“An ounce of prevention is worth a pound of cure”

Advancing Watershed Protection in the CWA 303(d) & 319 Programs

Agenda

- Healthy Watersheds Program
- CWA 303(d) Protection Overview
  - CT Bacteria TMDL
- CWA 319 Overview
  - TX Upper San Marcos River & Cypress Creek Watershed Protection Plans
  - CT Natchaug Lake Protection Plan
- EPA Regional Perspective on Advancing Protection
- Open Conversation

Healthy Watersheds Program
Focus Areas

Clean Water Act Program Integration

Healthy Watersheds Assessments

Growing Protection Partnerships

Protecting Healthy Watersheds

Clean Water Act (CWA) §101(a)

"The objective of this Act is to restore and maintain the chemical, physical, and biological integrity of the Nation's waters."

CWA 303(d) Program

In addition to recognizing the protection benefits that TMDLs and other restoration plans can provide, states, territories, and tribes ***may develop protection plans to prevent impairments and improve water quality****, as part of a holistic watershed approach.*

The CWA Section 303(d) Program Vision 1.0 and 2.0 each have a protection goal. The working draft Protection FAQs provide more details on the key concepts underlying the Vision's protection goal.

CWA 319 Program

- Protection: NPS activities implemented to prevent or minimize water quality degradation in healthy (i.e., unimpaired/high quality) waters.
- States have flexibility to identify protection-priority waters. Examples provided in EPA 319 guidelines.
- Since 2014, 40 states have reported 1+ protection project in EPA 319 Grants Database (GRTS)

What do we mean by protection?

Examples of Waters that could benefit from protection plans (from the 2022-2032 Vision)

- Outstanding National Resource Waters or other specific category of high-quality waters
- Waters with unique, valuable, or threatened species or their habitats
- Waters and watersheds that constitute a public drinking water supply
- Healthy segments in watersheds with impaired segments, including headwaters above downstream waters that are impaired
- Healthy waters near areas with rapid land use changes
- At-risk waters that are not yet impaired but showing signs of degradation
- Other waters facing elevated risks of degradation

CWA 303(d) and 319 Planning Options to Consider

303(d) Program

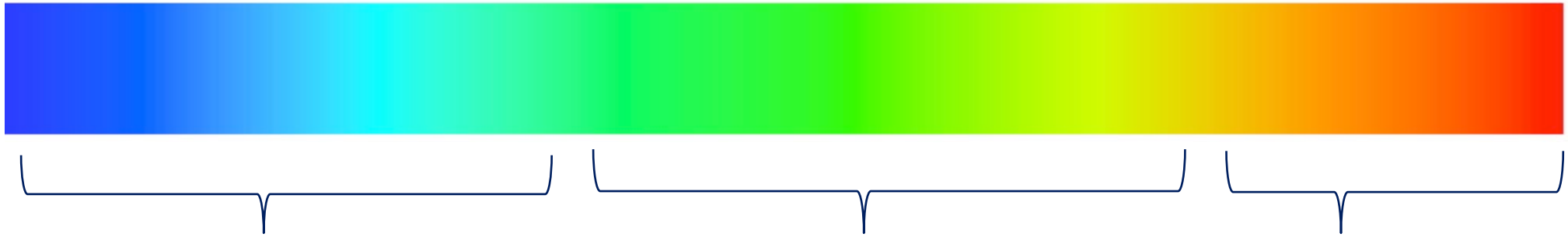
- 303d Protection Plan
- TMDLs
- Advanced Restoration Plan/5r
- 4b (“other pollution controls”)
- 4c (“impaired due to pollution”)

319 Program

- 9-Element Watershed-Based Plan
- Alternative Watershed Plan

What do we mean by Protection in the 303(d) Program?

Higher Quality



Impaired

Protecting Waters of Higher Quality (e.g., Tier 2 or 2.5 waters, "highly valued waters," "exceptional waters," "outstanding state waters")

Programmatic Protection: Implementation of the TMDL or "alternative" should not only reduce pollution levels in the impaired segments but also ensure that unimpaired segments at least do not degrade.

Protection from Impairment: If a water body is showing a trend of reduced water quality but is not yet impaired for a particular pollutant/parameter, or if it is close to impaired or simply targeted for protection by the state, a protection plan can be created to hasten implementation that keeps the water body from becoming impaired for that pollutant/parameter.

Legacy Protection: After restoration, the TMDL for the water body remains operative and shifts its classification from a TMDL for an impaired water body to a protection TMDL. This revised role of the TMDL ensures that the water body does not slip back into impairment.

**Multiple waterbodies within TMDL may place it in more than 1 category*

What is a protection plan?

(from 303(d) bridge metric computational guidance and draft protection FAQs)

Documentation of steps to be taken and activities to be implemented that are reasonably expected to result in a specified level of protection. May include –

- Identification of specific waters to be protected and risks to their condition
- Activities proposed and/or implemented that are expected to resist degradation or impairment of these waters, or improve water quality (e.g., quantification of loading or assimilative capacity)
- Time frames over which a protection target condition is expected to be attained, maintained, or improved
- Quantitative and qualitative measures of expected success and planned responses to observed changes in risks or condition

CWA 303(d) Protection Plans/Approaches

60+ Plans

Total Maximum Daily Load (TMDL)

9-element Watershed-Based Plan
319 Alt Watershed Protection Plan

Alt Approaches (e.g., Biological Objectives Report, Lake Management Plan, Watershed Action Plan Overview)

9 Regions

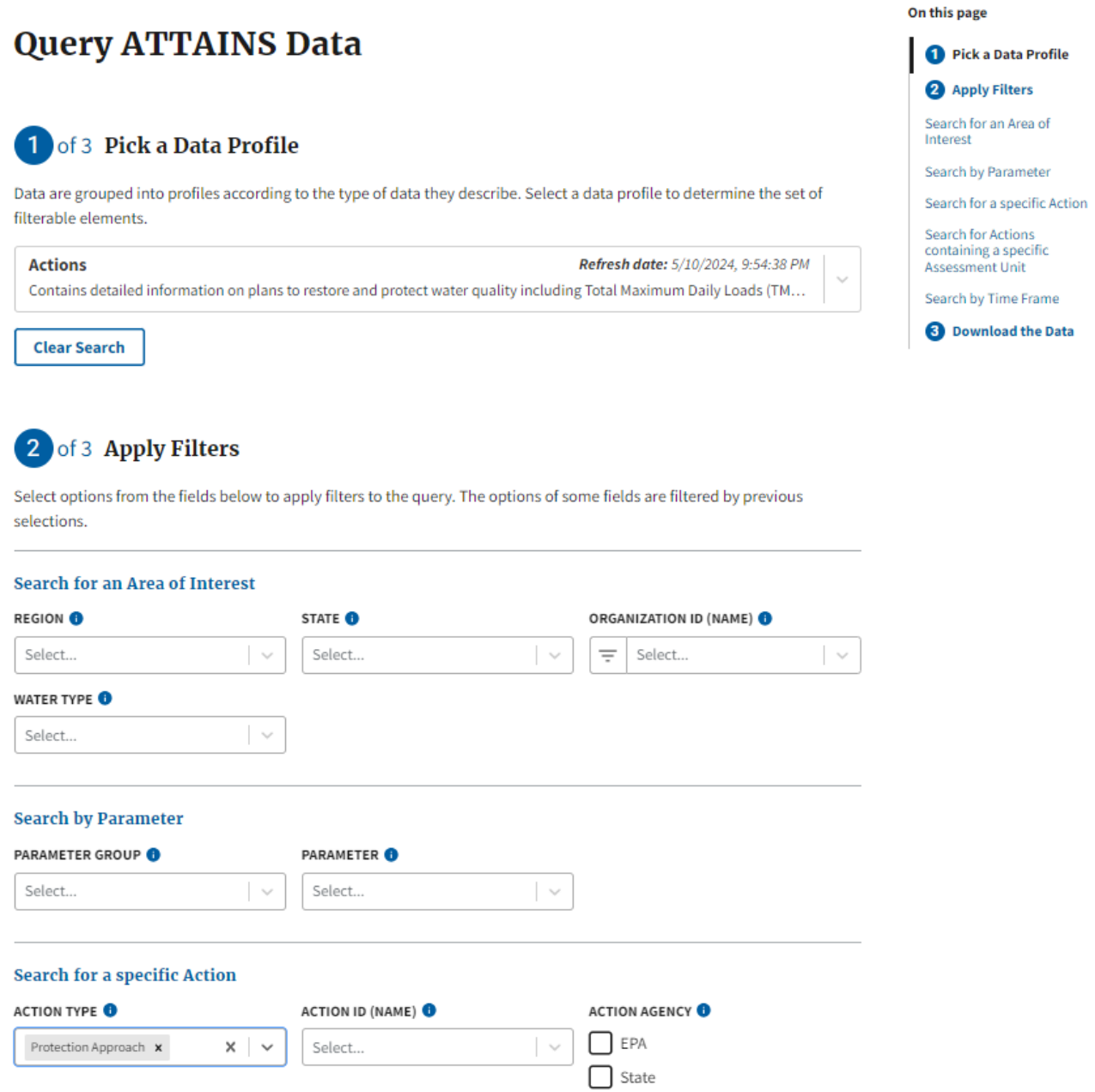
R1, R2, R4, R5, R6, R7, R8, R9, R10

14 States

AK, CA, *CT, IA, KS, MA, MN, MT, NC, NJ, NY, TN, TX, WI

Source: ATTAINS Expert Query Pull, 2024
**CT plans not yet in ATTAINS*

ATTAINS Expert Query – 303(d) Plans and Approaches



https://www.epa.gov/waterdata/expert-query

Example from Connecticut

Clean Water Act Section 319 Nonpoint Source (NPS) Program

- State NPS work guided by 5-year NPS Management Program plans.
- States must use ≥ 50% of annual 319 grant for watershed projects that implement:
  - 9-element watershed-based plans (WBPs), OR
  - EPA-approved alternative watershed plans

Allowed in select scenarios, including when protecting healthy (i.e., unimpaired/high quality waters)

Protection in the National NPS Program

Current State/Territory 319 Guidelines (2013):

- ***8 Key Components of An Effective NPS Program*** include: (4) description of balance between restoration & protection; (5) prioritization process for targeting NPS resources (Appendix A)
- NPS management program must ID protection as a priority and describe process for identifying priority waters.
- If state program priority, can use 319 $ to protect "unimpaired/high quality waters", including of watershed project $.
- Can use 319 $ for protection in watersheds covered by alternative watershed plan.

2024 DRAFT State/Territory CWA 319 Guidelines:
Proposed Protection Language

*Final Guidelines expected June 2024!

No proposed changes to:

- States continue to ID protection priority waters
  - But see language shift from 'unimpaired/high quality' → 'healthy' waters
- May use ***watershed project 319 $*** for protection work in areas covered by EPA-approved alternative watershed plan

Proposed changes:

- **Removes 'limited amount' cap** on watershed project 319 $ for protection
- New protection success story type:

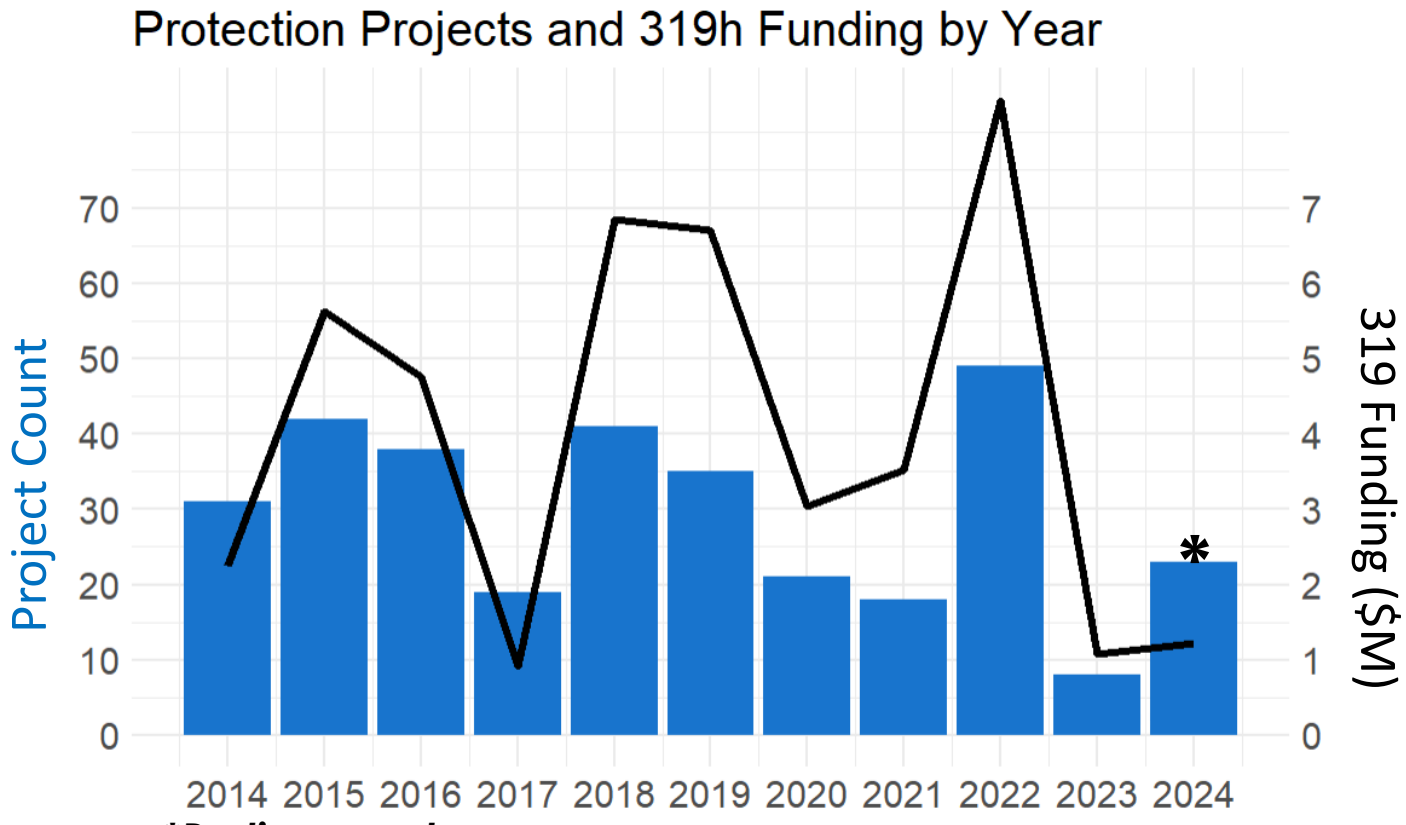
  "Healthy waters protected from water quality impairment"

NPS Protection Projects

i.e., Projects in which >50% of budget is used to protect unimpaired/high quality waterbodies (Source: EPA Section 319 Grants Reporting and Tracking System (GRTS))

The NPS Program has supported 325 protection projects, including 255 local watershed projects, in 40 states since 2014 with over $44M in 319 funds.

States with highest # projects:
AK, MI, OH, SC, VT, WA, WI



***Prelim count**

9-Element Watershed-Based Plans

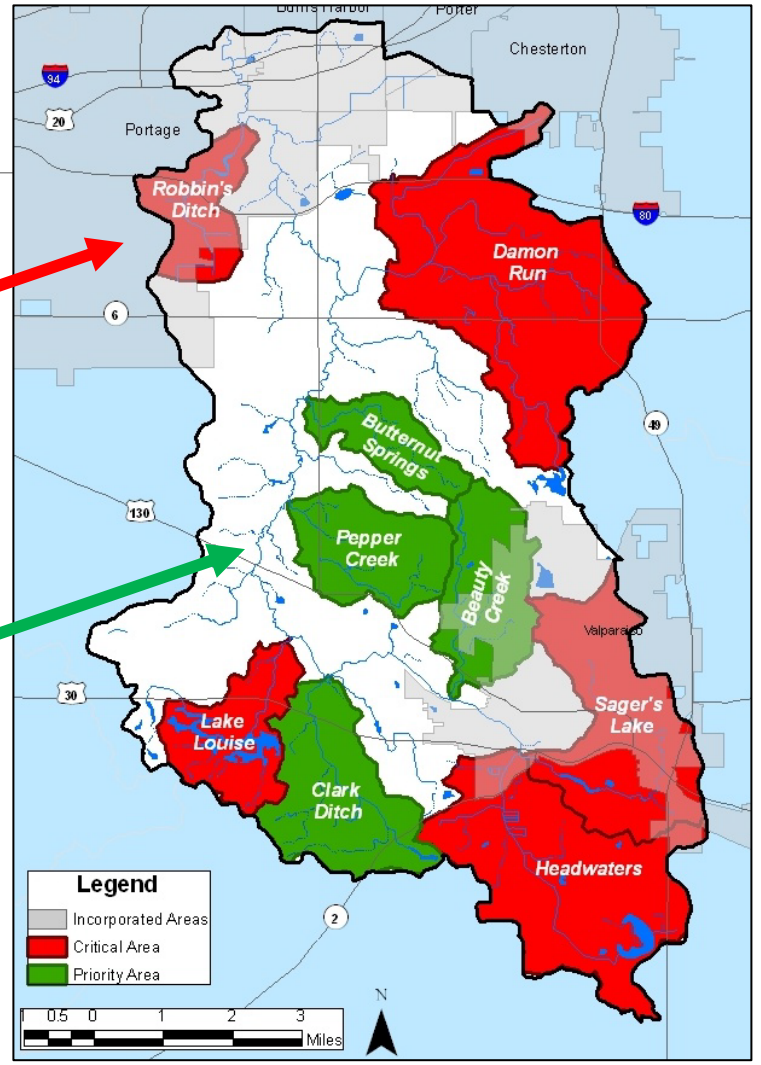
EPA Watershed Planning Handbook (2008)
EPA Watershed Planning 'Quick Guide' (2015)

9 Elements:

A. Causes and sources of pollution
B. Pollutant loading and expected load reductions needed
C. Management measures to achieve load reductions in targeted critical areas
D. Estimated technical and financial assistance and relevant authorities needed to implement plan
E. Information/education component
F. Project schedule
G. Interim, measurable milestones
H. Indicators to measure progress
I. Monitoring component

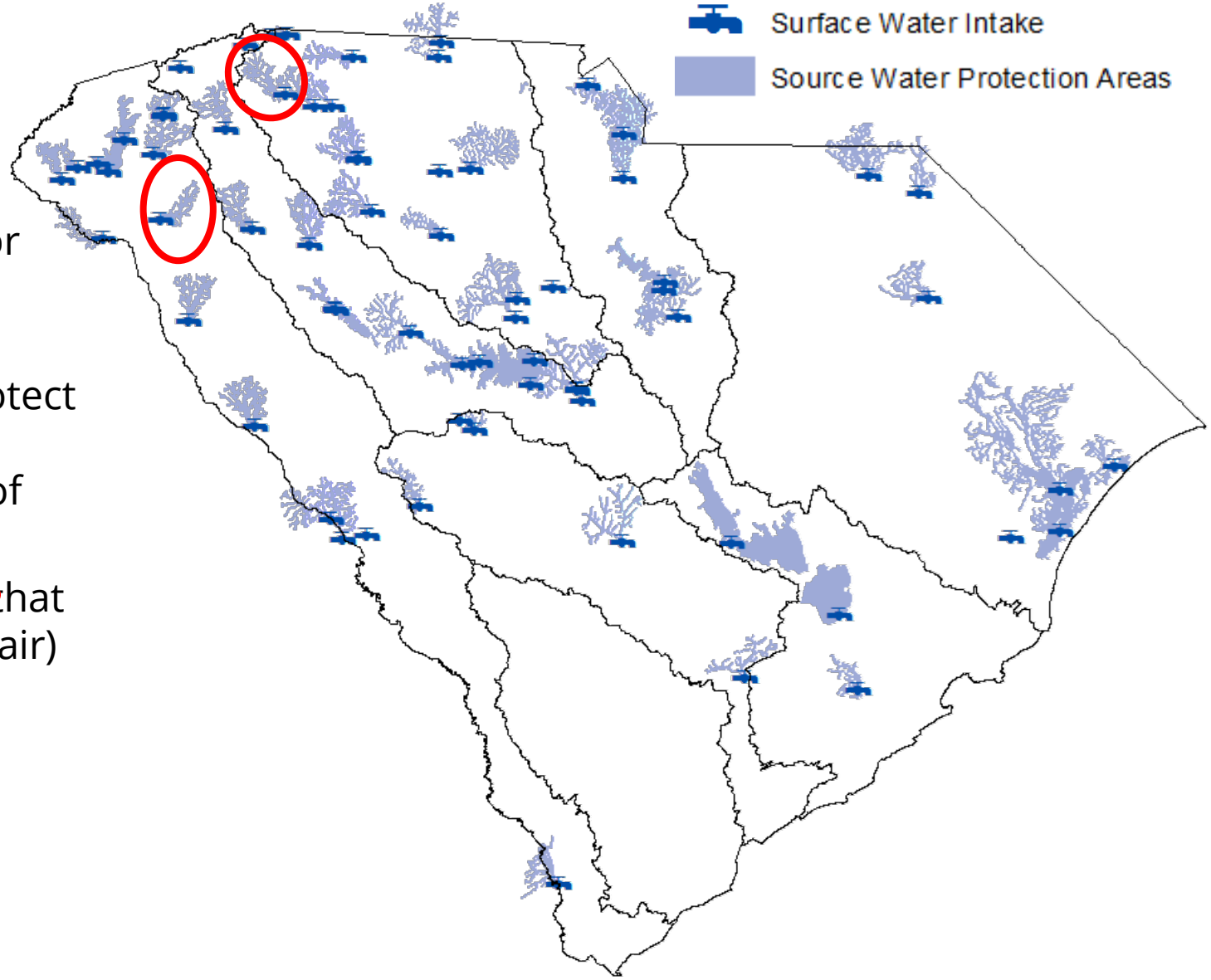
Critical Source Areas

Protection Priority Areas



9-Element WBP Examples (SC)

- $150K available annually from DWSRF for watershed planning in SWP areas.
- **Upstate Forever (UF):** nonprofit conservation organization striving to protect critical lands, waters, and the unique character of 10 counties in the Upstate of SC
- UF has developed two 9-element WBPs that identify both restoration (e.g., septic repair) and protection (e.g., land conservation) priority areas.
  - South, Middle, and North Tyger Subwatersheds Plan (2018)
  - Three and Twenty Creek Watershed Plan (2019)



From: Amanda Ley (SCDHEC)

319 Alternative Watershed Plans

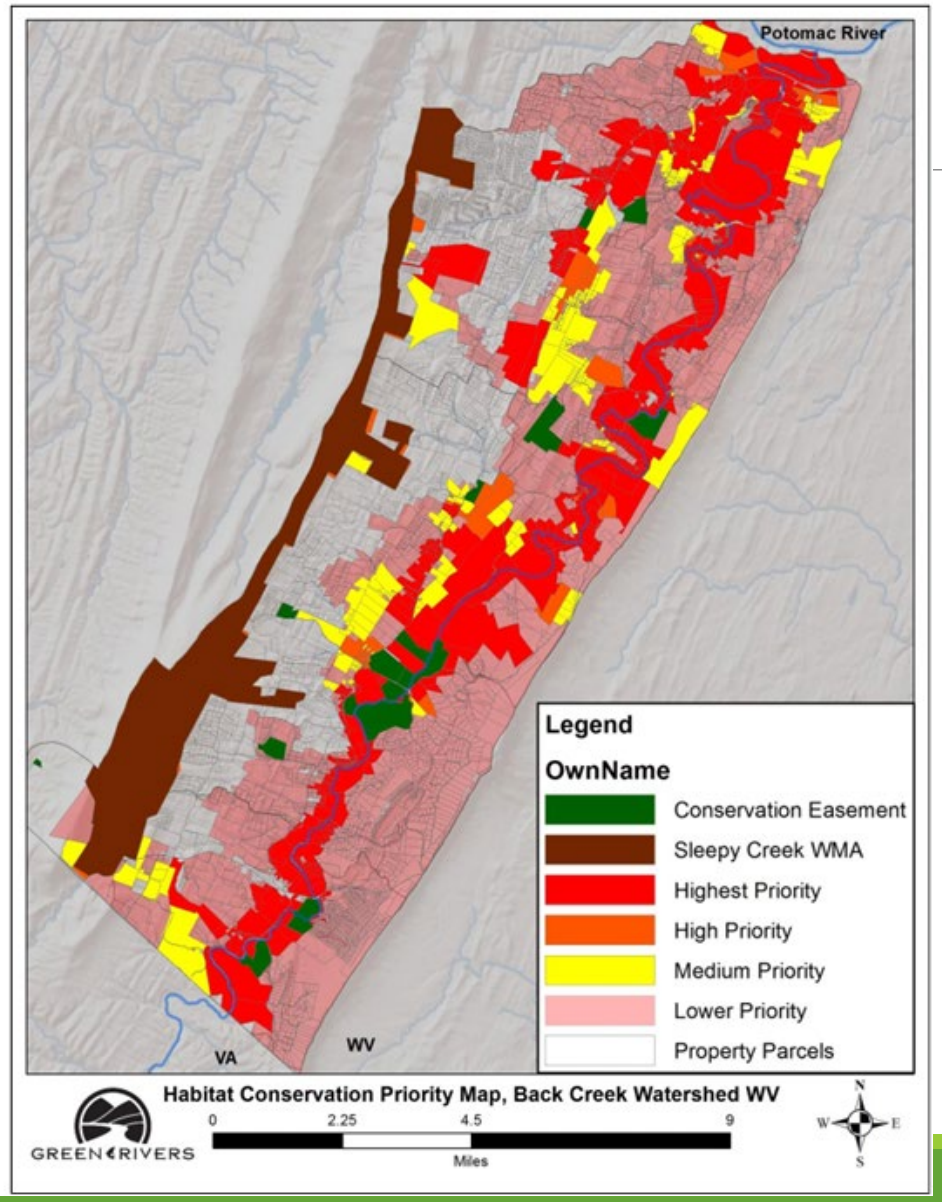
- Allowed in four scenarios:
  1. Impairment not pollutant-specific
  2. Emergency/public health risk
  3. Isolated, small-scale NPS problem
  4. **Protecting priority "healthy waters"**
- EPA Regional approval required for all Alt Plans
- To date, Alt Protection Plans (#4) in
  - Maine (39 active lake watershed plans)
  - West Virginia (2 protection plans)

Must address:

- Causes/sources of NPS impairment or threat to unimpaired/high quality waters
- Watershed project goal(s) and how proposed project(s) will achieve water quality goals
- Schedule & milestones to guide project
- Management measures to address NPS problem
- Water quality results monitoring

Alternative Watershed Plan: West Virginia

Back Creek Watershed Protection Plan



"Agency and NGO partners will compile data on Back Creek Watershed and write a Phase I watershed protection plan to guide land conservation and watershed restoration projects. The plan will identify critical resources to protect (e.g. high-priority forested lands)"

Project Example: Back Creek Protection Plan

- *Subgrantee: WV Conservation Agency*
- *319 funds awarded: $216,515*
- No TMDL, unimpaired waterbody
- *BMPs: Conservation Easements > 90 acres, natural channel restoration, education & outreach*

Examples from Texas and Connecticut

Region 10 Protection Plans

Washington-Protection Plan within an ARP

- *East Fork Lewis ARP*
- *Developing Burnt Bridge Creek ARP*

Oregon-Protection Plans within 303(d) Plans

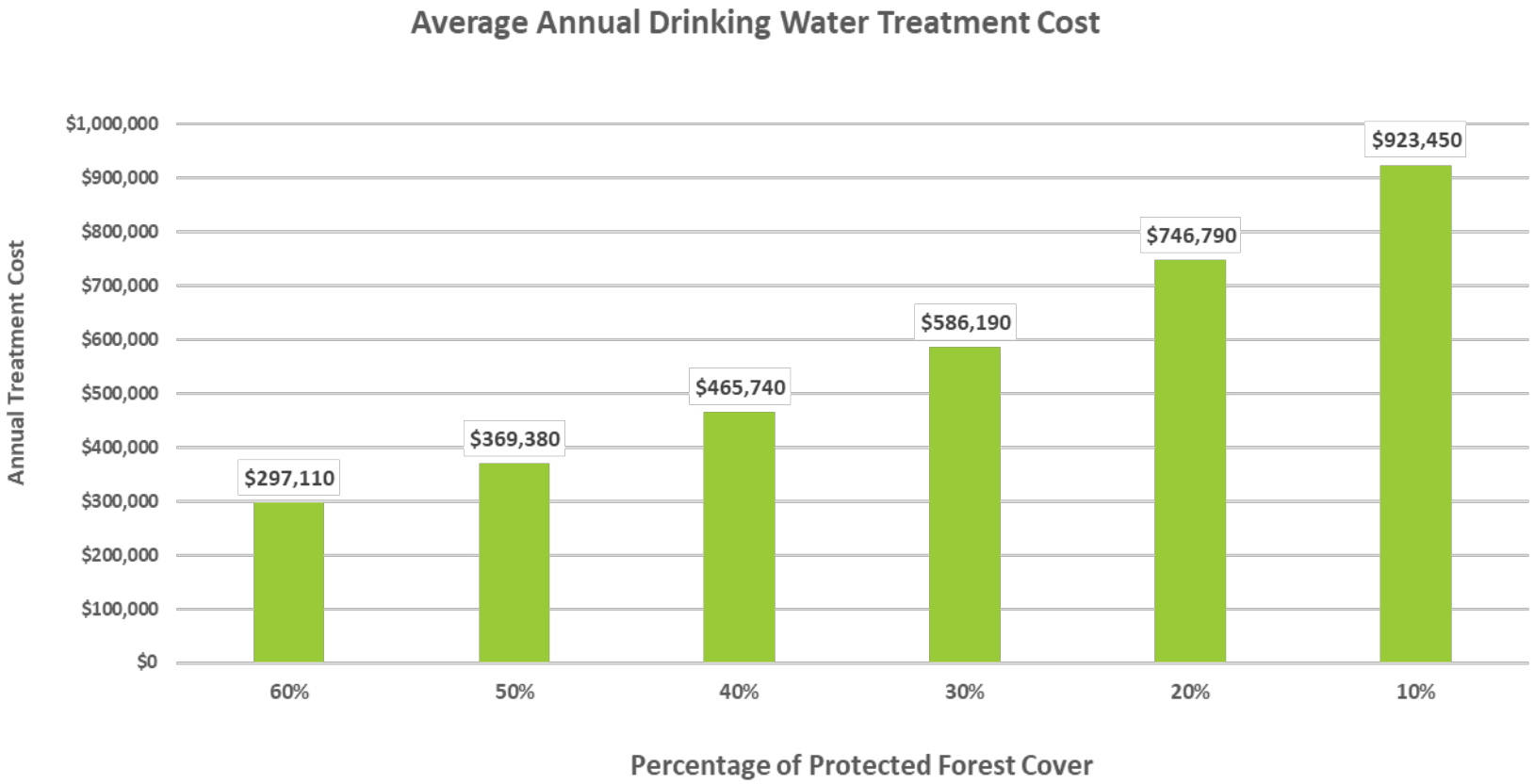
- *Upper Yaquina DO and Bacteria TMDL*
- *Powder Bacteria TMDL*

R10 SOP

"An Ounce of Prevention is Worth a Pound of Cure" Economic Benefits to Protecting Ecosystem Services

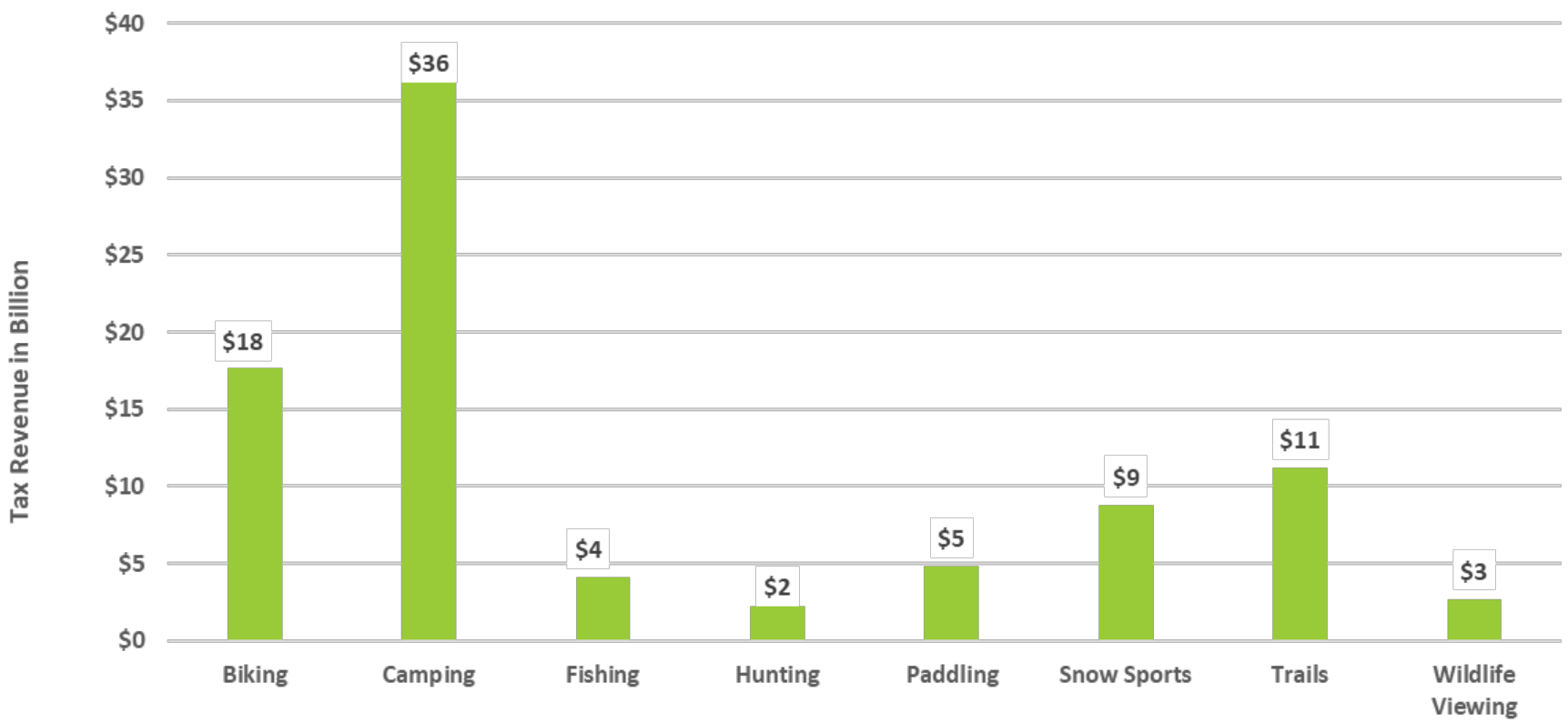
- Can lower drinking water treatment costs
- Avoids expensive retrofit and restoration activities that would be needed after degradation
- Sustains recreational and tourism opportunities that generate revenue
- Minimize vulnerability and damage from natural disasters
- Increases property values
- Provides critical ecosystem services at a fraction of the cost for engineered services

Protecting Watersheds Can Reduce Treatment Costs



For more information, see *Postel, Sandra L. and Barton H. Thompson. 2005. Watershed protection: capturing the benefits of nature's water supply services. Natural Resources Forum*. Issue 29, Pp 98-108.

Federal and State Tax Revenues Generated by Recreational Activity



Federal and state tax revenues generated by recreational activity *Outdoor Industry Foundation 2003*

Healthy Watersheds Provide Flood Protection Services = Future Cost Savings

- Allows for capture, storage and infiltration of excess water
- Dissipates high energy reducing erosion potential and protects from property loss and damage
- Assist with trapping debris and filtering contaminants

Property Values

Open Conversation

Economic Benefits of Protecting Healthy Watersheds

- What are some challenges for developing protection plans?
- Are there areas where EPA could help the States?
- Are there resources that are needed?

CWA 303(d) & 319, HWP and other Protection Resources

Joint Resources:

- 2024 EPA's Healthy Watersheds Learning Exchanges, a virtual quarterly webinar series aimed at highlighting watershed protection approaches and facilitating discussions across practitioners to promote the sharing of experiences, lessons learned, and tools.
- 2022 CWA 303(d) and 319 Protection Learning Exchange Materials for EPA Headquarters, Regional, and State staff focused on healthy watersheds protection.
- 2022 EPA Recovery Potential Screening (RPS) Tool Scenario Fact Sheet Series was developed for beginner RPS Tool users who have a basic understanding of RPS concepts but are uncertain about how to begin their own screening.
  - The Watershed Protection Fact Sheet describes considerations for watershed and indicator selection for a screening that focuses on identifying priorities for watershed protection.
- 2021 Updated to the Preliminary Health Watershed Assessment developed by EPA in support of states' and other partners' efforts to identify and protect high quality waters.
- Protection Data Integration and updates to How's My Waterway

CWA 303(d):

- 2021 Working draft Frequently Asked Questions (FAQs) developed to help clarify key concepts underlying the Clean Water Act (CWA) Section 303(d) Vision's protection goal for states, territories and tribes.
- 2020 ELI Compendium of State Approaches to Protection Story Map organizes examples of how state CWA 303(d) Programs have pursued the Protection of healthy waters. (PDF version)
  - Included in the Story Map are a Clean Water State Revolving Funds (CWSRF) and Drinking Water State Revolving Funds (DWSRF) white papers that detail the federal statutory and regulatory provisions (and clarifications through EPA documents) regarding the use of state revolving funds (SRF) for protection efforts.
  - State by State list of Protection Resources and Examples (information collected by ELI 2018)

CWA 319:

- 2022 draft report that provides an overview of approaches to protecting healthy waters in the national NPS program.
- Advancing Watershed Protection Through Land Conservation: A Guide for Land Trusts is intended to serve as a starting point for land trust staff unfamiliar with the Clean Water Act and EPA programs, but whose organizations are interested in integrating water quality protection in their efforts to conserve and steward lands and conduct community outreach.