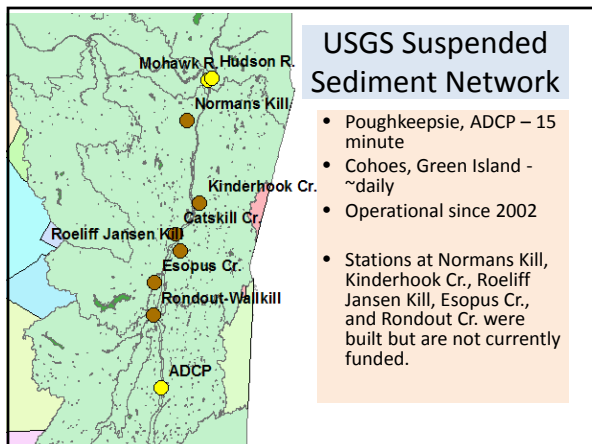
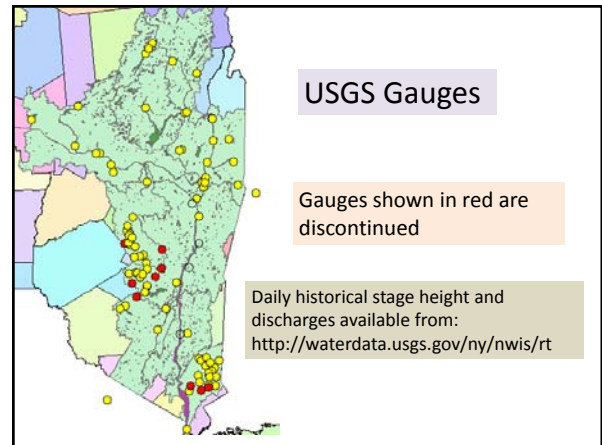
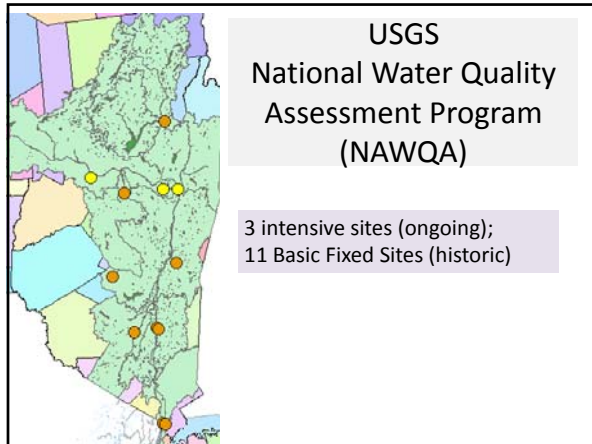


- ### Hudson Basin Data Sources
- USGS Gauges
  - USGS Suspended Sediment Network
  - USGS NAWQA
  - NYSDEC RIBS
  - NYSDEC Biomonitoring
  - National Sediment Inventory
  - GE Upper Hudson Sediments

- ### More Hudson Basin Data Sources
- GE Upper Hudson Historical Water
  - GE Upper Hudson Near Real-Time Dredging
  - National Estuarine Research Reserve System
  - CARP (Contaminant Assessment and Reduction Project)
  - HRECOS
  - NYCDEP Harbor Water Quality Survey



- ### USGS Suspended Sediment Network
- For data and information about the Poughkeepsie ADCP:  
<http://ny.water.usgs.gov/projects/poused/index.html>
- For suspended sediment data from Cohoes and Green Island see:  
<http://nwis.waterdata.usgs.gov/ny/nwis/qwdata>

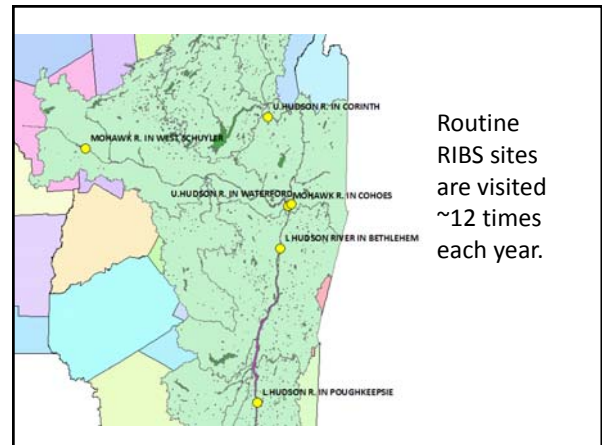
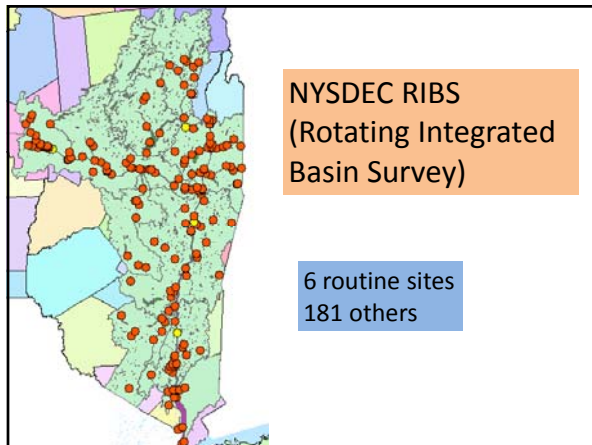


**NAWQA – Intensive Sites**

<http://ny.water.usgs.gov/projects/hdsn/index.html>

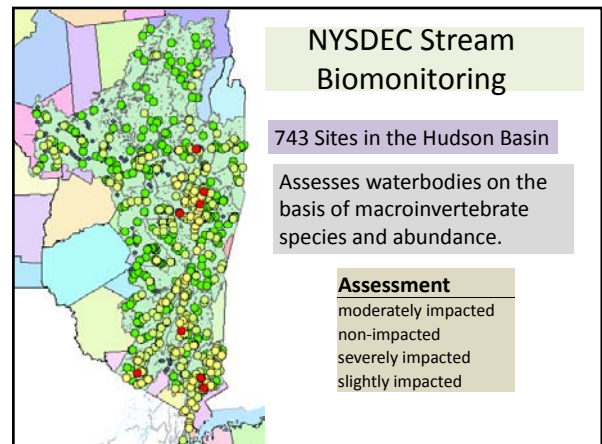
Group	Canajoharie	Cohoes	Lisha Kill
Physical	10	4	4
Major Metals	6	6	4
Major Non-metals	6	6	6
Nutrient	11	13	1
Microbiological	2	1	
Biological	4	2	1
Minor Metals	3	6	22
Minor Non-metals	3	2	4
Organics Pesticide	59	47	29
Organics PCBs	1	1	1
Organics Other	4	6	1
Radiochemistry	2	2	1
Stable Isotopes	2	2	
Sediment	3	2	2

Average number of parameters per group



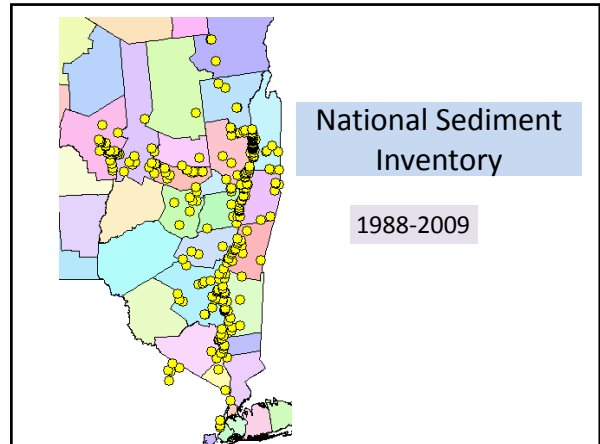
**RIBS Parameters**

<b>VHO</b> BROMODICHLOROMETHANE CHLOROFORM CHLOROMETHANE DIBROMOCHLOROMETHANE METHYLENE CHLORIDE TETRACHLOROETHENE TOTAL PHENOLICS TRICHLOROETHENE VINYL CHLORIDE	<b>Bacteriology</b> COLIFORM, FECAL COLIFORM, TOTAL	<b>Metals</b> ALUMINUM, SOL. ALUMINUM, SOL. ARSENIC CADMIUM CADMIUM, SOL. COPPER COPPER, SOL. IRON LEAD LEAD, SOL. MANGANESE MERCURY NICKEL NICKEL, SOL. SILVER ZINC ZINC, SOL.
<b>NUTRIENTS</b> AMMONIA CARBON, DISSOLVED ORGANIC CARBON, TOTAL ORGANIC NITRATE NITROGEN NITRATE/NITRITE NITROGEN NITRITE NITROGEN ORTHOPHOSPHATE TOTAL DISSOLVED SOLIDS TOTAL FIXED SOLIDS TOTAL KJELDAHL NITROGEN TOTAL PHOSPHORUS TOTAL SOLIDS TOTAL SUSPENDED SOLIDS TOTAL VOLATILE SOLIDS	<b>FIELD</b> CONDUCTIVITY, FIELD CONDUCTIVITY, LAB DISSOLVED OXYGEN PH, FIELD PH, LAB TURBIDITY WATER TEMP.	
	<b>MINERALS</b> CALCIUM CHLORIDE FLUORIDE MAGNESIUM POTASSIUM SODIUM SULFATE TOTAL ALKALINITY TOTAL HARDNESS	



### NYSDEC Statewide RIBS and Biomonitoring Data

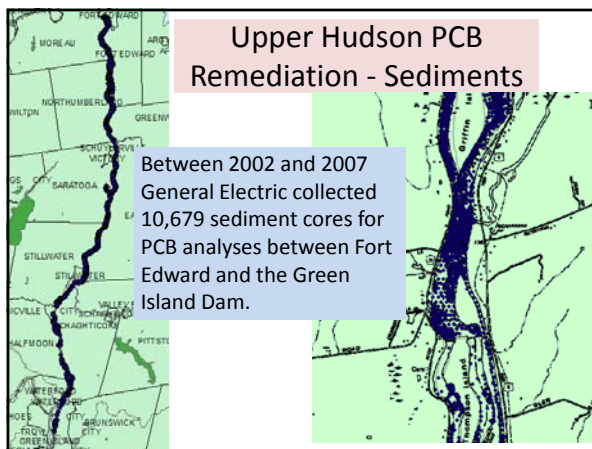
Bill Andrews – [wxandrew@gw.dec.state.ny.us](mailto:wxandrew@gw.dec.state.ny.us)  
Margaret Novak – [manovak@gw.dec.state.ny.us](mailto:manovak@gw.dec.state.ny.us)



### Sediment – Chemicals National Sediment Inventory

Class	Samples
Dioxins	128
PCBs	1501
Metals	432
PAHs	270
Pesticides	357
Organic Chemicals	42

- ### National Sediment Inventory Availability
- Exists as an Access Database at DEC
  - No public interface – yet
  - Contact Jim Swart ([jmswart@gw.dec.state.ny.us](mailto:jmswart@gw.dec.state.ny.us))
  - Or Bernadette Anderson ([bxanders@gw.dec.state.ny.us](mailto:bxanders@gw.dec.state.ny.us))




### GE Water Sampling, Historic

Location	analyte	count
Bakers Falls	23 metals, dissolved	388
LHR Albany	23 metals, whole	804
LHR Poughkeepsie	dioxins/furans	164
Lock 5	dissolved organic carbon	722
Lock1	TSS	1738
Mohawk River at Cohoes	PCB	1404
Rogers Island		
Schuylerville (Center)		
Schuylerville (Transect)		
Stillwater		
Thompson Island		
Thompson Island (PRW2)		
Waterford		

GE has MS-Access database formatted water and fish tissue data going back to 2004

### GE Water Sampling, Dredging



During Dredging GE provides weekly updates

8/30 – 9/5/2009

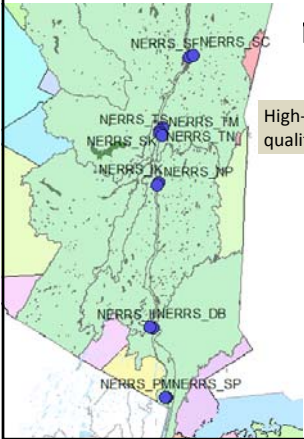
Analyte	Total
Dissolved Organic Carbon	29
Hardness	5
Particulate Organic Carbon	29
Cadmium	5
Lead	5
Total PCBs	35
Total Suspended Solids	436

### GE Contact

*Bob Gibson*  
 EHS Leader - Hudson River GE  
[bob.gibson@qe.com](mailto:bob.gibson@qe.com)

381 Broadway, Bldg. 40  
 Fort Edward, NY 12828 USA

### National Estuarine Research Reserve



High-frequency water quality/meteorological data; lab data

Norrie Point
Indian Kill Creek
Stony Creek
Tivoli, Met
Tivoli, South Bay
Tivoli, North Bay
Saw Kill
Stockport Creek
Stockport Flats
Doodletown Brook
Iona Island
Sparkill Creek
Piermont Marsh

### NERRS

[http://cdmo.baruch.sc.edu/QueryPages/csv\\_export\\_good.cfm](http://cdmo.baruch.sc.edu/QueryPages/csv_export_good.cfm)  
 Sarah Fernald – [shfernal@gw.dec.state.ny.us](mailto:shfernal@gw.dec.state.ny.us)

% Humidity
Air temp
Barometric pressure
Cloud
Chlorophyll
Chloride
DO %Sat
NH4
NO3
pH
phaeopigment
s
PO4
SES
Precipitation
PrTimeLTide
Salinity
Conductance
Tide Period
Wind Speed
Water Temp

### Contaminant Assessment Reduction Project (CARP)

- 1998-2005
- Measured contaminants from Troy Dam to edge of the continental shelf
- Water, sediment, biota, air
- Used to develop predictive models.

### CARP Samples Water Samples in NY and NJ

Class	Samples
Dioxins	691
Metals	728
PAHs	711
Pesticides	960
PCBs	1036



**HRECOS**

A new story about the Estuary is published here every other week

**Welcome to HRECOS**

The Hudson River Environmental Conditions Observing System (HRECOS) is a network of real-time monitoring stations on the Hudson River Estuary. The stations are geographically distributed from Schoharick Island to the New York-New Jersey harbor and are monitoring river conditions ever quarter hour. HRECOS is operated by a consortium of many partners from government and the research community.

The Hudson River is Buffered Against Acid Rain

**HRECOS PARTNERS**

	CP	GW	NP	PP	Sch	TBN	TBS
Absolute Pressure	29,998	47,214					
Acidity			37,472	31,966	40,538	33,326	28,770
Chlorophyll			11,579	14,938			
Dissolved Oxygen	19,524	33,835	36,322	31,956	40,538	32,472	28,832
Dissolved Oxygen %	19,534	35,774	36,325	31,955	40,538	33,054	28,879
Salinity	27,842	47,148	37,497	31,952		33,349	28,938
Specific Conductance					47,391		
Turbidity	19,912	35,772	36,344	31,962	47,391	27,553	28,730
Water Level		47,144	37,476	31,966	47,395	33,331	28,786
Water Temp	27,842	47,148	37,842	31,935	47,395	33,371	29,253
Air Temp	29,999		39,404	48,872	48,805	47,188	
Barometric Pressure	26,133		38,932	48,823		47,181	
Radiation	21,311		38,360	48,872	48,805	47,175	
Rainfall			38,431	43,217	48,805	47,177	
Relative Humidity	29,999		38,998	48,872	48,805	47,181	
Wind Direction	29,999		38,702	48,872	48,809	47,177	
Wind Gusts			38,086	48,872	48,805	46,700	
Wind Speed	29,999		38,702	48,872	48,809	47,177	

**HRECOS Coordinator**

Alene Onion - [amonion@gw.dec.state.ny.us](mailto:amonion@gw.dec.state.ny.us)

**NYCDEP New York Harbor Water Quality Survey**

Sampling the harbor and tributaries since 1909.

Weekly during bathing season, otherwise monthly

Beau Ranheim – [beaur@dep.nyc.gov](mailto:beaur@dep.nyc.gov)  
 Naji Yao – [najiy@dep.nyc.gov](mailto:najiy@dep.nyc.gov)

PAR	Chl a	Current
Temperature	Conductivity	Depth
Weather	DO	Sea State
Wind	DO%	Enterococcus
NH <sub>3</sub> -N	DOC	Fecal Coliform
NO <sub>3</sub> /NO <sub>2</sub> -N	Fluorometer	
Ortho-P	Light Trans	
SiO <sub>2</sub>	ORP pH	
TKN-N	Salinity	
Total-P	Secchi	
	TSS	
	Turbidity	