Changing the Dialog: Effective Advocacy for Public Water Fluoridation

Jane S. McGinley, RDH MBA
Manager
Fluoridation and Preventive Health Activities
Council on Advocacy for Access and Prevention

February 28, 2018
Missouri Oral Health Coalition
Jefferson City, Missouri
ppm (parts per million) = mg/L (milligrams per liter)

At 0.7 mg/L, there are seven-tenths of one part of fluoride mixed with 999,999.3 parts of water. While not exact, the following comparisons can be of assistance in comprehending 0.7 mg/L:

• 1 inch in approximately 23 miles
• 1 minute in approximately 1000 days
• 1 cent in approximately $14,000.00
ppm (parts per million) = mg/L (milligrams per liter)

BORING!!!!
0.7 Parts per Million or 0.7 mg/L

\[\frac{1}{1,000,000} = \frac{0.7}{1,428,571}\]

\((1,000,000 \text{ divided by } 0.7 = 1,428,571)\)

MIZZOU
Memorial Stadium/Faurot Field seats = 71,168
\(\frac{1,428,571 \text{ divided by } 71,168} = 20.07\)
0.7 mg/L would be the same as……..
0.7 Parts per Million or 0.7 mg/L

1 seat in 20 Mizzou Memorial Stadium/Faurot Fields
(71,168 Seats)
0.7 Parts per Million or 0.7 mg/L

1 seat in 31 Busch Stadiums

(45,529 Seats)
0.7 Parts per Million or 0.7 mg/L

1 seat in 37 Kauffman Stadiums

37,903 Seats
0.7 Parts per Million or 0.7 mg/L

1 seat in 18 Arrowhead Stadiums

(79,451 Seats)
Course Objectives

At the end of the today’s program, participants will be able to:

• Describe successful fluoridation campaign (proactive and reactive) strategies to initiate and retain fluoridation programs.

• Identify and engage traditional (and non-traditional) community collaborators.

• Detail key fluoridation messages.

• Identify resources to aid in fluoridation campaigns.
History

With the retirement of Baby Boomers, we must not lose sight of the remarkable progress that has been made.

• Dental caries was a very serious problem in the 40s
  – WW II requirement of 6 opposing teeth had to be waived very early
  – 40% of all WW II draftees required immediate treatment for the relief of pain
  – One out of every 11 registrants was disqualified for military service due to dental issues.
History

In the early 1940s, the typical school child developed 3-4 new cavities each year.

Just two generations ago, it was not uncommon for high school graduates to receive a dentures as presents so they had more opportunities in the job market.

Or for brides to receive dentures as wedding gifts so they could smile for wedding photos.
Nature Thought of It First
History

• 1920s – Dr. Frederick McKay
  Colorado Brown Stain

• 1930s – Dr. H. Trendley Dean
  Inverse relationship between caries and water fluoride levels

• 1940s – Four classic community studies
History

Grand Rapids, Michigan
January 25, 1945

73th Anniversary in 2018
History

Grand Rapids, MI (F) – Muskegon, WI (Non-F)

Newburgh, NY (F) – Kingston, NY (Non-F)

Brantford, Ontario (F) – Sarnia, Ontario (Non-F)

Evanston, IL (F) – Oak Park, IL (Non-F)
Early studies:

60% reduction of decay in baby teeth

30% reduction of decay in adult teeth
Community water fluoridation is one of ten great public health achievements of the 20th century.

Centers for Disease Control and Prevention

Studies prove water fluoridation continues to be effective in reducing dental decay by more than 25% in children and adults across the lifespan even in an era with widespread availability of fluoride from other sources, such as fluoride toothpaste.

http://www.thecommunityguide.org/oral/fluoridation.html April 2013
Water fluoridation is the controlled adjustment of fluoride that occurs naturally in water to an optimal level to prevent tooth decay.
Final Recommendation for Fluoride Concentration in Drinking Water for Prevention of Dental Caries

0.7 mg/L
Community water fluoridation remains an effective public health strategy for delivering fluoride to prevent tooth decay and is the most feasible and cost-effective strategy for reaching entire communities.

In addition to drinking water, other sources of fluoride exposure have contributed to the prevention of dental caries and an increase in dental fluorosis prevalence.
• Caries preventive benefits can be achieved and the risk of dental fluorosis reduced at 0.7 mg/L.

• Recent data do not show a convincing relationship between water intake and outdoor air temperature. Thus, recommendations for water fluoride concentrations that differ based on outdoor temperature are unnecessary.
Many communities moved to 0.7 mg/L after 2011 when the “notice of intent” was issued.

In the last two years, few communities have used the announcement as a springboard to stop fluoridation programs.

Future NHANES data will provide insight.
ADA Recommendations on Toothbrushing

2 minutes 2 x a day
EPA Standards for Fluoride in Drinking Water

These standards apply to the *naturally-occurring* fluoride in water.

- Maximum Contaminant Level (MCLG) – 4 mg/L
- Maximum Contaminant Level (MCL) – 4 mg/L
- Secondary Maximum Contaminant Level (SMCL) – 2 mg/L
Definition

EPA Standards for Fluoride in Drinking Water

• Maximum Contaminant Level (MCLG) – 4 mg/L

• The MCLG is the level of contaminants in drinking water at which no adverse health effects are likely to occur. This non-enforceable health goal is based solely on possible health risks and exposure over a lifetime with an adequate margin of safety.
Definition

EPA Standards for Fluoride in Drinking Water

• Maximum Contaminant Level (MCL) – 4 mg/L

• The MCL is an enforceable regulation which is set as close to the health goal as possible, considering cost, benefits and the ability of public water systems to detect and remove contaminants using suitable treatment technologies. In the case of fluoride, the MCL equals the MCLG, because analytical methods or treatment technology do not pose any limitation.
EPA Standards for Fluoride in Drinking Water

- Secondary Maximum Contaminant Level (SMCL) – 2 mg/L

- Secondary standards are non-enforceable guidelines regulating contaminants that may cause cosmetic effects (such as tooth discoloration). The EPA recommends secondary standards to water systems but does not require systems to comply.
Healthy People 2020

Objective OH-13: Increase the proportion of the U.S. population served by community water systems with optimally fluoridated water

Target: 79.6%
Missouri (2014): 76.8%

Status of Fluoridation

Data Source: Centers for Disease Control and Prevention, National Water Fluoridation Statistics
Status of Fluoridation

<table>
<thead>
<tr>
<th>States with Mandatory Fluoridation Laws</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Arkansas (2011)</td>
</tr>
<tr>
<td>• Connecticut (1965)</td>
</tr>
<tr>
<td>• Delaware (1998)</td>
</tr>
<tr>
<td>• Georgia (1973)</td>
</tr>
<tr>
<td>• Illinois (1967/2011)</td>
</tr>
<tr>
<td>• Kentucky (1966)</td>
</tr>
<tr>
<td>• Louisiana (2008)</td>
</tr>
<tr>
<td>• Minnesota (1967)</td>
</tr>
<tr>
<td>• Mississippi (2009)</td>
</tr>
<tr>
<td>• Nebraska (1973/2008)</td>
</tr>
<tr>
<td>• Nevada (1999)</td>
</tr>
<tr>
<td>• Ohio (1969)</td>
</tr>
<tr>
<td>• South Dakota (1969)</td>
</tr>
<tr>
<td>• District of Columbia (1952)</td>
</tr>
</tbody>
</table>
State Legislative Efforts

Unintended Consequences

Nebraska

Louisiana
Fluoridation Vote Outcomes 2015-2016

2015 CWF Vote Totals (50)
- Wins: 37
- Losses: 13

2016 CWF Vote Totals (46)
- Wins: 30
- Losses: 16

Wins | Losses
Campaign Strategies

• Two Types of Campaigns
  – Initiate
  – Retain
Fluoridation Campaigns are Political Campaigns

AND

All Politics Are Local
Initiate

- Getting Started
- Assessing Campaign Readiness
- Forming a Broad-based Coalition
Getting Started

• Core Group/Steering Committee
• Needs Assessment/Demographics
• History
• Legal Information
• Technical Information
• Timing of Campaign/Ballot
Getting Started

• Steering Committee
• Needs Assessment/Community Demographics/Data
• History
• Legal Information
• Technical Information
• Timing of Campaign/Ballot
Getting Started

- Steering Committee
- Needs Assessment/Demographics
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- Legal Information
- Technical Information
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Getting Started

• Steering Committee
• Needs Assessment/Demographics
• History
• Legal Information
• Technical Information
• Timing of Campaign/Ballot
Getting Started

• Board of Health
• Water Board
• City Council
• Town Meeting
• Public Referenda
• State Legislation
• Private Water System
Getting Started

- Steering Committee
- Needs Assessment/Demographics
- History
- Legal Information
- Technical Information
- Timing of Campaign/Ballot
Getting Started

- Steering Committee
- Needs Assessment/Demographics
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Campaign Strategies

Initiate

- Getting Started
- Assessing Campaign Readiness
- Forming a Broad-based Coalition
Initiate

- Getting Started
- Assessing Campaign Readiness
- Forming a Broad-based Coalition
Campaign Strategies

Why Form a Coalition?

- Structure/Organization
- Public Interface
- Endorsements/Recognition
- Sustainability
What Worked

Fluoridation

Something to smile about!
Campaign Strategies

• State/Local Oral Health Coalitions
• Pediatricians/Physicians
• School Nurses
• Hospitals
• Children Advocacy Groups
• Foundations
• Third Party Payers
Collaborations

OUTSIDE
Collaborations

• Think Outside the Box
  – PTA President
  – Pharmacists
  – Ethnic Community Leaders
  – Faith Group Leaders
  – Local Employers/Labor Unions
  – Chamber of Commerce/Civic Groups
  – Newspaper Editorial Boards
The *Tampa Bay Times* won the 2013 Pulitzer Prize for editorial writing for their diligent campaign that helped reverse a decision to end fluoridation of the water supply for the 700,000 residents of the newspaper's home (Pinellas) county in Florida.
Collaborations

Water System Personnel Can Be Targets
Collaborations

Water System Personnel

- AWWA Supports Fluoridation
- Target of the Opposition
- Possibly Unaware of Benefits
- Undervalued Community Asset
- Recognition of Efforts
From left, Bryan Butler, Muscatine Power & Water manager of water and utility services, and Sal LoBianco, general manager, pose with an Iowa Department of Public Health award MP&W received for consistently fluoridating the water for 50 years.
Campaign Strategies

Retain

- Little or No Advance Notice
- Timing NOT Your Choice
- Defensive Campaign
- Sympathetic Decision Makers
Campaign Strategies

Retain

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Retain

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- Sympathetic Decision Makers
State Legislative Efforts

Early Notification Legislation

Tennessee
Missouri
New York
Campaign Strategies

A Good Survey Gone Bad

- Columbiana, Alabama
- Water Bill Survey
- 5,000 sent out to Homes and Businesses
- 1,010 returned
- Results: 617 Against vs 493 In Favor
Campaign Strategies

Letters to the Editor

Debates vs Informational Meetings
Key Messages/Messaging

• Key Messages

• Vehicles to Reach Your Audience

• Working with the Press/Media
Past

Challenges have existed since the beginning.

In Grand Rapids, original plans called for fluoridation to begin at the beginning of January but in fact it didn’t start until January 25th.

Complaints were logged by the health department from the beginning of January.
Past

• 1950s Communist Plot
• 1960s Pollution
• 1970s Conspiracy Theories
• 1980s AIDS and Alzheimer’s disease
• 1990s Hip Fracture and Cancer
• 2000s Overexposure (Infants) and Bone Cancer
• 2010s Neurotoxicity (IQ, ADHD, Autism)
Today

The oppositions top arguments – as of today.

• Neurotoxic – Lowers IQ/ADHD/Autism
• Fluoride Additives Not Safe
• Medical Ethics – Personal Choice
• Thyroid – Endocrine Disruptor
• No Benefit – Europe Doesn’t Fluoridate
• Fluorosis – Infant Fluoride Intake
• Cancer
• Kidney
• Diabetes
Challenges

• Is it science or something posted on the Internet?

• Everyone’s entitled to their own opinion but not their own facts.
Association ≠ Causation

In large cities, typically crime goes up during the hot summer months.

In large cities, the sale of ice cream goes up during the hot summer months.

Therefore ice cream causes an increase in crime.
Challenges

- Is it Science?? Questions to Ask
  - Author’s Credentials
  - Year of Publication
  - Comparability
  - Research Model
  - Peer Review
  - Weight of Evidence
  - Easily Accessible
Fluoridation Talking Points
Talking with the Public

1. Present yourself as a listening, caring resource.
2. Use “kitchen table” language.
3. Share stories to put a face on the issue.
4. Connect with their values.
5. Communicate core messages and circle back to them.
**Fluoridated Community**

Do you (and your family) usually drink tap water or bottled water?

Do you receive your water through a public water system or do you have a private well?
Home Water Treatment Systems

Whole House Water Softeners

Do not remove fluoride
Home Water Treatment Systems

Whole House Water Filtration Systems

May or may not remove fluoride
Home Water Treatment Systems

Whole House Water Reverse Osmosis Systems
Remove Fluoride
Home Water Treatment Systems

Point of Use (POU)

Reverse Osmosis

Distillation
Home Water Treatment Systems

Point of Use (POU)

Carafe

Faucet
Bottled Water

Home Bottled Water Delivery

Fluoridated Water†
Bottled water is regulated by the FDA.

READ THE LABEL

Current FDA regulations require fluoride content to be listed on the label only if fluoride is added during processing.
Bottled Water

Most bottled water is not optimally fluoridated.

In fact, water treated by reverse osmosis or distillation contains little or no fluoride.
Bottled Water

Individuals who use bottled water as their primary source of water could be losing the decay preventive effects of optimally fluoridated water available from their community water supply.
Non-Fluoridated Community

Do you (and your family) brush with fluoride toothpaste twice a day?

Have you asked your child’s dentist or pediatrician if dietary fluoride supplements might be recommended?
What if a patient says they heard negative things about fluoride?

Don’t react with frustration.

Unfortunately, there is a lot of inaccurate information on the internet about fluoride.

Let me give you a few websites where you can find reliable information if you want to learn more.
From what I understand, fluoridated water is supposed to benefit children, not adults. If that’s true, then it doesn’t really matter whether adults like me drink tap water or bottled water.

OR

I’ve heard fluoridation causes cancer.
Talking with the Public

I’ve had that question asked by other patients, so I’m happy to clarify what the evidence shows about that …

I understand what you’re saying. Let me walk you through what the scientific evidence says …
Talking with the Public

It can be hard to find accurate information about this topic online, so let me suggest a couple of reliable websites where you can find answers to any questions you may have ...

I’m a parent too, so I can see why you might ask that question. Let me explain what the research shows ...
Vehicles to Reach Your Audience

- Posters in the office
- Items in office newsletters/billing stuffers
- Social Media – Facebook, Twitter
- Videos
- Blogs
- Websites
- Media Interviews – TV/Newspaper
Working with the Press/Media

FIVE TIPS

- Treat the media like a force of nature.
- Know your message.
- Pick 3 key point before the interview.
- Keep it simple.
- Control your message with “bridge” statements.
YOU CONTROL THE CONVERSATION

• Return reporters’ calls promptly.
• If unprepared, ask to call reporter back.
• Ask the reporter questions before the interview.
• Never assume reporter knowledge.
• Ask reporter to restate unclear questions.
• Prepare your notes.
• Nothing is ever “off the record.”
• Thank reporter when item runs.
DURING THE INTERVIEW

• Listen to the question being asked.
• Avoid jargon.
• Make your most important points first.
• Ask for clarification.
• Deal with multiple faceted questions.
• Stay within your range of knowledge.
• Call back within reporter’s deadline.
Avoid Reporters’ Traps:

- Don’t repeat the negative from a reporter’s questions
- Don’t let reporters put words in your mouth
- Don’t speak for anyone else
- Don’t ever say anything “off the record.”
- Always stay on message even if you think the interview is over
- Stay calm.
Assisting the Reporter:

• Provide the reporter with a written summary of information, main points and statistics.

• Don’t hesitate to put the issue into perspective, even if the reporter doesn’t ask.

• Don’t overestimate a reporter’s knowledge of your subject. If a reporter bases questions on information you believe is incorrect, do not hesitate to set the record straight.

• Offer background information where necessary.
Working with the Press/Media

Formula for a Soundbyte

How do you deliver messages?

Question ➔ Answer ➔ Bridge ➔ Message

No matter what the question is, find a way to bridge to one of your key messages
Working with the Press/Media

Or as Henry Kissinger Used to Say…

What questions do you have for my answers?
Working with the Press/Media

ABC’s of Q & A

• A: Answer the question
• B: Bridge to your message
• C: Conclude on a positive note
Bridging to Your Message

• In fact …
• Let me put this in perspective …
• What you need to remember is …
Resources

What is/can the ADA do to assist you?
Resources

Action for Dental Health

www.ada.org/fluoride
Resources

National Fluoridation Advisory Committee

Academicians
Researchers
State Oral Health Department Staff
General Dentists
Resources

ADA Team Fluoridation

State Government Affairs
Government and Public Affairs (Federal)
Communications
Council on Advocacy for Access and Prevention
2018 Fluoridation Facts
Resources

Fluoridation Facts Book Bundle - J120BT
Fluoridation Facts

COMPRENDIUM
National and International Organizations That Recognize the Public Health Benefits of Community Water Fluoridation for Preventing Dental Decay

Academy of Dentistry International
Academy of General Dentistry
Academy for Sports Dentistry
Alzheimer's Association
America's Health Insurance Plans
American Academy of Family Physicians
American Academy of Nurse Practitioners
American Academy of Oral and Maxillofacial Pathology
American Academy of Orthopaedic Surgeons
American Academy of Pediatrics
American Academy of Pediatric Dentistry
American Academy of Periodontology
American Academy of Physician Assistants
American Association for Community Dental Programs
American Association for Dental Research
American Association for Health Education
American Association for the Advancement of Science
American Association of Endodontists
American Association of Oral and Maxillofacial Surgeons
American Association of Orthodontists
American Association of Public Health Dentistry

Association of State and Territorial Dental Directors
Association of State and Territorial Health Officials
Association of State and Territorial Public Health Nutrition Directors
British Fluoridation Society
Canadian Dental Association
Canadian Dental Hygienists Association
Canadian Medical Association
Canadian Nurses Association
Canadian Paediatric Society
Canadian Public Health Association
Child Welfare League of America
Children's Dental Health Project
Chocolate Manufacturers Association
Consumer Federation of America
Council of State and Territorial Epidemiologists
Delta Dental Plans Association
FDI World Dental Federation
Federation of American Hospitals
Hispanic Dental Association
Indian Dental Association (U.S.A.)
Institute of Medicine
International Association for Dental Research
International Association for Orthodontics
International College of Dentists
March of Dimes Birth Defects Foundation
National Association of Community Health Centers
Resources

Fluoridation Facts Compendium

Removed from book

List will exist online

National and International Organizations That Recognize the Public Health Benefits of Community Water Fluoridation for Preventing Dental Decay
Resources

ADA Fluoridation Tool Kit

Continuing Education Programs
  Fluoridation
    (Science/Campaign Strategies)
    Spokesperson Training

Technical assistance to dentists, dental societies, supporters.
Fluoride in Water

Lawsuit seeking fluoridation ban moves forward

EPA’s request to dismiss the lawsuit has been denied. See details.
Fluoride in Water is Safe and It Works

More than 70 years of scientific research has consistently shown that an optimal level of fluoride in community water is safe and effective in preventing tooth decay by at least 25% in both children and adults. Simply by drinking water, Americans can benefit from fluoride's cavity protection whether they are at home, work or school. The Centers for Disease Control and Prevention named community water fluoridation one of 10 great public health achievements of the 20th century.

Featured

Fluoridation Facts
Fluoridation FAQs
Fluoride Clinical Guidelines
Fluoridation in the News
Medical Testimonials
Fluoridation Videos
ADA Social Media
Resources

CAAP Fluoridation Report by State (Dec. 2016)

Resources

State Specific Fluoridation Status/History

State Specific Organizational Contacts
Resources

My Water's Fluoride

Water with fluoride protects teeth from tooth decay

It is important to know the level of fluoride in your drinking water. My Water's Fluoride (MWF) allows consumers to learn about the fluoride level in their drinking water. Also, you can find out the number of people served by the system and the water source. Learn more

Find Water System Information

Select one

Search by Water System

ADA American Dental Association®
# Missouri

## List of Counties

Select a county to view its public water systems.

<table>
<thead>
<tr>
<th>Counties</th>
<th>Counties</th>
<th>Counties</th>
<th>Counties</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adair</td>
<td>Andrew</td>
<td>Atchison</td>
<td>Audrain</td>
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<td>Barry</td>
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<td>Bates</td>
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<td>Lincoln</td>
<td>Linn</td>
<td>Livingston</td>
<td>Macon</td>
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</table>
## Missouri - Cole County

### All Water Systems by County

Select a county to view its water systems

- Cole

### 17 Water Systems Found

Select a water system to view details

<table>
<thead>
<tr>
<th>Cole County, Missouri 1 - 17 of 17</th>
<th>Items Per Page</th>
<th>Name</th>
<th>Fluoridated</th>
<th>PWS-ID</th>
<th>Primary County</th>
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<tbody>
<tr>
<td></td>
<td>20</td>
<td>CENTERTOWN</td>
<td>No</td>
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<td>Cole</td>
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<td></td>
<td>CENTRAL MO CORRECTIONAL CENTER</td>
<td>Yes</td>
<td>MO-3069008</td>
<td>Cole</td>
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<tr>
<td></td>
<td></td>
<td>COLE CO PWSD #1</td>
<td>Yes</td>
<td>MO-3024159</td>
<td>Cole</td>
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<td></td>
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<td>COLE CO PWSD #2</td>
<td>Yes</td>
<td>MO-3024160</td>
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<td>COLE CO PWSD #3</td>
<td>No</td>
<td>MO-3024162</td>
<td>Cole</td>
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</tbody>
</table>
Water System

Name: JEFFERSON CITY
ID: MO-3010409

Is this Water System Fluoridated?

Yes
Fluoride Concentration
0.70 mg/L

What does this mean?
This water system adjusts the fluoride level to the recommended level for the prevention of tooth decay.

<table>
<thead>
<tr>
<th>Water System Type</th>
<th>Water Source</th>
<th>County</th>
<th>Population Served</th>
</tr>
</thead>
<tbody>
<tr>
<td>Community</td>
<td>Surface</td>
<td>Cole (Primary)</td>
<td>27,117</td>
</tr>
</tbody>
</table>

Source Information:
The U.S. Department of Health and Human Services recommends a level of 0.7 milligrams per Liter (mg/L) of fluoride in your drinking water. This is the level that prevents tooth decay and promotes good oral health. For additional information on fluoride in drinking water please visit the [CDC Water Fluoridation Page](https://www.cdc.gov/fluoridation/).
Resources

Note: Information on this page has been provided by the State. Verify this information with your local water utility, or with your local or state health department.

Contact Information

Oral Health Program
Missouri Department of Health & Senior Services

Julie Boeckman
PO Box 570
Jefferson City, MO 65102
(573) 751-6249

Questions or Comments?

julie.boeckman@health.mo.gov
Visit State Web Site
Send Comments to the State
Resources

What’s the fluoridation status of your water?

Water Quality Report
Consumer Confidence Report/CCR
A Message from the Missouri American Water President

to our valued customers:

We like to say in the water industry that ours is the only utility you ingest. Of course, that comes with the responsibility of producing a product that must be both safe and clean. At Missouri American Water, I'm glad to say that our water is both. The following document spells it out in detail.

Our Annual Water Quality Report serves as a description of the source and quality of your drinking water. It's essentially our company's report card on your local water service, and I'm proud to say that our grades are stellar. Not only do we continue to supply water that meets or exceeds all state and federal water quality regulations, we've been doing so for years. Our surface water plants have won multiple Director's Awards from the American Water Works Association, an honor only a select few surface water treatment plants can claim nationwide each year. To say I'm proud of this accomplishment is an understatement. Our groundwater systems also maintain outstanding water quality.

Beyond being clean and safe, our water is also affordable. At about a penny per gallon, our water is a great value.

I hope you'll take a few minutes and read the following report; it provides important information about your drinking water, its quality, and the testing we've conducted.

I also appreciate the opportunity to serve you and look forward to supplying the water flowing for years to come.

Cheryl Norton
President

What is a Water Quality Report?

To comply with state and U.S. Environmental Protection Agency (USEPA) regulations, Missouri American Water issues a report annually describing the quality of your drinking water. The purpose of this report is to raise your understanding of drinking water and awareness of the need to protect drinking water sources. We conduct tests for hundreds of contaminants. This report provides an overview of the most recent water quality data available. It includes details about where your water comes from and what it contains.

If you have any questions about this report or your drinking water, please call our Customer Service Center at (toll-free) (866) 888-0820.

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## Water Quality Results

### Regulated Substances (Water Leaving the Treatment Facility)

<table>
<thead>
<tr>
<th>Substance (units)</th>
<th>Year Sampled</th>
<th>MCL</th>
<th>MCLG</th>
<th>Results</th>
<th>Range Low-High</th>
<th>Compliance Achieved</th>
<th>Typical Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Atrazine (ppb)</td>
<td>2016</td>
<td>3</td>
<td>3</td>
<td>0.2</td>
<td>ND – 0.7</td>
<td>Yes</td>
<td>Runoff from herbicide used on row crops</td>
</tr>
<tr>
<td>Chloramine (ppm)</td>
<td>2016</td>
<td>TT</td>
<td>NA</td>
<td>2.3</td>
<td>2.3 – 2.7</td>
<td>Yes</td>
<td>Water additive used to control microbes</td>
</tr>
<tr>
<td>Fluoride (ppm)</td>
<td>2016</td>
<td>4</td>
<td>4</td>
<td>0.6</td>
<td>0.6</td>
<td>Yes</td>
<td>Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories</td>
</tr>
<tr>
<td>Nitrate (ppm)</td>
<td>2016</td>
<td>10</td>
<td>10</td>
<td>3.2</td>
<td>3.2</td>
<td>Yes</td>
<td>Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits</td>
</tr>
<tr>
<td>Selenium (ppb)</td>
<td>2016</td>
<td>50</td>
<td>50</td>
<td>3</td>
<td>3</td>
<td>Yes</td>
<td>Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits</td>
</tr>
<tr>
<td>Total Organic Carbon</td>
<td>2016</td>
<td>TT</td>
<td>NA</td>
<td>2.1</td>
<td>2.1</td>
<td>Yes</td>
<td>Naturally present in the environment</td>
</tr>
</tbody>
</table>
**Resources**

**GREENE CO PWSD 1**
Public Water System ID Number: MO5024228

**2016 Annual Water Quality Report**
*(Consumer Confidence Report)*

**Contaminants Report**

GREENE CO PWSD 1 will provide a printed hard copy of the CCR upon request. To request a copy of this report to be mailed, please call us at **417-881-1762**. The CCR can also be found on the internet at [www.dnr.mo.gov/CCR/MO5024228.pdf](http://www.dnr.mo.gov/CCR/MO5024228.pdf).

The state has reduced monitoring requirements for certain contaminants to less often than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Records with a sample year more than one year old are still considered representative.

**Regulated Contaminants**

<table>
<thead>
<tr>
<th>Regulated Contaminants</th>
<th>Collection Date</th>
<th>Highest Test Result</th>
<th>Range of Sampled Result(s) (low – high)</th>
<th>Unit</th>
<th>MCL</th>
<th>MCLG</th>
<th>Typical Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>BARIUM</td>
<td>5/17/2016</td>
<td>0.11</td>
<td>0.0368 - 0.11</td>
<td>ppm</td>
<td>2</td>
<td>2</td>
<td>Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits</td>
</tr>
<tr>
<td>FLUORIDE</td>
<td>5/17/2016</td>
<td>0.75</td>
<td>0.3 - 0.75</td>
<td>ppm</td>
<td>4</td>
<td>4</td>
<td>Natural deposits; Water additive which promotes strong teeth</td>
</tr>
</tbody>
</table>
Resources

What’s the fluoridation status of your water?

• EPA recommends private wells be tested yearly.

• For a list of certified laboratories, contact your local, county or state health department.
What’s the fluoridation status of your water?

- Determine fluoride levels prior to prescription of dietary fluoride supplements.
- Counsel parents on alternative water sources if fluoride level is higher than optimal.
Resources – Missouri

Missouri Dental Association
http://www.modental.org/public-resources/fluoride-toolkit

Community Fluoridation Resources

The issue of the discontinuation of community water fluoridation continues to be of concern to the MDA. The MDA provides various resources to help aid efforts. If you have questions or concerns regarding fluoridation in your community, please contact the MDA.

Toolkits

The following resources have been tailored for a public audience. MDA Members can access a Fluoride page for dental professionals by clicking here.

- ADA Fluoridation Toolkit
- Fluoridation Toolkit (DentaQuest Foundation)
- Community Public Water Fluoridation Resources (Missouri Coalition for Oral Health)
  - Water Fluoridation: A Community Toolkit
Community Public Water Fluoridation Resources

**Featured Resource** Water Fluoridation: A Community Toolkit - from the Missouri Coalition for Oral Health [click to download] -
This toolkit is designed to assist local community advocates in supporting public water fluoridation. As an oral health advocate, the Coalition’s “Water Fluoridation: A Community Toolkit” is your resource on the health benefits, cost savings and media outreach on fluoridation. The Coalition encourages you to use the toolkit as you talk with friends, colleagues and opinion leaders within your community about community water fluoridation.

Additional Resources -

https://oralhealthmissouri.org/community-public-water-fluoridation-resources.php
Resources - Missouri

http://health.mo.gov/living/families/oralhealth/waterfluoridation.php

Missouri Department of Health & Senior Services

Water Fluoridation

Community water fluoridation helps prevent tooth decay by adjusting the fluoride in the water supply to an optimal level. Many drinking water supplies contain some fluoride naturally, however, to prevent tooth decay, it is important to supplement and maintain an adequate level of fluoride to achieve this goal.

Facts About Water Fluoridation

- Fluoridation is safe.
- Fluoridation is the least expensive and most effective way to reduce tooth decay.
- People drinking fluoridated water have 20 to 40 percent less tooth decay.

Approximately 100 communities in Missouri are currently supplementing the natural fluoride level in the water system to the optimum for dental decay prevention.

Your Water’s Fluoride
Campaign Strategies and Resources

Be Prepared in Advance

• Brush up on Fluoridation Science
• Collaborate – Build Coalitions
• Establish a relationship with decision makers
• Review Your Annual CCR/Water Quality Report
• Tour your local water system facility
• Monitor local antifluoridation activities
Fluoridation Campaigns are Political Campaigns

AND

All Politics Are Local
Fluoridation Extra

What is that out in the lake?
Fluoridation Extra

Crown Fountain
Millenium Park
Chicago
Community Water Fluoridation

THANK YOU!

Jane McGinley

McGinleyJ@ada.org