



Neponset River Watershed Association (NepRWA)

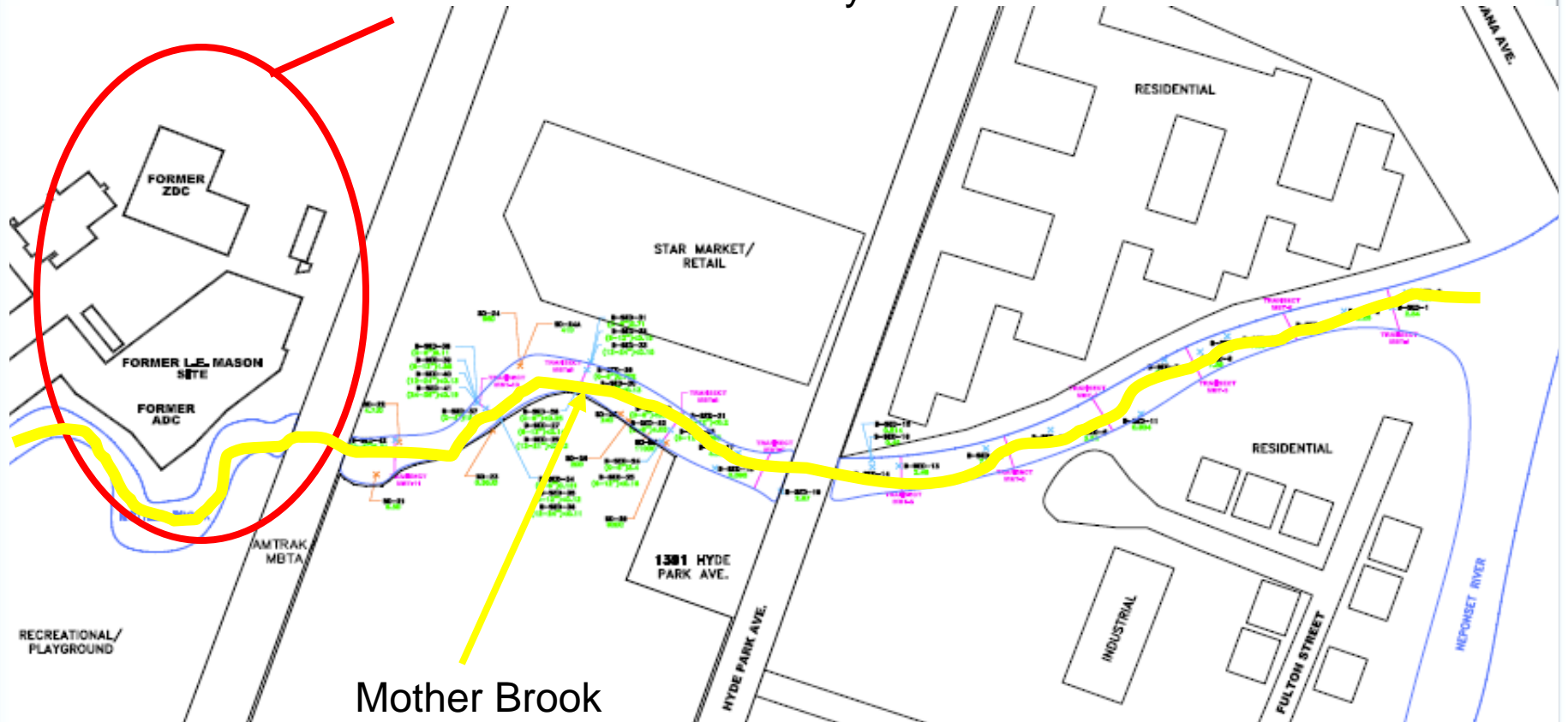
MassDEP Technical Assistance Grant
Study of the Former LE Mason Facility PCB Cleanup
Study subcontracted to Weston & Sampson
(Frank Ricciardi, P.E., LSP)

Intro and Background

- Draft U.S. Geological Survey (USGS) Report, based on 2005 samples, found large amounts of toxic PCBs behind Tileston & Holingsworth (T&H) Dam on the Neponset River in Hyde Park. Concluded major source of Neponset PCBs came from Mother Brook.
- NepRWA hired Weston & Sampson to review work of *Thomas & Betts*, the *current owners of the former LE Mason site* on Mother Brook, to evaluate if site may be a source of Neponset PCBs.
- Weston & Sampson have:
 - reviewed Thomas & Betts' delineation of PCBs in Mother Brook;
 - reviewed cleanup activities to date;
 - evaluated compliance with state hazardous waste site cleanup rules; and
 - recommended some additional work they believe should be done.

Site Overview Map

Former LE Mason Facility



Mother Brook

Site Regulatory History

- Former LE Mason facility was an industrial site which made heavy use of PCBs (until banned in 1979).
- In 2000, Thomas & Betts found PCB-contaminated sediments from LE Mason in Mother Brook.
- Site assessment conducted, remedial action plan devised, and cleanup work began.
- In June 2006, DEP issued a Notice of Audit allowing it to review site assessment and remediation. As of June 2009, work on audit had not yet begun.
- Most but not all of Brook now clean; remedial work to continue on the rest.

Mother Brook Assessment and Remediation

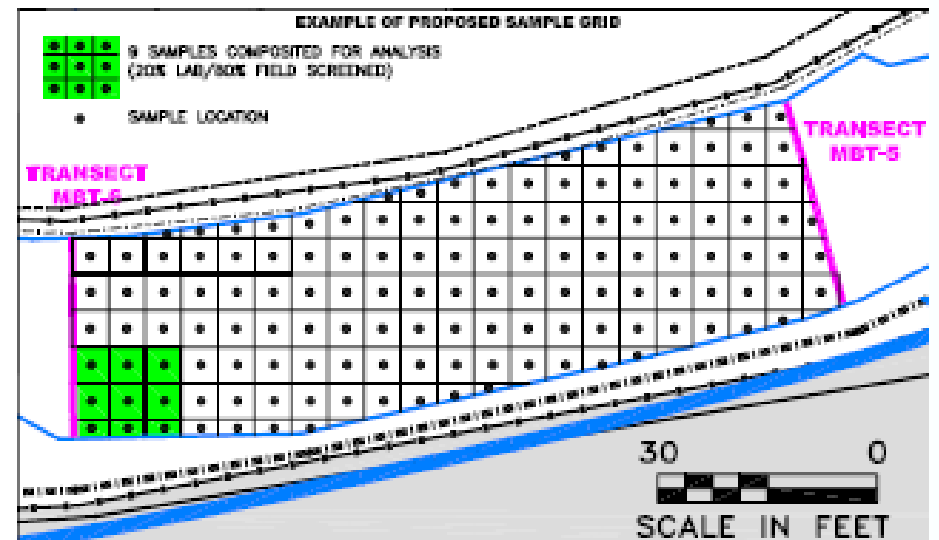
- Sampling in 2000 found PCBs in Mother Brook sediments at levels as high as 2,183 “mg/kg” (milligrams of PCBs per kilogram of sediment). Soil concentrations of 2 mg/kg must be reported to the DEP Bureau of Waste Site Cleanup.
- PCBs above allowable limits found in 1,000 foot stretch of Mother Brook, to within 50 feet of the Neponset River.
- An “Immediate Response Action” (IRA) was taken by Thomas & Betts to prevent further migration of PCBs. Their analysis then concluded that PCBs in Mother Brook no longer presented a substantial risk to human health, but did present a substantial risk to the environment.

Cleanup Criteria

- Required to clean up sediments to “local conditions” levels; that is, the level of PCBs that would exist in the sediments of Mother Brook in the absence of the LE Mason Site.

Sampling Confirms that Parts of Mother Brook where Remediation Completed Meet Cleanup Criteria

- Thorough post-remediation sampling done
- Divided Mother Brook into 10 parts
- Collected 100 sediment samples
- Composited 9 locations into 1 sample
- Compared results to cleanup criteria

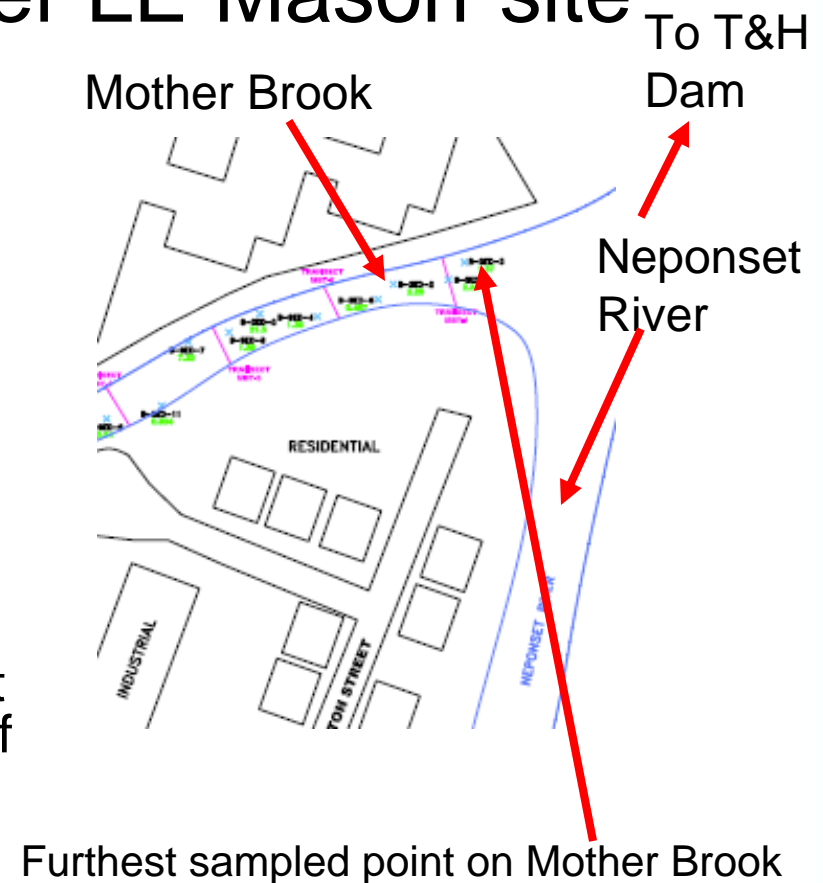


Remediation Activities

- Removed more than 10,000+ tons of contaminated soils and sediments; concrete barrier at former LE Mason facility prevents additional migration of PCBs into Mother Brook.
- Completed cleanup of 3 areas of the former LE Mason facility. “Use restrictions” apply; may not be used as a residence, school, playground, or the like.
- Cleanup almost completed at Aluminum Die Casting area of the LE Mason site and in Mother Brook.
- 2008: Cleanup work near Amtrak bridge suspended due to potential impacts on the bridge’s structural integrity.
- In February 2009, T&B’s permit to finish cleanup extended.

Determination of how far PCBs have “migrated” from former LE Mason site

- Law requires development of Conceptual Site Model (CSM) to determine the “extent” of contamination from LE Mason.
- CSM prepared by Thomas & Betts generally thorough and considered many of the possible migration and transport pathways.
- One significant transport mechanism not addressed was possible resuspension of fine-grained sediments in the Brook and its transport downstream (e.g., to the Neponset River).



Conclusions

- Response actions conducted to date approved by MassDEP and U.S. EPA and done in accordance with appropriate standard of professional care.
- Thomas & Betts should evaluate fate and transport of PCB-impacted fine-grained sediment to see if it may have migrated into the Neponset River.
- Efforts by DEP and U.S. EPA to identify parties responsible for conducting or paying for a cleanup of PCB-contaminated sediments downstream of Mother Brook should consider this site, among others.
- Engineering controls for PCB-impacted sediment remaining beneath the footings of the Amtrak/MBTA bridge should be considered.

MAJOR FINDING: DEP should require Thomas & Betts to evaluate the fate and transport of PCB-impacted fine grained sediment from the site and demonstrate that sediment did not migrate into the Neponset River.