

South River Floodplain Pond & Soil Investigation Update



April 26, 2011

Discussion Topics

- Background
- Approach
- Floodplain Ponds
- Floodplain Properties
- Schedule



Background: 2008 Sampling Event

- Six reaches; within each reach:
 - Ninety riparian and ten 10 wetland sampling locations
 - Three inundation zones
 - Three predominant land use types
- Analyzed for THg, moisture, LOI, and grain size
- Wetland samples were also analyzed for MeHg and AVS/SEM.



Background: 2010

- Potential human health exposure pathways
- Pond data gaps; 15 ponds
 - Surface water
 - Fish tissue
 - Sediment
- Floodplain soil sampling



Approach

- Data suitability assessment
- Identification of data gaps
- Field reconnaissance
- Data collection

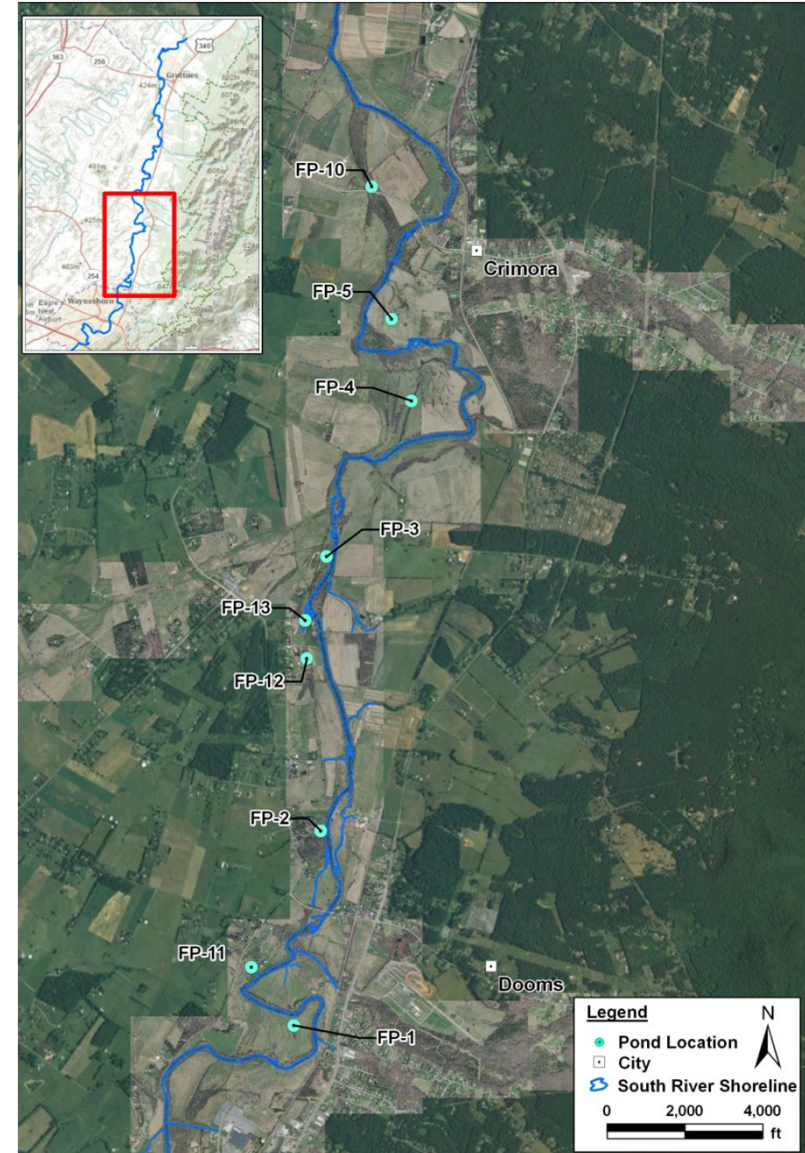
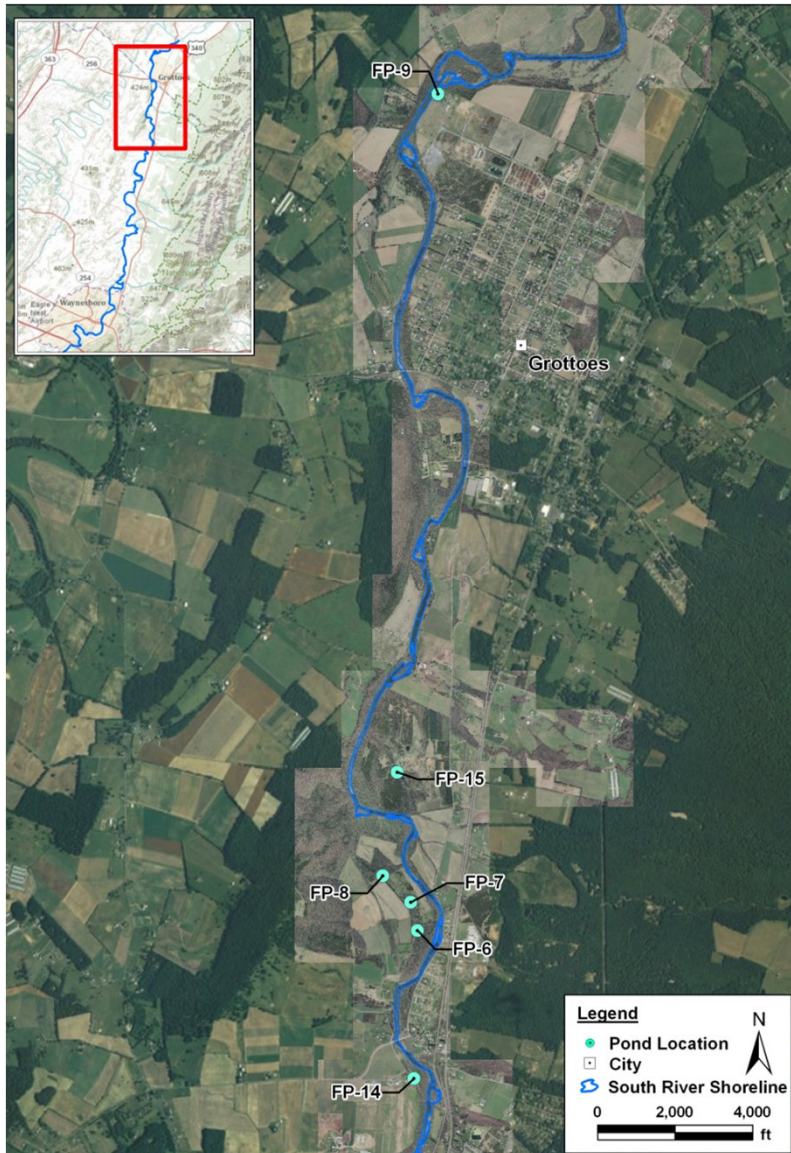


Field Reconnaissance of Ponds

- August 2010
- Five ponds eliminated based on incomplete exposure
 - Two outside of the 62-year floodplain
 - Three dry at the time of the visit or within the past year



Floodplain Ponds



Floodplain Pond Sampling - Surface Water

- Ten ponds
- Three surface water samples per pond; 60 samples
- Analyzed for total and dissolved THg and MeHg



Floodplain Pond Sampling - Fish Tissue

- Target species are two dominant species of edible sized game fish (e.g., bass, sunfish, crappie, and catfish)
- Fish from separate trophic groups (e.g., piscivores, invertivores) will be retained if present
- Recently stocked species such as trout will not be retained



Floodplain Pond Sampling - Sediment

- Three surficial sediment samples will be collected from different locations in Wertman pond
- Analyzed for:
 - THg
 - MeHg
 - TOC
 - Grain size distribution



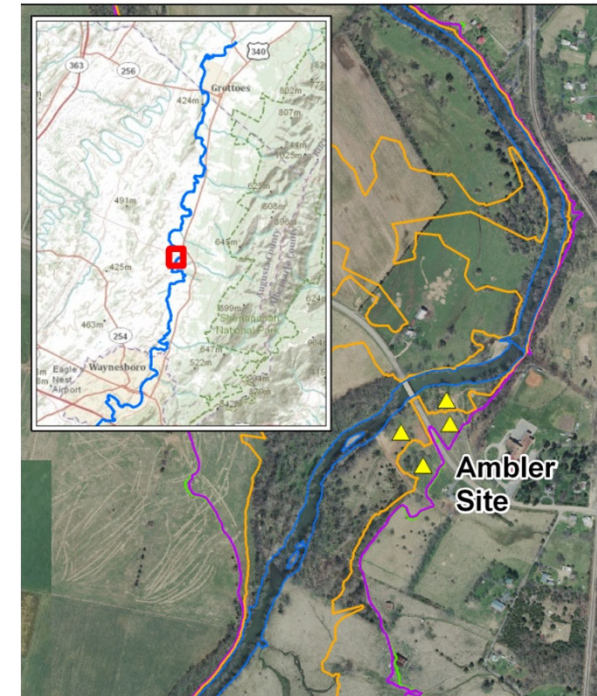
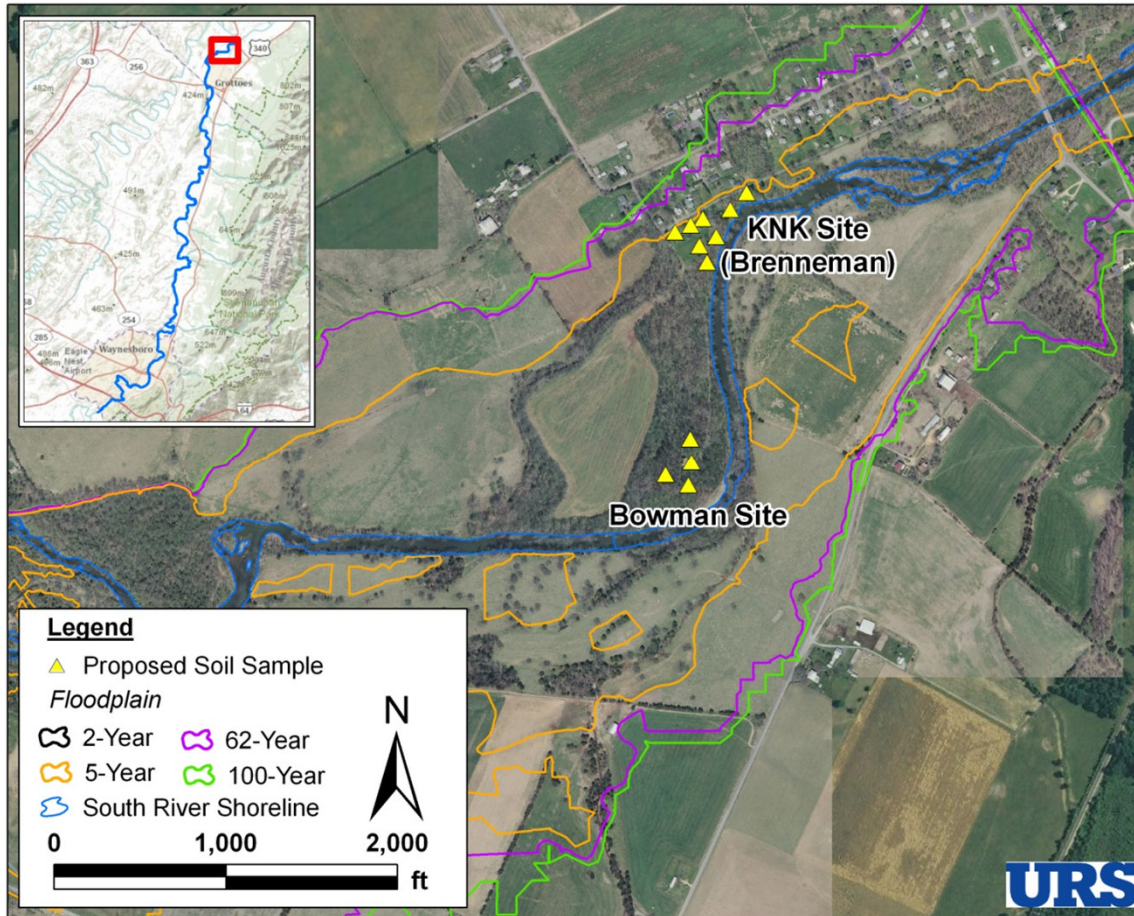
Floodplain Soil Sampling

- Samples will be collected consistent with 2008 methodology at
- Forty one samples, at two depths at 10 parcels
- Depth intervals: 0 to 6 inches and 6 to 30 inches composite sample
- Analyzed for: THg, LOI, moisture content and grain size distribution



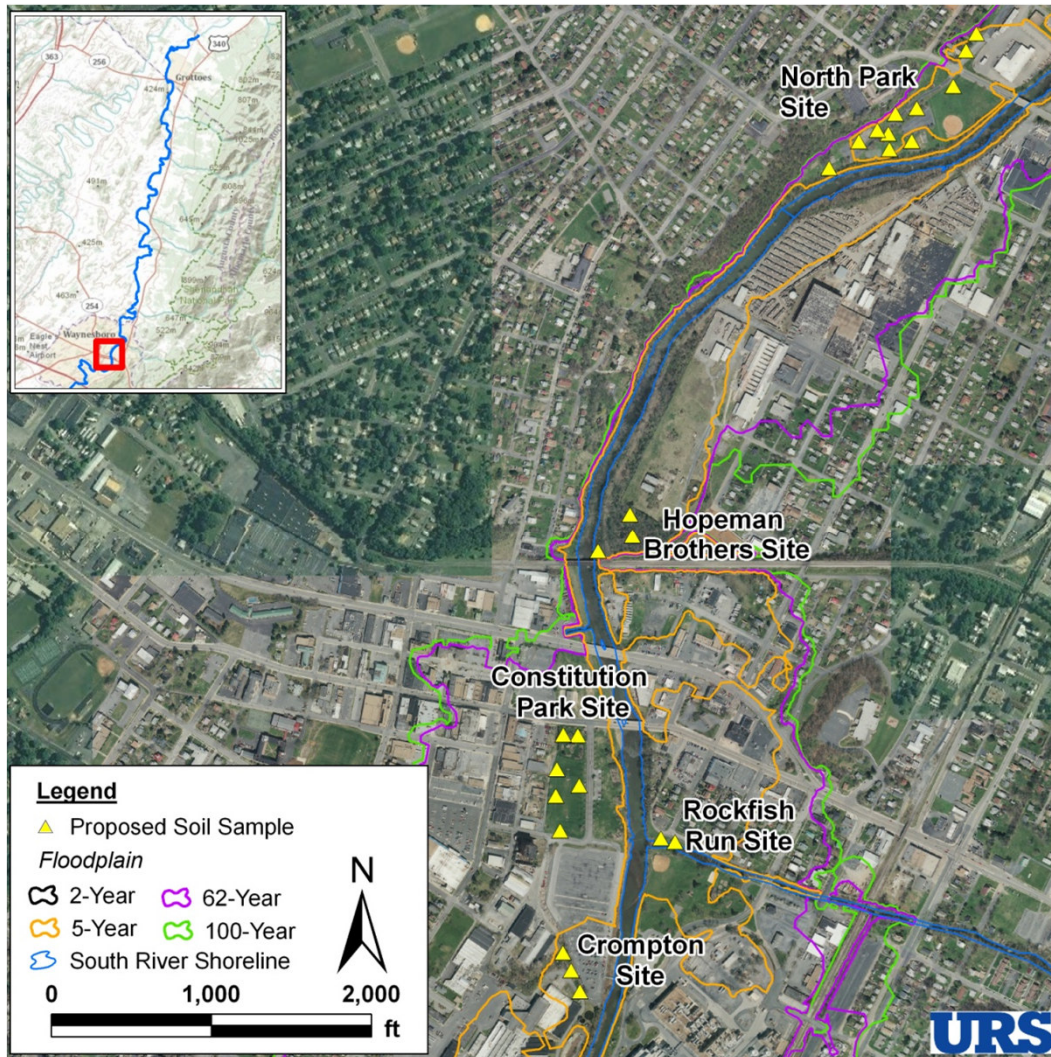
Floodplain Properties

KNK (Brenneman), Bowman, and Ambler Sites



south river
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Floodplain Properties (Cont'd)



North Park,
Hopeman Brothers,
Constitution Park,
Rockfish Run, and
Crompton Site



Floodplain Soil Sampling (Cont'd)

- Depth intervals:
 - 0 to 6 inches
 - 6 to 30 inches composite sample
- Analyzed for:
 - THg
 - LOI
 - Moisture content
 - Grain size distribution



Schedule

- Floodplain Pond Sampling: May 2011
- Floodplain Soil Sampling: May 2011
- Report Findings to SRST: July 2011

