured in the text that follows.

Ed noted that there were several similar themes that ran across a number of presentation slides: e.g. groundwater data has been reviewed, Site Rehabilitation Completion Report are currently in Navy review and that the site is anticipated to be closed with groundwater restrictions. The presentation also included information on ecological risk assessments at SWMU 2 and Site 31.

Based on the material presented, most NASKW sites are planned to close with land use restrictions for groundwater in the affected area.

The following are highlights taken from the presentation information.

- At the 2017 and 2018 RAB meetings, several sites were that were anticipated to close with controls in the "upcoming year" (i.e., years 2018 and 2019, respectively)
 - In 2017, the following sites were discussed:
 - Geiger Key Hawk Missile Site – Site 22
 - Boca Chica Flying Club – UST 9
 - Trumbo Annex BOQ – Site 29
 - Jet Engine Test Cell – SWMU 9
 - In 2018, the following sites were discussed:
 - Boca Chica Hawk Missile Site – Site 25
 - Boca Chica Tank Farm – Site 28
 - Boca Chica Truck Fill Stand – Site 31
- 2018 RAB discussed a new underground storage tank (UST) site
 - A-508 Underground Storage Tank – UST 10
- Number Closed since 2017/2018 RAB discussion = 0 (zero)
 - Delays / Setbacks
 - 2017 Hurricane Irma
 - 2018 Change in Contracts / Contractors
 - 2018 Change in FDEP Project Manager

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A-508 Underground Storage Tank – UST 10

- A-508 Underground Storage Tank – UST 10
 - Task Order Initiated and field operations to occur for soil and groundwater investigations
- Zero closed sites does not equate to no accomplishments and no work
 - We have forward movement in many sites moving towards closure
 - Numerous documents drafted in preparation for planned closures
 - SWMU 2 Ecological Risk Assessment completed
 - Munitions Response Program has been busy with field work and planning documents

A task order was initiated with field work occurring for soil and groundwater investigations in 2020.

Ron asked if Mark Songer, RAB Member, had any specific questions on Site A-508 since he was interested in future site investigations at the 2018 RAB meeting and was a reason not to sunset the RAB in 2018. Mark noted that he had no questions on the topic and that he had some recent discussions with Ed Russell on this site prior to the RAB meeting.

Trumbo Annex BOQ – Site 29

- Setback -Trumbo Annex BOQ – Site 29:
 - (RAB 2018) Installation of additional monitoring well (MW) planned for 2018
 - Still planned for East side of building in area near former well MW-22 but will occur in late 2019
 - Early 2019: FDEP questioned a naphthalene exceedance recorded in MW-26 during a 2008 sampling event.
 - We'll install an additional MW approximately 50 feet south-southwest of MW-22 to "close off" that data gap
- Path Forward
 - Wells will be installed in Calendar Year (CY)19
 - 3 rounds of sampling (One at time of well installation / then 2 semiannual)
 - Closure projected FY21 (GW restrictions)

Jet Engine Test Cell – SWMU 9

- Slight Setback –SWMU 9
 - 2018: Navy Drafted Amended Statement of Basis (SOB) Addendum – in preparation for submittal to the FDEP
- What's next:
 - Submit SOB to FDEP (In Navy Review)
 - Prepare Corrective Measures Implementation Plan (CMIP) – incorporating 2017 groundwater data, submit to FDEP
 - Submit CMIP for public comment
 - Finalize comments and CMIP
 - Submit for regulatory review and concurrence
 - Amend SOB
- Closure date – dependent on timing of and comments on above sequence of events

Geiger Key Hawk Missile Site – Site 22

Groundwater data has been reviewed. The Site Rehabilitation Completion Report was submitted to the FDEP on June 6, 2019. The site will be closed with groundwater controls. The anticipated closure is Fiscal Year (FY) 2019.

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Boca Chica Flying Club – UST 9

Groundwater data has been reviewed. The Site Rehabilitation Completion Report is currently in Navy review. The site is anticipated to be closed with groundwater restrictions. The site is expected to be closed in the first half of FY 2020.

Boca Chica Hawk Missile Site – Site 25

Groundwater data has been reviewed. The Site Rehabilitation Completion Report is currently in Navy review. The site is anticipated to be closed with groundwater restrictions. The site is expected to be closed in the first half of FY 2020.

Boca Chica Tank Farm – Site 28

Groundwater data has been reviewed. The Site Rehabilitation Completion Report is currently in Navy review. The site is anticipated to be closed with groundwater restrictions. The site is expected to be closed in the first half of FY 2020.

Boca Chica Truck Fill Stand – Site 31

- Forward Movement: Boca Chica Truck Fill Stand – Site 31
 - RAB 2018: Path forward plan
 - Install new shallow well to the northwest of MW13 to laterally delineate Polycyclic Aromatic Hydrocarbons (PAHs) above cleanup target levels (CTLs)
 - Continue to collect co-located surface water, pore water, and sediment samples in the west wetland
 - Sample wetland as soon as “Wet”
 - Sample new well after install and again 4th quarter with other wells
 - Late 2018
 - Installed new shallow well to the northwest of MW13 and a piezometer to the northwest of the west wetland.
 - Finally able to collect co-located surface water, pore water, and sediment samples in the west wetland
 - 2019 – Where are we now
 - Evaluating the results of the 2018 quarterly sampling events
 - Expanded site assessment report and ecological risk assessment (ERA) are currently in preparation
 - Closure date anticipated end of FY 2020/FY 2021

SWMU 2 – Former DDT Mixing Area

- Forward Movement: SWMU 2
 - Submitted an Updated Ecological Risk Assessment (ERA) Evaluation to the FDEP in April 2019
 - Looked at the lagoon, pond and connecting drainage ditches
 - Primarily a “paperwork exercise” in evaluating ecological risks using more realistic exposure assumptions
 - Several metals, pesticides and pyrene were initially selected as chemicals of potential concern (CPOCs)
 - After applying the refinement of realistic assumptions, only the pesticides 4,4'-DDD, 4,4'-DDE and 4,4'-DDT were retained as CPOCs

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- FDEP and Navy agreed that the lagoon was a low-quality habitat for the benthic community associated with it as well as the connecting pond, and drainage ditches
- FDEP's primary concern was potential effects to receptors outside the site
 - Updated ERA Evaluation addressed this concern of potential pesticides migrating offsite
- FDEP approved the Updated ERA Evaluation June 2019 and the discontinuation of sediment monitoring
- Next steps
 - Draft an Amendment to the current 1998 Statement of Basis (SOB) including a proposed remedy for the site
 - Solicit Public review – 30 day comment period
 - Finalize Amended SOB following public review and comments
 - Projected Timeline to complete: FY20

Questions, Answers, and Comments:

Q: Bob Eadie, RAB Member. It appears that SWMU 2 is discharging into the marina area.

A: Ed R., NAS Key West. Ed Russell traced the stormwater drainage system out on an aerial diagram displayed on the screen as part of the SWMU 2 presentation section. Ed Russell noted the area on the aerial diagram where the stormwater discharges into open water just before the marina area.

Q: Mimi Stafford, RAB Member. Mimi expressed concerns about the bird population around SWMU 2 and if anything was done to investigate that.

A: Ed Russell, NAS Key West. Ed Russell described the work previously conducted on the airfield as part of the airfield clear zone and restoration project. As part of this permitted work, any vegetation around SWMU 2 was removed and as a result any potential habitat that may encourage birds to congregate in that area were also removed. There is also an active deterrent, a Bird/Animal Aircraft Strike Hazard (BASH) program that is part of the airfield operations that is used to keep the birds off the airfield. With regards to investigations, the Little Blue Heron was used in the ecological risk assessment to determine if there were any risks to birds that may frequent that area. The results of that study found that the ecological risk to any bird that may frequent SWMU 2 are acceptable. Linda Klink, Tetra Tech, also added additional information about the ecological risk assessment with regards to that acceptable risk finding.

Q: Mimi Stafford, RAB Member. Have the DDT level dropped?

A: Ed Russell, NAS Key West. The levels have not dropped significantly, but we also have not seen an increase either. The ecological risks are within the acceptable limits.

Q: Bob Eadie, RAB Member. DDT is detected, but where is it detected: soil, water, or what?

A: Ed Russell, NAS Key West. Most of the DDT is detected in the sediments and is not moving. Ed Russell showed areas on the aerial image where DDT is present or has been found based on prior sampling events

Q: Bob Eadie, RAB Member. Did the DDT in the ditches come from the site? [This question is in regards to the storm ditches (stormwater draining ditches) outside of SWMU 2 along the airfield 08/26 and taxiway Alpha]

A: Ed Russell, NAS Key West. It could be historic DDT levels that are not related to releases but rather to normal application of DDT from past practices, which would not be site related. It is known that there is a tidal connection to SWMU 2 and these stormwater ditches.

Q: Mark Songer, RAB Member. Mark asked what method was used to make the public aware of the issues regarding the Jet Engine Test Cell and DDT Mixing Area. [This question is an overall question

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on how the public is provided an opportunity to comment on remedies that require a public comment period]

A: Ron Demes, RAB Member. This will be addressed later in the meeting during the discussion to sunset the RAB.

A: Ed Russell, RAB Member. Ed Russell also noted that public notices are put in the newspapers when public notification and involvement are being provided or solicited.

Q: Mimi Stafford, RAB Member. What will the future use of the Geiger Key Hawk Missile sites be?

A: Ron Demes, RAB Member. The different hawk sites are looked at differently regarding intended uses. Of the four hawk missile sites, two were retained by NASKW and not part of BRAC transfer. The Boca Chica Hawk Missile site on the north of Boca Chica has a NOAA weather Doppler radar station, and the other on Geiger Key was required to be preserved as a cultural resource covered under an agreement with the Florida Historic Preservation Office. Both continue to support military ongoing training operations.

Ron went on to explain how the RAB began and the historical process on how many of the Navy's sites came to be. Ron noted that exposure limits to ensure public safety is a driving factor for cleanup based on use of the site. Ron also explained what a Land Use Control (LUC) is and how it can be protective in lieu of cleaning a site to pristine levels, which are often cost prohibitive. When a Navy property is sold, its end use is considered and then it is remediated to the environmental standards based on the planned land use

Mimi asked if there were any plans to allow the public to use or access the Geiger Key Hawk Missile site. Ron said it may be possible the site could be visited by the public in the distant future, but the Navy's current plan and current use is as a training location. Regardless, the historic significance of the site must be protected. NASKW has entertained several requests to use the property in the past but none materialized.

Q: Patrick Rice, College of the Florida Keys. What does SWMU mean?

A: Ed Russell, NAS Key West. Solid Waste Management Unit, which is a place where waste has been managed, stored or possibly disposed.

A: Ron Demes, RAB Member. Ron noted that SWMUs are specific terms related to Boca Chica's RCRA/HSWA permit and that if a site is not a SWMU, it falls under CERCLA, which is an Installation Restoration site. Both terms are related to sites undergoing cleanup or corrective actions but are specific with regards to the regulatory criteria they fall under.

Q: Patrick Rice, College of the Florida Keys. In reference to the DDT site, what is the purpose of water body? [This question was in reference as to why it should be retained if it is known to have contamination]

A: Ron, RAB Members. The waterbody is a borrow pit created from the removal of fill from the area. The runways are approximately 4 to 6 feet above sea level, and the material removed from the borrow pit was needed to raise the surrounding area and runways.

A: Ed Russell, NAS Key West. Ed Russell also noted that the borrow pit is part of the airfields stormwater management system.

Q: Patrick Rice, College of the Florida Keys. If the site still has DDT and has a possibility for water fowl, why not fill it in?

A: Ed Russell, NAS Key West. The airfield actively discourages birds from being on the site through the BASH program. The site is also part of the airfield stormwater management system.

A: Linda Klink, Tetra Tech. The risks to the site are within acceptable limits. If the risks were not acceptable, remedial action would have been taken. Also, historically, a remediation was previously conducted at the site where the building was removed and the drainage ditch sediment was removed, and so remaining DDT contamination is only residual.

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Q: Margaret Romero, RAB Community Member. Is the college most concerned about the water fowl or the waterbody itself?

A: Patrick Rice, College of the Florida Keys. If there is water there and it is not serving a purpose, why not get rid of the water? If it's serving a purpose, as was noted for stormwater, then I understand why it would remain. Why isn't the Navy performing an active remediation at the site?

A: Ron Demes, RAB Member. The Navy did perform an active remediation at the site. The impacted sediments of the ditch were dredged out. What is left at the site is residual pesticide contamination. There are diminishing returns on cleaning up this residual pesticide contamination, such that cost and further impact to the ecosystem have to be accounted for.

MUNITIONS RESPONSE PROGRAM (MRP) UPDATES, DONALD HARDISON, NAVAL FACILITIES ENGINEERING COMMAND SOUTHEAST (NAVFAC SE)

Donald Hardison presented information on the following MRP sites: UXO 10, UXO 8, UXO 9, UXO 6, UXO 1, UXO 4 and UXO 3.

Donald's discussion included highlights from the 2010 munitions response program (MRP) site investigation, which identified 14 historical munitions sites. Many of these sites were small arms related. Donald also explained how the Navy had combined several of these sites into one overall site based on the geography and/or other features such as overlap and in order to complete investigations and site characterizations.

Donald's presentation was broken into two sections to allow for questions and to separate sites that would have intrusive operations versus sites that may simply be doing sampling.

Donald summarized that for sites UXO 8 and UXO 9, we are working in a direction to achieve a no further action approval (NFA). UXO 8 is a site on an existing site that has been studied and while the Navy plans for a NFA that is based on the approval to allow the overall site (IR-7) to remain the governing site with land use restrictions already in place. For UXO 10, the Navy plans to place land use control in place to prevent disturbance without environmental approval or oversight. This deferred action is because the site is primarily under concrete and asphalt within the active airfield and field operations are not practical. Investigation would occur once the land use changes. UXO 6 still has additional data to be collected before a final path forward can be determined. No questions were received at the interim questions section and the presentation continued.

Donald presented information on UXO 1, UXO 3 and UXO 4, all sites with planned intrusive operation to occur within the upcoming year. For UXO 1, 1,301 anomalies are planned to be investigated. These were anomalies identified in the 2013 Site Investigation. Planning documents are in the process currently. For UXO 3, 127 targets of interest will be investigated over a 3- to 4-day period. This operation will occur in 2020 and planning documents are currently in the process. For UXO 4, the Dead 8, area, remote "robotic" operations are planned for this site. The use of robotic operations will increase safety and also allow less time on the site to conduct the work. The operation is expected to take 6 months or less. The final goal for this operation is to have the site free of any munitions concerns. Depending on funding availability in 2020, the equipment may be taken to UXO 3 to complete munitions remediation at that site.

The following are highlights taken from the presentation information.

- Munition Response Program (MRP) Sites
 - 2010 Site Inspection Report (Finalized 2015) discussed 14 MRP sites and briefly discussed the near shore underwater ranges (Historic Ranges)
 - Additional "site" not included in the 2010 SI Report is also being tracked

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- Boca Chica A22 Drainage Ditch, A950 Spoils Pile, Dead 8 Spoils Piles, VCA 8 and VCA 22 (UXO 4)
- CLOSED Sites: closed based on initial site investigation report findings and reviewed and approved by FDEP
 - Sigsbee Park Annex Marine Rifle Range (MRP SARR) – NFA Approved 2015
 - Trumbo Point Annex Skeet Range (MRP TPSR) – NFA Approved 2015
 - Trumbo Point Annex Pistol Range (MRP TPPR) – NFA Approved 2015
- ACTIVE Sites: Site Assessment
 - Fleming Key Dredge Spoil Area (UXO 1)
 - Near Shore Underwater Ranges (UXO 2) – offshore Navy Property
 - Trumbo Point Temporary Staging Area (UXO 3)
 - Boca Chica A22 Drainage Ditch, A950 Spoils Pile, Dead 8 Spoils Piles, VCA 8 and VCA 22 (UXO 4)
 - North Boca Chica Skeet Range #820 (UXO 6)
 - North Boca Chica Pistol Range #821 (UXO 6)
 - Boca Chica Field Rocket Loading Area (UXO 10)
 - Boca Chica Field Skeet Range (UXO 10)
 - Boca Chica Field Bore Sighting Range (UXO 10)
 - Boca Chica Field Shooting-in-Butt Range (UXO 10)
 - Boca Chica Field Trap Range (UXO 10)
 - Truman Annex Rifle Range (UXO 9)
 - Fleming Key Pistol Range (UXO 8)

UXO 10 – Five Different Range Sites

UXO 10 is located within the following active operational areas:

- Boca Chica Field Rocket Loading Area (UXO 10)
- Boca Chica Field Skeet Range (UXO 10)
- Boca Chica Field Bore Sighting Range (UXO 10)
- Boca Chica Field Shooting-in-Butt Range (UXO 10)
- Boca Chica Field Trap Range (UXO 10)
- Historical maps from 1945 to 1950 indicate the presence of a former (i) bore sighting range, (ii) trap range, (iii) skeet range, (iv) shooting-in butt range, and (v) rocket loading area at Boca Chica Field.
- 1952-1954: Runway and Taxiway Alpha extended; Tarmac constructed. No evidence of any ranges remain.
- 2010 Site Inspection conclusions
 - Soil: antimony, arsenic, copper, and lead were detected at concentrations greater than FDEP residential Soil Cleanup Target Levels (SCTLs) and arsenic was also detected at concentrations greater than the industrial SCTL
 - Sediment: copper, lead, and zinc were detected at elevated levels in sediment samples from the drainage ditch that runs between the tarmac and Taxiway A, and lead exceeded its Project Action Limit (PAL), which was the Florida Sediment Quality Assurance Guideline (SQAGL).
- Closure Path
 - Time Critical Removal Action (TCRA) Action Memorandum was developed and submitted to the FDEP in March 2019.
 - Recognizes the source may be unknown and not necessarily munitions related
 - No Actual Removal Action – strictly documentation – does not remove risk

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- Majority of the area is under concrete / asphalt (Tarmac/Apron, Taxiways)
- Proposed Land Use Controls on munitions' boundary restricting intrusive actions without environmental oversight
- Defers further assessment until change of use (i.e. current airfield use replaced with another use)

UXO 8 – Fleming Key Pistol Range

- Appears on historical maps dated 1964
- Located within IR-7, the former Fleming Key North Landfill, used from 1952 to 1962
 - IR-7 existing LUCs prohibit residential use
- MRP Site Investigation found two lead exceedances for soil samples using industrial screening criteria
- Path Forward
 - Collect soil to delineate exceedances and remove any “hot spots” exceeding industrial standards
 - Data Quality Objective Packet submitted to FDEP (Planning Document)
 - Subsequent removal of any “hot spots” above industrial
 - Field work anticipated end last half of CY19
 - Goal: Closing the site from further MRP investigations and default the site to existing IR-7 LUCs

UXO 9 – Truman Annex Rifle Range

The site was shown as rifle range on historical maps dated 1942 to 1947.

- UXO 9 partially lies within IR-1 (1952 to 1960s landfill operational)
- Samples from six sample locations were taken in 2010 as part of the initial site investigation
 - Taken from the 100-yard and 200-yard firing lines
 - 300 yards covered with pavement and berm was part of 1996 remediation for lead impacted soils in IR-1
 - Firing lines have uncertainty due to historical site changes (construction, shoreline changes) and inherent errors in historical documents / figures
 - At one sample copper exceeded residential FDEP soil cleanup target levels (SCTLs) but no other small arms range metals were of potential concern
 - Elevated concentrations of Arsenic were encountered above residential SCTLs
- Path Forward
 - Berm area in IR-1 has been addressed and is restrictive due to land use controls already in place
 - Re-collect / resample at location with Copper exceedance to determine if an anomaly
 - Step-outs: Collect step-out samples North, South and East (West is already bound by a clean sample) and test sequentially outward if step-out exceeds residential SCTL
 - (July 2019) FDEP requested additional sampling to have a more robust data set to evaluate arsenic as background.
 - Goal: No Further Action
 - Background Arsenic assessment
 - Closure projected end of FY 2020 / early FY 2021

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UXO 6 – North Boca Chica Skeet Range and Pistol Range

- Historical maps show a pistol range (#821) and Skeet Range #820 on North Boca Chica between 1952 and 1971
- RAB 2018: Discussed some of the previous sampling and planned sampling events that included the following:
 - Soil Exceedances
 - Arsenic, Antimony, Copper, Lead
 - PAHs
 - Nitroglycerin
 - Sediment Exceedances
 - Arsenic
 - Tin
 - Discussed next steps
 - Evaluate the soil data, collect additional soil step-out samples and install monitoring wells if necessary, and prepare a Remedial Investigation Report.
 - » Collected November 2018
- November 2018: step-out samples were collected
 - Results are still being evaluated
 - Arsenic was detected greater than residential SCTLs
 - Transitioning contracts and contractors
- Background evaluation for Arsenic was discussed with FDEP, approved and implemented in February 2019
- April 2019: FDEP questioned one of the approved sample data sources
 - Seven samples required for non-statistical background approach
 - Six collected samples plus one existing sample data point
 - The FDEP suggested replacement of questionable sample data point with an alternate sample data point (both part of existing data set)
- Path forward
 - New data point reduces background arsenic concentration slightly, but doesn't affect the current path forward
 - Prepare response to FDEP comments and revise the current background evaluation submittal
 - Additional sampling to complete characterization of soil samples
 - Antimony, arsenic, copper, lead, PAHs, and nitroglycerin were detected in soil above residential CTLs
 - Arsenic and tin exceedances were detected in sediment samples

UXO 1 – Fleming Key Dredge Spoils Area

- 2003/2004: 27 acres of Dredge Spoils / ~400,000 cubic yards
- 2009: Munitions items observed
- 2013: Expanded Site Investigation (SI)
- 2016: Intrusive investigations conducted for subset of anomalies that may be munitions or explosives of concern (MEC)
 - 394 targets of interest and 8 surface anomalies
- 2019: Currently working on planning documents for intrusive field work to investigate 1301 anomalies identified in the 2013 SI
 - Includes site size reduction (red area)
- 2020: Field work anticipated to begin around middle of CY 2020

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UXO 4 –A22 Draining Ditch, A-950 Spoils Pile, Dead 8 Spoils Piles, and Vegetation Conversion Area (VCA) 8 and VCA 22

- UXO 4 – A22 Drainage Ditch, A-950 spoils Pile
 - Potential Concerns included the following:
 - An inert 5-inch AR warhead on the surface of the A950 Spoils Pile
 - A live, intact, unfused 5-inch AR warhead submerged in the A22 Drainage Ditch
 - AN-MK 23 Practice Bombs
 - MK 76 Practice Bomb/MK 4 Cartridge
 - 20-MM projectiles
 - Small Arms Ammunition
 - All together 24 Munitions and Explosives of Concern (MEC) identified
- UXO 4 – VCA 8 and VCA 22
 - RAB 2018: Discussed geophysical data collected and being evaluated by Navy
- UXO 4 – Dead 8 Spoils Piles
 - Potential concerns – same composition source material as A22 Drainage Ditch and A950 Spoils Pile
 - Upcoming work
 - Non-Time Critical Removal Action planned. Planning documents currently in the works (includes explosive safety submittal / Quality Assurance Project Plan (QAPP) / Accident Prevention Plan (APP) / Site Safety and Health Plan (SSHP) etc.)
 - To include the use of remote technologies with the goal of increased safety
 - Field work targeted for May 2020 (Mid – Late CY 2020)
 - Target date subject to approval of planning documents and ESS
 - Use of remote robotic mechanized earth moving machinery to move, sort and process ~60,000 cubic yards of spoil material
 - Material will be processed in a screening plant: screened, sorted, metals removed (including any potential munitions)
 - Metals processed for any potential munitions: metals recycled, munitions disposed
 - Vegetation remove, large items crushed to 7/16", final fill stock piled
 - Total onsite operations: ~6 months

UXO 3 – Trumbo Point Temporary Staging Area

- Fill material came from (what later became) UXO1 (1.25 acres)
- 2018 RAB: Expanded Site Inspection identified 127 identified as "Targets of Interest" (TOIs)
- Upcoming Work
 - Non-Time Critical Removal Action planned
 - Intrusive operations to dig the TOIs is currently targeted for May 2020
 - 3-4 day intrusive field operations (hand digging) / Months for planning documents
 - Coordination with USCG and Key West Pipeline
 - Planning documents including the Explosive Safety Submittal (ESS) are being developed
 - Possible FY 2021 work includes remote screening of site after UXO 4 work is complete (Dependent on Funding)
 - This goal would complete any UXO concerns and should bring the MRP process closer to an end phase by FY 2021 (September 2021)

NAS KEY WEST RESTORATION ADVISORY BOARD

23 JULY 2019 MEETING SUMMARY

LOCATION: Florida Keys Eco-Discovery Center, Key West, Florida

Questions, Answers, and Comments:

Q: Mimi Stafford, RAB Member. What is the purpose of having a remote dozer, crusher, excavator, etc. at UXO 4?

A: Donald Hardison, NAVFAC SE. In case explosives are encountered it adds an additional element of safety to the operation by removing potential hazards to workers.

Q: Bob Eadie, RAB Member. The spoils came from dredging somewhere else, wouldn't it have exploded then?

A: Ed Russell, NAS Key West. The actual material was not dredged but was from the airfield restoration project. The material was moved with backhoes and other equipment to its current location.

RAB ADJOURNMENT (SUNSETTING), ED RUSSELL, NAS KEY WEST

Ed Russell started the discussion with photos from one of the first RAB meetings and noted that the RAB was started in 1995. Highlights were presented from The Restoration Advisory Board Rule Handbook (March 2007), which states a RAB can be adjourned if there is no longer sufficient and sustained community interest. The RAB Charter also states the RAB can be terminated upon completion of final remedial design or it may be terminated earlier upon a majority vote of the RAB membership.

Ed Russell presented some numbers compiled from the previous four Public RAB meetings. Those numbers showed that public interest has been low for those last four RAB meetings. During the time period from 2015 through 2018, public participation in the RAB meetings ranged from a high of nine participants in 2015 to a low of three participants in 2017. Ed Russell also presented numbers related to the populations of Key West (24,565), Monroe County (75,027) and the Lower Keys (12,584). The low public turnout at the previous meetings compared to the population numbers shown would support that there is no longer sufficient or sustained interest.

The Navy proposes that the RAB members consider adjournment of the RAB based on the low community participation, which supports the "no longer sufficient and sustained community interest" criteria. Other forms for communication can and are currently used to keep the community informed and engaged. Currently the CO's weekly radio address on US1 Radio (104.1 FM), Facebook (<https://www.facebook.com/naskeywest/>), Twitter (<https://twitter.com/naskeywest>), and the Administrative Record Public Website (<http://go.usa.gov/KSDJ>) are forms of communication currently being used to maintain community engagement. The Public Affairs Officer or the Environmental office can also be contacted. Ed Russell also noted that the Navy still has a responsibility to solicit the community every two years to see if there is renewed interest in re-establishing the RAB.

Ron asked the RAB members to express their comments/opinions.

Mark Songer noted that there are a lot of expected closure dates in 2020 and 2021 that were presented. Site A-508 is the only site without a projected closure date. Ed Russell does not expect the site to close within the next two years. Mark discussed his personal involvement as a RAB member, which entails about three days per year. Mark stated that he is comfortable that the Navy is doing the right thing and will continue to do the right thing.

Mimi stated the Navy has been very transparent with the sites and the cleanup process. Mimi feels the door is open and if there is public concern, there are means to get questioned answered.

Margaret stated she feels the military has been very transparent and has always addressed issues that were brought up. The military should be commended with the trust that has been established. Margaret is okay with the suggestion of sunseting the RAB.

NAS KEY WEST RESTORATION ADVISORY BOARD

23 JULY 2019 MEETING SUMMARY

LOCATION: Florida Keys Eco-Discovery Center, Key West, Florida

Bob said there was really nothing else to add. If there were some public health concerns, he would state them and would be reluctant to sunset the RAB, but he does not have those issues. There will be oversight for the completion of the cleanup efforts.

Bob made a formal motion to sunset (adjourn) the NAS Key West Restoration Advisory Board. Margaret seconded the motion.

Ron and Mimi called for the RAB members vote regarding adjourning the RAB.

RAB member's votes to adjourn the RAB are as follows:

Ron Demes: Navy Co-Chair – Yes

Mimi Stafford: RAB Community Co-Chair Member – Yes

John Dolan-Heitlinger: RAB Community Member – ABSENT

Bob Eadie: RAB Comment Member, Monroe County Health Department – motion made (Yes)

Mike Petro: RAB Member – ABSENT

Margaret Romero: RAB Member – motion seconded (Yes)

Mark Songer: RAB Member – Yes

Roger Durham: FDEP, Remedial Project Manager – Yes

Ed Russell: NAS Key West Installation Restoration Manager – Yes

Donald Hardison, NAVFAC SE – Yes

The vote to adjourn the RAB was unanimous among a majority of the RAB membership present.

MEETING ADJOURNMENT

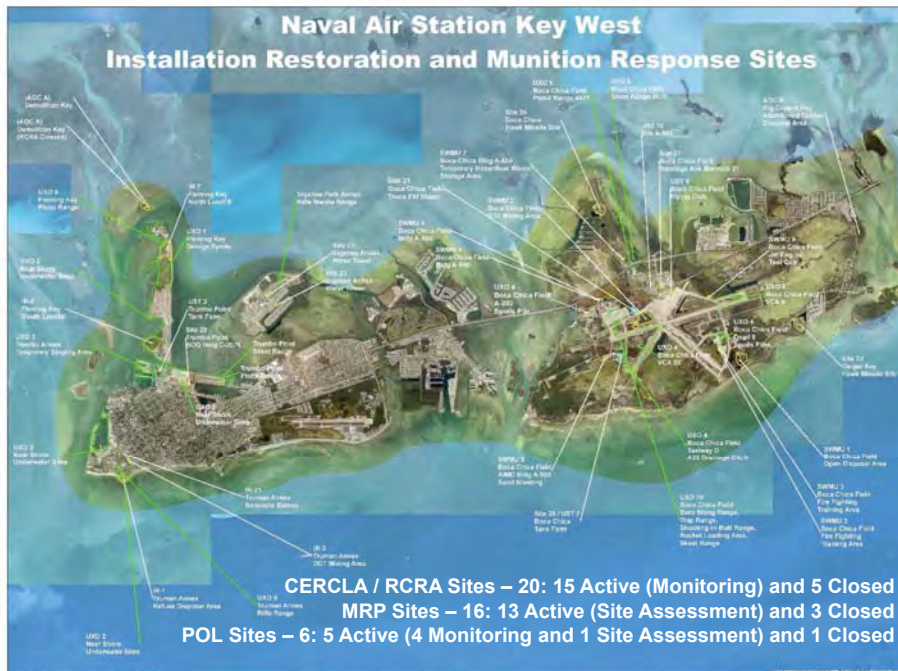
Ron reminded the attendees that contact information is included in the minutes, and the community can contact RAB members if they have questions that pertain to the topics in this meeting and for other questions feel free to contact the NAS Key West Public Affairs Officer, Ms. Trice Denny.

If a community member would like to see a site, they can contact Ed Russell at NAS Key West.

Information about the cleanup and other activities can be found at the following websites: http://cnic.navy.mil/regions/cnrse/installations/nas_key_west.html or <http://go.usa.gov/KSDJ>.

Ron Demes thanked everyone for coming to the meeting. The meeting was adjourned at 7:37 PM.

An informal question and answer period was conducted after the meeting concluded.



RCRA: Resource Conservation and Recovery Act | CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act | POL: Petroleum, Oil and Lubricants



Installation Updates Non-Restoration Related

Information provided by:
Edward Russell, NAVFAC SE NASKW
Edward.O.Russell@navy.mil
305-797-4461



Installation Updates



- **Environmental Award**

- **Secretary of the Navy 2018 Environmental Award: Natural Resources Conservation Small Installation**

- Airfield Habitat Restoration and Lower Keys Marsh Rabbit Conservation

- **Natural Resources**

- **Crocodile population Study with Florida Fish and Wildlife Conservation**

- **Exotic/Invasive Vegetation Removal**

- 2018 Old Boca Chica Road in conjunction with State grant
 - Around Taxiway Kilo, SWMU 9, Behind Nose Hangars, Shoreline IR-8 and Rabbit Habitat

- **DLA Boca Chica Fuel Projects – Tank Farm and Truck Fill Stand**

- **RCRA/HSWA Permit Renewal**

- **Minor modification 2018 – Update to our Corrective Action Tables**

- **2019 Permit Renewal is underway (every 5 years)**

DLA: Defense Logistics Agency | RCRA/HSWA: Resource Conservation and Recovery Act/Hazardous and Solid Waste Amendments



Installation Updates



- **Public Event Participation**

- **Land Use Control (LUC) Inspections**

- **2018 LUC certification submitted to FDEP and EPA 03Jan19**

- **2019 quarterly LUC inspections completed and current**

- **Air Show – March 2019**



Comments & Questions



Installation Restoration Program Updates

Information provided by:

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305-797-4461

Donald Hardison, NAVFAC SE
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904-542-6169

Technical support provided by:

- Florida Department Of Environmental Protection
- Tetra Tech
- Resolution Consultants

RAB 7/23/2019



Installation Restoration Program Updates





Installation Restoration Program Updates



“Then”

- **2017 and 2018 RAB discussed several sites that were anticipated to close with controls in the “upcoming year”, i.e. years 2018 and 2019 respectively**

- **2017 we discussed**

- Geiger Key Hawk Missile Site – Site 22
- Boca Chica Flying Club – UST 9
- Trumbo Annex BOQ – Site 29
- Jet Engine Test Cell – SWMU 9

- **2018 we discussed**

- Boca Chica Hawk Missile Site – Site 25
- Boca Chica Tank Farm – Site 28
- Boca Chica Truck Fill Stand – Site 31

- **2018 RAB discussed a new underground storage tank (UST) site**

- A-508 Underground Storage Tank – UST 10



Installation Restoration Program Updates



“Now”

- **Number Closed since 2017/2018 RAB discussion = 0 (zero)**

- **Delays / Setbacks**

- 2017 Hurricane Irma
- 2018 Change in Contracts / Contractors
- 2018 Change in FDEP Project Manager

- **A-508 Underground Storage Tank – UST 10**

- **Task Order Initiated and field operations to occur for soil and groundwater investigations**

- **Zero closed sites does not equate to no accomplishments and no work**

- **We have forward movement in many sites moving towards closure**
- **Numerous documents drafted in preparation for planned closures**
- **SWMU 2 Ecological Risk Assessment completed**
- **Munitions Response Program has been busy with field work and planning documents**



Installation Restoration Program Updates



• **Setback** -Trumbo Annex BOQ – Site 29:

–(RAB 2018) Installation of additional monitoring well (MW) planned for 2018

- Still planned for East side of building in area near former well MW-22 but will occur in late 2019

–Early 2019: FDEP questioned a naphthalene exceedance recorded in MW-26 during a 2008 sampling event.

- We'll install an additional MW approximately 50 feet south-southwest of MW-22 to "close off" that data gap

• **Path Forward**

–Wells will be installed in Calendar Year (CY)19

- 3 rounds of sampling (One at time of well installation / then 2 Semi-annual)
- Closure projected FY21 (GW restrictions)



NIRIS Doc # 001498



Installation Restoration Program Updates



• **Slight Setback** – SWMU 9

–2018: Navy Drafted Amended Statement of Basis (SOB) Addendum – in preparation for submittal to FDEP

• **What's next:**

- Submit SOB to FDEP (In Navy Review)
- Prepare Corrective Measures Implementation Plan (CMIP) – incorporating 2017 groundwater data, submit to FDEP
- Submit CMIP for public comment
- Finalize comments and CMIP
 - Submit for regulatory review and concurrence
- Amend SOB

• **Closure date** – dependent on timing of and comments on above sequence of events



Figure from 2016 Sampling and Analysis Plan



Installation Restoration Program Updates



• Forward Movement: Geiger Key Hawk Missile Site – Site 22

- Groundwater data has been reviewed
- Site Rehabilitation Completion Report Submitted to FDEP 06Jun19
 - Awaiting review
- Close with controls
 - Groundwater
- Closure: FY 2019



Site Rehabilitation Completion Report, Revision 0 Site 22, Geiger Key Hawk Missile Site June 2019



Installation Restoration Program Updates



• Forward Movement: Boca Chica Flying Club – UST 9

- Groundwater data has been reviewed
- Site Rehabilitation Completion Report in Navy Review
- Close with controls
 - Groundwater
- Closure targeted first half of FY20



Source: (NAVY DRAFT) Site Rehabilitation Completion Report, Revision 0, UST 9, Boca Chica Flying Club, June 2019



Installation Restoration Program Updates



•Forward Movement: Boca Chica Truck Fill Stand – Site 31

–RAB 2018: Path forward plan

- Install new shallow well to the northwest of MW13 to laterally delineate Polycyclic Aromatic Hydrocarbons (PAHs) above cleanup target levels (CTLs)
- Continue to collect co-located surface water, pore water, and sediment samples in the west wetland
 - Sample wetland as soon as “Wet”
 - Sample new well after install and again 4th quarter with other wells



Installation Restoration Program Updates



•Forward Movement: Boca Chica Truck Fill Stand – Site 31

–Late 2018

- We Installed new shallow well to the northwest of MW13 and a piezometer to the northwest of the west wetland.
- Finally able to collect co-located surface water, pore water, and sediment samples in the west wetland



New Well (TFS-MW-18) Installation



Surface water, pore water and sediment sampling



Piezometer Installation



Installation Restoration Program Updates



• **Forward Movement:** Boca Chica Truck Fill Stand – Site 31

–2019 – Where are we now

- Evaluating the results of the 2018 quarterly sampling events
- Expanded site assessment report and ecological risk assessment (ERA) are currently in preparation

–Closure date anticipated end of FY20/FY21



Surface water, pore water and sediment sampling



Surface water, pore water and sediment sampling



Installation Restoration Program Updates



• **Forward Movement:** SWMU 2 (Former DDT Mixing Area)





Installation Restoration Program Updates



•Forward Movement: SWMU 2

–Submitted an Updated Ecological Risk Assessment (ERA) Evaluation to FDEP April 2019

- Looked at the lagoon, pond and connecting drainage ditches
- Primarily a “paperwork exercise” in evaluating ecological risks using more realistic exposure assumptions
 - Several metals, pesticides and pyrene were initially selected as chemicals of potential concern (CPOCs)
 - After applying the refinement of realistic assumptions, only 4,4'-DDD, 4,4'-DDE and 4,4'-DDT were retained as CPOCs
- FDEP and Navy agreed that the lagoon was a low-quality habitat for the benthic community associated with it as well as the connecting pond, and drainage ditches
- FDEP’s primary concern was potential affects to receptors outside the site
 - Updated ERA Evaluation addressed this concern of potential pesticides migrating offsite

–FDEP approved the Updated ERA Evaluation June 2019 and the discontinuation of sediment monitoring



Installation Restoration Program Updates



•Forward Movement: SWMU 2

–Next steps

- Draft an Amendment to the current 1998 Statement of Basis (SOB) including a proposed remedy for the site
- Solicit Public review – 30 day comment period
- Finalize Amended SOB following public review and comments
- Projected Timeline to complete: FY20



Comments & Questions



Munition Response Program Updates

Information provided by:

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Donald Hardison, NAVFAC SE
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Technical support provided by:

- Florida Department Of Environmental Protection
- Tetra Tech
- Resolution Consultants

RAB 7/23/2019



Munition Response Sites





Munition Response Sites - Overview



• Munition Response Program (MRP) Sites

- 2010 Site Inspection Report (Finalized 2015) discussed 14 MRP sites and briefly discussed the near shore underwater ranges (Historic Ranges)**
- Additional “site” not included in the 2010 SI Report is also being tracked**
 - Boca Chica A22 Drainage Ditch, A950 Spoils Pile, Dead 8 Spoils Piles, VCA 8 and VCA 22 (UXO 4)
- CLOSED Sites: closed based on initial site investigation report findings and reviewed and approved by FDEP**
 - Sigsbee Park Annex Marine Rifle Range (MRP SARR) – NFA Approved 2015
 - Trumbo Point Annex Skeet Range (MRP TPSR) – NFA Approved 2015
 - Trumbo Point Annex Pistol Range (MRP TPPR) – NFA Approved 2015



Munition Response Sites - Overview



• Munition Response Program Sites

- ACTIVE Sites: Site Assessment**
 - **Fleming Key Dredge Spoil Area (UXO 1)**
 - *Near Shore Underwater Ranges (UXO 2) – offshore Navy Property*
 - **Trumbo Point Temporary Staging Area (UXO 3)**
 - **Boca Chica A22 Drainage Ditch, A950 Spoils Pile, Dead 8 Spoils Piles, VCA 8 and VCA 22 (UXO 4)**
 - North Boca Chica Skeet Range #820 (UXO 6)
 - North Boca Chica Pistol Range #821(UXO 6)
 - Boca Chica Field Rocket Loading Area (UXO 10)
 - Boca Chica Field Skeet Range (UXO 10)
 - Boca Chica Field Bore Sighting Range (UXO 10)
 - Boca Chica Field Shooting-in-Butt Range (UXO 10)
 - Boca Chica Field Trap Range (UXO 10)
 - Truman Annex Rifle Range (UXO 9)
 - Fleming Key Pistol Range (UXO 8)



Munition Response Sites



• UXO 10

- Located within Airfield Active Operational Areas
 - Boca Chica Field Rocket Loading Area (UXO 10)
 - Boca Chica Field Skeet Range (UXO 10)
 - Boca Chica Field Bore Sighting Range (UXO 10)
 - Boca Chica Field Shooting-in-Butt Range (UXO 10)
 - Boca Chica Field Trap Range (UXO 10)



Munition Response Sites



• UXO 10

- Historical maps from 1945 to 1950 indicate the presence of a former (i) bore sighting range, (ii) trap range, (iii) skeet range, (iv) shooting-in-butts range, and (v) rocket loading area at Boca Chica Field.
- 1952-1954: Runway and Taxiway Alpha extended; Tarmac constructed. No evidence of any ranges remain.
- 2010 Site Inspection conclusions*
 - Soil: antimony, arsenic, copper, and lead were detected at concentrations greater than FDEP residential Soil Cleanup Target Levels (SCTLs) and arsenic was also detected at concentrations greater than the industrial SCTL
 - Sediment: copper, lead, and zinc were detected at elevated levels in sediment samples from the drainage ditch that runs between the tarmac and Taxiway A, and lead exceeded its Project Action Limit (PAL), which was the Florida Sediment Quality Assurance Guideline (SQAGL).

* FINAL SITE INSPECTION REPORT FOR MUNITIONS RESPONSE PROGRAM SITE INSPECTIONS AT FOURTEEN MUNITIONS RESPONSE PROGRAM SITES NAS KEY WEST, FL, 3/11/2015



• UXO 10

– Closure Path

- Time Critical Removal Action (TCRA) was developed and submitted to FDEP March 2019.
 - Recognizes the source may be unknown and not necessarily munitions related
- No Actual Removal Action – strictly documentation – does not remove risk
 - Majority of the area is under concrete / asphalt (Tarmac/Arpon, Taxiways)
- Proposed Land Use Controls on munitions' boundary restricting intrusive actions without environmental oversight
- Defers further assessment until change of use (i.e. current airfield use replaced with another use)



• UXO 8 - Fleming Key Pistol Range



UXO 8 within IR-7



Munition Response Sites



• UXO 8 - Fleming Key Pistol Range

- Appears on historical maps dated 1964
- Located within IR-7, the former Fleming Key North Landfill, used from 1952 to 1962

- IR-7 existing LUCs prohibit residential use

- MRP Site Investigation found two lead exceedances for soil samples using industrial screening criteria

• Path Forward

- Collect soil to delineate exceedances and remove any “hot spots” exceeding industrial standards

- Data Quality Objective Packet submitted to FDEP (Planning Document)
- Subsequent removal of any “hot spots” above industrial
- Field work anticipated end last half of CY19

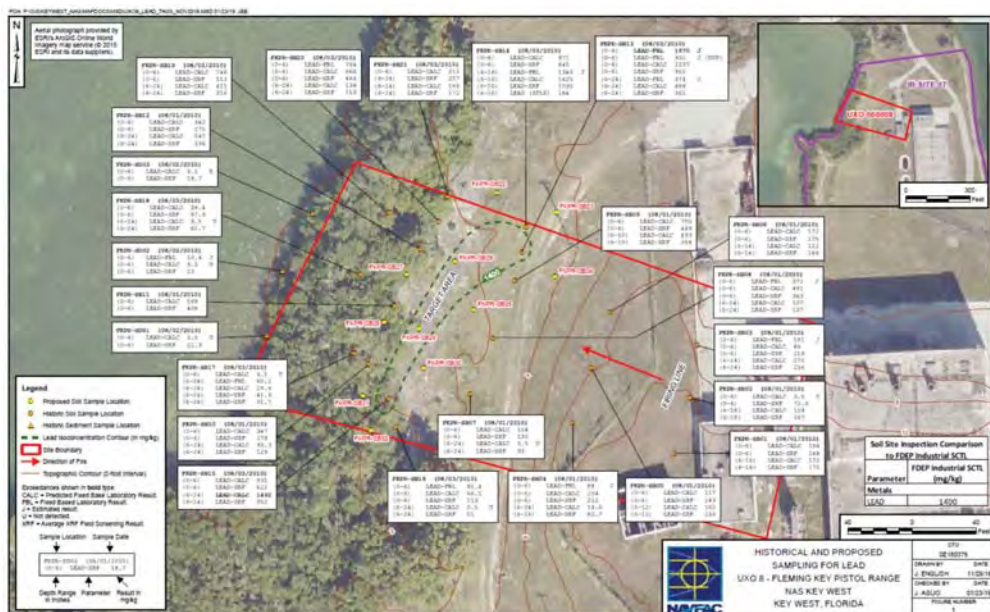
- Goal: Closing the site from further MRP investigations and default the site to existing IR-7 LUCs



Munition Response Sites



• UXO 8 - Fleming Key Pistol Range

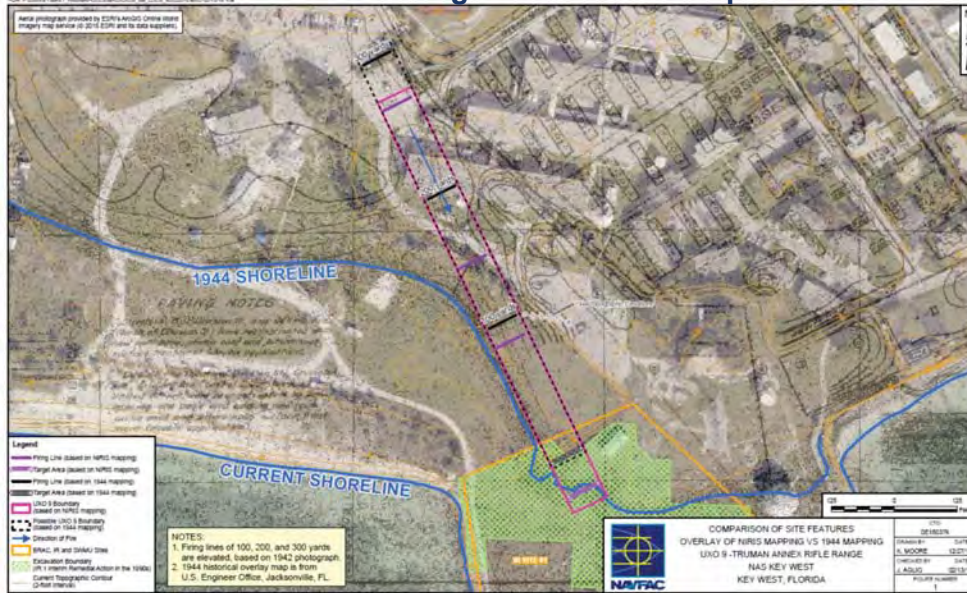


Source: DATA QUALITY OBJECTIVES SUMMARY PACKAGE EXPANDED SITE INVESTIGATION UXO 8 – FLEMING KEY PISTOL RANGE May 14, 2019



• UXO 9 - Truman Annex Rifle Range

–Site was shown as rifle range on historical maps dated 1942 to 1947



Source: (NAVY DRAFT) DATA QUALITY OBJECTIVES SUMMARY PACKAGE EXPANDED SITE INVESTIGATION UXO 9 – TRUMAN ANNEX RIFLE RANGE, April 2019



• UXO 9 - Truman Annex Rifle Range

–Site was shown as rifle range on historical maps dated 1942 to 1947

–UXO 9 partially lies within IR-1 (1952 to 1960s landfill operational)

–Samples from six sample locations were taken in 2010 as part of the initial site investigation

- Taken from the 100-yard and 200-yard firing lines
- 300-yard covered with pavement and berm was part of 1996 remediation for lead impacted soils in IR-1
- Firing lines have uncertainty due to historical site changes (construction, shoreline changes) and inherent errors in historical documents / figures
- At one sample copper exceeded residential FDEP soil cleanup target levels (SCTLs) but no small arms range metals



Source: DATA QUALITY OBJECTIVES SUMMARY PACKAGE EXPANDED SITE INVESTIGATION UXO 9 – TRUMAN ANNEX RIFLE RANGE, April 2, 2019



Munition Response Sites



• UXO 9 - Truman Annex Rifle Range

- Elevated concentrations of Arsenic were encountered above residential SCTLs

• Path Forward

- Berm area in IR-1 has been addressed and is restrictive due to land use controls already in place
- Re-collect / resample at location with Copper exceedance to determine if an anomaly
- Step-outs: Collect step-out samples North, South and East (West is already bound by a clean sample) and test sequentially outward if stepout exceeds residential SCTL
- (July 2019) FDEP requested additional sampling to have a more robust data set to evaluate arsenic as background.



Munition Response Sites



• UXO 9 - Truman Annex Rifle Range

• Path Forward Continued...

- Goal: No Further Action
- Background Arsenic assessment
- Closure projected end of FY20 / early FY21





Munition Response Sites



• UXO 6 - North Boca Chica Skeet Range #820 / Pistol Range #821

–Historical maps show a pistol range (#821) and Skeet Range #820 on North Boca Chica between 1952 and 1971



Image Source: Evaluation of Background Arsenic Concentrations in Soil Munitions Response Program Unexploded Ordnance 6 Former Skeet Range 820 and Pistol Range 821, April 5, 2019



Munition Response Sites



• UXO 6 - North Boca Chica Skeet Range #820 / Pistol Range #821

–RAB 2018: Discussed some of the previous sampling and planned sampling events which included:

- Soil Exceedances
 - Arsenic, Antimony, Copper, Lead
 - PAHs
 - Nitroglycerin
- Sediment Exceedances
 - Arsenic
 - Tin
- Discussed next steps
 - evaluate the soil data, collect additional soil step-out samples and install monitoring wells if necessary, and prepare a Remedial Investigation Report.

» Collected November 2018





Munition Response Sites



• UXO 6 - North Boca Chica Skeet Range #820 / Pistol Range #821

–Nov 2018: step-out samples were collected

- Results are still being evaluated
- Arsenic was detected greater than residential SCTLs
- Transitioning contracts and contractors



Munition Response Sites



• UXO 6 - North Boca Chica Skeet Range #820 / Pistol Range #821

–Background evaluation for Arsenic was discussed with FDEP, approved and implemented in Feb 2019

–April 2019: FDEP questioned one of the approved sample data sources

- Seven samples required for non-statistical background approach
 - 6 collected samples plus 1 existing sample data point
- FDEP suggested replacement of questionable sample data point with an alternate sample data point (both part of existing data set)





• UXO 6 - North Boca Chica Skeet Range #820 / Pistol Range #821

–Path forward

- New data point reduces background arsenic concentration slightly, but doesn't affect the current path forward
- Prepare response to FDEP comments and revise the current background evaluation submittal
- Additional sampling to complete characterization of soil samples
 - antimony, arsenic, copper, lead, PAHs, and nitroglycerin were detected in soil above residential CTLs
 - Arsenic and tin exceedances were detected in sediment samples



Interim MRP Comments & Questions



Munition Response Sites



• UXO 1 - Fleming Key Dredge Spoil Area

- 2003/2004: 27 acres of Dredge Spoils / ~400,000 cubic yards
- 2009: Munitions items observed
- 2013: Expanded Site Investigation (SI)
- 2016: Intrusive investigations conducted for subset of anomalies that may be munitions or explosives of concern (MEC)
 - 394 targets of interest and 8 surface anomalies
- 2019: Currently working on planning documents for intrusive field work to investigate 1301 anomalies identified in the 2013 SI
 - Includes site size reduction (red area)
- 2020: Field work anticipated to begin around middle of CY20



Source (NAVY DRAFT): Explosives Safety Submission Munitions and Explosives of Concern Remedial Investigation of UXO-001, Fleming Key Dredge Spoils Area, May 2019



Munition Response Sites



• UXO 4 - Boca Chica A22 Drainage Ditch*, A950 Spoils Pile*, VCA 8 and VCA 22, Dead 8 Spoils Piles



* A22 Drainage Ditch and A950 Spoils Piles are complete MRP projects with no further pending actions



• UXO 4 – A22 Drainage Ditch, A-950 spoils Pile

After Action Report
RTOGA of the A950 Spoils Pile and A22 Drainage Ditch
Blue Chimney Pond, 942 Key West, Florida

Revision Number: 0
Revision Date: June 2016

–Potential Concerns included

- an inert 5-inch AR warhead on the surface of the A950 Spoils Pile
- a live, intact, unfused 5-inch AR warhead submerged in the A22 Drainage Ditch
- AN-MK 23 Practice Bombs
- MK 76 Practice Bomb/MK 4 Cartridge
- 20-MM projectiles
- Small Arms Ammunition
- **All together 24 Munitions and Explosives of Concern (MEC) identified**



AN-MK 23 Practice Bomb, 3 LB



3-5" HVAR Warhead, MK1

• UXO 4 - VCA 8 and VCA 22

–RAB 2018: Discussed geophysical data collected and being evaluated by Navy



• UXO 4 - Dead 8 Spoils Piles (11 piles)





• UXO 4 - Dead 8 Spoils Piles

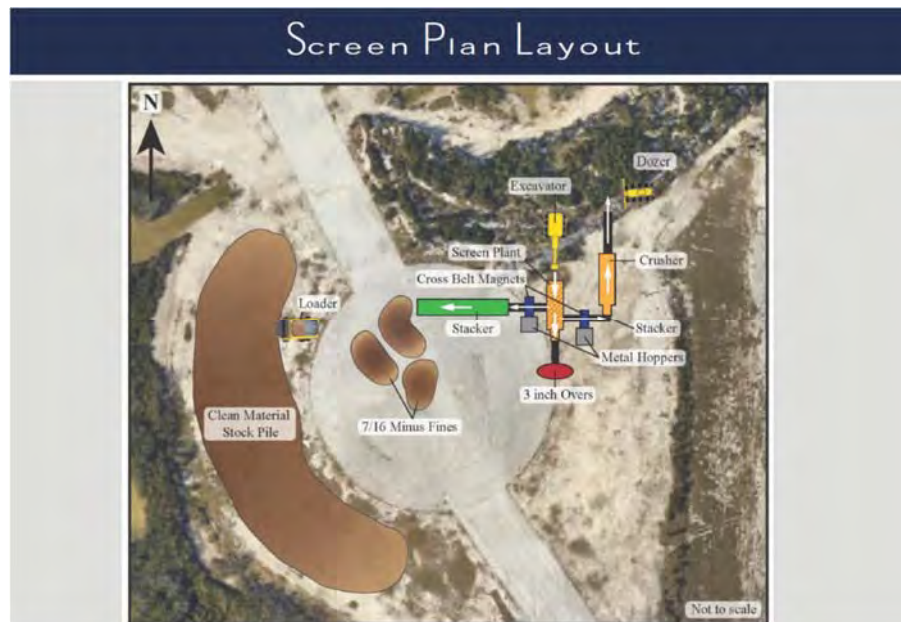
–Potential concerns – same source material as A22 Drainage Ditch and A950 Spoils Pile

–Upcoming work

- Planning documents currently in the works (includes explosive safety submittal / Quality Assurance Project Plan (QAPP) / Accident Prevention Plan (APP) / Site Safety and Health Plan (SSHP) etc.)
- To include the use of remote technologies with the goal of increased safety
- Field work targeted for May 2020 (Mid – Late CY 2020)
 - Target date subject to approval of planning documents and ESS
 - Use of remote robotic mechanized earth moving machinery to move, sort and process ~60,000 cubic yards of spoil material
 - Material will be processed in a screening plant: screened, sorted, metals removed (including any potential munitions)
 - Metals processed for any potential munitions: metals recycled, munitions disposed
 - Vegetation remove, large items crushed to 7/16", final fill stock piled
 - Total onsite operations: ~6 months



• UXO 4 - Dead 8 Spoils Piles (Conceptual Model)





Munition Response Sites



• UXO 3 - Trumbo Point Temporary Staging Area



Munition Response Sites





- **UXO 3 - Trumbo Point Temporary Staging Area**

- Fill material came from (what later became) UXO1 (1.25 acres)

- 2018 RAB: Expanded Site Inspection identified 127 identified as “Targets of Interest” (TOIs)

- **Upcoming Work**

- **Non-Time Critical Removal Action planed**

- Intrusive operations to dig the TOIs is currently targeted for May 2020

- 3-4 day intrusive field operations (hand digging) / Months for planning documents

- Coordination with USCG and Key West Pipeline

- Planning documents including the Explosive Safety Submittal (ESS) are being developed

- **Possible FY21 work includes remote screening of site after UXO4 work is complete (Dependent on Funding)**

- This goal would complete any UXO concerns and should bring the MRP process closer to an end phase by FY21 (Sept 2021)



Comments & Questions



RAB Adjourment Sunsetting

Information provided by:

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RAB 7/23/2019



RAB Adjourment - Sunsetting

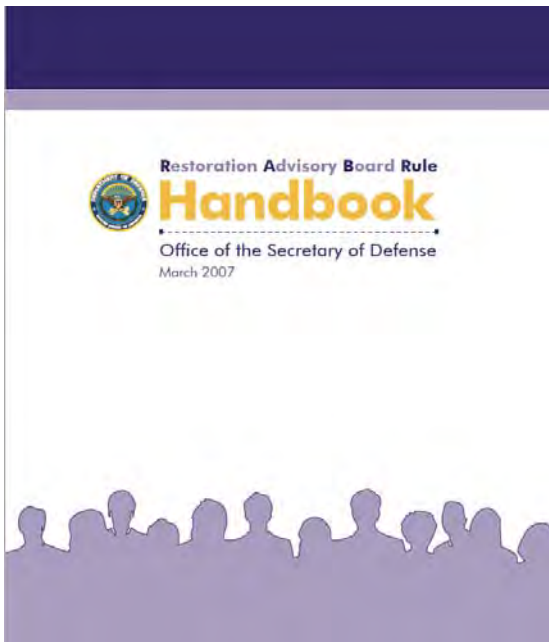


- First RAB started 1995
– Charter 1995





RAB Adjourment - Sunsetting



Audio from US1 Radio segment: COs Weekly Address – 7/24/2018

8 Can an adjourned or dissolved RAB be reestablished?

7 What happens if a RAB becomes ineffective?

6 How does a community or installation know when a RAB has completed its work and is no longer needed?

A RAB's work is complete when there are no longer any environmental restoration activities at an installation because the installation has either reached a remedy in place or response complete, or when the community is no longer sufficiently interested. At that time the RAB should complete the documentation of its activities and begin the process of adjournment.

What is an example that may lead a RAB to adjourn?
An example of a situation that may lead a RAB to adjourn may include, but is not limited to, the completion of environmental restoration activities at the installation.

How long can a RAB be adjourned?
A RAB is considered permanently adjourned unless new conditions are discovered, which could lead a RAB to reestablish itself. Examples of these conditions are a change in the environmental restoration remedy or renewed community interest. For more information on reestablishment, please see Chapter 8. Can an adjourned or dissolved RAB be reestablished?

Does a RAB have to adjourn when land is transferred to a non-DoD entity?
If DoD relinquishes control of the cleanup and property, such as through property transfer to a non-DoD entity, then DoD will also relinquish support of the RAB. If the community wishes to continue its environmental restoration activities, an independent group may be formed to continue the functions of the RAB or the community may work with EPA or the state environmental regulatory agency to establish a group equivalent to a RAB. DoD will not provide representatives to serve on these groups, nor the resources to support them when the Department is no longer involved in environmental restoration at the installation.

Can a RAB continue operating after environmental restoration activities are complete?
Under certain circumstances, it may be appropriate for a RAB to continue operating after environmental restoration activities are complete at an installation. For example, the RAB may need to review the outcome of a CERCLA five-year review or need to discuss long-term management of local use controls implemented in connection with the environmental restoration activities at the installation.

What do community and installation members do if a RAB has to be adjourned because there is no sustained interest, but environmental restoration activities are ongoing?
Persons interested in ongoing environmental restoration activities should contact the installation POC to express their interest and seek information on any other community involvement programs available at the installation. Continued stakeholder feedback is important to the progress of restoration activities at installations, especially when they are ongoing. Following the decision to adjourn, the installation Commander will also continue to evaluate community interest at least every 24 months while environmental restoration activities are still ongoing.

Does a RAB have to be formally adjourned?
No. A RAB may stop meeting without any formal adjournment if a community loses interest. However, the Department recommends that the RAB formally adjourn to provide community members an opportunity to participate in the decision to adjourn. Formally adjourning a RAB provides all parties with a sense of closure.

How does a community or installation know when a RAB has completed its work and is no longer needed?



RAB Adjourment (Sunsetting)



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How does a community or installation know when a RAB has completed its work and is no longer needed?

6. Termination

This charter will be terminated upon completion of the final remedial design or it may be terminated earlier upon a majority vote of the RAB membership.

What do community and installation members do if a RAB has to be adjourned because there is no sustained interest, but environmental restoration activities are ongoing?

Does a RAB have to be formally adjourned?

Chapter 8

•Adjournment:

–RAB Rule Handbook

- No longer any restoration activities, or
- No longer sufficient community interest

–RAB Charter (1995)

- Line 6: Majority vote of the RAB membership

A RAB's work is complete when there are no longer any environmental restoration activities at an installation because the installation has either reached a remedy in place or response complete, or when the community is no longer sufficiently interested. At that time the RAB should complete the documentation of its activities and begin the process of adjournment.

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RAB Adjournment (Sunsetting)



An installation may...	
Adjourn a RAB if...	<ul style="list-style-type: none"> Record of Decision is signed for all sites, Response complete at all sites, All remedies in place, Achieved RAB goals Land transferred to a non-DoD entity, or No longer sufficient and sustained community interest.
And the Installation Commander...	Consults with, and considers all comments provided by: <ul style="list-style-type: none"> Community, EPA, States, Tribes, and RAB members.
Then the Installation Commander may...	Adjourn the RAB.
And the Installation Commander shall...	<ul style="list-style-type: none"> Notify RAB members and the public of the decision through writing and publication in a local newspaper. Describe other ongoing public involvement opportunities. Document the rationale for adjournment in a memorandum for inclusion in the administrative record.

•RAB Public Meetings

–2015 (42 total attendees*)

- 1: Newspaper; 9: Public
- 5 Community RAB

–2016 (33 total attendees*)

- 1: Newspaper; 6: Public
- 6 Community RAB

–2017 (29 total attendees*)

- 1: Newspaper; 3: Public
- 4 Community RAB

–2018 (26 total attendees*)

- 1: Non-community Public, associated with City; 4: Public; 1: politician/election
- 4 Community RAB

*Attendee numbers are based on names captured in RAB meeting minutes. Attendee categories not separately noted represent Navy/UXCG/Military/City of Key West or other government agencies typically attending in an official capacity and not considered part of the Public/Community involvement



RAB Adjournment (Sunsetting)



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•Key West - 2018

–Population: 24,565*

•Monroe County Population - 2018

–Population: 75,027¹

–Lower Keys: ~12,584¹

•Community Interest

–Low public turnout

–No longer sufficient or sustained interest

*<https://www.census.gov/quickfacts/fact/table/monroecountyflorida,keywestcityflorida/PST045218>

¹: <https://www.towncharts.com/Florida/Demographics/Lower-Keys-CCD-FL-Demographics-data.html> (2017)



•Propose

–Adjourn RAB based on low community participation

- No longer sufficient and sustained community interest

–Utilize other forms of communication to keep community informed and engaged

•Community Engagement

–CO’s Weekly Radio Address

- US1 Radio

–Facebook

- <https://www.facebook.com/naskeywest/>

–Twitter

- <https://twitter.com/naskeywest>

–Administrative Record Public Website

- <http://go.usa.gov/KSDJ> (shortcut to CNIC website)

–Solicit Public Interest every 2 years

–PAO / Environmental



•RAB Member’s Open Discussion / Comments / Vote:

- Ron Demes: Navy Co-Chair
- Mimi Stafford: RAB Community Co-Chair Member
- John Dolan-Heitlinger: RAB Community Member
- Bob Eadie: RAB Community Member, Monroe County Health Department
- Mike Petro: RAB Community Member
- Margaret Romero: RAB Community Member
- Mark Songer: RAB Community Member
- Roger Durham: FDEP, Remedial Project Manager
- Ed Russell: NAS Key West Installation Restoration Manager



Comments & Questions