

OBSERVING WATER QUALITY

Hudson River Environmental Conditions Observing System



A Network of Real-time stations reporting on Hudson River
Water quality and meteorology



HRECOS : What Is Measured?

Meteorological

Precipitation
Wind speed & Direction
Air Temperature
Relative Humidity
Barometric Pressure
Sun Light

Water Quality

Water Temperature
Water level
Dissolved Oxygen
Turbidity
pH
Salinity/Conductivity



HUDSON RIVER, NY



HRECOS

“Started” 2007 White Paper

Grass-roots

Built on existing efforts

Managed by partners

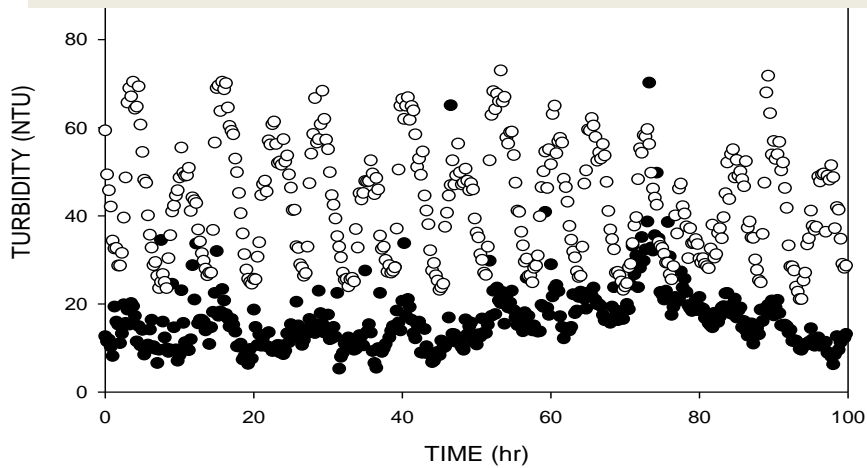
Support HREP, NOAA, HRF, in-kind

OUTLINE

FOUR STORIES

Something old,
 Something new,
 Something borrowed,
 Haven't a clue.

“Old” – Prior evidence now confirmed
RESUSPENSION
 Marist Site – Surface and Bottom



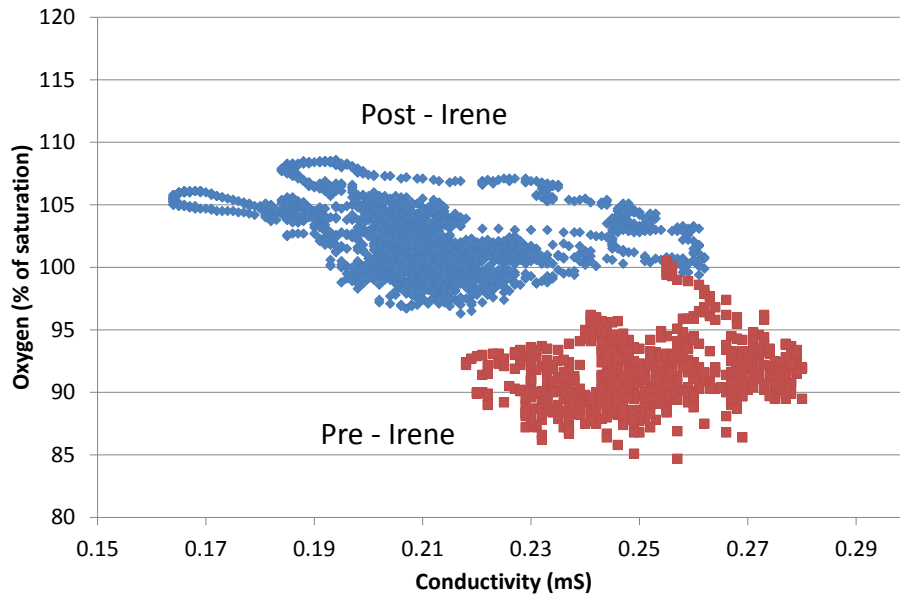
“New” – tracking water masses from storms



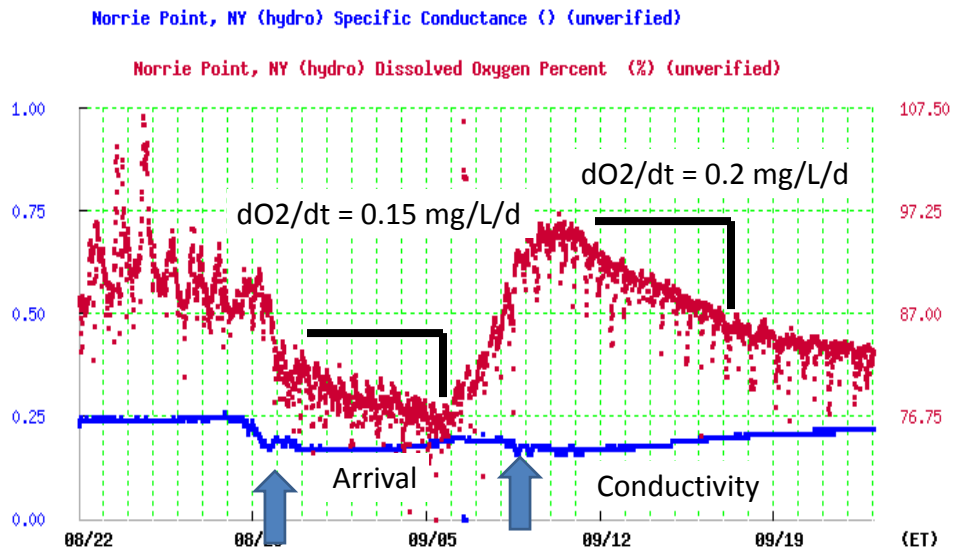
From TechEBlog.com

Mohawk River at the Cohoes Falls
 Thanks to Dennis Suszkowski

Albany: DO vs Conductivity

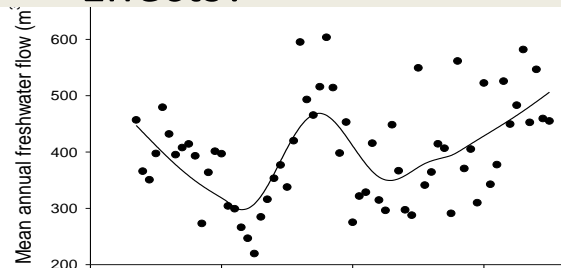


Norrie Point

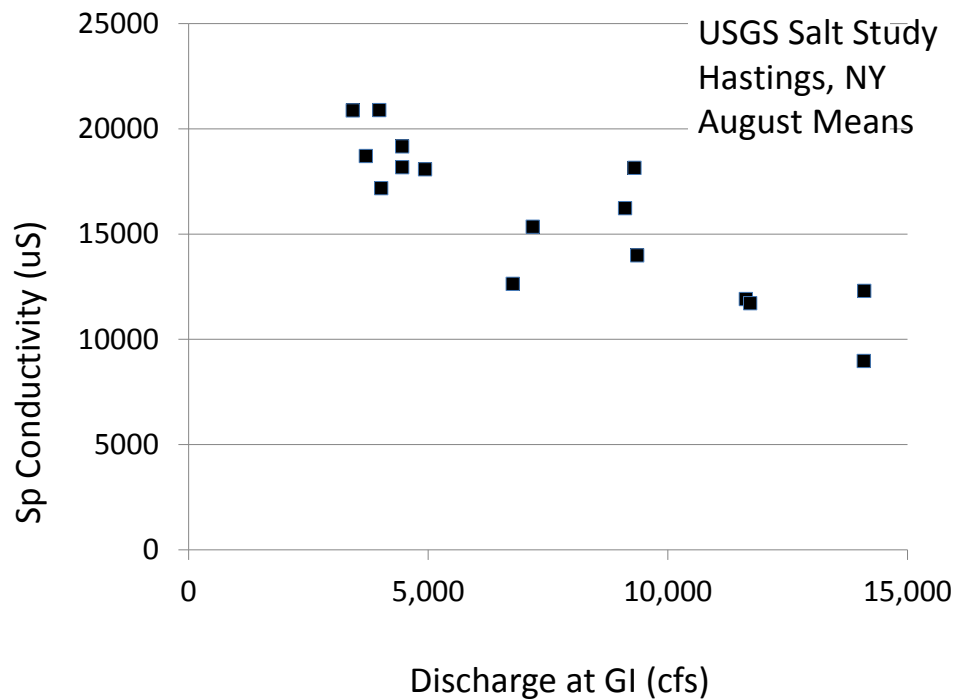
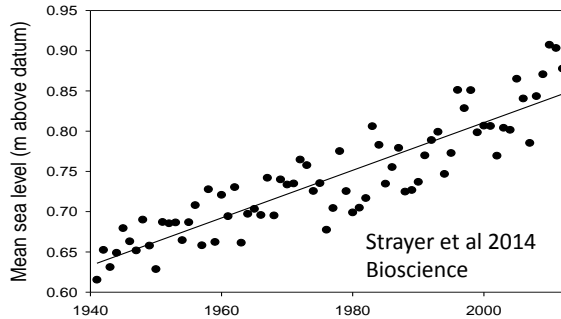


“Borrowed” - Off-setting Climate Change Effects?

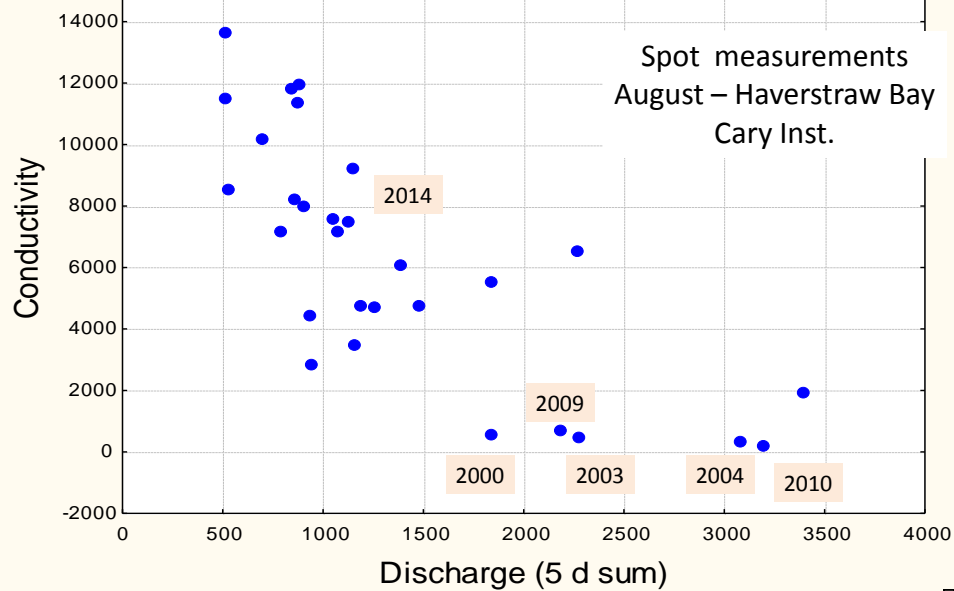
Mean Annual Flow
at Green Island
(USGS)



Sea Level Rise at
The Battery (NOAA)



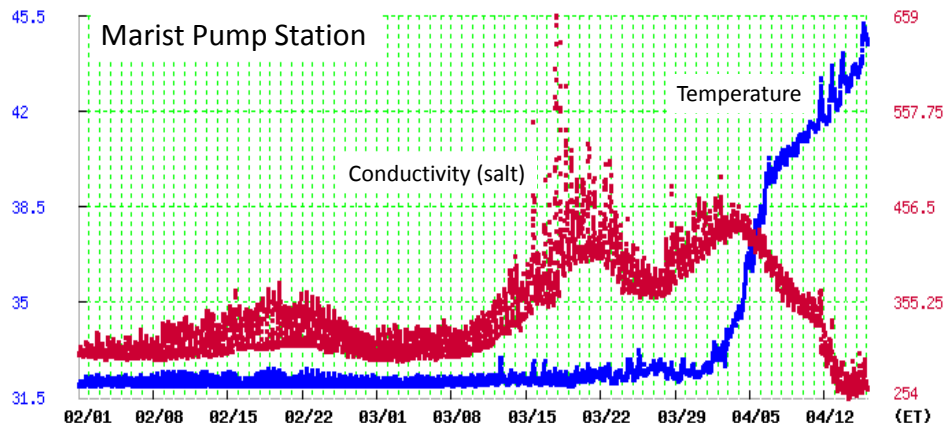
OFF-SETTING CLIMATE CHANGE EFFECTS ?? Higher flow “holding back” salinity intrusion?



“No Clue” – Ice out and conductivity

Marist College Near Surface Water Temp (F) (unverified)

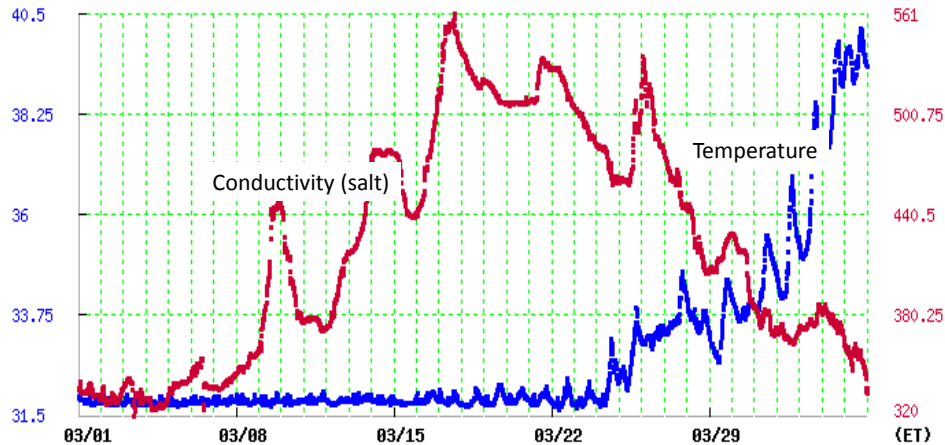
Marist College Near Surface Specific Conductance (uS/cm) (verified to)



Schodack Island

Schodack Island, NY (hydro) Water Temp (F) (verified to 2014-01-01)

Schodack Island, NY (hydro) Specific Conductance (uS/cm) (verified to 2014-01-01)



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LESSONS

Resusp	Confirmation
Tracer	New Use
Climate	Pre-existing
Ice-out	Discovery

FUTURE

