

SPDES Permit Modification Update

*Brookhaven National Laboratory
Community Advisory Council
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Environmental Compliance Group*



Background - Refresher

- **June 2009:** NYSDEC modified BNL's SPDES permit
 - Quantification & Removal / Mercury Minimization Studies
- **July-December 2009:** Field Activities
 - Identify and measure sources of metals
- **May-June 2010:** Overview of the Studies performed shared with stakeholders
 - Consultant's final recommendation - Redirect Sewage Treatment Effluent to groundwater discharge.
 - Evaluated the impacts of redirecting treated effluent from the Peconic River
- **June 2010:** Community Advisory Council concurred with recommendation
 - Discharge should remain within the Peconic Water shed
 - Tree removal should be minimized
 - Effluent should be treated (i.e., filtered) prior to discharge to the recharge basins
- **July 2010:** BNL submitted Final Studies to NYSDEC
- **December 2010:** BNL receives approval from NYSDEC
 - Modification of SPDES Permit will be required
 - Suitability of soils for discharge will need to be confirmed
 - Submittal of engineering report, plans, and specifications to NYSDEC and SCDHS in accordance with schedule
- **January 2011:** BNL initiated NEPA Environmental Assessment and Procurement of Architect/Engineering (A/E) Services for Design/Construction

Considered in design phase/evaluated in EA

SPDES Permit Modification Status

Final Recommendation:

- Re-direct Sewage Treatment Effluent to Groundwater Discharge
 - Eliminates source of contaminants to the river
 - Effluent consistently meets groundwater effluent standards (6NYCRR 703.6)
 - River reverts back to a naturally fed water body
- Total Project Cost (Order of Magnitude): **\$3,900,000**
 - Includes design and installation of pre-filtration and recharge basins

SPDES Permit Modification Status

Proposed Schedule:

Activity	Start	Finish	
NYSDEC Approval of Q&R Study		30-Dec-10	
Complete NEPA EA	03-Jan-11	30-Jun-11	<p>More details on next slides</p> <p>Design Phase</p>
Procure A/E Services	03-Jan-11	30-Jun-11	
Complete Soil Studies	04-Apr-11	30-Sep-11	
Preliminary Design	06-Jul-11	30-Nov-11	
Submit Preliminary for Reg. Review	01-Dec-11	06-Jan-12	
Regulator Comment Resolution	09-Jan-12	03-Feb-12	
Final Design and NYSDEC Approval	06-Feb-12	13-Jul-12	
Procurement	16-Jul-12	19-Oct-12	<p>Construction Phase</p>
Construction Bid	22-Oct-12	30-Nov-12	
Award Construction Contract	03-Dec-12	14-Dec-12	
HASP/Notice to Proceed	17-Dec-12	01-Feb-13	
Mobilization	04-Feb-13	28-Feb-13	
Construction	01-Mar-13	31-Jul-14	<p>Project Closeout</p>
SPDES Permit Modification	01-Mar-13	28-Feb-14	
Project Completion	01-Aug-14	30-Sep-14	

Environmental Assessment

Alternatives being assessed:

- Groundwater Recharge System (Preferred)
 - Post aeration filtration system
 - Connected action will include evaluation of removal or alteration of river monitoring stations to improve fish passage

- No Action

- Enhanced Effluent Treatment
 - Precipitation using Polythiocarbonates

- Other alternatives were considered in the Q&R Study but will not be further evaluated as part of the EA

Environmental Assessment

Topics Addressed in EA for Each Alternative:

■ Ecology

- Vegetation (terrestrial and wetland)
- Invasive species
- Threatened and endangered species
- Migratory birds
- Mammals
- Reptiles, amphibians, fish

■ Water

- Surface water
- Groundwater

- Land Use, Demography, Social Justice
- Socioeconomic
- Transportation
- Cultural Resources
- Air Quality

■ Climate Change

■ Visual Quality

■ Noise

■ Industrial Safety & Occupational Health

■ Natural Hazards

■ Destructive Acts

■ Utilities

■ Waste Management/Pollution Prevention

■ Commitment of Resources

■ Decommissioning & Restoration

EA Schedule

1/4/2011 – EA Kickoff Meeting

1/26/2011 – BER Briefing

2/10/2011 – CAC Briefing

3/18/2011 – Draft EA to State for review

4/14/2011 – CAC Briefing and Discussion

4/29/2011 – Final EA and Determination

Peconic Update

- Sediment Trap removed and clean-up of Area 6, Area 15 and the Sediment Trap Area completed.
- All samples were less than ROD cleanup goals.
- The removed sediment will be transported by rail to a NY permitted disposal facility.
- Wetland replanting and monitoring to occur in the Spring.