

# Agenda

- Introductions
- Water Quality & Dredging Presentation
- Mason Creek Website
- October 19<sup>th</sup> Shoreline Buffer Workshop
- Navy Gate Operations
- Questions

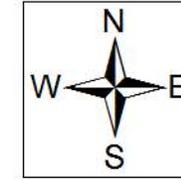


# Mason Creek Water Quality & Dredging

*September 26, 2013*



moffatt & nichol



**Legend**





**Legend**

— Survey Lines



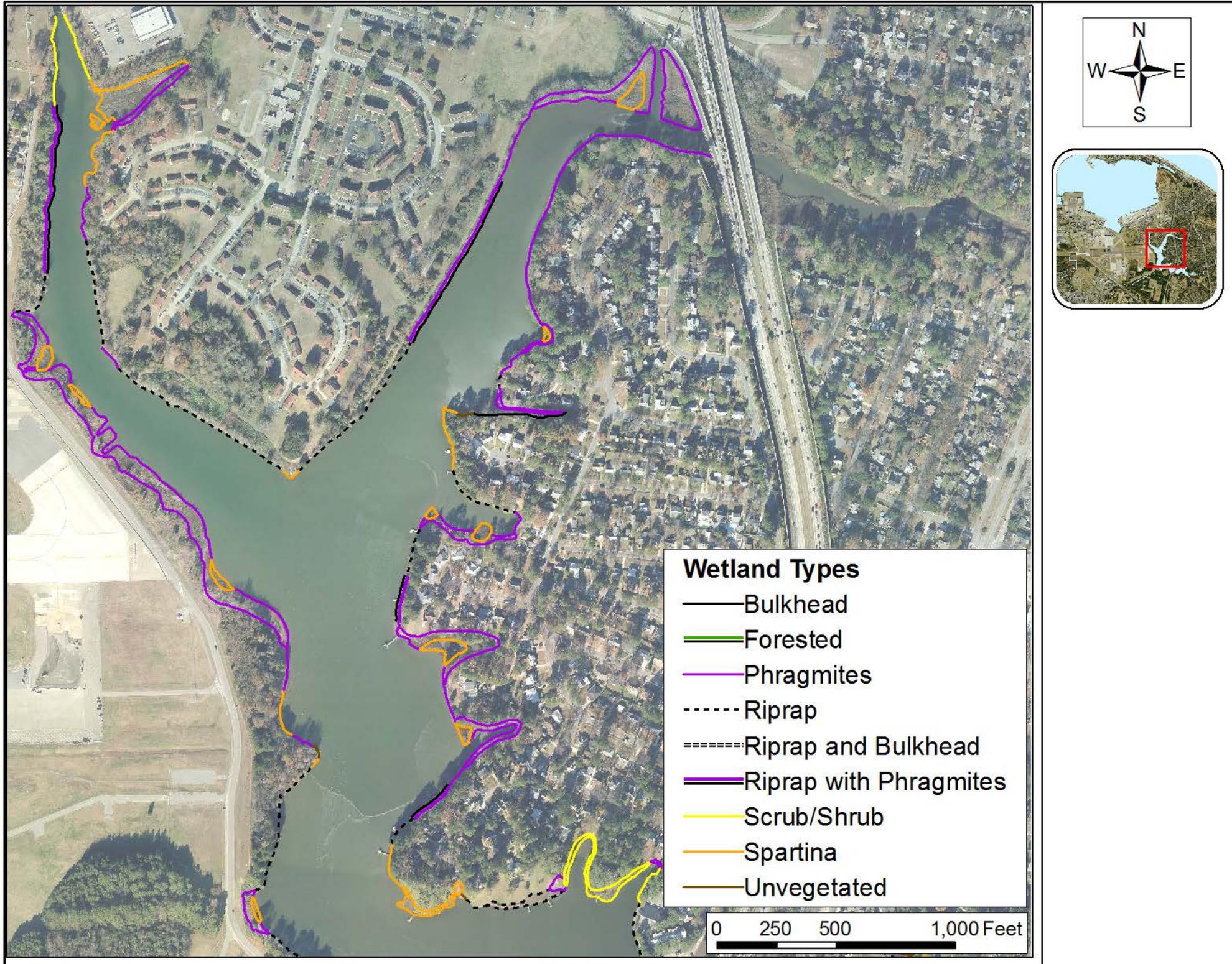


**Legend**

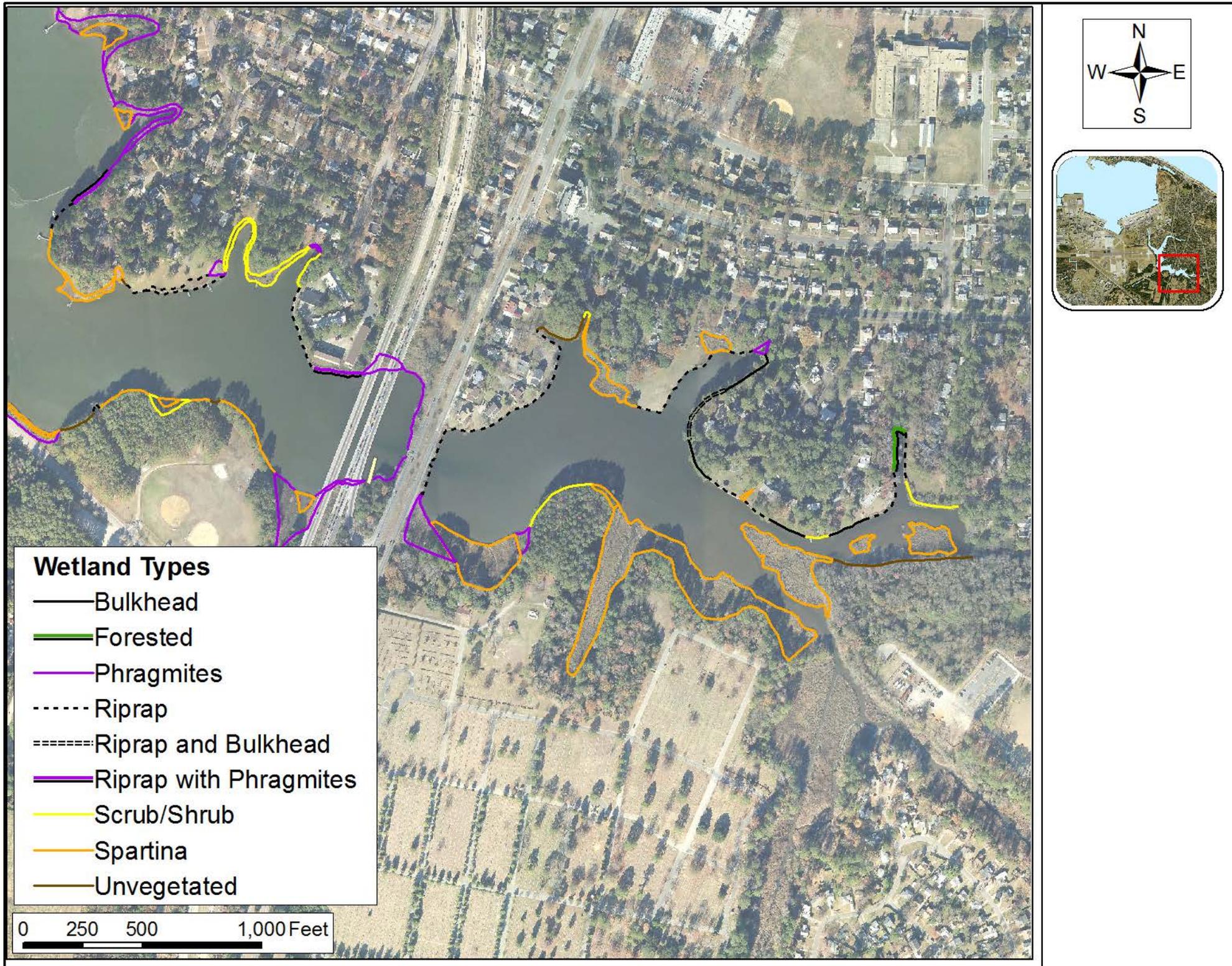
**Elevations (2013)**  
shallow  
deeper



Wetland  
Types  
(North):  
Spring  
2013

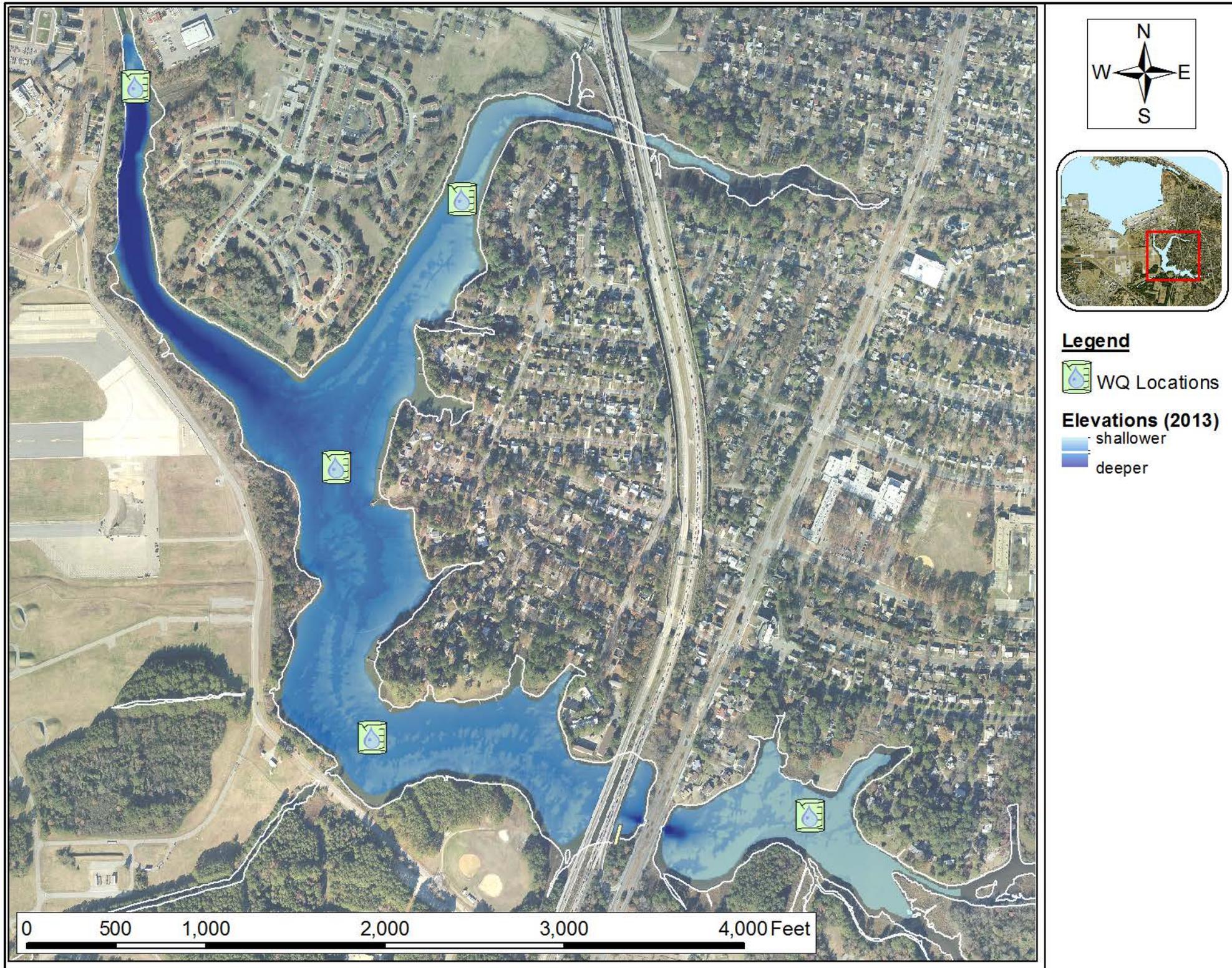


Wetland  
Types  
(South):  
Spring  
2013

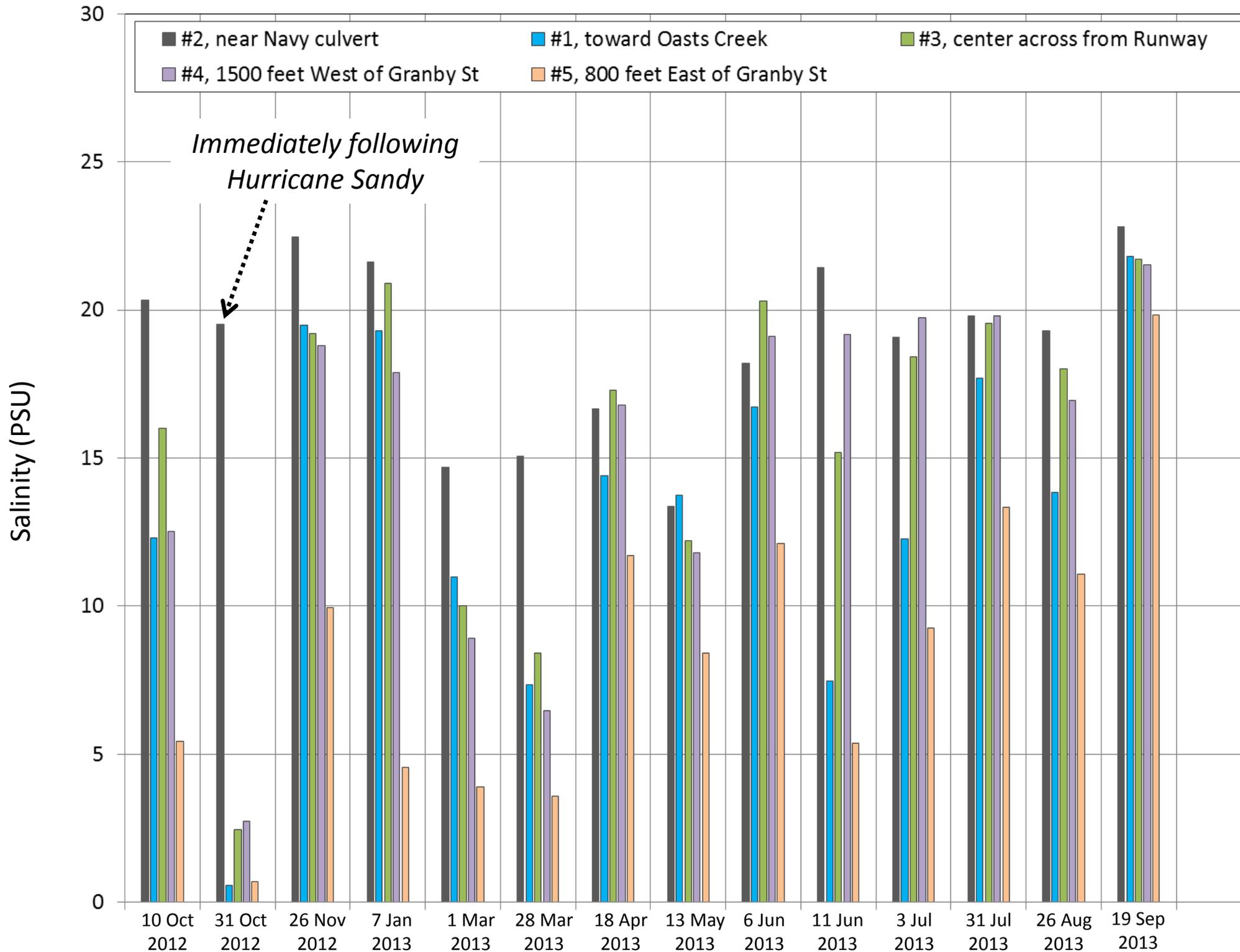


- Western and northern areas predominantly Phragmites and rip rap shoreline
  - Some Spartina and scrub/shrub wetlands
- Eastern basin has much more Spartina and scrub/shrub wetlands
  - Short “forested” stretch
  - Some “unvegetated” along Northside Park
  - Significant lengths of rip rap and bulkhead
- Generally need to be more careful about impacts on Spartina, scrub/shrub, and forested shorelines, compared to Phragmites

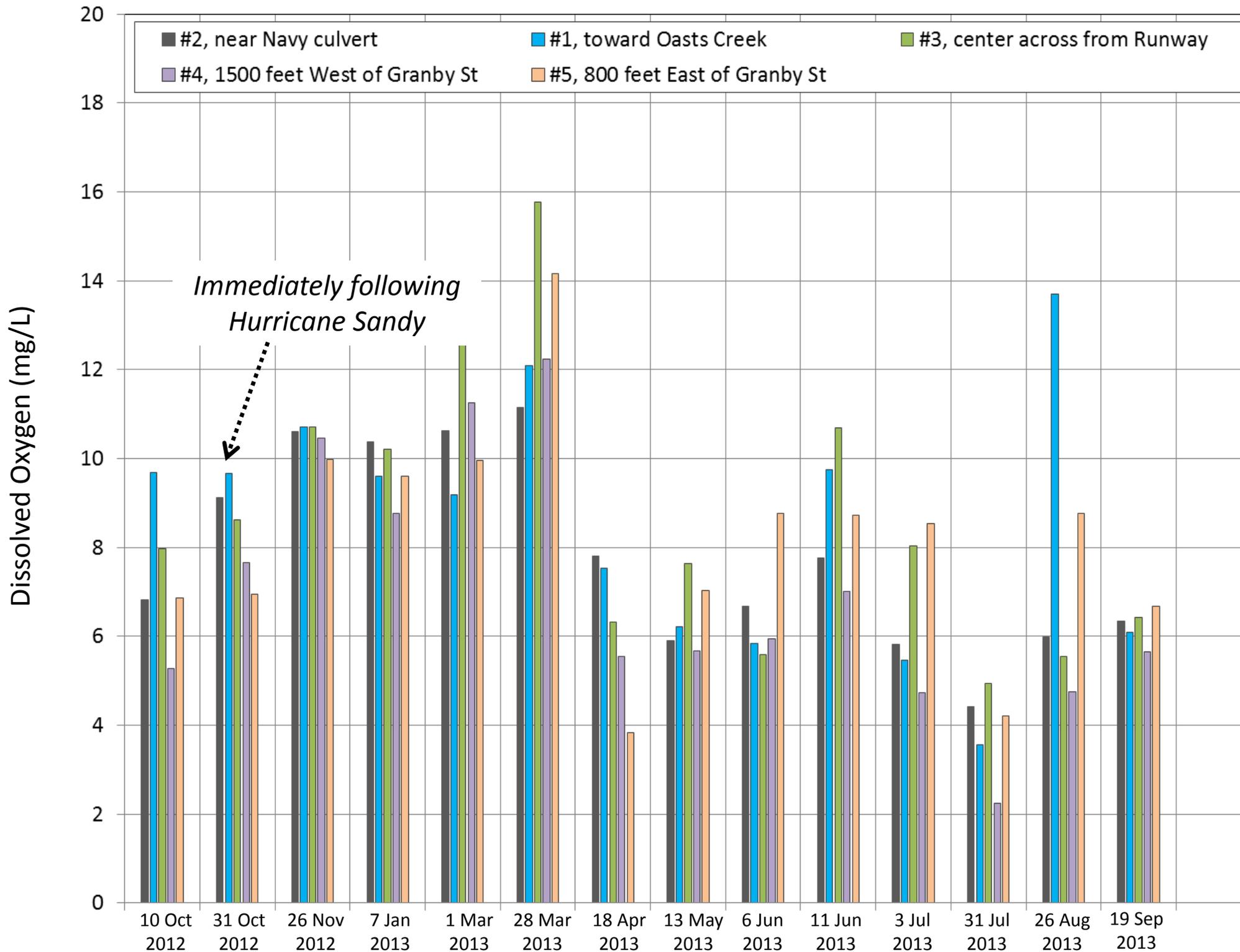
# Water Quality Sampling : 2012-2013



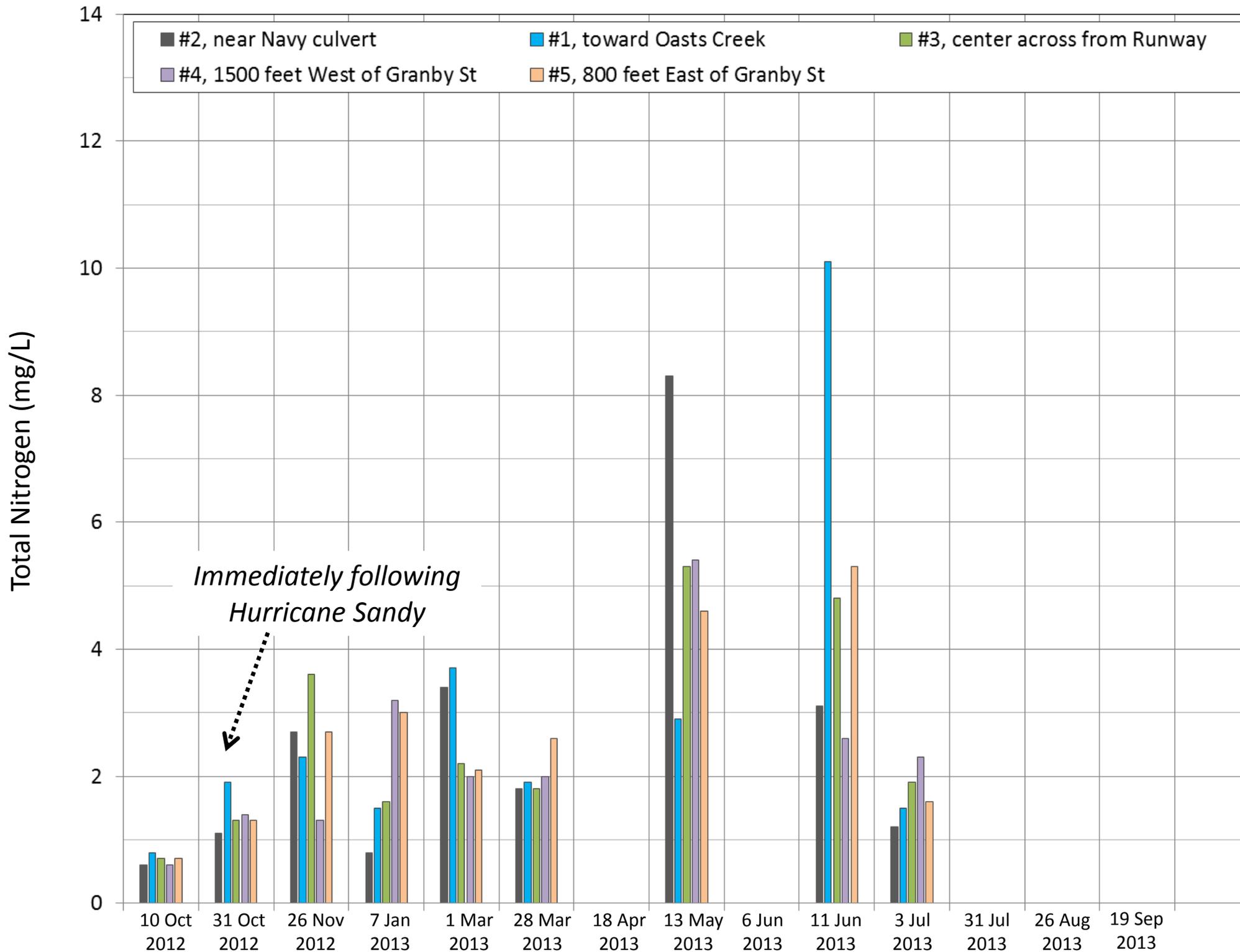
### Salinity Sampled in Mason Creek



## Dissolved Oxygen Sampled in Mason Creek



### Total Nitrogen Sampled in Mason Creek

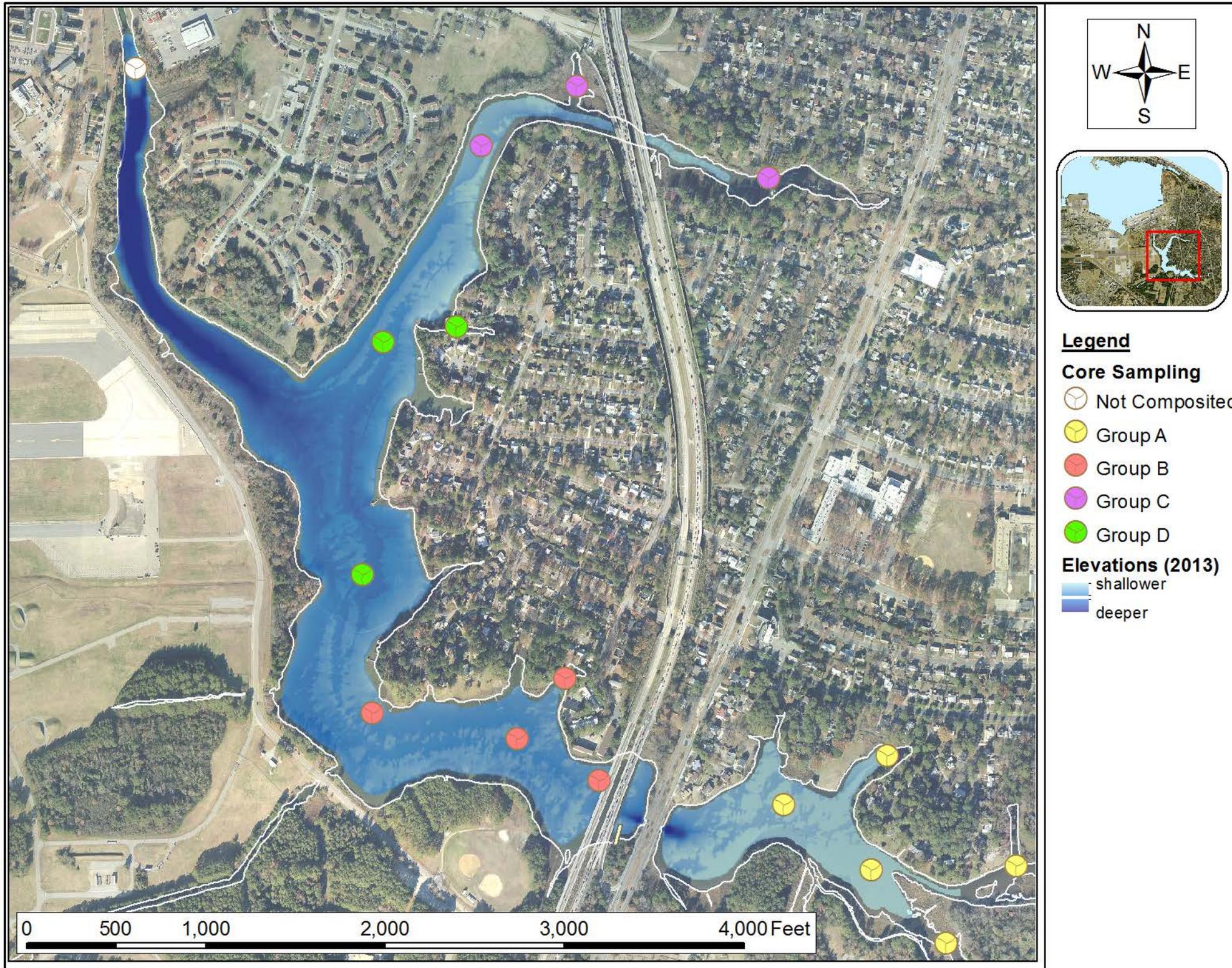


Immediately following Hurricane Sandy



- Hurricane Sandy clearly diluted salinity, and washed other constituents into Mason Creek
- Nitrogen and phosphorous built up over the late spring and summer
- One obvious green algae bloom in the spring
  - Evidence of algae within the water during the summer, though not with widespread blooms on the surface
- Dissolved oxygen lower in the summer, except for higher values when and where algae activity was observed
- Potential for dredging to benefit water quality is being quantified as part of current preliminary design work (late 2013)

# Sediment Testing: Summer 2013



Near Navy Channel



Toward Oasts Creek



Middle, West of Granby Street



Middle, East of Granby Street



- Near Navy channel is sandy; all others soft organic clay with roots & plant matter
- Except near Navy channel, soils have very high water content, 110% - 280%
  - Dredged material may need to be handled twice
- Investigate disposal areas / landfills and their requirements

Middle, West of Granby Street



Middle, East of Granby Street



# Working Schedule Plan

	'13	2014				2015				2016				2017	
Activity	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
Agency Meetings		Orange		Orange											
Community Involvement	Light Green														
Preliminary Engineering	Purple	Purple	Purple												
Coordination with Navy			Blue	Blue											
Permit App. & Review				Orange	Orange	Orange	Orange								
Final Engineering							Purple	Purple	Purple						
Contract Bid & Award										Dark Gray	Dark Gray				
Construction											Dark Gray				

