

Fox Metro Water Reclamation District Medication Disposal Program

September 15, 2011

Fox Metro Water Reclamation District



- Fox Metro, originally the Aurora Sanitary District, began construction in 1927.
- The original plant was designed to treat up to 8 mgd of wastewater and served only the community of Aurora.
- Fox Metro now serves the communities of Aurora, North Aurora, Montgomery, Oswego, Sugar Grove and areas of Yorkville and Batavia.
- Fox Metro serves a general population of about 250, 000 people and treats an average of 32 mgd.
- Fox Metro consistently removes 98% of the common pollutants found in the raw sewage entering the plant.

Why Start a Medication Disposal Program?

What's in your water?

The Tribune finds trace amounts of drugs and chemicals—including anti-seizure medication and a Teflon ingredient—in Lake Michigan drinking water.

By Michael Hawthorne and Susan DeJahn Flax

Chicago officials have recently tested the city and suburban water supply for pharmaceuticals and other unregulated chemicals, even as scientists warn about the possible health effects of trace amounts of drugs in drinking water.

In the Tribune and the Sun, did the Tribune the city water?

The newspapers hired an independent lab, which found 114 samples of an anti-seizure drug, a common contact, sulfonamide and two antibiotics used to make the sun and found them in samples taken from a water supply that serves 1 million people.

Trace concentrations—measured in parts per trillion—were found in some samples of City Hall, as well as samples taken on Chicago's South Side and a public library in Waukegan, which has no water treatment plant.

The Tribune's findings, which scientists have detected in tap water samples elsewhere in the country, show that pharmaceuticals end up in the water supply as well as in the air, soil and water. From pharmaceuticals, trace amounts of chemicals and hormones are found in the water.

"The tests do not show that drinking water is unsafe. But they do raise important questions for regulators and the public about the potential health effects from long-term exposure to drugs in our drinking water, even at very low levels."

"There are many unknowns," said Dana Ruppel, a researcher at the U.S. Geological Survey who conducted some of the first tests that found pharmaceuticals in unregulated water supplies. "On one hand, levels of specific substances are very low and appear to be falling to nearly undetectable. But the question is whether mixtures of many undetectable levels



An Iowa laboratory tested municipal and bottled water for contaminants on behalf of the Tribune, and found traces of 114 pharmaceuticals.

Discarded pills are ending up in our waterways

If you are concerned with the quality of our waterways, one week's headlines can be more frightening than the next.

The most recent concern for our waterways comes from an unlikely source.

Environmentalists are scrambling to identify the many pathogens and invasive species that are flooding our waterways, threatening native species and posing environmental risks. Yet, the problems are not always caused by criminal dumping of ballast water. Nor are the threats always from some exotic place or from alien species.



Bob Maciulis
FastCurrents

Scientists at Lake

noir-Indiana Sea Grant report that some 4,000 tons of pharmaceuticals and personal care products are dumped every year in the U.S. alone. Many of these end up in our waterways, having been flushed down the drain or discarded in landfills.

Among the many chemical-based items of modern convenience every household uses, most may be biodegradable and harmless. Yet some can be deadly.

Maybe not to you and to me, but to the other creatures depending upon our waterways for their survival.

The U.S. Geological Survey, according to Sea Grant, checked water below wastewater treatment plants in some 30 states and found "at least one pharmaceutical in 80 percent of 139 streams."

"Unwanted drugs are typically thrown in the trash or flushed down the toilet," according to Susan Boehrer, Illinois-Indiana Sea Grant coastal sediment specialist. "But, pharmaceuticals thrown in the trash can leach from landfills into the environment, flushed drugs can kill bacte-

flushed into our sewers by well-meaning people who are simply trying to dispose of meds which have passed their expiration date, are no longer useful or belonged to a family member who has moved or died.

Some communities have established pharmaceutical collection sites which accept expired or unwanted meds and incinerate them, the safest way to dispose of them. Most, however, are dealing with more over concerns regarding wastewater pollution so the household threats are unchecked.

Recycling of sorted waste products, when you think of it, seemed so unlikely just a few years ago. Who was going to wash out bottles and cans and put them in separate containers for pickup?

A brilliant marketing campaign targeted that demographic which had the most to gain—and, the most to lose if the culture couldn't get a grip on the problems posed by overflowing landfills. The kids.

Commercials depicting youngsters encouraging their parents and older siblings to sort and recycle made the point clearly, and pretty soon we were all sorting our garbage. Today, it's just a routine part of our chores.

I remember an era when the travelers in the automobile ahead of you on a two-lane northwoods road would simply pitch their paper bags filled with chicken bones or other garbage out the window. Finished nibbling on lunch en route to your favorite vacation destination? Throw it out the side window without a second thought.

As absurd as that practice might seem today, disposing of old pharmaceuticals or

Why Start a Medication Disposal Program?

Protect water quality



How?? Pollution Prevention

- Give people a proper disposal method and make it convenient.
- Permanent collection sites.
- One day collections through out the year.



Drug Portal to the World



adapted by Daughton from Ternes (April 2000)

Developing a Medication Disposal Program

- Fox Metro worked with the IEPA to develop their drug take back program.
- Fox Metro would provide the containment vessel and be responsible for promoting the service.
- IEPA would provide containers for disposal and be responsible for all disposal costs.
- Fox Metro needed to submit a written plan that outlined how the pharmaceuticals would be stored until pickup/disposal by IEPA.



Regulatory Challenges



DEA Regulations

- Controlled drugs
 - Vicodin
 - Morphine
 - Ritalin, etc.
- **CAN** only be returned to a law enforcement officer

Developing a Medication Disposal Program

- Fox Metro purchased a containment unit (mail box) at a cost of \$800.00.
- A sign was placed on the containment unit identifying it as the disposal vessel.
- The vessel was placed in the lobby of the Fox Metro administration building.



Promoting the Fox Metro Medication Disposal

- A press release was submitted to a local paper.
- Placed wording on the back of the wastewater billing.

Medical Disposal Program

Fox Metro is now accepting expired or unwanted over the counter and prescription medications for proper disposal. Medications can be dropped off at the:

**Fox Metro Water Reclamation District
682 Route 31, Oswego
Monday through Friday
8 a.m. - 5 p.m.**

Please make sure that any medications kept in their original containers have all personal information removed. Needles, sharps, IV bags, thermometers and controlled substances cannot be accepted. This program was created for the disposal of medication for individuals and Fox Metro will not accept retail or whole business medication for disposal. If you have questions regarding the program please contact Debra Ness at 630-301-6820 or dness@foxmetro.dst.il.us .

Promoting the Fox Metro Medication Disposal Program

- Articles written about the program ran in the local paper.

ON The Beacon News Sunday, December 28, 2008 DS

VALLEY VOICES

New way to dispose of old medications

While pondering this past year's environmental events, it occurred to me to review my gift list to Mother Earth.

There appears to be an abundance of green gifts for sale that we can purchase — and lots of things to donate — but the gift of our time is a very meaningful legacy we can give to those we live as well as to our natural world for a greener and better future. As I reflect back, my time this year that was spent at my passion for a cleaner and healthier planet did have tangible benefits to the trees, wetlands and wildlife. However, my major gift recipient this year has been our beautiful and elegant Fox River.

This magnificent waterway has been a faithful and benevolent friend, providing beauty and serenity, is life-giving to our wildlife and provides much of the local population with clean water for our everyday use.

I am pleased to share with you the good news that the dedication and effort of many — including myself — have come to fruition, and you will be seeing a brand new blue logo and a new mailbox-like container in the lobby of the Fox Metro Water Reclamation District. Please don't drop your greeting cards and bill payments, as this receptacle is the first in this area as an ongoing collection site for the disposal of unused prescription and over-the-counter medications.

Earlier this year, stunning news came to the forefront that expired or unwanted medicines were being found and are a source of pollution in wastewater. Unfortunately, our sewage treatment plants and septic systems are not designed to deal with drugs, and these pollutants can be released into streams, lakes and groundwater, affecting fish and other wildlife. Chemicals also are released into our waterways via runoff from commercial animal feeding operations and aquaculture and from fields where manure and biosolids have been applied.

You might imagine that any substance safe enough for humans and pets to ingest wouldn't harm the environment, but this just isn't true. Creatures that live in these habitats may be continuously exposed to these substances for long periods and will suffer harm from the cumulative effects.

There is no statewide program to deal with this problem. However, our Fox River community promptly stepped up and formed FoxFresh, a safe-disposal medication take back program whose partners and sponsors include Fox Metro Water Reclamation District, Kane County Health Department, The Compounder, Illinois-Indiana

Sea Grant, Illinois Environmental Protection Agency, Kane County Police Department, Aurora Police Department, Kane County Solid Waste, Sierra Club-Valley of the Fox and Prairie Rivers Network.

In addition to the new drop-off site there also will be a series of one-day pharmaceutical collection dates. The next scheduled event is from 8 a.m. to 1 p.m. April 4 at the Aurora Transportation Center.

So how we all help? When we think about all the hormones, cardiac meds, chemo meds, caffeine and nicotine — it is overwhelming. So much of it enters the system via excretion after ingestion, and there isn't much that can be done unless we want to spend \$400 million to retrofit our sewage treatment plants.

But we can change the way we get rid of our unused meds by no longer using the ancient and outdated method of disposal into the sewer system via flushing and sink drains and by taking some time to tell a friend.

As we begin the new year by purging our medicine cabinets, please safely store and bring in your unused and expired meds for appropriate disposal. Ultimately we will be giving the gift of a better place for all to live.



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Websites

www.foxmetro.dst.il.us



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Fox Metro
Water Reclamation District

"Giving Water A Second Chance"

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Mission Statement

Through leadership, innovation, and teamwork, provide quality wastewater treatment and maintain air standards to ensure a healthy environment for future generations at the best value for our community.

Public Notices

NEW Medication Take-Back Program

The Medication Take-Back Program allows residents of the Fox Metro Water Reclamation District service area to bring their old, unwanted prescription and over the counter medications in to be properly disposed - **for FREE!**

[Click here for more information and a list of accepted medications.](#)

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One-day collection



Successful?





Questions??