Talk It Up: Conversations about Water
Discussions that Pertained to Property Owners

During the conversations in the Talk-It-Up discussion area at Going Green Matters 2014, most of the suggestions were directed to actions our Village could take. A summary of the suggestions was prepared and distributed to all of our elected officials and managers and is posted on our website (see Going Green Matters 2014 website http://www.goinggreenmatters.org/). During those discussions, there were also some specific recommendations for property owners, which are summarized below.

REDUCING FLOODING DURING INTENSE STORMS

Do your part to help slow the flow of stormwater that flows into storm sewers and reduce the volume of stormwater the flows into sewers and street drains:

- Disconnect downspouts and divert rainwater away from foundations and neighbors' property.
- Add rain barrels, rain gardens and dry creeks to your landscape plans to keep water on your own property and out of the street drains.
- Reduce the amount of lawn on your property – a rain garden absorbs 30% more water than a similar-sized patch of grass.
- Form a neighborhood watch group to ensure that leaves and debris are kept away from street drains.
- Limit the use of household water during storms (avoid washing clothes, running dishwashers, taking long showers).

Learn about potential problems on your own property that may contribute to flood risks for your home and the community:

- Inspect property for grading that directs stormwater toward your basement or obstructs the natural flow of water; address any problems.
- Install battery backup protection for sump pumps.
- Engage professionals to assess:
  - Your underground pipes for broken or cross connections (cameras that film inside of pipes).
  - Need for an overhead sewer system in your basement.
  - Advisability of installing a back flow valve to be switched on during intense storms.

Attend Village meetings to be informed about the challenges the Village Public Works and Engineering Departments face in managing stormwater during intense storms. Learn about Village plans for reducing flood risks and what those improvements are likely to cost.

MAINTAINING WATER RESERVES FOR FUTURE GENERATIONS

Reduce Water Use Inside

The typical household in the US uses 70 gallons of water a day. By fixing leaks, installing water-efficient plumbing fixtures, and changing some everyday habits, property owners can reduce the volume to 45 gallons/day. Here are some tips:

- **Fix leaks:** A slowly dripping faucet or a toilet that keeps running can waste thousands of gallons of water a year.
- **Replace old appliances:**
  - Toilets account for 30% of the indoor water use consumed each day. Replacing an old toilet with a low-flush model can save 10 gallons of water/day.
  - Old shower heads replaced with low-flow fixtures saves water and decreases the demand for hot water (saves energy costs).
  - Aeration devices on faucets reduce the volume of water used.
  - Tankless or "on-demand" water heaters avoid energy losses that occur with storage water heaters. That loss can be significant when you consider that heating water accounts for 30% of the average household energy budget. (See discussion on page 3 about the amount of water used in the production of energy).
  - Newer model dishwashers and washing machines use less water/cycle.

- **Behavioral changes can save money:**
  - Take shorter showers – a 5-minute shower with a new shower head uses only 12.5 gallons of water. An average bath uses 40 - 50 gallons of water.
  - Turn off the tap while brushing your teeth and save well over 1000 gallons of water/person/year.
  - Install a rain barrel. Stop by the Go Green Wilmette booth at the Wilmette French Market on June 28th to talk to someone from the Metropolitan Water Reclamation District about their discounted price for rain barrels and tips about installation.

Reduce water use outside

Change watering practices

- Water lawns based on the moisture content rather than on a fixed schedule.
- Consider using drip watering systems or soaker hoses for gardens.

Use More Mulch

- Mulch helps to keep plants moist and adds natural nutrients to gardens.
- Mulching mowers make natural nutrients available for your lawn.

Cover less ground with impervious materials

- Install permeable pavers for driveways and patios.
- Replace sections of grass with plants that have deeper roots and are more drought tolerant.
- Invest in trees. They absorb ground water and release water into the air through transpiration. In addition, they add shade to areas, thereby reducing the need for water during dryer spells.

Sample driveway installed with permeable pavers

Shop with your water footprint in mind

- Consider your household water footprint – not just the water that is used each day for drinking, washing, and cooking, but also the water it takes to produce your food, products and clothing for your household. This useful exercise helps to put into perspective the amount of water we actually use on a daily basis.
- Choose power sources wisely. Power plants that use nuclear and fossil fuels to produce electricity account for more than 40% of the US fresh water withdrawals in the US – making these industries one of the largest consumers of freshwater. Sign up for the Individual Choice Green Power Program through the Wilmette Power Purchasing Program to support clean renewable energy.

Something to ponder

How much water drawn from Lake Michigan or rainwater that falls on Wilmette ultimately ends up in the Gulf of Mexico?

In urban areas, roads, building footprints and parking lots cover much of the landscape thereby preventing rainwater from soaking into the ground and replenishing groundwater. Rainwater that is not absorbed picks up pesticides, fertilizers, road salt, coal tar sealants, car and truck emissions and other pollutants as it makes its way to the combined sewer system (East Wilmette) or the separate sewer system (West Wilmette).

Because sewers in East Wilmette receive both sewage and stormwater, the entire content is treated by the Metropolitan Water Reclamation District (MWRD) plant in Skokie (O'Brien Plant). In West Wilmette, only the content of the sanitary side of the sewer system is treated, while the stormwater side is discharged directly into the North Branch of the Chicago River. Both the cleansed water and our discharged stormwater flows south through Chicago, down the Illinois River, merges with the water in the Mississippi River and eventually ends up in the Gulf of Mexico. New stormwater is added, often as runoff from heavily fertilized fields.

Shouldn't our generation address whether so much diversion of water from our community is truly sustainable?

ASSURE QUALITY WATER FOR HOUSEHOLD CONSUMPTION

Pharmaceuticals from both agricultural and human use are now turning up in our lakes and streams and are being detected in our drinking water supplies.

Dispose of medications properly

- Take expired and unused prescription and nonprescription medications (except for controlled substances like codeine) to the Wilmette Police Department, 24 hours a day, 7 days a week. Be sure the name of the drug is on each container. For a list of controlled substances, see deadiversion.usdoj.gov/schedules/index.html.
- Take expired or unused medications (including controlled substances) to Police Departments that participate in the Save-A-Star program (Deerfield, Evanston, Glencoe) – see saveastart.org/pages/mailboxes.htlml). Once a year, the Drug Enforcement Administration also holds a national Take-Back Day. Police Departments in Winnetka and Kenilworth participate in this program.

Dispose of toxic household wastes properly

- Take advantage of a special City of Chicago collection center at 1150 North Branch Street, Chicago IL 60642.
- Encourages our Solid Waste Agency of Northern Cook County (SWANCC) to offer collection sites that are more convenient.

Follow eco-friendly lawn care practices to help keep excess phosphorous and other chemicals and harmful nutrients out of Lake Michigan

- Apply lawn care products sparingly
- Use delayed-released products when possible
- Avoid fertilizers with high phosphorus content
- Evaluate the nutrient content of your soil before selecting mix

Avoid using personal care products that contain microparticles

These tiny beads of plastic-like materials have recently shown up in our lake and adversely affect aquatic life. To keep them out of our swimming area and drinking water supply, check labels for words like *nano*, *ultrafine* and *micronized* and avoid their use.

Support campaigns to stop polluters in the Great Lakes

- Write to your legislators about polluters like the S.S. Badger, the old coal-burning ferry that dumps 500 tons of coal ash into Lake Michigan every year.
- Support groups like the Southeast Environmental Task Force fighting the PETCOKE industry that stores uncovered caustic waste on the shores of Lake Michigan.
- Help groups like the Nuclear Energy Information Service fight the nuclear power companies that want to transport nuclear waste by barge on the Great Lakes.

MAINTAIN THE RECREATIONAL USES OF OUR LAKEFRONT AND WATERWAYS

To address flooding during intense storms, neighboring communities are looking at Lake Michigan as a potential place to discharge their excess stormwater. The Village of Winnetka, which has a separate sanitary and stormwater system, is considering installing an 8-foot pipe under Willow Road that will go from West Winnetka to the lake. The pipe would divert part of the untreated stormwater side of their sewer system into Lake Michigan. Unlike Winnetka, the Village of Kenilworth has a combined sewer system, so they cannot take municipally collected stormwater and divert it to the lake. Under consideration in Kenilworth is to divert water from the Skokie Ditch into the Lake.

The Skokie Ditch runs from Winnetka through Kenilworth. Currently, all the water flows into the main sewer pipe at Sheridan Road and from there to the MWRD plant for reclamation.

Keeping an eye on how our neighboring villages plan on removing pollutants in the stormwater before discharge into the lake is important to Wilmette residents. The natural flow of water in Lake Michigan is from north to south so the addition of fertilizers and other toxic pollutants could adversely affect our beaches (bleach closings due to high bacterial counts, algae blooms) and our drinking water supply.

What can property owners do?

- Encourage Village officials to consult regularly with neighboring community officials and to keep the community informed about the status of the proposed diversions of stormwater into the lake.
- Follow the pros and cons of the proposals as they appear in the news and are reported at town hall meetings.
- Ask for increased testing at Wilmette beaches and at the intake for our drinking water to better assess any potential adverse impact on beach closings or water quality before and after stormwater from Winnetka or Kenilworth is diverted into the lake.
- Follow the permitting process for proposed diversions to learn about restrictions imposed should neighboring projects go forward.
- Do our part to be good stewards to the lake here in Wilmette!

What about the North Shore Channel – Is it safe for boating?

The North Shore Channel has come a long way from it's earliest days as the conduit for discharging all the sewage from Wilmette. Now our sewage is sent through pipes to the MWRD for cleansing. Large amounts of water from Lake Michigan have been used to keep water flowing briskly in the channel to keep the effluent from the O'Brien Water Reclamation plant moving along. New Federal regulations have cut the amount of water that MWRD can take from the lake, which has led to some stagnation and build up of algae from harmful nutrients at the northern part of the channel. Measurements of water quality are now regularly showing that the waterway is impaired.

Kayaking on the North Shore Channel in Wilmette

So is it safe? That's a good question and one that should be addressed with increased testing.

Are there steps that can be taken to improve conditions? Yes,

- Engineering students at Northwestern have developed several ways of aerating the water to attain better oxygenation in the stagnant areas. These should be further evaluated.
- Residents could reduce their use of fertilizers that contribute to algae overgrowth.
- Village officials should be reminded that a healthy channel should be a safe environment for those who use it for recreational purposes. They should also be encouraged to increase steps to minimize any overflow of sewage into the channel through the six outlet pipes along the channel.

Clean waterways are important to the health and well-being of every North Shore resident. This is a village-wide value worth protecting.

WHAT NEXT?

After Going Green Matters 2014, the Talk-It-Up Committee took a hard look at our original mission of starting conversations about water issues in our community. There was no doubt that we had started some great discussions. We were also pleased with the added insight from experts, exhibitors, concerned residents, elected officials and managers. What is needed now is a path forward to move the best of the suggestions for both the Village and residents to actionable programs. This will take a concerted team effort with participation of both public officials and residents. That means taking the time to understand the issues and potential solutions and becoming active participants in the process. The Go Green Wilmette Community pledges to do its part. Please join us in this worthy endeavor.

The Talk-It-Up Committee for Going Green Matters 2014