2000
NEW YORK STATE
DEPARTMENT OF

ENVIRONMENTAL
CONSERVATION

Public Availability
Session For the
Northrop Grumman
and the NWIRP Sites Operable Unit 2
Feasibility Study

***Date, Time and Location***
**December 6, 2000**
JFK Junior High School
Broadway, Bethpage
7:00 p.m.

***Main Document Repository***
**Bethpage Public Library**
**Powell Avenue**
**Bethpage, NY 11714**

*For More Information on the Northrop Grumman, NWIRP and Grumman Steel Los Sites:*

NYSDEC Central Office
50 Wolf Road Room 242
Albany, NY 12233-7010
Att: Steven M. Scharf, P.E.
Project Engineer
(518) 457-3395
1-800-342-9296

NYSDOH
547 River Street
Troy, NY 12180
Attn: William Gilday
(518) 402-7880
1-800-458-1158
Extension 27880



# Public Notice Northrop Grumman & The NWIRP Sites

Northrop Grumman and The Naval Weapons Industrial Reserve Plant (NWIRP) Inactive Hazardous Waste Sites, **Operable Unit 2 (OU2) Groundwater Feasibility Study Availability Session.**

The New York State Department of Environmental Conservation (NYSDEC) is sending this fact sheet as an update on the Northrop Grumman (Grumman Aerospace), Naval Weapons Industrial Reserve Plant and the Grumman Steel Los Inactive Hazardous Waste Disposal Sites, located off Hicksville Road and South Oyster Bay Road, Bethpage, Nassau County. The NYSDEC and the New York State Department of Health (NYSDOH) announce the release of the Operable Unit 2 (OU2) Groundwater Feasibility Study (FS) for these sites. Also enclosed are notices from the Navy for a public meeting and for public review of documents regarding transfer of Navy property to Nassau County.

## SITE HISTORY AND DESCRIPTION

The Northrop Grumman - Bethpage Facility, the Naval Weapons Industrial Reserve Plant - Bethpage (NWIRP) and the Grumman Steel Los Sites are inactive hazardous waste disposal sites, Site Nos. 1-30-003A, 1-30-003B and 1-30-003C, respectively, and are located in east-central Nassau County, Long Island. Northrop Grumman, formerly known as the Grumman Aerospace Facility, was 600-acres in size but through a program of investigation and remediation has been reduced in size. The NWIRP Site is approximately 105 acres in area and was also once part of the Grumman Aerospace facility. These sites are listed as Class 2 Sites (No. 1-30-003A&B) in the New York State Registry of Inactive Hazardous Waste Disposal Sites. Class 2 is assigned to sites where hazardous waste poses a significant threat to human health or the environment. The Grumman Steel Los Site, or the former Grumman Aerospace Plant 2 facility, now a Class 4 site, relates to this project as it was once part of the Northrop Grumman Site and was one of the sources of the groundwater contamination. A class 4 site is in the long term monitoring phase. The surrounding community is supplied with drinking water from the Bethpage Water District (BWD). Public water supplies are monitored on a regular basis to assure they meet New York State drinking water standards.

## INVESTIGATION SUMMARY: DESCRIPTION OF THE PROBLEM:

Northrop Grumman and the NWIRP have been in operation since the 1930s. These facilities are now in the process of completely shutting down. Over the last 30 years, Northrop Grumman has manufactured numerous aircraft for the Department of the Navy. This has resulted in the disposal of various hazardous wastes from industrial processes directly into the environment. On March 9, 1992 Northrop Grumman signed an Order on Consent with the State of New York to perform a remedial investigation and feasibility study (RI/FS). The State executed the Records of Decision ( RODs) for the Northrop Grumman and NWIRP Sites in March and July 1995, respectively, for onsite Soils contamination. These RODs were known collectively as operable unit 1 (OU1). The RODs selected source control remedies for addressing the contamination in the unsaturated zones of site soils.

The groundwater contamination was deferred to OU2. The primary groundwater contaminants are chlorinated volatile organic compounds (VOCs) which were used and disposed of at the sites. These compounds include perchloroethene (PCE), trichloroethene (TCE), dichloroethenes (DCE), vinyl chloride and 1,1,1-trichloroethane (TCA). In addition, metals, specifically arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver, were detected in groundwater samples collected at the sites. However, only arsenic, cadmium, and chromium were detected at concentrations greater than the corresponding standards, and only in a small number of onsite monitoring wells, with chromium being the most prevalent.

## EXTENT OF GROUNDWATER CONTAMINATION

By current estimates, the groundwater plumes emanating from the three sites total 2,000 acres in area and are over 500 feet deep in several places. The highest concentrations of VOCs in groundwater were detected in on-site wells. The plume(s) emanating from the sites have impacted or threaten three public water supplies operated by the Bethpage Water District (BWD). Water from these wellfields is treated to remove VOCs prior to distribution to the community and water is monitored routinely. Nine (9) outpost or sentry wells were installed upgradient of the water supplies. These sentry wells have been sampled on a quarterly basis since March 1995. A groundwater computer model was used for developing and evaluating remedial alternatives for addressing the groundwater contamination. The study area that is encompassed in the model is 24.1 square miles. The model simulates groundwater flow throughout the entire thickness of the Upper Glacial and Magothy aquifers.

## INTERIM REMEDIAL MEASURES

Interim remedial measures (IRMs) are implemented at sites when a source of contamination or exposure pathway can be effectively addressed before completing the RI/FS. The following IRMs have been as part of the groundwater FS:

**1. Protection of the Bethpage Water District Supply Wells** Air Stripper systems that remove VOC contaminants have been installed at the three impacted or threatened public supply wellfields operated by the BWD. The systems at BWD plants 4 and 6 were funded by Grumman. The system at BWD Plant 5 was funded by the Navy as specified in the May 1995 Record of Decision for the NWIRP-Bethpage site.

**2. On-Site Containment IRM:** The groundwater IRM is containment of the plume below the sites. The groundwater IRM system went on-line full time in July, 1998. The IRM consists of four extraction wells, with the combined pumping rate of 3,375 gpm.

## OPERABLE UNIT 2 GROUNDWATER FEASIBILITY STUDY

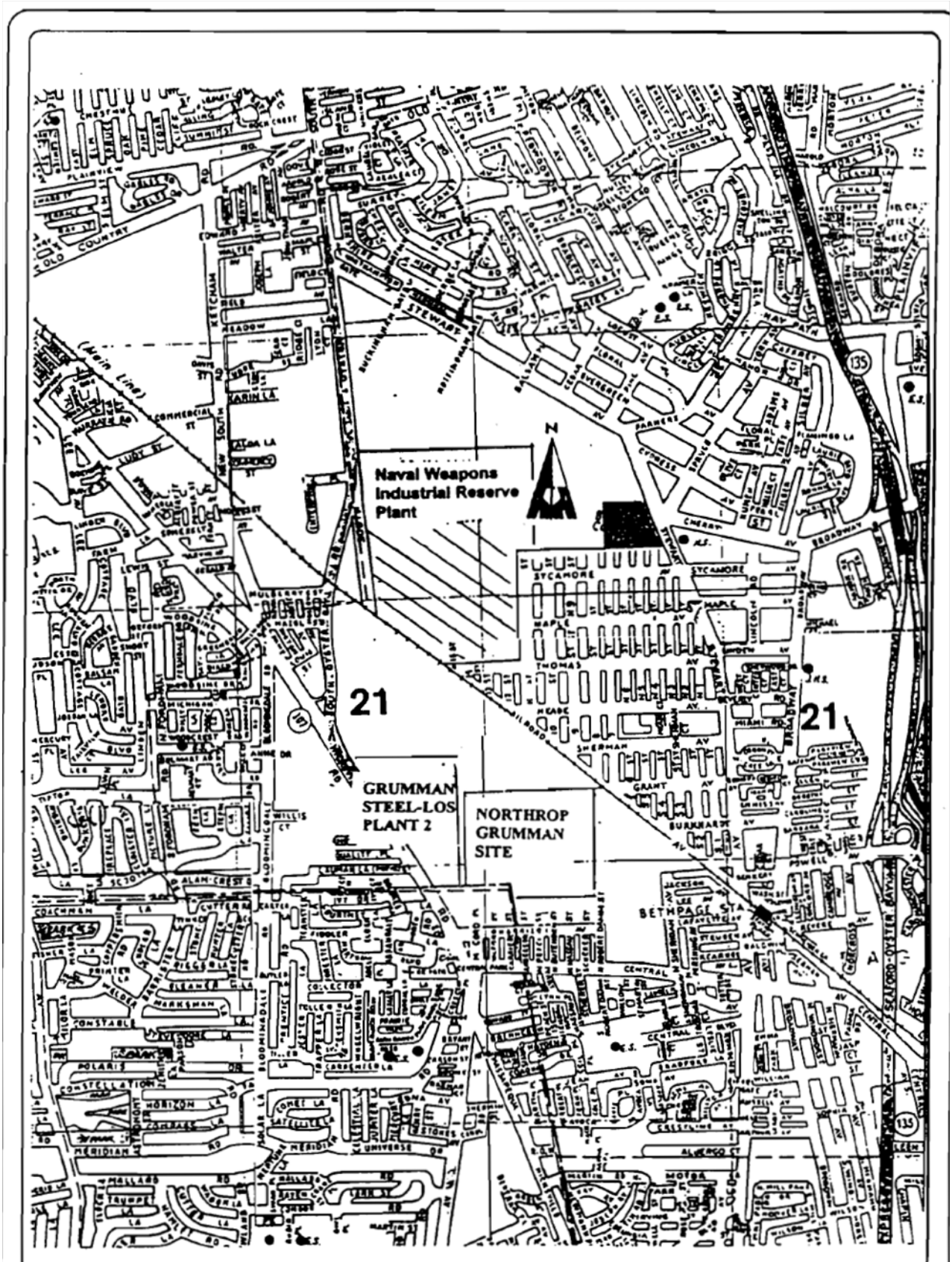
The Northrop Grumman OU 2 FS is now available for the public to review. This FS contains eight remedial alternatives that were reviewed to address groundwater contamination from the Northrop Grumman, NWIRP and the Grumman Steel Los Sites. The alternatives contain options that include: on-site plume containment, treatment and activated carbon air treatment, and discharge to on-site recharge basins; the off-site GM-38 area groundwater extraction and treatment system; the operation and maintenance of air strippers for BWD wellfields 4, 5 and 6; preparation of a wellhead treatment contingency plan for public water supply wells that are not currently affected but that may be affected by site-related VOCs in the future; a carbon polishing or equivalent treatment contingency for the BWD wellfields 4, 5 and 6; a vinyl chloride treatment contingency plan for the on-site containment IRM; long-term groundwater monitoring including monitored natural attenuation; and long-term operation and maintenance of all operating treatment systems onsite and off-site.

***Repositories:*** The public is encouraged to review the documents related to the site, ***especially the OU2 Groundwater FS***, which are available to the public at the following locations:

| ***Bethpage Public Library*** | ***NYSDEC Region 1 Headquarters*** | ***NYSDEC Central Office*** |
|---|---|---|
| Powell Avenue | SUNY Campus | 50 Wolf Road, Rm 242 |
| Bethpage, NY 11714 | Loop Road Building 40 | Albany, NY 12233-7010 |
| (516) 931-3907 | Stony Brook, NY 11790-2356 | Attn: Steven M. Scharf, P.E. |
| Hours: M-F 9:30-9:00 | Attn: Mark Lowery, Citizen | |
| Sat 9:30-5:00 | Participation Specialist | |
| (Karen Gruskin or Lois Lovisolo-Reference Librarians) | | |

***For More Information regarding this site please contact the following***:

| NYSDEC Concerns | NYSDEC Concerns | NYSDOH Concerns |
|---|---|---|
| Steven M. Scharf, P.E. | Mark Lowery | William Gilday |
| NYSDEC | NYSDEC-SUNY Campus | NYSDOH |
| 50 Wolf Road, Rm. 242 | Loop Road Building 40 | 547 River Street |
| Albany, NY 12233-7010 | Stony Brook, NY 11790-2356 | Troy, NY 12180 |
| (518) 457-3395 | (631) 444-0350 | 1-800-458-1158 Extension 27880 |




Northrop Grumman

Figure 1– Area Location Map

DIVISION OF ENVIRONMENTAL REMEDIATION

REVISED DATE 03/21/00 DRAWING

Town of Oyster Bay, Site No.s 1–30–003A, B and C