

INSTALLATION RESTORATION PROGRAM OVERVIEW



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The Incident

In 1967 a massive oil spill from the tanker Torrey Canyon off the coast of England released more than 37 million gallons of crude oil.



The Ship



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The Response

National Contingency Plan 1968

The National Oil and Hazardous Substances Pollution Contingency Plan of 1968 provided the first comprehensive system of accident reporting, spill containment, and cleanup, and established a response headquarters, a national reaction team, and regional reaction teams (precursors to the current National Response Team and Regional Response Teams).



NCP

National Contingency Plan amendments

1972 & 1980

Clean Water Act of 1972, the NCP was revised the following year to include a framework for responding to hazardous substance spills as well as oil discharges.

Following the passage of CERCLA the Superfund legislation in 1980, the NCP was broadened to cover releases at hazardous waste sites requiring emergency removals.



CERCLA Overview

- The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), commonly known as Superfund, was enacted by Congress on December 11, 1980. This law created a tax on the chemical and petroleum industries and provided broad Federal authority to respond directly to releases or threatened releases of hazardous substances that may endanger public health or the environment. Over five years, \$1.6 billion was collected and the tax went to a trust fund for cleaning up abandoned or uncontrolled hazardous waste sites.



CERCLA amendments

- CERCLA was amended by the Superfund Amendment and Reauthorization Act (SARA) on October 17, 1986.
- CERCLA also enabled the revision of the National Contingency Plan (NCP). The NCP provided the guidelines and procedures needed to respond to releases and threatened releases of hazardous substances, pollutants, or contaminants. The NCP also established the National Priorities List (NPL).



NATIONAL PRIORITIES LIST

- EPA's list of the most serious uncontrolled or abandoned hazardous waste sites identified for possible long-term remedial action under Superfund.
- The list is based primarily on the score a site receives from the Hazard Ranking System.
- A site must be on the NPL to receive money from the Trust Fund for remedial action.

Portsmouth Naval Shipyard **NPL**

FFID:	NH117002201900
Size:	278 acres
Mission:	Maintain, repair, and overhaul nuclear submarines
HRS Score:	67.70; placed on NPL in May 1994
IAG Status:	Federal Facility Agreement signed in 1999
Contaminants:	Heavy metals, PCBs, pesticides, and VOCs
Media Affected:	Groundwater, surface water, sediment, and soil
Funding to Date:	\$22.4 million
Estimated Cost to Completion (Completion Year):	\$83.4 million (FY2022)
Final Remedy in Place or Response Complete Date for All Sites:	FY2011

Kittery, Maine

- Plan of Action**
- Complete ERA in FY00
 - Complete Site Screening Report for three sites in FY00
 - Complete supplemental Remedial Investigation report for two sites in FY00
 - Complete FS for OU3 (Jamaica Island Landfill) in FY00
 - Complete ROD for OUS in FY01

Restoration Background

Portsmouth Naval Shipyard was placed on the National Priorities List (NPL) in May 1994 because of groundwater contamination at sites on the island and because past activities may have adversely impacted sensitive wetland communities around and downstream of the facility.

A Preliminary Assessment in FY83 and a Site Inspection in FY86 identified four potentially contaminated sites. A RCRA Facility Assessment in FY86 identified 28 solid waste management units (SWMUs). Site types at the installation include a landfill, a salvage and storage area, and waste oil tanks. In FY92, the installation completed a RCRA Facility Investigation (RFI).

In FY94, the installation completed an interim measure at the Defense Reutilization and Marketing Office scrap yard, installed a cap on part of the scrap yard, and completed a groundwater and soil gas survey at another SWMU. The installation completed RFI fieldwork, developed onshore media protection standards (MPSs), and completed draft offshore Ecological and Human Health MPSs. Seven underground storage tanks (USTs) were removed during the RFI.

In FY95, the installation prepared final reports on fieldwork conducted in FY94. The installation developed a work plan for monitoring of the Piscataqua River and initiated an Ecological Risk Assessment (ERA) of the Piscataqua River and Great Bay Estuary. A draft Feasibility Study (FS) report for 11 SWMU sites was submitted to regulatory agencies.

In FY96, the installation began negotiating with EPA and the Maine Department of Environmental Protection (MDEP) on a Federal Facility Agreement (FFA). A work plan for investigating

groundwater and seeps was completed. Another work plan was prepared for site characterizations at four SWMUs.

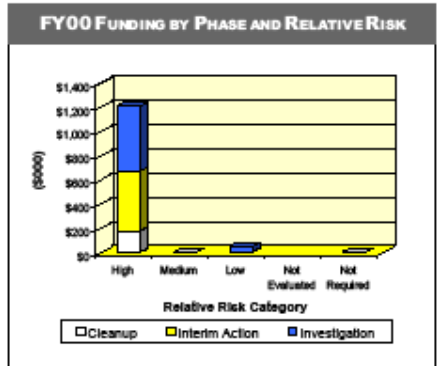
During FY97, the installation completed a work plan for SWMUs 10 and 29 and Phase I groundwater modeling for SWMUs 8, 9, 10, 11, and 27. The installation initiated a Removal Action at SWMU 9 and completed and signed a No Further Action document for SWMUs 12, 13, 16, and 23.

In FY98, the installation completed a work plan for Sites 30, 31, and 32 and finished Phase II groundwater modeling for SWMUs 8, 9, 10, 11, and 27. Fieldwork for SWMU 10 and Sites 29, 30, 31, and 32 was completed. The installation completed a Removal Action at SWMU 9 and initiated cleanup of the tank farm. A work plan and fieldwork for three SWMUs and two sites were completed. The basewide groundwater sampling program also was completed.

The installation's Technical Review Committee, formed in FY87, was converted to a Restoration Advisory Board (RAB) in FY95. The Community Relations Plan, developed in FY93, was updated in FY96 and FY97.

FY99 Restoration Progress

The installation completed negotiations and signed the FFA with EPA. It also completed the survey of Operable Unit (OU) 3 using a state-of-the-art metal-sensing device (MTADS) and the report for basewide groundwater sampling. Completion of the offshore ERA was delayed for completion of an interim Record of Decision (ROD) and Round 1 of interim monitoring for OU4, Offshore Areas of Concern. Phase II onshore/offshore contaminant fate-and-transport modeling was completed.





Active Shipyard NPL Sites				
Site Name	City	CERCLIS ID	Final Listing Date	Federal Facility Indicator
NORFOLK NAVAL SHIPYARD	PORTSMOUTH	VA11700248 13	07/22/1999	Yes
NORFOLK NAVAL BASE (SEWELLS POINT NAVAL COMPLEX)	NORFOLK	VA61700614 63	04/01/1997	Yes
NAVAL AMPHIBIOUS BASE LITTLE CREEK	VIRGINIA BEACH	VA5170022 482	05/10/1999	Yes
BANGOR NAVAL SUBMARINE BASE	SILVERDALE	WA5170027 291	08/30/1990	Yes
NEW LONDON SUBMARINE BASE	NEW LONDON	CTD9809065 15	08/30/1990	Yes
PUGET SOUND NAVAL SHIPYARD COMPLEX	BREMERTON	WA2170023 418	05/31/1994	Yes
LOCKHEED SHIPYARD NO. 2	SEATTLE	WAN001002 655	03/07/2007	No
PEARL HARBOR NAVAL COMPLEX	PEARL HARBOR	HI41700900 76	10/14/1992	Yes



Navy IR Program Background

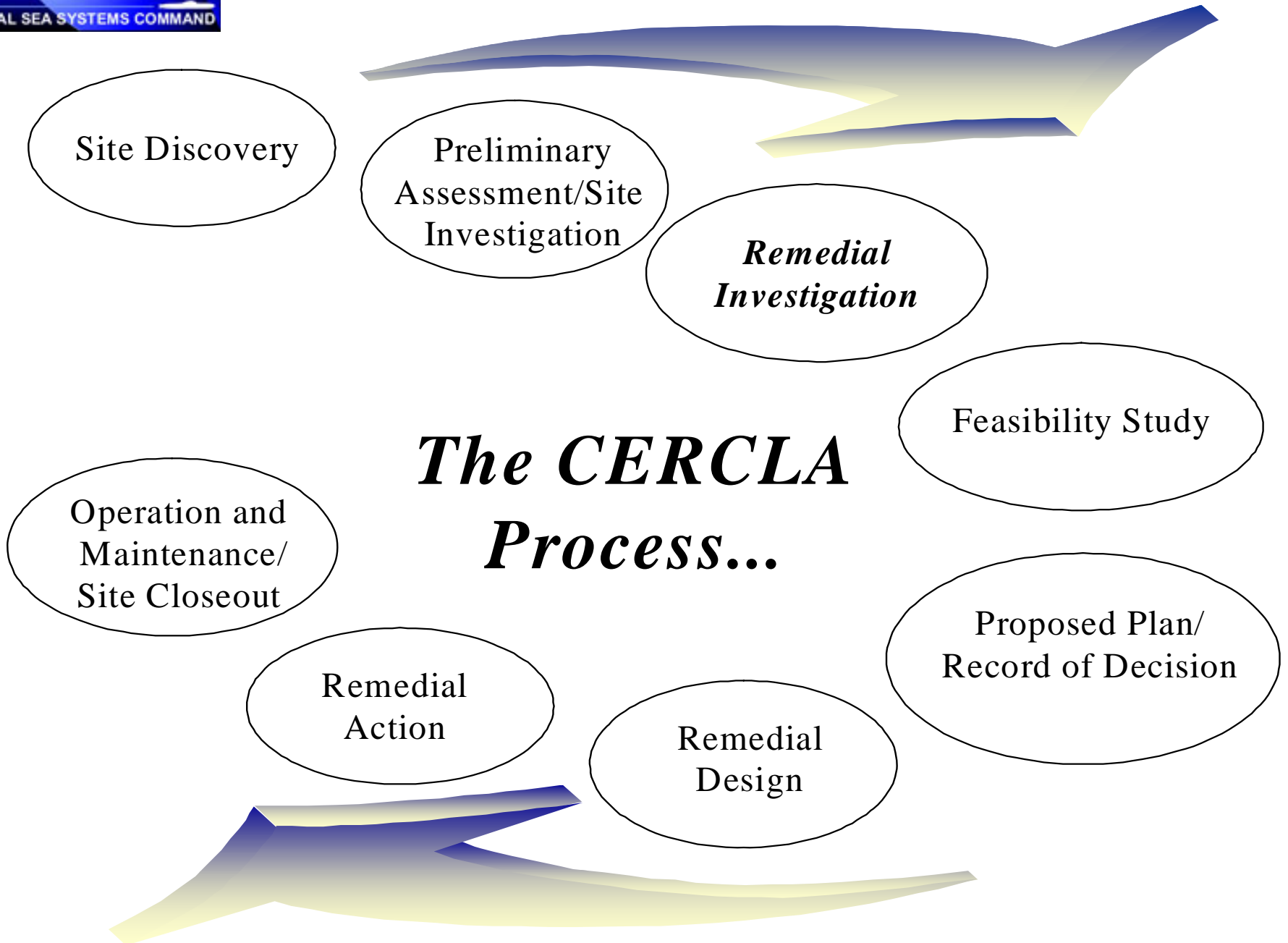
The Installation Restoration (IR) program was established by the Department of Defense (DoD) in 1975 to identify, assess, characterize, and clean up or control contamination caused by historical disposal activities and other operations at military installations. The Navy IR Program was formally established in 1986.

In 1981, the DoD's IR Program was re-issued, with additional responsibilities and authorities specified in CERCLA delegated to the Secretary of Defense. The Navy subsequently restructured the IR Program to match the terminology and structure of the EPA CERCLA Program. The current IRP is consistent with CERCLA and applicable state environmental laws.



So What!

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IR Program at PNS

- 8 sites are currently being worked here at the shipyard.



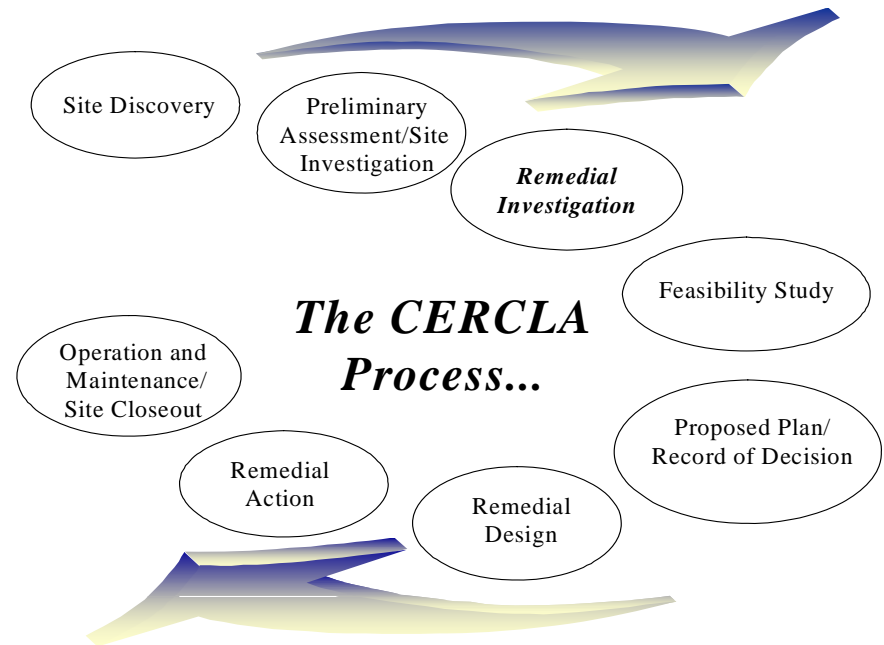


IR Program Sites at PNS

- Site 1 - Acid Alkaline Tank No. 24
- Site 2 - DRMO
- Site 3 – Jamaica Island Landfill
- Site 4 – Former Industrial Waste Outfalls
- Site 5 - Topeka Pier
- Site 6 - West Timber Basin
- Site 7 – Former Oil Gasification Plant, Building 62
- Site 8 – Former Galvanizing Plant, Building 184

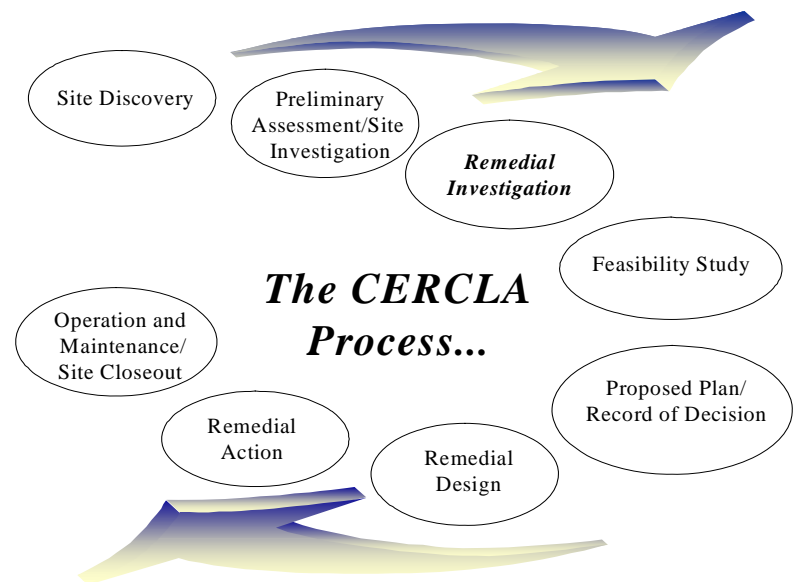
Former Battery Acid Tank

- 9,680-gallon underground steel tank used from 1974 to 1986 to collect acidic discharge from battery recharging.
- Remedial Investigation



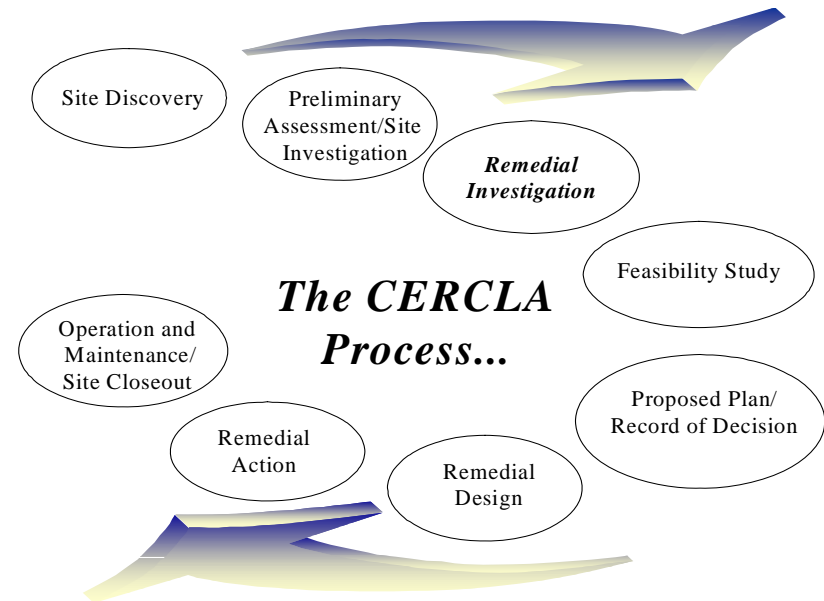
DRMO Defense Reutilization Management Office

- Filled area created with a variety of materials (1902 to 1975). Bulk incinerator operated on site (1965 to 1975). Open storage and disassembly of batteries (1920's to 1983).
- Feasibility Study



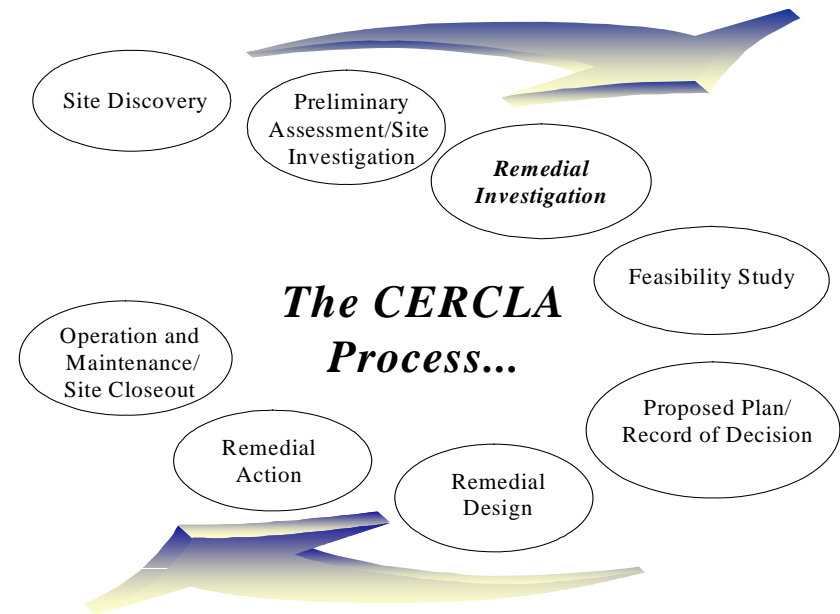
Jamaica Island Landfill

- Former tidal mudflats. Landfill in operation from 1945 to 1978
- Operation and Maintenance / Site Closeout.



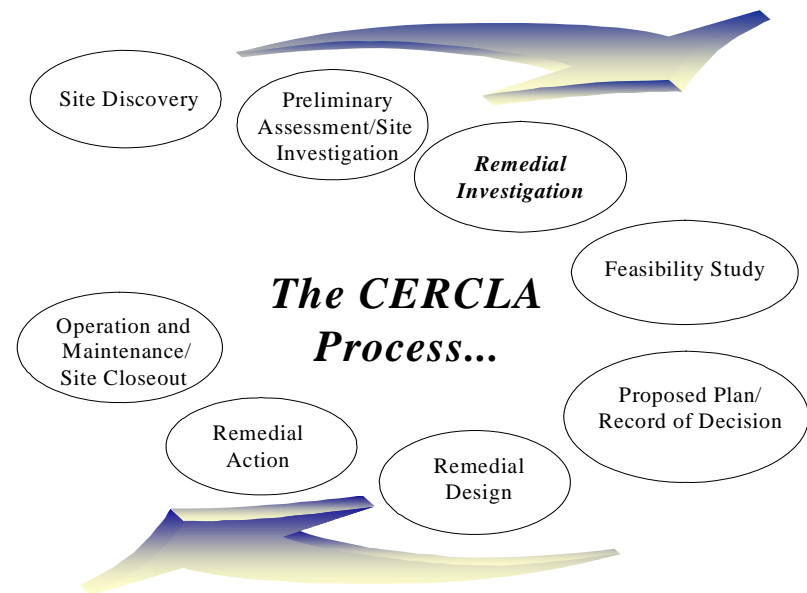
Former Industrial Waste Outfalls

- Outfalls were used to discharge industrial wastes into the Piscataqua River from 1945 to 1975
- No Further Action Document to close out site



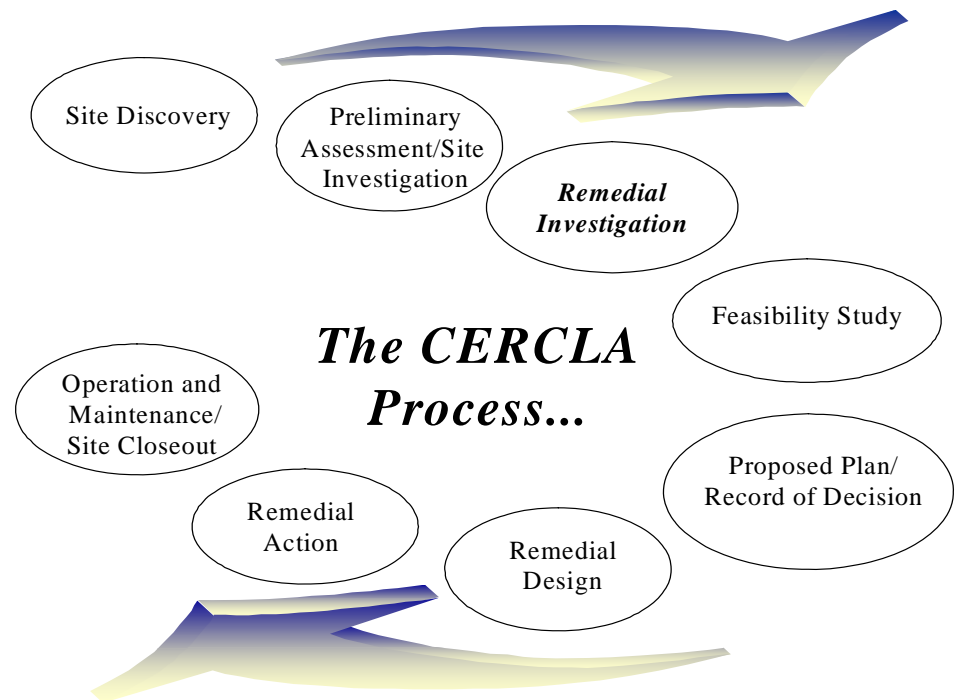
Topeka Pier

- Approximately 17 acres of filled land former shoreline / mudflats. Filling in the area began in the early 1900s and ended by 1945.
- Phase II Remedial Investigation



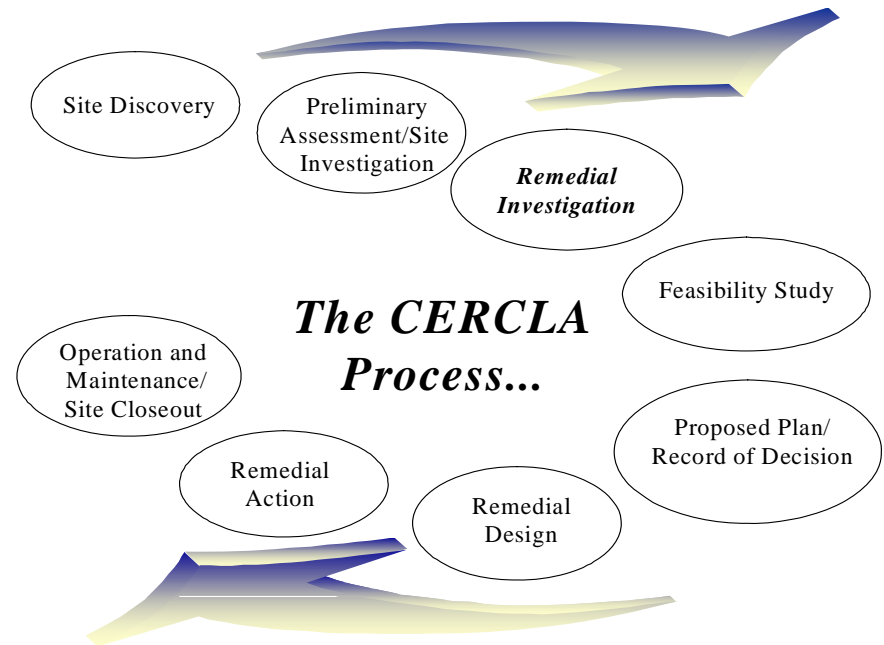
West Timber Basin

- Former wood storage and seasoning area filled from 1916 to 1940. Plate Yard with pickling tanks and wash aprons 1940 to 1960.
- Entering RI Phase



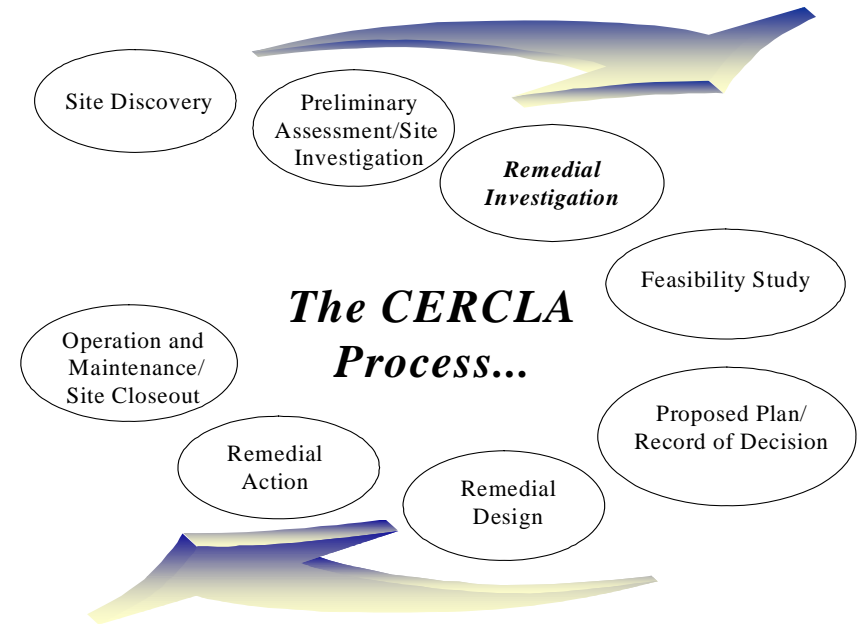
Former Oil Gasification Plant

- Ash generated during coal combustion 1870 to 1930 disposed of on land.
- Remedial Action in progress



Former Galvanizing Tank

- Galvanizing plant with acid proof pit (1943 to 1956). Pit covered and building converted to welding school 1960's. Crystalline substance observed along edge of acid pit 1973 to Pres.
- Remedial Investigation.





Questions ?



PORTSMOUTH NAVAL SHIPYARD