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What Exit are You From?

Great Bay, Tuckerton, NJ

Oswego River, Pine Barrens, N J

Great Falls, Paterson, NJ

The Great Falls are the second-highest on the east coast (second only to Niagara).

Scott's Landing Creek,
Leeds Point, NJ

- Population NJ 8.7 million people

- 7,505 square miles

18,126 miles of rivers & streams

DEP's latest evaluation *18% of the State's Waters are fully assessed*

Myths of Using Volunteer Collected Data

- Quality Assurance & Quality Control

- Volunteers have "hidden agendas"

- Volunteers are not scientists

Reality of Using Volunteer Collected Data

- Need more data at a higher frequency

- EPA encourages the use of volunteer collected

- Volunteer groups are sophisticated

  - Trained

  - Well equipped

- Volunteers want to do it right

NJ Watershed Watch Network

≈ 30 River/Stream Monitoring Organizations

≈ 58 Lake Monitoring Organizations

Watershed Watch Network Council

- NGO, Volunteer Monitoring Coordinators

  - Watershed Associations

  - Riverkeepers

- Volunteers (paid and unpaid)

- EPA

- Office of Quality Assurance

- NJDEP, Water Monitoring & Standards

NJ's 4 Tiered Approach

Allows for volunteers to choose level of monitoring involvement based on:

- *Intended purpose for monitoring*
- *Intended data use*
- *Intended data users*

Tier A-Environmental Education

Data Users

- Participants
- Students
- Watershed residents

Data Use

- Promote stewardship
- Raise their level of understanding of watershed ecology

Quality Needed

- Low level of rigor, but use sound science
- Wide variety of study designs are acceptable
- Quality assurance (QA) optional

Tier B-Stewardship

Data User

- Participants
- Watershed residents
- Landowners
- Local decision makers (optional)

Data Use

- Understanding of existing conditions and how any changes over time
- Screen for and identify problems and positive attributes

Quality Needed

- Low to medium rigor
- Variety of study designs is acceptable
- Training
- QAPP recommended

Tier C-Community &/or Watershed Assessment

Data Users	Data Use	Quality Needed
•Local decision-makers •Watershed association •Environmental organizations •Possibly DEP	•Assess current conditions •Track trends •Source track down of Nonpoint source pollution	•Medium/high level of rigor •Data needs to reliably detect changes over time & space •QAPP approved & on file w/ intended data user. •Training required

Tier D-Indicators & Regulatory Response

Data Users

- NJDEP
- Local decision-makers
- Watershed associations
- Environmental organizations

Data Use

- Assess current conditions
- Supplement agency data collection
- Research
- Evaluate best management practices (BMP) measures
- Regulatory Response

Quality Needed

- High level of rigor
- Study design & methods need to be equivalent & recognized by agencies using data
- Training required
- QAPP approved by Office of Quality Assurance & data user, annual recertification
- Possible audit

Education/ Awareness → **Problem ID, Assess Impairment, Local Decisions** → **Legal & Regulatory**

Increasing Time - Rigor - QA - Expense $$

Potential Data Uses

- Education

- Identifying potential sources of pollution

- Local decision making

- Research

- NPS assessment

- TMDL

- Watershed planning/open space acquisition

- Monitoring the success/failure of restoration projects

- 303d & 305b Integrated Report

THE STATE'S MONITORING MATRIX

NJ Water Monitoring & Assessment Strategy 2005-2014

2008 Integrated Report
85 volunteer monitored sites

- Pequannock River Coalition
- Pompeston Creek W A
- South Branch W A
- Stony Brook Millstone W A

4 Groups added to 2010 Report

- Craft's Creek & Spring Hill Brook WA
- Great Swamp WA
- Musconetcong WA
- Upper Raritan WA

Addressing Data Quality Issues

- Quality Assurance Criteria

- QAPP or Study Design is needed

- Program Specific Training & Support

- *Individual* Evaluation of each Monitoring Program

- There needs to be *"translator"* between volunteer community & regulatory agency

- Communication, Communication, Communication

Data Use

- Organizations need to *Take Ownership* of their Information

- Organizations need Guidance on Different Types of Data Use

- *Sometimes it may take another person to find your story….*

    - share success and failures stories

    - get the word out-articles, press releases

    - find examples of data uses at all levels, local, state, & national

Student Grant Program

June: NRDC states that 27% of Beachwood Beach West's water samples (33 total) and 15% of Pine Beach West Beach's samples (26 total) from 2010 exceeded the daily maximum bacterial standard

Sources: njbeaches.org, Nrdc.org

Quality Assurance

- DEP approved Tier B plan

- Recognition of research

- Accuracy of data

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A Rainy Day
on the
Toms River

"Never doubt that a small group of thoughtful, committed citizens can change the world. Indeed, it's the only thing that ever has."--Margaret Mead