



Blackstone River Monitor

Summer 2007

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The Blackstone River Watershed Association (BRWA) was founded in 1976 and is dedicated to restoring, enhancing and preserving the Blackstone River system and its watershed.

Newsletter of the Blackstone River Watershed Association

From the President...

by Jim Plasse

I hope all of you are enjoying this wonderful summer. We have some interesting articles for you to read in this edition of the newsletter. You will see that BRWA volunteers are very active in the watershed this summer. We conducted two successful shoreline surveys: one on the West River and the other on the Mill River with our "Stream Team" volunteers and Michelle Walsh, our Environmental Outreach Coordinator. The results will be posted on our website, along with last year's report for the Mumford River.

The invasive Asian Water Chestnut

cleanup on the West River did not take place because of late scheduling by the contractor, Aquatic Control Technology of Sutton, MA. We thank Ocean State Power Uxbridge Community Foundation for its generous grant to remove the invasive weeds and regret that we will not be able to use the funds that were allocated for this project.

We also thank the Massachusetts Division of Fish and Wildlife, the Greater Worcester Community Foundation and Unibank for making the Stream Team Program possible.

Most of all, I thank all of you, our members, for your continued help and

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Upper Blackstone Treatment Plant Permit

by Peter Coffin, edited by Maggie Plasse

On May 9, 2007, a public hearing was held at Quinsigamond Community College in Worcester, MA regarding the US Environmental Protection Agency's (EPA) draft permit regulating the discharge of phosphorus and nitrogen nutrients from the Upper Blackstone Wastewater Treatment Plant in Millbury, MA. Besides the politicians playing their role to defend the water costs to Worcester residents, the newspapers looking for controversy, and one lone industrialist concerned with metal limits, the public hearing was held, surprisingly, with not one irate citizen expressing outrage over the proposed sewer rate hikes to pay for needed upgrades at the plant.

There was plenty of informed scientific testimony from Save the Bay, RI Department of Environmental Management (RIDEM) and the Conservation Law Foundation. Jim Plasse, BRWA president presented the

organization's position on the issue. Donna Williams, president of the Blackstone River Coalition (BRC), presented a strong letter from the BRC, while other letters came from northern RI's Trout Unlimited and the Blackstone River Watershed Council/Friends of the Blackstone (BRWC/FOB) in RI, the Blackstone Headwaters Coalition (BHC), Tatnuck Brook Watershed Association, Lake Singletary Watershed Association and individuals such as Jan Reitsma (former director of RIDEM), Dr. Mauri Pelto (professor of Environmental Science at Nichols College) and others.

With the comment period now closed, EPA will review all comments and issue the final permit, hopefully within six months. EPA appears confident in the science behind the more stringent nutrient

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Why Should You Care About Phosphate and Nitrate Levels in Your River?

by Jim Plasse

Why do we care about nutrient levels when we monitor water quality? Nitrates and phosphate are in fertilizers and do good things like help plants grow, don't they? Yes they do. Unfortunately, just like too much food can be bad for your health, too many nutrients can be bad for the health of a river or pond. Significant increases in nitrates and phosphates can lead to uncontrolled growth of aquatic plants and algae. These plants not only choke the waterways, but also seriously reduce the levels of oxygen in the water, causing fish and other aquatic animals to suffocate and die.

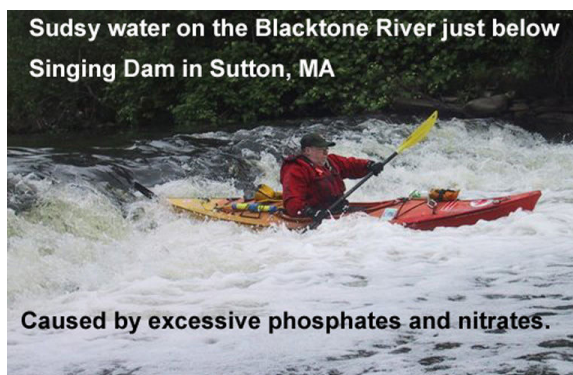
Where do these nutrients come from? Some levels of nitrates and phosphates are found in nature, but much of these chemicals that are found in our waterways come from wastewater treatment facilities, private septic systems and fertilizer run-off from lawns and agriculture.

The US Environmental Protection Agency and the Massachusetts Department of Environmental Protection are directing wastewater treatment facilities to reduce the levels of phosphate and nitrates now being discharged into the Blackstone River. This would eliminate about half of the amount of these chemicals in the Upper Blackstone River. This effort has met with opposition from some in the Worcester area. Additional treatment of sewage will cost more and many politicians and other people fear increases in sewer rates. While these fears are valid, we also need to protect our rivers from further degradation for the sake of our and future generations.

One method to address the problem would be to put less of these nutrients into our wastewater in the first place. Hence, we would have to remove less phosphates and nitrates from the discharged water.

There are alternative products available, such as non-phosphate dishwasher detergent that cleans just as well. We need to spread the word and educate people on the need to keep these nutrient chemicals out of our water and to encourage people to maintain their septic systems and use less fertilizer on their lawns. More is not always better!

Each month the water quality monitoring volunteers measure water samples taken from various parts of the Blackstone River Watershed. While the main stem of the Blackstone River continues to have unacceptably high levels of nutrients in its water, many smaller brooks and streams are quite healthy. Please help us to keep them that way and to continue to work to make the entire River healthier.



Greening Business and Bluing the Blackstone

by Dona Neely



Do a Google search on “companies going green” and the results will reference an eclectic mix of business types, including: retail, manufacturing, publishing, architecture, and hospitality. Being eco-responsible is becoming the “in” thing to do!

The Blackstone River Coalition’s ***In Business for the Blackstone*** program assists and recognizes local companies that are committed to doing what they can to minimize the environmental impacts of their operations, particularly in the area of stormwater runoff.

Participants in the Blackstone River Coalition’s ***In Business for the Blackstone*** program have taken action to prevent the risk of contaminants being collected in stormwater that runs across their property and into a storm drain that discharges directly into the nearest body of water. For instance:

★ Mark Goretti, president of **Goretti’s Supermarket** in Millbury, pro-actively engaged store associates in river stewardship activities. Goretti distributed a personalized letter to announce that the team would be “making a greater effort to be aware of what is going into the Blackstone River” and encouraged their involvement. He provided employees with outreach material that explained the problems related to stormwater and outlined steps that Goretti’s would be taking with the goal of “eliminating waste that goes into the Blackstone.” The store improved parking lot maintenance practices, implemented a routine to clean storm drains, established preventative measures for when washing carriages, and reminds patrons to properly dispose of papers and wrappers before departing the store. Goretti states that “it’s important that everyone step up and be more ecologically responsible” and he looks forward to Goretti’s becoming more river friendly.

★ Jeff White, owner of **J White’s Automotive Center** in Upton, has a goal to “change how things

are done in the automotive maintenance and repair industry.” To accomplish this, he is putting systems in place that will help minimize the new business’s impact on the environment, such as contracting with a service that will reclaim used oil filters, collecting recyclable corrugated cardboard in a separate dumpster, and participating in the ***In Business*** program. White has incorporated parking lot and storm drain maintenance processes that will keep the area clean, decrease the risk of automotive liquids mixing with stormwater and prevent flooding on the site. The staff keeps dumpster lids closed to ensure that trash does not fly out and that stormwater can not mix with the contents and leach out toxic “dumpster juice.” White explains that he and his family enjoy the natural resources that the Blackstone Valley area offers and he wants to make every effort that he can to ensure that his business protects them.

★ **Lampin Corporation** in Uxbridge instituted low- and no-cost changes to increase filtration of rainwater, reduce the volume of runoff, and prevent pollutants from entering local water bodies. By redirecting one of the building’s gutter spouts to discharge roof runoff into a vegetated area, an annual average of 73,000 gallons of stormwater is now filtered by the ground cover and returned to the water table, instead of spilling across the parking lot. President Rick Mongeau claims, “We have always been very focused on the effects of our activities on the inside; as ***In Business*** participants we now have a broadened spectrum and more control over the influence that our business has on the environment.”

★ The management team at **Millbury Federal Credit Union**, located in Millbury, understands the importance of properly addressing oil, grease and antifreeze spills in the drive-through and the parking lot to prevent these pollutants from mixing with stormwater and washing into the river. Joseph Barbato, Jr., president and CEO, explains: “Once we get the Blackstone River clean, it is important that we all do our part to keep it that way.” Barbato took steps to encourage senior staff at the credit union to share this long-term commitment.

With the heat of the summer upon us, fishable, swimmable rivers and lakes become more of a treasured priority as we seek locations for cooling and refreshing recreational activities.

Polluted stormwater is a leading cause of degraded water quality conditions in water bodies throughout the state and across the nation. When you see the ***In***

In Business...continued

Business decal displayed in the doorway of a business you frequent or live or work near, take a moment to say, "Thanks for taking care of the Blackstone!"

For more information about what local businesses are doing to protect our waterways, or to learn what your company can do, check out www.zaptheblackstone.org and go to the ***In Business for the Blackstone*** web pages under "What we are doing," or contact coordinator Dona Neely at 508-878-1728 or dona.neely@zaptheblackstone.org.

Permit...continued from page one

limits. The Upper Blackstone treatment plant is likely to appeal to gain more time or at least a more flexible construction schedule. These days the Appeals Board is quicker than it used to be, but the process is still likely to cost much time and money.

The BRWA, a member of the BRC, is committed to working with all stakeholders in the Watershed to achieve a Fishable/Swimmable Blackstone River by 2015. The issue of nutrients and non-point source pollution cry out for civic engagement at all levels. The BRC is working with the John H. Chafee Blackstone Valley National Heritage Corridor to convene a holistic approach to reduce pollutant loads from both wastewater treatment plants and non-point sources.

For more information:
www.seagrant.gso.uri.edu/factsheets/blackstone_river.html

www.thebrwa.org/

www.epa.gov/region1/npdes/draft_permits_listing_ma.html

from the President...continued from front page

support. Don't forget that you are invited and encouraged to attend the monthly BRWA meetings at the River Bend Farm Visitor Center on the second Tuesday each month. Your input and support is essential to the continued growth and success of this organization.

Not So Dangerous Liaisons

by Maggie Plasse

Are you interested in your town's environmental issues? Do you attend your town's conservation commission meetings, board of health or planning board meetings? We have just the volunteer opportunity you've been seeking! All you have to do is report to the BRWA on what is going on in your town. *No BRWA board meetings to attend*, just keep us posted via email on what is going on in your town. You pick how often to email us and you only attend the town board meetings that are of interest to you. What could be more flexible?

If something is adversely affecting the River or one of its tributaries, we will do the legwork, write letters to interested parties etc. or help you to write a letter.

We are a member of the Blackstone River Coalition (BRC), an organization spanning two states and made up of smaller watershed groups like ours. Being a member of the BRC gives us more leverage in dealing with problems regarding the Blackstone River and its watershed.

If you are interested in becoming a liaison between your town and the BRWA, call the BRWA office at 508-278-5200, or email us at info@thebrwa.org.



An Uxbridge resident brought the Asian Water Chestnut problem to the attention of BRWA.



BRWA acted by hiring a company to mechanically remove the noxious weeds.

Lawn Pesticides: How Dangerous Are They?

by Shirley Smith

Americans put 70 million pounds of fertilizers on their lawns annually. This continues year after year no matter that these chemicals contaminate our rivers, lakes, groundwater, and can cause serious adverse health problems. We do this because we will also kill any bug that threatens the lush green perfection of our lawn.



But what about the fact that these poisons cannot discriminate between the insect you are trying to kill and one of the greatest assets to a healthy lawn: the earthworm. The earthworm helps to neutralize the soil, improves air and water circulation, decomposes thatch, and deposits nutrient rich castings. Pesticides, especially imidacloprid, are highly toxic to the earthworm.

Some of these chemicals are very soluble in water and can eventually leach into the groundwater. This is a major concern. Documented cases of pesticides in groundwater wells are suspect for cancer clusters in many towns. According to the EPA, 95% of the pesticides used on residential lawns are possible or probable carcinogens. Besides cancer, a new report, "Risks From Lawn Care Pesticides," cites medical studies that link these chemicals to birth defects, childhood leukemia, and some nervous system disorders. The National Cancer Institute reports that children develop leukemia six more times more often when pesticides are used around their homes. There is little doubt that pesticides are highly toxic to people.

The manufacturers will tell you that their products are safe because they undergo extensive and rigorous testing before being registered by the EPA. When longer term use proves a pesticide to be harmful, it is banned. Examples are DDT, Chlordane and Malathion. Before attributing any moral integrity to their motives, it might be well to consider that the manufacturers have exported over one billion pounds of DDT and other banned pesticides to developing countries. The results of this practice are often disastrous.

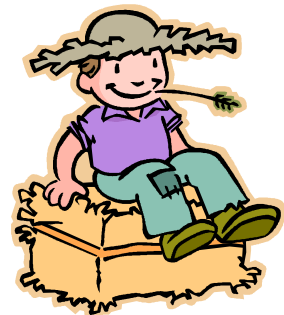
And what is it the pesticide companies test? They test the active ingredients, a tiny portion, usually no more than five to ten percent of the total contents. What about the other ninety or so percent that are so benignly labeled as inert ingredients?

The meaning of the word inert is that it does nothing; it is inactive. The implication therefore is that it is harmless and safe. Nothing could be further from the truth! The office of the New York State Attorney General, now governor, Elliot Spitzer, after learning that some of these inert ingredients were among the most dangerous substances known, asked manufacturers to label their packaging. The manufacturers refused on the basis of a fifty year old law intended to protect them from competitors who might want to copy the recipe. Steps are being taken to repeal this law.

These insects you are trying to eradicate, however, are far from inert. No matter what lethal cocktail of pesticides you throw at them, some will survive. Since they reproduce so rapidly and have had millions of years to work out adaptive responses, it doesn't take long at all for them to develop high levels of resistance. This means there is a never ending cycle of poisons released into the environment resulting in adaptive responses to those poisons. Is it purely in the realm of science fiction to consider the possibility of a super bug that nothing can kill?

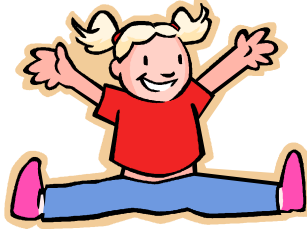
USA Today reports that Americans spend over seventeen billion dollars and one billion hours on their 31 million acres of lawn every year. But as health and environmental costs continue to climb, some of this is changing. An increasing number of garden centers are stocking a wide range of non-toxic alternatives. The concept of organic landscaping is growing. In Connecticut alone, there are 45 accredited organic landscapers.

So the next time you see an insect in your grass, do yourself, your children, and your neighbors a favor. Set aside the belief that the only good bug is a dead bug,



and another commonly held belief: if a little is good, more is better. Take the time to identify that insect and, should it be a species that is harming your lawn, find a safe, non-toxic remedy. Instead of adding to that yearly total of seventy million pounds of pesticides, you can help bring it down.

You can make a difference.



Links to a Healthier and Greener Landscape

<http://www.ela-ecolandscapingassn.org/> - Ecological Landscaping Association

www.state.ma.us/envir/drafts.htm - MA Water Resources Commission: *Draft Guide On Lawn and Landscape Water Conservation*

www.mapc.org - MA MAPC: *The Conservation Subdivision Design Project: Booklet for Developing a Local Bylaw*

www.newfs.org - New England Wildflower Society

www.ipswichriver.org/landscaping.html - Ipswich River Watershed Association (*Water Conservation and eco-friendly gardening*)

www.parker-river.org/index.html - Parker River Clean Water Association: *Waterfront Gardens (click on Home and Garden/Make a difference)*

<http://www.umass.edu/umext/nrec/> - (*Natural Resources Program*)

<http://www.umass.edu/umext/> - UMASS Extension Program (*soil testing information*)

www.state.ma.us/dfwele/dfw/nhosp/nhpubs.htm - MA Natural Heritage and Endangered Species Program *The Vascular Plants of Massachusetts: A County Checklist* (Publication)

<http://www.crtc.org/riparianbuffers.htm> - Connecticut River Joint Commissions Riverfront Buffers

www.nrcs.usda.gov/feature/backyard/BkYrdHit.html - USDA, Natural Resources Conservation Service: Backyard Conservation

www.apld.org - Association of Professional Landscape Designers *Guidelines for Ecologically Sound Residential Landscapes*

It's Not Easy Being Green!

by Maggie Plasse

We all want to do our part to make the Blackstone River “Clean by 2015.” Sometimes, though, this is not an easy task. We like green lawns, clean cars and the ease that living in the 21st century brings. It occurred to me that we don't have to decide between a clean River and a comfortable life style. After some thought, I realized that I didn't have to do every river friendly item on every to-do list. After all, I can pick a few items that I know I *can* do on a regular basis and incorporate them into my daily schedule. Isn't that better than taping every list to my refrigerator and being overwhelmed with things to do?

So, pick one or two items from the list below, one that you don't already do, and make it part of your routine. Then you will know that you are doing your part to make the Blackstone River “Clean by 2015.”

1. **Do you like a clean car?** Wash your car on the lawn. The run off will water your grass. I tend to wait until a rainstorm, leave my car in the driveway and then consider my car washed but my car is not very clean most of the time. My father, now there was a man who liked a clean car, but I digress!
2. **Do you like a green lawn?** Lawns should get no more than one inch of water weekly, any more can cause root mold to grow. Water between sunset and early morning to reduce evaporation. I don't like gardening so I plant native grasses and native plants. The only work involved is going to the garden center, buying the plants or seeds and planting them. Then I sit around for the rest of the summer enjoying the garden.
3. **Do you own a pet?** Pets poop! I know, I have a cat. That poop can find it's way to the River if not disposed of properly. I used to think it acted as fertilizer for aquatic plants. I was right but that is not necessarily a good thing. If too many plants grow, they use up all the oxygen that the fish need. There needs to be a balance. And what if your pet is sick, if those germs in the poop make it to River, there could be lots of sick fish.
4. **Do you fertilize your lawn?** That fertilizer ends up in the River and yep, the plants grow, use up all the oxygen and fish die. Fertilize minimally or do what I do, plant native plants and sit back. When was the last time you needed to water a forsythia bush in order for it to grow? I love forsythias, a nice low maintenance plant. Just trim it once or twice a season.
5. **Do you have any household chemicals?** I know you do, we all do. Save them until there is a “hazardous waste” drop-off in your town...usually around Earth Day. Some towns allow you to bring your hazardous waste to a recycling center. This “tip” is really, really important. If you pick only one thing from this list, it should be this item. Never, never should oil or other hazardous materials go into a storm drain, because storm drains lead to rivers and streams.
6. **Do you have a septic system?** Septic systems should be maintained otherwise your poop and pee will end up in the River. Yuck! Enough said about that.
7. **Do you know about directing rooftop runoff?** Sure, you do and here it is again. Use that rainwater coming from your roof. I have my downspouts going into the ground connected to PVC pipe, which is filled with little holes. It distributes the roof water, which is used to water some plants in my back yard. A real time saver for me...no need to water. In all fairness to my husband, I must add that I was not the one to connect the drain spouts to the PVC pipes but I'm glad he did it.
8. **What else can you do?** Join the Blackstone River Watershed Association. It's very little work, go to www.thebrwa.org and click on “Become a Member.” You'll receive a 10% discount on all canoes, kayaks and accessories at Great Canadian Canoe, Rt. 146, Sutton, MA. What a deal!



Why Join BRWA?

The Blackstone River Watershed Association (BRWA) is dedicated to enhancing and preserving the Blackstone River system and its watershed. To support this commitment, the BRWA monitors conditions, identifies areas of concern, and engages local citizens in the protection and enjoyment of our natural resources. This is accomplished through a variety of activities to which the organization is committed to continue for the long term. They include:

- ➔ **WATER QUALITY MONITORING** – BRWA participates in the Blackstone River Coalition Watershed-wide Volunteer Water Quality Monitoring Program. Forty volunteers monitor 32 sites in the mid-reach section of the Blackstone River.
- ➔ **STREAM TEAMS** – BRWA established Stream Teams made up of volunteer river advocates. The volunteers developed action plans for the Mumford River. Next year the program will be extended to include the West River and Mill River.
- ➔ **RIVER CLEANUPS** – BRWA scheduled river cleanups in April and May. Hand pulling of water chestnuts was done two Saturdays in July when 30 volunteers pulled 1 ton of weeds from the River.
- ➔ **EDUCATIONAL FORUMS** – BRWA provides public workshops to increase public understanding and community stewardship of the ecological resources of the Blackstone River watershed.
- ➔ **NEWSLETTER** – BRWA publishes three newsletters per year, February, June and October.
- ➔ **MEETINGS** – BRWA holds monthly board meetings on the second Thursday of every month from 7:00-9:00PM at River Bend Farm Visitor Center. Visit our website for the meeting agenda and directions to River Bend Farm. Meetings are open to the public.

The BRWA is a volunteer organization. We rely on grants, donations and membership dues to support our programs. Donations to BRWA are tax deductible.

Name _____

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City _____ State _____ ZipCode _____

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Please send only email newsletters and notices.

\$ 10-25 Friend

\$ 100+ Guardian

\$ 25-49 Keeper

\$ 1000+ Benefactor

\$ 50-99 Protector

\$ 5000+ Steward

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