



Croton Watershed Clean Water Coalition



ARE YOU DRINKING YOUR NEIGHBOR'S SEWAGE?

By Environment Committee, League of Women Voters - New Castle and Westchester

Most people have no idea how a septic system works. In fact, when new homeowners discover that they have a septic system their response is something like, "You mean our sewage eventually ends up in our yard?" Well, not exactly.

The *League of Women Voters (the League)* has spent the past ten years investigating water quality issues and has completed one study on Stormwater and two in-depth studies on sewage disposal which identified improperly maintained and failing septic systems as a very real threat to our drinking water - our reservoirs, and groundwater wells. This is a public health issue. Since completing our studies we have been advocating for a county-wide and county run septic management plan. However, before we look at a management plan, let us first understand how a functioning septic system should look. Onsite systems (or septic systems) are actually efficient and cost-effective means of treating sewage if they are properly sited, constructed, maintained, and managed.

How a Septic System Works

Currently, Westchester County Department of Health (DOH) issues permits for the siting and construction of septic systems. When a septic system is suitably located, properly designed and

installed, and adequately maintained, it is an effective and economical waste disposal system.

A septic system has four basic parts: a pipe from your house, a septic tank, a drainfield and the soil. All of the wastewater from your house exits via the pipe to the septic tank. The septic tank is a buried, watertight tank where the wastewater stays long enough for the heavy solids to settle and be partially decomposed by bacteria to form sludge. Lighter solids and grease float to the top forming a scum layer.

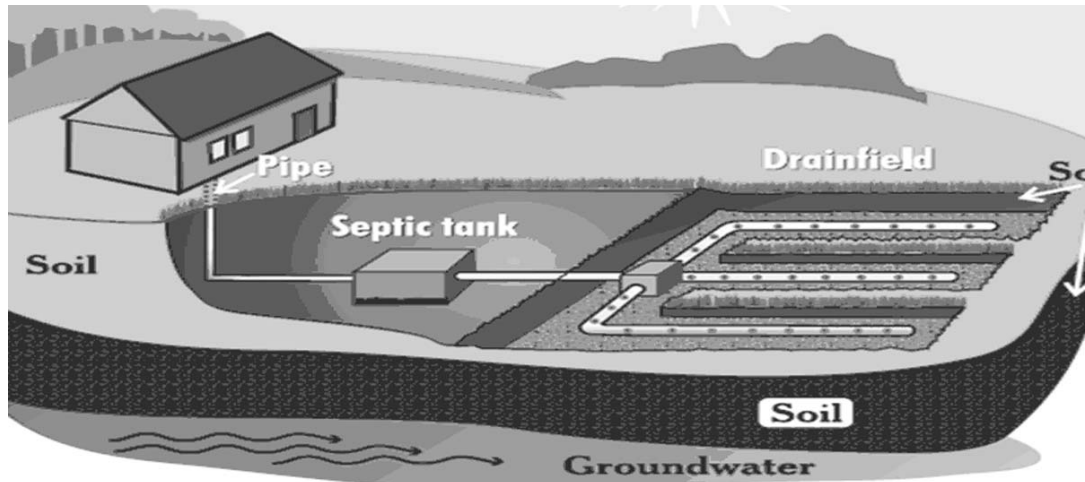
The remaining wastewater exits the tank and is discharged into the drainfield where it is further treated by the soil. The water percolates in the soil removing harmful bacteria, viruses and nutrients.

Once installed, the maintenance part is up to the system owner, and today there is no countywide requirement or education program on how to properly maintain a septic system.

How Do I Maintain My Septic System?

Proper maintenance involves two main

(cont'd on page 2)



Typical onsite wastewater treatment system

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activities: regular pumpouts and inspections.

Pumpouts

The sludge and scum that remain in your tank need to be pumped out on a periodic but regular basis. The frequency of these pumpouts depends upon four major factors: the number of people in the household, the amount of wastewater used, the volume of solids in the wastewater (for example, using a garbage disposal increases the amount of solids), and the size of the septic tank. Taking all of these things into consideration, a tank generally needs to be pumped out every three to five years.

Inspections

The second task involved in maintaining a septic system is regular inspections. Experts in the field generally recommend an inspection every three years. A thorough inspection includes locating the system, uncovering access holes, flushing toilets, checking for signs of back up, measuring scum and sludge layers, identifying leaks, and inspecting mechanical components.

It should be noted that the company that inspects your system should be different from the company that pumps out your system. Inspectors should be licensed and certified.

The Problems of Not Maintaining A Septic System

First, if you do not properly maintain your septic system, it is very expensive to repair or replace the system.

Second, failing septic systems are a public health issue because they can contaminate the ground water that eventually becomes the drinking water for 9 million residents of NYC and Westchester County. This is because poorly treated sewage can transport toxins and carcinogens through groundwater to wells and reservoirs. *In fact, according to the EPA, septic systems that are not properly maintained are the second major cause of water pollution in the U.S.*

In Westchester County, we have 40,000 septic systems, most of which are located in your

watershed. The League believes that the County needs to protect our water supply by implementing a septic management plan across the county.

Components of a Good Management Plan

To quote the EPA's national report on septic systems, "it is the absence of a comprehensive management program that prevents onsite systems from being effective and reliable wastewater treatments." Since completing our Sewage Disposal Studies, the League has been advocating for a county-wide septic management plan. Although some progress has been made, we have more work to do.

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As was already pointed out, maintaining a septic system is ultimately the responsibility of the homeowner. Therefore, the first component of a management plan is *education*. Currently there is no countywide education program on how to properly care for your system. However, the Board of

Legislators has allocated \$60,000 in 2008 for septic education – part of what the League has been advocating for the past three years.

The County is also working on a database listing the 40,000-plus septic systems by address. This database is being created at the DOH as a consequence of a 2007 law requiring septage haulers to report each pumpout to DOH. In addition, the members of the Northern Westchester Watershed Committee have committed to collecting and reporting to DOH information on all septic systems in their towns, which will greatly enhance the database.

The next piece of the plan is to mandate regular pumpouts and inspections. First, the County must train and certify inspectors. Septic owners could select from a list of certified inspectors and contract, at their own expense, for an inspection every 3-4 years. Every septic owner would be required to pumpout their system on a regular basis, depending on size of house, number or residents, etc. With the aforementioned database, it will be easy for the DOH to send a notice to a septic owner reminding them it is time for their inspection and/or inspections.

The new septage hauler law only requires a cursory "look" into the tank but is not a full blown inspection – AND, the haulers are not trained to do inspections – this is what the League was trying to get Board of Legislators (BOL) to add to the law – *trained inspectors and proper inspections.*

The League has suggested that the owner of a system which wasn't pumped, or didn't pass the inspection, would be warned to rectify the situation. If the problem is not addressed after a reasonable time, the County would send a truck to do it. A fine levied on the homeowner would pay for the pumpout. Generally, there would be no change in the homeowner's responsibility for his property. Homeowners would pay for their pumpout, and would receive a sticker showing the date completed, and the next time a pumpout should be done-just as one does with a car inspection. The information would be entered into the database; if no record of a pumpout and/or inspection is submitted, the County would send a reminder.

Why Doesn't Westchester County Have a Septic Management Plan?

You may be asking yourselves why a management plan has not been put in place already. After advocating for a management plan for the past few years, the hurdles, as we understand them from our meetings with the BOL, are: home rule issues, cost to the County and a concern about systems that appear to be irreparable.

In our opinion the issue of home rule, or the County not wanting to legislate how people take care of their property, is without merit. The county recently passed legislation requiring regular testing of drinking wells to protect those homeowners. However, if a septic system fails, it enters the groundwater affecting more than the immediate property and can become a public health issue. A potential risk to the public is EXACTLY what the County should be managing.

The County legislators have also cited 'cost' as a stumbling block but they have been unresponsive when the *League* has asked them to detail what they THINK the costs will be for a county-wide management plan. The costs will

include setting up a database and sending out reminders about inspections. The costs of pumpouts and inspections are now and should remain an expense of the homeowner. Therefore, the total cost to the County should be minimal.

Finally, we have heard some County staff use the argument that some systems may not be able to be repaired; therefore, there is a risk that people would be forced out of their homes. Our research indicates that few, very few, systems are irreparable. For those systems that appear to be "unfixable" there are new technologies e.g. anaerobic systems and systems engineered for poor soil, limited acreage, and rocky terrain. The State Dept. of Health has been slow to approve these new technologies, despite the recommendations of a committee convened

years ago to review new technologies. There are many alternatives to condemnation. Failing septic systems affect not just the single homeowner but the wider community. Building codes keep people from living in substandard houses; septic regulations will keep people from polluting the groundwater, which knows no boundaries.

Once a failing system is identified and remediation found, how can the repairs be made in hardship cases?

Homeowners can get low interest loans to repair failing systems from the NY State Clean Drinking Water Revolving Fund. The County can also set up its own low interest loan program. Just how many public versus private funds are used to clean up a source of pollution is a work in progress. One approach used successfully in Connecticut involves the County doing the repairs and placing an assessment against the property. The County would be repaid upon sale. Another option is a grant program. Possibilities exist and need to be explored.

Summary

The issue of a Septic Management Plan has never been more timely. In 2006, the Department of Environmental Conservation issued Modifications for MS4's (municipal separate stormwater sewer system) in the East

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of Hudson Watershed for the Required Stormwater Management Program. The modifications call for:

- 1 public education and outreach on stormwater impacts, including septic systems;
- 2 a requirement to develop, implement and enforce a program to ensure that onsite wastewater treatment (septic) systems are inspected and, where necessary, maintained or rehabilitated at a minimum frequency of once every three years. Program development includes the establishment of the necessary legal

authority to implement the program.

This means that every town must have a septic management plan in place by 2009 for most of its septic systems - neither insignificant nor inexpensive undertaking.

Based upon the above information the League strongly advocates for the County rather than each of the 45 municipalities to implement an education and management plan that will have uniform standards, a central database, and enforcement ability. To repeat – this is a public health issue.

ALL THE NEWS NOT FIT TO PRINT

RE: For Bronx Water Plant Being Built 10 Stories Down, a Towering Price Tag
New York Times by Anthony DePalma 4/24/08

Will a \$3 Billion Filtration Plant Secure a Safe Water Supply?

By David Ferguson, Vice President

Dear Editor,

This \$3 billion, ratepayer funded Croton filtration plant lacks backup power to filter water during blackouts or terrorist attack.

Power failure means water bypasses filtration while the Department of Environmental Protection issues a "boil water alert." Boiling kills certain pathogens but doesn't remove dangerous pollutants as stormwater runoff washes into reservoirs from dozens of additional, unwise development projects currently threatening Croton water quality.



The Delaware Aqueduct, supplying 70 percent of the city's water, has a billion gallon a month leak 600 feet beneath the city of Newburg. If

Aqueduct failure coincided with power loss during a drought, when the Croton supplies 30 percent of the city's water, or during the years it will take to repair in any case, we'd be drinking unfiltered water.

Why isn't the City acquiring enough land now in Westchester and Putnam counties to prevent incremental degradation of our default watershed by this patently detrimental development?

Visit our website for the latest on Impact Fees www.newyorkwater.org

BOOK REVIEW



By Marian Rose

Bottlemania: how water went on sale and why we bought it

By

Elizabeth Royte

(Published by Bloomsbury USA, New York – First edition 2008)

What is our future if water, life's most vital necessity, becomes a commodity – to be sold for profit – rather than a shared commons? In this fast-moving, well-researched book, Elizabeth Royte describes the astonishing increase in sales of bottled water in the U.S.; this, despite the fact that tap water costs anywhere from 240 to 10,000 times less than bottled water, is more strictly regulated, and comes out evenly in blind tests against the top brand names.

Royte raises two main questions: "One has concrete answers: what are the physical differences between tap water and bottled, and what is water bottling actually doing to the environment and the local communities? The other questions are more abstract: Even if bottled water makes sense, for health or other reasons, even if it is harmless, is it ethical to profit from its sale? If we believe water is a basic human right – such as freedom from persecution or equality before the law – then why would we let anyone slap a bar code on it?"

In addressing the first question, Royte describes the struggles of the residents of Fryeburg, Maine - population 3,000 – to stop Poland Springs, owned by Nestle, from continuing to extract water from their local, pristine watershed to supply their bottling plant in the nearby town of Hollis. The struggle has been ongoing for over four years and it is tearing the town apart. Some residents claim that their wells are running dry but find this hard to prove against Nestle's array of experts that claim they are not over-pumping. Other residents are concerned with the effects of water drawdown on those creatures that depend on the watershed streams and springs for their survival. Others question the right of a powerful multinational to override the wishes of a small community to maintain their lifestyle. And yet other town residents are amenable to what they perceive

as improvements brought about by the bottling company. Sadly, the result is a small town divided into factions, with the outcome still unclear.

Royte explains the reasons for the skyrocketing sales of bottled water. Unbelievably, from only 1990 to 1997, U.S. sales of bottled water increased from \$115 million to \$4 billion. Clever, multimillion dollar marketing stressed the need to drink at least eight, eight fluid ounce bottles per day; the "chic appeal" of being seen taking sips from your individual bottle – a sign of a busy life style that precluded time out for relaxation; and the convenience of having a bottle in hand rather than having to seek out a water fountain or office cooler. The increase was also due to an often-overlooked invention – PET plastic that enabled the manufacture of stronger, lighter and potentially recyclable bottles.

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Unfortunately, this craze for bottled water is placing ever more stress on the environment. As explained

by Peter Gleick of the Pacific Institute, the **energy required for the manufacture, transport and disposal of each bottle is equivalent to filling one quarter of the bottle with oil. And only 15% of these bottles get recycled.** Most are buried in landfills or are burned in incinerators.

According to Royte, in 2006, 44% of bottled water sold in the U.S. came from municipal supplies. This is certainly less harmful than pumping from aquifers although the bottling companies deny any harm and claim that they pump at sustainable rates – after all, this is in their own interests. Even though the bottlers claim that they only remove .02% of the total annual groundwater withdrawal, we must remember that this water is permanently removed from the watershed, unlike the local utility that discharges used water into the same watershed.



With public thirst for bottled water on the increase, the water multinationals are fanning out all over the U.S. in search of fresh sources. So far, the towns are reacting like deer caught in the headlights and seem unable to promulgate ordinances prohibiting outsiders from mining their water for gain. The one exception (there may be others since the book was published) is the tiny hamlet of Barnstead, N.H. which, in 2006, was the first municipality in the U.S. to ban extraction of their water for sale elsewhere.

The discovery of the disinfection properties of chlorine, and the commencement of its widespread use in drinking water, in 1920, was the start of the successful public control of drinking water, and the setting of standards for maximum levels of various pollutants – standards and pollutants that are constantly being revised.

One of the more ominous threats to drinking water quality is global warming. Heavier storms that are becoming the norm wash excesses of pollutants of all kinds into surface and ground waters, and overwhelm sewage treatment plants. Among these pollutants are atrazine, a widely-used herbicide that can cause birth defects and whose use is being enhanced by the ethanol boom; and O157:H7, a virulent strain of E coli, originating in cattle and that does not respond to chlorine.

Eliminating these dangerous contaminants, and

others, and complying with strict federal standards is a monumental task for the purveyors of public drinking water. On the whole, throughout the U.S., municipal water is safe to drink. However, Royte does suggest the use of individual filters to protect the very young and the very old, or those with immune-deficient systems.

Pepsi's Aquafina and Coke's Dasani are both drawn from municipal sources. However, bottled water, whether drawn from municipal sources or local aquifers does not have to comply with the stringent regulations imposed on municipal water. And despite its intensive marketing, blind tests generally fail to differentiate between bottled and tap water.

In times of severe storms that are becoming more frequent, as already mentioned, bottled water could be the only alternative. But, in the absence of such disasters, Royte is a firm advocate of using public supplies. As she so eloquently states: "Switching to bottled water isn't something I'm willing to contemplate at this point: it's expensive, it's heavy to haul around, and the production and disposal of all those bottles can't be good for the planet... Opting out of public water in favor of private isn't going to help preserve – or improve – municipal water supplies, but preserve them we must: too many people can afford to drink nothing but."

Review by Marian H. Rose



Riverkeeper Award To Marian Rose As 'Watershed Honoree'

By Suzannah Glidden

CWCWC board members and other intrepid environmentalists braved downpours to enjoy Riverkeeper's Shad Fest on May 18th. Spirits were high as we enjoyed delicious food, drink and companionship under big tents amidst glorious bagpipers.



incomparable mentor to both organizations, Jim Roberts. In the atmosphere of global warming, she emphasized that it's time to redouble our efforts to advocate for good environmental legislation at Federal and State levels.

Leila Goldmark along with Alex Mathiessen and Robert Kennedy, Jr. of Riverkeeper feted CWCWC president emerita Dr. Marian Rose as Watershed Honoree. They cited her leadership in water protection and dedication to preserving this most vital resource. Among the achievements Leila cited were Marian's work to promote the use of membrane technology for the Croton Watershed filtration plant that must be recognized. Robert Kennedy calls on DEP to reexamine this superior technology should they one day be forced to filter the Cat/Del system

Marian explained that amending the Clean Water Restoration Act to exclude the word "navigable" can restore protection to isolated wetlands, among others, and the Clean Water Revolving Fund will increase federal spending for water-related infrastructure. She stressed that CWCWC considers safe, clean and affordable drinking water to be a basic human right, and that it should not be a commodity.



Together the two organizations convinced DEC to establish TMDLs to reduce phosphorus pollution in the Croton reservoirs. Riverkeeper joined CWCWC in preventing alum dumped in New Croton reservoir that would have created 365 tons daily of alum sludge. Leila credited Marian for obtaining the

Croton Watershed designation as Critical Resource Waters which prohibits the use of the US ACOE Nationwide Permits, "rubber stamp" permits that allow rampant wetland destruction.



Our president emerita spoke of the urgency to create more protection for forests which provides the most cost-effective means of supplying NYC, Putnam and Westchester with high quality drinking water and results in significant health and economic benefits. Yet hundreds of acres of forests in the Croton Watershed are being destroyed – to

be replaced by hundreds of acres of impervious shopping malls. Fortunately, all over the world, people are acutely aware of the vital need to protect this planet and our water resources. There is strong support. By working together we can bring about change that will maintain a good quality of life for all of us, in a healthy environment.

In closing Leila said that CWCWC works diligently to fight sprawl in the Croton – Kent Manor, Meadows at Deans Corners, Patterson Crossing, Eagle River, Granite Pointe – that CWCWC tries to mitigate development in the Croton to either stop a harmful project or cut it back with the least amount of adverse environmental impact through many legal battles and that Riverkeeper was pleased to have joined CWCWC in some of those battles.

Marian responded with thanks to Riverkeeper for the many years it has devoted to protecting the Hudson River, Cat/Del and Croton watersheds and partnering with CWCWC in protecting the Croton. She applauded the

Please visit our website at www.newyorkwater.org for more details on these initiatives.



The Croton Watershed Clean Water Coalition strives to protect and improve the waters of New York City's Croton Watershed, a critical component of the water supply for over half the population of New York State. We are an alliance of individuals and groups who believe that safe, clean and affordable drinking water is a basic human right.

Send in your membership and receive membership mailings and a subscription to CWCWC newsletter "Our Water, Our Future." Most importantly, your membership will help you get involved with the preservation of one of our most precious resources, our water.

Croton Watershed Clean Water Coalition Membership Application

Name: _____

Address: _____

City: _____ State: _____ Zip: _____

Email: _____

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| <input type="checkbox"/> Group/Coalition Membership | \$50/year | <input type="checkbox"/> Students/Seniors | \$10/year |
| <input type="checkbox"/> Family Membership | \$25/year | <input type="checkbox"/> Other | \$ _____ |
| <input type="checkbox"/> Individual Membership | \$20/year | <input type="checkbox"/> Additional Contribution | \$ _____ |
| <input type="checkbox"/> Renewal | | <input type="checkbox"/> New Membership | |

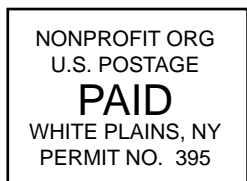
CWCWC, Inc. is a tax exempt, charitable organization under section 501 (c)(3) of the Internal Revenue Code. Your membership contribution is fully tax deductible.

Make checks payable to Croton Watershed Clean Water Coalition, Inc. and mail along with your membership form to:

Treasurer, CWCWC, Inc., PO Box 484, Bedford NY 10506



Our Water, Our Future
Croton Watershed Clean
Water Coalition, Inc.
9 Old Corner Road
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