



The Streamwatcher

Winter - December 2009

StreamWatch Mission

Protecting and enhancing our watershed through chemical, physical, and biological monitoring, restoration, appropriate action, and education. Volunteers are the key!

SCIENCE AND POLICY STAFF

Jim Waltman
Executive Director

Beth April
StreamWatch Program Coordinator

Leslie Brecknell
Community Advocacy Coordinator

Jennifer M. Coffey
Policy Director

Alyse Greenberg
Watershed Institute Program
Coordinator

Nick Ho
GIS Specialist

Joan McGee
Policy Specialist

Peggy Savage
Science Director

Sarah Helble
AmeriCorps Watershed
Ambassador

Stony Brook-Millstone
Watershed Association
J. Seward Johnson, Sr.
Environmental Center
31 Titus Mill Road
Pennington, NJ 08534
Phone: (609) 737-3735
Fax: (609) 737-3075
Web Site:
www.thewatershed.org
Email:
bapril@thewatershed.org

State of the Shed



Increasing population and steady conversion of forest, fields, and wetlands to asphalt and concrete have had a direct, negative effect on the health and quality of our water and environment. This is the conclusion of the Stony Brook-Millstone Watershed Association's first ever "State of the Watershed" report, scheduled to be released at the end of 2009.

A comprehensive look at where central New Jersey stands in terms of land use, water quality, and environmental policy, our report aims to give local government leaders, businesses, and concerned residents a clear snap-shot of the conditions we face today and the challenges ahead.

"For the first time in our 60-year history, the Watershed Association has taken on the challenge of examining and synthesizing the available information on the condition of our watershed as a whole," said Jim Waltman, Watershed Association Executive Director. "We are confident that this report will help shed new light on the problems facing our watershed and help identify solutions for the future."

Using data collected from our own programs and initiatives, as well as state sources, the "State of the Watershed" report illustrates the degree to which our land has been affected by development and what this means for the health of our water. The report also addresses what can be done to reverse environmental degradation in our region and which municipalities in our watershed have adopted the strongest measures to protect the environment.

Where We Stand

How we use the land in our watershed has changed dramatically over the last 80 years. We've changed from an area dominated by

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UPDATES AND HAPPENINGS



To celebrate our 60th anniversary, the Stony Brook-Millstone Watershed Association is releasing a report entitled "State of the Watershed," highlighted in the cover story on page one. This report used state data and StreamWatch data collected by our Chemical Action Team and Biological Action Team volunteers to characterize the health of the environment in the 265-square mile Stony Brook-Millstone Watershed. Your dedication and hard work helped make this report possible.

Beginning in January 2010, the Chemical Action Team (CAT) volunteers will collect data once a month, rather than twice a month. A review of the state monitoring program, along with monitoring programs by other watershed associations, indicated that monthly data collection is sufficient to gauge the health of streams. This change will allow us to spend more time analyzing the data and reporting it to state and municipal leaders to help bring about improvements in water quality. CAT monitoring will occur on the third weekend of the month (Friday, Saturday, or Sunday of a sampling weekend). A 2010 sampling schedule will be mailed in December.

Thank you to all of the StreamWatch volunteers for another successful and productive year of monitoring. Happy Holidays!



How Healthy is Your Stream?

The biological water quality rating is based on a combination of the organisms' tolerance to pollution; the number of different families in the sample; the number of families and individual organisms belonging to the Orders *Ephemeroptera* (mayflies), *Plecoptera* (stoneflies), and *Trichoptera* (caddisflies); and the percent dominance of one family. In general, a non-impaired stream has a diversity of different families, organisms with low tolerances to pollution (those generally belonging to *Ephemeroptera*, *Plecoptera*, and *Trichoptera*), and a low percent dominance, which is an indicator of diversity. A moderately impaired stream may be experiencing low species diversity due to a lack of diverse habitat and/or a majority of organisms with high tolerances to pollution. A sample must contain at least 100 organisms to be analyzed for statistical purposes. Causes of pollution in our streams include runoff containing high amounts of fertilizers, pesticides, oil, sediment, and/or pet waste.

October Biological Sampling Results

| | |
|-------------------------|---------------------|
| • Big Bear Brook (BB1) | Moderately Impaired |
| • Beden Brook (BD1) | Not sampled |
| • Beden Brook (BD3) | Moderately Impaired |
| • Beden Brook (BD4) | Non-Impaired |
| • Back Brook (BK1) | Moderately Impaired |
| • Cranbury Brook (CB2) | Moderately Impaired |
| • Millstone River (MRB) | Moderately Impaired |
| • Stony Brook (SB1) | Non-Impaired |
| • Stony Brook (SB2) | Non-Impaired |
| • Stony Brook (SB3) | Non-Impaired |
| • Stony Brook (SB4) | Moderately Impaired |
| • Stony Brook (SB5) | Too few to analyze |
| • Six Mile Run (SM1) | Moderately Impaired |
| • Ten Mile Run (TM1) | Too few to analyze |

(continued from page 1)

agriculture, to one with increased urban areas – and the buildings, pavement, and roadways that come along with it.

Our report shows that polluted run-off – “people” pollution like excess lawn fertilizers, leaking septic systems and sewer lines, and pet waste – is the biggest contributor to water pollution in our watershed. These issues show up mostly through high bacteria and nutrient levels and the declining health of aquatic life in our streams. Some areas in our region, like the Sourland Mountains in the north of our watershed region and Rocky Brook in the southeast, enjoy cleaner water than others, the report finds.

To protect the quality of our water we need strong environmental policies. The Watershed Association is working with nearly all 26 of our watershed municipalities to strengthen environmental protections. According to our findings, some municipalities have been more active in protecting the environment than others. Montgomery Township for example is proactive in its approach.

The Road Ahead

Everyone needs to be part of the solution to our environmental problems. That’s why our “State of the Watershed” report also gives readers concrete steps they can take with us to help make a difference in our watershed.

From picking up your pet’s waste and testing your soil before using lawn fertilizer, to telling your municipal leaders you want to see stream corridor and tree protection ordinances on the books in your hometown, together we can ensure we all have clean water and a healthy environment for years to come.

The “State of the Watershed” report represents a yearlong joint effort between the Watershed Association’s Advocacy and Science teams. Data was compiled from our own research, testing and reporting, as well as from state studies, maps, and reports. It will be available at www.thewatershed.org.

Help us protect clean water in your town!

- Pick up after your pet and dispose of it properly – in the trash, or flushed down the toilet.
- Test your soil to determine how much and what type of fertilizer your lawn needs, if any; water wisely, if at all; and don’t fret the weeds.
- Properly care for and maintain your septic system, or ask your town about the condition of its sewer system.
- Find out if your town has adopted a stream corridor protection ordinance to reduce flooding and the harmful affects of polluted runoff; if it hasn’t, urge your elected leaders to do so.
- Become River-Friendly and learn more about what you can do at home to help! See page four and call 609-737-3735 x37 to learn more.

Great Water Quality: It's Up To You!

Healthy water is made possible by a healthy landscape. The actions we take in our everyday lives matter to keep our water clean for swimming, drinking, and wildlife. This is why the Stony Brook-Millstone Watershed Association works with residents, businesses, schools, and golf courses to promote environmentally friendly landscape practices - such as limiting the use of pesticides, planting native trees and shrubs, and using non-toxic cleaning products - through its River-Friendly Programs. By becoming a River-Friendly Resident, you can easily document the steps you take in your home and lawn to prevent pollution in our streams.

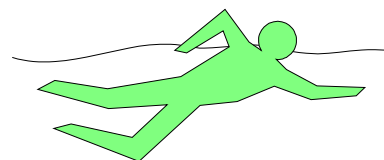


There are currently 19 StreamWatch volunteers certified as River-Friendly residents. As a StreamWatch volunteer, we would like to invite you to participate in this *free* program. It is easy to apply. Simply fill out the enclosed checklist, giving yourself one point for each action you do, such as testing your lawn to determine the appropriate amount of fertilizer or regularly maintaining your septic system. Give yourself a bonus point for being a StreamWatch volunteer. Once you have reached 20 points, mail in the checklist and you and your family are certified River-Friendly Residents! If you are having difficulty reaching 20 points, just call the Watershed Association at (609) 737-3735 x37 for assistance on projects you can implement. For participating in the program, you will receive a sign to display in your yard and a manual with tips on even more ways to be River-Friendly. You will also have the satisfaction of knowing that you are making a difference in keeping our waterways clean and healthy. Don't wait; complete your checklist today!

Fall Bacteria Monitoring Results

This November marked the first round of sampling for E. coli bacteria at 12 locations throughout the watershed. Sampling for E. coli gives us an idea of how safe our streams are for swimming. The table below lists the sites and whether or not they met the state standard for E. coli, meaning that the bacteria levels are safe for swimming. We look forward to continuing to develop this program throughout the winter and are excited to see the next results in February.

| Site | Meets State Standard? |
|-------------------------|-----------------------|
| Beden Brook (BD3) | Yes |
| Millstone River (CL1) | Yes |
| Carnegie Lake (CL2) | No |
| Stony Brook (CL3) | Yes |
| Heathcote Brook (HCB1a) | Yes |
| Heathcote Brook (HCB1b) | Yes |
| Honey Lake (HL1) | No |
| Watershed Pond (HO2) | Yes |
| Peddie Lake (PL1) | Yes |
| Pike Run (PR1) | No |
| Stony Brook (SB2) | Yes |
| Stony Brook (SB4) | No |





Celebrating 60 Years

StreamWatch Testimonials

In honor of our 60th anniversary, we spoke with StreamWatch volunteers to find out what being a StreamWatch volunteer means to them. We were impressed, humbled, and energized by their responses. If you would like to submit a testimonial on your experiences, contact Beth April at (609) 737-3735 x17.

How has being a StreamWatcher changed your perspective?

Being a StreamWatcher made me much more aware of the conditions of our streams and how they relate to the overall environment. The health of our streams matters. I really became more aware of the entire network of streams in the watershed and how what you do in one place relates to conditions elsewhere. We usually look at towns and roads as the network that connects us. By working as a StreamWatcher I became aware of this whole other network.

~John Schivell, former BAT & CAT volunteer

I can let Ryan speak for himself, but I know he enjoyed the opportunity to be of help to the Watershed and to conduct the testing...so much so that he's currently planning on pursuing an environmental science program in college.

~Eric Sleeper, former CAT volunteer with his son, Ryan

My work as a StreamWatcher has served to increase the importance of clean water and our environment. This, in turn, has led me to become even more involved with these issues through my participation on the local environmental commission. I also have many opportunities to employ good environmental practices at my home, and I am proud to be a River-Friendly Resident.

~Jim Gambino, CAT volunteer

Over the years, I have observed an array of wildlife, including freshwater eels! I am now much more aware of the stream's health and how too often litter and leaves and grass clippings from landscapers end up in our storm drains and streams. Among the amazing variety of activities engaged in by the Watershed Association, I believe education is the most important. Children need to learn about nature and why we need to protect it. It is an honor to be part of such an active and dynamic organization!

~Barby Delafield, CAT and Bacteria volunteer

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DATES TO REMEMBER

| | |
|---------------------------|--|
| December 12 th | CATs testing weekend. |
| December 26 th | CATs testing weekend. |
| January 16 th | CATs testing weekend. |
| February | RATs Month. Time to walk your stream beats! Contact Beth April at (609) 737-3735 x17 or bapril@thewatershed.org for more information. |
| February 1 st | Bacteria Monitoring. Contact Beth April at (609) 737-3735 x17 or bapril@thewatershed.org for more information or to pick up your sampling equipment. |
| February 20 th | CATs testing weekend. |
| March 20 th | CATs testing weekend. |
| March 20 th | BATs Identification Day from 9:00 am - 4:00 pm at the Kingsford Community Room. Remember that your macroinvertebrate sample can be collected up to two weeks before the identification day! Contact Beth April at (609) 737-3735 x17 or bapril@thewatershed.org for more information or to pick up your sampling equipment. |
| April 17 th | CATs testing weekend. |
| April 20 th | CATs Spring QA/QC session, 6:00 pm to 8:30 pm. Contact Beth April for more information and to RSVP at (609) 737-3735 x17 or bapril@thewatershed.org |
| April 24 th | CATs Spring QA/QC session, 9:30 am to 12 noon. Contact Beth April for more information and to RSVP. |

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