

Pollution Prevention Initiatives at MMSD

March 16, 2015

Madison Metropolitan
Sewerage District



Madison Metropolitan Sewerage District

Mission

Protecting public health and the environment



Vision

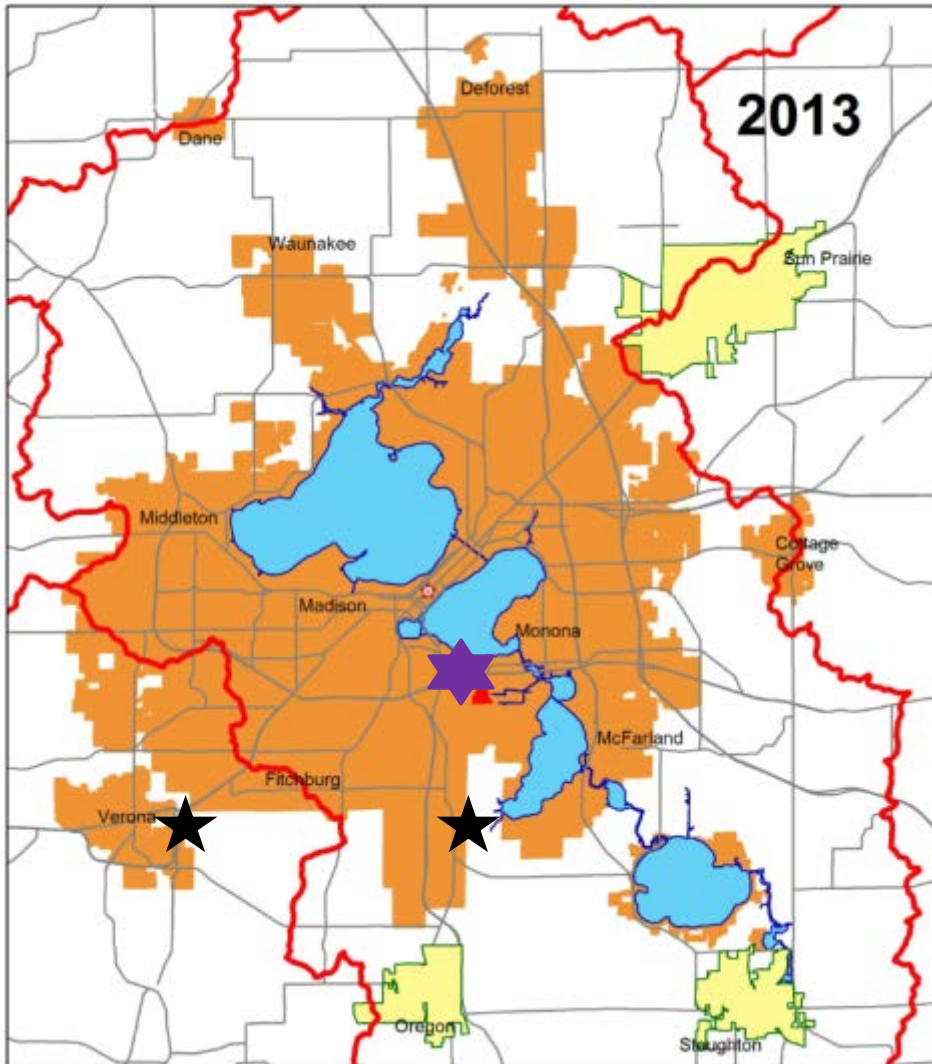
Enriching life through clean water and resource recovery



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MMSD Quick Facts



- Regional
- 40 million gallons per day
- Urban and rural customers
- Regulated by DNR with discharge permit for various pollutants



Traditional Compliance Approaches

- Facility-specific and focused on discharge only
- Expensive – cost passed on to rate payers
- Missed opportunities to take new approaches
- May not achieve desired water quality outcomes



Why Pollution Prevention?

- Cost-effective
- Resource-saving
- Community-focused
- Part of compliance



Pollutants of Concern



Mercury



Chloride



Pharmaceuticals



Phosphorus



“Flushables,”
FOG

Opportunities for Pollution Prevention

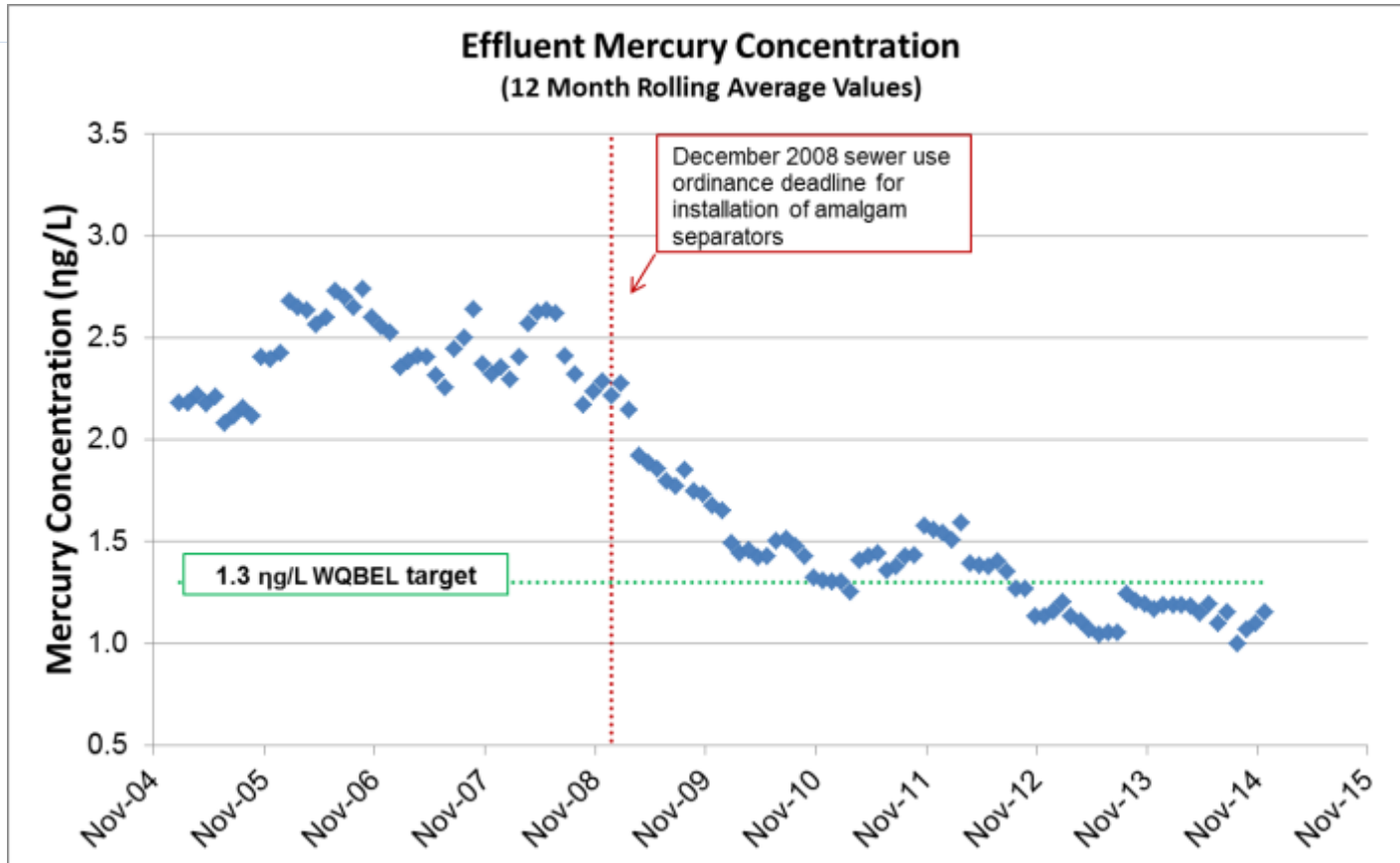


Mercury

- Sources: dental clinics, healthcare facilities, schools, industries, residences
- Activities:
 - Pollution Minimization Plan (PMP)
 - Sewer Use Ordinance
 - Require dental amalgam separators (2008)



Mercury Success



Chloride

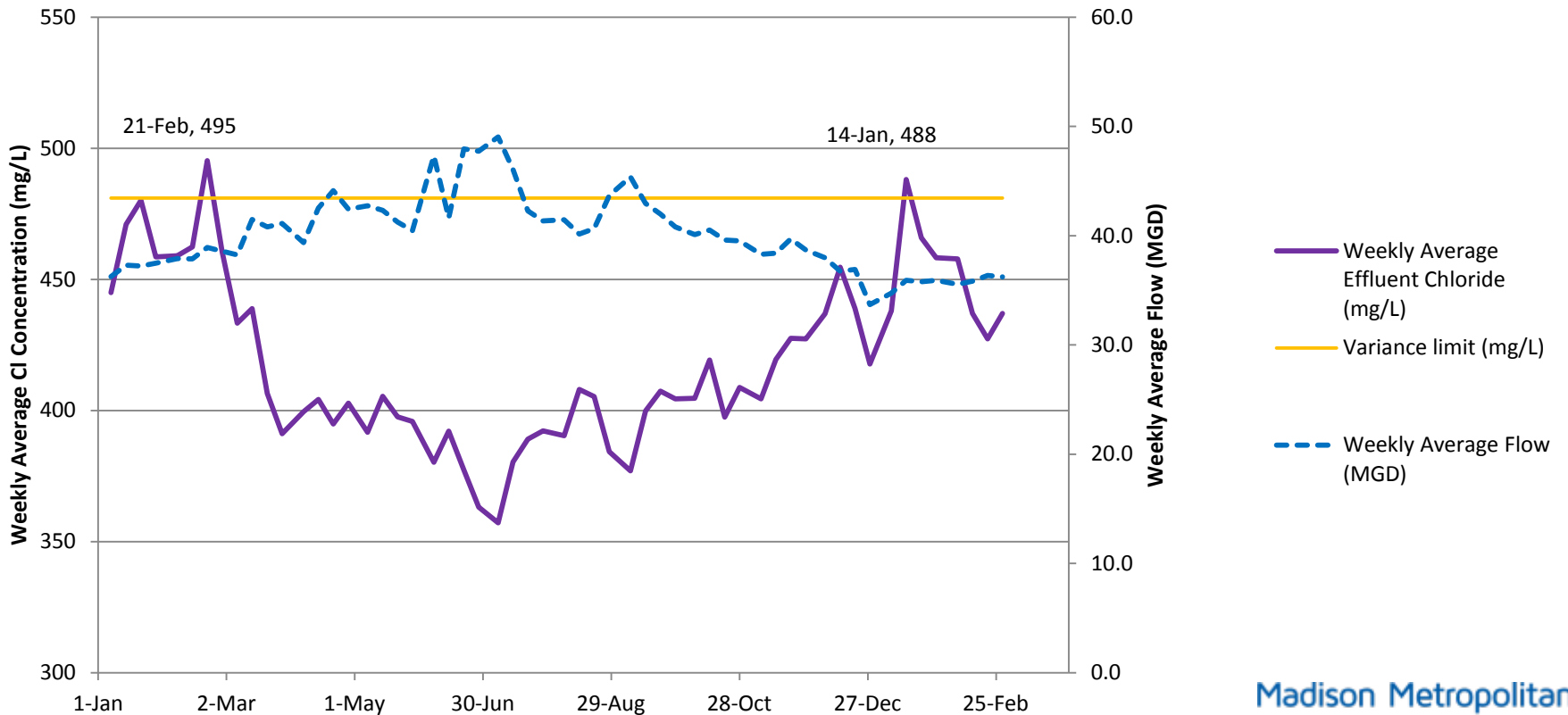
Sources: Water softening, industrial processes, road salt



90 tons (LESS than average daily input to MMSD!)

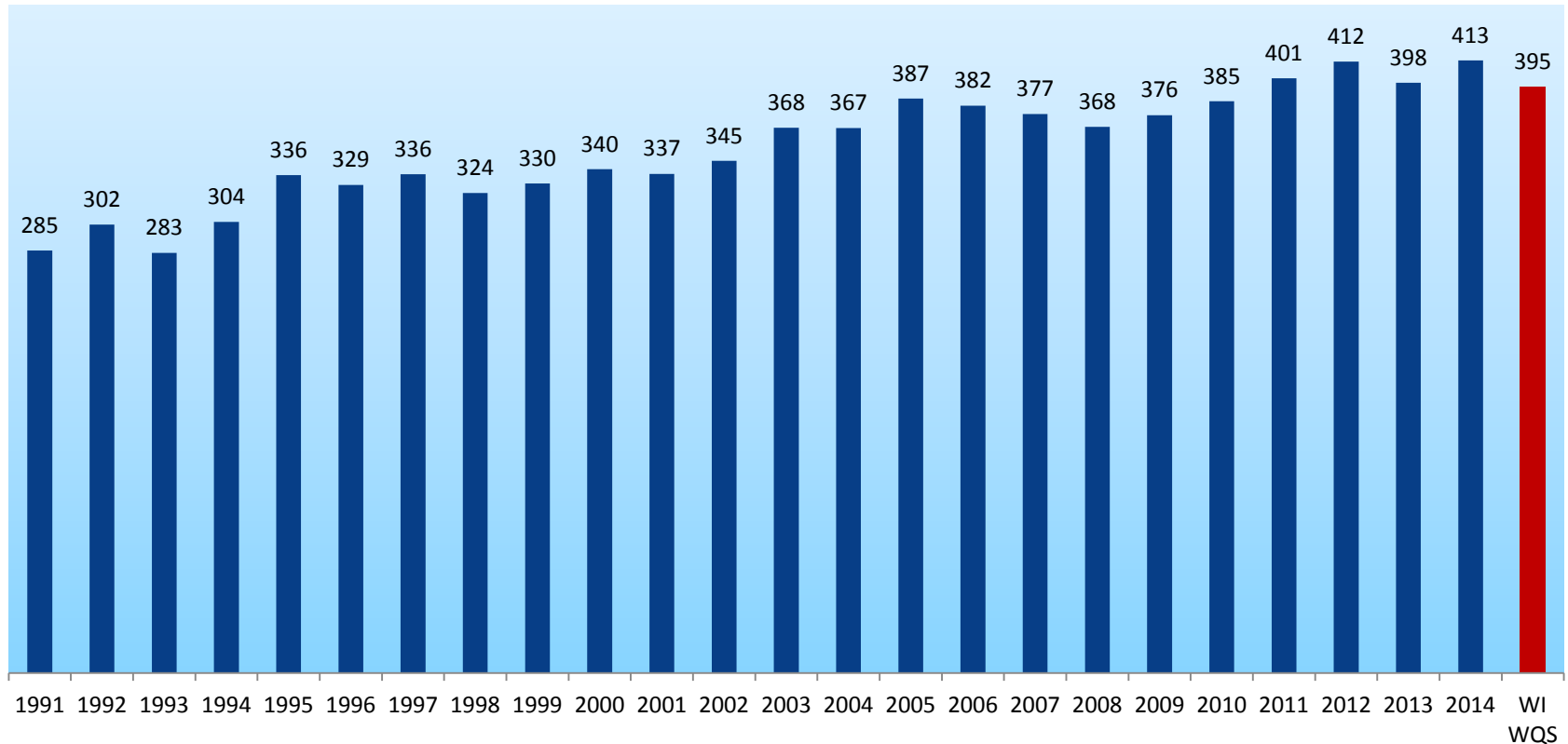
Seasonal Chloride Trends

Weekly Average Cl Concentration, 1/1/2014 - 3/7/2015



Chloride Levels On the Rise

MMSD Effluent Chloride Conc (annual average, mg/L)



Chloride Options

- Treatment at MMSD

- Feasibility study preliminary data:
 - Capital costs: \$80 million - \$200 million



- Pollution prevention

- Outreach/Education
- Optimize water softeners
- Sewer Use Ordinance



Pharmaceuticals

- Sources: Excreted and intentionally disposed medications
- Types found in effluent:
 - Antibiotics
 - Blood pressure
 - Antianxiety
 - Cholesterol
 - NSAIDs



Photo: New York State Department of Environmental Conservation

Pharmaceuticals

- Environmental and public health issue → collaboration opportunities
- Activities:
 - Partnership with MedDrop
 - Upcoming outreach with healthcare facilities



Phosphorus

- Sources: wastewater, stormwater, agricultural runoff
- Regulation:
 - TMDL limit: 0.13 mg/L
- Activities: Yahara WINS (adaptive management)



Non-Dispersables

- Types:
 - “Flushables” (wipes)
 - Fats, Oils and Grease (FOG)
 - Personal hygiene products
 - Paper towels
- MMSD outreach to reduce →



Flushable?
A message from Madison Metropolitan Sewerage District

Think again...
What we put down our drains and toilets can negatively impact our environment and put our health at risk. Even items labeled flushable can clog pipes, tangle pumps and result in messy and costly sewer backups. By educating ourselves and each other, we can avoid expensive and dangerous mistakes while improving our sewer system practices.

Steps we can take
There are only two items that we should ever flush: human waste and toilet paper. If you cannot avoid purchasing and using items that have been labeled "flushable," throw them away after use rather than putting them into our sewer system.

If you need to discard hazardous materials such as used motor oil, antifreeze, paint, etc., visit the clean sweep collection site. You can find more information at www.dane-county-clean-sweep.com. Dispose of unused medicines at the MedDrop site; information can be found at www.safercommunity.net/meddrop.php.

Learn about EnAct steps to greener living at www.enactwi.org.

Questions? Find us on the web at www.madsewer.org or call 608.222.1201.

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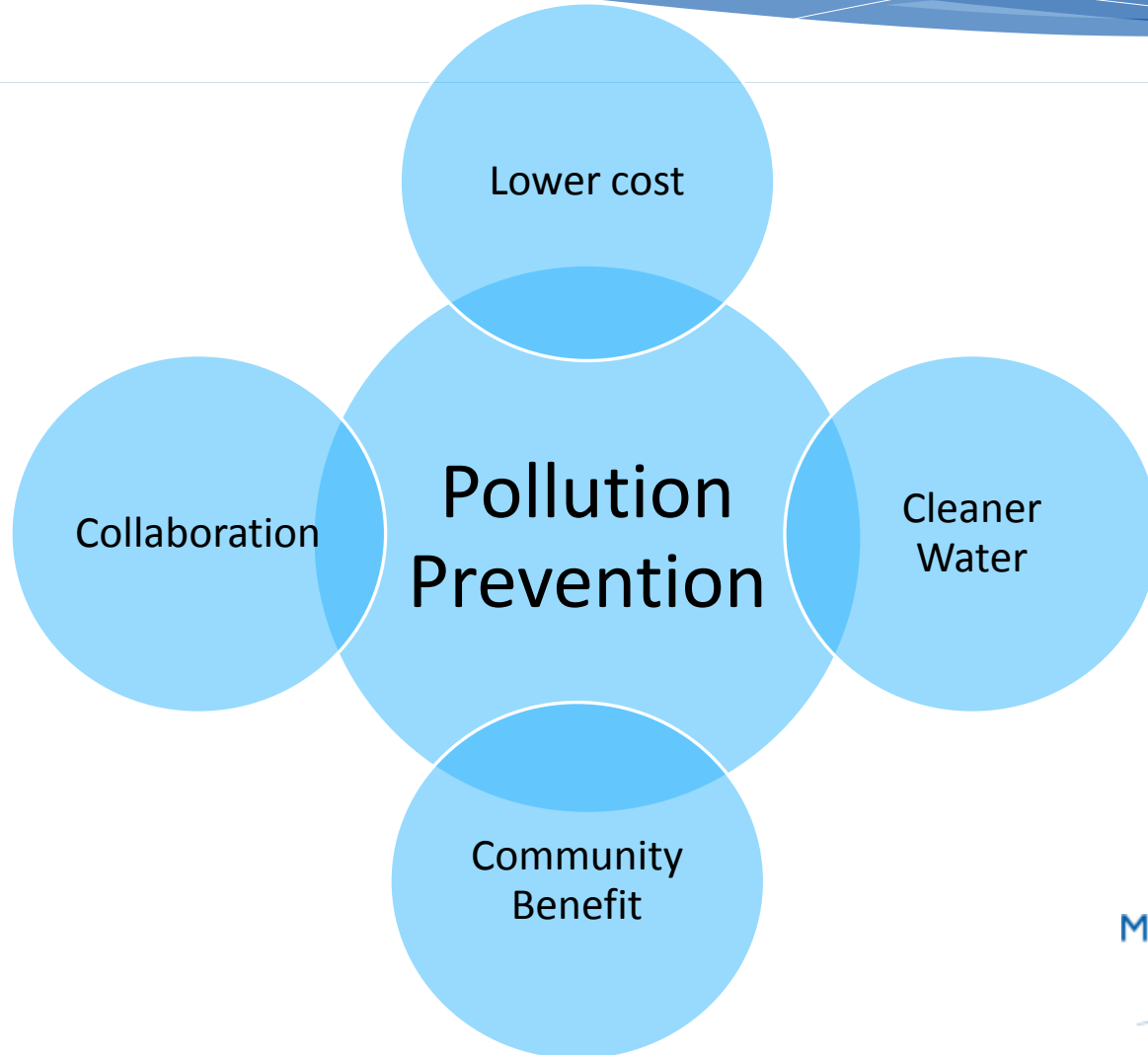
Never flush:

- Baby wipes, disinfectant wipes, moist wipes, etc.
- Vitamins, medicines or other pharmaceuticals
- Toilet bowl scrub pads
- Swiffer® products
- Napkins (paper or cloth)
- Paper towels
- Dental floss
- Fats, oils and greases
- Sanitary napkins, tampons, cat/diary or any non-organic materials
- Wash cloths, towels, rags, underwear or any cloth items
- Band-Aids® or dressings
- Plastic bags or wrappers
- Kitty litter (even products labeled as flushable)
- Cat feces or bagged dog feces
- Fish gravel

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Common Themes



There's No "Away"



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