



**GEORGIA**

DEPARTMENT OF NATURAL RESOURCES

ENVIRONMENTAL PROTECTION DIVISION

# GIEC Water Resources Workgroup Webinar

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# EPA Region 4 NPDES Permit Quality Review

- Review Date: April 8-9 and 25, 2019, Report Date: August 5, 2020
- EPA identified two areas for permit quality improvement that are categorized as “essential” (i.e., application signatures and standard condition language that conforms to the federal language used in 40 C.F.R. 122.41)
- EPA identified eight other areas for permit improvement that are categorized as “recommended”



# EPA Region 4 NPDES Permit Quality Review

- NPDES Universe
  - 369 POTWs (197 major permits, 172 non-major permits; 4 include CSOs)
  - 347 non-POTW facilities (37 major permits, 333 non-major permits; 24 are confined animal feeding operations (CAFOs))
  - 9 non-stormwater NPDES general permits
  - 4 stormwater general permits (including three MS4 permits)
  - Industrial stormwater general permit
- 5-year permit terms
  - For major individual NPDES permits 95.4 percent are current and 4.6 percent (46 permits) are administratively continued.
  - For non-major permits, 94.2 percent are current and 5.8 percent (61 permits) are administratively continued.
- Despite losing experienced permit writers, the EPD continues to reduce its permit backlog rate as the program has successfully been through several Lean Six Sigma processes to streamline internal permitting procedures. Within eight years, the EPD has greatly reduced its overall NPDES permit backlog rate from 28 percent.
- The EPD continues to improve its permit fact sheets by making them more robust. Specific details are better defined than in the past resulting in more consistent and enforceable permits. This is a result of the EPD implementing an action item identified in the previous PQR cycle.



# PQR Essential Action Items

**Table 3. Essential Action Items from FY 2018-2022 PQR Cycle**

Topic	Action(s)
Facility Information	
Permit Application Requirements	Ensure permit applications are signed by the responsible official (40 C.F.R. § 122.22).
TBELs for POTWs	
TBELs for Non-POTW Dischargers	
Reasonable Potential	
WQBELs Development	
Final Effluent Limitations and Documentation of Effluent Limitations Development	
Establishing Monitoring and Reporting Requirements	
Documentation of Monitoring and Reporting Requirements	
Standard and Special Conditions	Include standard condition language that conforms to the federal language used in 40 C.F.R. 122.41.
Administrative Process	
Administrative Record and Fact Sheet	
Nutrients	
Pretreatment: Food Processing Sector	
Municipal Separate Storm Sewer Systems (MS4s)	
Regional Topic Area = Whole Effluent Toxicity	



# PQR Recommended Action Items

**Table 4. Recommended Action Items from FY 2018-2022 PQR Cycle**

Topic	Action(s)
Facility Information	
Permit Application Requirements	Ensure facilities submit complete priority pollutant scans with applications. Ensure permittees submit current operational data on the EPA application form 2A and table B-6.
TBELs for POTWs	
TBELs for Non-POTW Dischargers	
Reasonable Potential	RPA for determining whether limits are needed should be based on any data that is available per 40 C.F.R. § 122.44(d)(1)(iii).
WQBELs Development	
Final Effluent Limitations and Documentation of Effluent Limitations Development	Maintain consistency in parameters throughout the permit and factsheets
Establishing Monitoring and Reporting Requirements	
Documentation of Monitoring and Reporting Requirements	
Standard and Special Conditions	Include compliance endpoints clearly in the permit and factsheet. POTW permits should contain a reopener clause per 40 C.F.R. §122.44(c)
Administrative Process	
Administrative Record and Fact Sheet	Improve documentation in fact sheets on the bases for final permit decisions
Nutrients	
Pretreatment: Food Processing Sector	Include more information as to the development of local limits and POTW capacity determination within industrial permit fact sheets.
Municipal Separate Storm Sewer Systems (MS4s)	Identify actions to implement best practices that may improve the program. Provide information that the EPD selected Option 1 for the rule and indicate how it has been incorporated into the permit.
Regional Topic Area = Whole Effluent Toxicity	Add detail to the TIE/TRE WET testing permit condition pertaining to data submittal and define what triggers toxicity. Ensure all fact sheets discuss the WET when applicable including the basis for the chosen dilution ratio.

# State Audit

- Georgia Department of Audits and Accounts, Performance Audit Division
  - Report title: “EPD Enforcement - Selected Water Programs”
    - <https://www.audits.ga.gov/rsaAudits/report/index>
  - Report date: August 12, 2020; Review period January 2016 – March 2018
  - Initial thoughts: timing, much content on Safe Dams, findings even when meeting EPA workplan thresholds, EPD provided thorough responses to the findings (edited by Dept. of Audits)



# State Audit cont.

- Findings that may interest GIEC members:
  - #2 – “...not all industrial stormwater facilities were complying with reporting requirements.” Reports were: not submitted at all, submitted late, missing required monitoring data.
  - #3 – “Enforcement actions taken – Management’s ability to monitor enforcement actions was limited due to functionality issues in GAPDES, the tracking tool for wastewater, stormwater,...”
    - Also mentioned timeliness and return to compliance documentation
  - #4 – Settlement/Penalty methodologies outdated (implication is that this results in penalties that are too low).

Findings



# EPA SRF – Background

- The SRF was designed by EPA and the Environmental Council of the States to assesses EPA and state enforcement of the Clean Water Act, the Clean Air Act, and Resource Conservation and Recovery Act and ensure fair and consistent enforcement and compliance programs across the states.
- EPA evaluates performance using metrics derived from standards laid out in federal statute, EPA regulations, policy, and guidance. The metrics are organized into five areas: data, inspections, violations, enforcement, and penalties.
- Wherever program performance issues are identified, EPA will issue recommendations, which are monitored by EPA until completed and program performance improves.
- The SRF is conducted approximately once every five years and is in its fourth round (FY2018-2022).



# EPA SRF – Status

- Data accuracy: The accuracy of data between files reviewed and data reflected in the national data system needs improvement.
  - The SRF was concurrent with Electronic Reporting Rule implementation. EPD has since implemented improvements and worked to correct flow issues between EPD and EPA databases.
- Inspection reports: EPD inspection reports were not consistently completed in a timely manner.
  - EPD identified industrial stormwater and pretreatment as areas for attention. Inspection processes and documents have been updated to increase efficiency.
- Enforcement decisions: WPB does not maintain any penalty calculations, so the adequacy of gravity and economic benefit calculations and penalty documentation could not be evaluated.
  - EPD updated the penalty calculation spreadsheets and now includes the final penalty calculation in the consent order files.

# Indirect Potable Reuse – Background

- IPR is the augmentation of a drinking water source with reclaimed water, followed by an environmental buffer. De facto IPR is where the discharge of treated wastewater into a surface water by one entity affects drinking water sources of another entity.
- Integrated review of water withdrawal, drinking water, and wastewater discharge permits is needed when faced with the scenario of IPR or de facto IPR.
- A draft IPR Guidance Document has been developed to help the applicants navigate through this regulatory complexity, help the various programs within EPD coordinate with each other, and streamline the regulatory process.

# Indirect Potable Reuse – Status

- EPD has been evaluating IPR guidance since 2013. Progress stalled in 2017 and was restarted in 2018.
- EPD developed an internal IPR workgroup comprising wastewater, drinking water, and water supply permitting staff, as well as watershed planning and monitoring staff.
- EPD liaised with the GAWP Reuse Committee to solicit input from the committee and provide feedback on EPD's efforts.
- Draft IPR Guidance Document is undergoing management review. The stakeholder process will likely commence in late fall/early winter.

# Water Quality Trading – Background

- Water quality trading may allow for the protection and restoration Georgia's waterways more quickly and economically than using traditional approaches.
- Sellers can generate water quality credits by reducing pollution beyond what is required. Buyers can purchase these credits to meet regulatory limits.
- Initially motivated by required nutrient reductions at the state line to meet the Lake Weiss TMDL, several grant projects have explored nutrient trading, including: Nutrient Trading in the Coosa Basin: A Feasibility Study Prepared for North Georgia Water Resources Partnership (2013), Pilot Monitoring Project (2018), and Alternative Nutrient Management Strategies (2018).

# Water Quality Trading – Status

- EPD began developing a draft Water Quality Trading Guidance Document in 2017 following model programs developed by USEPA and others. This guidance document was reviewed and updated to reflect Georgia-specific information.
- The general framework for the draft Water Quality Trading Guidance Document was presented to interested stakeholders and the public through a series of three public meetings held in Fall 2019.
- EPD reviewed comments submitted through the public process and initiated an internal workgroup to incorporate stakeholder feedback and further develop the Water Quality Trading Guidance Document with feedback from watershed planning and monitoring, permitting, nonpoint source, and compliance staff.
- Anticipate continuing internal efforts through the end of 2020.



# Current Status of Water Quality Standards

- EPA last approved updates to Georgia Water Quality Standards on August 16, 2016
  - This was for the 2013 Triennial Review package
- Revision to Narrative WQS not yet approved by EPA
- 2016 Triennial Review package was delivered to EPA on December 6, 2018
  - This package is currently waiting for EPA approval in order to be usable for Clean Water Act purposes
  - EPA has indicated issues with bacteria and certain lake standards
- 2019 Triennial Review
  - Tentatively scheduled for rulemaking Spring 2021



# 2019 Triennial Review - Possible Items

- **Possible Changes:**

- 2015 Final Human Health Criteria
- 2016 Final Aquatic Life Ambient Water Quality Criterion for Selenium - Freshwater
- 2018 Final Aquatic Life Criteria for Aluminum in Freshwater
- 2019 Human Health Recreational Ambient Water Quality Criteria and/or Swimming Advisories for Microcystins and Cylindrospermopsin
- Remove or revise the TP criteria for Lakes Oconee and Sinclair with a delayed effective date
- Changes in Designated Use to Recreation



# Guidance for Changing Designated Use

- Nomination Package for requesting a change in designated use:
  - Name and length of the water body
  - Map of reach location
  - Any impairments/TMDL(s)
  - Current users and activities of the water body
  - Investments for improved use of the water body
    - Pending and completed
  - Letters of support
    - Dischargers, municipalities, other stakeholders



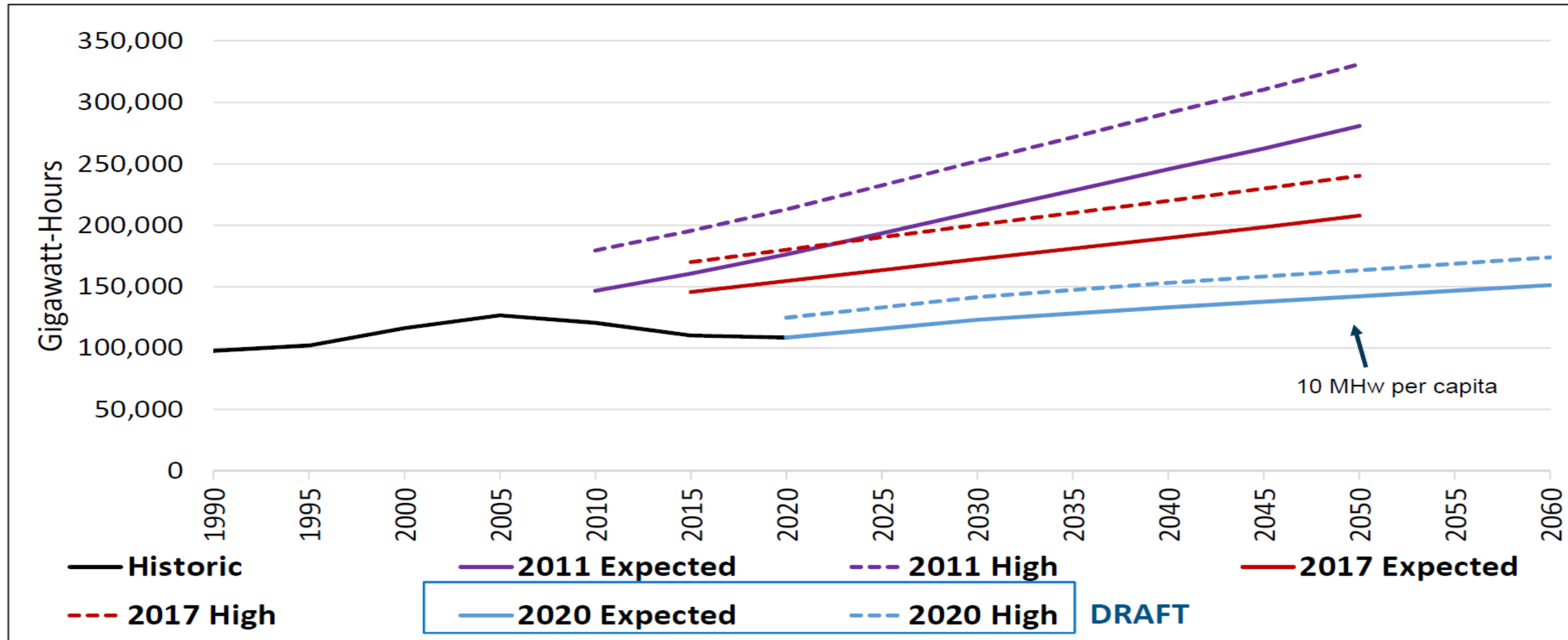
# Water Demand Forecasting

- 4 Sectors of Water Demand Forecasts
    - Municipal
    - Industrial
    - Energy
    - Agricultural
- Stakeholder Groups Convened  
Forecasts completed by Dec. 2020
- Albany State/UGA; to be completed by March 2021
- Water Demand Forecasts will extend out to 2060
  - Forecasts will inform updates to Regional Water Plans



# Energy Forecasting – Looking back...

## Step 1: How Much Power will Georgia Need?





# Industrial Water Demand Forecasting

## Participating Industrial Stakeholders:

- Industry Trade Groups:
  - Georgia Poultry Federation
  - Georgia Mining Association
  - Georgia Paper and Forest Products Association
  - Georgia Association of Manufacturers
  - Georgia Chemistry Council
- Governor's Office of Planning and Budget
- Georgia Department of Economic Development
- Georgia Tech Research Institute
- Representatives from a cross-section of industries, including:
  - International Paper
  - Mohawk Industries
  - Gulfstream
  - BASF
  - KIA Motors
  - Rayonier Performance Fibers
  - Packaging Corp. of America

# Industrial Water Demand Forecasting

- Industrial Forecasting Stakeholder Group
  - Initial stakeholder meeting held on June 3
  - Developed subgroups by major sectors to further inform data and methodology:
    - Poultry & Food Processing
    - Mining
    - Paper and Forest Products
    - Manufacturing
- Expected completion of draft forecast by November

# Industrial Water Demand Forecasting Sub-Groups

## **Poultry & Food Processing**

- Georgia Poultry Federation survey of membership with assistance from the Georgia Tech Research Institute
- Sub-group meets to review forecast on Oct. 23

## **Mining**

- Georgia Mining Association survey of membership
- Sub-group meets to review forecast on Oct. 21

### **Survey Questions:**

- Average Water Use
- Water Sources
- Municipal Customer
- Average Discharge
- Receiving Bodies
- Municipal WW Customer
- Anticipated changes in next 5 – 10 years

# Industrial Water Demand Forecasting Sub-Groups

## **Paper & Forest Products**

- Representatives have discussed reasonable growth for industry
- Sub-group meets to review forecast on Oct. 19

## **Manufacturing**

- Georgia Association of Manufacturers survey of membership
- Representatives have discussed reasonable growth for industry
- Sub-group meets to review forecast on Oct. 20

# Impact of Pandemic on EPD Functions

- Had to rapidly shift from a work-at-office structure to a work-from-home structure.
  - Most regular business processes not setup for remote working
  - Some employees didn't have necessary equipment (computers, VPN, phones, etc.) for remote working
  - Managing remote workers is new challenge
  - Schools closed – then virtual
  - Daycares closed
- All inspections (with limited exceptions) halted for about 3-4 months – then restarted with added safety precautions
  - By end of fiscal year, we came close to meeting our inspection commitments





# Impact of Pandemic on EPD Functions

- Meetings moved to virtual format
  - Meetings with permittees
    - Easier to participate
    - No travel to downtown Atlanta needed
  - Stakeholder meetings
    - More and better participation from stakeholders
  - Public hearings
    - More participation from public
    - Easier for EPD
  - DNR Board meetings



# Impact of Pandemic on EPD Functions

- SignNow: program for electronic signatures
  - All permits
  - Enforcement (consent orders and administrative orders)
  - Contracts and contract invoices
  - HR actions



# Maui “Functional Equivalent” Point Source Test

- Maui operates a wastewater reclamation facility that collects sewage from the surrounding area, partially treats it, and then pumps the treated water into the ground through wells. The treated water then travels through groundwater to the Pacific Ocean.
- US Supreme Court decision: April 23, 2020, *County of Maui v. Hawaii Wildlife Fund*
  - When pollutants originate from a point source, but are conveyed to navigable waters by a nonpoint source (in this case groundwater), it is the **functional equivalent** of a direct discharge from the point source into navigable waters and, therefore, the CWA requires the discharger obtain a NPDES permit.
  - While the Court recognized the difficulty with its approach, it felt there were too many potentially relevant factors applicable to factually different cases for it to be more specific. Among the determinative factors given by the Court as examples were:
    - (1) transit time,
    - (2) distance traveled,
    - (3) the nature of the material through which the pollutant travels,
    - (4) the extent to which the pollutant is diluted or chemically changed as it travels,
    - (5) the amount of pollutant entering the navigable waters relative to the amount of the pollutant that leaves the point source,
    - (6) the manner by or area in which the pollutant enters the navigable waters, and
    - (7) the degree to which the pollution (at that point) has maintained its specific identity.

# The Navigable Waters Protection Rule (WOTUS)

- April 21, 2020, Final rule published in FR (effective June 22, 2020)
- Streamlined the definition so that it includes four categories of jurisdictional waters, provides clear exclusions for many water features that traditionally have not been regulated, and defines terms in the regulatory text that have never been defined before.
- WOTUS includes:
  - (1) The territorial seas, and waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including waters which are subject to the ebb and flow of the tide;
  - (2) Tributaries (must be perennial or intermittent in a typical year);
  - (3) Lakes and ponds, and impoundments of jurisdictional waters;
  - (4) Adjacent wetlands.
- Georgia (Attorney General) opposed 2015 rule and supports new 2020 rule
- NOTE: Permitting based on Georgia definition of State Waters

# Clean Water Act Section 401 Certification Final Rule

- Final rule published in FR July 13, 2020, effective September 11, 2020
  - 1. Timelines for Review and Action – Within a reasonable period of time, but in no case later than one year after receipt of request
  - 2. Initiating Certification – Required for federally licensed or permitted activities that may result in a discharge from a point source into a water of the United States.
  - 3. Scope of Certification Review – Limited to assuring that the discharge from a point source will comply with “water quality requirements,” as defined in the rule.
    - Authority for conditions must be documented
  - 4. Technical Assistance – Agency’s statutory responsibility to provide technical assistance.
  - 5. Early Engagement –Promotes early engagement and coordination among project proponents, certifying authorities, and federal licensing and permitting agencies.

# PFAS – What's going on in Georgia?

- Jac did full presentation (available) on this topic at GAWP annual (virtual) conference in July
- EPA Health Advisory for PFOA and PFOS
- EPD lab now has capability to analyze PFAS chemicals
- EPD is beginning sampling for PFAS in drinking water (starting in Coosa and Tennessee basins). May sample upstream if issues discovered in drinking water.
- EPD web page regarding PFAS is live. Will update with new sampling data as it becomes available