

The Main Stream

Volume IV, Number 4
Winter 2000

a quarterly newsletter dedicated to enhancing water and wastewater services brought to you by the Ypsilanti Community Utilities Authority

YCUA ENTERS A NEW ERA!

An exciting project for YCUA and the community is upon us. As many have already heard, YCUA has entered into an agreement to treat all the wastewater from the Western Townships Utilities Authority, which includes Canton, Northville, and Plymouth Townships. This agreement requires the construction of an additional 17 million gallons per day of capacity at the YCUA Wastewater Plant. This construction, along with some improvements to the existing facility, will take place over the next few years. An article in this issue of *Main Stream* provides additional information on the benefits of the agreement and the expansion.

Winter brings the freeze and thaw cycles that take their toll on our water mains. Our crews immediately repair these breaks, often under inclement weather conditions, to restore service to everyone as quickly as possible. When you see our crews on the street, slow down and proceed safely, because the pavement near a water main break can be slippery.

All of us at YCUA wish you a great New Year!

Larry R. Thomas, Director

BOIL WATER ADVISORIES

On September 2nd, 2000, YCUA issued a "Boil Water Advisory" after having two separate water samples come back positive for coliform, a form of bacteria that could cause illness. The area in which this occurred was isolated to one subdivision located near Prospect and Forest Streets.

When confirmation came in, YCUA's Water Service Department went into action. After isolating the area, crews began flushing lines to remove any bacteria present. The Michigan Department of Environmental Quality was notified and consulted. They recommended that YCUA issue a "Boil Water Advisory" for the affected area, which was done immediately. YCUA employees were called in to help circulate a flyer advising residents about the requirement to boil drinking water. *(continued on the back)*

YCUA WELCOMES WTUA!



On Tuesday, October 17, 2000, the Ypsilanti Community Utilities Authority (YCUA) and the Western Townships Utilities Authority (WTUA), representing the Townships of Northville, Plymouth, and Canton, signed a long-term agreement for wastewater service. The comprehensive agreement leases 8 million gallons per day of YCUA's sewage treatment capacity to WTUA. In addition, the agreement calls for the construction of a 17-million-gallon wastewater treatment plant expansion and other plant improvements. In all, an estimated \$110 million will be spent on construction over a three-year period. Engineering study and design began in November 2000, and construction will take place from 2002 through early 2005/late 2006.

The agreement between YCUA and WTUA will provide improved benefits and service reliability for all customers.

For instance, by signing the long-term contract with a large partner such as WTUA, YCUA will be able to stabilize its revenues by selling under-utilized sewage treatment capacity. This partnership will also allow YCUA to construct a much larger facility to accommodate future WTUA flows, to provide growth/reserve capacity for the entire service area and to better handle any peak flows. In addition, overall efficiencies should occur that will reduce the per-unit cost of operation.

Another benefit of the agreement will be increased protection of surface water quality and aquatic life.

The agreement calls for the use of ultraviolet radiation instead of chlorine to disinfect the final discharge water (called effluent) before it is released into the Lower Rouge River. This will eliminate the need to store large quantities of chlorine on-site, offering much less risk for those who work and live near the plant.

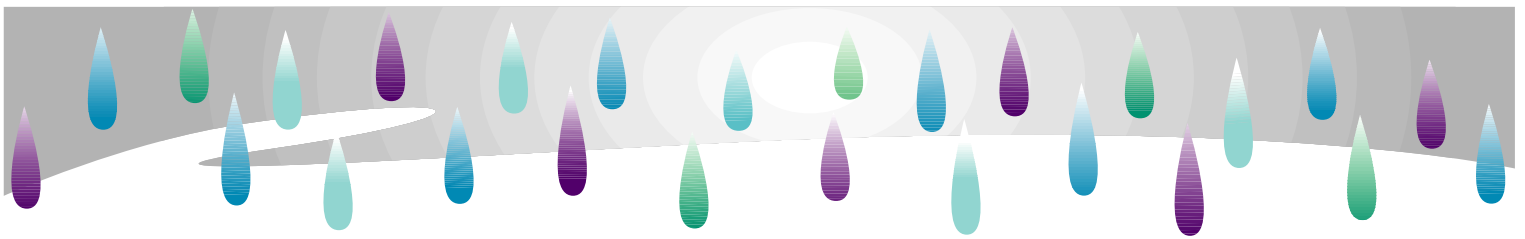
As partners, WTUA will have representation on the working committees of YCUA and input into our processes and quality procedures. One of the first tasks will be the selection of a biosolids treatment and disposal method, which will occur during the design of the plant improvements and expansion. See the article on the back for more information on this topic.

Did you know . . .

The Ypsilanti Area Chamber of Commerce is sponsoring a Career Jam for area high school students on March 29, 2001, at 3:00 p.m., at the Morris Lawrence Building at Washtenaw Community College.

The logo for YCUA, featuring the letters 'YCUA' in a stylized, blue, blocky font with a white outline. Below the letters is a horizontal bar with a blue and purple gradient.

your water and wastewater service providers



BIOSOLIDS DISPOSAL

YCUA currently incinerates its biosolids (sewage sludge). The existing incineration system has been in use for 20 years, and would require considerable upgrading and expansion to remain in service. Incineration may also cause environmental and air quality concerns. As a result, YCUA has been researching many viable alternatives to incineration.

You will probably remember that YCUA conducted a composting pilot study to determine its feasibility as a biosolids disposal method. With this study now complete, the YCUA Board, along with WTUA representatives, are weighing the benefits of all available biosolids disposal technologies listed below. A decision on the best course of action is expected this winter.

Composting: This process involves combining sewage sludge with wood chips, leaves, and saw dust, allowing it to compost over a 21-day period. The product is then sold to a soil reseller for marketing and distribution. YCUA built a pilot facility to test the effectiveness of procedures for making compost from sewage sludge. The test has been completed and the results are available in a report accessible from the ycua.org website. If the composting process is approved by the Board and the State, it would be the first in Michigan.

Lime Pasteurization Process: This process involves mixing lime with sewage sludge, and then heating it to kill all pathogens, after which the mixture is mechanically dried and then cured. Presumably, this product could be sold as a lime treatment (pH change) for soil, primarily for agricultural use. The City of Kalamazoo is currently building the first facility in Michigan using this process.

Land Application: Although one of the most inexpensive of the alternatives, it is believed that there are not enough farms in the area for placement of biosolids. The Ann Arbor Sewage Treatment Facility uses the land application method, making the demand even less. At this time, land application does not appear to be a viable alternative for YCUA.

Pelletization: This is another process that involves drying sewage sludge and processing it to small pellets, creating a product similar to the famous "Milorganite" that is used as low-grade fertilizer by homeowners and golf courses. Investigation into this process is part of the reexamining process commissioned by the YCUA Board in October.

Boil Water Advisories, continued



On September 4th-6th, more samples were taken. When they all came back negative, the "Boil Water" advisory was removed. YCUA personnel again delivered flyers to notify affected residents of the cancellation. An investigation revealed that a valve had been closed for safety

purposes during the construction of a water line on Prospect. The water near the valve was at a dead-end and became stagnant, allowing the bacteria to grow. The valve has since been reopened to eliminate the dead-end, and to keep fresh water flowing.

Information about boil water advisories is available on our website, ycua.org, and through WJR, WAAM, WEMU, or WSDS radio. Customers affected by isolated incidents will be notified directly.

FOCUS ON WATER MAINS

Boil water advisories are sometimes the result of broken water mains. YCUA maintains approximately 300 miles of underground water mains, and some are over 100 years old. In the past three years, YCUA has averaged 125 water line breaks per year. Most main breaks occur during the winter months when the ground freezes and shifts. Breaks also occur due to the age and material of the pipe, pressure surges, and water temperature changes. Most water main breaks are reported by the public. When YCUA is notified, a foreman is called in to examine the break. If the break must be fixed immediately, the following actions are taken:

1. Miss Dig is called to stake underground utilities in the area, and a YCUA crew is called in to perform the work. Because YCUA cannot dig until all utilities have been marked, you may see a crew of workers sitting and waiting.
2. The line break is barricaded and marked, and the crew assures that no dangerous voids exist under the pavement. If the break is under pavement, it is broken to access the water line.
3. Blueprints of the system are consulted to locate water and sewer lines, and to determine the location of home/business connections and valves to isolate the break area.
4. When digging begins and the source of the break is found, water is turned off to the area. The excavation is monitored to assure safety standards. The crew cleans the break and applies a repair sleeve. The hole is backfilled and a cold patch is applied as a temporary road repair. The crew then cleans the area, removes signs and barricades, and opens the road to traffic.

Questions? Comments? Concerns? Kudos?

**ALL WELCOME! - Contact YCUA at
734.484.4600 or www.ycua.org**