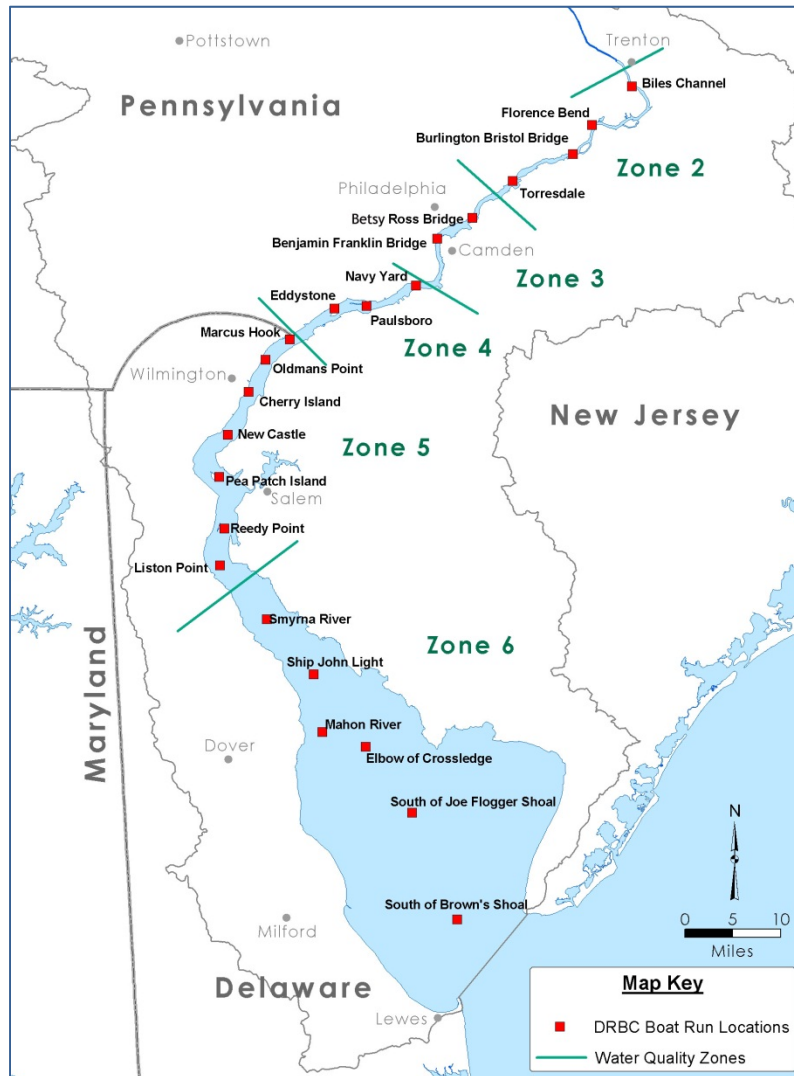


Current Boat Run

Once per month, April through
October (7 events/year)



Analytical Parameters of Interest

- Alkalinity (Titrimetric, pH 4.5)
- Carbon, Organic - Dissolved (DOC)
- Carbon, Particulate₃
- Chloride, Total
- Conductance, Specific - Field
- Hardness as CaCO₃
- Nitrogen, Total, Alkaline Persulfate
- Orthophosphorus, Soluble
- Oxygen, Dissolved - Membrane Electrode
- Oxygen, Dissolved - Saturation
- pH, Field
- Phosphorus, Total, Alkaline Persulfate
- Residue, Filterable (TDS)
- Residue, Nonfilterable (TSS)
- Salinity
- Secchi Depth in Meters
- Temperature, Air
- Temperature, Water
- Turbidity (Nephelometric)
- Ammonia as N, Dissolved
- Nitrate as N, Dissolved
- Nitrate/Nitrite as N, Dissolved
- Nitrite as N, Dissolved
- Nitrogen, Dissolved, Alkaline Persulfate
- Nitrogen, Particulate₃
- Phosphorus, Dissolved, Alkaline Persulfate
- Phosphorus, Particulate₃
- Chlorophyll-a₃
- Silica, Dissolved

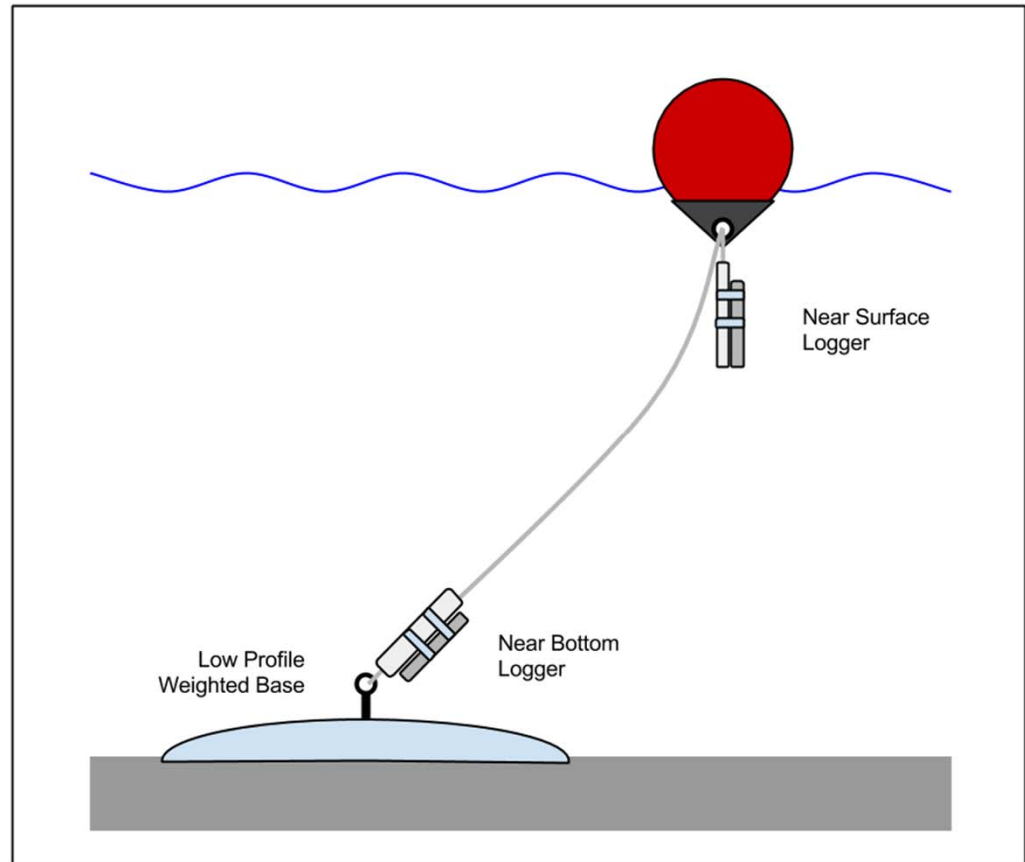
Boat Run Additions

- Photosynthetically active radiation (PAR) paired with each secchi depth measurement added in 2013;
- Primary production supplemental monitoring (2014):
 - Seed funding by EPA;
 - 3 surveys at 15 stations using ^{14}C at multiple photo-gradations;
 - University of Maryland Center for Environmental Science (UMCES) Horn Point Lab;
 - productivity vs. light intensity (P vs I) curves
- Volatiles in 2013;
- Semivolatiles (including PAHs) in 2014;

Estuary DO Enhanced Spatial Monitoring

Better understanding of spatial and temporal extent of DO depression in the Delaware Bay, particularly in the bottom waters in the channel

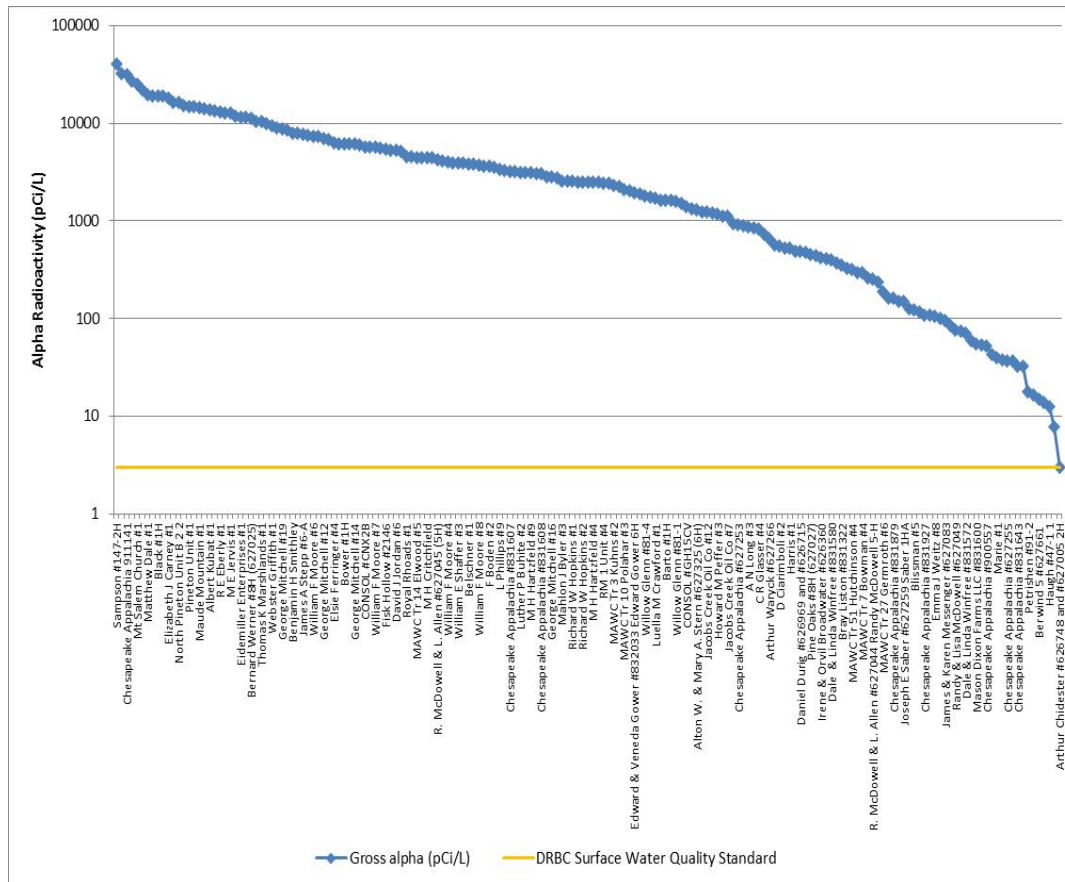
- Proof of concept 2013;
- Wider deployment 2014;



DRBC Ambient Monitoring Framework for Natural Gas Development

- Background
- DRBC Monitoring Activities
 1. [HOBO Conductivity Loggers](#)
 2. [Reanalysis of archived samples](#)
 3. Biological Monitoring
 4. Toxicity Testing
- Partnerships
- Next steps

Pre-Natural Gas Baseline Radiochemistry Monitoring



- 33 Locations (ICPs and BCPs) in Upper and Middle non-tidal Delaware;
- 4 quarterly monitoring events;
 - Gross alpha;
 - Gross beta;
 - Radium-226;
 - Radium-228
- Starts.....*tomorrow*