

MAINE DWSRF LAND ACQUISITION LOANS

MAINE DRINKING WATER PROGRAM

William Dawson, PE, Chief Engineer



AGENDA

- Introduction
- Land Acquisition Program History
- Need
- Competing Demands for Funds
- Political Considerations
- Marketing

INTRODUCTION

MAINE DRINKING WATER STATE REVOLVING FUND INTENDED USE PLAN

SHORT TERM GOAL STATEMENT:

“Provide financial assistance to implement preventive measures such as wellhead and source water protection and acquisition of properties to create protective buffers near drinking water supplies.”

LONG TERM GOAL STATEMENT:

“Create and maintain a land acquisition fund in perpetuity.”



LAND ACQUISITION PROGRAM HISTORY

- Maine has had a Land Acquisition Loan Program since the beginning of the DWSRF (1998).
- 20 Loans in 22 Years.
- PWS have purchased the rights to or purchased 4,844 Acres of Land in their Source Protection Area (7.57 Square Miles).
- \$6,386,228 at an average interest rate of 1.27%.



LOANS

| MAINE DWSRF LAND ACQUISITION LOANS | | | | | | |
|------------------------------------|---------------------------------|------------------|-----------|----------|------------|---------------|
| Year | Utility | Loan | PF | Acres | Term (Yrs) | Interest Rate |
| 1998 | Auburn Water District | \$ 285,000 | \$ - | 217.50 | 15 | 2.63% |
| 1998 | Lewiston Water Department | \$ 285,000 | \$ - | 217.50 | 15 | 2.62% |
| 1999 | South Berwick Water District | \$ 122,600 | \$ - | 9.38 | 10 | 1.00% |
| 1999 | Bangor Water District | \$ 566,778 | \$ - | 725.00 | 10 | 2.52% |
| 2000 | Vinal Haven Water District | \$ 44,393 | \$ - | 19.20 | 10 | 1.10% |
| 2001 | Presque Isle Water District | \$ 83,800 | \$ - | 302.00 | 10 | 1.00% |
| 2001 | Winthrop Utilities District | \$ 200,000 | \$ - | 100.00 | 10 | 1.00% |
| 2002 | Bath Water District | \$ 270,000 | \$ - | 37.00 | 10 | 1.00% |
| 2004 | Presque Isle Water District | \$ 84,000 | \$ - | 2.40 | 10 | 1.00% |
| 2007 | York Water District | \$ 250,000 | \$ - | 3.09 | 10 | 1.00% |
| 2007 | Brunswick-Topham Water District | \$ 358,500 | \$ - | 6.30 | 15 | 1.30% |
| 2008 | Winthrop Utilities District | \$ 296,000 | \$ - | 6.62 | 10 | 1.00% |
| 2008 | Fryeburg Water Company | \$ 231,000 | \$ - | 5.67 | 15 | 2.30% |
| 2009 | Kittery Water District | \$ 350,000 | \$ - | 41.00 | 15 | 1.00% |
| 2010 | York Water District | \$ 50,000 | \$ - | 3.00 | 10 | 1.00% |
| 2010 | Ellsworth Water Department | \$ 1,515,000 | \$ - | 1,196.00 | 10 | 1.00% |
| 2010 | Brewer Water Department | \$ 735,000 | \$ - | 510.00 | 20 | 1.00% |
| 2014 | York Water District | \$ 249,157 | \$ - | 2.23 | 10 | 0.00% |
| 2017 | Lake Arrowhead Community, Inc. | \$ 65,000 | \$ - | 23.24 | 10 | 1.00% |
| 2019 | Portland Water District | \$ 345,000 | \$ 50,000 | 1,417.00 | 10 | 1.00% |
| | | \$ 6,386,228 | | 4,844.13 | | 1.27% |
| | | | | 7.57 | | Square Miles |
| Note: | | \$1,318.34 /Acre | | | | |



NEED

- Maine has 11 PWS with an “Avoidance to Filtration”.
- Public water system’s ownership or legal control of the land around its source(s) is the most effective means of protecting its source(s).
- These funds are only available to provide assistance to community water systems.
- The land purchased must be acquired from a willing seller.



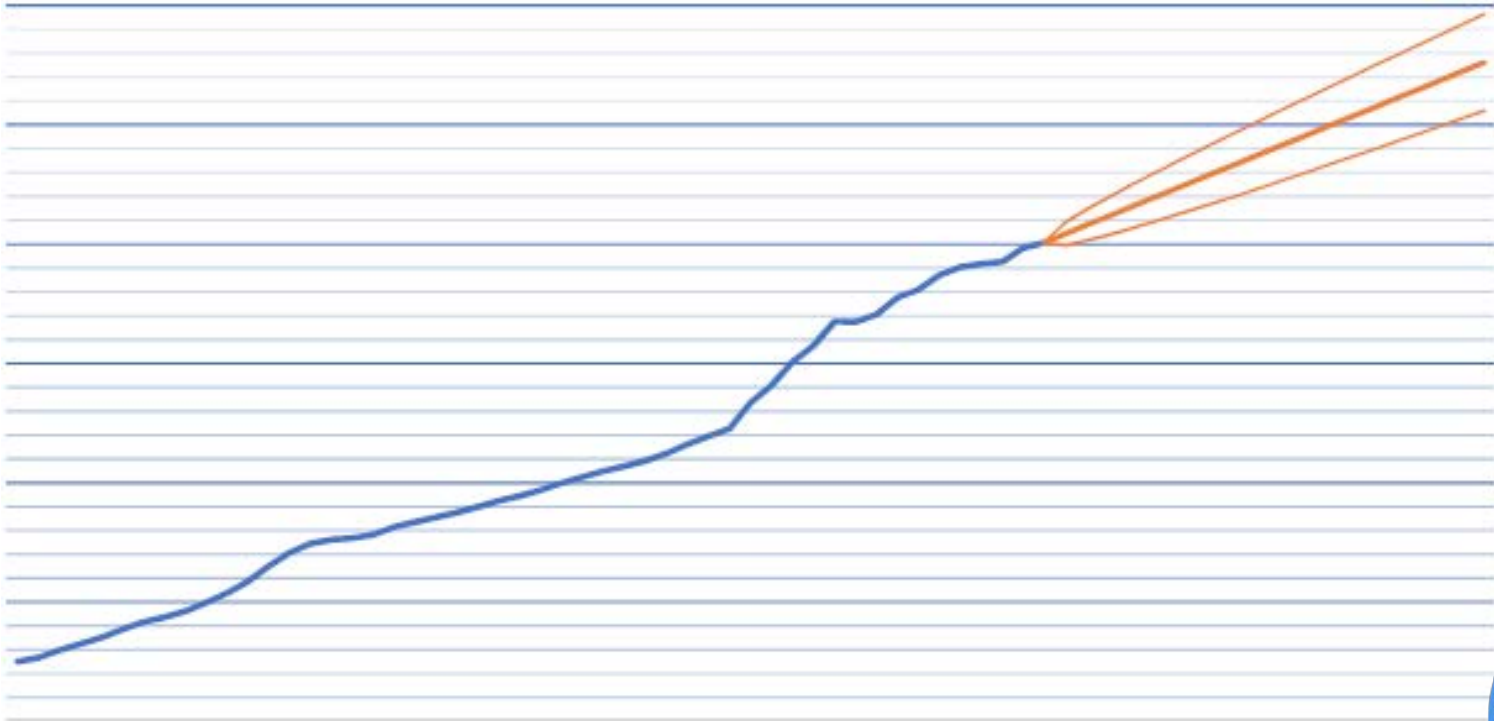
COMPETING DEMAND FOR FUNDS

- Grey Infrastructure Need Backlog.
- Construction Project Costs have and will continue to grow.
- The Maine DWSRF funds only about 50% of their Applications.
- Due to inactivity in the Land Acquisition Fund we transferred \$2 million to the Construction Fund in 2019.



THE INCREASING COST OF CONSTRUCTION

WHAT DID COST \$1,000,000 IN 1969, COSTS \$8,000,000 TODAY AND WILL COST \$11,000,000 IN 2039.



POLITICAL CONSIDERATIONS

- We do not know what the political ramifications would be for a State Program to offer what could be construed as a “Grant” to take land off the tax role.
- The CFR relative to the use of DWSRF funds for Land Acquisition has precise language referencing only loans to the PWS. See the excerpt from the CFR below:

(e) Local assistance and other State programs. A State may use up to 15 percent of its capitalization grant to assist in the development and implementation of local drinking water protection initiatives and other State programs. No more than 10 percent of the capitalization grant amount can be used for any one authorized activity.

(1) This set-aside may only be used for the following activities:

A State may provide assistance only in the form of loans to community water systems and non-profit noncommunity water systems to acquire land or conservation easements from willing sellers or grantors.



MARKETING THE PROGRAM

- We are concerned about the sustainability of our “*Land Acquisition & Conservation Easements / Source Protection Measures*” funds.
- These funds are rarely used.
- We have issued only 3 loans since 2010.
- In 2019 we offered PF: “Under this program, community and non-profit non-community public water systems (PWS) may apply for low-interest loans with 50% principal forgiveness of up to \$50,000 for the purchase of land and/or conservation easement for drinking water source protection.”





Public Health Protection Begins at the Source!

CIFA SRF Workshop 2019

Cleveland, OH

Drinking Water State Revolving Fund & Source Water Protection

Kara Goodwin


November 19, 2019


CIFA SRF Workshop
Cleveland, OH



OFFICE OF GROUND WATER
AND DRINKING WATER

Why source water protection and why now?

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

 Larger capitalization grants → more set-aside money available

 Small investments can lead to larger investments

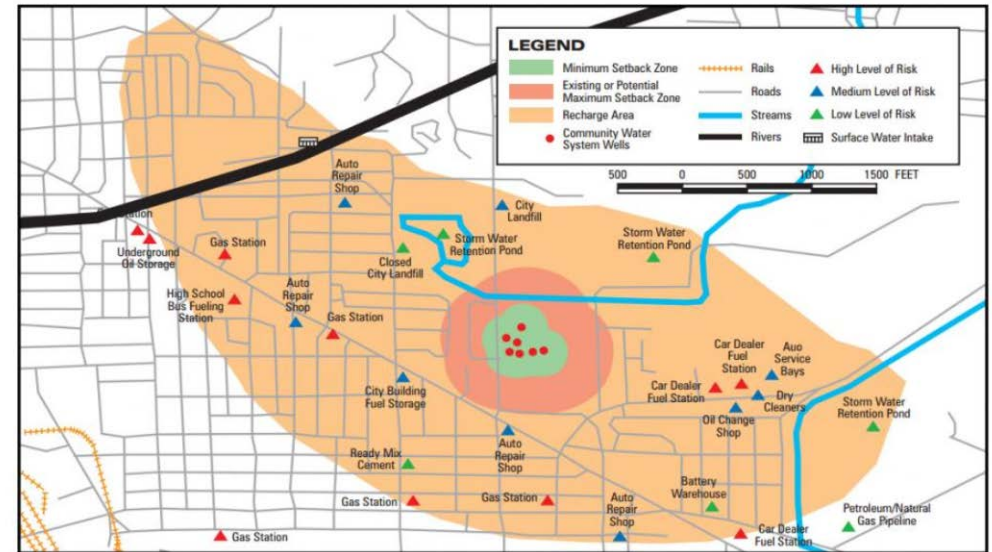


Source water programs 1996 to now



1996 SDWA amendments:

- State SWP programs/assessments
 - Delineation of source water protection areas
 - Inventory of potential sources of contamination
 - Vulnerability analysis
- Established the DWSRF including set-asides



DWSRF Set-Asides



Optional for States



Trade-off with Loan Funds



Different Eligibilities than Loans



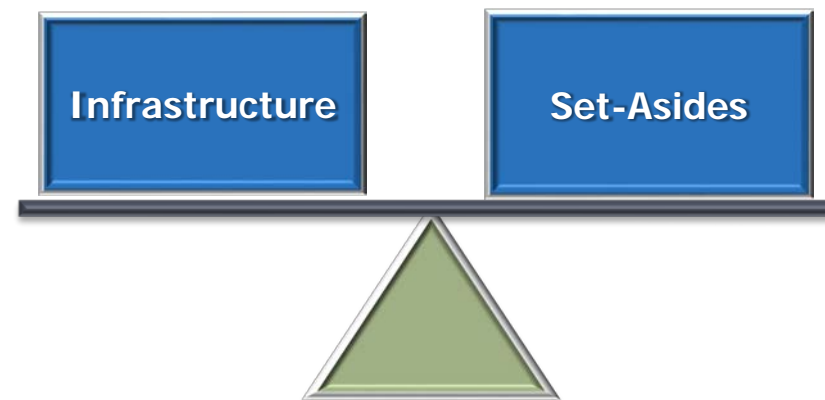
Unique to Drinking Water SRF

2%: Small Systems Technical Assistance

4%: Administration & TA

10%: State Program Management

15%: Local Assistance and Other State Programs



Source water programs 1996 to now



1996 SDWA amendments:

- State SWP programs/assessments
- Established the DWSRF



Today:

- New tools/info for updating assessments
- Leveraging opportunities
- Expanded SWP eligibilities for DWSRF set-asides



Over past 20+ yrs:

- Changing landscapes
- Emerging contaminants
- Degrading ecosystems: HABs
- State revolving funds have grown as loans are repaid



Map Credits: The imagery content was provided under the Creative Commons Attribution 3.0 New Zealand license by Land Information New Zealand, New Zealand Aerial Mapping (NZAM), New Zealand Aerial Surveys (NZAS) and the Royal New Zealand Air Force (RNZAF).

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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Local Assistance and Other State Programs (15%)

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

Small Investments Can Go a Long Way



Think long-term



Account for multiple benefits



Consider leveraging funds for larger investments



It's a great time for source water protection!



- Now is the time for conversations between SWP and DWSRF programs in states about the opportunities to dedicate set-aside money for source water protection
- EPA encourages states to re-think how they are utilizing their set-asides and consider new opportunities for leveraging these dollars for source water protection

How to get started



Reach out to your SWP & DWSRF colleagues

<https://www.epa.gov/sourcewaterprotection>

<https://www.epa.gov/dwsrf>



Identify priority areas/systems to update assessments and develop/implement plans



Include SWP in your state's Set-Aside Workplan



Why source water protection and why now?



First step of a multi-barrier approach to clean drinking water
(Maine's land acquisition loan program)



Larger capitalization grants → more set-aside money available



Small investments can go a long way
(Nebraska's leveraging of set-aside funds for 319/NRCS)





QUESTIONS?

Kara Goodwin

USEPA HQ

Office of Ground Water and Drinking Water

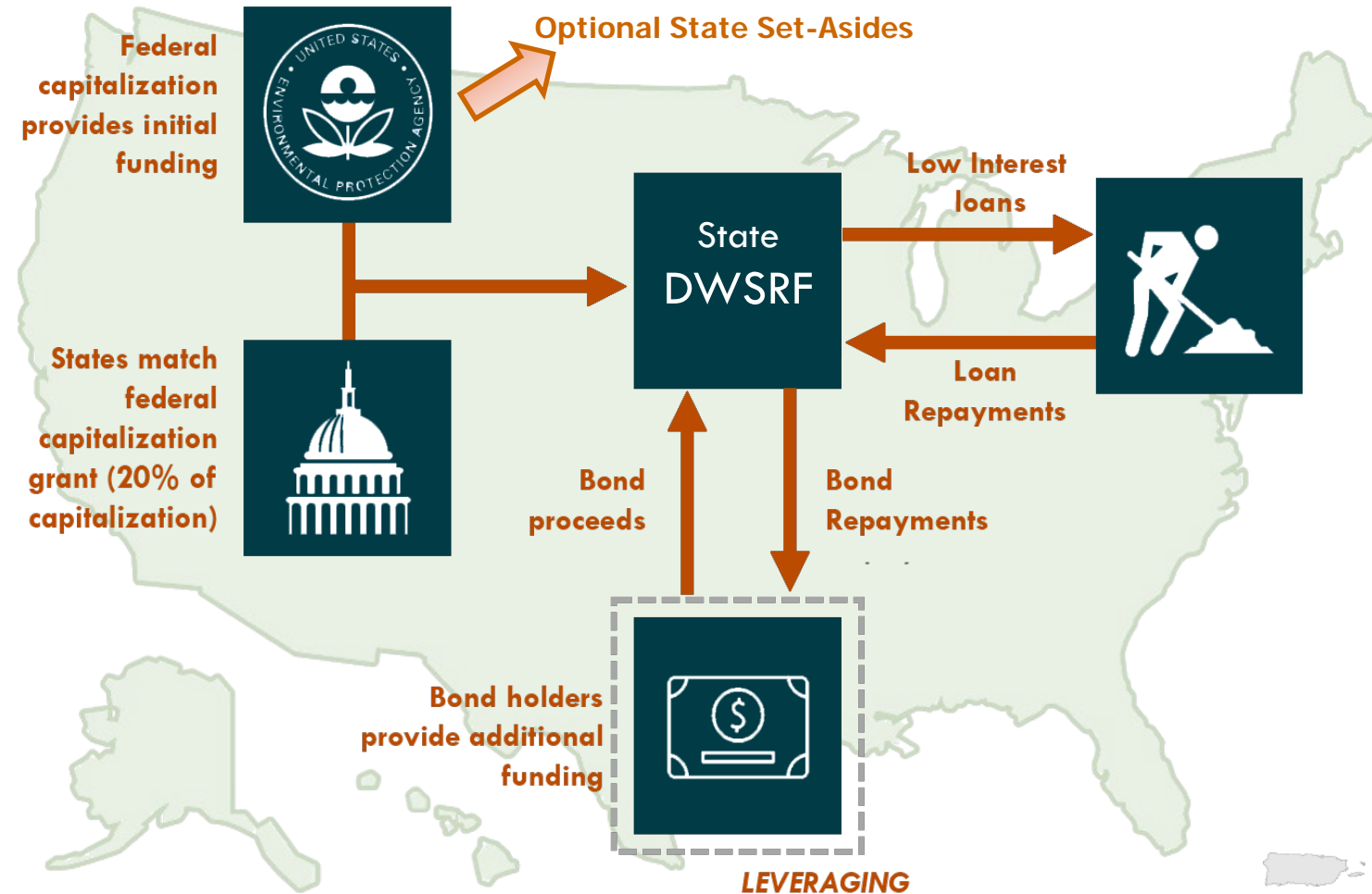
goodwin.kara@epa.gov

epa.gov/sourcewaterprotection

epa.gov/dwsrf

The DWSRF Infrastructure Model

- 51 state-level “infrastructure banks” make loans with water systems for drinking water projects
 - Water systems apply for funding with their respective state DWSRF program
- States craft their DWSRF program to meet the needs of their state
 - Each of the 51 programs are unique
 - They operate within the federal framework but may target funding more narrowly



Examples



Oregon uses set-aside funds to support staff at OHA and DEQ. Among other tasks, these staff are updating and automating SWA throughout the state. This work prepared them to apply for and receive funding for 5 NWQI Source Water Protection pilot projects. (almost \$500K)



Washington used set-aside funds for the appraisal and survey of a parcel of land critical for source water protection that was owned by a timber company. The land was then purchased by the public utility district with a CWSRF loan.



Nebraska is funding the development of groundwater-focused plans that meet the requirements of an Alternative to an EPA 9-Element Watershed Management Plan which provide access CWA 319 funds

States' Use of DWSRF Set-Asides for Source Water Protection

November 19, 2019
CIFA SRF Workshop

Deirdre White
Association of State Drinking Water Administrators



About ASDWA

- ▶ **Mission:** To protect public health and the economy by providing safe drinking water
- ▶ **Members:** Drinking Water Program Administrators: 50 states, territories, the Navajo Nation, and the District of Columbia
 - ▶ **Public Water System Oversight**
 - ▶ SDWA Regulation
 - ▶ Technical assistance
 - ▶ Funding - DWSRF, set-asides
 - ▶ **Coordination with Multiple Partners**
 - ▶ Coordinate to prioritize and support drinking water protection



State Drinking Water and Source Water Protection (SWP) Programs

- ▶ Where are they within state government?
 - ▶ 16 in state Departments of Health
 - ▶ 3 in combined state Departments of Health, Environment, and/or Natural Resources
 - ▶ 31 in Departments of Environment or Natural Resources
- ▶ ASDWA's Member and SWP Contact in Ohio
 - ▶ Amy Klei, Chief, Division of Drinking & Ground Waters, Ohio Environmental Protection Agency
 - ▶ Jeff Patzke, Source Water Protection
- ▶ State DWSRF programs
 - ▶ Some are under the Drinking Water Program
 - ▶ Some are under the Finance Authority

www.asdwa.org/sourcewatercontacts



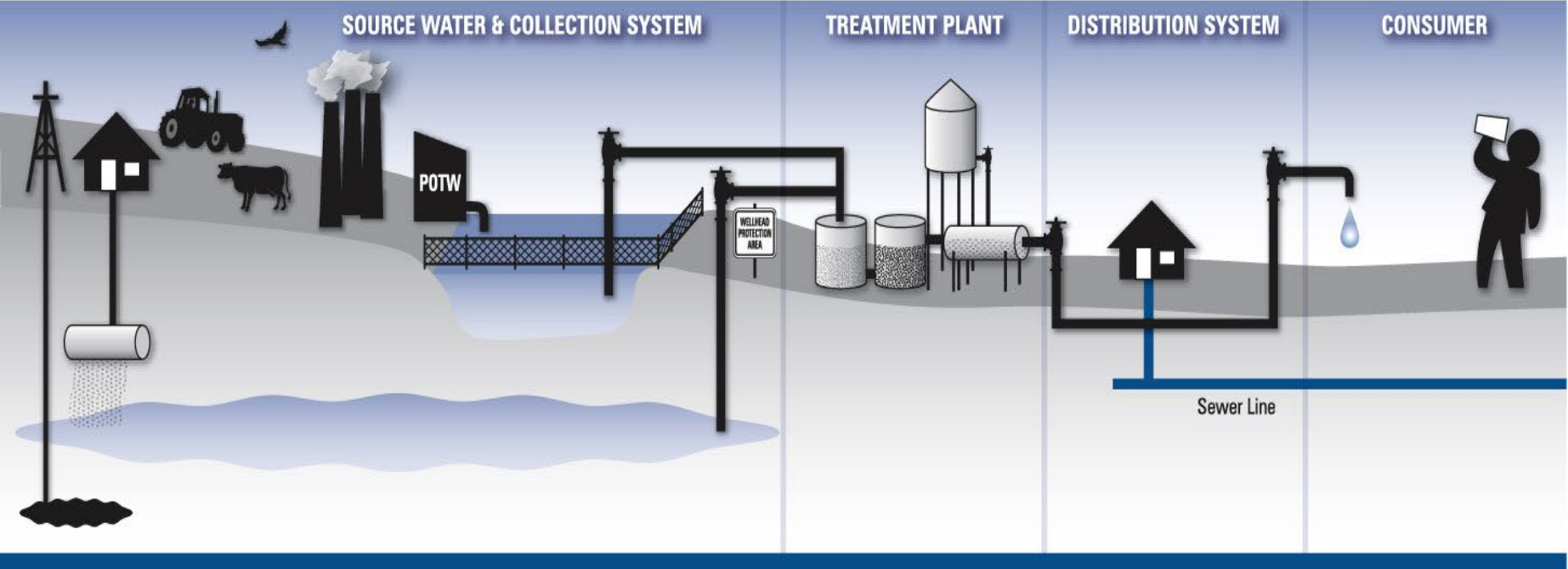
29 Members



| | | | | | | |
|-----------------------------------|--------------------------------------|--|---|--|---|--|
| American Planning Association | American Rivers | American Water Works Association | Association of Clean Water Administrators | Association of Metropolitan Water Agencies | Association of State and Territorial Health Officials | Association of State Drinking Water Administrators |
| Clean Water Action/Fund | Environmental Finance Center Network | Ground Water Protection Council | Groundwater Foundation | National Association of Conservation Districts | National Association of Counties | National Environmental Services Center |
| National Ground Water Association | National Rural Water Association | North American Lake Management Society | River Network | Rural Community Assistance Partnership | Soil & Water Conservation Society | Smart Growth America |
| The Trust for Public Land | USDA - FSA & USDA - NRCS | US Endowment Forestry & Communities | U.S. EPA | U.S. Forest Service (Northeastern) | U.S. Geological Survey | Water Systems Council |

www.sourcewatercollaborative.org

Safe Drinking Water Act Multiple-Barrier Approach



SOURCE WATER PROTECTION
reduce contaminant threats

TREATMENT

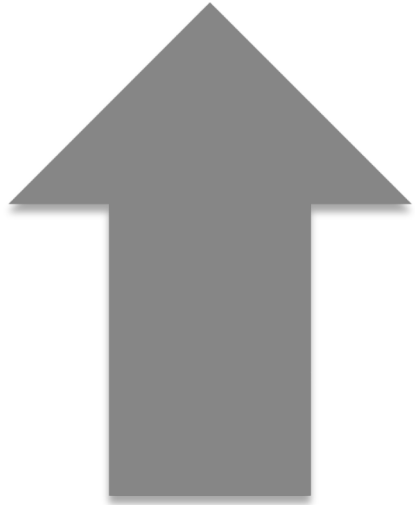
MONITORING
& COMPLIANCE

COMMUNITY
INVOLVEMENT

What about Treatment?

- Some contaminants are expensive and energy intensive to treat
 - Small system affordability challenges
- Treatment for nutrients can create disinfection by-products (DBPs) which pose health risks
- Some treatments are not effective; especially for 'emerging contaminants'
- Some utilities avoid treatment
 - Drilling new wells
 - Blending sources





Higher Grey
Infrastructure
Cost\$



Lower Natural
Infrastructure
Cost\$

State DWSRF & Set-Asides

Different States Have Different Priorities

- ▶ Immediate public health threats vs. longer term protection

Staff Funding

- ▶ **Connecticut:** Source water protection unit staff funded by the state and by DWSRF set-asides

DWSRF Loan Points and Requirements

- ▶ **Alaska:** Priority points for source water protection (SWP) activities for DWSRF loans
- ▶ **Florida:** SWP planning required for DWSRF loans

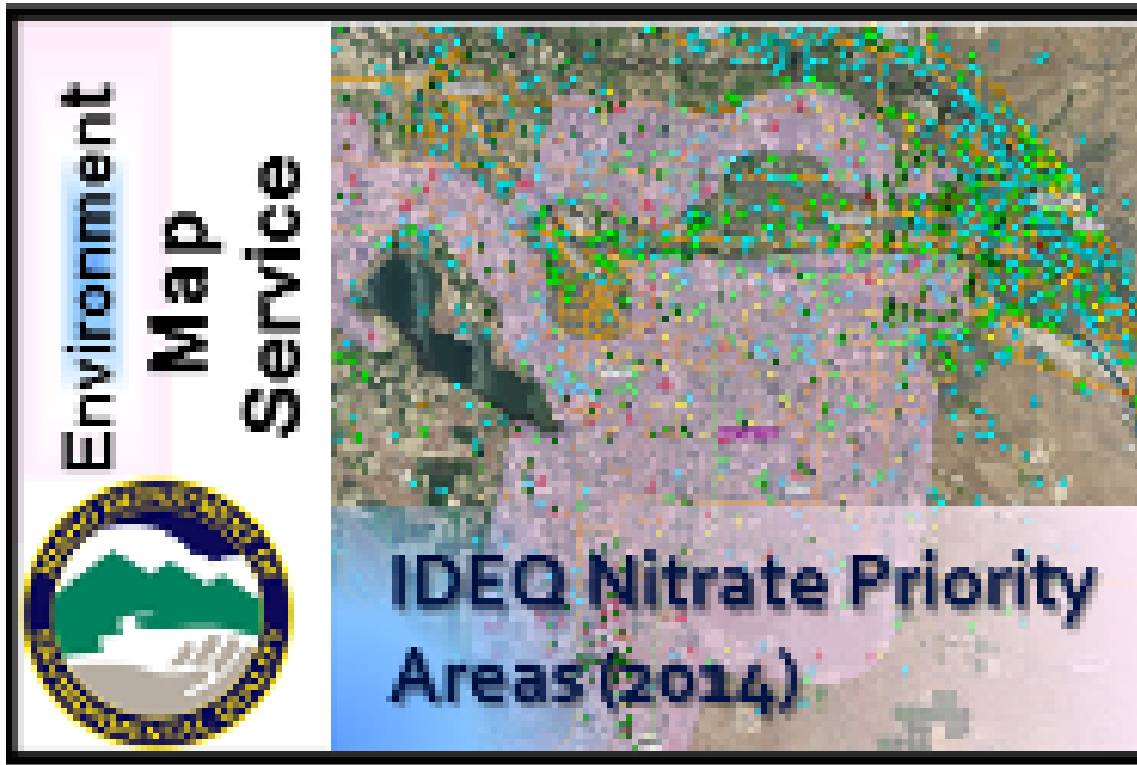
State Source Water Protection Requirements

| | |
|----------------|------------------------------------|
| Vermont | SWP plans |
| West Virginia | SWP plans |
| Utah | SWP plans |
| North Carolina | SWP plans (surface water only) |
| Minnesota | WHP plans (ground water only) |
| Indiana | WHP plans (ground water only) |
| Kentucky | WHP plans (ground water only) |
| Connecticut | As part of PWS plan |
| Washington | As part of PWS plan |
| Delaware | As part of community land use plan |

DWSRF Set-Aside Funding, Grants, and Loans

- ▶ **Maine:** Groundwater education grants
- ▶ **Missouri:** Funding for well abandonment program
- ▶ **Colorado:** Technical assistance funding and \$5k SWP grants
 - ▶ Dallas Creek project in Montrose, Colorado to address agriculture and soil health issues
 - ▶ The City of Westminster to address chloride, road safety, and water quality
- ▶ **Idaho:** Funding for series of workshops on including source water protection in asset management

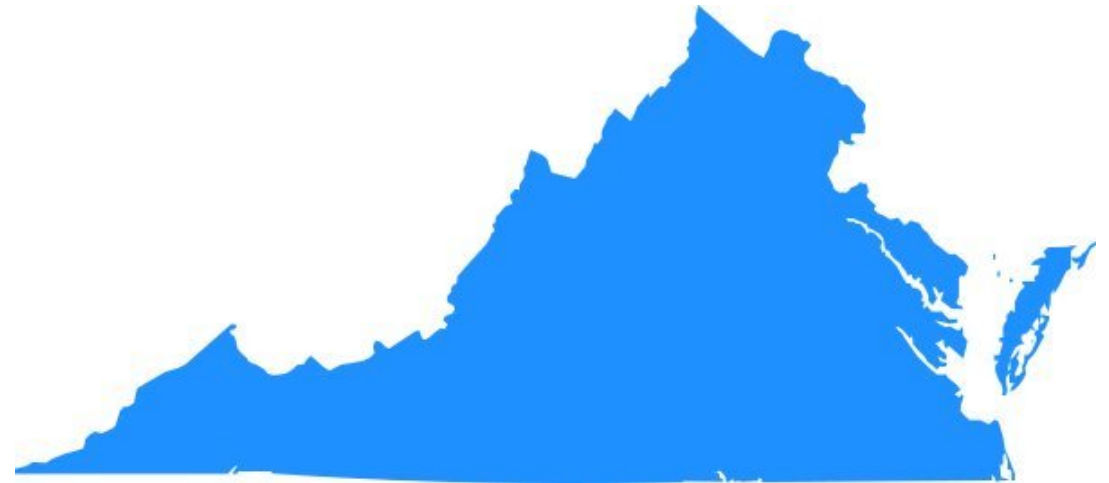
Idaho: SWP for Nitrate in Ground Water



- ▶ State Source Water Collaborative
- ▶ Nitrate Symposium (2014)
- ▶ Free nitrate screening offered to private well owners at county and health fairs (2016-2019)
- ▶ Source water protection grants (starting again)

Virginia DWSRF Set-Asides

- Source Water Protection Plan Development and Implementation Assistance
- State Source Water Protection Direct Technical Assistance
- Wellhead Protection (WHP) Implementation Projects Grants



WHP Grant Projects:

- Well abandonment
- Wellhead fencing
- WHP area delineation
- Educational outreach
- Advancing local ordinances
- Emergency response
- Hazardous waste collection



Source Water Protection Grant Projects Funded in 2018 (Since 1997)

| Grant Recipient | Grant Amount | Grant Year | Description |
|-------------------------------------|--------------|------------|---|
| Rockingham Planning Commission | \$19,586 | 2018 | Assess potential contaminant risks and offer source water protection options for communities within the RPC Region to consider. |
| Pennichuck Water Works | \$14,000 | 2018 | Investigation of the Boire Field Brook Sub-Watershed. |
| Pennichuck Water Works | \$17,500 | 2018 | Harris Pond Dredging Feasibility Study. |
| Manchester Water Works | \$20,000 | 2018 | Public Education and Outreach Program. |
| Manchester Water Works | \$8,600 | 2018 | Aquatic Vegetation Management Project. |
| City of Claremont | \$8,000 | 2018 | Source Security Enhancement Project. |
| Upper Saco Valley Land Trust | \$1,500 | 2018 | Transactional Costs for Conservation Easement. |
| Nashua Regional Planning Commission | \$19,996 | 2018 | Improvements to local emergency response protocols relative to chemical spills and releases. |
| Town of Newport | \$19,965 | 2018 | Source Security Enhancement Project. |
| Town of Newport | \$5,285 | 2018 | Source Security Enhancement Project. |



Oregon's DWSRF (Set-Asides) Project Priority List - FY 2019 (Partial)

| Applicant | Project Description | Amount Funded | |
|----------------------------------|--|---------------|--|
| Neskowin Regional Water District | Watershed Acquisition Due Diligence - Preparatory work for land purchase within Drinking Water Source Area. | \$27,500 | |
| Lincoln City Water District | Implementing Schooner Creek Sediment Reduction (Phase II) - culvert replacement and unstable road shoulder removal. | \$30,000 | |
| Arch Cape Water District | Arch Cape Forest Watershed Plan - watershed and forest management planning for prep for land purchase within Drinking Water Source Area. | \$30,000 | |
| Glide Water Association | Security Improvements to Protect Riparian Zone at Water Intake - fencing of critical area along N. Umpqua River. | \$27,000 | |
| City of Myrtle Point | Weekly Creek Road Culvert Relocation - relocate stormwater culvert to below surface water intake. | \$10,000 | |

Iowa Pooled Funding for SWP Pilot Projects

- ▶ Over \$1 Million for Local SWP BMP Implementation from Local, State, Federal Partners (State Ag Collaborative)
 - ▶ NRCS: Conservation Innovation Grant = \$90,000
 - ▶ USDA-NRCS & FSA: Program cost-share for BMPs
 - ▶ Leopold Center for Sustainable Ag = \$90,000
 - ▶ Iowa Water Infrastructure Resource Board
 - ▶ CWSRF & DWSRF = Over \$500,000
 - ▶ Pheasants Forever: Seeding Dollars & In-kind Local Assistance
 - ▶ SWCD's: Cost-share & \$ for BMP Installation
 - ▶ Iowa Dept. of Ag & Land Stewardship
 - ▶ Cost-share for BMPs in SWP Pilot Projects



Iowa's hydro-geological ground water site assessment (Geo-Probe, mobile lab)

Check out the resources on our websites!

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www.asdwa.org/source-water

www.sourcewatercollaborative.org