WATER QUALITY PANEL

Two States: One Bay
June 12, 2015

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Raritan Bay – Top to Bottom

- Estuary within an estuary
- Southern-most part of system that is highly urbanized
- Generally shallow, with deep channels and shoals
- Complicated circulation, somewhat sluggish
- Greatly influenced by flows from Harbor, Hudson R., Raritan R. & the Atlantic Ocean
Water Quality Concerns

Toxics

Pathogens

Nutrients

NYC LOWER Bay, Ocean and Sound

<table>
<thead>
<tr>
<th>Waterbody</th>
<th>Fish</th>
<th>Men Over 15 &amp; Women Over 50</th>
<th>Women Under 50 &amp; Children Under 15</th>
</tr>
</thead>
<tbody>
<tr>
<td>American eel</td>
<td>Up to 4 meals/month</td>
<td>Up to 1 meal/month</td>
<td></td>
</tr>
<tr>
<td>Bluefish</td>
<td>Up to 4 meals/month</td>
<td>Greater than 20&quot; up to 1 meal/month; Less than 20&quot;, up to 4 meals/month</td>
<td></td>
</tr>
<tr>
<td>Striped bass</td>
<td>Up to 4 meals/month</td>
<td>Up to 1 meal/month</td>
<td></td>
</tr>
<tr>
<td>Weakfish</td>
<td>Greater than 20&quot;, up to 1 meal/month; Less than 20&quot;, up to 4 meals/month</td>
<td>Greater than 25&quot; (DON'T EAT), Less than 25&quot;, up to 1 meal/month</td>
<td></td>
</tr>
<tr>
<td>Crab or lobster tormalley</td>
<td>DON'T EAT</td>
<td>DON'T EAT</td>
<td></td>
</tr>
</tbody>
</table>

Other fish not listed

New York State does not have advice for many fish in these waters because marine fish are generally less contaminated.

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June 12, 2015
Sources of Pollution

- External & Internal Sources
  - Treated wastewater
  - CSOs
  - Non-point source runoff
  - Upper Hudson PCBs
  - Legacy contaminants in sediments
Water Quality Panel
Expectations for Raritan Bay

JEFF MYERS
NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

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Water Quality Impacts – Near and Far

Raritan Bay and Raritan Bay Watershed

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WQ Goal: Meet Water Quality Standards

- Pathogens
- Nutrients
- Dissolved Oxygen
- Floatables
- Toxics

But Don’t Lose Sight of WHY?

Support of Uses

Credits: Riverkeeper, City of Hoboken, Northeast Angling
...and Lack of Progress?

Factors:
- Nutrient Loads
- Temperatures
- Clarity

1985
1992
1999
2010

Chlorophyll ‘A’

Factors:
- Nutrient Loads
- Temperatures
- Clarity
Water Quality Expectations
Water Quality Panel
Raritan Bay Quality: Regional Asset, Regional Opportunity

DAN KENNEDY, PP/AICP, MCRP
ASSISTANT COMMISSIONER
WATER RESOURCE MANAGEMENT (WRM)
NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION (NJDEP)

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NJDEP WRM: What We Do & How We Do It

- Water Monitoring & Standards
- Water Quality
- Water Supply & Geoscience
- WRM Coordination
- Other NJDEP areas

+ Investments

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Expectations: Long Term Vision

- Water quality improvements through source reductions;
- Reinvestment in Water Infrastructure;
- Quality of life for all the users of the Bay: recreation, habitat, culture, history, aesthetic.
It’s All Connected

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Raritan Bay – Select Tools/ Tactics/ Resources

- Stormwater Reforms
  - MS4 audits, new permits, NSPS, infiltration basin assessments
  - CSOs (25 individual permits, effective July 2015)
- Regional / Local Efforts
- Shellfish Rules / FDA Compliance
- Fertilizer law / Soil Standards*
- TMDLs → DSW permit conditions
- Partnerships
  - Funding (319(h), EIFP)
  - Technical Resources
  - Outreach/ Education

*In development

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Gaps & Opportunities

- “Who’s in the room?”
- Measuring Progress
- Funding for Grey & Green

AmeriCorp Watershed Ambassadors, Britt Ash Brook clean-up

NJHDG/ A. Pengitore, PVSC, 2010

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Which of the following water quality issues/tools/tactics should be the highest priority for the conference?

When poll is active, respond at PollEv.com/raritanbay

Text RARITANBAY to 22333 once to join

- Pathogens: 8
- Nutrients: 7
- Dissolved oxygen: 4
- Desired uses: 4
- Wastewater treatment systems: 5
- Combined sewer overflows: 7
- Marine debris and floatables: 2
- Impervious surfaces: 3
- Green infrastructure: 11
- TMDLs: 1
- Citizen science monitoring: 2
- Central W/Q data platform: 3
What other water quality issues have we missed?

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