



Caged Clam Study

“Parks” and “Pond” Reaches, 2004

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Clams taken from North River



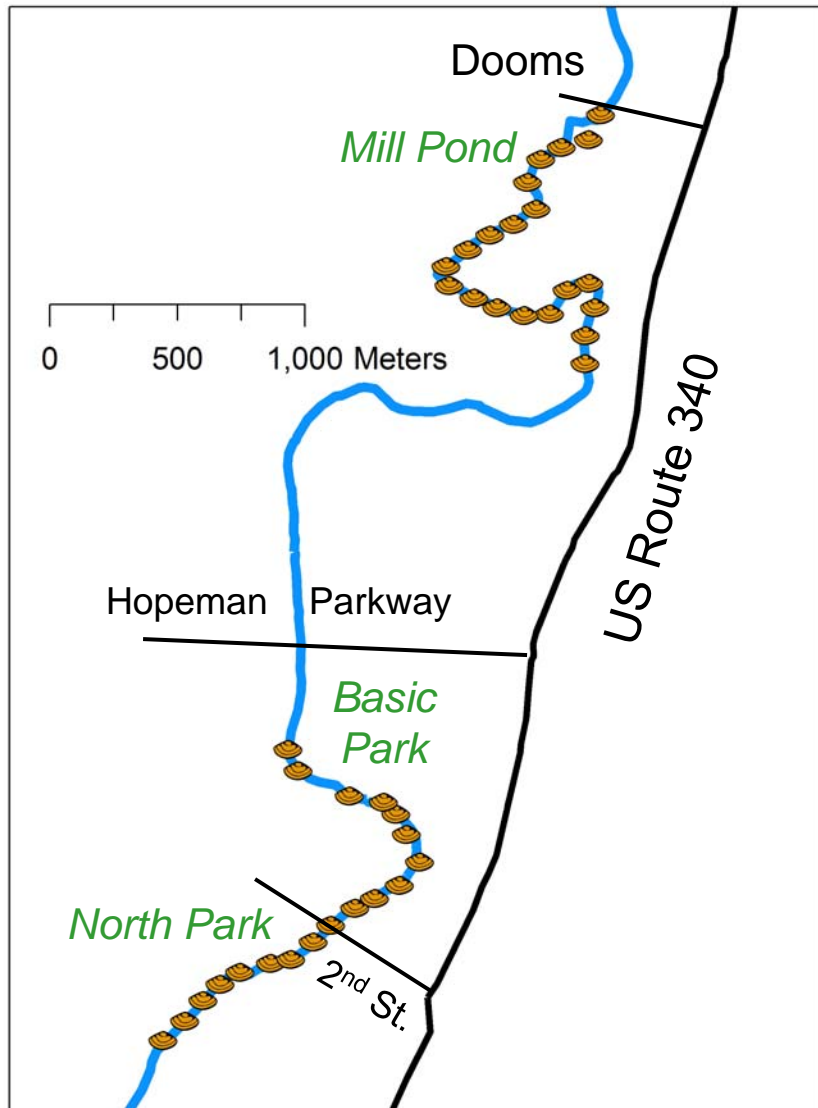
Collecting clams (above) and
sorting them by size (right)



Caging and Canoeing Clams



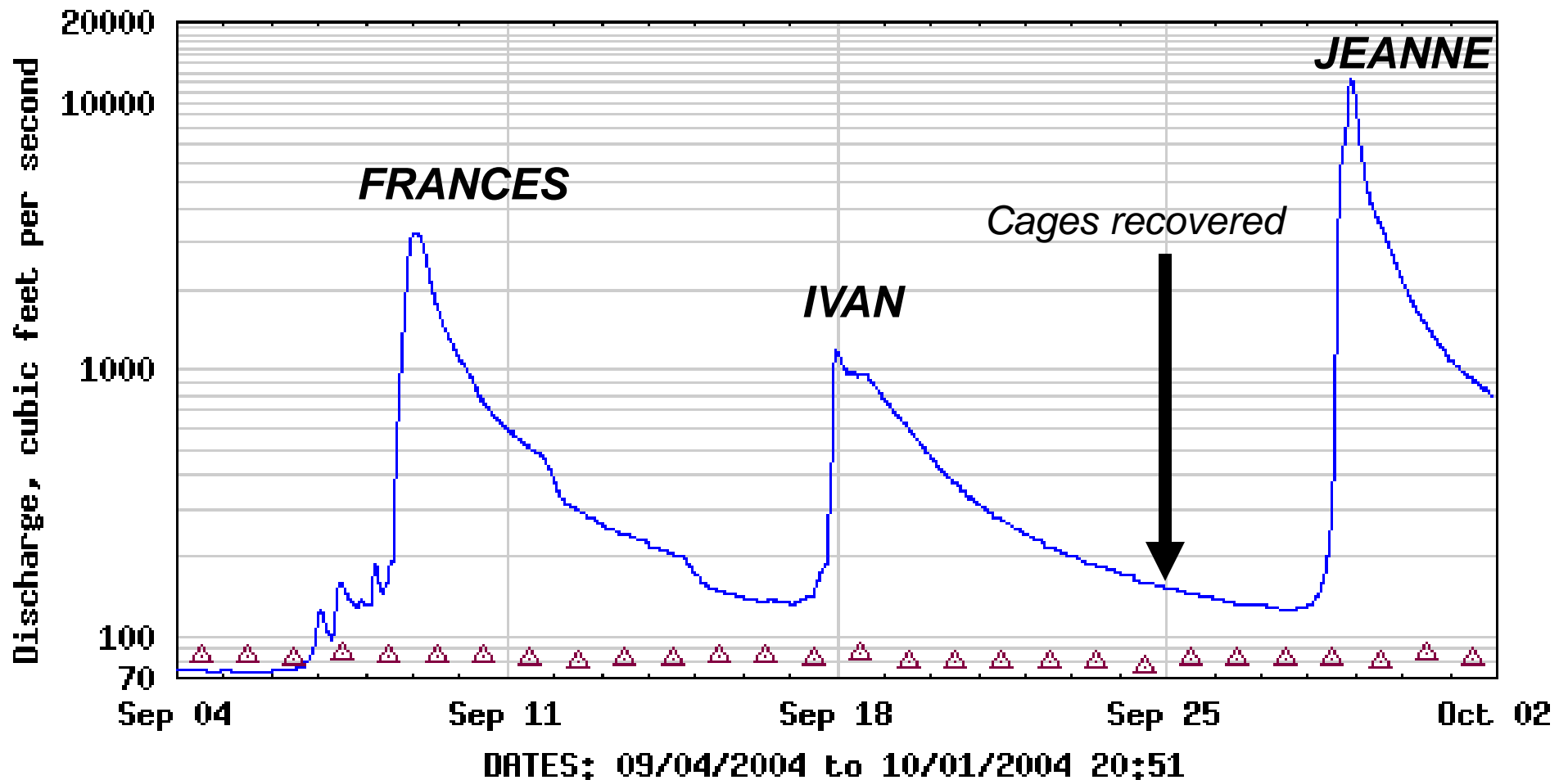
Clam Cage Placement



Dates of Study

- Caged Clams: North Park to Basic Park
 - Placed on July 10, 2004
 - Recovered on September 25 (after 77 days)
 - 13 of 20 cages recovered (65%)
- Caged Clams: Dooms Mill Pond
 - Placed on July 16, 2004
 - Recovered on September 25 (after 71 days)
 - 18 of 20 cages recovered (90%)

USGS 01627500 SOUTH RIVER AT HARRISTON, VA

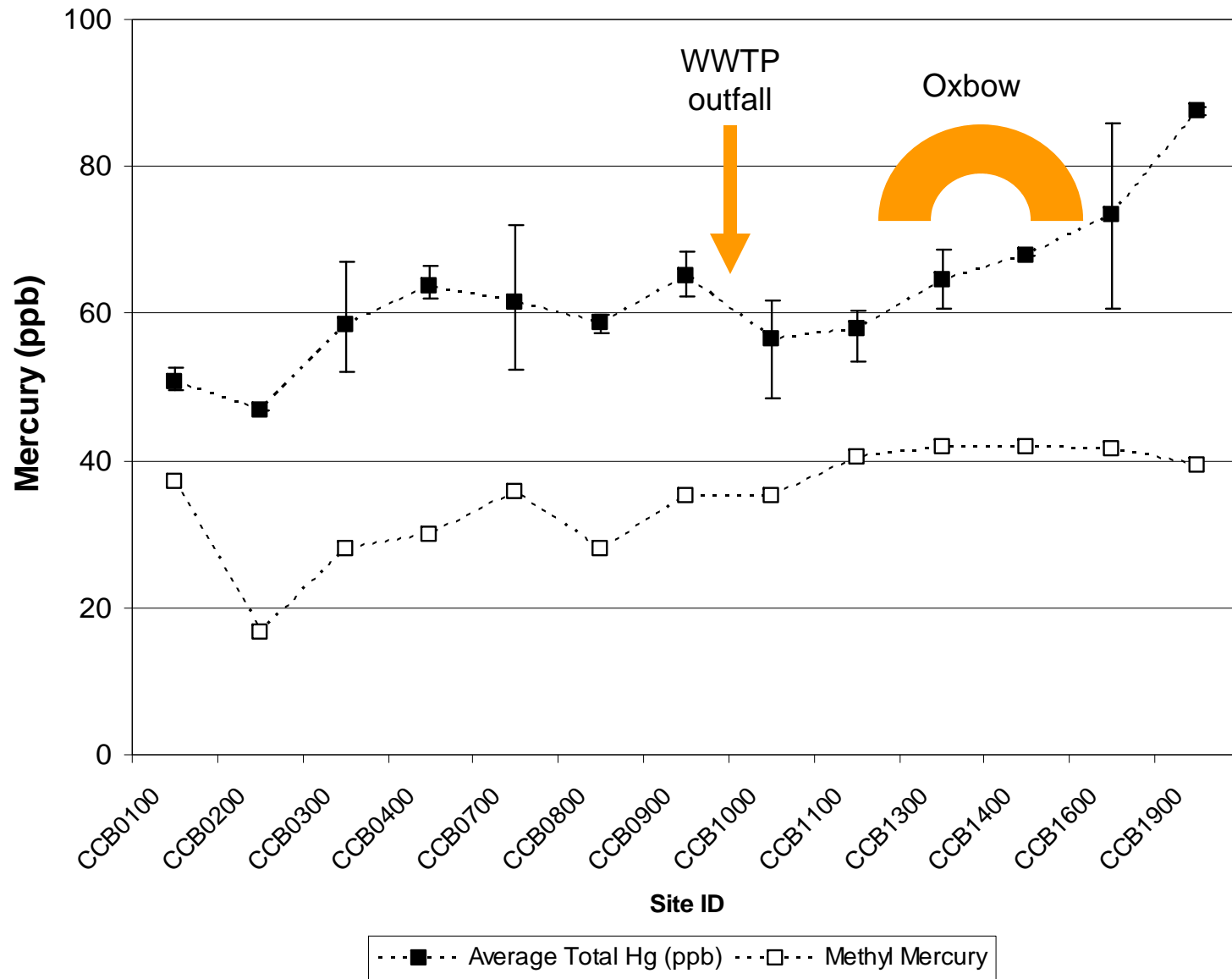


EXPLANATION

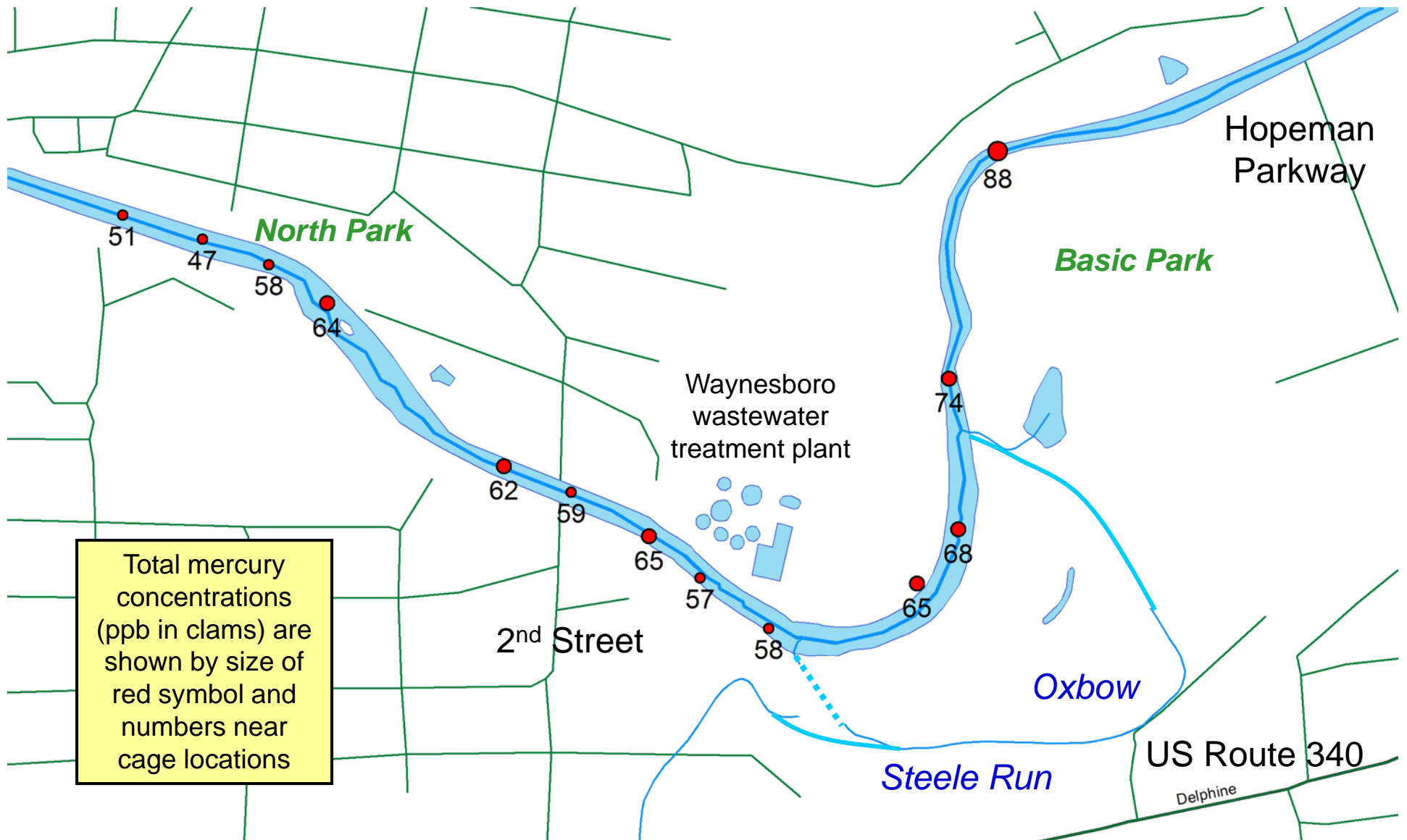
— DISCHARGE

△ MEDIAN DAILY STREAMFLOW BASED ON 61 YEARS OF RECORD

Parks Reach: Mercury by Site

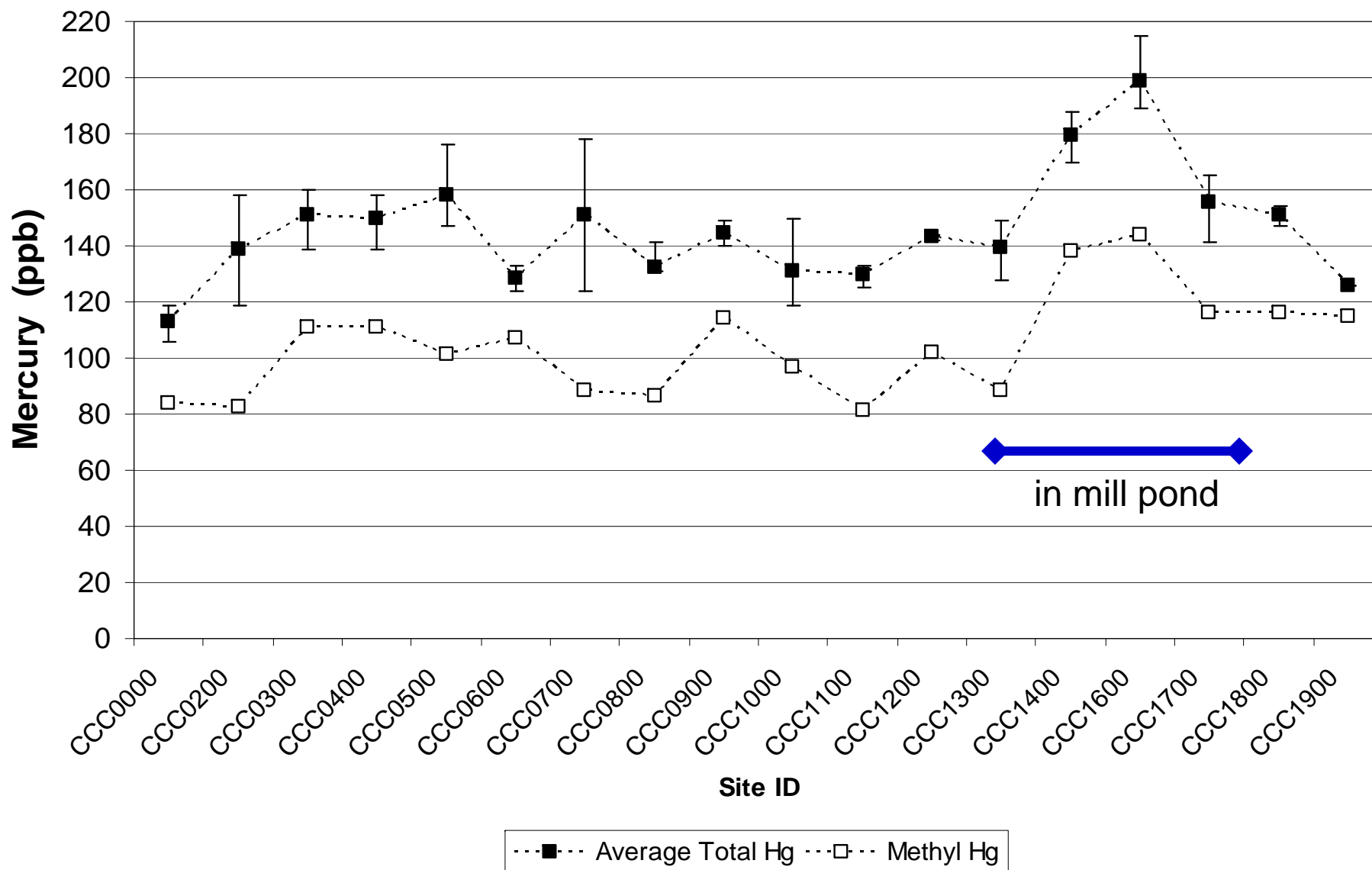


Parks Reach: Map of Mercury in Clams

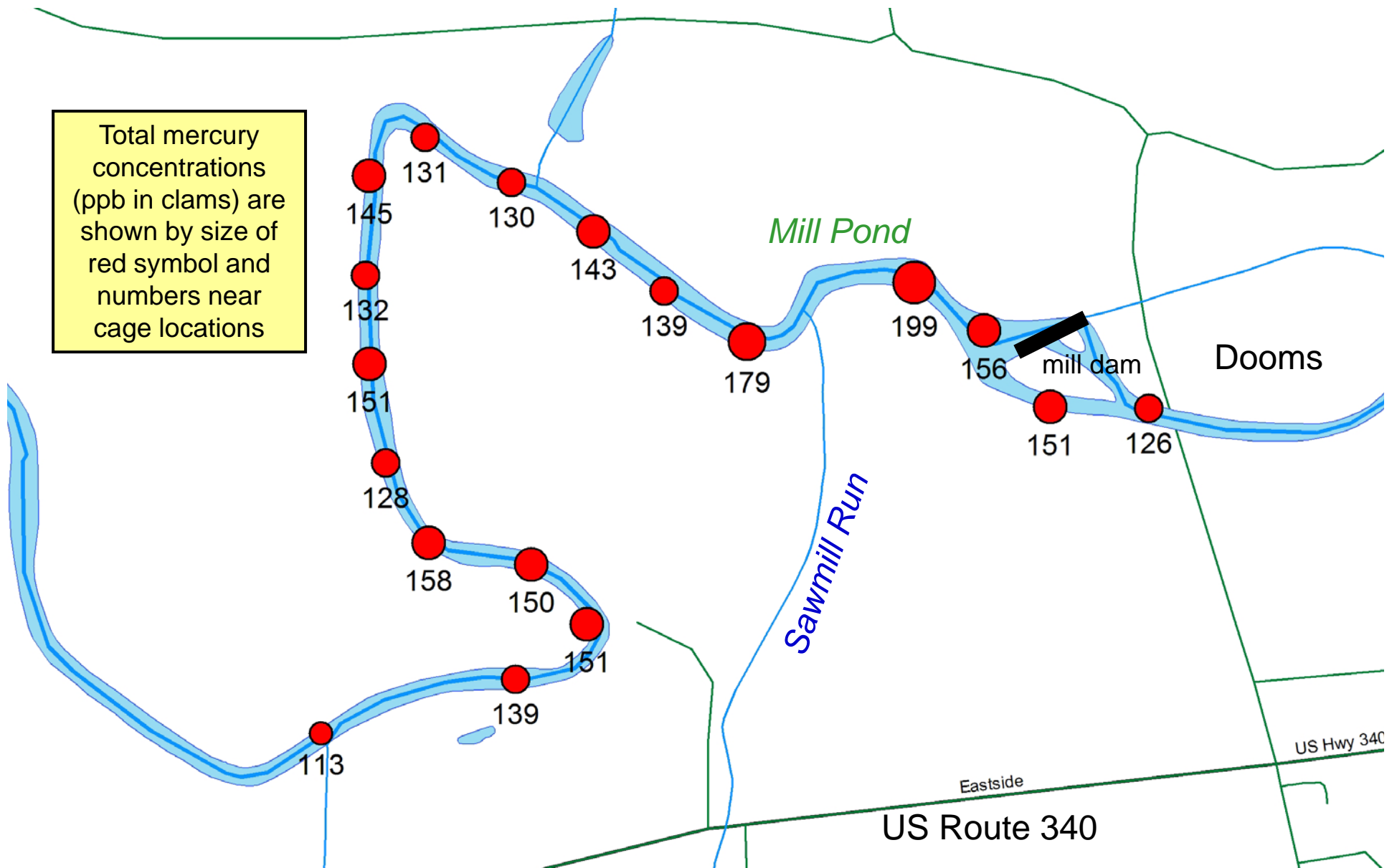


Total mercury concentrations (ppb in clams) are shown by size of red symbol and numbers near cage locations

Pond Reach: Mercury by Site



Pond Reach: Map of Mercury in Clams



Conclusions from Caged Clam Study, 2004

- Mercury concentrations increase downstream from Dupont's 001 outfall on South River in Waynesboro
- Mercury concentrations increase downstream from an oxbow (Steele Run confluence) near Basic Park
- Significantly higher mercury concentrations were found in the middle of the mill pond near Doods
- In the mill pond, increases in methylmercury account for the increase in total mercury concentrations
- Caging clams allowed us to monitor locations where wild clams are not easily found (e.g. Doods mill pond)
- Caged clams showed good survival rates (55.4 - 80.1%)
- Some clam cages were lost during high flow (10 of 60)

Thanks to...

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