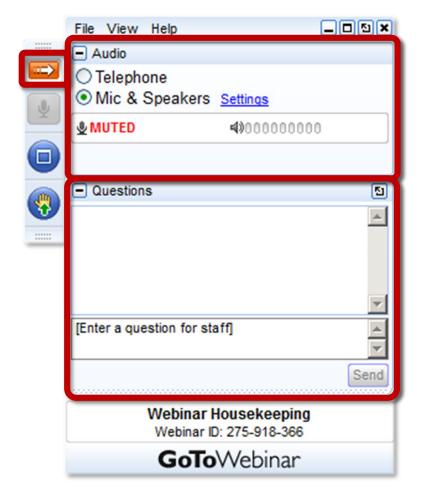
Drinking Water State Revolving Fund and Capacity Building In Action

Protecting Drinking Water Sources with the DWSRF Set-Asides December 12, 2019







Helpful Tips

Open and close your control panel

Join audio:

- Choose Mic & Speakers to use VoIP
- Choose **Telephone** and dial using the information provided

Submit questions and comments via the Questions panel

Note: presentation slides are attached and will be sent out following the webinar. Also, this webinar is being recorded.



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Today's Presenters

Kara Goodwin

Kara Goodwin is a physical scientist on the Source Water Protection team at EPA Headquarters in Washington, DC. In this role, she works with internal and external partners to communicate the importance of proactive measures to protect drinking water sources and to support their implementation. Kara has worked at the EPA since 2017. Prior to joining EPA, she worked for the Oregon Department of Environmental Quality, and spent several years in watershed research at EPA and the Cary Institute for Ecosystem Studies.





Today's Presenters

John Duggan

John Duggan currently works as the State of Colorado's source water protection work group leader for the Water Quality Control Division. He manages the Drinking Water Revolving Fund Wellhead and Capacity Development Set Aside Workplans and funding to support innovative programmatic and subcontractor activities for the SWAP program. His current responsibilities include leadership of the state source water implementation efforts, land management agency coordination on source water and various MOU's, inter-agency and local SWAP data sharing agreements, and source water protection outreach and education.





Today's Presenters

Ryan Chapman

Ryan Chapman is the Water Quality Assessment Section Supervisor at the Nebraska Department of Environment & Energy. Ryan holds a Bachelor's degree in Agricultural Sciences and Natural Resources and from the University of Nebraska Lincoln, and Bachelor's and Master's degrees in Landscape Architecture from Iowa State University. He has been with the department since 2009 and served as the Wellhead Protection Program Coordinator for 5 years.





Why source water protection and why now?





First step of a multi-barrier approach to safe drinking water



Small investments can lead to larger investments





Larger capitalization grants→ more set-aside money available

DWSRF Set-Asides





Optional for States; managed by States



Trade-off with Loan Funds



Different Eligibilities than Loans



Unique to Drinking Water SRF

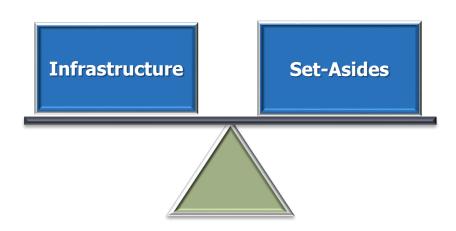
2%:Small Systems Technical Assistance

4%:Administration & TA

10%: State Program Management

15%: Local Assistance and Other State

Programs



State Program Management (10% Set-Aside)





Develop and Implement Drinking Water Protection, Capacity Development, Operator Certification, and Source Water Protection Programs



Often Used to Fund Staff

- Source Water Coordinators
- Hydrogeologists





Can also be used by state for source water protection activities

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Source Water Protection and Capacity Development Activities

 Loans to PWS for SWP land acquisition/easements, voluntary, incentive-based SWP measures, and source water petition programs



 Delineation, assessment, and updates to assessments for SWP areas



 Establishment and implementation of wellhead protection programs and implementation of efforts to protect source water



Assist PWS with capacity development



Local Assistance and Other State Programs (15%)





Source Water Protection and Capacity Development Activities

- Developing Source Water Protection Plans
- Small grant programs
- Technical Assistance through 3rd parties
- Implementation of BMPs
- Updating SWA with GIS
- Development of local ordinances
- Public outreach and education



Cover crops around high-risk public wells in Sussex County, DE



DWSRF & Source Water Resources



Websites:

https://www.epa.gov/dwsrf

https://www.epa.gov/sourcewaterprotection

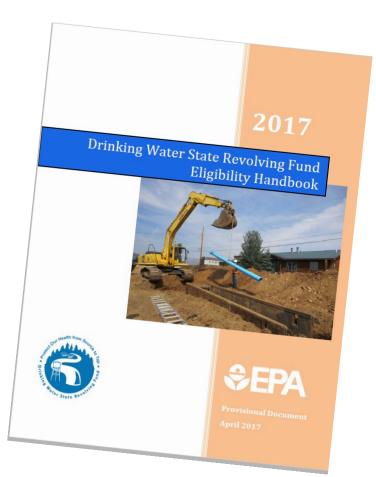
DWSRF & Source Water Fact Sheet:

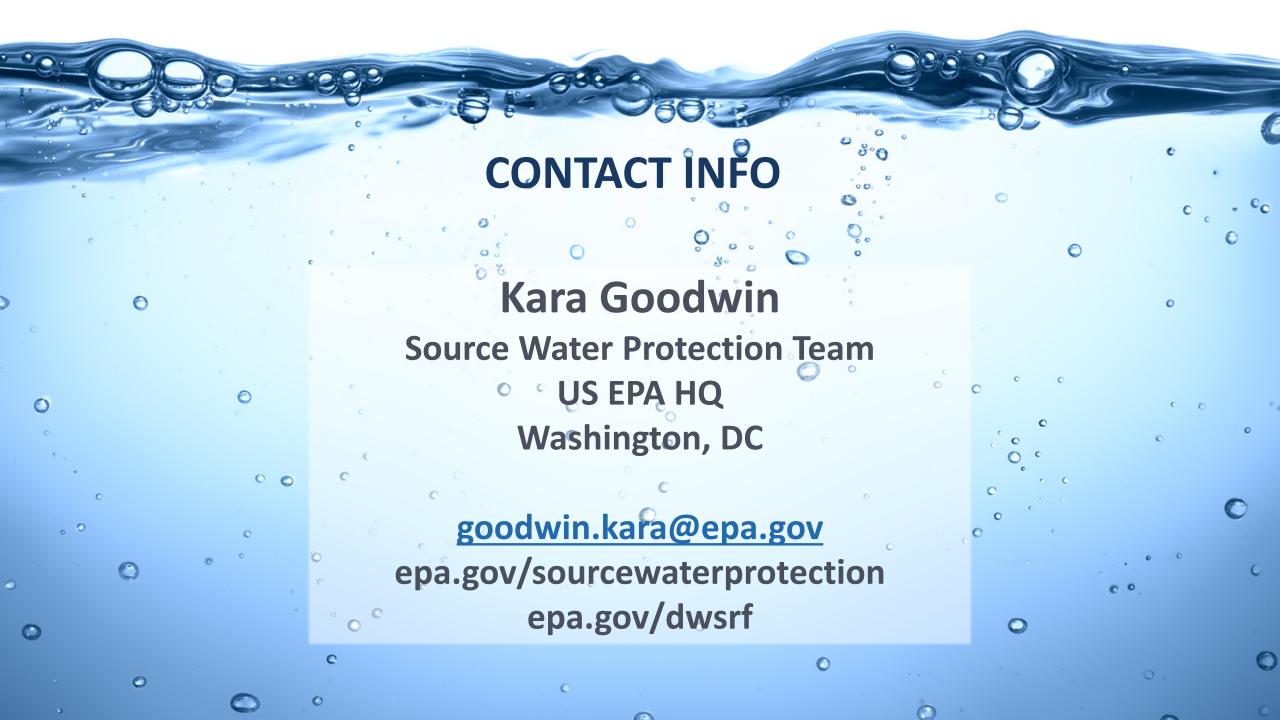
https://www.epa.gov/dwsrf/protecting-source-water-

dwsrf-set-asides

DWSRF Eligibility Handbook:

https://www.epa.gov/sites/production/files/2017-08/documents/dwsrf eligibility handbook june 13 2 017 updated 508 versioni 0.pdf







Kara Goodwin

Source Water Protection Team
US EPA HQ

goodwin.kara@epa.gov epa.gov/sourcewaterprotection epa.gov/dwsrf

John Duggan

Source Water Protection Work Group Leader
CO Department of Public Health and Environment

john.duggan@state.co.us www.colorado.gov/cdphe/wqcd

Ryan Chapman

Water Quality Assessment Section Supervisor NE Department of Environment and Energy

ryan.chapman@nebraska.gov



Presentation Outline

- Overview of Set Aside Use
- Historic Wellhead Funding
- What is funded with Wellhead and Capacity Development Funds
- Challenges with Funding
- Source Water Protection Strategies
- Innovative Projects and leveraging funding

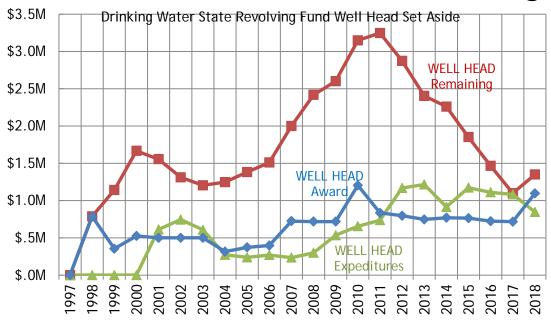


Overview of Set Aside Use

- Joint funding strategy and combined Capacity Development and Wellhead Protection Workplans into one Local Assistance Workplan
- Colorado utilizes the full 15% of DWSRF Cap Grant for Local Assistance
 - 10 % Annually for Capacity Development
 - 5 % Annually for Wellhead Protection
- Annual funding appropriations
 - 2019: CAP Grant: \$21,946,000, Cap Dev: \$2,194,600, Wellhead: \$1,097,300
 - 2020: estimated to be same funding amount
 - Wellhead funding between \$750 K \$1.2 M
 - Cap Dev funding designated at \$300K per year



Historic Wellhead Funding



Calander Year Fnd

Notes: The WELL HEAD set aside is 5% of the DWSRF capitalization grant 2018 figures are complete (Updated in MAR19 with OCT-DEC 2018 Billing)



What is funded?

- Drinking Water Program staff including, managers, coaching and training group, source water protection staff, field services staff, engineering staff, sanitary surveys, and GWUDI evaluations.
- External contracts including Colorado Rural Water Association, public water system training, etc.
- Grant funding directly to PWS for source water planning and substantial implementation of BMP's
- Pursuing drinking water excellence grants
- Drinking water design reviews
- Innovative Projects and other uses



Challenges with Funding

- Diverse range of DW activities, lots of FTE hitting both funding sources
- Historic balances need to be spent in 3 years
- Difficult to rely on fluctuating SRF funds to support both state FTE and contracts
- Contract funding has been reduced, seeking alternate funding sources (Clean Water and DW admin fees from SRF loans)



Source Water Protection Set Aside Strategies

- Staffing is funded 70% Wellhead, 30% Capacity Dev Funding
- Statewide grant program for PWS/local governments (\$5,000 each,
 14 grants/year or \$70 K/year previously 24 grants or \$120k/year)
- A portion of grant funding (typically \$1000-\$1,500) dedicated to substantial implementation (ex: spill kits, education efforts, security issues, chlorine impact studies, septic inspection/pumping)
- Support Colorado Rural Water Association contract to provide technical and financial assistance for protection planning
- Innovative projects (Wildland Fire Decision Support System and Wildfire Risk Reduction, County Emergency Management Data Sharing, MOU's with County Governments)



Innovative Projects

Wildfire Risk Reduction

- Coordination with CRWA on critical water system infrastructure data collection
- Process data
- Coordinate with USFS Wildland Fire Decision Support System Data (GIS coverages)
- Fire managers aware of drinking water resources

Emergency Management Data

- Data sharing agreements
- Provide county drinking water source locations for flooding, spills, post wildfire impacts, etc.
- Easy map service package
- Great for pre-planning for emergencies



Wildland Fire Decision Support System (WFDSS) Work

- Combined funding sources (historic \$30k per year, now funded at \$60k per year)
- Funding from Clean Water SRF admin fees and Wellhead Protection Set Aside
- Funding for 20 WFDSS Systems per year
- Need substantially more funding, Colorado has ~850
 Community Water Systems to enter into USFS databases
- National implications and needs

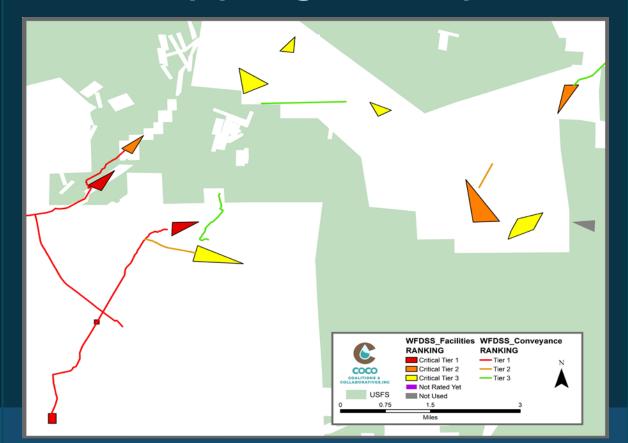


WFDSS Analysis

Ranking	Criteria	Value Ranges	Definition
Tier 1	% Supply % Reliance Outage Risk	75-100% 75-100% < 24 Hours	Facilities in this category represent "Catastrophic Impacts" to a community and no alternatives for sources are available.
Tier 2	% Supply % Reliance Outage Risk	50-75% 50-75% < 1 week	Facilities in this category represent "Significant Hardship" to a community to find alternative sources but the challenges are not insurmountable.
Tier 3	% Supply % Reliance Outage Risk	< 50% 50% > 1 week	Facilities in this category represent "Harm and Challenges" would occur for the community but through redundancy, water restrictions and/or operational changes there are alternative sources.



Mapping Example





Contact Information

John Duggan 303.692.3534 John.Duggan@state.co.us

Source Water Protection webpage:

https://www.colorado.gov/pacific/cdphe/source -water-assessment-and-protection-swap



Partnerships for Success Drinking Water Protection

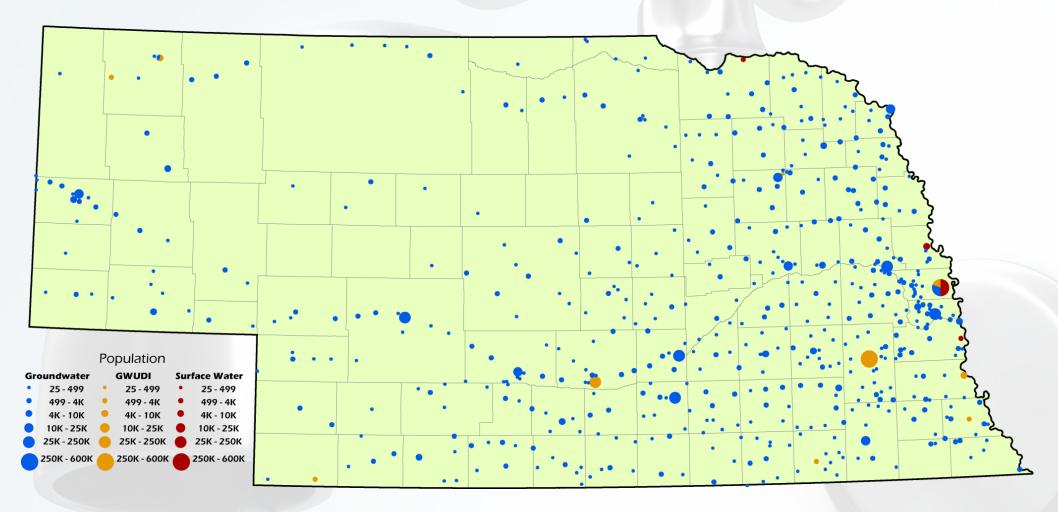
Ryan Chapman Nebraska Department of Environment & Energy



Good Life. Great Resources.

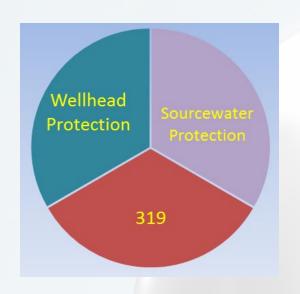


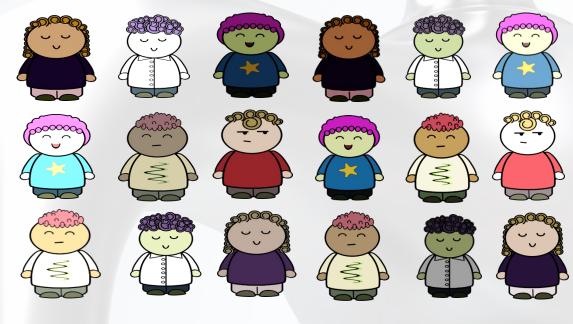
Community Public Water Systems

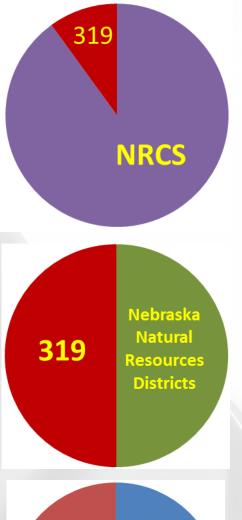


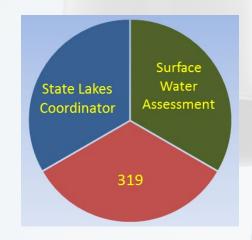
88% of Nebraskan's Drink Groundwater

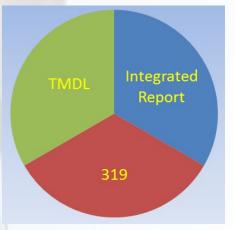
Integrated Programs/Staff

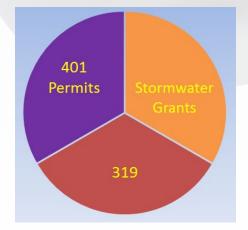


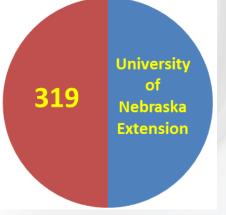




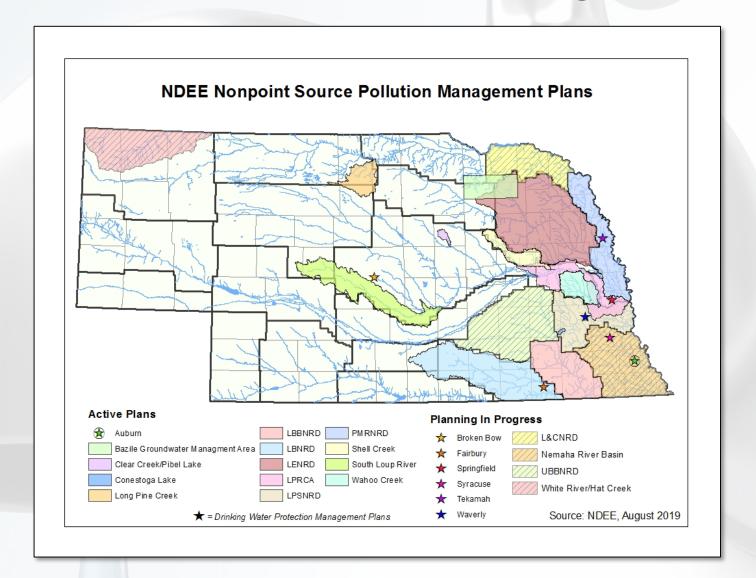




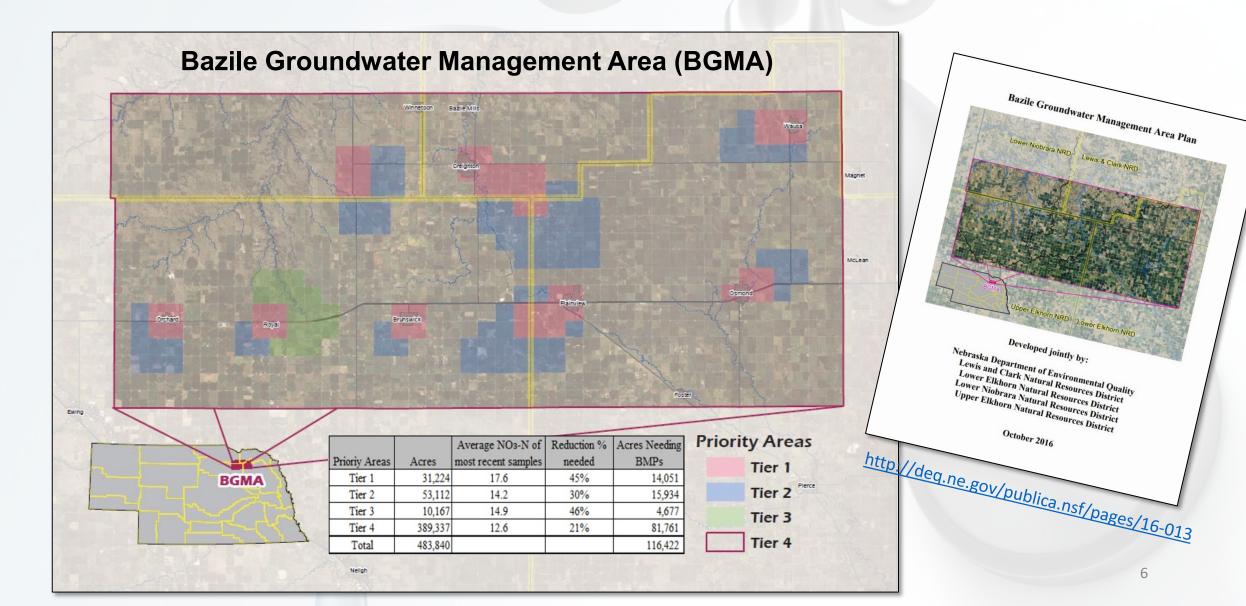




CWA-NPS: 9-Element Watershed Management Plan

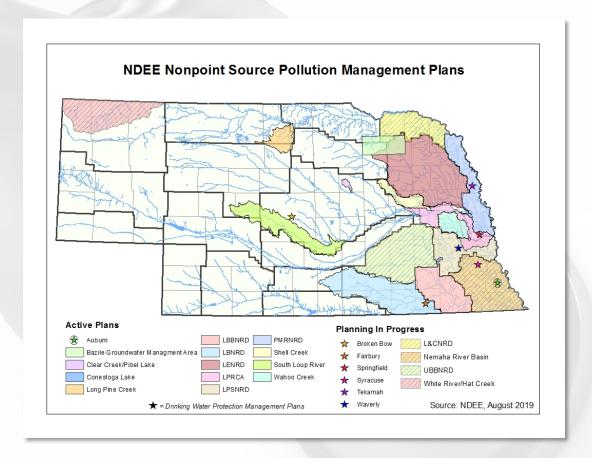


Alternative to a 9-Element Watershed Management Plan



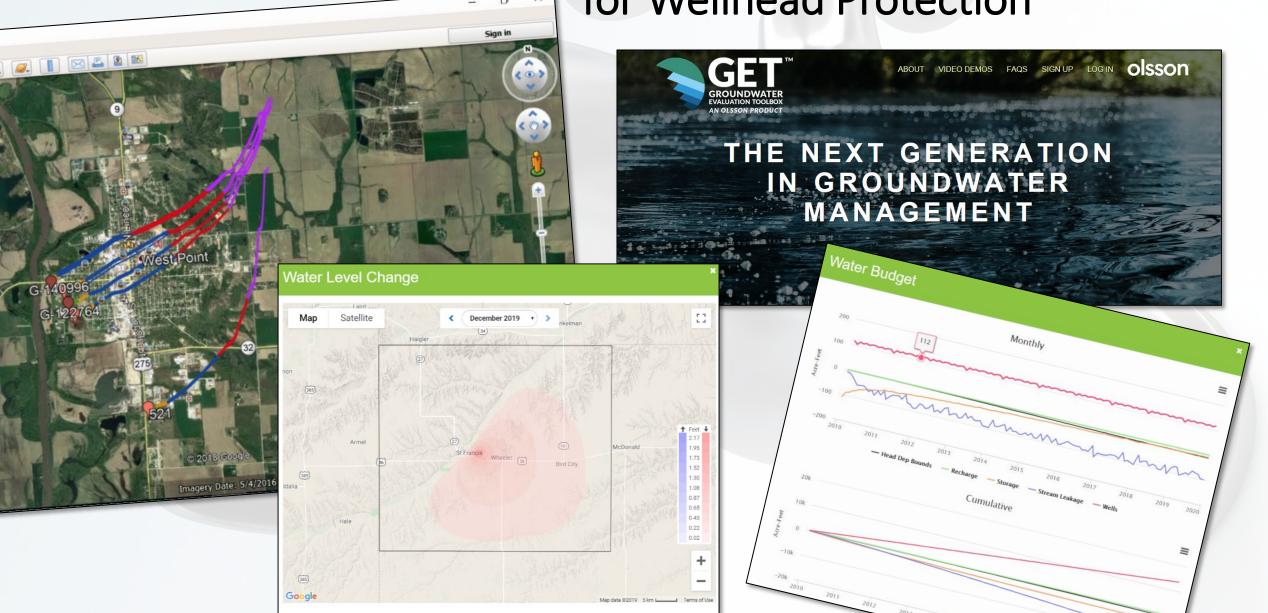
Drinking Water Protection Management Plans

- ✓ Meet EPA's alternative to a 9element watershed management plan
- √ 50 year time-of-travel based on three-dimensional groundwater model
- ✓ Community based planning process
- ✓ Strong implementable I&E program
- ✓ Must contain all required elements of a Wellhead Protection Plan and submit for state approval

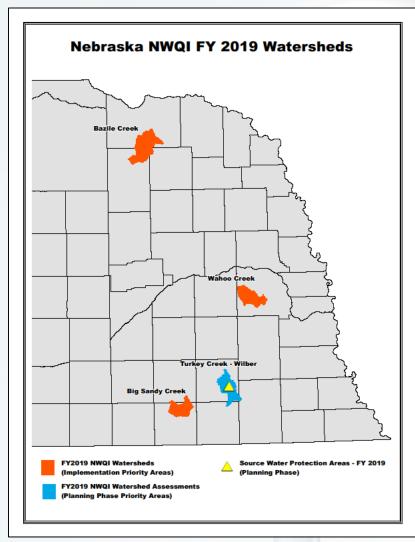


15% Set-Aside Funded

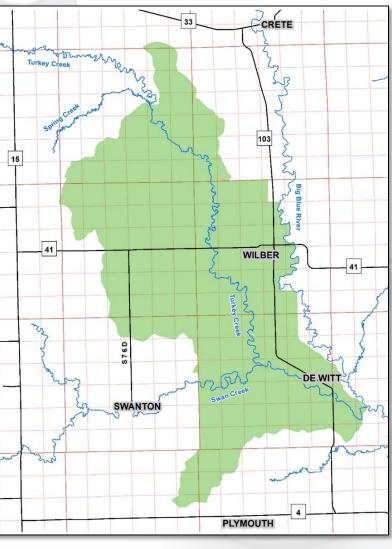
Groundwater Evaluation Toolbox (GET) for Wellhead Protection



USDA-NRCS: National Water Quality Initiative







Farm Bill 10% SWP Provision

Potential Priority Practices (TBD)

- Reduced nitrogen application
- Nitrogen scavenging cover crops
- Split nitrogen application
- Delayed nitrogen application
- Nitrification inhibitors
- Change crop rotation (CCB to CB)
- Small grain/forage/grass rotation
- Irrigation management
- Integrated pest management
- Split Atrazine application
- Atrazine applied post planting
- Atrazine rate reduction (≥0.5lbs)
- Alternative herbicide
- Buffer strips
- Change crop rotation (CCB to CB)
- Cover crop/small grain/forage

Drafted by Elbert Traylor and Sam Radford (NDEE) from work group input.

	PRIORITY		
CRITERIA FOR PRIORITY LEVELS	High	Medium	Low
Applications located within a Wellhead Protection Area as delineated by NDEE , OR	+		
Applications located within a delineated watershed that directly drains to a surface water intake of a public water system.	+		
Applications located within a Phase 2, 3, or 4 Groundwater Quality Management Area encompassing ≥ 1 Well Head Protection Area, OR		+	
Applications located within a delineated Groundwater Quantity Management Area encompassing ≥ 1 Wellhead Protection Area².		+	
Applications located in a delineated Phase 1 Groundwater Quality Management Area encompassing ≥ 1 Wellhead Protection Area ³ .			+
Ineligible: Applications located within an area that does not fit the definitions above.			



