

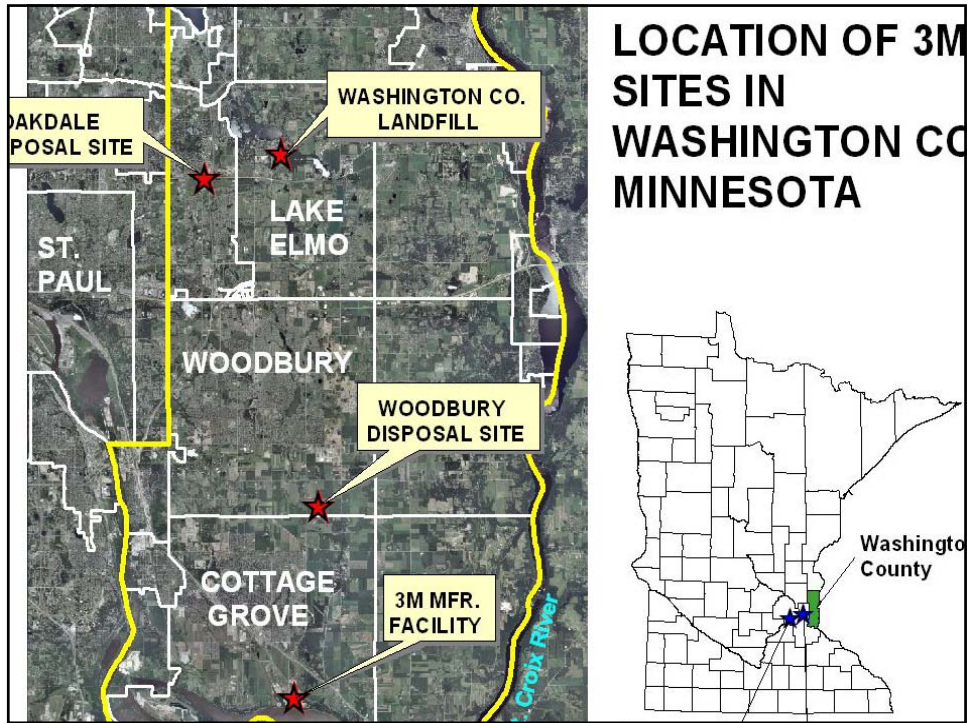


Minnesota Pollution Control Agency

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MPCA Superfund Program

- **Investigate and if necessary, conduct response actions at hazardous waste sites.**
 - MDH assesses risk to human health
- **Identify Responsible Parties**
 - Review and approve work
- **Superfund contracts work and seeks cost recovery**
- **3M is RP for investigations and response actions at Chemolite, Oakdale and Woodbury sites.**
- **Closed Landfill Program conducting work at Washington Co. Landfill**



3M Oakdale Disposal Site

- Used by 3M for disposal of industrial wastes from Chemolite Facility (1956-60)
- Wastes/drums were excavated (1983)
- Ground water pump-out system (1984)
 - Isopropyl ether
- Discharged to sanitary sewer system



3M Oakdale Disposal Site

- Pump-out water sampled in Summer 2004 for PFOA/PFOS
- Monitoring wells and pump-out wells sampled by 3M in Spring 2005
- 3M required to conduct investigation to determine full extent of PFC contamination (Winter 2005/Spring 2006)
- Response actions being evaluated
 - Excavation/capping, ground water, surface water drainage

Washington County Landfill

- First permitted sanitary landfill (SW-1) operated by Washington and Ramsey Counties. 2.6 million cubic yards of mixed municipal and industrial waste disposed at site from 1969-1975.
- Ground water control system installed in 1983 by Superfund program to control movement of solvents leaching from waste (PFC contamination unknown)
- Site entered Closed Landfill Program (CLP) in January 1996
- Cover and active gas extraction system constructed by CLP in 1996
- PFOA and PFOS discovered in ground water at site in Spring 2004, discovered above standards in private wells in Lake Elmo early 2005

Washington County Landfill

- Bottled water or Granulated Activated Carbon units provided to 150 residences
- City of Lake Elmo in the process of hooking up nearly 200 residences to municipal water. All but 17 have been hooked up to Lake Elmo public water
- Minnesota Geological Survey logging bedrock in residential wells to characterize geology and groundwater flow
 - Monitoring system will be upgraded to target wells in St. Peter and Prairie du Chien aquifers.
- CLP is moving forward with conceptual design of a resin filter system to treat PFCs in groundwater

Woodbury Disposal Site

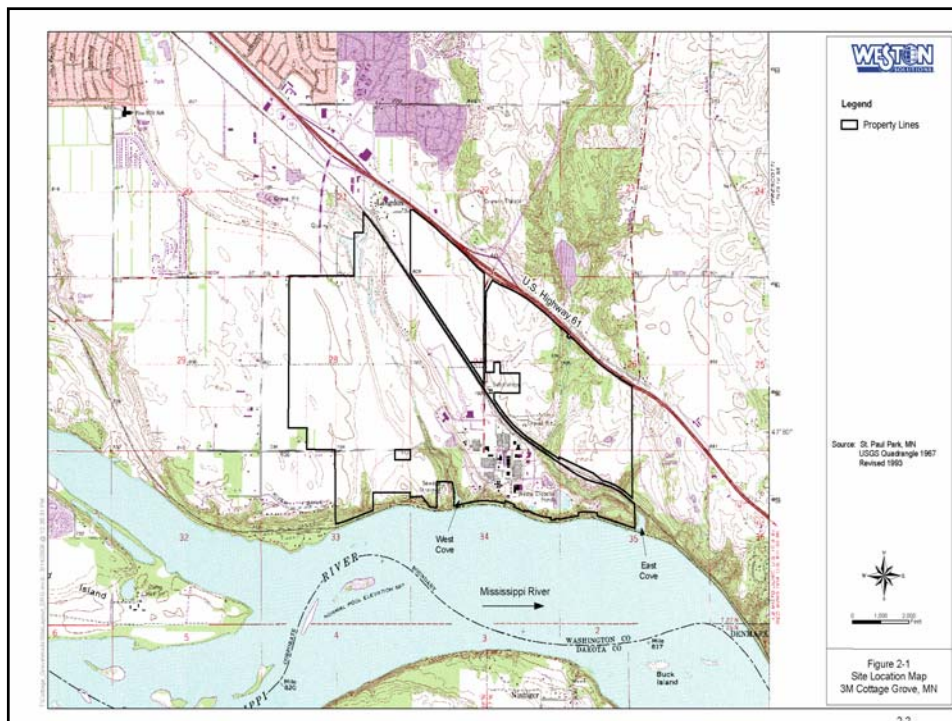
- **Used for disposal of industrial wastes from 1960-1966**
- **Barrier well system installed in early 1970s to prevent migration of industrial solvents**
- **Pump-out water found to contain PFOS & PFOA , in addition to solvents (Fall 2004)**
 - **PFOS and PFOA not found in nearby residential wells (Spring 2005)**
- **PFBA detected in pump out water , nearby residential wells and municipal wells (December 2006)**

Woodbury Disposal Site

- **Evaluate existing barrier systems ability to capture all PFC's**
- **Install sentinel monitoring wells between the site and nearby residences**
- **Reassess PFC waste remaining on the Site**
- **Determine if the pump out pipeline is leaking**
- **Develop monitoring plan for nearby residential and sentinel wells**

3M Chemolite Site

- Manufactured PFCs (1940s - 2002)
- On-site disposal of wastes (PFCs)
 - HF sludges and tars neutralized
- Ground water pump out system - facility production wells
- Pump out water is treated prior to discharge to Mississippi River



3M Chemolite Site

- 3M conducted facility-wide assessment in spring/summer 2005
- MPCA required focused investigation to determine full extent of PFC contamination (summer/fall 2006)
- 3M has submitted plan for interim response actions at on-site disposal areas (December 2006)
- Additional response actions being evaluated – plan due April 2007