

# VALUES OF LARGE SCALE WATERSHED PROTECTION

A *watershed* includes an entire area of land and its waterways which drain into a larger body of water such as a river, bay or reservoir. Healthy watersheds and the vegetation that lines waterways (known as buffers) help **control flooding, filter pollution and preserve open space**, which provides economic, environmental and quality of life benefits for those who live there.

## PROTECTION PROGRAMS

### Catskill/Upper Delaware: *Bilateral Agreement*

- **Partnerships** between local groups, government agencies, and environmental groups
- Comprised of **agricultural, land acquisition, and stream management** program components
- Modern approaches to **water treatment**

### Scituate Reservoir: *Collective Action*

- **Land Acquisition** with focus on forest management
- Identification of key resources for **land use planning and zoning**
- Forest preservation as a means to **control invasive species**

### Statewide-Colorado: *Instream Buybacks*

- **New Appropriations** preserve the natural environment
- **Water Acquisitions** allow Colorado access to water rights by purchase, lease, donation, or exchange
- **Water Rights Protection** is enforced by monitoring stream flows

## BILATERAL AGREEMENTS

### New York

A *bilateral agreement* occurs when downstream water users pay upstream land users for better watershed management techniques

### City

92% of identified large farms participate in a voluntary, incentive-based approach which *reduces agricultural pollution*

New York City and New York State combined own and manage over 387,000 watershed acres, the preservation of which contributes to *safe drinking water and benefits the local community*

The city's \$1.5 billion investment in watershed protection prevented the city from building a filtration plant costing \$10 billion or more

## COLLECTIVE ACTION

*Collective action* involves shared risk, responsibility and benefits among different groups in support of high water quality and sustainable supply

Focus on forest management **minimizes erosion, promotes filtration, traps pollutants, and provides habitat for threatened species** such as bobcats, bald eagles and rabbits

The Scituate Reservoir Watershed Greenspace Project united various groups to identify **key areas of cultural, natural, and recreational resources** to aid in land use planning and zoning

Forest preservation encourages plant diversity which **limits invasive species and protects against weather or fire disturbances**

### Providence, Rhode Island

## INSTREAM BUYBACKS

**Instream Buybacks** are the purchase of water rights with the intention of leaving the water instream to restore natural flows and supply

### Colorado

Colorado has established instream flow rights on over **8,500 miles of stream and 486 natural lakes** in the state

Instream flow and natural lake rights provide **legal protection for the natural environment** through a reach of stream, not just at a bypass point

Water rights held are used to **protect riparian zones, wildlife habitat, and fisheries**

### Buffers

Each example above emphasizes the **importance of protecting vegetated buffers** as a tactic to *filter pollutants, reduce runoff and encourage recharge* of natural waterways.