

Periodic Table of the Elements

We work with others to protect the health of the people of Washington State by ensuring safe and reliable drinking water.

CHANGES IN THE DRINKING WATER CONTAMINANT LANDSCAPE
Washington State Department of Health
Office of Drinking Water

Today's Panelists

- Cheri Reimers
 - City of Olympia—Water Quality Specialist
- John Kounts
 - Water Program Director—Washington PUD Association
- John Roth
 - Big honcho—Clark County PUD

Some Challenges and Opportunities in 2019

- America's Water Infrastructure Act (AWIA) of 2018
- Manganese
- Perchlorate

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America's Water Infrastructure Act of 2018



America's Water Infrastructure Act of 2018

- Bipartisan legislation (S. 3021)
- Signed into law—October 23, 2018
- Title II—Drinking Water Amendments
 - Sections 2001 to 2023



Source: Capitol Hill, Washington, D.C.,
Andy Feliciotti

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AWIA 2018—Key Water System Impacts

- Consumer Confidence Reports (§2008)
- Emergency Response and Resiliency (§2005, 2013, 2018, 2020)
- Troubled Water Systems (§2002, 2009, 2010)
- Unregulated Contaminants (§2021)

Also

- ◆ *Asset Management (§2012)*
- ◆ *DWSRF Updates (§2015, 2022, 2023)*
- ◆ *Lead (§2006, 2015)*
- ◆ *Source Water Protection (§2002, 2005, 2016, 2018)*
- ◆ *Workforce Development (§4304)*

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Consumer Confidence Reports (§2008)

- EPA—revise regulations by October 2020 including
 - Improve readability and accuracy of CCRs
 - Community water systems that serve 10,000 or more people must publish a CCR at least biannually (2x/year)
 - Smaller systems still publish 1x/year
- Clarity that consumer confidence reports must identify
 - Corrosion control efforts
 - Water quality exceedances
 - Violations

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Emergency Response and Resiliency

- Agency may issue grants to underserved community to protect from contaminants and may recover costs from responsible parties (§2005)
- New “Drinking Water System Infrastructure Resilience and Sustainability Program” to increase resilience from natural hazards
 - \$4 million/year in grants in fiscal years 2019 and 2020 planning, design, or implementation of programs and projects

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Emergency Response and Resiliency *(Continued)*

- **Risk and Resilience Assessments**—All hazards risk assessments, certification and plans for community water systems (CWS) over 3,300 population (§2013)
 - Certification **to EPA** by
 - 3/31/2020—CWS serving 100,000 or more people
 - 12/31/2020—CWS serving 50,000 to 99,999 people
 - 6/30/2021—CWS serving 3,301 to 49,999 people
 - Recertification every 5 years.

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Troubled Water Systems

- EPA submit study on “Intractable Water Systems” by October 2020 (§2003)
- Incentivize parties entering into contractual agreements for management or administration of water system to correct violations (§2009)
- Assessments of consolidations and transfers for compliance (§2010)—EPA: Regs by October 2020
 - May require water systems to assess consolidation or transfer of ownership if repeat violator
 - Various parties may conduct assessment
 - SRF loans for consolidations or transfers
 - Protection of water systems from liabilities

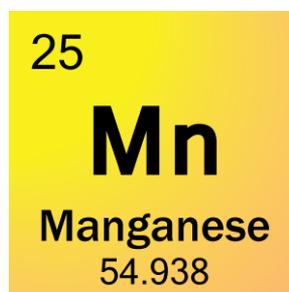
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Unregulated Contaminants (§2021)

- Lower the threshold of mandatory monitoring under the UCMR from 10,000 to 3,300 people, with a representative (and unenforceable) sample of systems under 3,300
- EPA will continue to pay sampling costs for water systems serving less than 10,000 people
- Increase in water systems sampling contingent upon available lab capacity
- Timeline of by October 2021 coincides with UCMR5
- Appropriation of \$15 million/year for UCMR monitoring

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Manganese

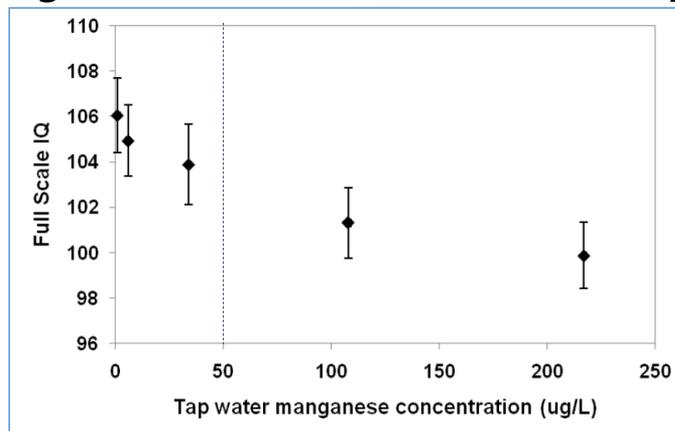


Manganese

- Traditional View—Not A Health Concern
 - Aesthetic effects (taste and color)
 - EPA Secondary MCL—0.050 mg/L
- Mn—Recent Health Effects Research
 - Water different than food
 - People under 6—hyperactivity, mental abilities
 - Older people—increased risk of disease similar to Parkinson’s
- Regulatory Updates
 - USEPA (2003) Recommended health advisory levels (0.3; 1.0 mg/L)
 - Health Canada (2016)—Proposed maximum acceptable concentration of 0.1 mg/L (100 ug/L) mainly to protect bottled fed infants
 - Minnesota DOH—Advisory level of (100 ug/L) for formula fed infants

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Manganese—Effects on Child Development



- Study followed 362 children in southern Quebec, Canada

Ref. Bouchard et al, 2011

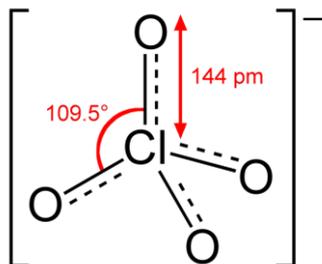
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Manganese—Summary

1. Maximize treatment effectiveness
 - Treatment goal of 0.020 mg/L (20 ppb) or less
 - Reduce “legacy manganese” risk
2. Plan ahead for changes to
 - Hydraulics
 - Source
 - Treatment
3. Changes in manganese communications
 - Discolored water—Do not tell customer “just a nuisance” unless you are sure
 - Update publications to remove “manganese does not pose a threat to human health”

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Perchlorate



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Perchlorate



- Sources in the environment
 - Solid rocket fuel (90% of use)
 - Flares, fireworks, ordinance
- Very soluble in water
- Disrupts iodine uptake by thyroid
- Pregnant women and infants most vulnerable
- Regulated in some states (AZ, CA, MA, NV, TX, VT)
- Monitored under UCMR 1 (2001-2003)

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Perchlorate—EPA Recent Efforts

- January 2009—Interim health advisory value **15 ppb**
- February 2011—Positive regulatory determination
 - SDWA deadline—Proposed reg by Feb. 2013
 - SDWA—Final reg; 18 months after proposed (EPA 3/2012)
- Proposed regulation—Dec. 2013 (EPA 3/2013)
- Proposed regulation—February 2016 (EPA 5/2014)
- Don't hold your breath, it will be awhile...

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Perchlorate—Proposed Rule

- 5/23/19—EPA released prepublication version of proposed rule
 - Proposed MCL/MCLG—56 ug/L
 - Alternatives of 18 ug/L, 90 ug/L, and no MCL
 - Monitoring
 - Grandfathering of historical data allowed
 - Start in year 2023 (large PWSs); year 2026 (small PWSs)
- Early June—Proposed Rule in Federal Register
- Early August—Comments due on the proposed rule

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Review and Look Ahead

- AWIA: Future impacts on CCRs, SRF, Emergency Preparedness, UCMRs and many other aspects of our profession
- Manganese: New information on health effects indicates Mn no longer only an aesthetic concern
- Perchlorate: Deadline for comments on the proposed rule in August

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Introducing Today's Panelists

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