

Historical Studies

South River and South Fork
Shenandoah River, 1929 -
Present

Chronology: 1929-77

- **Mercuric sulfate used as catalyst at Waynesboro site from 1929-50.**
- **Sept 9, 1976 Hg globules found on site at the “old chemical building”.**
 - **Soil contained 7,000 ppm Hg**
- **Sept 29, 1976 Aquatic biologist, Dr. Albert Hendricks, Va. Polytech. Is hired.**
 - **Collects sediment samples from South River**
- **Feb. 10-11, 1977 Additional sediment and biological samples taken by Dr. Hendricks from North, South, and Middle Rivers.**

Chronology: 1977-78

- **March 1977 - 22 shallow test wells dug on site - boring materials and water analyzed, 6 more test wells dug soon after.**
- **April 13, 1977 - DuPont notified USEPA and Virginia State Water Control Board (SWCB) of Hg contamination.**
- **April 1977 - SWCB conducted fish survey of river systems, closes 130 miles to taking of fish for human consumption based on 0.5 ppm FDA limit. (Changes to 1 ppm in 1979)**
- **April 1977 - SWCB embarks on 4-part program to study river.**
- **June 1978 - Valley Regional Office studies river sediments and estimates 57,000 lbs of Hg in sediments / soils, 95% of which is in the above-bank flood plain. Finds no other sources of Hg than plant area.**

Chronology: 1981-89

- **March, 1981 - LMS Interim Report Submitted (Vol. 1 of 2).**
- **June, 1982 - LMS Final Report Submitted (Vol. 2 of 2). New estimate is 97,000 lbs of Hg in floodplain.**
- **Aug, 1982 – VSWCB orders Olin to dredge Hg from Holston River.**
- **Late 1982 – DuPont & Va sign settlement on Hg in South River and SF Shenandoah River. Funds for monitoring natural recovery are provided by DuPont.**
- **Sept., 1983 – Olin site is placed on NPL by EPA due to Hg in Holston River.**
- **April 30, 1984 - Ecological studies of South River scoping document published by Virginia Polytech.**
- **November 1985 - 100-yr flood in the area, ongoing aquatic insect studies document the loss of organisms in river as a result.**
- **November 27, 1989 - Results of ecological studies on South River published by Virginia Polytech.**

Chronology: 1989-97

- Dec. 1989 – LMS publishes re-assessment of mercury in South River and SF Shenandoah River. **No major declines in tissue levels, “significant” declines in sediment levels.**
- 1992 - Applied Marine Research Lab / Old Dominion Univ. (AMRL) begins surface water, sediment and fish sampling on the South River and SF Shenandoah River.
- 1994 – Watras and Huckabee publish “Mercury Pollution: Integration and synthesis”.
- 1994 – AMRL conducts second round of sampling and analysis on the South River and SF Shenandoah River.
- Sept. 1994 – EPA holds national forum on mercury in fish.
- July 1996 – USGS holds national workshop on mercury cycling in the environment.
- 1996 – AMRL conducts third round of sampling and analysis on the South River and SF Shenandoah River.
- Sept. 1997 – AMRL publishes fish tissue analysis data.
- Oct. 1997 – AMRL publishes surface water analysis data.

Chronology: 1998-2000

- Jan. 1998 – AMRL publishes sediment analysis data.
- June 1998 – AMRL publishes comprehensive evaluation of all South River and SF Shenandoah River data. (**Fish tissue levels increasing**).
- July 1999 – VADEQ assumes control of sampling program. Samples fish in South River and SF Shenandoah River.
- Nov 1999 – VADEQ conducts second sampling of fish in South River and SF Shenandoah River.
- March 2000 – VADEQ posts initial fish tissue data on web.
- June 2000 – VADEQ posts updated, complete fish tissue data with maps on web.
- Nov 29, 2000 – VADEQ and DuPont meet to discuss options for evaluating significance of Hg in South River and SF Shenandoah River. Develop collaboration concept.

Chronology: 2001

- **Feb 14, 2001 – “Science Team” meets for first time, develops charter and goals.**
- **March 2001 – VADH revises fish consumption advisory.**
- **April 3, 2001 – Science Team meets, begins to identify uncertainties and tasks, reviews first set of fish tissue statistical results.**
- **May 2001 – Mercury Symposium held in Florida; some ST members attend.**
- **June 5, 2001 – Science Team meets, reviews second set of fish tissue statistical results, decides on need for fish gut study, expert panel members identified, additional fish tissue sampling areas determined.**
- **Aug 7, 2001 – Science Team meets, reviews third set of fish tissue statistical results, agrees on need for mud mapping, plans for expert panel meeting.**
- **October 2-3, 2001 – Science Team and expert panel meet.**