Overview of Division of Water Monitoring and Standards



Bruce Friedman, Director New Jersey Department of Environmental Protection Division of Water Monitoring and Standards

January 9, 2020

WATER RESOURCE MANAGEMENT



Governor Chris Christie • Lt.Governor Kim Guadagno

NJ Home | Services A to Z | Departments/Agencies | FAQs

http://www.state.nj.us/dep/wm Search All of NJ V





STATE OF NEW JERSEY

DEPARTMENT OF ENVIRONMENTAL PROTECTION DIVISION OF WATER MONITORING AND STANDARDS

DEP Home | About DEP | Index by Topic | Programs/Units | DEP Online

Division of Water Monitoring and Standards Home

Bureau of Environmental Analysis, Restoration & Standards

Bureau of Fresh Water & Biological Monitoring

Bureau of Marine Water Monitoring

AmeriCorps NJ Watershed Ambassadors

Barnegat Bay Initiative

Outreach

Events

NJ Water Monitoring Council

Related Links

Monitoring Data Reports Water Quality Trends ListServs

The **Division of Water Monitoring and Standards** provides water quality information to assess and manage New Jersey's water resources. This information is critical to knowing whether NJ's waters are safe to swim in, aquatic life is healthy, fish and shellfish are safe to eat, and contributes information on whether water sources are safe to use for drinking water. Click on the Mission Statement below for additional information about the Division.

Click on any of the photos in the slideshow below to learn about many of the monitoring and analysis activities of the Division.

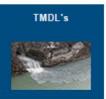




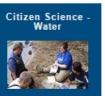








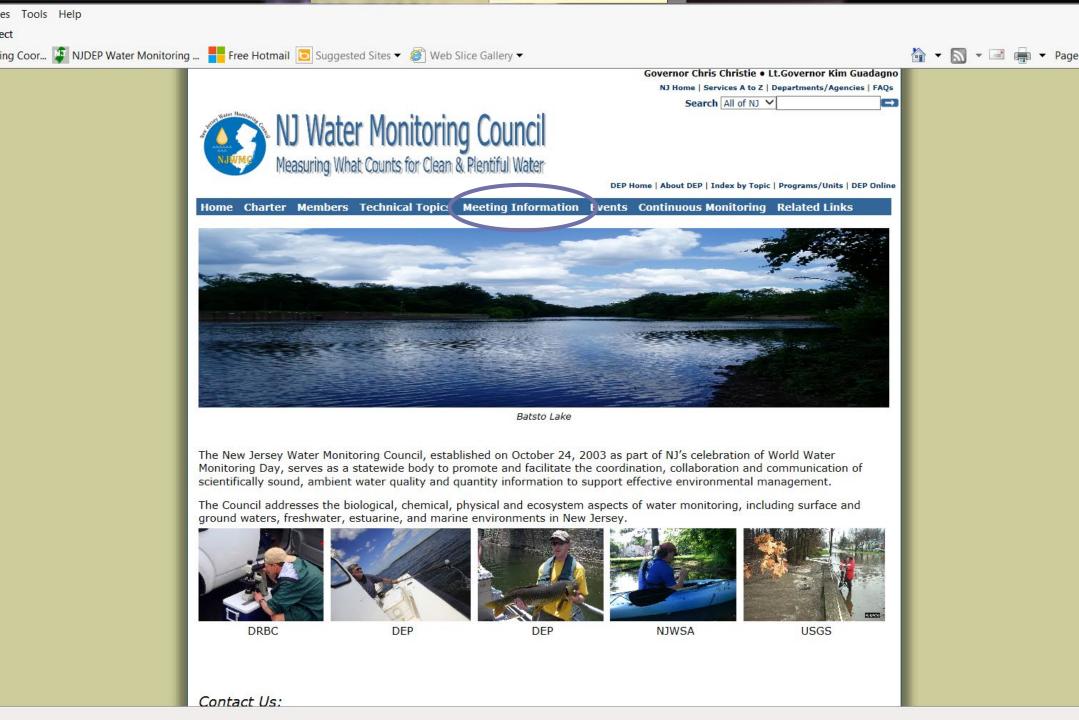




For information regarding water quality management planning and implementation issues, please visit the Office of Water Resources Management Coordination's website.

For information on water quality permitting-related issues, including wastewater, residuals and stormwater, please visit the Division of Water Quality's website.

For information on water supply, water allocation and drinking water-related issues, please visit the Division of Water Supply and Geosciences website.



Division of Water Monitoring & Standards

FRESH WATER & BIOLOGICAL **MONITORING**

Rivers, Streams and Lakes, Physical/Chemical Monitoring, Biological Monitoring – Benthic Macroinvertebrates & Fish, Flow, Continuous Water Quality Monitoring, Stressor Identification, Ground Water Monitoring, Laboratory Identifications & **Analyses**























MARINE WATER MONITORING

Coastal and Estuaries, Shellfish Classification, Beach Monitoring, Clean Shores, Remote Sensing for Algal Blooms & Phytoplankton, Real Time Water Quality Monitoring, Nonpoint Source Tracking, Laboratory **Analyses**

















ENV. ANALYSIS, RESTORATION & STANDARDS

Water Quality Assessment, Surface and Ground Water Quality Standards, TMDLs, Water Quality Restoration, Volunteer Monitoring, AmeriCorps Watershed **Ambassadors**



Why Do We Assess Water Quality? Required under federal and state statutes Section 305(b) of Federal Clean Water Act . Section 303(d) of Federal Clean Water Act · Water Quality Planning Act (N.J.S.A. 50:11A) Necessary to determine appropriate regulatory, preventive, and restorative actions:



What is a TMDL?











Division of Water Monitoring & Standards Who we are and what we do

- Freshwater & Biological Monitoring:
 Monitors the freshwaters of the state; chemical and Physical, biological and fish tissue
- Marine Water & Monitoring:
 Monitors the marine waters of the state; compliance
 w/National Shellfish Sanitation Program
- Environmental Analysis, Restoration & Standards:
 Coastal beach monitoring, Clean Shores Program,
 Water Quality Management Planning AND......

AmeriCorps NJ Watershed **Ambassadors** Program Community Water Monitoring Watershed Education and **Urban Fishing**

Enviromental

Stewardship

Analysis Restoration

Standards

Water Quality
Management
Planning

Water Quality
Assessment

TMDLs Development

Watershed Based and Protection Plans

> Beach Monitoring

Surface Water Quality Standards

Ground Water Quality Standards Water Quality
Management
Planning
Program

Water Quality
Restoration
Grants for NPS
Pollution

Nonpoint

Source (NPS)

Pollution

Management

Program

Clean Shores

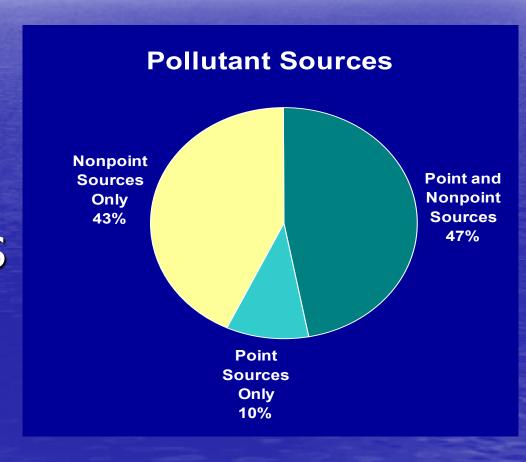
Bureau of Environmental Analysis, Restoration and Standards (BEARS)

- NPS Restoration Grants
- Development of Surface and Ground Water
 Quality Standards
- Water Quality Trends and Assessment
- Total Maximum Daily Loads (TMDLs)
- Barnegat Bay Strategy
- AmeriCorps/Community Water Monitoring

Why is NPS Pollution a Problem?

Nationally . . .

- 47% of problems are comprised of point & nonpoint sources
- 43% of problems are NPS sources only
- 10% of problems are point sources only





Major Sources of NPS Pollution

- Agriculture
- Unrestricted livestock grazing
- Poor design of roads
- Forestry
- Hydromodification

- Urban runoff
- Abandoned mines
- Failing septic systems
- Construction activities
- Atmospheric deposition

Harmful Algal Blooms (HABs)

- Monitoring Conducted by MWM and BFBM
- Subject of Request for Proposals:
 - HAB Request for Proposals #1
 - 2019 Water Quality Restoration Grants for Nonpoint Source Pollution RFP #2