

RW-21 Offsite Groundwater Project

Community Update

Edward Hannon
Project Director
January 23, 2020



Agenda

- Welcome and introduction of project team
- RW-21 project status overview
- RW-21 well vault and pipeline installation
- RW-22 well vault installation
- South recharge basin pipeline installation
- Health and safety plan
- Project equipment and work site examples
- Project schedule through May 2020
- Project contacts
- Project information online
- Questions



Our Ongoing Efforts

- For over 20 years, Northrop Grumman has worked closely with the United States Navy, the New York State Department of Environmental Conservation (NYSDEC) and other federal, state and local regulatory agencies to address environmental conditions in Bethpage.
- We remain committed to continuing to implement State-approved scientifically sound, targeted and effective remedial approaches—that protect the health and well-being of our community and avoid unnecessary disruption to our neighbors.

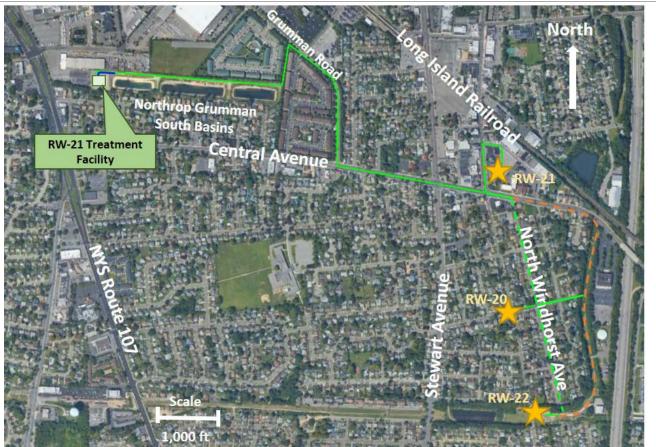


RW-21 Offsite Groundwater Treatment Project Status

- NYSDEC approved this plan (one of several remedial activities we are conducting)
 - Approved by the NYS Department of Health
 - Reviewed by the Town of Oyster Bay
- Three remedial wells have been in place since 2017
 - The RW-20 well, well vault and pipeline were installed in 2017
- Install the RW-21 well vault and its associated pipeline
 - This pipeline will tie into Seaman Avenue
- Install the RW-22 well vault in the south greenway
 - The pipeline will be installed in the future along with the north/south pipeline
- Install pipeline along south recharge basins
 - Supports RW-21 treatment facility operations (facility location options under review)



RW-21 Project Work Area and Pipeline Route Options



Option 1: Pipeline route along greenway
Total: 2,265 feet long

1,400 on King Kullen Property; 865 feet on town property

Finished width: 6' and 8' (for three manholes) Finished depth: 6'-10'

Option 2: Pipeline route along N. Windhorst Avenue



RW-21 Well Vault and Pipeline Installation



- Install 275 feet of pipeline using 6' H x 4'
 W trench
- Install well vault 14'8" L x 7'8" W x 8'8"H
- Mill area to remove asphalt
- Excavate soil
 - Soil will be loaded into trucks (and covered) and transported from work area to storage area on Northrop Grumman property
- Install double-walled plastic pipeline, electrical conduit, leak detection access ports, air release and vacuum break manhole and install vault
- Backfill soil and compact; repave lot with asphalt
- Conduct final survey and demobilize



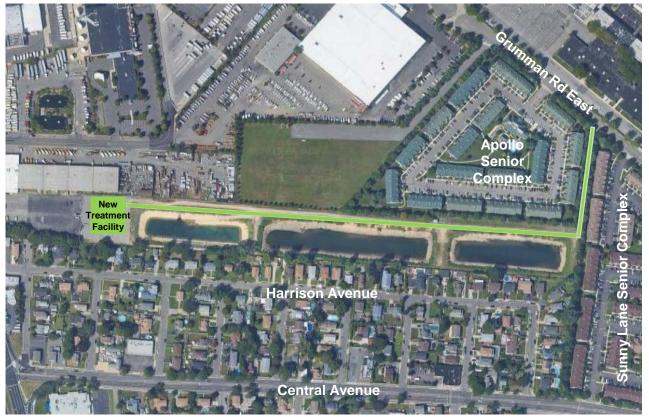
RW-22 Well Vault Installation



- Clear vegetation
- Excavate soil
 - Soil will be loaded onto trucks (lined and covered with heavy duty tarps) and transported to storage area on Northrop Grumman property
- Crane installs well vault 14'8" L x 7'8" W x 8'8" H
- Restore site
 - Backfill and compact with clean soil and plant grass
- Final survey and demobilize



South Recharge Basin Pipeline



- Install 2,100 feet of pipeline on our property using 6' D x 4' W finished trench
- Excavated soil and materials will be stored in work area (and covered)
- Install plastic pipeline, electrical conduit, leak detection access ports, air release and vacuum break manhole
- Backfill and compact with clean soil
- Final survey and demobilization



Health and Safety Plan

- NYSDEC and Town of Oyster Bay input is complete on our Health and Safety Plan (HASP), Soil Management Plan (SMP), Community Air Monitoring Plan (CAMP) and Traffic Safety Plan (TSP). We expect the plans to be finalized after this meeting.
- Work zones will be secured with fencing and trenches will be covered with steel plates overnight.
- RW-21 vault work area will be monitored by traffic control personnel.

If you have any questions or concerns, please call our team.



Project Equipment and Work Site Example

- Air compressor
- Asphalt milling machine
- Asphalt paving machine
- Backhoe
- Boom truck
- Box truck
- Cable puller
- CAMP stations
- Crane
- Dump truck
- Field trucks

- Flat-bed truck
- HDPE welding equipment
- Loader/skid steer
- Roller
- Steel plates
- Street sweeper
- Trench box/sheeting and shoring
- Vacuum truck
- Vibratory compactor



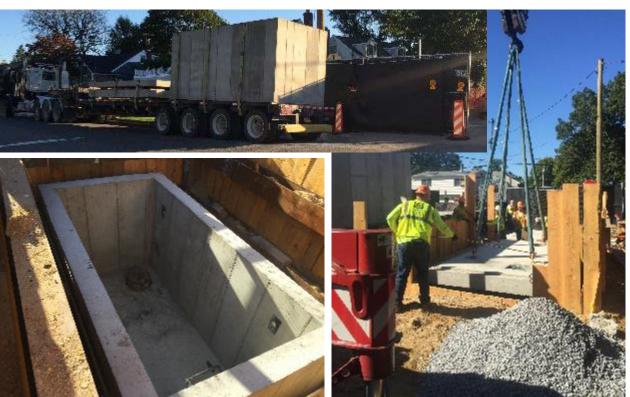








RW-20 Well Vault Installation and Finished Product







Project Schedule through May 2020*



Northrop Grumman Community Meeting 1/23

Start and end dates are dependent on town access approvals and weather conditions

*RW-21 System start-up and operations projected: Q2 2021



Your Project Contacts

For Northrop Grumman questions

Ms. Dianne Baumert-Moyik, Public Relations, Northrop Grumman (516) 754-2645

Dianne.Baumert-Moyik@ngc.com

For project related questions:

Mr. Jason Pelton, NYS Department of Environmental Conservation
Project Manager
(518) 402-9478
jason.pelton@dec.ny.gov

For project/site health-related questions:

Mr. James M. Sullivan, NYS Department of Health (518) 402-7860

beei@health.ny.gov



Project Information

Visit www.northropgrumman.com/bethpage

NORTHROP GRUMMAN