

Wood-Pawcatuck Watershed Action Plan - 2008

Activities described in blue text have been accomplished as of March 2009

Activities described in green text are ongoing

TOPIC: Natural, Cultural and Recreational Resources

GOAL: Protect and restore natural, cultural and recreational resources of importance to the communities within the watershed.

PRIORITY ISSUE I: Riparian corridors should be given priority for protection because they are critical for water quality protection, habitat preservation & restoration and improved recreational access to rivers, streams, ponds and lakes.

Rationale

- Watersheds are the most appropriate geographic unit to protect water resources, and rivers and streams are their defining features.
- Protecting surface water also helps protect groundwater, since they are intimately connected.
- Protected riparian corridors provide important and extended habitats.
- Protected rivers with safe access provide high-quality, low-impact recreation for canoeing, fishing and observing natural systems.
- Bond funds will be available for the next five years for open space acquisition.

Objective 1: Target land acquisition efforts to protect riparian corridors and their multiple benefits.

Strategy 1.1: Identify riparian areas that:

- If protected would diminish impacts from development on water and recreational quality.
- If acquired would improve suitable recreational opportunities.
- Are potential sources of contamination, and thus are candidates for strategic water quality monitoring.
- If restored would protect water quality and provide habitat.

Activities:

1.1.1 Encourage active participation by watershed residents in the Greenspace Implementation plan.

1.1.2 Participate in collaborative efforts with town planners, Washington County Regional Planning Council, regional and local land trusts, and RIDEM.

1.1.3 Conduct streamside assessments by RI Canoe and Kayak Assoc., WPWA volunteers and staff and Brown University intern.

Strategy 1.2: Allocate a significant portion of open space bond funds to protection of riparian corridors.

Activities:

1.2.1 Adopt regulations for allocating open space bond funds that give a high priority to protection of riparian corridors.

1.2.2 Encourage towns and non-profit organizations to propose for protection the areas identified in Objective 1.

Strategy 1.3: Restore degraded riparian areas.

Activities:

1.3.1 Prioritize restoration opportunities identified in Objective 1.

1.3.2 Where owners of priority parcels are unwilling to consider restoration, target these parcels for acquisition.

1.3.3 Direct restoration funds and programs to the highest priority sites.

Strategy 1.4: Improve the quality of recreational access to rivers in the watershed.

Activities:

1.4.1 Adopt regulations for allocation of recreational bond funds that give a priority to providing safe and convenient recreational access to rivers.

1.4.2 Encourage towns and non-profit organizations to propose for recreational development river access areas identified in Objective 1 (DEM and WPWA).

1.4.3 Seek donations of properties and funds for improving and securing recreational access.

TOPIC: Water Resources

GOAL: Clean and Plentiful Water. Fishable/Swimmable surface water bodies.

PRIORITY ISSUE II: The Wood-Pawcatuck Watershed is a large watershed with many streams, rivers, ponds and lakes. Water quality is excellent, with some exceptions, throughout the entire watershed. However, impairments do exist and threats to water quality are imminent. Water quality monitoring must be targeted in order to be cost effective and efficient in light of limited resources.

Objective 2: Create and implement a cost effective, efficient water quality monitoring strategy for the Wood-Pawcatuck Watershed.

Strategy 2.1: Identify and allocate water quality monitoring resources to provide most efficiently the information that will be most useful in pollution prevention and enforcement efforts.

Activities:

2.1.1 Convene a committee to design a targeted water quality monitoring strategy for the Pawcatuck Watershed that is realistic given available resources.

2.1.2 Assign responsibility for the highest priority sampling areas.

2.1.3 Sample, analyze, interpret and report results on a website in a timely fashion.

2.1.4 Where results demonstrate a water quality impact, report directly to the agency with responsibility for remediation.

PRIORITY ISSUE III: Surface water quality and quantity are directly linked to groundwater. Water availability is a seasonal problem, resulting in dry wells, low stream flows and water restrictions during summer months, which impact all users.

Rationale:

- Drinking water in the Wood-Pawcatuck Watershed is obtained from a sole-source aquifer.
- Aquifers in some sub-basins already are stressed by overdrafts during dry periods.
- Water budgets have not been developed for most aquifers.
- Buildout analyses have not been conducted for most aquifers, so the demand on the aquifers that would result from development under current land use regulations cannot be predicted.
- Surface and groundwater are tightly coupled, so withdrawals from one source will impact the other.
- Water withdrawals during dry periods may threaten habitats.
- Current designation of well-head protection areas are imprecise, and limiting potential contamination in these areas is not adequate to protect groundwater quality.
- Groundwater quality is better protected by best management practices in the full recharge area of an aquifer than by limiting these practices to wellhead areas.

Objective 3: Water quality should be protected and water should be allocated equitably during drought periods, with adequate provision for habitat protection.

Strategy 3.1: Estimate a water budget for all aquifers at full buildout.

Activities:

3.1.1 Create and maintain current parcel-level GIS coverages for all towns in the watershed (see Strategy 4.4.6)

3.1.2 Use these coverages to conduct a buildout analysis based on current local and state land use regulations.

3.1.3 Assist with the application of the HSPF model and habitat assessment data from the Queen's River pilot study, determine the flow levels necessary to support aquatic ecosystems.

3.1.4 From the buildout analysis results and the flows required for ecosystem maintenance, estimate a water budget for each sub-basin.

Strategy 3.2: Encourage and provide incentives to towns to plan for growth to protect the quality and quantity of groundwater.

Activities:

3.2.1 Where the water budget predicts a water shortfall during dry periods at buildout, revise comprehensive plans and land use regulations appropriately to reduce estimated water demand to a sustainable level.

3.2.2 Review/Revise/Adopt effective groundwater protection overlay districts where indicated by soil permeability.

3.2.3 Implement the provisions of existing overlay districts.

Strategy 3.3: Manage use of water in dry periods in an equitable manner, so that essential needs are met and habitats are not seriously impacted.

Activities:

3.3.1 Prepare drought management plans at a water-supply system level.

3.3.2 Put in place a public information system to give timely notice of necessary water use restrictions.

3.3.3 Develop a water use management plan.

Strategy 3.4: Complete 'Water Quality Restoration Plan' (TMDL) for Little Narragansett Bay and Pawcatuck River Estuary.

Activities:

3.4.1 Conduct dry and wet weather monitoring to identify pathogen and nutrient sources to and in Little Narragansett Bay and the Pawcatuck River Estuary.

PRIORITY ISSUE IV: The Wood-Pawcatuck Watershed is under increasing pressure from residential and commercial development.

Rationale

- Washington County is the fastest growing county in the state, with a growth rate over the 1990-2000 decade of 12.3%, over three-times the rate of growth of population statewide.
- Residential development is primarily single-family, large-lot.
- High density developments are planned for areas that lack infrastructure.
- Local governments seek commercial, industrial and age-restricted residential development in order to build their tax base.
- Development interests frequently conflict with managed/smart growth objectives.

Objective 4: Natural resources values of the watershed are incorporated in development and land preservation decisions.

Strategy 4.1: Influence local government to make natural resource-conservative decision on development proposals.

Activities:

4.1.1 Remain in close contact with local planners and encourage them to inform WPWA at the earliest possible time of impending developments with significant impact potential.

4.1.2 The Development Review Committee will identify projects that present significant threats to natural resources and estimate the nature and the magnitude of these potential impacts.

4.1.3 WPWA staff, board and members will participate actively in local government decisions involving the projects identified in Activity 4.1.1.

Strategy 4.2: Influence State government to adopt policies that will favor environmentally-responsible development over conventional development.

Activities:

4.2.1 Identify opportunities for policy changes that will encourage or require more environmentally-responsible development decisions.

4.2.2 Draft and promote the policy changes identified in Activity 4.2.1

Strategy 4.3: Maintain strong cooperative relations with appropriate partners, such as the Rhode Island Rivers Council, Washington County Regional Planning Council and the Washington County Land Trust Coalition.

Strategy 4.4: Promote implementation of the Greenspace Plan

Activities:

4.4.1 Make certain that WPWA staff, board and, where relevant, members are aware of Greenspace recommendations for land preservation.

4.4.2 Advocate for Greenspace recommendations in a timely fashion when land preservation or development decisions are being made.

Strategy 4.5 Promote suitable and sustainable compact development patterns through conservation sub-division design.

Activities:

4.5.1 Make certain that WPWA staff, board and, where relevant, members are aware of conservation sub-division design principles.

4.5.2 Advocate for these principles when land use planning and developments decisions are being made.

Strategy 4.6: Develop and utilize GIS capability to produce maps that can be used effectively in Strategies 4.1 - 4.4.

Activities:

4.6.1 Order appropriate computer equipment and GIS software and train staff and interested volunteers in their use.

4.6.2 - Compile a library of map layers that are relevant to other elements of this Action Plan

4.6.3 - Generate maps as necessary to achieve the purposes of this Action Plan.

4.6.4 - Coordinate with RIGIS, Statewide Planning and URI/EDC to develop expertise and update coverages.