

# Water Quality Program: Updates and Initiatives

Michele Putnam

Director, Division of Water Quality

November 18, 2016

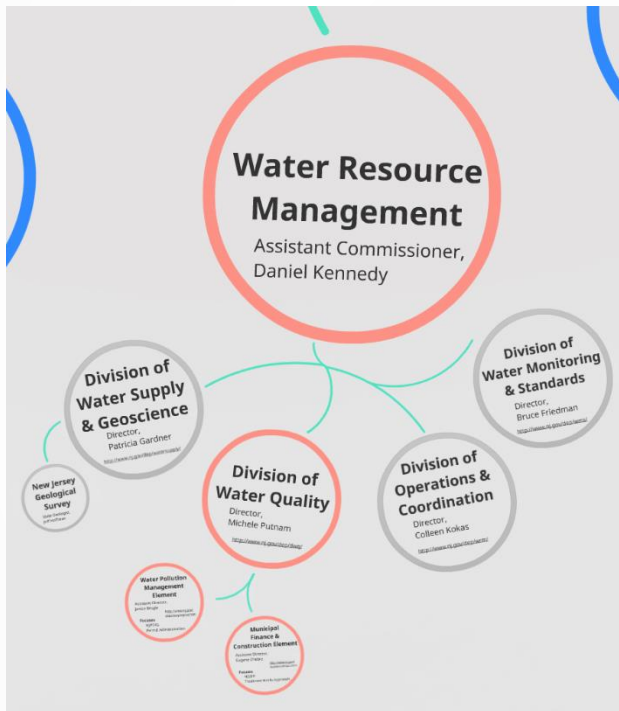
# Who are we?

## Water Resource Management Program

- ***Water Quality***
- Water Supply and GeoScience
- Water Monitoring and Standards
- Operations and Coordination

- **2 Elements:**

- Water Pollution Management
- Municipal Finance & Construction





# What do we do?

- ▶ **Water Pollution Management**
  - Surface Water Permitting
  - Stormwater Permitting
  - Groundwater Permitting
  - Pretreatment and Residuals
- ▶ **Municipal Finance & Construction**
  - New Jersey Environmental Infrastructure Financing Program
  - Treatment Works Approvals

# New Approach to Permitting/Environmental Management

- **Integrating Permit Requirements** with community development and redevelopment goals
- **Supporting** water infrastructure as key asset
- **Providing Extensive Technical Assistance and Collaboration**
  - **Internal - Coordination within DEP programs**
    - Land Use Regulation
    - Permit Coordination
    - Green Acres Program
    - Site Remediation
    - Rebuild by Design
  - **External**
    - Office of Planning Advocacy
    - EDA
    - BDA Roundtables
    - Licensed Site Remediation Professionals Assoc
    - Builders Association
    - NJWEA
    - AEA
    - Jersey Water Works

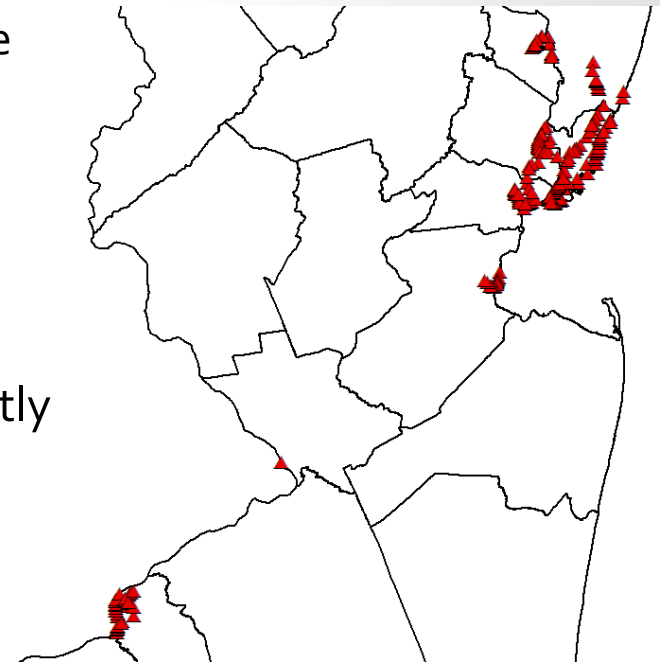


# Permitting Example

- Combined Sewer Overflow Permits
- 21 Communities...urban areas of state
- Goal is to reduce or eliminate CSOs
- Solutions include:
  - Expansion of the wastewater conveyance and treatment plants
  - Separation of storm sewers
  - Green Infrastructure
- Redevelopment of Urban Areas and Waterfront provide Opportunities to address Legacy Contaminants and manage stormwater differently

## Camden Redevelopment:

- Redesign stormwater flow to avoid CSS and reduce CSO
- “Green the space” with decentralized management
- Earlier involvement would have been better.....



212 permitted outfalls

# Financing NJ Environmental Infrastructure Financing Program



## Partnership – DEP/NJEIT

**Provides low-cost loans and other funding for Water Infrastructure**

- **DEP**

Performs Environmental and Engineering Review functions

- **NJEIT**

Performs financial, credit and legal and Administrative functions

- The Clean Water SRF was established in 1988 and typically has between \$250-\$400 million available annually to finance projects

# Who Qualifies?

- Towns, Cities, Boroughs and other municipalities
- Municipal or County Utility Authorities
- Regional Water Authorities or Joint Partnerships
- Other qualifying Local Government Units
- **Redevelopment Projects through public conduits**



# What Projects are Eligible?

## **Wastewater Infrastructure and Stormwater Management**

- Wastewater conveyance and treatment
- Stormwater conveyance, pumping and treatment facilities
- Green Infrastructure
- Land acquisition and conservation
- Well sealing activities

## **Brownfield Redevelopment and Site Remediation**

- Contaminated soil
- Site-capping
- Installation of stormwater controls

\*Eligible if local or county government assumes the repayment obligation for the loan

## **Landfills**

- New Landfills (Water quality/protection aspects)
- Capping systems
- Liners
- Leachate collection systems
- Treatment systems
- Monitoring wells
- Reclamation or reduction activities



# Funding Packages

Clean Water	Principal Forgiveness	DEP 0% *	Trust Market Rate**	Estimated Savings***
CSO Abatement	0%	100%	0%	27%
GI in CSO	50%	25%	25%	57%
Base CWSRF	0%	75%	25%	20%
Brownfield Redevelopment	0%	50%	50%	13%
Planning and Design	0%	100%	0%	27%

\* DEP portion of funding is at 0% interest

\*\* Trust portion of funding is at AAA market Rate

\*\*\*Saving based on comparison to AAA market rate municipal bond, as of October 2016 and administrative fees

\*If the site is for Public usage, then site remediation projects are eligible for Base CWSRF

# Financing Example

## Case Study: Phoenix Park, Camden



- Multi-funding source
- 5.3-acre former American Minerals site
- 2 Phases - \$8 M Loan to CCMUA plus supplemental funds from other DEP sources
- Radioactive soils removed to reduce contamination entering Delaware River
- Creation of public park, including gravel walking paths, wetlands area, native trees and meadows, pervious pavers, includes shoreline stabilization
- Also reduces stormwater runoff and accumulation



*ccmua.org*



*Alex Young | For NJ.com*

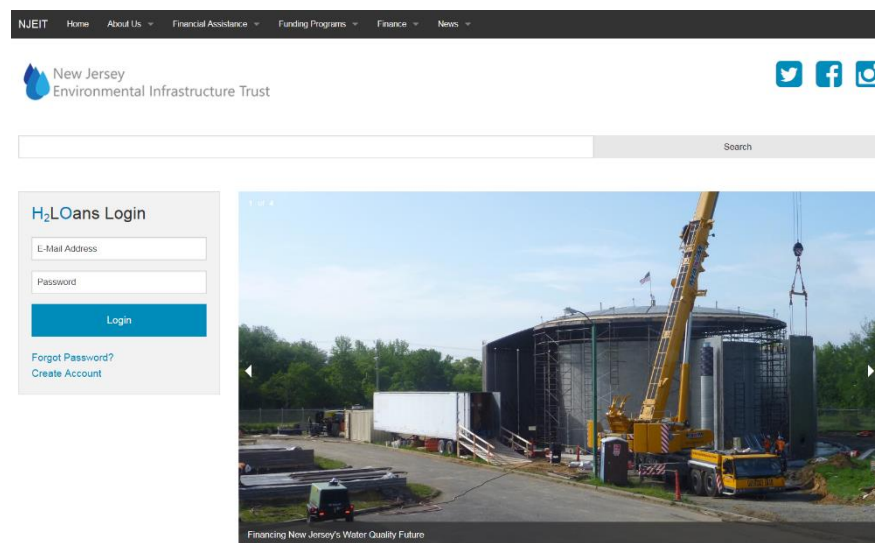
# How Do I Start Applying?

Step 1: Create an account Online

Step 2: Have the project sponsor submit a Letter-of-Intent

The first step will continue to be a commitment by the project sponsor (also known as a Letter-of-Intent); which is made through your user account at <https://www.h2loans.com/app/>.

**If you are new** to the Financing Program, please contact the NJ Environmental Infrastructure Trust at 609-219-8600 to request a user account.



# Take Aways.....

- Many site remediation and landfill related activities are eligible for low interest financing...***talk to our funding program.*** [Gene.Chebra@dep.nj.gov](mailto:Gene.Chebra@dep.nj.gov)
- Opportunities exist to manage stormwater differently ...***meet with our permit program EARLY***  
[Janice.Brogle@dep.nj.gov](mailto:Janice.Brogle@dep.nj.gov)
- ***Design with CSOs in mind***...reduce stormwater discharges to CSSs
- ***Think Green***...infrastructure and low interest loans  
[Michele.Putnam@dep.nj.gov](mailto:Michele.Putnam@dep.nj.gov)

# Learn More



- Online Resources
  - Division of Water Quality - <http://www.nj.gov/dep/dwq/>
  - NJEIFP - [http://www.nj.gov/dep/dwq/mface\\_njeifp.htm](http://www.nj.gov/dep/dwq/mface_njeifp.htm)
  - NJEIT - <https://www.njeit.org/>
  - Combined Sewer Overflows - <http://www.nj.gov/dep/dwq/cso.htm>
  - Green Infrastructure in NJ - <http://www.nj.gov/dep/gi/>
- Training - CSO for LSRPs: **Remediation Alternatives to Better Manage Storm Water**  
**Dec. 7<sup>th</sup>** from **9am** to **1pm**  
Register - <http://bit.ly/2fAQcft>

State Police Technology Center,  
NJ Forensic Science Technology Center  
1200 Negron Dr.  
Hamilton, NJ



# Questions?

***Thank you!***

Michele M. Putnam [Michele.Putnam@dep.nj.org](mailto:Michele.Putnam@dep.nj.org)

Gene Chebra: [Eugene.Chebra@dep.nj.org](mailto:Eugene.Chebra@dep.nj.org)

Janice Brogle: [Janice.Brogle@dep.nj.org](mailto:Janice.Brogle@dep.nj.org)

609-292-9977

# DWMS BEARS

## From Standards to Restoration

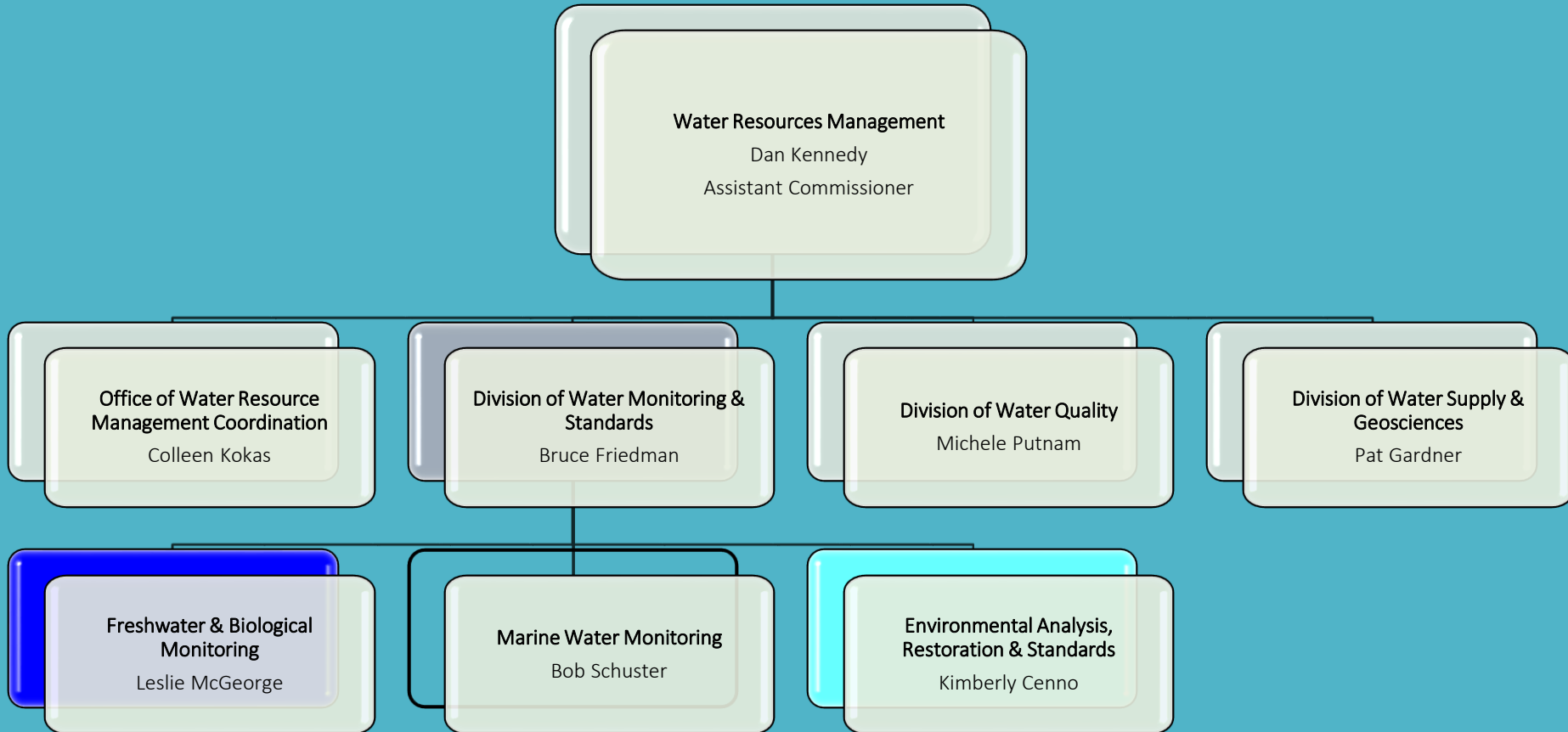
Kimberly Cenno, Bureau Chief

Bureau of Environmental Analysis, Restoration and Standards (BEARS)

Division of Water Monitoring and Standards (DWMS)

<http://www.state.nj.us/dep/wms/>

# WATER RESOURCES MANAGEMENT



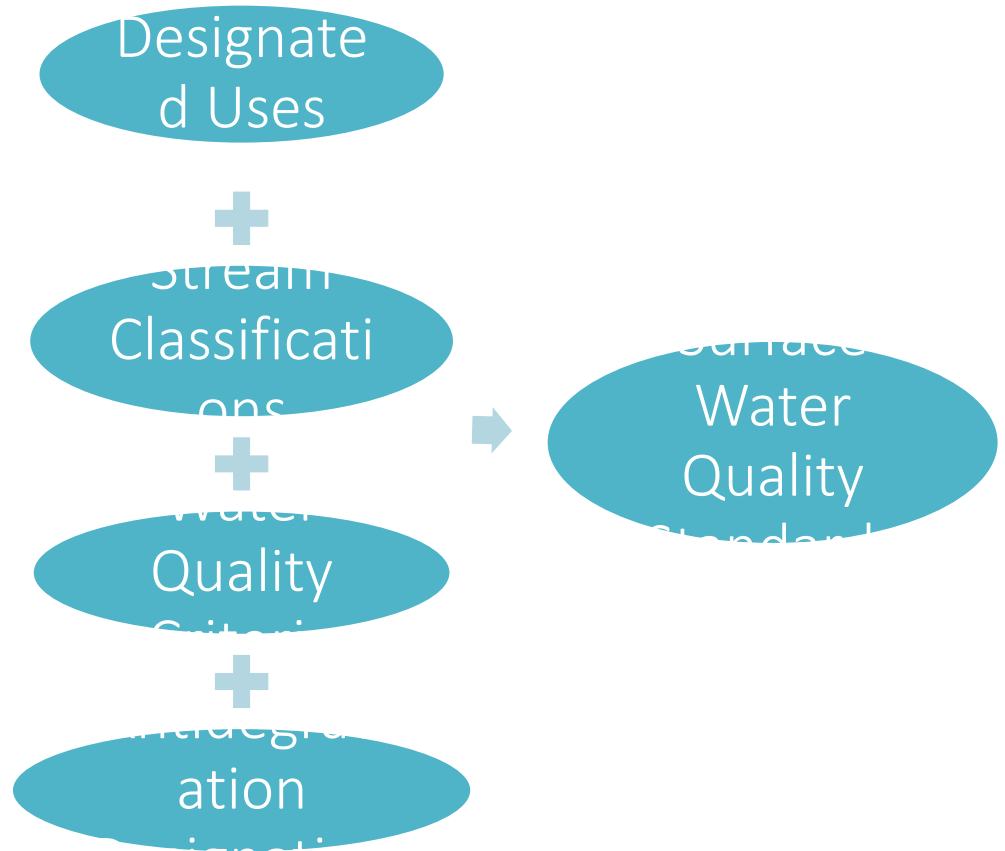


# DWMS BEARS - What We Do



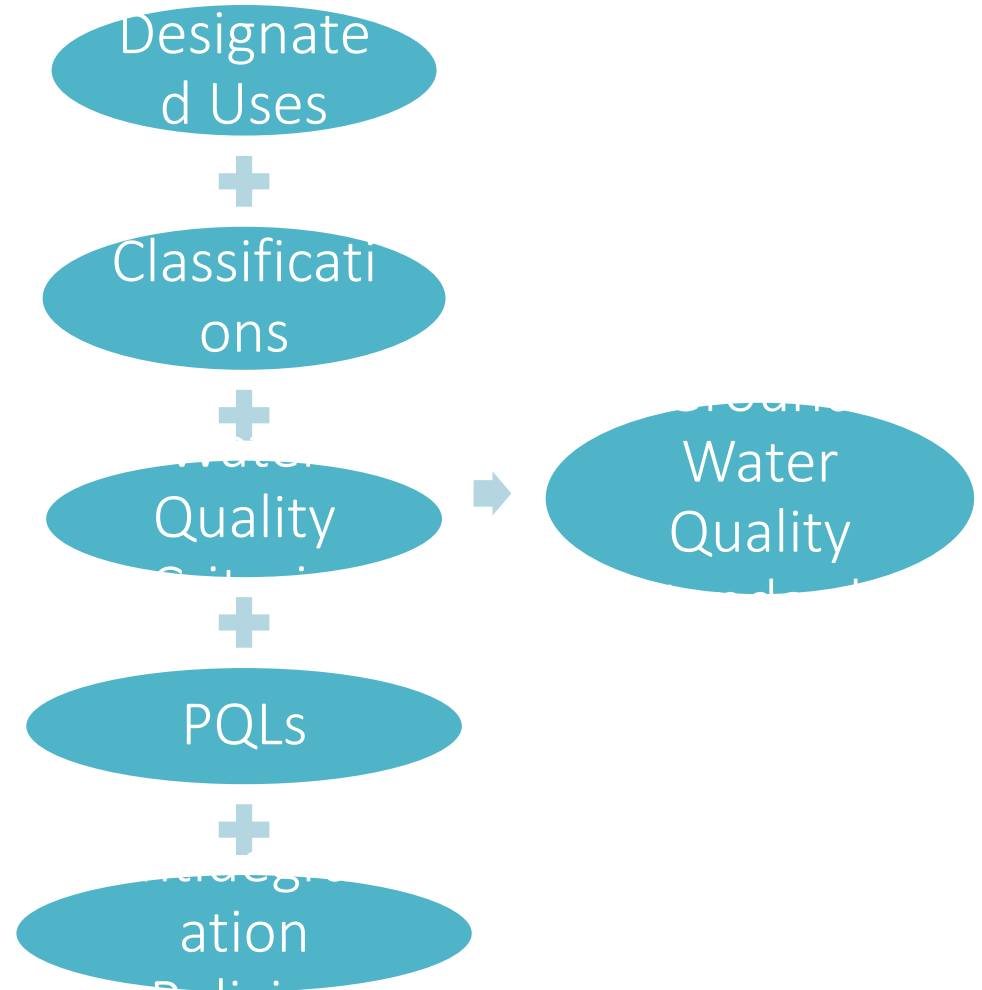
# Standards

- Surface water quality standards (SWQS) define the water quality goals of each waterbody.
- Numeric and/or narrative surface water quality criteria are established for each water quality parameter, stream classification and antidegradation designation
- Serve as basis for assessment, TMDLs and water quality based effluent limits (WQBELs) for NJPDES DSW permits



# Standards

- Ground water quality standards (GWQS) define the water quality goals for ground water in NJ.
- Ground water quality criteria are established for each ground water classification area.
- In Class II ground waters, the GWQS is the higher of the criterion and the practical quantitation level (PQL).
- Ground water quality standards also serve as remediation standards for contaminated ground water.



Standards



Analysis

- 305(b) Report assesses water quality statewide
  - Data is compiled and assessed for each parameter by following the protocols described in the Integrated Water Quality Monitoring and Assessment Methods Document (Methods Document)
  - Waterbodies are assessed as either fully supporting, not supporting, or insufficient information
  - Waterbody results at watershed level (HUC14)
- 303(d) List identifies all impaired waters

305(b)  
report



303(d)  
List

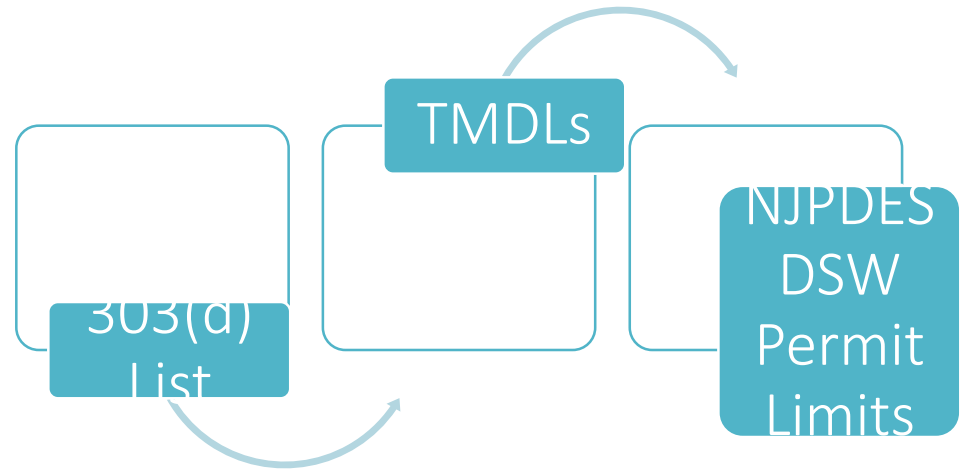
Integrat  
ed  
Report

Standards



Analysis

- NJPDES DSW to 303(d)-Listed waters must meet SWQS at end of pipe (no mixing zones applicable)
- Waters placed on the 303(d) List require TMDL development (Sublist 5) unless
  - They are already covered by a USEPA-approved TMDL (Sublist 4A), or ...



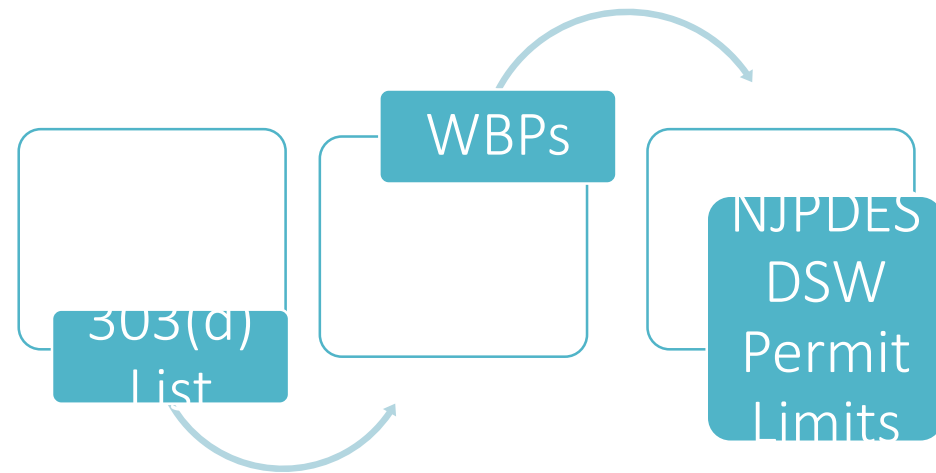
Analysis



Restoration

...they are already covered by an approved Watershed Restoration Plan (Watershed Based Plan or “WBP”) – usually funded under Section 319 NPS grant (Sublist 5R)

- WBPs Include implementation measures with estimated load reductions necessary to achieve the designated water quality standard of the water body



Restoration



Stewardship

- AmeriCorps NJ Watershed Ambassador Program
  - Environmental community service program
    - Biological and visual assessments of streams
    - Educational programs to schools and other local groups assist w/Volunteer Monitoring
    - Clean ups and other partnership projects
- Watershed Education and Urban Fishing
  - Introduces students to their local waterways
  - Shows how they are linked to their aquatic resources
  - Establishes a sense of ownership of their local waterways
  - Instills a sense of stewardship towards the water



# Status Updates

- SWQS Rules:
  - Revisions to Criteria for Ammonia, Bacteria
  - Revisions to Provisions on Nutrients, Variances
    - *Stakeholder Process 2015 - 2016*
- GWQS Rules
  - Updates to Criteria and PQLs for Class II ground waters
  - Re-evaluate Classifications and Designated Uses
  - Clarify and Streamline Implementation
    - Stakeholder Process initiated in 2016; underway



# Status Updates, continued

- Integrated Water Quality Assessment Reports
  - Final 2014 Integrated Report/303(d) List was submitted to USEPA for approval
  - Draft 2016 Integrated Report under development
    - Raritan Water Region Stakeholder Meetings held on 6/30 and 11/8
    - Final 2016 Methods Document & response to comments under review
- TMDL and Watershed Protection Plan (WPP) Development
  - Anticipated in 2017 - Duhernal Lake TMDL and Metedeconk River Watershed Protection Plan
  - Anticipated in 2018 - Hammonton River WPP, Salem River TMDL, and Saddle River TMDL