

Environmental Updates

*Brookhaven National Laboratory
Community Advisory Council Review
November 13, 2014*

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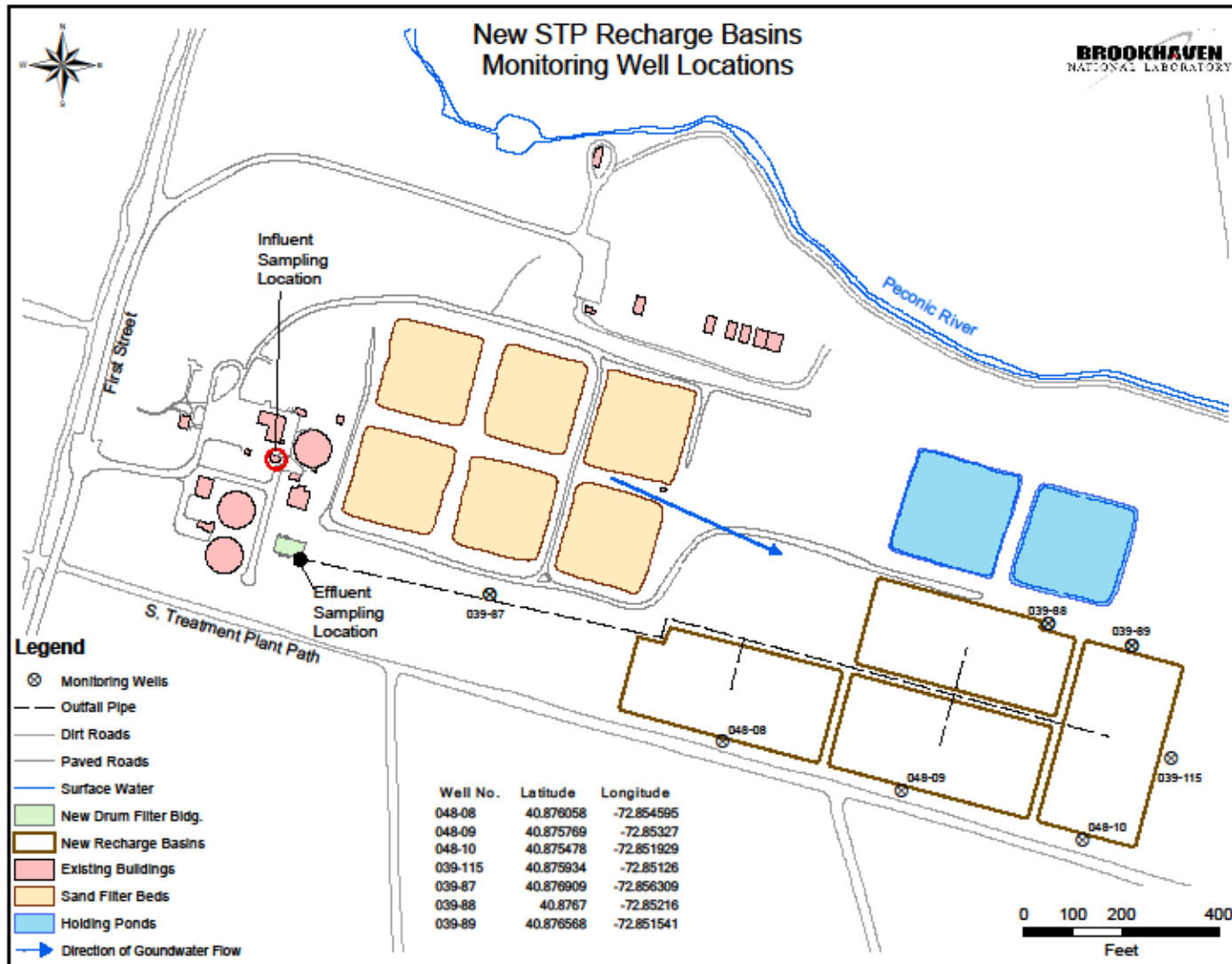
Environmental Update Topics

- **Sewage Treatment Plant Upgrades**
- **Former Hazardous Waste Management Facility (FHWMF) Perimeter Area Remediation – Phase 3**
- **Peconic River Planned Supplemental Sediment Sampling**

Sewage Treatment Plant Upgrades

- Last formal briefing of CAC in December 2013
- Construction completed end of September 2014
 - Received approval from NYSDEC to divert discharge to the groundwater recharge basins on September 18, 2014
- Started discharging to groundwater recharge beds during the first week of October 2014
- Collected first set of SPDES effluent samples (post filtration) on October 6th and 8th
 - Effluent mercury concentrations on both days were **less than 10 ng/l** (ppt)!
The current permit limit is 200 ng/l.
- Next steps include:
 - Completion of filter building construction punch-list items
 - Sand filter bed area restoration (planting of native grasses ≈12 acres)

Sewage Treatment Plant Upgrades



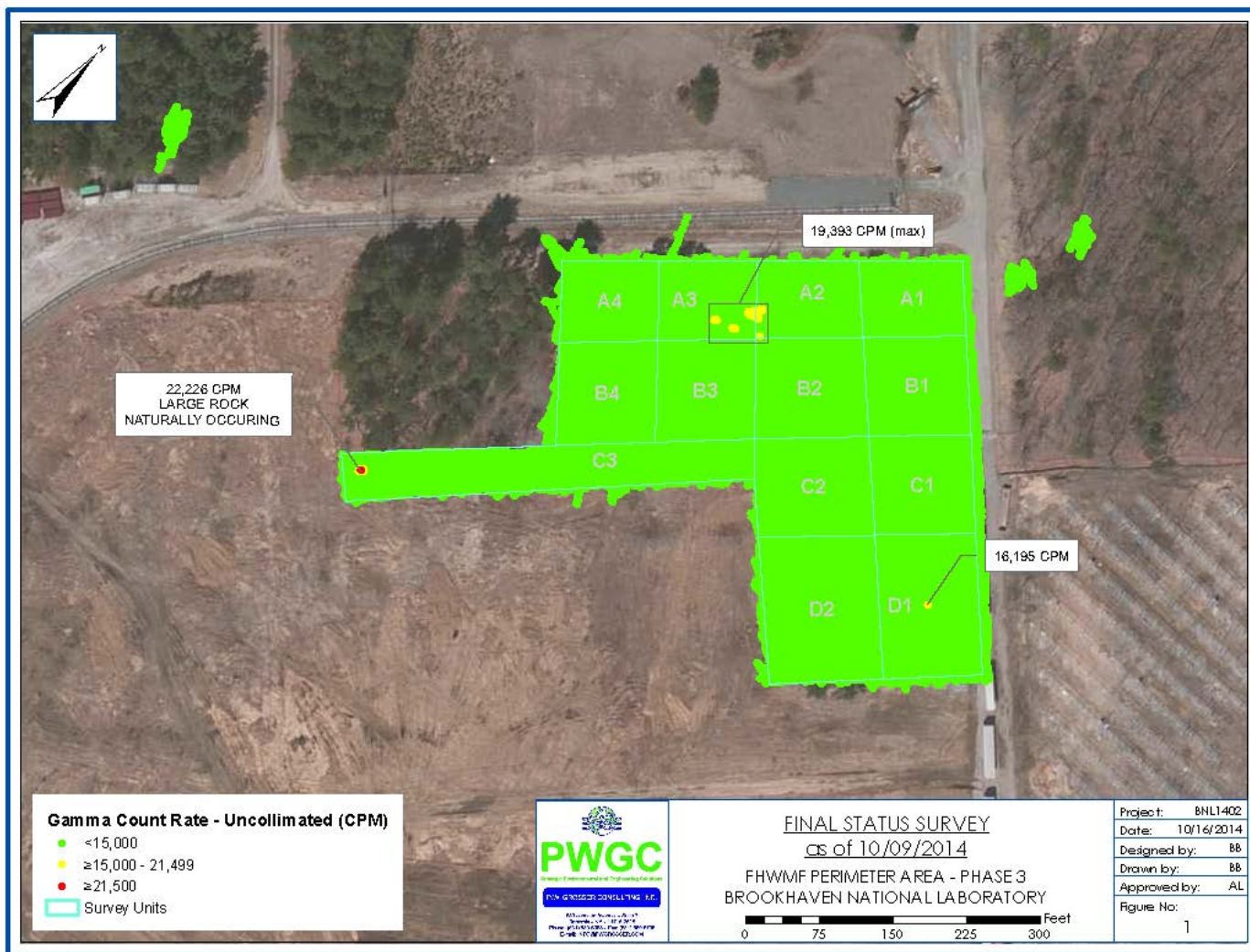
Sewage Treatment Plant Upgrades



FHWMF Perimeter Area Soil Cleanup

- Last of three phases of cleanup (last briefed CAC April 2014 on plan)
- In July and August, approximately 100 cubic yards of soil were excavated to below the cleanup goal of 23 pCi/g (Cs-137)
 - NYSDEC performed radiological survey during July site visit
- Confirmatory soil samples obtained and final status radiological walkover survey performed, all results less than cleanup goal
- Waste shipped late October via four rail cars to Energy Solutions in Utah for disposal
- Next steps include:
 - Oak Ridge Institute for Science and Education (ORISE) to perform independent verification
 - Closeout Report being prepared for submittal to regulators
 - Implementation of institutional controls

FHWMF Perimeter Area Final Status Survey



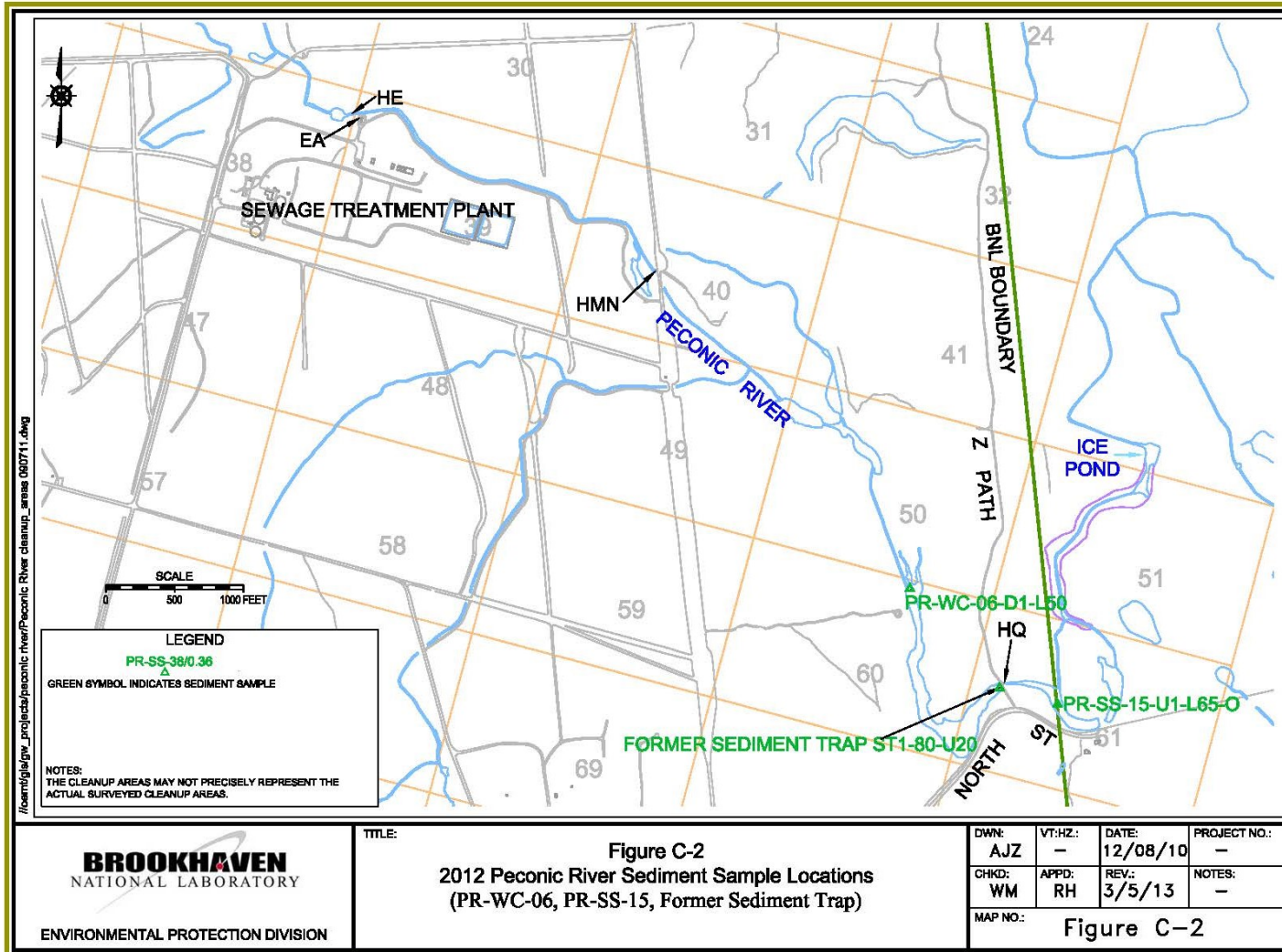
Area with Institutional Controls



Peconic River Planned Supplemental Sediment Sampling

- Last briefed CAC in October on highlights of 2014 Peconic data
- One of three sediment sampling locations detected elevated mercury concentration in 2014 (7.4 mg/kg at PR-WC-06-D1-L50)
- Following review of the data, a decision was made to collect additional samples to confirm that this is a localized spot, and not a large, more widespread area of contamination
- Plan sent to regulators for review in late October calls for collecting four samples (five feet upstream, five feet downstream, five feet to the left, and five feet to the right of the original sample)
- Continue this process with a goal of achieving an average mercury concentration below 2.0 mg/kg
- The data will be reviewed with the regulators

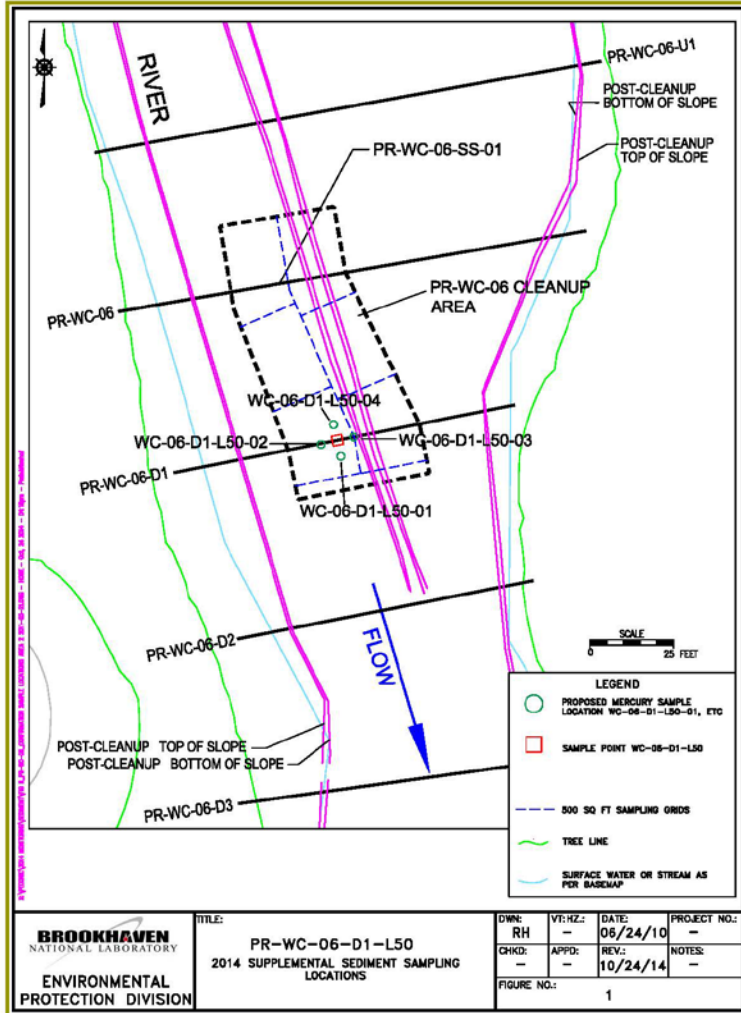
Peconic River Planned Supplemental Sediment Sampling Locations



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Peconic River Planned Supplemental Sediment Sampling Locations



QUESTIONS?