

Healthy Watersheds Initiative

**Rivanna River Basin Commission
Technical Advisory Committee
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What is the Healthy Watersheds Initiative?

- An increased emphasis on protecting healthy and maintaining restored watersheds using an ecological approach incorporating the latest scientific methods and management tools that involves:
 - Working with states to identify healthy watersheds across the state (strategic)
 - Implementing programs at the state and local level that protect healthy watersheds
 - Incorporating healthy watersheds protection into EPA programs

Why a Healthy Watersheds Initiative?

- EPA recognizes the need to enhance our protection approaches to keep waters off the impaired waters list and to be more successful at restoring impaired waters
- Healthy watersheds form the critical ecological support system or building blocks that anchor our water quality restoration efforts
- Cost-effective to prevent aquatic ecosystems from becoming impaired

What is the Healthy Watersheds Approach?

- **Maintenance of aquatic ecological integrity** by conserving and protecting our highest quality watersheds & intact components of watersheds
- **A strategic holistic systems approach** that includes protecting the key watershed processes and habitat needed for healthy aquatic ecosystems

What is a Healthy Watershed?

Watersheds that have all or some of these characteristics:

- Habitat of sufficient size and connectivity for native aquatic and riparian species
- Biotic refugia or critical habitat (e.g., deep pools, seeps & springs) for survival during droughts
- Healthy aquatic biological communities
- Water quality that supports biotic communities & habitat
- Green infrastructure network of native vegetation in the landscape
- A natural flow regime that supports aquatic species and habitat
- Natural transport of sediment and stream geomorphology that provide natural habitat
- Functioning natural disturbance regimes (floods, fires)

How Do We Identify Healthy Watersheds?

Integration of assessments of:

Biota and Their Habitat

- Green Infrastructure (forest cover, headwaters, wetlands, riparian corridors, floodplains)
- Biological, chemical, & physical water quality condition (fish, macroinvertebrates, wetlands, biodiversity, nutrients, pH, temperature, riffle and pool habitat)

Key Processes That Sustain Them

- Hydrology and fluvial geomorphology (e.g, instream flows, natural channel form & movement of sediment)
- Natural disturbance (floods, droughts, fires, etc.)

How Do We Conserve and Protect Healthy Watersheds?

Habitat Protection

- Vermont River Corridor Protection Program
- Washington Growth Management Act Local Critical Areas Protection Program (e.g., codes, conservation easements)

Tax Credits & Landowner Stewardship

- North Carolina conservation tax credit and landowner stewardship programs
- Virginia Land Preservation Tax Credit (Governor Kaine's by 2010 400,000 acre goal), VA Clean Water Revolving Loan Fund Land Conservation Loan Program

Instream Flow Programs

- Vermont Hydrology Criteria, Maine Instream Flow & Water Level Stds, Connecticut & Washington Streamflow Regulations Proposed
- Michigan's Groundwater Withdrawal Stds & Tool

State WQS Antidegradation Programs

Local Watershed Zoning and Protection Programs



Eloha Water Withdrawal Tool - Surface Water

Aquatic Life Use

EWH

Aquatic Ecoregion

Huron Erie Lake Plain

Units:

Gallons/Day (gpd)

Feet/Second (cfs)

Stream Size Category

Wadeable Streams > 20 -

Stream Size

sq mi:

50.0

Proposed Daily Withdrawal (cfs)

3.00

Mean Sep Flow (cfs):

11.83

Mean Sep Flow (gpd)

7,649,198

Proposed Daily Withdrawal (gpd)

1,938,950

Number of Sensitive Fish Species Lost

0.6

PROCEED

-- CAUTION --

-- STOP --

Withdrawal Could Have an Impact, contact ODNR!

Mean Annual Flow (cfs):

50.5

Mean Annual Flow (gpd)

32,639,002

Calculate Risk

QUIT

How Are We Implementing the Healthy Watersheds Initiative?

- Draft Healthy Watersheds Initiative National Framework and Action Plan
- Information transfer & technical support
 - www.epa.gov/healthywatersheds
 - Draft *Identifying and Protecting Healthy Watersheds: A Technical Guide*
 - Instream or ecological flow technical support from the Regions
- Some funding support, e.g., R. 3 Healthy Waters
- HWI accountability measures in the EPA FY 11 National Water Program Guidance

Future Opportunities?

- Chesapeake Bay Maintain Healthy Watersheds Goal 4 Implementation Team
- Partnerships with others (e.g. TNC, The Conservation Fund, etc) to implement at the local level