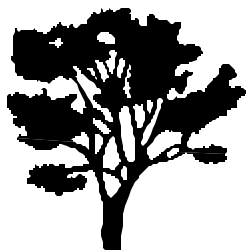


Watershed Watch

Association

For Members of the Natural Lands Network and Concerned Citizens



Caring for Backyard Buffers

Ecological Benefits Of Conservation Buffers

Conservation areas are protected because they benefit all citizens in a variety of ways:

- Controlling storm runoff to prevent flood damages;
- Filtering pollutants and keeping our streams and drinking water clean;
- Controlling erosion;
- Refreshing our air
- Providing wildlife habitat and recreational opportunities; and
- Providing aesthetic and economic values to the community.

Your property deed may already identify *conservation easement areas*. However, newly adopted laws could restrict activities on your land.

View our guide on Backyard Conservation Buffers at:

www.thewatershed.org/wm_resources.php

The most cost effective way to protect sensitive environmental areas is by restricting construction disturbances and by providing protective *conservation buffers* around streams, lakes, wetlands, floodplains, and critical wildlife habitat areas.

These conservation areas are present in every community, and they may be in your backyard!

Protective Laws for Buffers

The NJDEP laws and regulations offer various protections from disturbances: the 100-year floodplain restricts construction; encroachment near streams is restricted within 25 feet or more; Category One streams protect 300 foot buffers; floodplains and 100 ft buffers are protected along the D&R Canal; wetlands and vernal pools are protected by 50-150 foot buffers.

Municipal ordinances also act to protect setback areas that border developments and areas for stormwater drainage and control basins. Also nine local towns adopted ordinances to protect stream corridors and steep slopes in the watershed region.

Educational Needs

Stewardship for these sensitive buffer areas is the responsibility of the property owner. Therefore, education for landowners is essential to ensure that the conservation areas are left undisturbed, in a natural state.

To provide this education, the Watershed Association recently published a guide entitled, "*Caring for Backyard Conservation Buffers*." We posted this guide to our website and distributed copies to local town officials.

Municipal Role

Preserving conservation areas is effective only when residents and community members know 1) where these areas are located, 2) the ecological benefits they provide (see sidebar), and 3) legal restrictions are respected.

Towns can post relevant ordinances, maps, and our guide to the town website for easy access by staff, board members and local landowners. This information can also be shared with residents in news articles, town calendars or with tax information.

Educating landowners will help avoid costly legal or enforcement actions if disturbances occur.

Towns may also consider marking conservation areas with surveyed monuments to increase compliance.

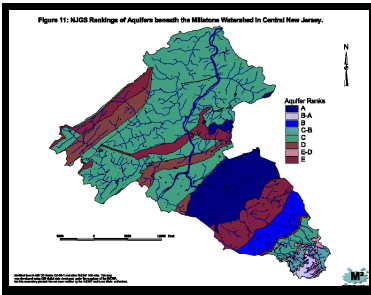
Landowners Role

Landowners need to respect the boundary of the conservation area and live in harmony with the natural features on their property. Residents should be encouraged to visit the town planning office to understand any restrictions on their land.

Prohibited activities in buffer areas often include: no clearing or mowing of native vegetation; no construction of fences, sheds, landscaping, pools or play equipment; no applying fertilizers or pesticides; no dumping of trash, grass clippings, leaves or waste.

Are there buffers in your yard?

Contact the Watershed Association for more information 609-737-3735.



High capacity aquifers are located in the southeast section of our watershed.

Critical Recharge Areas in the Watershed

Within our watershed region the most critical area is the recharge area of the Potomac Raritan Magothy (PRM) aquifer, where several high capacity wells are able to pump groundwater at rates greater than 500 gpm. Specifically these areas include portions of South Brunswick, Plainsboro, West Windsor, East Windsor, and Cranbury Townships.

The fault lines in Hopewell and Montgomery Township are also critical aquifer recharge areas.

Maps and groundwater reports were provided to each of our municipalities and some maps are posted to our website.

Visit our Website Resource page on Groundwater www.thewatershed.org/managing_resources.php?id=C0_42_32

Contact Jennifer Coffey at the Watershed Association to learn more about Groundwater Resources in your community

609-737-3735

Maintaining Groundwater Recharge

Regional Groundwater Needs

Groundwater provides over 50% of the primary drinking water needs, within our watershed region and for the state, served by either a public utility or private wells.

Rivers, tributaries, wetlands, headwaters, and surrounding ecosystems are all fed and dependent on groundwater base flow discharges or seeps.

Public surface water utilities are also dependent on groundwater base flow to rivers and streams.

The Watershed Association hosted a groundwater workshop on March 22nd to a packed house, but we wish you were all there for these important discussions.

Our regional population is expected to increase by 30% in the next forty years, and the NJDEP predicted that the water supply **demands will exceed the sustainable resources of the** combined Millstone and Raritan River watersheds **by 2040**. The New Jersey Water Supply Authority (NJWSA) indicates that this exceedance may occur even sooner.

Ecological Connection

Richard Bizub, of the Pinelands Preservation Alliance, discussed how groundwater sustains the wetlands and streams in the Pinelands. He explained that groundwater is a precious commodity, and becoming more irreplaceable. Groundwater is naturally purified, requiring less treatment (unless contamination is present), and is relatively inexpensive to distribute. But the supplies are limited, hard to replenish, and over-pumped in many areas of the state.

Recharge is Limited

Nearly half of our annual precipitation (45 in/yr) is lost to evapotranspiration (22-28 in/yr). Another 3-18 inches runs off to our streams. The remaining 2-25 in/yr may infiltrate to replenish our groundwater supplies.

Geology affects infiltration rates. Less infiltration occurs in the impenetrable diabase bedrock in the Sourland region.

Moderate infiltration and good capacity wells occur in the fractured shale or sandstones that underlie nearly 50% of our watershed. The unconsolidated sandy geological formations in the Middlesex and Monmouth Counties have **highest capacity wells in the state**.

Water Withdrawal Permits

Fred Sickels, Assistant Director of Water Supply, explained that the NJDEP requires comprehensive hydrogeologic studies for water allocation permits to ensure that ecosystems and other users are not impacted by the withdrawal.

Citizens and town officials are encouraged by NJDEP to request hearings and participate in the permit reviews. The NJ Water Supply Allocation Rules NJAC 7:19, subchapter 2 outlines requirements for these hydrogeological evaluations.

The New Jersey Geological Survey Report (GSR 29), outlines guidelines for these studies to ensure that various impacts are evaluated. www.state.nj.us/dep/watersupply/wsa_statauth.htm.

Municipal Roles

Towns can play a greater role in understanding the water resource supplies and demands in their communities. Jennifer Coffey, Director at the Watershed Association highlighted some actions towns can implement:

1. Incorporate groundwater data in local Master Plans.
2. Identify critical recharge areas and minimize impervious cover. Development reduces infiltration, increases runoff to streams, increases demand and the risk of contamination to aquifers.
3. Incorporate recharge and nitrate dilution calculations into zoning decisions.
4. Preserve farms and open space overlying critical recharge areas.
5. Adopt wellhead protection ordinances to protect against contaminating groundwater supplies.

Attaining Stormwater Compliance

Useful Website Resources

The NJDEP stormwater rules will have positive impacts on the quality and vitality of our streams and groundwater resources. But implementing the rules is a complex and daunting job.

The Watershed Association commends the hard work of town engineers, planning staff, officials and volunteers to ensure compliance by towns and new development projects.

Stormwater Ordinances

This April towns are required to adopt a *Stormwater Control Ordinance* (NJAC 7:8-4) that specifically addresses commercial development, groundwater recharge, water quality, and nonstructural or low impact designs.

Stormwater Plans

Towns must create a *series of plans* to:

- Detect and eliminate *illicit discharges* to storm sewers, such as old sewer lines that combined sewage and stormwater discharges.
- Detect, remediate and maintain *stream banks that are being scoured* by forceful storm runoff, and repair the outfalls causing these problems.
- Ensure the long-term *operation and maintenance of stormwater controls* on properties owned and not owned by the municipality. Routinely evaluate these facilities.
- Improve *storm drain inlets* to reduce the passage of solid and floatable materials down storm sewers.
- Outline stormwater mitigation projects, as options for developers to undertake if they require a variance or exemption from the stormwater rules.

Nonstructural Stormwater Strategies Point System (NSPS)

NJDEP requires new developments to *maximize* the use of nine Nonstructural Stormwater Strategies to reduce runoff volumes, rates, and pollutant loads.

These strategies include: Protecting natural drainage features and areas prone to erosion; Retaining native

vegetation and minimizing the use of lawns, fertilizers and pesticides; Minimizing clearing, grading and soil compaction; Disconnecting and minimizing impervious surfaces; Maximizing the runoff travel time; Preventing the accumulation and discharge of trash, debris and spills; Utilizing vegetated conveyance swales; and Clustering residential lots.

To ensure the inclusion of these strategies, NJDEP created a checklist and a spreadsheet point system to evaluate the effectiveness of the proposed control measures. Municipal board members may want to review these complex but optional spreadsheets on the NJDEP website.

Annual Certification

On May 2, 2006 each town is required to submit a 14 page Annual Certification Report with updates on the progress of their Stormwater ordinances, plans and programs. This report provides a checklist and a good opportunity to annually evaluate your practices and progress.

View this guidance at www.state.nj.us/dep/stormwater/

Helpful Tips

1. Start a Stormwater Task Force, this is not a one person job.
2. Towns may want to reevaluate the fees they charge developers for site plan applications to better reflect the time and effort required to review these complicated stormwater control specifications.
3. Require developers to assess streambank conditions during their site plan review process.
4. Combine efforts to monitor outfalls for NPS and illicit discharges, with your evaluation of stream bank scouring. Use the report created by the Watershed Association. View at www.thewatershed.org/resources.

Stony Brook-Millstone Watershed Association
www.thewatershed.org

Association of NJ Environmental Commissions
www.ANJEC.org

Municipal Land Use Center
www.tcnj.edu/~mluc/

NJ American Planning Association
www.NJAPA.org

NJ Depart of Community Affairs /Office of Smart Growth
www.nj.gov/dca/osg/

NJDEP—Green Acres Program
www.nj.gov/dep/greenacres/

NJDEP Water Supply
www.state.nj.us/dep/watersupply/wsa_statauth.htm

NJDEP—Stormwater Program
www.state.nj.us/dep/stormwater/

NJDEP—New Jersey Wildlife Action Plan
www.state.nj.us/dep/fgw/ensp/wap/wap_outline.htm

NJDEP - Bureau of Sustainable Communities and Innovative Technologies (BSCIT)
www.state.nj.us/dep/dsr/bscit.htm

NJ Water Supply Authority
www.njwsa.org

Pinelands Preservation Alliance
www.ppa.org

River Network
www.rivernet.org

Watershed Institute
www.thewatershedinstitute.org



J. Seward Johnson, Sr.
Environmental Center
31 Titus Mill Road
Pennington, NJ 08534

Watershed Watch

For Members of the Natural
Lands Network and
Concerned Citizens

Subscribe to :
NaturalLandsNetworksubscribe
@yahogroups.com

Phone: 609-737-3735
Fax: 609-737-3075
Email:
caltomari@thewatershed.org

WATERSHED MANAGEMENT STAFF

Jim Waltman
Executive Director

Jennifer Coffey
Watershed Management
Director

Laura Alex
Watershed Institute
Program Coordinator

Christine Altomari
Planning & Conservation

Beth April
Watershed Specialist

Angela Clerico
Environmental Planning

Peggy Savage
Watershed Stewardship

Amy Weaver
Watershed Stewardship

Allison Jackson
AmeriCorps Ambassador

Join
NaturalLandsNetwork
subscribe@yahogroups.com

Natural Lands Network Members Getting Involved !

May 6 Native Plant Sale 10-3 pm at the Watershed Reserve. Purchase native plants to enhance your garden, attract butterflies and other wildlife. Visit the website for order forms and information at www.thewatershed.org.

May 6 Explore the Wildflowers at Woodfield Reservation on the Princeton Ridge. Saturday 9:30-11:30 Call 609-737-7592 to register and get directions.

May 20 Millstone River Sojourn 8:30-5:30 Call 609-737-7592 for reservations.

June 3 Hiking the Watershed—Join one of our guided hikes for either the Insect Safari at the **Cherry Hill** Reserve in Montgomery or a Stream Life program at **Cedar Ridge** in the Sourlands. 9:30-noon. The programs are Free but pre-registration is required at 609-737-7592.

June 7 Redevelopment Workshop- NJ League of Municipalities and the US Green Building Council Forsgate Country Club, Monroe Township \$75.00 Registration Contact Marianne Leone 856-772-1592 /E-mail: marianne1013@comcast.net

June 17 Butterfly House Opening 10-2 PM at the Watershed Reserve.

Sustaining the Garden Think about "food miles" next time you shop, and please take advantage of our fortunate ability to buy local produce! Contact Honey Brook Organic Farm to purchase a Farm Share today! 609-737-8899 www.honeybrookorganicfarm.com

