



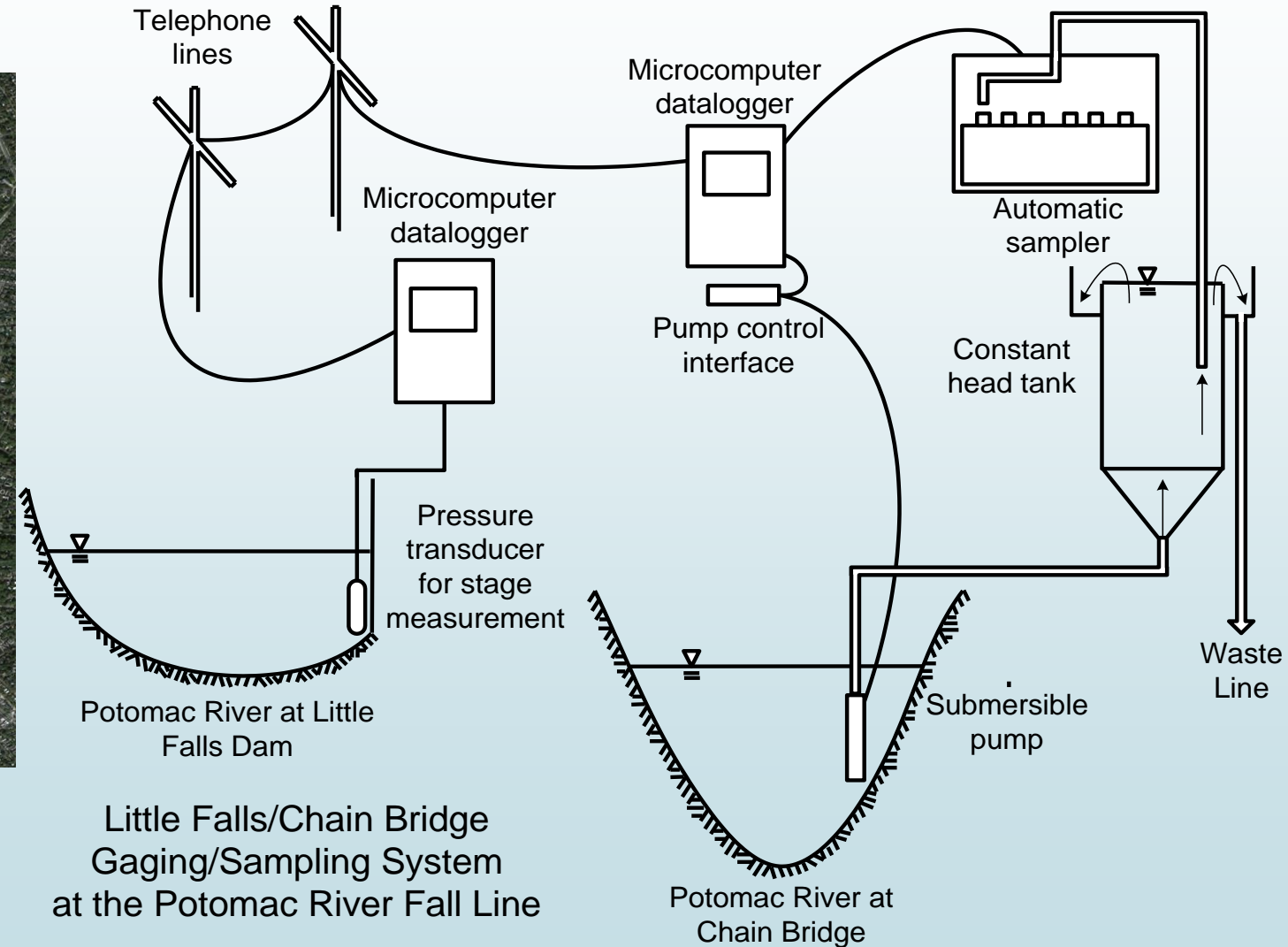
# Monitoring at Chain Bridge

Adil N. Godrej, Ph.D., P.E.

Occoquan Watershed Monitoring Laboratory  
Virginia Tech  
Manassas, Virginia

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# Current Program—Monitoring Process



A decorative graphic on the left side of the slide. It features a dark grey arrow pointing right at the top, with several thin, curved lines in shades of blue and grey extending downwards and to the right from the arrow's base.

# Current Program – Sampling Frequency

- ▶ First sample taken on 03 January 1983
- ▶ A total of over 2,500 individual samples (composites count as one) to date
- ▶ Baseflow: 1/week [biweekly in winter]
- ▶ Stormflow:
  - ▶ All storms, composite
  - ▶ Up to five storms per year, up to 5 discrete samples per storm



# Current Program – Measurements Taken

- Monitored continuously:

- Flow
- Dissolved oxygen
- Temperature
- pH
- Specific conductance

- Via sample analysis:

- Total organic carbon
- Dissolved organic carbon
- Carbonaceous oxygen demand
- Total suspended solids
- Oxidized nitrogen (nitrate & nitrite)
- Ammonia nitrogen
- Total Kjeldahl nitrogen
- Soluble Kjeldahl nitrogen
- Total nitrogen

- Total soluble nitrogen
- Soluble and reactive phosphorus (orthophosphate phosphorus)
- Total phosphorus
- Total soluble phosphorus
- Turbidity
- Total hardness
- Total alkalinity
- Fecal coliforms
- E. coli
- Soluble reactive silica
- Cations (Na, K)
- Anions (Cl, SO<sub>4</sub>)
- Soluble and extractable metals
- Microbial source tracking (human vs. non-human)

# OWML Projects for MWCOCG

- ▶ 1976-1977: Occoquan – Four Mile Run Runoff Characterization and Monitoring Program (EPA and NVPDC also involved)
- ▶ 1979-1981: Metropolitan Washington Urban Runoff Project (EPA was main grantor) (part of NURP)
- ▶ 1982: Potomac Algae Bloom Monitoring Response
- ▶ 1982-present: Pollutant Loading Characterizations at the Potomac Fall Line (MDE upto 2003)
- ▶ 1986-2003: Anacostia DO Monitoring
- ▶ 1987-1988: Maryland Sediment Project
- ▶ 1989-1993: Nonpoint Source Characterizations and Anacostia Water Quality Monitoring
- ▶ 1989: Kenilworth Gardens
- ▶ 1991-1994: Hydrocarbon Characterization and Control in Urban Stormwater
- ▶ 1992: National Gallery of Art Cooling Water Discharge Thermal Characterization
- ▶ 1992-1993: Toxics Loading Characterizations at the Potomac Fall Line (GMU did SOC work)
- ▶ 1999-2000: Northwest/Northeast Branch Toxics Characterization
- ▶ 2002-2003: Washington DC Fecal Coliform Characterization
- ▶ 2013-2015: Chain Bridge Data Analysis