

What Holmdel Township Can Do to Protect Our Water Supply

- Use Best Management Practices (BMPs) in the application of pesticides, fertilizers, and weed killers on Holmdel Township properties, including parks and roadsides, and encourage farmers, homeowners and lawn services to do the same.
- Follow the Wastewater Management Plan (WMP) and limit the extension of sewer lines into parts of town where groundwater recharge from septic systems is needed to protect stream health and the flow of water through aquifers into the Swimming River Reservoir.
- Follow the Stormwater Management Plan, as mandated by the State of New Jersey, which requires frequent street sweeping and clean-out of storm drains to keep solids and litter from entering and polluting our streams.
- Protect the headwaters of the many streams that originate in Holmdel and encourage property owners to honor stream buffers as required by development regulations, and to plant trees and shrubs along stream corridors and on steep slopes to prevent erosion and flooding.
- Work with our local water companies, Shorelands and New Jersey-American Water Company, to develop guidelines for conserving water during daily use and during periods of drought so that more citizens can become aware and help protect this precious natural resource.
- Develop educational programs for new homeowners and long-time residents alike on the proper construction, preventive maintenance, and repair of septic systems, both to minimize septic system failures and keep homeowner costs low.
- Continue to monitor the impact of proposed new housing and commercial construction and associated extension of trunk sewer lines (and the dense development they encourage) on water quality —the health of streams, recharge of wells and the water table, and the maintenance of optimum flow through streams and aquifers to the Swimming River Reservoir.

“Keeping Holmdel *Holmdel*– Land Use & Water” is the second in a series of Land Use and Open Space publications aimed at citizen education and sponsored by the Friends of Holmdel Open Space (FOHOS) and Citizens for Informed Land Use (CILU).

Friends of Holmdel Open Space is a non-profit, non-political organization formed to raise funds to preserve land in Holmdel. It is chartered as a 501 (c) (3) organization and contributions are tax deductible. Contributions may be sent to FOHOS, c/o Elise Donovan, President, 12 Indian Creek Road, Holmdel, NJ 07733.

Citizens for Informed Land Use is chartered as a non-profit, non-partisan 501 (c) (4) membership organization whose mission is to promote informed and thoughtful land use decisions and protect Holmdel’s natural resources. Contributions are not tax deductible. Membership information is available from Jim McCorkel, Co-President, CILU, Box 632, Holmdel, NJ 07733 and on CILU’s website, <www.holmdel-cilu.org>.

RESERVOIR
TWO SWANS COOLING OFF IN SWIMMING RIVER



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Holmdel’s Water Supply: It all Depends on Land Use

Here in Holmdel we enjoy a plentiful supply of inexpensive and high quality water. Most of the time, we don’t even think about it. Only in unusual circumstances – like drought – do we even consider conserving water. *What makes our water supply so reliable? Will there ever be a need to worry? It all depends on land-use decisions made by our local government. And on water conservation by Holmdel’s businesses and households. If we make the right choices, our water will continue to flow; if not ...*

Where does the water come from?

In Holmdel, most water is supplied by either Shorelands Water Company in the north, or New Jersey American Water Company (NJAWC) in the south. From May to September Shorelands pumps its water from wells. As the water is drawn down and saltwater threatens to infiltrate Shorelands’ wells, they must purchase water from NJAWC—which in turn gets its water from the Swimming River Reservoir.

What fills the wells and reservoir?

Water enters the Swimming River Reservoir from storm drains on the southern slope of Holmdel, from streams feeding into the reservoir, from rain or melted snow passing through the soil into aquifers, or from the seepage from septic systems into aquifers. These same sources on the northern slope of Holmdel maintain the water table and thus the wells that supply Shorelands.

Locally we get about 50 inches of rain per year. How that rain gets into our water supply and the cleanliness of that water depends on what it falls on. If rain falls in the woods, it is absorbed in the soil and finds its way into the aquifer or into streams that feed the reservoir. If it falls on the street, it may pick up pollutants. Lawns absorb some precipitation but also contribute runoff contamination from fertilizers, pesticides and weed killers.

Land use is critical.

What this means for Holmdel is that land-use decisions are critical to maintaining our clean and abundant water supply. Open space is the major protector of our water supply. Woods, fields, and wetlands do a great job of absorbing water, filtering it, and sending it where it will do us the most good. As Holmdel continues to grow, we need to pay careful attention to the effect of land use on water. Holmdel is 18 square miles with between 17,000 and 18,000 people and growing.

“Why stand under an umbrella when it rains?”

To stay dry. In the same way, a house, a driveway, a pool, or a patio prevent rain from being absorbed in the ground by creating “impervious surfaces.” Zoning that limits the impervious coverage of a property enables the rain to enter the ground and recharge ground water. Rain that falls on impervious surfaces is often lost or gets polluted. If it enters the water supply, it is more likely to be contaminated, and because it is not absorbed gradually and filtered physically and biologically, it can cause flooding. Other land use decisions can help or hurt the water supply. Drainage and conservation easements which preserve open space forever help water absorption and prevent contamination. Preserving trees, especially on steep slopes, guarantees that the water that falls as rain will end up in the reservoirs or wells, rather than in the bay. Trees also help prevent erosion and flooding.

Think Upstream

- Use the water you need, but don't waste this resource. Check out www.h2ouse.org for water conservation ideas.
- When you plan landscaping, think about water use.
- Take advantage of the rain to water your garden.
- Plan and build a rain garden. Check it out at: http://www.npsnj.org/rain_garden_home.htm.
- Remember that trees and other natural plant materials use less water than lawn.
- If you have a sprinkler system, use it only when the garden or lawn really needs it, and don't water the street or sidewalk.

Think Downstream

- If you have a septic system, treat it well and it will treat you well.
- Call the Holmdel Board of Health (732-946-2820 x 1501) or stop by Town Hall for a FREE booklet on septic system care.
- Plant and preserve trees and other natural vegetation, especially on steep slopes and near streams.
- Respect drainage and conservation easements. They are protecting the water you drink. http://northjerseyrcd.org/Riparian_Buffer_Site/Fact%20Sheets/Backyard%20Buffer.pdf provides some useful information
- Use only as much fertilizer and other garden chemicals as you need. You'll save money while you protect water quality.
- Learn about composting at Monmouth County's Deepcut Park and use compost as a natural fertilizer rather than chemicals.

Think Holmdel

- Be informed about local water and land use issues. Join Holmdel's "Citizens for Informed Land Use", soon to celebrate its 10th anniversary. Go to <Holmdel-cilu.org> on the internet. Contribute to "Friends of Holmdel Open Space".
- Let the Holmdel Township Committee know you want them to protect our water supply and collaborate with the two for-profit water companies serving Holmdel to develop mandatory conservation plans to be implemented early in any future drought. Let them know you favor septic systems over sewers!
- When you are enjoying Holmdel's parks, recreation facilities, and greenway trails, or Holmdel Park in the Monmouth County Park System, appreciate the great job the landscape is doing in protecting your water supply.

Holmdel is 18 square miles. Has about 5,400 households. More than 17,000 people. There is no legal or regulatory limit to how much water a house can use.

No limit on how many new businesses or houses can be connected to Holmdel's water mains.

Each house uses about 48,000 gallons of water per year. Holmdel rainfall averages 50 inches per year.



"THE RESERVOIR" – IN TIME OF PLENTY



"THE RESERVOIR" – IN TIME OF DROUGHT

Water's Future is Now

The Great Divide

Holmdel has a long high ridge creating a "great divide" in the town—just like the Rockies only smaller.

North of the divide, much of the land has been developed at relatively high densities compared to south of the divide. Most of the wastewater from the homes and businesses on the northern slope, which contains about a third of Holmdel's area, is moved via sewer lines and pump stations to the Bayshore Regional Sewerage Authority's treatment facility in Union Beach and then pumped out into the Atlantic Ocean.

Monmouth County's highest point is Crawford Hill, about 390 feet above sea level. Crawford Hill, Telegraph Hill, and several unnamed hills in central Holmdel divide the town into a north and south slope.

The southern slope has about 1800 acres in farms, parks and conservation areas and also, on average, larger lots around houses. It is designated "environmentally sensitive" in the N.J. State Development Plan primarily because Holmdel's streams like the Ramanessin Brook and underground aquifers flow toward the Swimming River Reservoir, providing a third of its water. Wastewater on Holmdel's southern slope is mostly treated by "ground water dispersal systems"—the water from our septic tanks filters through the soil into aquifers, maintaining the water table and helping sustain base flows in the streams feeding the Swimming River Reservoir.

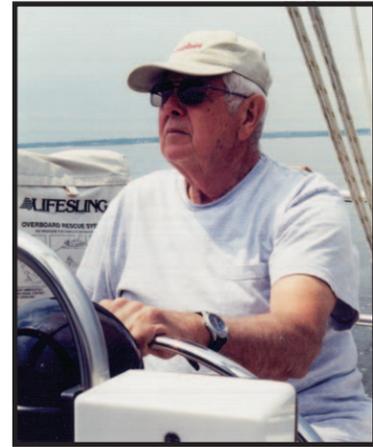
Sewer or Septic — The Land Use Perspective

Holmdel has developed a "Wastewater Management Plan" (WMP) that guides the town's infrastructure development for handling wastewater. For example, it calls for limiting the expansion of sewers and encourages the use of septic systems to sustain water levels in the Swimming River Reservoir. But recharging groundwater by using septic systems is equally important for the vitality of streams in northern Holmdel, where the WMP calls for limiting the expansion of sewers in neighborhoods that serve as headwaters of Mahoras Brook and Waackaack Creek.

So the choice between sewers and septic systems should be based not on each homeowner's or developer's preference alone. It should be based on what's best for the health of Holmdel's streams and the Swimming River Reservoir—our drinking water. There is no new source of water being created.

Bill McFarland: A Passion for Water

Of all of his accomplishments over 78 years, Holmdel resident Bill McFarland is most proud of his work protecting water quality. In Bill's youth, Holmdel was a farming town that depended exclusively on well and spring water. "Used" water was disposed of in cesspools or septic tanks. He remembers that in the late 1950's Old Manor, Holmdel's first residential development, was constructed and "city" water was provided by water mains running under roads and streets. Sewers came later.



Bill served on the Holmdel Township Board of Health from 1970 to 1995 and again from 2003 to 2006. One of that Board's primary functions over those years was developing a Wastewater Management Plan, since wastewater is a critical issue in a growing town in which the *southern* slope drains into the Swimming River Reservoir, which provides water for hundreds of thousands people in Monmouth County. Runoff from the homes and businesses on Holmdel's *northern* slope impacts on stream water quality and the potential for flooding in the towns between Holmdel and the Raritan Bay, as well as the quality of water in the Bay and its estuaries.

Holmdel's Board of Health has strengthened its regulations over the years to ensure that wastewater management systems are efficient and environmentally sound. The Board provides a free booklet on septic system construction and maintenance, and recommends pumping out septic tanks every 3 years. If you would like a copy of the booklet, just drop by and ask for one at the Board of Health in Holmdel's Town Hall or call 732-946-2820 ext. 1501.

Bill believes a well-constructed and properly maintained septic tank and dispersal field can last indefinitely. As Bill explains, wastewater that is filtered by soil at least 10 feet deep can actually clean itself before it re-enters the aquifer. He is opposed to adding sewer lines in the southern slope of Holmdel because wastewater would no longer replenish our drinking water source—the Swimming River Reservoir.

Another concern of Bill's has been the protection of water in all of Holmdel's streams. Bill and his wife Isabelle, along with other volunteers, have walked in the streambeds doing visual inspections and sampling water to do biologic tests. Bill explains, "When streams receive storm water runoff containing fertilizers, insecticides and herbicides, it affects the quality of the water and makes it unhealthy. Flat Creek and Mohingson Brook are dead," he says. "And we did it and so we must fix it."

Because of Bill's passion for Holmdel's water he recently helped prepare and obtain a \$55,000 grant application to the New Jersey Department of Environmental Protection for educating Holmdel's citizenry about stream buffers, and to pay for the installation of storm drain filters. If the grant is successful it will contribute to better water quality in Holmdel.

This educational brochure on Land Use and Water was jointly prepared and funded by Friends of Holmdel Open Space (FOHOS) and Citizens for Informed Land Use (CILU).