2021-2026

FINAL

COMMUNITY INVOLVEMENT PLAN

Former Naval Weapons Industrial Reserve Plant (NWIRP) Calverton Site

Submitted to:
Department of the Navy
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Naval Facilities Engineering Systems Command
NAVFAC MID-ATLANTIC

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Calverton, New York

COMMUNITY snapshot

Naval Weapons Industrial Reserve Plant (NWIRP) Calverton is located in Calverton, New York, which is part of Suffolk County on Long Island. Most of the 6,000 acres of land that made up the former base are located in the Town of Riverhead, with some of the former base land also lying within the Town of Brookhaven. The area surrounding the former base is rural.

Home to a population of approximately **6.98K**

53.2 median age

Median household income **$55,026**

14.3% Poverty Rate

homeownership rate **88.2%**

$236,200 Median property value

The District's water source is groundwater pumped from 17 active wells located throughout the community, drilled into the Glacial and Magothy aquifers beneath Long Island. (*source: Riverhead 2020 Water Quality Report*)

Five largest ethnic groups **75.8%** White (non-Hispanic)

Black or African American **7.53%**

9.78% White (Hispanic)

More than one race **2.62%**

2.63% Asian (non-Hispanic)

The largest industries

Health Care & Social Assistance

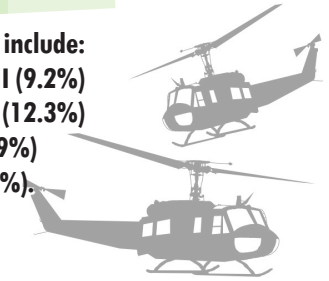
Construction

Retail Trade

Calverton has a large population of military personnel who served in Vietnam (66%)

5.38 times greater than any other conflict.

Other conflicts include:
World War II (9.2%)
Korea (12.3%)
First Gulf War (4.9%)
Second Gulf War (7.7%).



Alternate unofficial names for Calverton include:

Baiting Hollow Station
Conungam
Hulse's Turnout

Data from the Census Bureau ACS 5-year Estimate

Long Island

Quick Facts about the former Naval Weapons Industrial Reserve Plant, Calverton

- The Navy leased the former site to the Grumman Corporation, one of the nation's major defense contractors founded in 1929 by Leroy Grumman.
- The Grumman Corporation was known for the World War II "Cats" fighter aircraft it built for the Navy: principally the F4F Wildcat and F6F Hellcat.
- At its peak in 1986, it employed 23,000 Long Islanders.
- Grumman, employed more than 3,000 people at its Calverton plant, where, beginning in 1956, it fabricated, assembled and tested military fighter aircraft and engines.

[Source: U.S.Census, Encyclopedia Britannica, EPA, RiverHead Local]

Note: *For ease to the reader most acronyms are spelled out throughout this document. There is an additional list of common acronyms used on page 33.*

SECTION 1.

Overview of the Updated Calverton Community Involvement Plan

The Department of the Navy recognizes all Americans have the right to be involved in government decisions that may affect their lives. Because of this, the Navy develops site-specific Community Involvement Plans (CIPs) for installations undergoing environmental restoration activities. This ensures nearby community members have opportunities to learn about and participate in this important clean-up process. The development and execution of a CIP promotes community involvement and provides information on how community members can stay informed and share information or concerns. This is an important component to the overall success of the Navy's Environmental Restoration Program (ERP).

1.0 Introduction to the Community Involvement Plan Update

Naval Facilities Engineering Systems Command (NAVFAC) has developed this update to the Calverton CIP to promote meaningful community participation during the Superfund cleanup of the Naval Weapons Industrial Reserve Plant (NWIRP) site in Calverton, New York. In consultation with community members and organizations, the U.S. Navy previously developed CIPs for the NWIRP site in 1994 and 2012.

This update includes new community interviews via an Environmental Concerns Survey provided to the community to determine and document: (1) current local information needs related to the remaining environmental restoration work and (2) if, according

Overall Goals of the Community Involvement Program

- Identify current community concerns and expectations related to the Environmental Restoration Program (ERP).
- Promote involvement from interested community members who are not currently engaged in the cleanup process.
- Determine the community's level of understanding of technical and scientific issues at the site and identify better ways to inform and educate in these areas.
- Update information contained in the CIP to reflect the land parcels and active environmental sites and the current status of the cleanup program.

to the Restoration Advisory Board (RAB) process, there is sufficient community interest to maintain the NWIRP Calverton RAB. As community membership had been declining prior to initiation of the CIP update effort, the CIP was an opportunity to revitalize the RAB. The goal of the Navy is to maintain the RAB to ensure ongoing community involvement.

This CIP update has been developed following United States Environmental Protection Agency (EPA) guidance and with input from local community members to ensure effective, long-term community involvement with the local NWIRP Calverton ERP.

This plan has also been updated to reflect upcoming site activities for the Former Fire Training Area, Southern Area, Former Fuel Depot, and Facility Wide PFAS (this includes Aircraft Paint Hangars).

Please refer to the website for historical information: https://go.usa.gov/xssQ3.

Calverton Community Engagement Objectives

- Provide understandable information about site cleanup and activities.
- Provide opportunities for meaningful public participation.
- Respond in a timely manner to community questions and concerns.

Point of Contact

Public Affairs Office
(757) 341-1410 or 1411
NAVFAC_ML_PAO@navy.mil

1.1 Key Audiences

- Residents and businesses in Calverton, NY, and other neighborhoods within Riverhead
- Agricultural land and livestock owners
- Riverhead Chamber of Commerce
- New York State Department of Environmental Conservation
- Local water utility
- NYS Departments of Health, Ecology, Agriculture, and Natural Resources
- Suffolk County Department of Health Services
- Local, state and federal elected officials
- Local Environmental Groups

SECTION II.

Facility History and Description

2.0 Facility History and Location

Established in 1954, the former Naval Weapons Industrial Reserve Plant (NWIRP) was located in Suffolk County on Long Island, approximately 70 miles east of NYC. Operations were shut down in February 1996. During its lifetime, the facility was leased and operated by Northrop Grumman Corporation to develop, assemble, test, refit, and retrofit naval combat aircraft. The facility supported aircraft design and production at Grumman's Bethpage Facility, located in Nassau County, Long Island, New York. The Navy retained 209 acres to continue environmental investigations and cleanup. There are no other activities conducted on remaining Navy property.

Regulation of Cleanup

The cleanup of NWIRP is conducted under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) (*see page 10*), the New York State Resource Conservation and Recovery Act (RCRA) Hazardous Waste Permit for the facility (NYSDEC 1-43730-00013/00001-0), and to the extent practicable, the National Oil Hazardous Substances Pollution Contingency Plan. The site is not included on the U.S. Environmental Protection Agency (EPA) National Priorities List (NPL).

Lead Agency: U.S. Navy

The Navy is the lead federal agency and conducts cleanup work in consultation with New York State Department of Environmental Conservation (NYSDEC), Suffolk County Department of Health Services (SCDHS), and New York State Department of Health (NYSDOH).

Environmental Restoration Program (ERP)

Naval Facilities Engineering Systems Command (NAVFAC) manages and executes the Navy's ERP and coordinates all actions. The ERP identifies, investigates and cleans up former waste disposal sites on military property with the objectives to reduce the risk to human health and the environment.

Naval Facilities Engineering Systems Command

NAVFAC is a global command that supports the Navy and Marine Corps through technical and acquisition solutions. They support environmental planning and compliance, marine, natural and cultural resource management, and environmental restoration. Their planners, engineers, architects, environmental and contract specialists, tradesmen, and many other highly trained professionals strive to ensure they meet or exceed the Navy's environmental goals. They also work with other agencies, partners, and stakeholders to ensure the Navy and Marine Corps complies with federal, state, local, and host nation regulations.

2.2 Comprehensive Environmental Response, Compensation and Liability Act:

Also known as Superfund, authorizes the Federal government to resond to releases or possible releases that may be hazardous to the environment.

The Department of Defense (DOD) complies with the CERCLA cleanup process, as a framework for environmental investigation and cleanup in the ERP. Sites can become part of the Navy's ERP in one of three ways: **(1)** EPA lists an installation on the Federal Facilities Agency Hazardous Waste Compliance Docket **(2)** the Navy discovers a waste disposal site, former training range, or potential hazardous materials release, or **(3)** A petition is made by an affected person. The ERP is overseen by the Office of the Secretary of Defense.

The overall goals of the Navy's ERP program are as follows:

- Identify, investigate, and cleanup contamination from a hazardous substance, pollutant or contaminant.
- Correction of other environmental hazards (such as detection and disposal of unexploded ordnance (UXO) which create an imminent and substantial endangerment to public health/ welfare or the environment.
- Demolition and removal of unsafe buildings and structures, including buildings and structures at sites formerly used by or under the jurisdiction of the DoD.

This process is consistent with other DoD agencies and by the EPA at non-DoD sites. The process the Navy uses for sites like Calverton can be broken down into three primary stages. (*Review page 12 for a general overview of the CERCLA process*):

Stage 1 – Investigation: The purpose of the investigation stage is to identify and study locations which may require environmental cleanup action. *A Preliminary Assessment (PA)*, which involves collecting and reviewing historical data and information for each location, is conducted to decide whether or not further study is needed. If historical information supports the potential for environmental contamination, then more information, often including limited sampling and laboratory analysis, is collected during a *Site Inspection (SI)* to determine if there has been a release.

If there has been a release that may impact human health or the environment, then the location will be designated as an official ERP Site, and a *Remedial Investigation (RI)* may be conducted. The RI uses both data gathered previously during the PA and SI and additional sampling and investigation information to answer four primary questions:

1. *What wastes are present?*
2. *Where is the waste?*
3. *Is the waste moving into the groundwater?*
4. *Is there a risk to public health and the environment?*

A *Feasibility Study (FS)* uses the information learned about the site to identify and evaluate potential cleanup alternatives. Risk Assessments may be conducted as part of the FS to determine if cleanup action or management actions are needed to reduce risks to human health or the environment to acceptable levels and to help evaluate cleanup alternatives.

After the RI/FS Report is completed, a *Proposed Plan (PP)* is prepared to describe the preferred cleanup method. Community input on the PP is requested during a public comment period. A *Record of Decision (ROD)* is then developed to explain and document the cleanup alternative chosen for the site.

Stage 2 – Cleanup: The cleanup and/or management actions needed to reduce risk or prevent exposure to contaminants at the site are designed, planned, and conducted during the cleanup stage. A *Remedial Design* document is prepared providing details of how the remedial action will be constructed and/ or conducted. Monitoring is typically conducted following the remedial action to ensure the effectiveness of the cleanup. Not all sites require a physical cleanup action.

The cleanup alternative chosen may include management actions called Land Use Controls (LUCs), which prevent or limit future exposure at the site. Some examples of LUCs include:

- Legal deed restrictions on the type of future use of the property (e.g. residential, industrial, recreational, etc.).
- Restrictions on activities that can occur such as "no digging" or "no fishing."
- Installation of physical controls such as signage or fencing to limit access or exposure.

Stage 3 – Site Closure or Long-Term Monitoring: After the selected remedy has achieved cleanup goals identified in the ROD, Site Close-Out occurs or the site enters

into *Long-Term Monitoring (LTM)*. Sites where hazardous substances, pollutants, or contaminants remain above levels that would allow unlimited use and unrestricted exposure require LTM.

Five Year Reviews are conducted for all LTM sites to evaluate the performance of the implemented remedy, verify that the remedy remains protective of human health and the environment (as stated in the ROD), and modify the remedy if it is no longer protective of human health and the environment.

It is important to note that not all stages or steps of the ERP process are required at each site. There are decision points throughout the Navy's process to eliminate sites where *no further action is needed* (see page 21) because risks to human health or the environment are at low, acceptable levels or to accelerate the process for any sites where immediate action is needed to protect human health and/or the environment.

2.3 Remedial Project Managers

NAVFAC Remedial Project Managers (RPMs) are responsible for the management of the ERP at the installation and/or site level.

The RPM coordinates the work of Navy technical support agencies and contractors to accomplish ERP goals and policies. The RPM is the single individual involved in all aspects of the project, including interagency relationships, funding, scheduling, design, and remedial action.

The RPM's core responsibility is to identify the resources needed to effectively implement the environmental restoration process.

DID YOU KNOW?

The mission of the U.S. Navy is to protect America at sea, defend freedom, preserve economic prosperity, and keep the seas open and free. To complete this mission, the Navy recognizes the importance of responsible stewardship of the land, waterways, and resources with which it is entrusted, and **Navy environmental programs play a vital role in the achievement of the U.S. National Defense Strategy.**

Good stewardship includes compliance with federal and state environmental regulations as well as Department of Defense and Navy policy. This includes the Environmental Restoration Program, that serves to conserve, protect ,and restore the environment, and natural, and cultural resources for future generations.

Multiple Sites - Long-Term Monitoring (LTM) Groundwater Sampling. *Photo by contractor Tetra Tech, Dec. 2017.*

FACT SHEET

Overview

CERCLA PROCESS

Comprehensive Environmental Response Compensation and Liability Act

Law passed in 1980 to address releases, or potential releases, of hazardous substances into the environment. Provides the Federal Government authority to respond to sites that exist due to the improper disposal or management of waste. These sites include former military bases, manufacturing facilities, processing plants, landfills and mining sites. CERCLA is the framework for the Federal Government to follow in order to assess and cleanup contaminated sites.

STAGE I: INVESTIGATION

(1)
DISCOVERY
(Site identified through The Federal Agency Hazardous Waste Compliance Docket)

Certain sites are identified as requiring evaluation. The evaluation determines if the site poses a risk to public health or the environment under CERCLA, and ensures this information is available to the public.

(2)
PRELIMINARY ASSESSMENT/ SITE INSPECTION (PA/SI) ♦
(Is there a Problem?)

PA/SI involves review of historical records, field visits, possible interviews with current or former employees, and limited sampling of soil and/or water to determine the likelihood of chemicals, and identify possible contamination sources. Some sites, based on results may be placed on *The National Priorities List by the EPA.

(3)
REMEDIAL INVESTIGATION (RI)/ ♦ RISK ASSESSMENT (RA)
(What are the Risks?)

Involves more intensive sampling and analysis of soil and water at the site. Once this data is collected, a Risk Assessment is conducted. These studies determine which wastes are present, where they are, whether they are moving into the groundwater, and whether there is a risk to public health and the environment. Sites that pose an imminent threat to public health are cleaned up immediately with removal actions.

(4)
FEASIBILITY STUDY
(How can it be Cleaned Up?)

This study determines the best technology for cleaning up a site. Project managers consider risk, compliance with federal and state regulations, ability to reduce the toxicity, mobility, and volume of the chemical(s), ability to implement a remedial alternative, long-term effectiveness, short-term effectiveness, cost, state acceptance, and community acceptance. Project managers plan strategies to reduce or prevent risk by limiting or stopping exposure to chemicals.

STAGE II: CLEANUP

(5)
PROPOSED PLAN ♦
(Comment Period)

Identifies and explains the rationale for the preferred cleanup method. to address any threats to human health and the environment at the site. Describes all remedial alternatives that were evaluated, and the criteria used to conduct the evaluation and comparison. Solicits public review and comment on all alternatives presented. Written expressly for public review.

(6)
RECORD OF DECISION (ROD) ♦
(Legal Certification of Final Decision)

Identifies selected cleanup remedy. Provides a plan for site design and remediation, and documents the extent of human health or environmental risks posed by the site.

The National Priorities List (NPL), an information management tool, contains a list of the most serious sites identified for long-term cleanup. Sites receiving a Hazard Ranking System (HRS) score of 28.50 or greater are eligible for placement on the NPL. Sites are listed on the NPL only after, completion of the HRS, public solicitation of comments, and after all comments have been addressed. Following the NWIRP Site Investigation, it was determined NWIRP would not be included on the NPL.

The diamond symbol ♦ on this page represents when and where public involvement will be key during the process.

STAGE III: SITE CLOSURE or LONG-TERM MANAGEGEMENT

(7)
REMEDIAL DESIGN/ACTION (RD/RA) ♦
(Detailed Plan and Cleanup Actions)

The design specifications for the selected cleanup remedy to approved environmental standards. Implementation of the cleanup remedy through construction.

(8)
OPERATION AND MAINTENANCE MONITORING
(Cleanup Goals Achieved; May Include Land Use Controls)

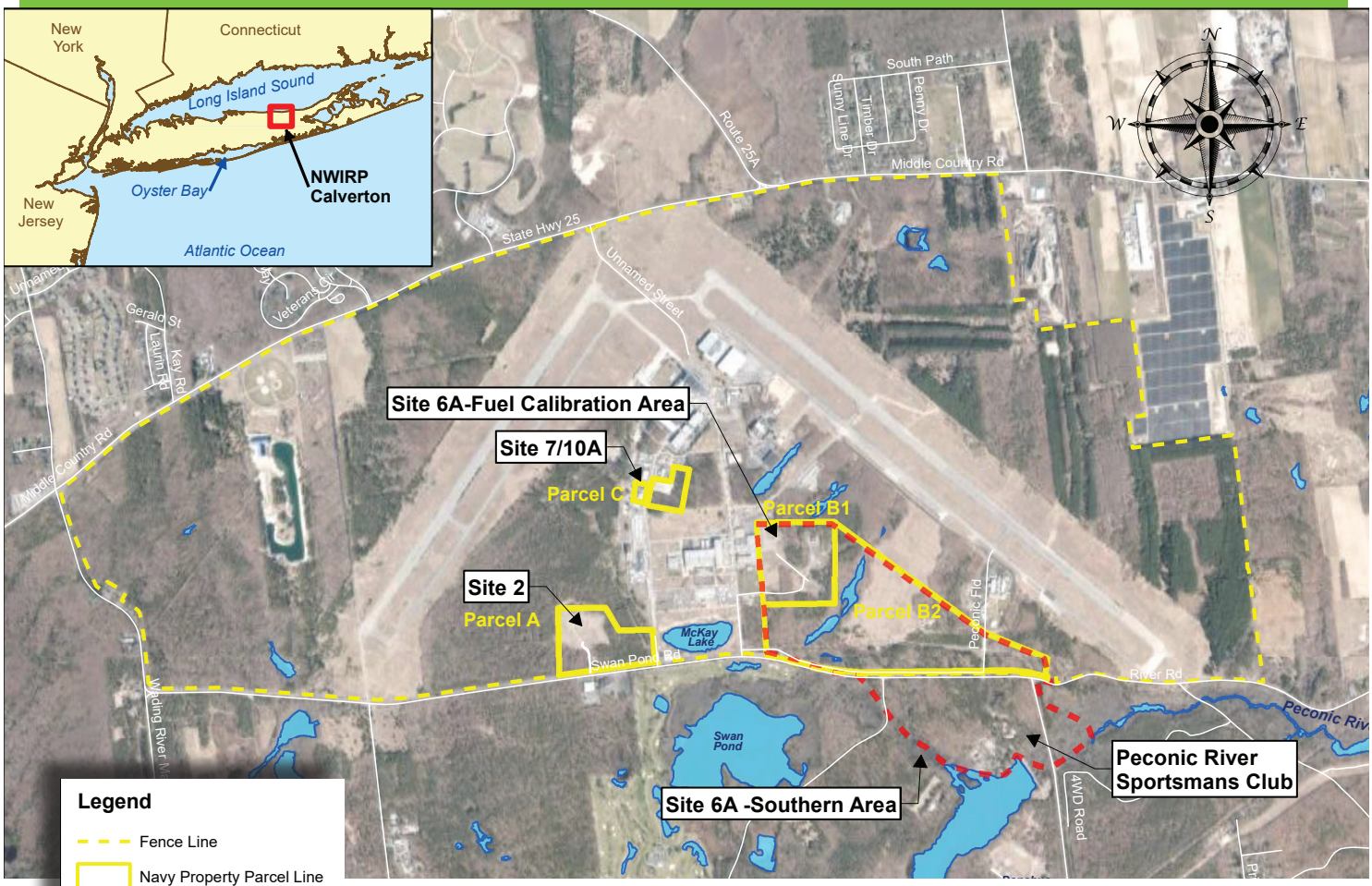
Ongoing monitoring requirements for post-remediation are based on the effectiveness of the Remedial Action. Sampling and analysis may be required to confirm the site chemicals are no longer present above acceptable action levels and to begin site closure activities.

Each action item (numbers 1-7) can take anywhere from 1 to 5 years to complete, and action item number 8 may occur over an extended period of time.

This page may be printed for reference during community meetings.

SECTION III.

About the Sites



3.0 Current Active Sites

Navy Environmental Restoration Program (ERP) activities are being conducted at the former facility. The Navy has retained ownership of three parcels, *Parcel A, B, and C* (refer to solid, yellow lines).

Navy-Retained Parcels:

- Fire Rescue Training Area (Parcel A, Site 2)
- Former Fuel Calibration Area (Parcel B, Site 6A)
- Former Fuel Depot (Parcel C, Sites 7/10A)

Investigations on Parcels & Non-Navy Retained land:

- PFAS investigation and cleanup, involves multiple areas (within dotted, yellow line).

To date, the Navy has completed cleanup at:

- Northeast Pond Disposal Area (Site 1)
- Engine Test House (Site 10B)

Additionally, the former Jet Fuel Systems Laboratory was found to be suitable for transfer for economic redevelopment; a Land Use Control (LUC) is in place to restrict the property to non-residential reuse.

Land Use Control (LUC) include government ordinances, codes, and permit requirements that restrict private use of land and natural resources, to protect human health from any remaining contaminants that could pose an unacceptable risk (see dotted, red line).

More information is available on the sites, to include sites where work is completed, and sites where no further action is required, on pages 14-21.

PARCEL A – Site 2: FORMER FIRE TRAINING AREA

SITE SUMMARY

Located in the south-central portion of the facility. Vegetation covers the majority of the area and is surrounded by woodlands. From 1982 to 1996, a circular concrete pit in the southeastern corner was used to contain liquids for fire training exercises. A 1,000-gallon steel aboveground storage tank* was located north of the concrete ring and used to store fuel. Before 1982, a 6,000-gallon underground fuel storage tank was also located north of the training area. Prior to 1982, activities at the site consisted of clearing an area up to 100 feet or more in diameter and creating an earthen berm to surround the clearing. The bermed area was filled with water and then waste fuels, oils, and solvents were dumped into it and ignited. Aircraft sections were sometimes placed in the area to simulate crash conditions. (***Note:*** after 1975, waste solvents were reportedly no longer mixed with the waste fuel and oil). Firefighting materials include aqueous fire fighting foam (AFFF), gaseous Halon 1301, water, and dry chemical extinguishers were used in the earthen berms and concrete ring during training exercises.

Compounds related to site

PFAS, VOCs, Munitions and Explosives (MEC), and potentially 1,4-dioxane. *(Refer to pages 33-35)*

TIMELINE: What cleanup actions has the Navy already taken?

Remedial activities include spill cleanup, removal of storage tanks and contaminated soil; installation of a free product removal (FPR), installation of a pilot-scale Air Sparging/Soil Vapor Extraction (AS/SVE) system, and excavation and offsite disposal of remaining site structures, and shallow (less than 6 feet) petroleum-contaminated soil.

- **1986** Preliminary Assessment (PA)
- **1987-1993** Well and oil-water separation system installed, groundwater and free product extraction
- **1992** Site Investigation/Inspection
- **1994-2001** Resource Conservation and Recovery Act (RCRA) Facility Investigation
- **1994, 1995, 1997** Field Investigations
- **1995** Human Health Risk Assessment
- **1995-2000** Soil Vapor/Air Sparging Extraction system; installed and operated seasonally
- **1996** Fuel Tank removal*
- **2008-2009** Removal Action
- **2012-2015** Munitions and Explosives (MEC) clearance actions t
- **2016** PFAS investigations concluded
- **2017** Site Inspection
- **2018-2019** MEC Remedial Action, Supplemental Site Inspection

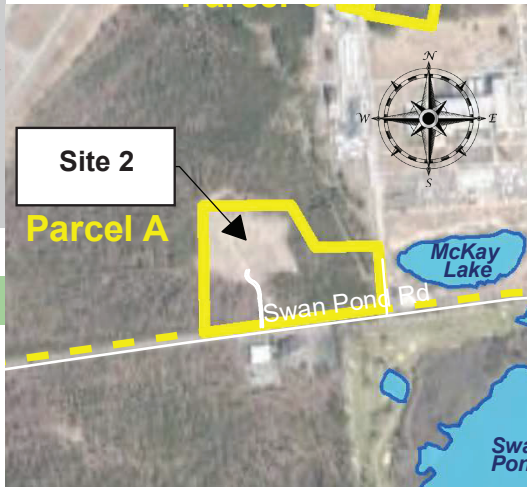
TERMS ON THIS PAGE EXPLAINED

Earthen Berm: A compacted earth or gravel ridge, excavated channel or a combination of ridge and channel, designed to direct runoff away from or around disturbed areas.

Soil Vapor Extraction (SVE): Involves drilling one or more extraction wells into the contaminated soil to a depth above the water table, which must be deeper than three feet below the ground surface. Attached to the wells is equipment (blower or vacuum pump) that creates a vacuum and pulls air and vapors through the soil, and up the well to the ground surface for treatment.

Air Sparging (AS): Drilling one or more injection wells into the groundwater-soaked soil below the water table. An air compressor at the surface pumps air underground through the wells. Air bubbles carry contaminant vapors upward into the soil above the water table. The mixture of air and vapors is then pulled out of the ground for treatment using SVE.

Free Product Removal: Cleanup of a hazardous substance or environmental pollutant floating on a layer of water or visible at surface using various environmental technologies.



Way ahead for the site

A Record of Decision (ROD) to address MEC was finalized in 2018. A ROD to address VOCs in groundwater is on hold while the investigation of PFAS and 1,4-dioxane continues.

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PARCEL B – Site 6A: BOTH FORMER FUEL CALIBRATION & SOUTHERN AREA

SITE SUMMARY

Site 6A (Southern Area) is used to describe a groundwater plume associated with chlorinated solvent and petroleum releases from Site 6A (Fuel Calibration Area). The Fuel Calibration Area is located in the southcentral portion of the facility within Parcel B1 and consists of a new and old fuel calibration pad. All remedial actions were completed at the Fuel Calibration Area, but groundwater monitoring of site wells will continue. The Southern Area plume originates from the Fuel Calibratin Area is estimated to extend approximately 140 acres, is 5 to 10 feet thick near Site 6A, and 40 feet thick in the southeast. The plume extends south and east to the Peconic River, which is likely the endpoint. The area is mostly wooded and includes two shallow ponds near the northern edge, which receives runoff from from Site 6A through a drainage swale and culvert. Groundwater from Site 6A was discharged into the swale and culvert and also the western pond between 1980 and 1990. The presence of chlorinated solvents in the Southern Area may be attributed to Site 6A. The Peconic River Sportsman's Club is located in the off-site Southern Area. The club was subsequently connected to a municipal potable water line and the water supply wells abandoned or disconnected in 2012. Fence Line Treatment began operation in 2014 to prevent discharge to the Peconic River.

TIMELINE: What cleanup actions has the Navy already taken?

Remedial actions have consisted of a bioremediation study conducted near the southern site boundary (fence line). Construction and operation of a Fence Line Treatment System (FLTS), which intercepted the groundwater VOC plume, north of the property boundary, and prevented additional migration of site-related VOCs off of Navy property.

- **1998** Preliminary Assessment (PA)
- **2006** Feasibility Study/ Corrective Measures Study
- 2008-2010 Removal Action (removed the majority of material associated with the Site 6A)
- **2010-2011** Bioremediation study testing/sampling
- **2011** Local Public Water Supply Extended to Peconic River Sportsmans Club (PRSC)
- **2011** Soil Vapor Intrusion Investigation at PRSC
- **2012** Record of Decision (ROD) signed
- **2014-2019** Fence Line Treatment System (FLTS) shut down when remedial goal met.
- **2020** NYSDEC provided concurrence letter for FLTS shoutdown.

TERMS ON THIS PAGE EXPLAINED

Down gradient: a location that receives groundwater from another location; similar to downstream.

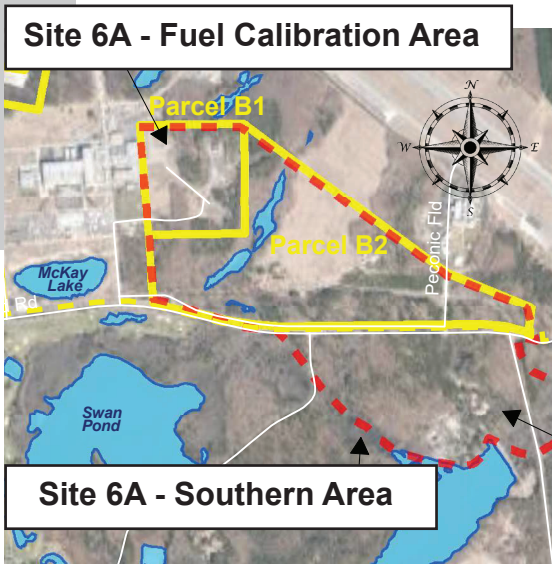
Culvert: A transverse channel under a road or railway for the draining of water.

Swale: A shallow troughlike depression that's created to carry water during rainstorms or snow melts; a drainage ditch.

Bioremediation: A process that uses living organisms, mostly microorganisms and plants, to degrade and reduce or detoxify waste products and pollutants.

Plume: A column/space in air, water, or soil of one fluid moving through another that contains pollutants release from a source. A plume usually moves away from its source and widens. A plume's shape is like that of a long feather.

Groundwater plume: Groundwater that has been polluted by a release and in which one or more substances from such release is present at a concentration above the laboratory reporting limit.



Compounds related to site

VOC, petroleum, PAH, and PCB, and residual petroleum.
(Refer to pages 33-35)

Way ahead for the site

Remediation goals for the Fence Line Treatment were met in March 2019 and the system was shut down. Long-Term Monitoring (LTM) continues on a biannual basis.

PARCEL C – Site 7/10A: – FORMER FUEL DEPOT

SITE SUMMARY

Located approximately 3,000 feet north of the former southern main gate entrance, near the geographic center of the NWIRP facility within Parcel C. This site was used for the storage and distribution of fuel products such as Jet Propulsion (JP-4 and JP-5) jet fuels, which were stored in underground storage tanks (USTs). The material was then transferred to trucks for use in the flight preparation areas of the facility. It is located on the eastern side of the road leading from the southern gate entrance, and is relatively flat. Today things that can be clearly observed are the perimeter fence, concrete surface, and woodlands. The area surrounding Site 7 contains a combination of structures and woodlands.

Compounds related to site

Benzene, Ethylbenzene, Toluene, Xylene, and Naphthalene compounds. *(Refer to pages 33-35)*

TIMELINE: What cleanup actions has the Navy already taken?

Remedial actions include removal of all USTs from the site as well as most of the fueling structures. A seasonal AS/SVE system was installed as well as injection wells and an SVE well to further address an area of Freon contamination. The system reached the end of its operational life and was not restarted after the seasonal shutdown, and was decommissioned and dismantled. A biosparge system was operated in 2021 to address residual contamination.

- **1992** Site Investigation
- **1995** Human Health Risk Assessment
- **1997** Three, 50,000 UST removed
- **1998** two 10,000 (gas) and a 20,000 (diesel) UST removed
- **2002** Feasibility Study Completed
- **2003** Record of Decision (ROD)
- **2006-2013** Seasonal AS/SVE system installed and operated
- **2008-2011** Soil Investigations
- **2019** Excavation and removal of subsurface concrete pad
- **2021** Targeted biosparge system installed, monitoring continues.

TERMS ON THIS PAGE EXPLAINED

Air Sparging (AS): Drilling one or more injection wells into the groundwater-soaked soil below the water table. An air compressor at the surface pumps air underground through the wells. Air bubbles carry contaminant vapors upward into the soil above the water table. The mixture of air and vapors is then pulled out of the ground for treatment using SVE.

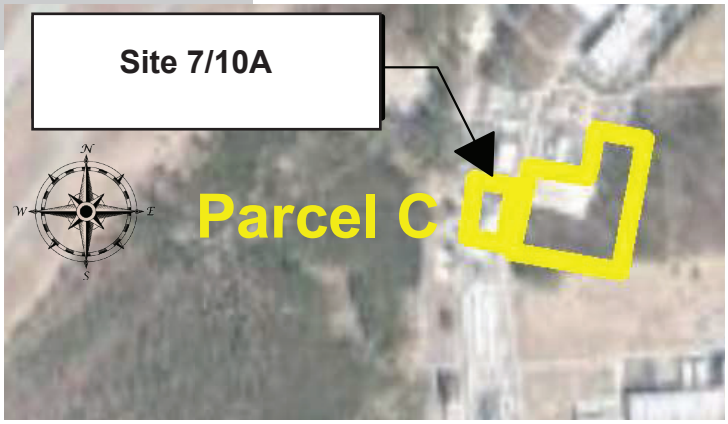
Soil Vapor Extraction (SVE): Involves drilling one or more extraction wells into the contaminated soil to a depth above the water table, which must be deeper than three feet below the ground surface. Attached to the wells is equipment (blower or vacuum pump) that creates a vacuum and pulls air and vapors through the soil, and up the well to the ground surface for treatment.

Bioremediation: A process that uses living organisms, mostly microorganisms and plants, to degrade and reduce or detoxify waste products and pollutants.

Underground storage tank system (UST): A tank and any underground piping connected to the tank that has at least 10 percent of its combined volume underground. Federal UST regulations apply to UST systems storing either petroleum or certain hazardous substances.

Way ahead for the site

Monitoring and evaluation of the effectiveness of the remedial actions will continue.



FACILITY-WIDE PFAS INVESTIGATION

SITE SUMMARY

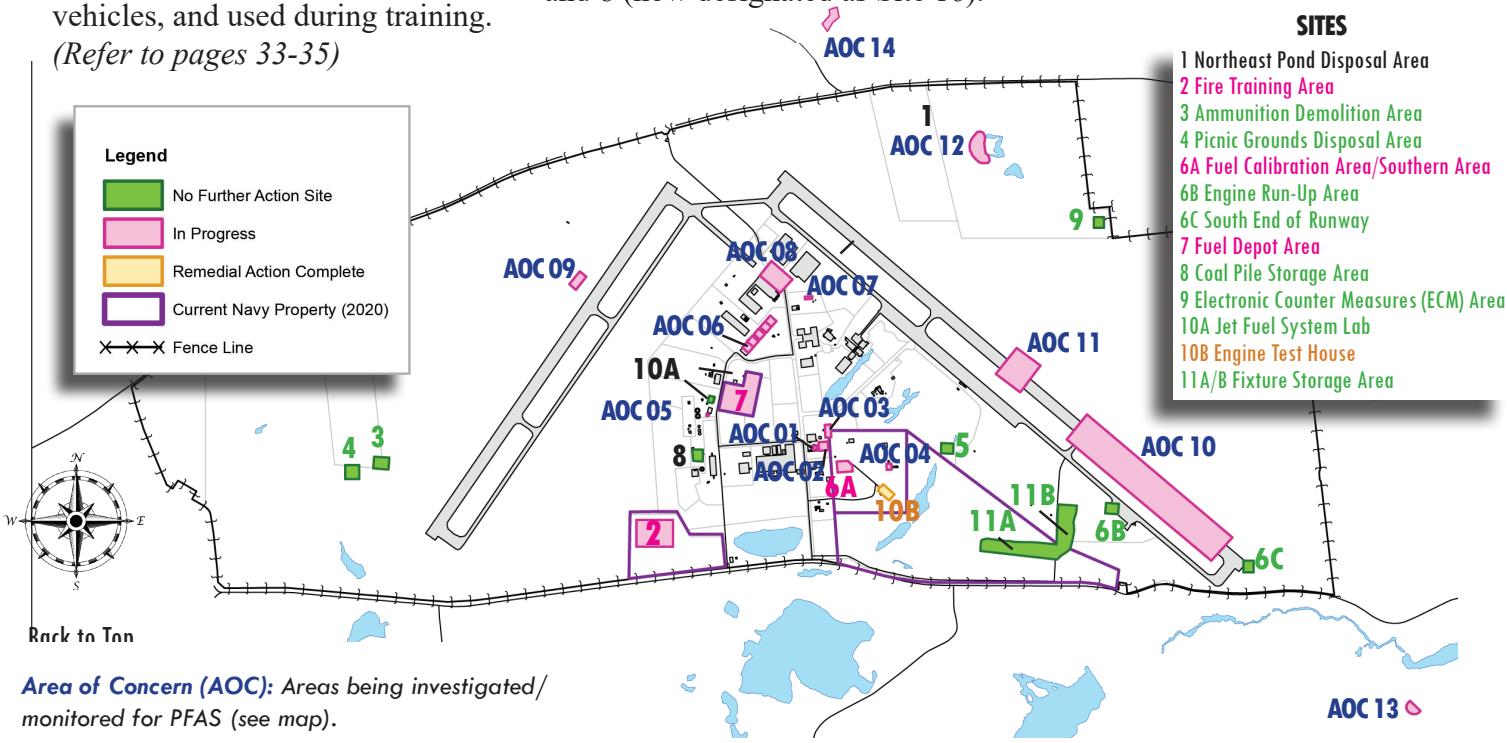
Beginning in 2016, PFAS investigations were initiated at Site 2 and the Aircraft Paint Hangars due to known releases of AFFF. PFOA/PFOS were detected in groundwater above the EPA drinking water Health Advisory of 70 parts per trillion. PFAS were also detected in surface water; however, there are no federal or state standards for surface water. A Facility-Wide PFAS Site Investigation began in 2019 to investigate another 14 potential PFAS source areas. In 2018, the Navy identified and requested permission o test private wells, only 19 were privately owned and 14 agreed to be tested, results concluded the wells tested below EPA health advisory level (results ranged between 4.61 to 16.83 ppt for PFOS/PFOA combined).

Compounds related to site

AFFF (aqueous fire fighting foam) used in fire suppression systems, stored in buildings and crash crew vehicles, and used during training. *(Refer to pages 33-35)*

Way ahead for the site

The PFAS Site Investigation is ongoing at 14 areas of concern. The majority of the fieldwork for the SI has been completed. Remedial Investigations for PFAS have also been initiated at Site 2 and AOCs 7 and 8 (now designated as Site 16).



Area of Concern (AOC): *Areas being investigated/ monitored for PFAS (see map).*

TIMELINE: What cleanup actions has the Navy already taken?

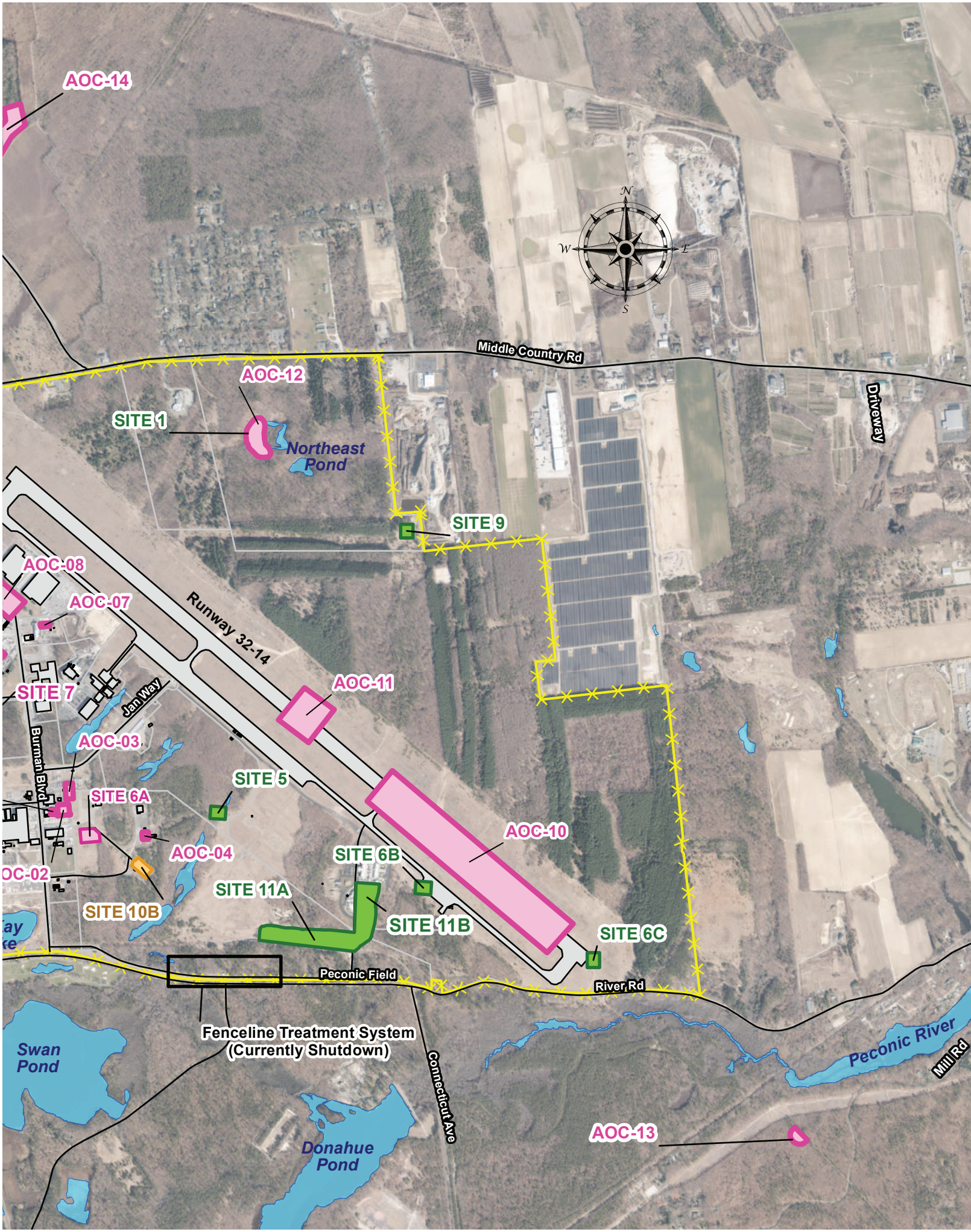
- **2016** Preliminary Investigation for PFAS
- **2018** Private drinking water well investigations
- **2019** Site Investigation (SI) of entire site
- **2019** Navy retested the 14 private wells, results were less than EPA health advisory level (results ranged between non-detect to 7.31 ppt for PFOS/PFOA combined)
- **2020** Navy tested a private drinking water well south of Swan Pond *(testing results can be found on the website)*
- **2021** Field activities (drilling and collection), results presented at the RAB

TERMS ON THIS PAGE EXPLAINED

PFOA/PFOS: Fluorinated organic chemicals that are part of a larger group of chemicals referred to as per- and polyfluoroalkyl substances (PFASs). These chemicals have been used since the 1950s in many household and industrial products because of their stain, and water repellant properties; main use in military was AFFF.

Health Advisory Limits: EPA established a lifetime health advisory of 70 parts per trillion (ppt) for PFOA and PFOS individually or combined in drinking water. New York has a more stringent standard of 10 ppt each for PFOS and PFOA in drinking water..


KEY
1 Northeast Pond Disposal Area
2 Fire Training Area
3 Ammunition Demolition Area
4 Picnic Grounds Disposal Area
6A Fuel Calibration Area/Southern Area
6B Engine Run-Up Area
6C South End of Runway
7 Fuel Depot Area
8 Coal Pile Storage Area
9 Electronic Counter Measures (ECM) Area
10A Jet Fuel System Lab
10B Engine Test House
11A/B Fixture Storage Area
-- Red indicates land retained by the Navy
Middle Country Rd
Route 25A
Runway 5-23
AOC-09
AOC-06
SITE 10A
AOC-05
AOC-01
SITE 8
Scott Ave
SITE 2
SITE 4
SITE 3
Swan Pond Rd
Line Rd


AOC-14
N
W
E
S
Middle Country Rd
AOC-12
SITE 1
Northeast Pond
Driveway
SITE 9
AOC-08
AOC-07
Runway 32-14
SITE 7
Jan May
AOC-11
Burman Blvd
AOC-03
SITE 5
SITE 6A
AOC-10
AOC-04
SITE 6B
OC-02
SITE 11A
SITE 10B
SITE 11B
SITE 6C
Peconic Field
River Rd
Fenceline Treatment System
(Currently Shutdown)
Swan Pond
Connecticut Ave
Peconic River
Mill Rd
Donahue Pond
AOC-13

3.1 Areas Where the Navy Environmental Program Completed Site Cleaned Up

Agricultural Outlease - Area buildings were dismantled and demolished. About 22 tons of asbestos-containing materials and lead-based paint were removed from the buildings prior to demolition. Two, 500-gallon, steel underground storage tanks were also excavated from the site. A total of 32 containers of hazardous materials were removed from the site. All buildings, waste, storage tanks, and contaminated soil were removed by November 2001. In 2005, the site was transferred to New York State Department of Environmental Conservation.

Northeast Pond Disposal Area (Site 1) - All landfill waste materials, contaminated soil, and contaminated sediment were excavated, with subsequent off-site disposal. Short-term groundwater monitoring was conducted; the site was transferred back to the Town of Riverhead in 2007.

Engine Test House (Site 10B) - Petroleum contaminated soil were excavated and disposed of off site. About 3,540 cubic yards of soil was excavated, and about 1,600 pounds of calcium oxyhydroxide was applied at the bottom of the hole. Disturbed areas were revegetated in 2009. In 2018, the site was opened for unlimited/unrestricted use.

Site 6A - Installation of infiltration galleries for the Fence Line Treatment System. *Photo courtesy of Navy contractor, Tetra Tech, May 2013.*

3.2 Sites Requiring No Further Action (see page 18-19 for full map)

Ammunition Demolition Area (Site 3) – This site was not recommended for further evaluation because quantities of ammunition destroyed at the site was limited and post-operation clean-ups were thorough and well-documented. Ammunition is not considered a contaminant and incineration was limited.

Picnic Grounds Disposal Areas (Site 4) – Located 500 feet west of the Ammunition Demolition Area (Site 3), archives and personal interviews do not confirm past and current disposal operations at this site which was active from 1947 to 1980's. A 1986 report estimated approximate volume of material disposed was 500 cubic yards and consisted of picnic tables, metal fabrications, old fences, demolition debris, foam, plastic, carpeting, and plywood. The Upper Glacial Aquifer was recommended for further evaluation. In 1992, a Site Investigation was conducted to eliminate areas that posed no definable threat to the environment or public health. Based on the absence of significant contamination in the soils, no additional investigation was recommended.

Gun Range Ammunition Disposal Area (1950's) (Site 5) – First area used for testing of aircraft cannons, failed ammunition may have been disposed of in a stream and swamp area. In 1957, operations were transferred to the Gun Butt Facility. Presently, no buildings, earthen ramparts, or other structures suggest the range's existence. In 1986, the site was scanned with a metal detector; no ammunition items detected and site was not recommended for further evaluation.

Engine Run-Up Area/South End of Runway (Site 6B/6C) – In 1986, an Area Impact Statement recorded at least 230 gallons of fuel spilled in these areas. A *Site Inspection* was conducted in 1992; soils and groundwater were sampled. Analysis did not indicate the presence of significant contamination, and it was determined the site posed no definable threat to the environment or to public health; therefore, no additional investigation was recommended at Sites 6B and 6C.

Coal Pile Storage Area (Site 8) – A 1994 *Preliminary Investigation* identified possible hydrocarbon (fuels/oils) contamination in soils and groundwater. As a result, a petroleum hydrocarbon and VOC soil and groundwater investigation was performed in 1997 and concluded additional investigations or remedial actions were not required.

Electronic Countermeasures Area (Site 9) – In 1992, due to historical, visual evidence of disturbances, and construction debris disposed near the area, a temporary monitoring well program was recommended to confirm the absence of solvents. A 1997 Resource Conservation Recovery Act Facility Assessment (RFA) Addendum concluded that the nature and extent of off site trichloroethane (TCA) contamination needed to be defined. In 2000, an Extended Site Inspection recommended no further action for the site.

Cesspool Leach Field Areas (Site 10) – These field areas were used for sanitary wastes and nonindustrial-type activities. A *Preliminary Investigation* reduced areas of concern from 22 to eight. These remaining sites were believed to have been potenitally contaminated with fuel or oil-related products. Refer to site 10A (Jet Fuel Systems Lab, pg. 13), and 10B for further information.

Fixture Storage Area (Site 11) – Evaluated in 1995 under a Resource Conservation Recovery Act Facility Assessment (RFA) low concentrations of solvents were found. Based on the concentrations detected relative to state guidelines, no additional action was recommended for this site.

Resource Conservation and Recovery Act (RCRA) The public law that creates the framework for the proper management of hazardous and non-hazardous solid waste. The term RCRA is often used interchangeably to refer to the law, regulations, and associated EPA policy and guidance.

SECTION IV.

Community Outreach and Involvement

4.0 Introduction

Governance: Public participation as well as public affairs and community involvement activities are necessary to the success of the Navy Environmental Restoration Program (ERP). Public involvement is required by Comprehensive Environmental Response, Compensation and Liability Act (CERCLA)provisions at specific stages of response actions (42 USC §9613 and §9617) and is the framework for how the Navy establishes its community involvement program.

The Office of the Chief of Naval Operations Manual (OPNAV M-5090.1) and Marine Corps Order (MCO P5090.2A) provide public participation guidance.

CERCLA requires public participation at specific stages of the process. The Navy's community involvement practices exceed the minimum requirements established under CERCLA.

Avenues of Communication: To keep the public informed, the Navy actively communicates information about actions taken, responds to inquiries, and provides information about actions and any releases of hazardous substances. There are several avenues the Navy uses to help keep the public informed. These include:

- Information Repositories and Administrative Records
- Community Involvement Plans (CIPs)
- Restoration Advisory Boards (RABs)
- Department of Defense Technical Assistance for Public Participation (TAPP)

4.1 Environmental Justice:

The Environmental Justice Act of 1992 obligates federal agencies to make environmental justice part of their overall mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations. Environmental justice refers to the fair treatment and meaningful involvement of all people, regardless of race, color, national origin, or income, with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies.

The EPA has developed an environmental justice program for all Federal facilities, which uses the following qualifiers to determine if an area likely has environmental justice concerns:

- Demographic information
- The definition of a minority population as one having at least 51 percent non-white and/or greater than 50 percent of the population below the national poverty level.
- Disposal practices of the site(s).

Calverton Minority Population: Although 85 percent of residents in Calverton are white, 8.2 percent are black, 4 percent are asian, 0.6 percent are Native American, and 1.7 percent identify as "other."

DID YOU KNOW?

Opportunities for technical assistance through the Technical Assistance for Public Participation (TAPP) program are made available to RAB community members in accordance with 10 USC §2705(e). TAPP provides funding for RABs to obtain independent (third-party) technical expertise to assist them in understanding or evaluating technical documents, concepts, or other information related to the restoration activities. TAPP must be requested by a majority of community members on a RAB.

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Calverton Poverty Level: 14.26 percent of residents in, live below the poverty line as compared to 13.7 percent of New York as a whole, and 11.8 percent nationally (2018). By demographics those who live below poverty level include white (67.4 percent), hispanic (13.8 percent), black (8.3 percent), asian (1.56 percent), and two or more races (8.91 percent) respectively. The largest gender demographics living in poverty are females ages 25 - 34, followed by females 55 - 64 and then females aged 75 and older.

Potential Environmental Justice Areas: Geospatial Information System (GIS) is a data system that collects related information like demographics that is linked to specific geographic locations. For the purpose of this document, a GIS that shows Potential Environmental Justice Areas (PEJAa) was used. PEJA's are currently identified based on data from the 2014 to 2018, five-year American Community Survey (ACS), conducted by the US Census Bureau. More information, along with resources about Long Island PEJAs, can be obtained at the New York State Department of Environmental Conservation website.

NWIRP Calverton is located within two miles of three identified PEJAs. To be identified as such, these areas meet or exceed at least one of the three EPA qualifiers from page 22. These areas include Baiting Hollow, Suffolk, and Riverside.

According to the 2017 Equity Profile of Long Island Report, people of color with a family income at or above 100 percent of the federal poverty level have the highest exposure to pollution. Whites living below the federal poverty level have lower rates of exposure than people of color regardless of their poverty status.

This information is significant to Navy decision-makers when developing plans for environmental cleanup at sites like Calverton NWIRP. The holistic approach to environmental justice extends to remedial technology and action plans.

Sources: EPA's Environmental Justice Screening and Mapping Tool; NYSDEC Potential Environmental Justice Area Maps; Data Source for Potential Environmental Justice Areas:U.S. Census Bureau, ACS 5-year estimate; 2017 Equity Profile of Long Island Report.

4.2 Community Involvement Plan (CIP)

A CIP is a site-specific strategy that supports meaningful community involvement throughout the CERCLA cleanup process. Department of the Navy CIPs are prepared and implemented on an installation-wide basis rather than for a specific Environmental Restoration action.

The CIP is based on information gathered from the community through interviews with local officials, residents, public interest groups, and other interested or affected parties to ascertain community concerns, community information needs, and how or when citizens would like to be involved in the CERCLA process.

In the CIP, the Navy specifies the activities it expects to undertake during the response/removal process. CIPs are considered "living documents," and are reviewed and updated periodically. In general terms, a CIP provides a means to:

- Inform the public of planned and ongoing actions
- Provide the public with an opportunity to express comments on and provide input to technical decisions
- Identify and resolve conflicts

4.3 Information Repositories and Administrative Record File

As the lead agency for environmental cleanups at Navy and Marine Corps installations, NAVFAC creates installation-specific Administrative Record Files that includes documents for environmental cleanup sites. Calverton records are available on the Calverton NWIRP website.

Administrative Record Files contain documents that form the basis for the selection of actions for sites. They also serve as vehicles for public participation in response to actions.

NOTE: Should a Department of the Navy Freedom of Information Act pop-up message appear in lieu of a document, please follow the Freedom of Information Act link for directions on how to request a copy of the document: http://www.secnav.navy.mil/foia/Pages/default.aspx

4.4 Restoration Advisory Board (RAB)

Introduction: RABs play an essential role and are one of the primary mechanisms to help the Navy both communicate its restoration plans and allow community responses and concerns to be addressed. They provide input to installation decision makers and have direct access to environmental agencies overseeing the cleanup. While RABs do provide valuable information, input, and ideas, it is not a decision-making body.

Department of Defense (DOD) published a regulation addressing RABs called the "RAB Rule" (70 FR 27610) that addresses the overall scope, characteristics, composition, funding, establishment, operation, and adjournment/dissolution of RABs. The RAB Rule applies to all DOD RABs regardless of when they were established.

RAB members should be a cross-section of local community residents who represent diverse community interests. This not only ensures equitable representation of the community but also ensures information reaches the entire community.

Calverton RAB History: The NWIRP Calverton RAB has been operating since 1997, with meetings held two to three times a year (typically in April and November, with additional meetings held as necessary). The RAB was formed from the original Technical Review Committee for NWIRP Calverton, which began operation in the early 1990s.

In accordance with the RAB process, a primary reason for initiating the CIP update was to determine if there was sufficient community interest to maintain the RAB. The goal of the Navy is to sustain the RAB and so the CIP update was also used to solicit membership. Membership and participation prior to summer 2019 had dropped off (one to three official members participating per meeting).

The goal was to determine if lack of participation was due to lack of awareness or interest.

Due to the virtual environment related to COVID-19, to help understand interest level, the Navy provided a survey to the community. The survey informed Navy decision-makers on the community's awareness of cleanup actions and gathered top concerns. The survey was also used to help revitalize the Calverton RAB and generate interest in RAB membership. Survey results are provided on pages 27-31. The RAB revitalization drive, and survey ran from May to July 2021. As a result, there are now 10 official members on the NWIRP Calverton RAB.

RAB's are responsible to keep an updated charter. On September 15, 2021, the expanded RAB reviewed and edited a RAB Charter during a special new member orientation session. The RAB decided to delay election of a new Community Co-Chair until the following year to ensure new members have time to acclimate to their new role. After finalization, the charter contains all the names of RAB members and is available online.

The Navy Co-Chair and Community Co-Chair works collaboratively, and the Community Co-Chair plays an active role in developing meeting agenda's.

Finally, in an effort to streamline meetings, and focus on items of interest to the RAB and the public, a neutral facilitator was hired to facilitate future in-person RAB meetings. The facilitator will assist with the question-and-answer sessions during RAB meetings to keep discussions focused on the agenda.

(See page 26 for meeting process)

(Photo to the Right) **Calverton RAB Meeting** *taken January 29, 2021 courtesy of Denise Civiletti/ RiverheadLOCAL (used by permission).*

4.5 THE NAVY'S COMMITMENT TO HELP YOU GET INVOLVED AND STAY INFORMED

Indicate the Navy's primary mechanisms that serve to keep the community informed.

ACTION	MORE INFORMATION
Briefings	As permitted by official's schedules or upon request.
Public Repository	Reports, and other technical documents for public review can be accessed at: Riverhead Free Library 330 Court Street Riverhead, NY 11901-2885 (631) 727-3228
Administrative Record File	The U.S. Navy makes reports, documents, and other relevant materials accessible to the public by posting them on the NWIRP Calverton website. RAB members may assist in notifying the public through notification on their social media channels/websites. Access documents at: https://go.usa.gov/xserR.
Website	NAVFAC maintains project websites where the community can access site information. Access the NWIRP website at: https://go.usa.gov/xssQ3.
***Restoration Advisory Board (RAB)** **(see page 24 and 26)**	RAB members have the opportunity to provide input to installation decision makers. If interested, learn about requirements and complete a membership request form found at https://go.usa.gov/xsHwM.
***Email List**	NAVFAC may send periodic updates to the community email list to make sure stakeholders and neighbors receive information about cleanup progress. To join please request by email to NAVFAC_ML_PAO@navy.mil.
***Open House**	NAVFAC will continue to host formal public meetings and periodic informal open houses to help make information widely available at significant milestones during the site's cleanup.
Newsletter/Fact Sheets	NAVFAC may issue periodic newsletters and fact sheets about cleanup activities, significant milestones, technical information, and project findings. Both will be added to the NWIRP Calverton website. Hard copies of fact sheets may be distributed at meetings and provided to community groups and individuals upon request. Archived information, to include meeting minutes, presentations and fact sheets can always be obtained on the website.

4.6 Anticipated Clean Up Schedule

Additional information or updates on cleanup actions will be provided periodically, either through email or Official RAB members. Information will also be located on the Calverton NWIRP website.

Document or Activity	Schedule
Preliminary Assessments (PA)	
Facility wide PFAS	Final Completed 2021
Facility Wide 1,4 Dioxane	In preparation
Site Inspections (SI)	
PFAS SI 14 AOCs	Fieldwork, ongoing
Remedial Investigations (RI)	
Site 2 - Former Fire Training Area (PFAS RI)	Field Work, ongoing
Site 16 - Flight Emergency Shelter (PFAS RI)	
Post-Record of Decision (ROD) Remedial Action	
Site 7 - Biosparge Pilot Test	Spring/Summer
Land Use Control (LUC) Inspections	
Site 6A, Site 7, Site 10A	Annual
Remedial Design (RD) for MEC	
Site 2 - Former Fire Training Area	2020 - NYSDEC provided concurrence letter
Long-Term Monitoring (LTM)	
Site 6A – Former Fuel Calibration Area	Spring/Fall
Site 7 – Former Fuel Depot	Spring/Fall
Site 2 – Former Fire Training Area	Fall
Site 6A – Former Fuel Calibration Area and	Fall
Site 7 – Former Fuel Depot	Fall
Site 10A – Former Jet Fuels Laboratory	Annual

RAB Process Overview and Anticipated Official RAB Meetings

- ☐ Meetings, date, time, and location are determined by the U.S Navy and agreed upon by the RAB. Calverton meetings typically occur bi-annually in the spring and fall.
- ☐ For Calverton, meetings convenient locations include but are not limited to: the *Manorville Fire Department, 14 Silas Carter Road, Manorville, NY, 11949*, and the *Riverhead Senior Center, 60 Shade Tree Lane, Riverhead, NY*. [***Note:*** If needed, the Navy may opt to host meetings using a virtual platform].
- ☐ RAB members and regulators are notified approximately 30 days prior to a meeting.
- ☐ Approximately 14 days prior to the meeting, an additional notification is sent to RAB members, regulators, and an email distribution list, that includes the invitation, agenda, and previous meeting minutes. Public notification is also provided through the Riverhead News-Review.
- ☐ During the meeting, the U.S. Navy prepares meeting minutes. (***Note:*** RAB members review and approve meeting minutes prior to them being posted. They are provided to the RAB no later than one month before the next meeting).
- ☐ Meeting presentations are posted to the Calverton website at least one day prior to the meeting.

SPRING	FALL
For your convenience, blank spaces are provided to fill in the dates of upcoming meetings as they become available.	
April 29, 2021 (held virtually)	November 9, 2021 (held virtually)
2022	2022
2023	2023
2024	2024
2025	2025
2026	2026

The flyer on the following page was used during the RAB drive mentioned on page 24, and may still be distributed as needed.

Flyer

Calverton Restoration Advisory Board for Former Navy/Grumman site

U.S. NAVY Seeking Calverton Residents to Join the Restoration Advisory Board (RAB)

What is a Restoration Advisory Board or RAB ?

A collective forum for the community, government agencies, tribes, and installation decision makers to discuss, and identify the most efficient and productive means to restore the environment at a site formerly owned by the DoD, where the DoD is overseeing the cleanup process.

RAB members provide input to installation decision makers. They have direct access to environmental agencies overseeing the cleanup. They can share their questions, concerns, and ideas with agencies involved in the cleanup. While RABs do provide valuable information, it is *not* a decision-making body.

Who are RAB Members? RAB members should be a cross-section of local community residents who represent diverse community interests. This means a RAB member can be a teacher, environmental advocate, business owner, grocery clerk, parent, member of a community organization, or a farmer, these are just some examples. This not only ensures equitable representation of the community but also ensures information reaches the entire community.

Why is a RAB Important? The Navy encourages community involvement throughout the entire environmental restoration process. Residents, who understand their community, and volunteer to represent it, provide meaningful input regarding the cleanup activities within their community. While the general public can comment on the DoD's efforts, RABs are a focused and interactive opportunity to participate in the process.

Where does a RAB meet? All meetings are announced and held at a location within the community; during COVID-19 meetings are held virtually.

When does a RAB meet? There are two annual official RAB meetings for the Calverton RAB.

Community Participation Community members are encouraged to attend the two annual RAB meetings that are open to the public. The public is also encouraged to contact official RAB members with any questions or concerns throughout the cleanup process.

RAB Responsibilities

- Member should represent and communicate community interests and concerns
- Be willing to learn about the Environmental Restoration Process and actions at the site
- Assist in establishment of a mission statement, goals, and operating procedures
- Address issues associated with the environmental restoration activities
- Provide advice and comment on restoration issues to the decision makers
- Provide information to the greater community
- Serve a specified term, typically a one to two-year term, and attend RAB meetings regularly
- When applicable, review and comment on documentation and activities

How the Navy Partners with the RAB

- Maintains a record of RAB activities
- Maintains an information repository on all activities related to the site
- Informs RAB about key issues and upcoming decisions
- Considers and responds, in a timely manner, to RAB questions, concerns, and ideas.
- Provides adequate funding for administrative and technical support

How Can I Get Involved? If you are interested in serving on the Calverton RAB, please complete a membership request form. Upon submission, forms will be reviewed and approved by a selection panel. The panel reviews submissions to understand applicants commitment level, and ensure members represent interests of community. Local residents of Riverhead interested in the ongoing environmental restoration activities at the former Navy/Grumman site should go to https://go.usa.gov/xsKJw for more information and for the link to the form.

4.7 Calverton Community Environmental Concerns Survey Summary

Survey Method

To understand the decrease in the Calverton RAB participation, and due to COVID-19 restrictions, the Navy conducted a paper community survey. The purpose of the survey was threefold: (1) to solicit new RAB members (2) to understand if RAB participation decreased because of lack of interest or awareness, and (3) to provide input for the required updated Community Involvement Plan (CIP). The survey was conducted May 1 - July 30. Surveys were distributed by paper (a fillable PDF) and electronically (via website) to community members. Surveys were also disseminated through current RAB Members and hosted on both the Riverhead and Navy Calverton website; the survey was not required to be filled out electronically and was available to be completedverbally through a Navy team member during working hours Monday through Thursday.

As of July 30, 32 survey forms were returned. Most surveys were completed as PDF's and returned by email to the Navy Point of Contact; two surveys were completed verbally via telephone. Additionally, a Navy Team member reached out and provided the survey and information on RAB membership, to area colleges and universities, elementary, middle, and high schools, various community organizations, to include the Riverhead Lions and Rotary Club, both the River Head and Shelter Island Chamber of Commerce, Elected Officials to include the Riverhead Town Supervisor, and other programs such as Economic Planning and Development, and Riverhead Department of Health.

The survey included 12 questions with three optional questions and a section for comments. The survey placed rules on certain questions; question 4 a Likert scale was used to indicate level of concern of contamination of surface water, ground water and soil; for questions 5, 10, and 12, an individual could provide comments in relation to their selected responses; and question 7, 8, and 9 were optional. The survey included a section where individuals could provide additional comments or concerns not addressed in the survey. Data was collected from May 1 – July 30, 2021 and results are summarized on pages 29-32.

Purpose of the Survey

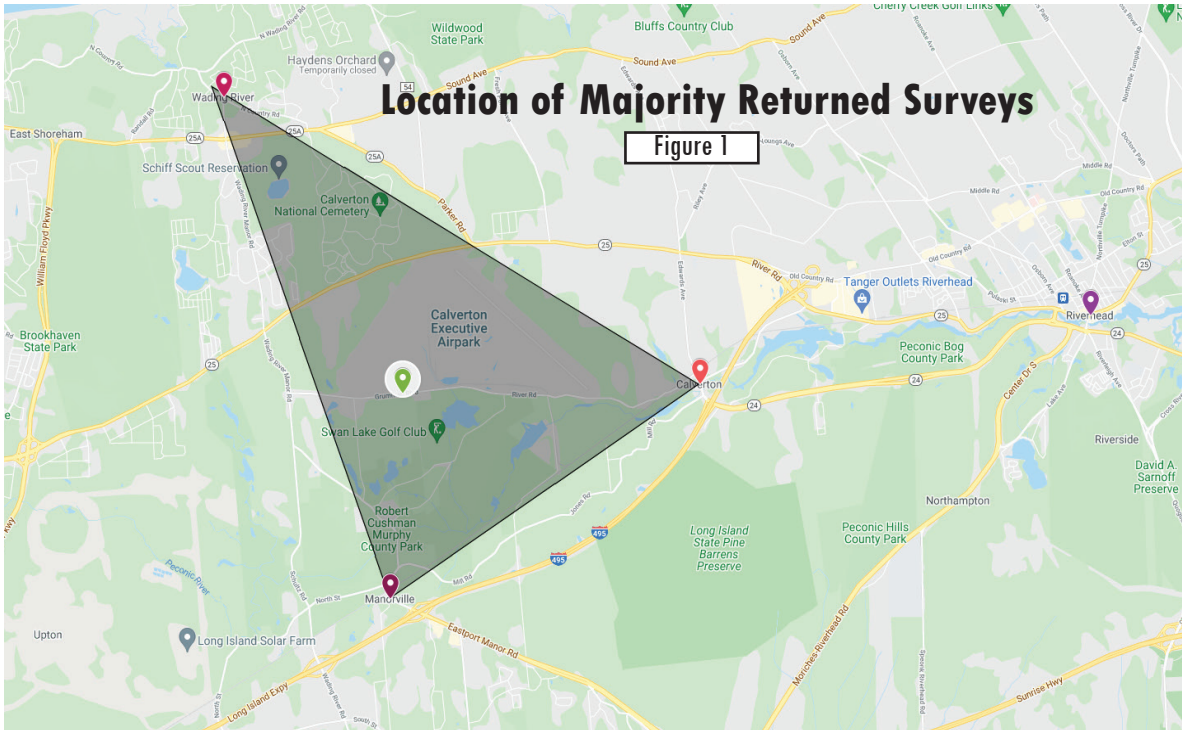
Goals – Understand decline of RAB; Revitalize the RAB through new membership; Ensure community input provided in the updated Community Involvement Plan.

Objective – Clearly address issues most important to residents of Suffolk County related to U.S. Navy efforts to clean up the former Navy/Grumman Site under the Environmental Restoration Program based on their awareness.

Audience – Suffolk County residents, those near, affected by, or who have a stake in the former Navy/Grumman site.

Location of Majority Returned Surveys

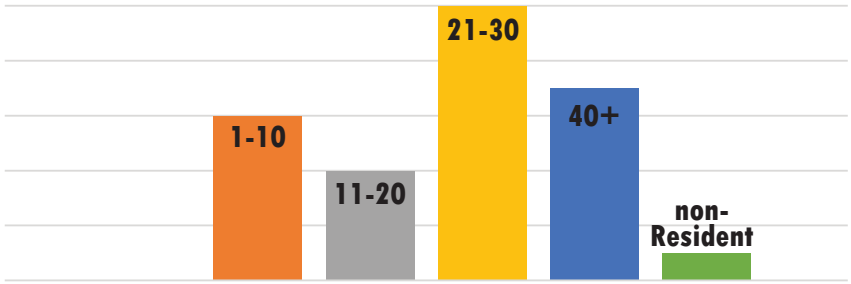
Figure 1



(Question 1) The majority of surveys were returned from Suffolk County within the Town of Riverhead, specifically Wading River (zip code: 11792) population 8,523, with a median age of 41; Calverton (zip code: 11933) population 6,844 with a median age of 47; and Manorville (zip code: 11949) population 14,573 with a median age of 40.
(Figure 1)

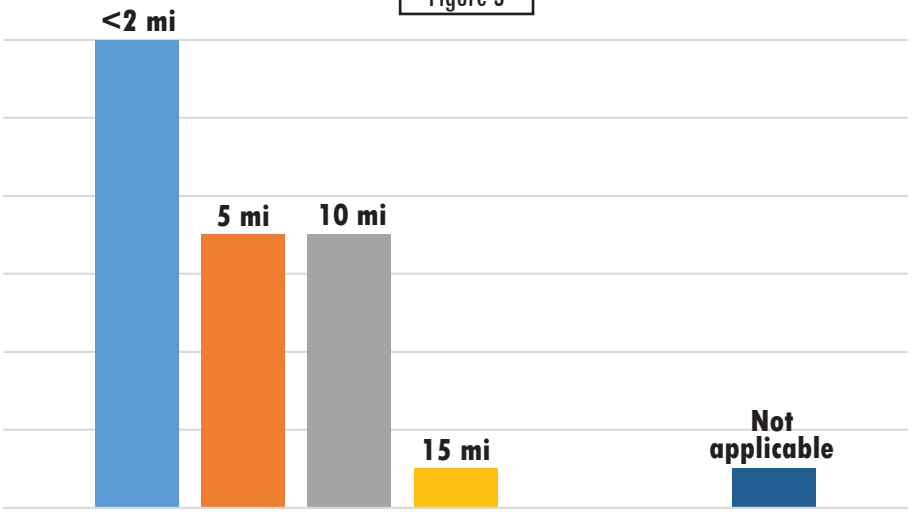
Residents Years in Calverton

Figure 2



Residents Distance from Former Navy/Grumman Site

Figure 3



(Question 2-3) The former Navy/Grumman site is located in the center of Wading River, Calverton, and Manorville which is where most survey respondents live and have been residents of their respective towns from 20 years to more than 40 years. Most respondents live within two miles of the former Navy/Grumman site. Three of the respondents are elected officials.
(Figure 2 and 3)

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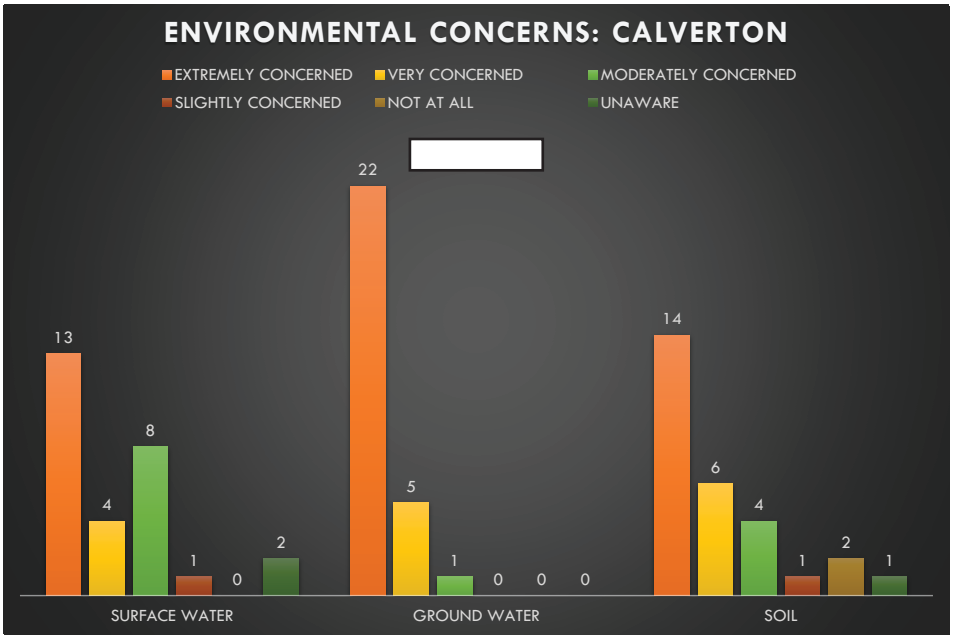
(Question 4) When asked, how concerned residents were about surface water, ground water, and soil – using a scale of extremely concerned, very concerned, moderately concerned, slightly concerned or not at all, 77% of respondents said they are extremely concerned about ground water, while 44% said they are extremely concerned about surface water, and 48% said they are extremely concerned about soil. *(Figure 4)*



(Question 5) The survey provided an opportunity for respondents to express or comment on their specific concerns related to the contamination of the surface water, groundwater, and soil referenced in question 4. *(Refer to Figure 5).* for specific and top concerns of respondents. Several respondents, particularly in the Manorville area, expressed concerns of high cancer rates.

Respondents expressed concern of ongoing contamination during the lengthy cleanup process. Although most respondents understand cleanup will take some time, they believe that in the meantime, their water is not safe to drink.

All elected officials who responded expressed they believe the Navy should pay for residents to be connected to municipal drinking water.

Respondents also expressed concern the Navy is refusing to extend testing parameters in relation to groundwater flow.

Most residents believe the Navy should test by and adhere to NYS drinking water regulatory standards versus the Environmental Protection Agency (EPA) Standards (Federal Regulation Standard).

SPECIFIC CHEMICALS OF CONCERN

Figure 5

Specific compounds identified in order by resident concern:

(PFOA & PFOS)
PFAS
PFOA
VOC's
1,4 DIOXANE
TCE
VOLATILE ORGANICS

OTHER CONCERNS

Health issues and other identified in order by resident concern:

OVERALL HEALTH
CANCER
REGULATORY STANDARDS (FEDERAL vs STATE)
GROUNDWATER FLOW TESTING
CLEAN WATER WHILE AWAITING CLEANUP
MANORVILLE (HIGH CANCER RATES)

(Question 6) When asked if respondents were aware of the Navy's Environmental Restoration Program for cleanup actions at Calverton 54% responded yes and 45% responded no.

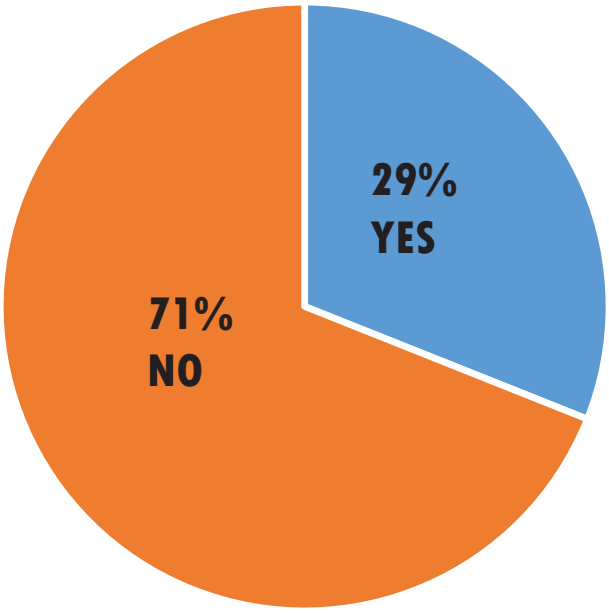
(Question 7-9) These questions were optional. They were used to indicate interest in learning about or becoming a RAB member. A section was provided for contact information. The survey resulted in eight new RAB members.

(Question 10) When asked whether respondents trust the Navy to address the environmental issues at the former Navy/ Grumman site 71% of residents said they do not trust the US Navy, while 29% said they do trust the Navy *(Figure 6)*. Reasons for distrust include: (1) Belief the Navy is not taking responsibility for the environmental issues/ cleanup. (2) Belief the Navy is not doing their due diligence when researching historical information or interviewing past employees regarding the site. (3) Belief safety is not a priority because the Navy has not provided the community an alternate drinking water source, and (4) Belief the Navy is not being transparent and fails to communicate, or hides information regarding cleanup actions from the community, specifically because the Navy often uses technical jargon.

(Question 11a) When asked how respondents are currently kept informed of the Navy's cleanup actions at the former Navy/Grumman site 44% said they are kept informed through the RAB; 37% said they are kept informed through the local media; 14% said they are kept informed through the Navy website; and 16% said they are not kept informed. *(Figure 7)*

Do Residents Trust the Navy to Address Environmental Concerns?

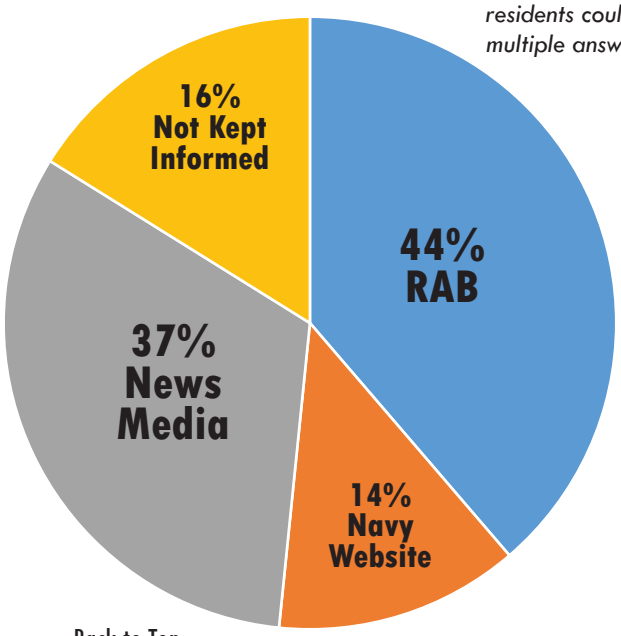
Figure 6



How are Residents Kept Informed?

Figure 7

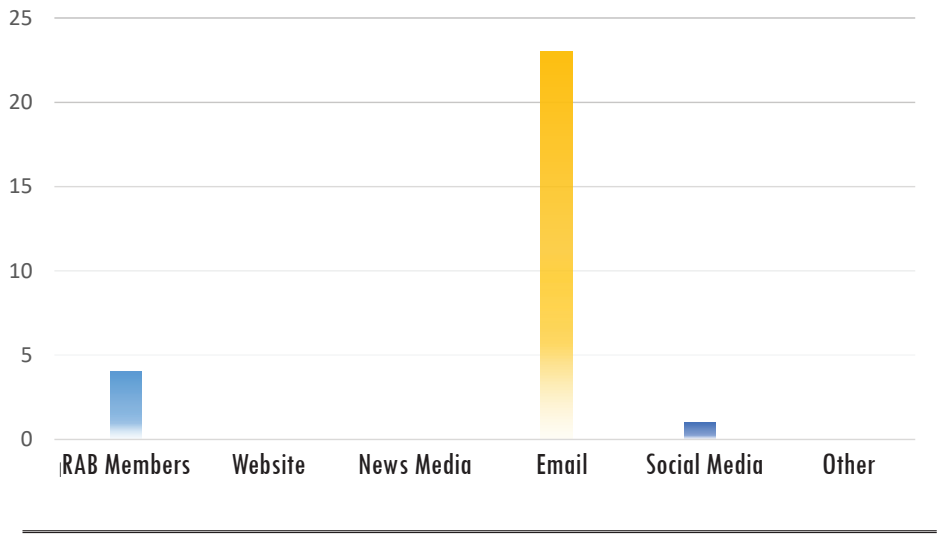
Percentage greater than 100% because residents could choose multiple answers.



(Question 11b) When asked how respondents would prefer to be kept up-to-date about information regarding the Navy's cleanup actions at the former Navy/ Grumman site 81% said they would prefer email notification; 14% said they would prefer to be kept informed by RAB members; 3% said they would prefer to be kept informed by social media; 0 respondents chose website, news media, or other *(Figure 8)*.

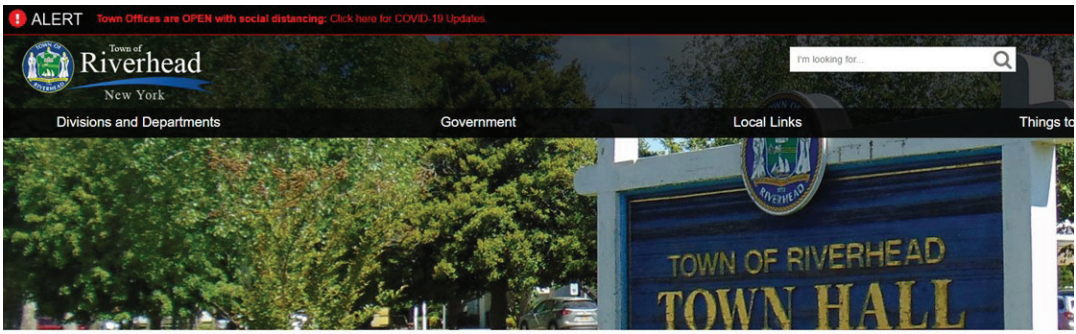
How Do Residents Prefer to Be Kept Informed?

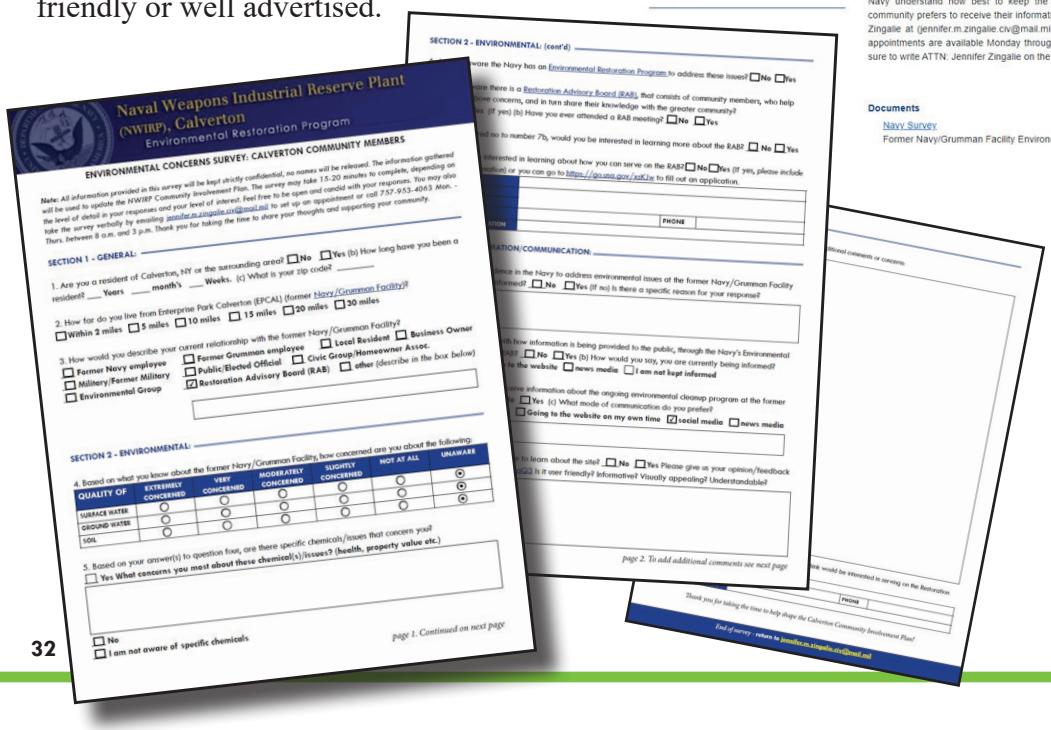
Figure 8



(Question 12) When asked if respondents visited the Navy's website for Calverton, of the 32 respondents, three said no, and 12 did not comment; 33% of respondents to this question said they visited the website and provided negative comments, while 14% said they visited the website and provided positive comments.

The consensus on the website, based on those who provided comments was, although the website does provide a great deal of information, it is not user friendly or well advertised.





Riverhead website - Pictured above is the Town of Riverhead website, which hosted the Navy's Environmental Concerns Survey from May to July 2021. The survey is pictured to the left and included 12 questions with three optional questions, and a section for open comments.

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SECTION V.

Acronyms, Terms, and Measurements Commonly Used

Although some of the acronyms on the below list may not be used specifically within this document, they are related to this site and may be used during community meetings, within official documentation, and other occasions.

AFFF	Aqueous Fire-Fighting Foam
EPCAL	Enterprise Park at Calverton
ESI	Extended Site Investigation
FS/CMS	Feasibility Study/Corrective Measures Study
GOCO	Government Owned/Contractor Operated
GQCC	Groundwater Quality Cleanup Criteria
IAS	Initial Assessment Study
N/A	Not Applicable
NG	Northrop Grumman
NFI	No Further Action
NTCRA	Non-Time Critical Removal Action
NYCRR	New York Codes, Rules, and Regulations
NYSDEC	New York State Department of Environmental Conservation
O&M	Operation and Maintenance
PCG	Proposed Closeout Goal
PFAS	Per- and polyfluoroalkyl substances
PFOA	Perfluorooctanoic acid
PFOS	Perfluorooctane sulfonate
PRSC	Peconic River Sportsman's Club
RCRA	Resource Conservation and Recovery Act
RFA	RCRA Facility Assessment
RFI	RCRA Field Investigations
SAP	Sampling and Analysis Plan
SCDHS	Suffolk County Department of Health Services
SP	Strategic Plan

The following section consists of **an overview of compounds**, referred to on pages 14 to 17, at the current sites being cleaned-up and monitored by the Navy. All term definitions in section five are from the most recent, publicly available scientific information; additional information can be obtained from both Navy and EPA Websites. Information for some compounds may be found on the Agency for Toxic Substances and Disease Registry (ATSDR) Website. This section is not intended to be used as a primary source of information and is not intended, nor can it be relied on, to create any rights enforceable by any party in litigation with the United States. Mention of trade names or commercial products does not constitute endorsement or recommendation for use.

1,4-dioxane -- (What) Byproduct; a synthetic industrial chemical, mixes easily in water. Found at many federal facilities because of its widespread use as a stabilizer in certain chlorinated solvents. (Where) Typically found at solvent release sites and in groundwater at sites throughout the United States. (How) Exposure may occur through ingestion of contaminated food and water, or dermal contact.

Benzene -- (what) Man-made and natural; found in the air from emissions from burning coal and oil, gasoline service stations, and motor vehicle exhaust. (Where) This compound typically enters the environment through industrial processes such as storage operations or vehicle emissions. (How) Individuals may be exposed to benzene by breathing air that contains the compound or by consuming contaminated water.

Ethylbenzene -- (what) A colorless, liquid that smells like gasoline and is found naturally in oil. It is also used as a solvent, as a constituent of asphalt and naphtha, and in fuels. (Where) This compound is typically found in both indoor and outdoor air. (How) Exposure to ethylbenzene occurs from the use of consumer products, gasoline, pesticides, solvents, carpet glues, varnishes, paints, and tobacco smoke.

For more information on compunds, contact the Agency for Toxic Substances and Disease Registry, Division of Toxicology and Environmental Medicine, 1600 Clifton Road NE, Mailstop F-32, Atlanta, GA 30333. Phone: 1-800-232-4636, Fax: 770-488-4178. ToxFAQs Internet address http://www.atsdr.cdc.gov/toxfaq.html. ATSDR can tell you where to find occupational and environmental health clinics. Their specialists can recognize, evaluate, and treat illnesses resulting from exposure to hazardous substances. You can also contact your community or state health or environmental quality department if you have any more questions or concerns.

Acronyms, Terms, and Measurements Commonly Used

Munitions and Explosives (MEC) -- (What) These are military munitions that may pose an explosive hazard. (Where) MEC occurs at active ranges or areas where fill from active ranges may be placed. (Where) Individuals may be exposed to MEC items laying on the ground surface or encountered during excavation.

Naphthalene -- (What) made from crude oil or coal tar. It is also produced when things burn, so naphthalene is found in cigarette smoke, car exhaust, and smoke from forest fires. It is used as an insecticide and pest repellent. (Where) Released into the air from the burning of coal and oil. (How) Individuals may be exposed to a pesticide if breathed in, dermal contact, or accidentally eat or drink something containing a pesticide; most are likely to be exposed to naphthalene by breathing in the vapors.

PAHs -- (What) Polycyclic Aromatic Hydrocarbons are found naturally in the environment but are also man-made. (Where) They are created when products like coal, oil, gas, and garbage are burned but the burning process is not complete. PAHs are a concern because they are persistent and do not burn easily, and can stay in the environment for long periods of time; most do not break down easily in water. (How) One of the most common ways PAHs can enter the body is through breathing contaminated air. Individuals may also be exposed through contaminated food or water, or dermal contact with contaminated soil.

PCBs -- (What) Polychlorinated Biphenyls are a group of more than 200 similar manmade chemicals. They are oily liquids or solids, clear to yellow in color, with no smell or taste. Found as mixtures, and are very stable and resistant to extreme temperature and pressure. Commercial production of PCBs ended in 1977. (Where) PCBs have been released into the environment through spills, leaks from electrical and other equipment, and improper disposal and storage. (How) PCBs can enter the body by eating or drinking contaminated food, through breathing the air, or dermal contact; are easily absorbed by the body and are stored in fatty tissue; not eliminated well, can accumulate in the body.

Petroleum -- (What) Petroleum-based oil describes a broad range of natural hydrocarbon-based substances and refined petroleum products, each having a different chemical composition. As a result, each type of crude oil and refined product has distinct physical properties. (Where) Discharges to the environment may occur from natural seeps, and land-based sources. (How) Exposure occurs via inhalation, ingestion (of liquid droplets in the air), and direct skin contact.

PFAS -- (What) Per- and polyfluoroalkyl substances are a group of man-made chemicals that includes PFOA, PFOS, GenX, and many other chemicals. PFAS have been manufactured and used in a variety of industries around the globe, including in the United States since the 1940s, from food packaging to house hold and industrial products. They are also present in fire-fighting foams (or aqueous film forming foam; AFFF) used by both civilian and military firefighters. (Where) PFAS can enter the environment through production or waste streams and are very persistent in the environment and the human body. PFAS can be found throughout the world and has been identified across the U.S. to include on or near military installations. (How) There are a variety of ways to be exposed to these chemicals and at different levels of exposure. Please see the Assistant Secretary of Navy (Energy, Installations and Environment) Website for more detailed information: https://www.secnav.navy.mil/eie/Pages/PFAS-FAQs.aspx.

TCE -- (What) Trichloroethylene is a volatile organic compound used mostly in industrial and commercial processes. For the DoD, it has been used widely as a degreasing agent in metal cleaning in industrial and maintenance processes. (Where) It has been widely found in groundwater, surface water, and soil across the US through spills, dumping, and evaporation. (How) Exposure may be through drinking TCE-contaminated water; or by breathing it when released to the air from water.

Toluene -- (What) Added to gasoline, used to produce benzene, and used as a solvent. (Where) Automobile

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emissions are the principal source of toluene to the ambient air. It may also be released to air during the production, use, and disposal of industrial and consumer products that contain the chemical. (How) Exposure to toluene may occur from breathing ambient or indoor air affected by such sources; maximum concentrations usually occur in indoor air from the use of common household products (paints, paint thinners, adhesives, synthetic fragrances, and nail polish) and cigarette smoke.

VOCs -- (What) Volatile organic compounds are any compound of carbon, excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate, which participates in atmospheric photochemical reactions. (Where) Common emissions sources of VOCs include dry cleaners; auto body shops; cars, trucks, and buses; lawn mowers and other landscaping equipment; and industrial painting and coating operations. Natural processes like plant and animal respiration and organic decomposition also release VOCs into the atmosphere. (How) The primary route of exposure to VOCs is by breathing in these gases; less common is dermal exposure.

Xylenes -- (What) A colorless liquid that has a sweet odor. Xylenes are flammable and practically insoluble. Xylenes are primarily a synthetic chemical; however, it can occur naturally in petroleum, coal tar, and during forest fires. Xylenes are primarily used as a solvent (a liquid that can dissolve other substances), particularly in the printing, rubber and leather industries. (Where) Xylenes are released into the atmosphere as fugitive emissions from industrial sources, from auto exhaust, and through volatilization from their use as solvents. Xylenes are sometimes released into water and soil as a result of the use, storage, and transport of petroleum products; not commonly found in drinking water. (How) Individuals may be exposed to Xylenes by breathing in contaminated air, or by drinking/eating Xylene-contaminated water/food.

PFAS EXPOSURE INFOGRAPHIC

Source: https://www.wrd.org/content/pfas-information-0

CURRENT NAVY POLICY FOR PFAS

(2014) Assistant Secretary of the Navy (Energy, Installations and Environment) issued a policy. Required on-base drinking water sampling for PFOA and PFOS for bases where groundwater was used as drinking water, and where PFAS could have been released.
(2015) Drinking water samples expected to be completed if not previously tested under Third Unregulated Contaminant Monitoring Rule (UCMR3) or if an identified/suspected PFAS release was within approx one mile upgradient to drinking water source.
(2016) Navy issued a policy to require Navy installations not previously tested under UCMR3, or the 2014 policy. To test their finished drinking water, regardless of water source (installation or municipal) and proximity to potential/known PFAS release to environment.
(2016) Navy issued a policy to prioritize sites for investigation if drinking water resources, on/off-installation were thought to be vulnerable to PFAS contamination from past known or potential releases. Sites with drinking water sources within one-mile downgradient were assigned highest priority.

SECTION V. (continued)

Information on this page are common units of measure that may be discussed at meetings, found on the website, used in official documentation or indicated on maps. For further information, reach out to the Navy POC.

NUMBERS

Million	1,000,000
Billion	1,000,000,000
Trillion	1,000,000,000,000
One millionth	0.000001
One billionth	0.000000001
One trillionth	0.000000000001

MASS

28 grams	about 1 ounce
1 kilogram (kg)	1,000 grams
1 milligram (mg)	1/1,000 gram = 0.001 gram
1 microgram (ug)	1/1,000,000 gram = 0.000001 gram
1 nanogram (ng)	1/1,000,000,000 gram = 0.000000001 gram
1 picogram (pg)	1/1,000,000,000,000 gram = 0.000000000001 gram

VOLUME

One liter (L)	1.06 quarts
One cubic meter (m^3)	35.31 cubic feet (ft^3)
One cubic meter (m^3)	1,000 liters (L)
One liter (L)	1,000 milliliter (ml) = 1,000 cubic centimeters

overview
UNITS OF MEASURE

Concentrations in Soil

Concentrations of chemicals per mass of soil. Mass of chemical (milligrams or micrograms) per mass of soil (kilogram) - written as mg/kg or µg/kg. Concentrations in soil may also be measured in parts per million (ppm) or parts per billion (ppb). These may be written in a conversion form, for example 1 ppm = 1,000 ppb.

Concentrations in Water

Concentrations of chemicals in water are typically measured in units of mass of chemical (milligrams or micrograms) per volume of water (liter); written mg/L or µg/L. Concentrations in water may also be measured in parts per million (ppm) or parts per billion (ppb). These may be written in a conversion form, for example 1 ppm = 1,000 ppb.

Concentrations in Air

Concentrations of chemicals in air are typically measured in units of the mass of chemical (milligrams, micrograms, nanograms, or picograms) per volume of air (cubic meter or cubic feet). Concentrations may also be expressed as parts per million (ppm) or parts per billion (ppb) by using a conversion factor based on the molecular weight of the chemical, which is different for each chemical; atmospheric temperature and pressure affect the calculation.

VISUAL ASSISTANT

One part per billion (ppb) is like one drop in one billion drops of water or about one sugar cube-sized drop of water in an Olympic swimming pool. One part per million (ppm) is about 1 cup of water in an Olympic swimming pool.

One part per trillion (ppt) is the equivalent of one drop of impurity in 500,000 barrels of water or it is like to traveling 6 inches out of a 93-million-mile journey toward the sun.

HOW REMEDIAL EFFICIENCY IS MEASURED

pounds/year	Contaminant mass naturally degraded
pounds/year	Contaminant mass removed*
acre-feet/year	Groundwater removed*
acre-feet/year	Groundwater added (injected)*
acre-feet/year	Net groundwater removed/added
percentage	Groundwater removed per year vs. plume volume expansion per year
percentage	Contaminant mass removed per year vs. pre-remedial contaminant mass transported downgradient per year

**by or through remediation*

FACT SHEET

Groundwater and Groundwater Flow Basics

Water level elevations are used to determine the direction of groundwater flow. Groundwater flows from higher to lower elevation and typically flows the same direction that land surface slopes (down hill).

TERMS

Aquifers Aquifers are defined as units of rock or soil where groundwater can be extracted for use. These uses may include drinking water, irrigation water, or water used in industrial processes.

Hydraulic conductivity Hydraulic conductivity is a measure of how easily water can pass through soil or rock: high values indicate very permeable (porous/absorbant) material through which water can pass easily; low values indicate that the material is less permeable (porous/absorbant).

Groundwater Some of the precipitation (rain, snow, sleet, and hail) that falls on the land soaks into Earth's surface and becomes groundwater.

Piezometers Used to measure the elevation of groundwater relative to sea level.

Water Table The level below which the ground is saturated with water.

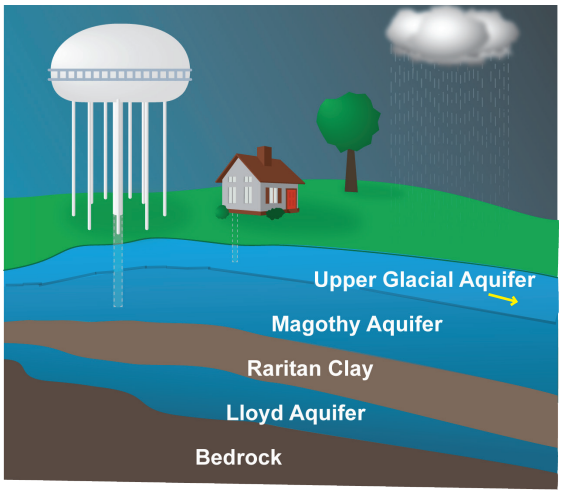
Contour Lines (see map): The blue lines and numbers indicate groundwater elevation in feet above mean sea level. Measurements are found by using wells to measure ground surface elevation which in turn is used to measure the depth to groundwater (elevation). By calculating the groundwater elevation for multiple wells, groundwater flow can be determined. The blue arrows on the map indicate groundwater flow direction.

Long Island Aquifers are also called the Upper Glacial Formation, the Upper Magothy Formation, and the Lloyd Sand Formation and are the major regional aquifers. Glacial and Magothy are of principal importance in Suffolk County because they are the most accessible aquifers for groundwater; Lloyd on the other hand is much deeper. The water table beneath NWIRP lies within the Upper Glacial aquifer.

Long Island Water Source The Upper Glacial aquifer and Magothy aquifer are widely used as sources of drinking water in Suffolk County.

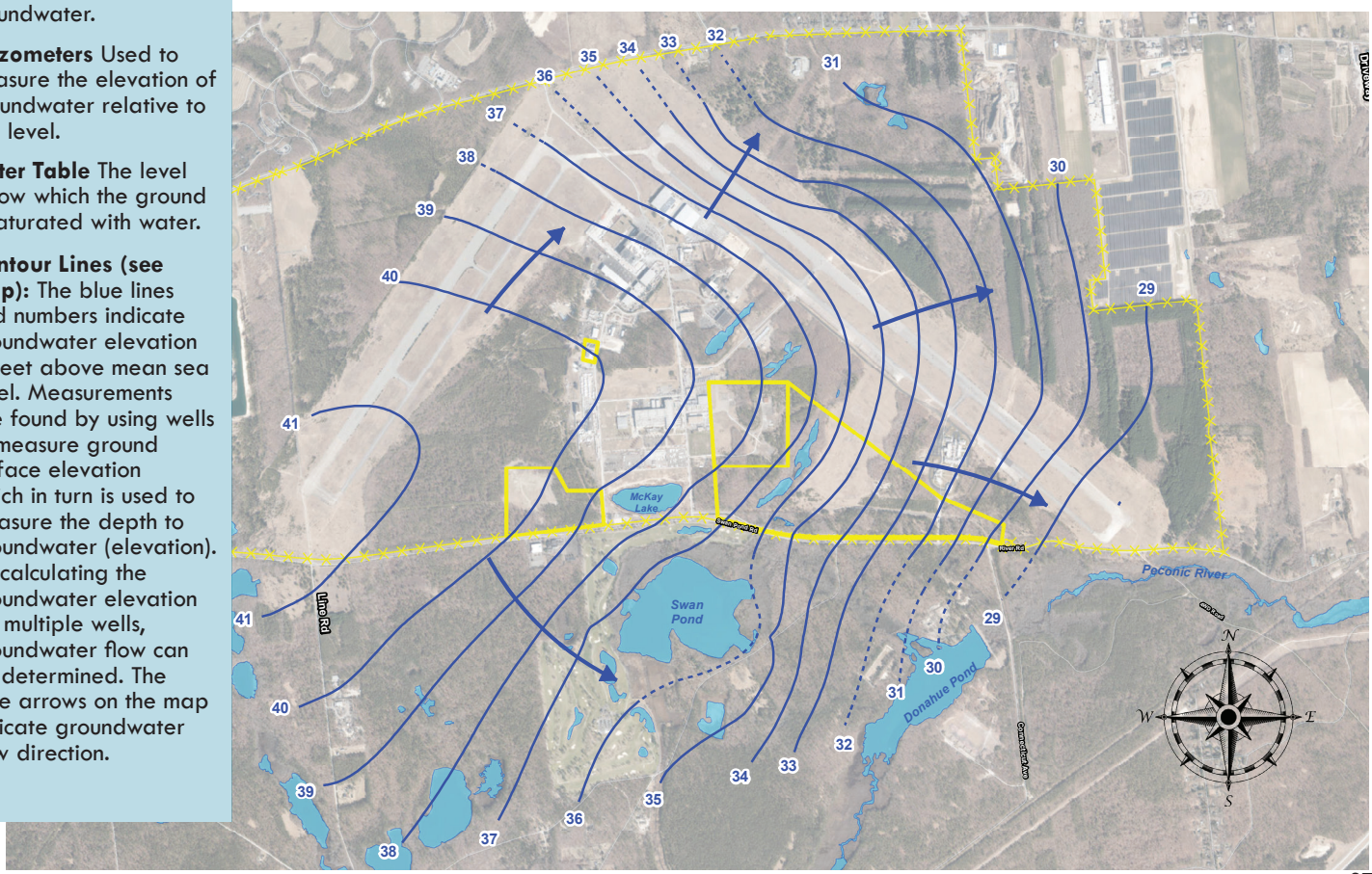
Sediments The Upper Glacial aquifer sediments contain sand, pebbles, and occasionally boulders; Magothy aquifers sediments are loose sands with some layers of silts and clays; the bottom 50 to 100 feet is made of coarse sand and gravel; Lloyd Sand sediments include bedrock surface, and Raritan clay.

Groundwater Flow Speed The sands and gravels of the Upper Glacial and Magothy aquifers allow groundwater to move relatively fast in comparison with other aquifers. The estimated hydraulic conductivity of the Upper Glacial aquifer is 270 feet per day (ft/day). The permeability of the Magothy is high; hydraulic conductivities have been calculated in excess of 70 ft/day.



Groundwater Flow Direction (see blue arrows below) The NWIRP Calverton saddles a regional groundwater divide, with groundwater beneath the northern half flowing to the northeast, and groundwater beneath the southern half of the NWIRP flowing to the southeast.

Discharge Points The Peconic River basin is the likely discharge point for groundwater in the shallow aquifer zones in the southern portion of the NWIRP. Long Island Sound is the likely discharge point for groundwater in the shallow aquifer zones in the northern portion.



LAND TRANSFERS

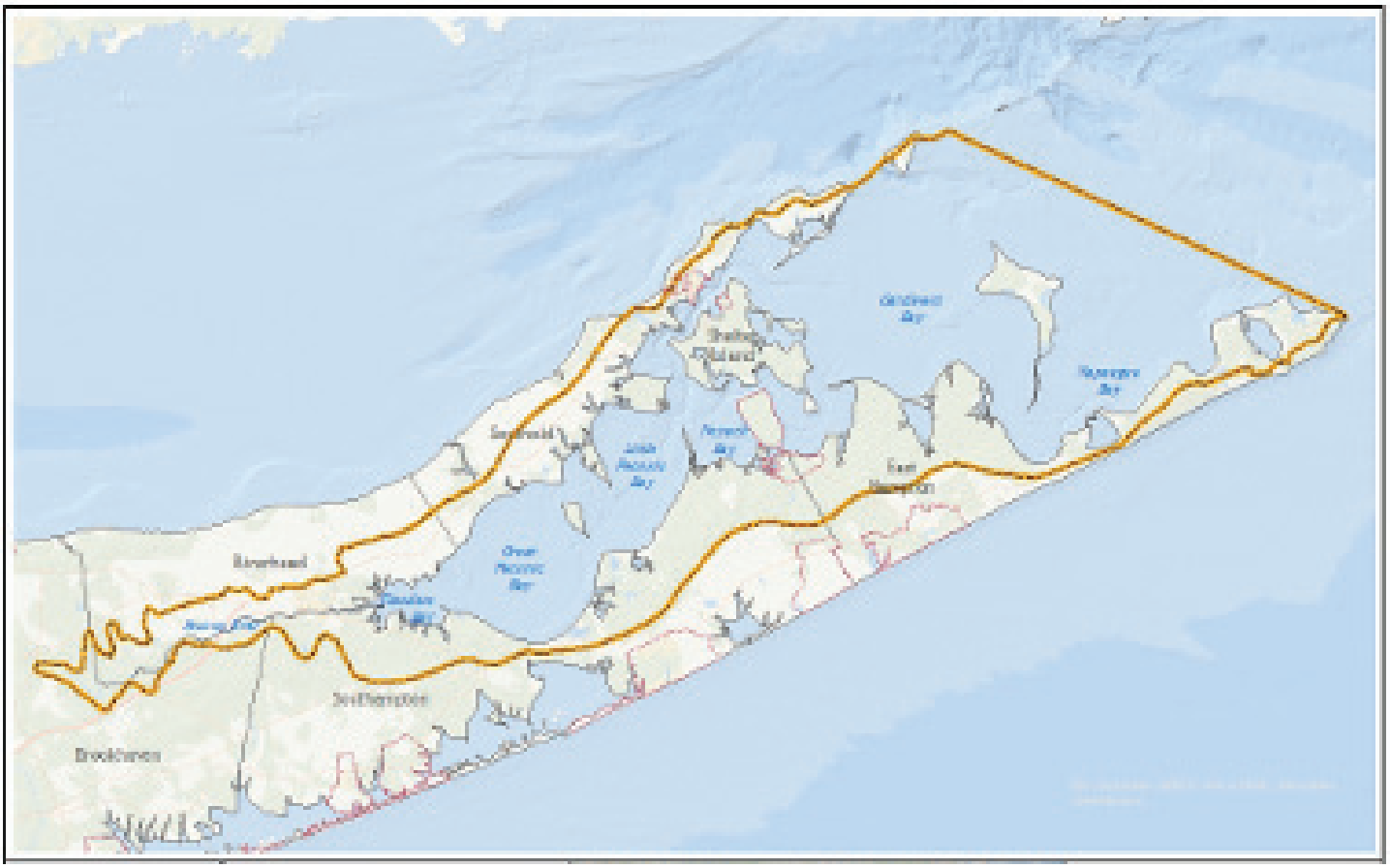
On March 6, 2000, the Navy transferred 143 acres of land to the Department of Veterans Affairs (VA) to expand the Calverton National Cemetery located on the eastern end of Long Island. Calverton National Cemetery is the largest, most active, national cemetery in the VA, averaging close to 30 interments daily. During Fiscal Year 1999, there were approximately 7,200 interments. The cemetery serves more than one million veterans and their families living in the New York City/ Long Island Sound metropolitan area. (***pictured:*** *Boatswain's Mate 3rd Class Marcus Allen performs flag folding honors for a funeral service held at the Calverton National Cemetery. Petty Officer Allen is assigned to the Navy and Marine Corps Reserve Center in Amityville, which coordinates and provides funeral honor services to the Long Island region. U.S. Navy photo taken February 2005 by Photographer's Mate 1st Class Matthew J. Thomas.*)

NWIRP Land Returned to Calverton Community

"Excerpt" Courtesy of David Winzelberg, which first appeared in the Long Island Business News November 8, 2018

Recently, Riverhead Town Board voted to approve the sale of 1,643 acres in Calverton, of the former Navy Northrop Grumman site which is now known as the Enterprise Park at Calverton (EPCAL). Calverton Aviation & Technology, a partnership between Edmonton, Alberta-based Triple Five Worldwide Group and Luminati Aerospace, an aeronautics manufacturer already based at the property plans to redevelop about 600 acres into a massive industrial park. Calverton Aviation & Technology plans to focus the development at the site on aerospace manufacturing and related technologies.

It's been two decades since the town took title to the 2,900-acre Calverton property, last used by the U.S. Navy and Northrop Grumman for testing F14s and other military aircraft. Some 1,900 acres of it has been preserved as open space and to protect the region's environmental health. The rest of the property was earmarked for economic development, though the town has struggled to land a deal for the site, despite fielding several ill-fated proposals over the years.



The Peconic Estuary

According to the 2020 Peconic Esturary Partnership Habitat Restoration Plan, "the Peconic Estuary lies between the north and south forks of Long Island, eighty miles east of New York City on the eastern end of Suffolk County. It begins at Brookhaven National Laboratory with the headwaters of the Peconic River, spans the several bays from Flanders to Gardiners, and ends in Block Island Sound between Plum Island and Montauk Point."

In 1992, the Peconic Estuary became the 20th estuary in the nation to receive the designation as an "Estuary of National Significance" by the U.S. Environmental Protection Agency (EPA). The Peconic Estuary is protected, and being restored by the Peconic Estuary Partnership (PEP) which is a National Estuary Program.

As the Navy works to restore the former Navy/ Grumman site, it is aware of the signifigance of the Peconic Estuary. Because of this the Peconic Estuary is included in all of the Navy's final decisions or Records of Decision (ROD) whenever environmental cleanup will occur at various, surrounding sites.

TERMS ON THIS PAGE EXPLAINED

The National Estuary Program: established by Congress in 1987 through Section 320 of the Clean Water Act to restore and protect estuaries of national significance. NEP brings together citizens, scientists, businesses, and government to solve environmental problems and promote healthy, vibrant communities.

Estuary: Estuaries and their surrounding wetlands are bodies of water usually found where rivers meet the sea. Estuaries are home to unique plant and animal communities that have adapted to brackish water—a mixture of fresh water draining from the land and salty seawater.

Estuary of National Signfigance: EPA place-based program to protect and restore the water quality and ecological integrity of estuaries of national significance.

END

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