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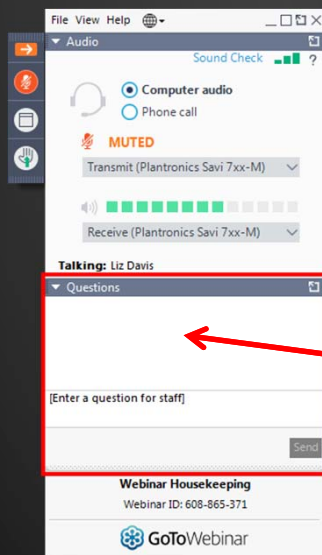
Linking Member Associations with Important Federal Policies and Local Trends

*Wednesday December 11 2019
1:00 - 2:30 PM ET*



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How to Participate Today



- Audio Modes
 - Listen using Mic & Speakers
 - Or, select "Use Telephone" and dial the conference (please remember long distance phone charges apply).
- Submit your questions using the Questions pane.
- A recording will be available for replay shortly after this webcast.

Today's Agenda

- Introductions
- Federal Update - *Steve Dye*
- WEFTEC Hot Topics - *Brandon Koltz*
- Iowa WEA Update - *Greg Sindt*
- WEAT - *Julie Nahrgang*
- Oklahoma WEA - *Shellie Chard*
- Q & A

Federal Update

Steve Dye
Legislative Affairs Director, WEF



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Fiscal Year 2020 Appropriations Update

Program	FY19 Omnibus	Pres. FY20	Senate FY20 Draft	House FY20 Draft	FY20 Ask	Function
Clean Water SRF	\$1.7B	\$1.1B	\$1.6B	\$1.8B	\$2.8B	Wastewater & Stormwater Loans
Drinking Water SRF	\$1.2B	\$863M	\$1.1B	\$1.3B	\$1.3B	Drinking Water Loans
WIFIA	\$68M	\$25M	\$73M	\$45M	\$50M	All Water Infrastructure Loans
USDA Loans & Grants	\$2.02B	\$1.7B		NA	\$2.5B	Rural Communities Loans and Grants
Title XVI	\$59M	\$3M	\$65M	\$67M	\$100M	Western US Water Recycling and Reuse
AWIA – Sect. 221 Grants		\$61M	\$20M	\$90M	\$225M*	Grants for CSO, SSO, and SW Infrastructure



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Key Bills to Watch

- WRDA 2020 - *Coming Spring 2020!*
 - CW SRF Reauthorization
 - WIFIA Reauthorization
 - Etc...
- H.R. 1497* - Water Quality Protection and Job Creation Act of 2019, by Rep. Peter DeFazio
- H.R. 3521 - Wastewater Infrastructure Workforce Investment Act of 2019, by Rep. Greg Stanton
- H.R. 1764* - NPDES permit terms extension legislation, by Rep. John Garamendi

* = *Calls-to-Action up on WEF.org*



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Water Quality Protection and Job Creation Act of 2019 (H.R. 1497) - **PASSED BY COMMITTEE 10/29/19**

Sponsor: Chairman Peter DeFazio (D-OR)

Co-sponsors: Grace Napolitano (D-CA), Don Young (R-AK), and John Katko (R-NY)

The key provisions of the bill include (FY20 - 24):

- Clean Water SRF reauthorized at \$16B/5 years
- 1% CW SRF set-aside for wastewater workforce development assistance to utilities of \$140M/5 years. **(WEF PROVISION)**
- State management assistance at \$1.295B/5 years
- Watershed pilot projects at \$110M/5 years
- Redefines "alternative water source projects" as wastewater, stormwater, or by treating wastewater or stormwater and authorizes \$150M/5 years
- Extends authorization for grant assistance for CSO, SSO and stormwater projects for \$1.125B/5 years.



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PFAS Update - *Federal Only*

US EPA - Proposed Determination to OMB for PFOA and PFOS
"following through on its commitment in the Action Plan to evaluate PFOA and PFOS under the Safe Drinking Water Act." (Dec. 3)

National Defense Authorization Act (NDAA) - No decision but still being debated.

- WEF Call-to-Action: <https://wef.org/advocacy/water-advocates2/>

PFAS Receivers Fact Sheet: <https://www.wef.org/pfas>

Additional WEF resources: <https://wef.org/biosolids/>



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Federal Regulatory Update

- WOTUS
 - US EPA sent proposed rule to OMB. Plan to finalize in January
 - The proposed rule would exclude groundwater; ditches, including roadside and farm ditches; stormwater control features, and wastewater and waste treatment systems.
- Affordability
 - <http://bit.ly/developing-new-framework-for-affordability-report-final>



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WEFTEC Summary of Member Association Current Issues

- Brandon Koltz
- Brandon Koltz Water & Environmental Consulting LLC
- Adjunct Professor Carthage College
- Co-Chair WEF Government Affairs Member Association Sub Committee



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Current Issues: Hot Topics from Member Associations

- 15 Member Associations and 4 MA Sections provided updates on State and Regional issues
- Participation at the WEFTEC
- Discuss common issues
- Informed regarding different state approaches

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Nutrients - A Common issue

- Central States WEA Wisconsin Section
 - Phosphorus criteria - all water bodies - no nitrogen criteria
 - TMDLs & WLAs - extremely low effluent limits
 - Variance – 4 permit cycles to achieve effluent limits
 - Trading and adaptive management - MS4s and Ag
- Central States WEA Illinois Section & Illinois WEA
 - Phosphorus effluent limits - 0.5 mg/L 12month rolling geometric mean
 - Nitrogen - nonpoint issue
- Missouri WEA
 - TMDLs may require variances
 - Looking at a nutrient exchange –point-nonpoint
- Indiana WEA
 - Total nitrogen monitoring for Major Municipal Dischargers (>1.0 MGD)
- Florida
 - Blue –green algae/red tide/spring restoration
- Rocky Mountain WEA (Colorado)
 - 1st phase 15 mg/L TN, 1 mg/L TP – 2ndPhase 2.01 mg/L TN, 0.17 mg/L TP (Limits of technology)
- New England WEA
 - Nutrient – criteria - TMDLs

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Other Water Quality Criteria

- Rocky Mountain WEA reported that that high levels of background metals due to geologic conditions are problematic
 - Selenium
 - Copper
 - Arsenic
- RMWEA also reported temperature criteria set requiring effluent cooling
- Wisconsin has similar requirements

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Peak Flow - Wet Weather

- Indiana WEA - looking to national policies, application of integrated planning, changes to peak flow policies for the Ohio River basin.
- New England – CSO notification & wet weather blending
- Florida WEA - SSO policy
- Kentucky - Tennessee WEA – I/I removal and moratoriums:
 - (Tennessee) Apply to service areas with SSOs, but now documented I/I removal required, not equalization or full treatment
- Missouri WEA - Blending can be permitted
- Michigan WEA - legislation providing liability protection for basement backups due to extreme events

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Biosolids

- Georgia Association of Water Professionals –
 - Landfill disposal concern re slope failure with wet biosolids
 - Public complaints re biosolids ag application may lead to legislation
- New England WEA listed biosolids management as a significant issue

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PFAS

- Central States WEA – Wisconsin
 - Wisconsin DNR developing regulation for surface water, groundwater, soil
 - U of Wisconsin studying fate and transport for 12 municipalities POTWs
 - 20 ng/L groundwater standard recommended for total PFAS PFOA
 - Statewide research ongoing
- Central States WEA – Illinois
 - IEPA beginning to address PFAS
- New England WEA – States have/are developing PFAS criteria
- Several - land quality/cleanup/biosolids application & liability

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Importance of Member Association Information and Communication

- Guide Government Affairs Committee on emerging issues and key issues for our members
- Understand unique regional issues
- Provide platform to share state approaches that may be beneficial elsewhere
- Identify inconsistencies within and among EPA Regions
- Guide WEF professional staff in discussions with EPA Headquarters and Congressional staff
- Advocate for water policies that advance clean water objectives

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Request: Provide Updates to the Government Affairs Committee

- Updates end of 1st quarter 2020
- Updates will be posted on WEFCOM
- Guide discussions during Water Week 2020
- Send to Amy Kathman/WEF
 - akathman@wef.org
- Or Brandon Koltz
 - brandon.koltz@gmail.com
- Or Julie Nahrgang
 - julie@weat.org

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Iowa Water Environment Association

Greg Sindt
WEF MA Webinar
December 11, 2019

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Nutrients

- Iowa's Significant Load to Mississippi – 29% of total N load
 - Only 4.5% of state total N load attributed to point sources
- Five years into Nutrient Reduction Strategy
- Point Source Strategy – 100 major dischargers (>1.0 MGD)
 - Technology based approach (rather than WQS based)
 - 66% P reduction (1.0 mg/L) goal
 - 75% N reduction (10 mg/L) goal
 - Dischargers propose technology that is economically feasible
 - DNR amend permit with Construction Schedule
 - 18 months performance evaluation after plant modifications
 - DNR amend permit with average annual mass limits based on performance

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Nutrients

- Point Source Progress
 - 83% of permits renewed with nutrient reduction study requirements
 - 71% of permittees have submitted reports
- Nonpoint Source Progress
 - Voluntary program with State incentives
 - Cover Crops
 - 2011: 15,000 acres
 - 2017: 760,000 acres
 - Needed: 10,000,000 acres

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Nutrients

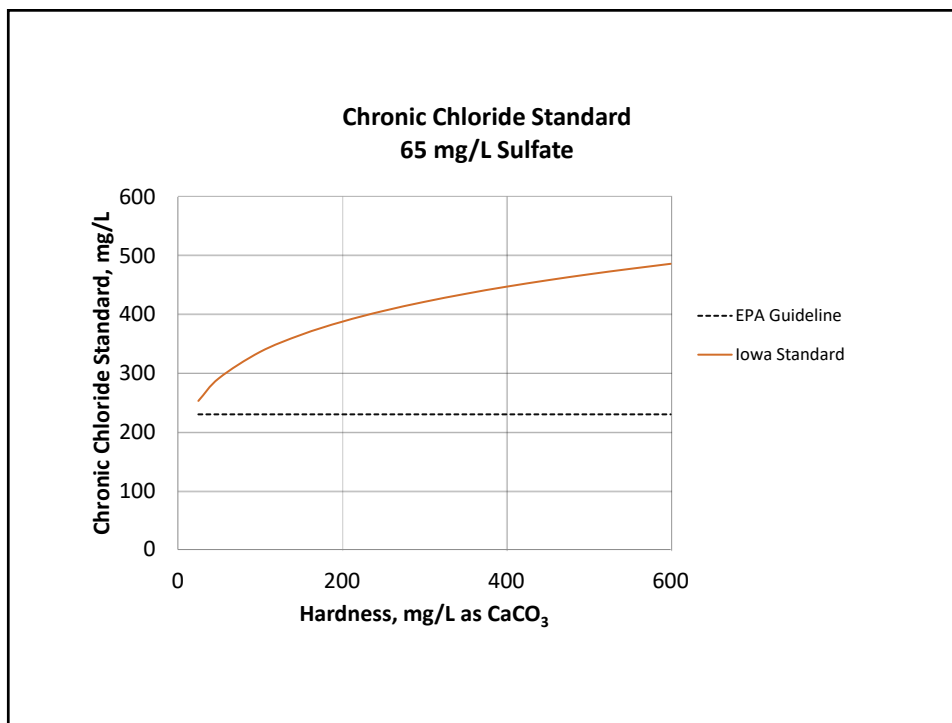
- Nonpoint Source Progress
 - Wetlands (Drainage Areas)
 - 2017: 104,000 acres
 - Needed: 10,000,000 acres
- 2019 Legislative Funding Bill
 - \$270 M over 11 years for Nutrient Reduction Strategy implementation
 - \$141 M gaming revenue
 - \$129 M sales tax on water sales
- Nutrient Reduction Exchange
 - Registry for NPS projects qualification for future nutrient offset program
- Environmental groups concerned about “lack of progress”

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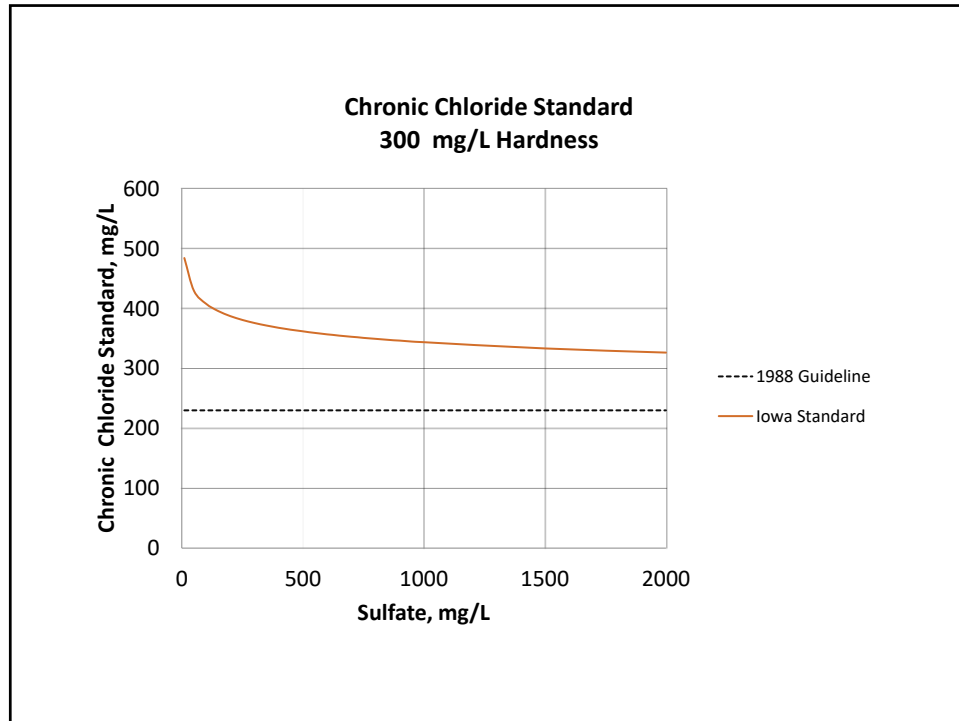
Chloride

- 2009 Iowa replaced old TDS WQS with chloride and sulfate standards
- Site Specific Chloride WQS approach
 - Less toxic at high hardness
 - Slightly more toxic at high sulfate
- Less stringent than 1988 EPA National Guideline Criteria
 - EPA plans to publish revised criteria late 2020
 - Possibly more stringent due to Mayfly data
 - Includes model of ion interactions on chloride toxicity
- Cities on small receiving streams with central or home ion exchange softeners have issues
 - Long compliance schedules with chloride reduction strategies

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*HB 2771:
Unpacking the Hype*

Julie Nahrgang
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Julie@weat.org
 210.325.3087


 Water Environment
 Association of Texas

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HB 2771 – What it Does and Doesn't Do

H.B. No. 2771

1 AN ACT
 2 relating to the authority of the Texas Commission on Environmental
 3 Quality to issue permits for the discharge into water in this state
 4 of produced water, hydrostatic test water, and gas plant effluent
 5 resulting from certain oil and gas activities.

Water Environment Assn

- Mandates that the TCEQ request authority to issue O&G discharge permits under TPDES by September 2021

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HB 2771 – What it Does *NOT* Do

- HB 2771 does not open produced water to discharge permitting, it changes the agency or agencies that issue the permits
- Federal regulations covering technology based ELGs and pretreatment standards still apply as well as Texas Surface water quality standards

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Brief History of HB 2771 Drivers

Water Environment Association of Texas

- Seismicity associated with underground injection wells
- Increasing pressures on water supplies
 - Texas' projected deficit in water availability vs. water need
- Streamlining permitting process for discharge

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HB 2771 and Oil and Gas Disposal Permit Streamlining

Water Environment Association of Texas

Current Discharge Permit Process:

- 1) Entity applies to the Rail Road Commission (RRC) for a state discharge permit.
- 2) Entity then applies to the EPA for a federal discharge permit.

HB 2771 ↓

Move state agency authority of issuing permits for top three Oil and Gas wastewater streams from RRC to TCEQ thereby taking advantage of NPDES delegation. **“One stop shop approach.”**

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HB 2771 Bill Details

- Rep J.M. Lozano, Author



- Filed, 2/28/2019
- Committee Hearing HERC, 3/36/2019
- House reading, 4/16/2019 amendments proposed, 105Y – 45N

Water Environment Association of Texas

- Rep John Turner, Advocate



- Committee Hearing SNRED, 5/08/2019
- Senate reading, 5/16/2019 amendment proposed, final passage 24Y – 7N

- Senator Hughes, Sponsor



- Signed into law, 6/14/2019
- Effective date, 9/1/2019

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Current O&G Wastewater Management

- Predominant disposal Class II UIC – underground injection wells
- Recycling or reuse of produced water within the oil and gas field
- Produced waters are used for irrigation of crops including those for human consumption
- On-site management using evaporation ponds and seepage pits
- Used for dust suppression and deicing

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Federal Regulations for O&G Wastewater: Current Practices

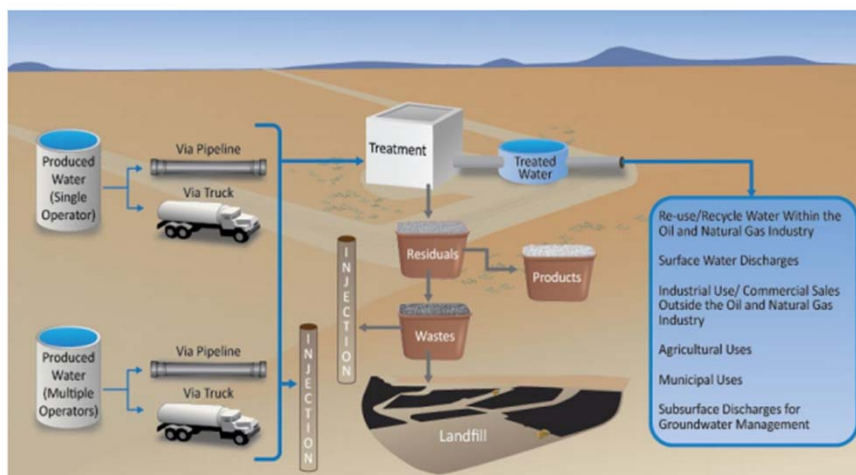
- Limited circumstances allow for discharge of produced waters to surface water or Waters of the US
- Subchapter E, **40 CFR 435**: Agriculture and Wildlife Beneficial Use category west of the 98th Meridian and does require an NPDES permit,
- Subchapter F: Stripper mines
- Subchapter H: Coalbed methane
- **40 CFR 437** Centralized Waste Treatment (CWT) facilities: transfer for off-site management
- Outlier – indirect discharge to some POTWs for management

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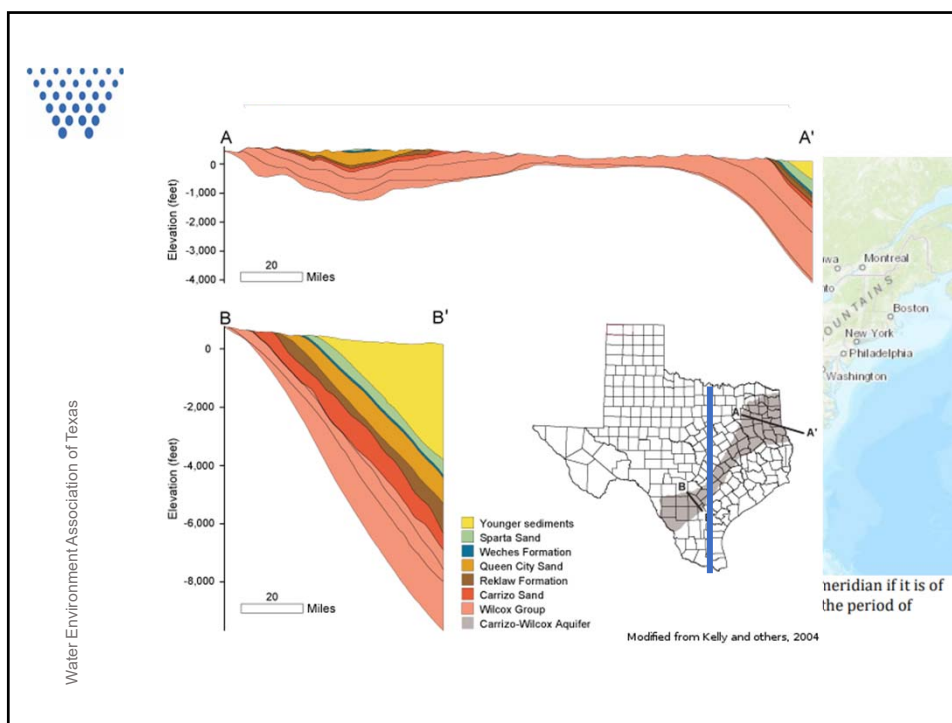


Figure 3-2. Produced Water Management Options



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Background and Backdrop: National Context

- MOU between **New Mexico** and EPA to clarify regulatory framework, July 2018
 - Draft White Paper on O&G management in New Mexico with public input, Dec 2018
- EPA holds public meeting Oct 9 and announces Oil and Gas Wastewater Management Study
- **Oklahoma** seeks approval to shift authority from EPA to state-only permitting for produced water
- **Texas** seeks approval to shift authority from EPA and RRC to TCEQ to issue permits

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Background and Backdrop: EPA's Oil and Gas Study

EPA announced Oil and Gas Extraction Wastewater Management Study in October, 2018

- Public meeting on October 9, 2018
- Evaluation of produced water management options including review of prohibitions and standards for O&G discharges
- Solicit information from key stakeholders including state agencies, tribal leaders, academia, and NGOs
- Publication of draft study May 2019 initiated public comment period ending July 2019

More to come on Federal front...

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Water Environment
Association of Texas

**To be Continued.
Comments and
Questions**


Julie Nahrgang, WEAT| TACWA
julie@weat.org

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Shellie R. Chard
 Water Quality Division Director, ODEQ
 WEF HOD
 Chair, Regulatory Sub-Committee, Government Affairs Committee

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GROUNDWATER
 PROTECTION COUNCIL

**PRODUCED
 WATER REPORT**

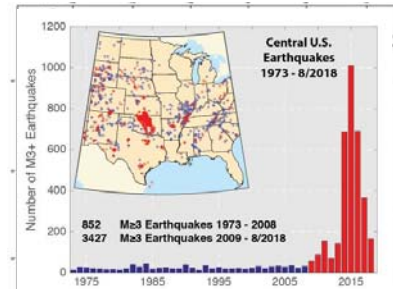
Regulations, Current Practices & Research Needs

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What is Driving the Produced Water Conversation?

- Volume of produced water
- Fresh water stress due to rising and relocating populations and regional droughts
- Induced seismicity

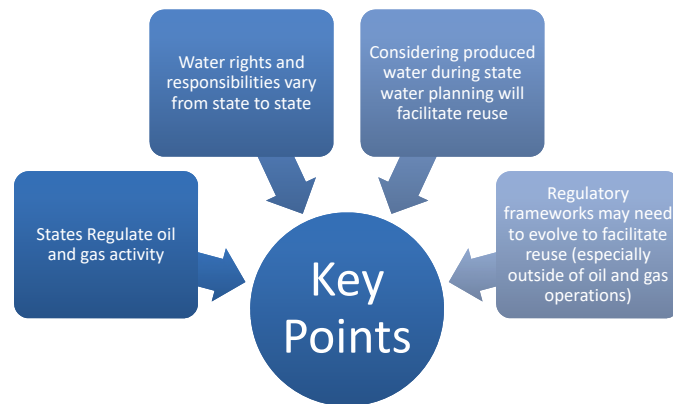


Source: <https://myweb.rollins.edu/jsiny/Waterbasics.html>

Regulations & Produced Water Cycle

Sourcing and Ownership	Transportation	Storage	Hydraulic Fracturing	Disposition	Beneficial Reuse
State Water Rights & Laws	Trucking permit/license	Construct & Operate pits permit	Various State Oil & Gas Regs	NPDES discharge	Inside oil & gas E&P no permits
Permits	Pipeline easements	Tank permit	Reporting Requirements	Pretreatment	Outside oil & gas require permits
Contracts	Road, waterway, railway crossing permits	Secondary containment	FracFocus or other mandatory data systems	Enhance Oil Recovery /UIC	Local authority requirements
		SPCC Plans	Transportation & storage of chemicals	Injection Well Disposal	More regs and ordinances to come
		Stormwater permit/ controls			

Module 1 Summary



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Basins Studied/Profiled in this Report

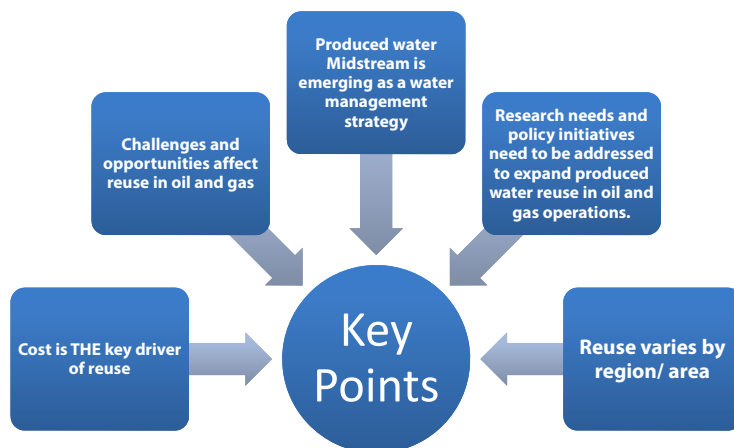
Seven basins profiled

- Appalachia
- Bakken
- Eagle Ford
- Haynesville
- Niobrara/ DJ
- Oklahoma
- Permian



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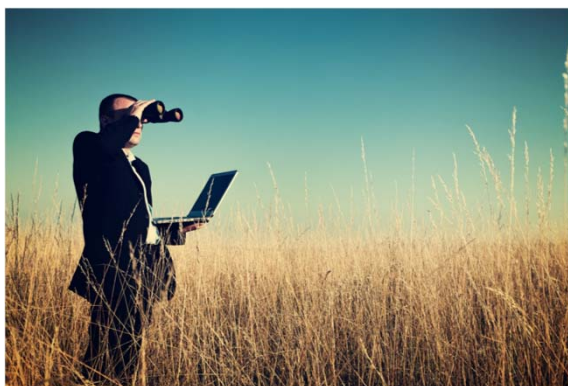
Module 2 Summary



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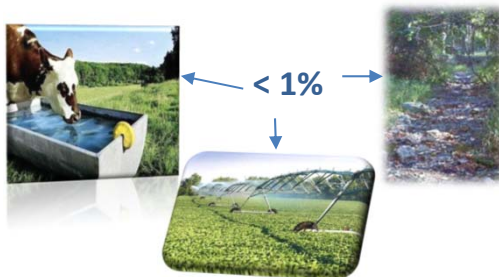
Module 3: The Road Ahead

- The most complicated and forward looking challenge
- Some small scale efforts exist
- Moving with caution
- Research needs on all fronts – environmental impact



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Current reuse outside of oil and gas operations is minimal but many opportunities exist.



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Expanded Opportunities for Reuse

Outside Oil & Gas Industry

- Possibilities for further reuse with additional research
 - Land Application (e.g., irrigation)
 - Discharges to Surface or Ground Water
 - Industrial Use (e.g., cooling water)



WAY Down the Road

Potable Reuse

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**Potential risks must be well
understood and
appropriately managed in
order to prevent unintended
consequences.**



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4 Phase Risk Assessment Protocol



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Basic Research Needs

Lab Analytical Method
Development and Capacity

Characterization
Raw and Treated using various
Technologies

Study actual Produced
Water (not synthetic)

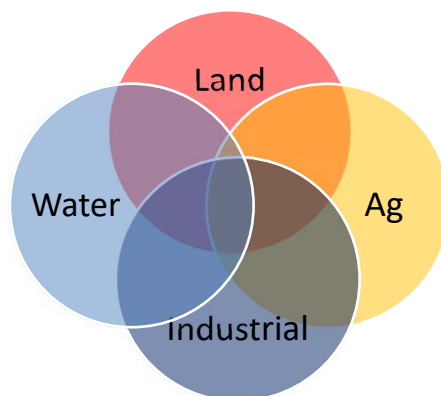
Science Based Regulatory
and Monitoring Standards

Fit for Purpose Risk
Assessment for various
Reuse



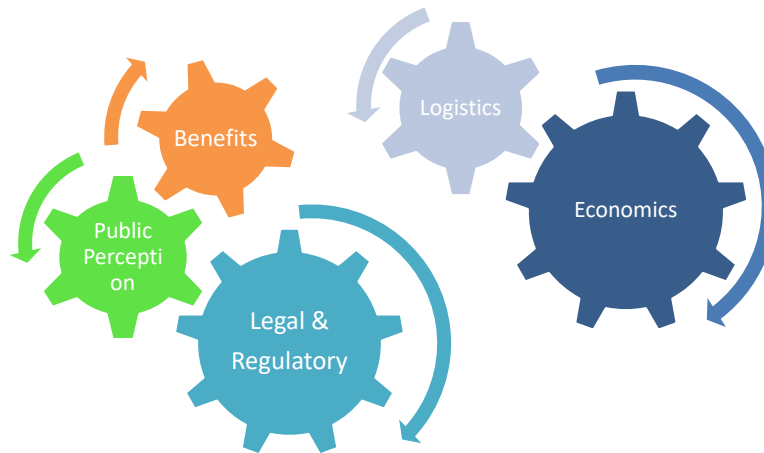
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“Fit-for-Purpose” Research Considerations



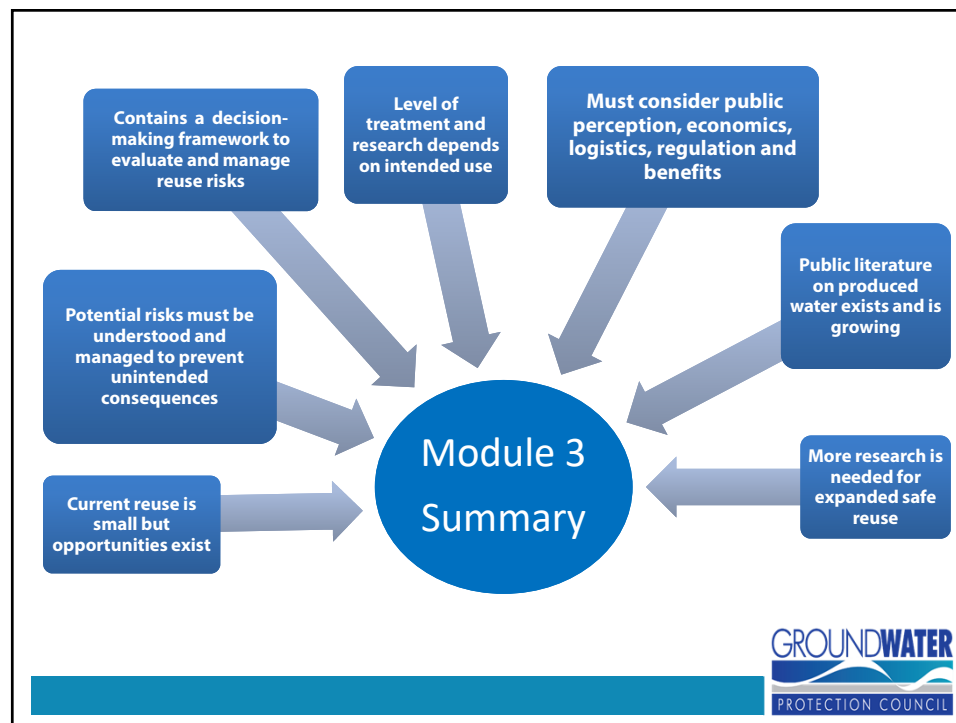
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Other Practical Considerations



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Conclusions

- Reuse is possible and may be cost effective in the right situations
- Oil & gas companies and end users must work together
- Regulators can look for ways to allow reuse projects but must ensure environmental and public health protection
- Expanding reuse opportunities may require regulatory or legislative solutions
 - Ownership of produced water
 - Transfer of ownership
 - Determination of liability
 - Human health and safety concerns
 - Environmental risk and mitigation concerns



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Principal Report Conclusion

Produced water reuse has local potential but requires careful thought.



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Activities in Oklahoma

- Produced Water Working Group
- Participation in GWPC Produced Water Taskforce
- NPDES Delegation application pending
- Participation in regional produced water group
 - Oklahoma
 - Texas
 - New Mexico
 - EDF
 - Oil and Gas Industry



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 405.702.8157



Questions

About the GWPC | www.GWPC.org **Online Report** | www.GWPC.org/resources/publications



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Questions?

