



Notice of Open Meeting Safe Drinking Water Commission

The health and safety of all visitors to state office buildings are priority. Due to concerns regarding the novel coronavirus, or COVID-19, and restrictions on access to state buildings, this meeting will be limited to remote participation as outlined below.

Options for remote participation:

- Watch the meeting live: Livestream: <https://dnr.mo.gov/videos/live.htm>
- Listen and/or talk during open session: 1-877-749-7113 / Participant PIN: 51724
- Note: If you are watching the livestream and call-in, there is a slight delay and there may be audio feedback issues if you do both. Please mute your phone unless you are presenting. In addition, please do not put your phone on hold.

To review minutes from previous meetings and learn about agenda items, please refer to the Department website at [Safe Drinking Water Commission](#).

AGENDA

Virtual Meeting
1-877-749-7113 / Participant PIN: 51724
October 14, 2020
10 a.m.

- | | | |
|-----------|---|----------------|
| A. | Call to Order and Introductions | Liz Grove |
| B. | Minutes from previous meetings:
(Approval Needed) | |
| 1. | Minutes from July 8, 2020 meeting | Liz Grove |
| 2. | Minutes from July 10, 2020 meeting | Liz Grove |
| 3. | Minutes from September 18, 2020 meeting | Liz Grove |
| C. | Reports and Updates
(Information Only) | |
| 1. | Missouri Water Resources Plan | Matthew Kirsch |

- | | | |
|----|--|----------------|
| 2. | 2019 Annual Compliance Report | Thomas Adams |
| 3. | Operator Certification Annual Report | Darlene Helmig |
| 4. | Alternative Inspection Methodologies | Lance Dorsey |
| 5. | Final Federal Lead Free Pipes, Fittings, and Fixtures Rule | Jeff Pinson |
| 6. | Attorney General’s Office Update | Tim Duggan |
| 7. | Branch Chief’s Update | David Lamb |

D. Recommended for adoption and actions to be voted on
(Approval needed)

- | | | |
|----|---|-----------------|
| 1. | Adoption of the final Fiscal Year 2021 Missouri Drinking Water State Revolving Fund (DWSRF) Intended Use Plan (IUP) | Hannah Humphrey |
|----|---|-----------------|

E. New Business
(Information Only) Liz Grove

F. Open Comment Session
(Information Only) Liz Grove

This segment of the meeting affords the public an opportunity to comment on any other issues pertinent to the Safe Drinking Water Commission.

G. Future Meeting Dates
(Information Only) Liz Grove

- November 23, 2020
- January 13, 2021
- April 14, 2021

H. Closed Session Liz Grove

This portion of the meeting may be closed if such action is approved by a majority vote of the Safe Drinking Water Commission members who constitute a quorum, pursuant to Section 610.021, RSMo.

I. Meeting Adjournment
(Approval Needed) Liz Grove

People requiring special services at the meeting can make arrangements by calling 1-800-361-4827 or 573-751-0124. Hearing- and speech-impaired individuals may contact the department through Relay Missouri, 1-800-735-2966.

Safe Drinking Water Commission

Department of Natural Resources
Division of Environmental Quality
Water Protection Program
Public Drinking Water Branch

October 14, 2020

Agenda Item #A

Call to Order and Introductions

Issue:

Meeting to be called to order and roll call taken.

Presented by:

Liz Grove, Chair, SDWC

Safe Drinking Water Commission

Department of Natural Resources
Division of Environmental Quality
Water Protection Program
Public Drinking Water Branch

October 14, 2020

Agenda Item # B-1
Minutes from July 8, 2020 meeting

Issue:

Commission to review the minutes from the July 8, 2020, Safe Drinking Water Commission meeting.

Recommended Action:

The Department recommends the Commission vote to approve the minutes from the July 8, 2020, Safe Drinking Water Commission meeting.

Suggested Motion Language:

Chair Grove, I move that the Commission approve the minutes from the July 8, 2020, meeting.

Attachment:

Minutes from the July 8, 2020, meeting.

Presented by:

Liz Grove, Chair, SDWC

**MINUTES OF THE
SAFE DRINKING WATER COMMISSION**

**Water Protection Program
Public Drinking Water Branch
Virtual Meeting**

**July 8, 2020
10 a.m.**

Commissioners Participating:

Ms. Elizabeth Grove, Chair
Mr. Bruce Manning
Mr. Rodger Owens
Mr. Curt Skouby

Ms. Charli Jo Ledgerwood, Vice Chair
Ms. Susan Hazelwood
Mr. Fred Schmidt
Mr. Scott Bockenkamp

Commissioners Absent:

Ms. Susan Armstrong

Legal Counsel:

Mr. Tim Duggan, AGO

Staff Present:

Mr. David Lamb, WPP/PDWB
Ms. Donna Belfiore, WPP/PDWB
Ms. Sheri Fry, WPP/PDWB
Mr. Eric Medlock, WPP/PDWB
Ms. Hannah Humphrey, WPP/FAC
Ms. Lauren Graessle, WPP/ FAC
Mr. Joel Reschly, DNR/ GCO
Mr. Van Beydler, DNR/OD
Ms. Sharon Davenport, WPP/FAC
Ms. Misty Lange, WPP/FMS

Mr. Lance Dorsey, WPP/PDWB
Ms. Darlene Helmig, WPP/PDWB
Mr. Todd Eichholz, WPP/PDWB
Mr. Maher Jaafari, WPP/PDWB
Ms. Diane Vitello, WPP/PDWB
Mr. Patrick Vavra, WPP/PDWB
Mr. Chris Wieberg, Director, WPP
Ms. Jodi Gerling, WPP/FMS
Mr. Tom Adams, WPP/PDWB
Ms. Judi Fifer, DNR/DAS

Guests present:

Ms. Samantha Harden, EPA
Ms. Cathy Youtsey
Ms. Michelle Ashworth

Ms. Lauren Dempsey
MPUA (no name shown)

Note: Due to the virtual nature of the meeting, introductions were not conducted beyond Commission members present. The names listed above for staff and other participants were those who logged in to the meeting with identifiable information through Adobe Connect. This may not be a comprehensive list of all meeting participants.

Abbreviations and Acronyms used in these minutes

AGO	Attorney General’s Office
CWS	Community Water System
DWSRF	Drinking Water State Revolving Fund
EPA	Environmental Protection Agency
FAC	Financial Assistance Center
FMS	Fiscal Management Section
GCO	General Counsel’s Office
IUP	Intended Use Plan
OD	Office of the Director
PDWB	Public Drinking Water Branch
SDWC	Safe Drinking Water Commission
WPP	Water Protection Program

Call to Order and Introductions

The regular meeting of the Safe Drinking Water Commission was held as a virtual meeting on July 8, 2020, via Adobe Connect. Chair Grove called the meeting to order at 10:00 a.m.

Roll was taken. Those in attendance included Commissioners Hazelwood, Manning, Owens, Schmidt, and Skouby, as well as Chair Grove and Vice-Chair Ledgerwood. Commissioner Armstrong was absent. A quorum was established at this time.

Minutes of the January 15, 2020, Meeting

Chair Grove asked for any changes, additions, or deletions to the January 15, 2020, meeting minutes provided to the Commission for review. Hearing none, Chair Grove called for a motion to approve. Commissioner Hazelwood made a motion to approve the minutes as presented, and Commissioner Manning seconded the motion. A roll call vote was taken, and the results are as follows:

Commissioner Hazelwood:	Yes	Commissioner Manning:	Yes
Commissioner Owens:	Yes	Commissioner Schmidt:	Yes
Commissioner Skouby:	Yes	Vice-Chair Ledgerwood:	Yes
Chair Grove:	Yes	Commissioner Bockenkamp:	Yes
Commissioner Armstrong:	Absent		

Motion carried.

Annual Capacity Development Report

Ms. Diane Vitello, Capacity Development and Source Water Protection Unit Chief, started her update by providing some background and history on the Safe Drinking Water Act requirements related to the Annual Capacity Development Report. She then provided an update on capacity development activities conducted during 2019 including training and technical assistance provided for small systems, the circuit rider assistance contract, and other associated activities. She then discussed future goals for the program.

No action taken by the Commission, information only.

Drinking Water Infrastructure Needs Survey and Assessment

Ms. Lauren Graessle, of the Financial Assistance Center, started her presentation with a brief review of the background and history of the Drinking Water Infrastructure Needs Survey and Assessment. Ms. Graessle explained that the DWINSA is conducted every four years to determine the total national and state need for drinking water infrastructure projects over the next 20 years, and that the survey helps determine the annual allotment of federal funds for the Drinking Water State Revolving Fund. She concluded her presentation with a detailed description of how the survey is conducted and put into action following a timeline of events. She then answered questions from the Commission.

No action taken by the Commission, information only.

Proposed Fee Rule

Mr. David Lamb, Chief of the Public Drinking Water Branch (Branch), outlined the necessary steps required by the Department to proceed with filing the proposed rule language for 10 CSR 60-16 Drinking Water Fees in order to initiate the formal rulemaking process. His presentation detailed the fee revision process, the current fee structure, and the current financial overview of the program. He also summarized the stakeholder meetings and the consensus proposal developed by the stakeholders, as well as the proposed rule language. He concluded his presentation with a reminder of the subsequent meeting on July 10, 2020, when the Commission would vote on whether to proceed with filing the proposed rule actions. He then answered questions from the Commissioners.

No action taken by the Commission, information only.

Disinfection Byproducts Study

Mr. Maher Jaafari, Chief of the Permitting and Engineering Section, gave a brief description of the Disinfection Byproducts (DBP) Study, which is a collaboration between the Department and the Environmental Protection Agency. He noted that the goals of the study were to establish DBP baselines for participating water systems, to determine where DBP formation is occurring at these

systems, and to identify opportunities for treatment optimization. Mr. Jaafari discussed some of the specific findings of the study and answered several questions from the Commission.

No action taken by the Commission, information only.

COVID-19 Regulatory Relief

Mr. Lance Dorsey, Chief of the Compliance and Enforcement Section, reported to the Commission on the current regulatory relief efforts the Department was implementing due to the COVID-19 pandemic. Mr. Dorsey explained that pursuant to Executive Order 20-10, the Department received approval for six drinking water regulatory relief waivers in two categories; Operator Certification and Backflow Prevention. He then discussed in more detail the three Backflow rule suspensions and the general regulatory relief process.

No action taken by the Commission, information only.

Operator Certification COVID-19 Update

Ms. Darlene Helmig, Chief of the Operator Certification Section, reported to the Commission the recent regulatory relief extended to certified water operators during the COVID-19 pandemic. She explained that pursuant to Executive Order 20-10, the Department was temporarily suspending portions of the Operator Certification rules to allow certified operators of public water systems to renew their certificates without obtaining the minimum amount of renewal training that otherwise would be required. She also discussed virtual training efforts and the Department's plan to resume in person training and examinations.

No action taken by the Commission, information only.

Attorney General's Office Legal Update

Mr. Tim Duggan, AGO, informed the Commission that he had no report or update at this time. He did, however, explain to the Commissioners that Section 610.015 of the Revised Statutes of Missouri, also known as the Sunshine Law does provide guidance for absentee voting when members of the Commission are not able to be present, either in person or via teleconference. He noted it is allowable for members of the Commission to submit their vote via email or text, and that said submissions should be printed and attached to the meeting minutes.

No action taken by the Commission, information only.

Branch Chief's Update

Mr. David Lamb updated the Commission on operational issues experienced by staff as a result of COVID-19, including reduced presence in the office and staggering of work schedules to

maintain social distancing. He noted that despite these issues and more staff working remotely, the Branch continued to maintain all core job functions.

Next, Mr. Lamb gave an update on several EPA approvals received including approvals for all outstanding primacy revisions related to the Red Tape Reduction Initiative, the Lead and Copper Rule Short-term Revisions, and the Revised Total Coliform Rule. He also noted the Department received a positive review from EPA in their annual primacy program review report for FY19 and that EPA approval was received for the Department's 4th Cycle Monitoring and Waiver Plan.

Mr. Lamb then announced the publishing of the Annual Census of Public Drinking Water Systems and the Annual Compliance Report (ACR). He explained the purpose of the reports and identified some of the key information included in them.

Lastly, Mr. Lamb reported on the status of several federal and state regulatory actions that have taken place recently including items related to Perchlorate, PFAS, and the Lead and Copper Rule. He also provided an update on the Water Safety and Security Act that was passed by the legislature as part of House Bill 2120 and signed into law by the Governor.

Fiscal Year 2020 Drinking Water State Revolving Fund Intended Use Plan Amendment

Ms. Hannah Humphrey, Director of the Financial Assistance Center, came before the Commission to present proposed changes to the Fiscal Year 2020 Drinking Water State Revolving Fund Intended Use Plan Comprehensive List and Fundable Projects List. After Ms. Humphrey explained the changes, Chair Grove asked for a motion to approve the proposed changes as requested. Commissioner Skouby made a motion to approve the revisions. Commissioner Hazelwood seconded the motion. A roll call vote was taken, and the results are as follows:

Commissioner Hazelwood:	Yes	Commissioner Manning:	Yes
Commissioner Owens:	Yes	Commissioner Schmidt:	Yes
Commissioner Skouby:	Yes	Vice-Chair Ledgerwood:	Yes
Chair Grove:	Yes	Commissioner Bockenkamp:	Yes
Commissioner Armstrong:	Absent		

Motion carried.

New Business

Chair Grove asked the Commissioners if there was any new business to be discussed. No items were identified for discussion.

Public Comment and Correspondence

Chair Grove asked if there was anyone participating in the meeting who would like to address the Commission. No one identified themselves as wanting to speak.

Future Meetings

Chair Grove announced the dates for upcoming SDWC meetings.

July 10, 2020	Virtual Meeting	Vote on filing the proposed Fee Rule
September 18, 2020	Virtual Meeting	Public Hearing for the Fee Rule
October 14, 2020	Virtual Meeting	Regularly Scheduled Meeting
November 23, 2020	Virtual Meeting	Vote on the Fee Rule Order of Rulemaking

Adjournment

Chair Grove called for a motion to adjourn the meeting. Commissioner Owens made a motion to adjourn. Commissioner Manning seconded the motion. All Commissioners voted unanimously to approve.

Motion carried. The meeting was adjourned at 12:36 p.m.

Respectfully Submitted,

David J. Lamb, Staff Director

Minutes taken at the Safe Drinking Water Commission meetings are not verbatim records of the meeting. Consequently, the minutes are not intended to be, and are not, a word-for-word transcription.

Safe Drinking Water Commission

Department of Natural Resources
Division of Environmental Quality
Water Protection Program
Public Drinking Water Branch

October 14, 2020

Agenda Item # B-2

Minutes from July 10, 2020 meeting

Issue:

Commission to review the minutes from the July 10, 2020, Safe Drinking Water Commission meeting.

Recommended Action:

The Department recommends the Commission vote to approve the minutes from the July 10, 2020, Safe Drinking Water Commission meeting.

Suggested Motion Language:

Chair Grove, I move that the Commission approve the minutes from the July 10, 2020, meeting.

Attachment:

Minutes from the July 10, 2020, meeting.

Presented by:

Liz Grove, Chair, SDWC

**Missouri Department of Natural Resources
Water Protection Program-Public Drinking Water Branch**

**MINUTES OF THE
SAFE DRINKING WATER COMMISSION MEETING
Virtual Meeting**

**July 10, 2020
10 a.m.**

Commissioners Participating:

Ms. Elizabeth Grove, Chair
Mr. Bruce Manning
Mr. Fred Schmidt

Ms. Charli Jo Ledgerwood, Vice Chair
Mr. Rodger Owens
Mr. Curt Skouby

Commissioners not participating in the meeting:

Ms. Susan Armstrong

Mr. Scott Bockenkamp

Staff Present:

David Lamb, WPP/PDWB
Donna Belfiore, WPP/PDWB
Sheri Fry, WPP/PDWB

Van Beydler, DNR/OD
Judi Fifer, DNR/DAS

Guests present:

Samantha Harden, EPA

MPUA (No name submitted in the log in)

Note: Due to the virtual nature of the meeting, introductions were not conducted beyond Commission members present. The names listed above for staff and other participants were those who logged in to the meeting with identifiable information through Adobe Connect. This may not be a comprehensive list of all meeting participants.

Call to Order

Chair Grove called the meeting to order at 10:00 a.m. A roll call of the Commission was taken. Those in attendance included Commissioners Hazelwood, Manning, Skouby, and Schmidt; Chair Grove; and Vice-Chair Ledgerwood. Commissioners Armstrong and Bockenkamp were absent. A quorum was established at that time.

Recommended for adoption and action to be voted on:

Mr. David Lamb, Chief of the Public Drinking Water Branch, gave a brief review of the proposed rule actions for 10 CSR 60-16 – Drinking Water Fees and requested that the

Commission vote to approve the Department to move forward with filing the proposed rule actions.

Chair Grove called for a motion to approve the Department to file the proposed rule actions for 10 CSR 60-16 Drinking Water Fees, with the Secretary of State's office.

Commissioner Hazelwood made a statement expressing her delight with the entire stakeholder process, from the information gathering by the Department, to the Stakeholder participation and cooperation, to the final consensus. Chair Grove then echoed that same sentiment. Mr. Lamb also expressed his appreciation for all of the cooperation from the parties involved and for the positive feedback from the Commission on the stakeholder efforts.

Commissioner Hazelwood then made a motion to approve the request to file the proposed rule actions to 10 CSR 60-16 Drinking Water Fees, as presented. Commissioner Manning seconded the motion. Chair Grove called for a roll call vote, resulting as follows:

Chair Grove	Yes	Commissioner Hazelwood	Yes
Vice-Chair Ledgerwood	Yes	Commissioner Manning	Yes
Commissioner Owens	Yes	Commissioner Schmidt	Yes
Commissioner Skouby	Yes		

Motion Carried.

Note: Commissioner Bockenkamp was not present for the vote but submitted his support for the rule by email following the meeting.

Adjournment

Chair Grove called for a motion to adjourn the meeting. Commissioner Manning made a motion to adjourn. Commissioner Skouby seconded the motion. All Commissioners voted unanimously to adjourn.

Motion carried. The meeting was adjourned at 10:11 a.m.

Respectfully Submitted,

David J. Lamb, Staff Director

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Belfiore, Donna

From: Scott Bockenkamp <scottbockenkamp@yahoo.com>
Sent: Friday, July 10, 2020 11:32 AM
To: Belfiore, Donna
Subject: SDWC Meeting 7-19-2020

I want to apologize for not calling into the meeting. I had every intention of doing so. A guy got cut on my job and I had to get him taken care of. Thankfully it wasn't serious.

If it matters, I would like to vote AYE for the proposed rule amendments to 10 CSR 60-16 to initiate the rule making process. Again I apologize to the Commission.

Sent from my iPhone

Safe Drinking Water Commission

Department of Natural Resources
Division of Environmental Quality
Water Protection Program
Public Drinking Water Branch

October 14, 2020

Agenda Item # B-3
Minutes from September 18, 2020 meeting

Issue:

Commission to review the minutes from the September 18, 2020, Safe Drinking Water Commission meeting.

Recommended Action:

The Department recommends the Commission vote to approve the minutes from the September 18, 2020, Safe Drinking Water Commission meeting.

Suggested Motion Language:

Chair Grove, I move that the Commission approve the minutes from the September 18, 2020, meeting.

Attachment:

Minutes from the September 18, 2020, meeting.

Presented by:

Liz Grove, Chair, SDWC

**Missouri Department of Natural Resources
Water Protection Program-Public Drinking Water Branch**

**MINUTES OF THE
SAFE DRINKING WATER COMMISSION MEETING
Virtual Meeting**

**September 18, 2020
10 a.m.**

Commissioners Participating:

Ms. Elizabeth Grove, Chair
Ms. Charli Jo Ledgerwood, Vice Chair
Mr. Rodger Owens
Mr. Curt Skouby

Ms. Susan Hazelwood
Mr. Bruce Manning
Mr. Fred Schmidt
Ms. Susan Armstrong

Commissioners not participating in the meeting:

Mr. Scott Bockenkamp

Legal Counsel:

Mr. Tim Duggan, AGO

Staff Present:

Mr. David Lamb, WPP/PDWB
Ms. Donna Belfiore, WPP/PDWB
Ms. Sheri Fry, WPP/PDWB
Mr. Andrew Richmond, DNR/OD
Ms. Deanna Boland, DNR/DEQ Admin.
Ms. Misty Lange, WPP/FMS
Ms. Jodi Gerling, WPP/FMS
Mr. Joel Reschley, DNR/DO

Mr. Lance Dorsey, WPP/PDWB
Ms. Darlene Helmig, WPP/PDWB
Mr. Maher Jaafari, WPP/PDWB
Mr. Ed Galbraith, DNR/ DEQ Admin.
Mr. Dru Buntin, DNR/DO
Ms. Judi Fifer, DNR/DAS
Ms. Cindy Luebbering, DNR/DAS

Guests present:

Mr. Russell Gerling, Alliance Water
Ms. Ivone Smith
Ms. Lauren Dempsey
Mr. Kevin Dunn.
Ms. Ellen Egen
Mr. Trevor Harris

Ms. Shelley Lane, MOAW
Ms. Karen Kelly
Ms. Gail White
Ms. Ramona Huckstep, MML
Ms. Lisa Ballalatak, ALARIS Litigation .

Note: Due to the virtual nature of the meeting, introductions were not conducted beyond Commission members present. The names listed above for staff and other participants were those who logged in to the meeting with identifiable information through Adobe Connect. This may not be a comprehensive list of all meeting participants.

Call to Order

The special meeting of the Safe Drinking Water Commission was conducted as a virtual meeting for the purpose of administering a public hearing in regard to the proposed rule actions concerning Rule 10 CSR 60-16 Drinking Water Fees. Chair Grove called the meeting to order at 10:00 a.m.

Roll was taken of the Commission. Those in attendance included Commissioners Armstrong, Hazelwood, Manning, Owens, Schmidt, and Skouby. Chair Grove and Vice-Chair Ledgerwood were also present. Commissioner Bockenkamp was absent. A quorum was established at this time.

Note: Commissioners Schmidt and Manning were logged into the website, but were not able to announce themselves on the phone at the time of the roll call.

Public Hearing

Chair Grove, acting as the Hearing Officer, called the Public Hearing to order at 10:04 a.m. The Court reporter swore in Ms. Sheri Fry to provide the Department testimony on 10 CSR 60-16 Drinking Water Fees. Upon completion of Ms. Fry's testimony, Chair Grove called for others wishing to be sworn in to testify. No one identified themselves as wanting to be heard. Chair Grove adjourned the public hearing at 10:27a.m.

Adjournment

Chair Grove called for a motion to adjourn the meeting. Commissioner Manning made a motion to adjourn. Commissioner Armstrong seconded the motion. All Commissioners voted in favor of adjournment.

Motion carried. At 10:28 a.m., the meeting was adjourned.

Respectfully Submitted,

David J. Lamb, Staff Director

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Safe Drinking Water Commission

Department of Natural Resources
Division of Environmental Quality
Water Protection Program
Public Drinking Water Branch

October 14, 2020

Agenda Item #C-1

Missouri Water Resources Plan

Issue:

Water Resource Center team members will provide an update on the Missouri Water Resources Plan progress to date.

Attachments:

PowerPoint Presentation

Presented by:

Matthew Kirsch, Environmental Engineer, Water Resources Center – Surface Water



MISSOURI

WATER RESOURCES PLAN



Matthew Kirsch & Emma Schneider
Safe Drinking Water Commission

Missouri Water Resources Plan

Statutory Responsibility (640.415 RSMo):

“The department shall develop, maintain and periodically update a state water plan for a long-range, comprehensive statewide program for the use of surface water and groundwater resources of the state, including existing and future need for drinking water supplies, agriculture, industry, recreation, environmental protection and related needs.”

Water Resources Plan Goals and Objectives

The following goals and objectives are addressed in the Missouri WRP:

- Evaluate current and future groundwater and surface water availability
- Evaluate the needs of all water users, such as drinking water suppliers, agriculture, industry, navigation, and recreation
- Develop projected water supply needs through the year 2060, taking into account projected population changes, new or increasing industry demands, and hydrologic conditions
- Identify gaps in water availability based on water use projections
- Identify water and wastewater infrastructure needs, funding, and financing opportunities
- Identify impacts affecting water availability
- Outline a series of strategies to meet Missouri's water needs
- Identify gaps in water-related datasets

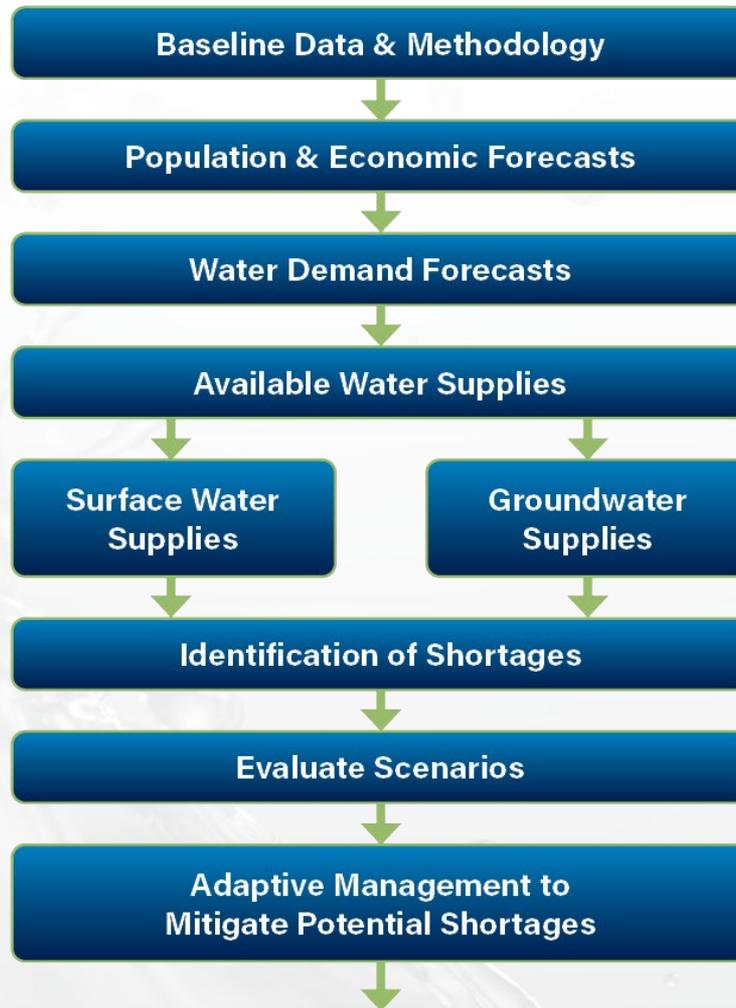
Missouri Water Resources Plan Team



Elements of the Water Plan

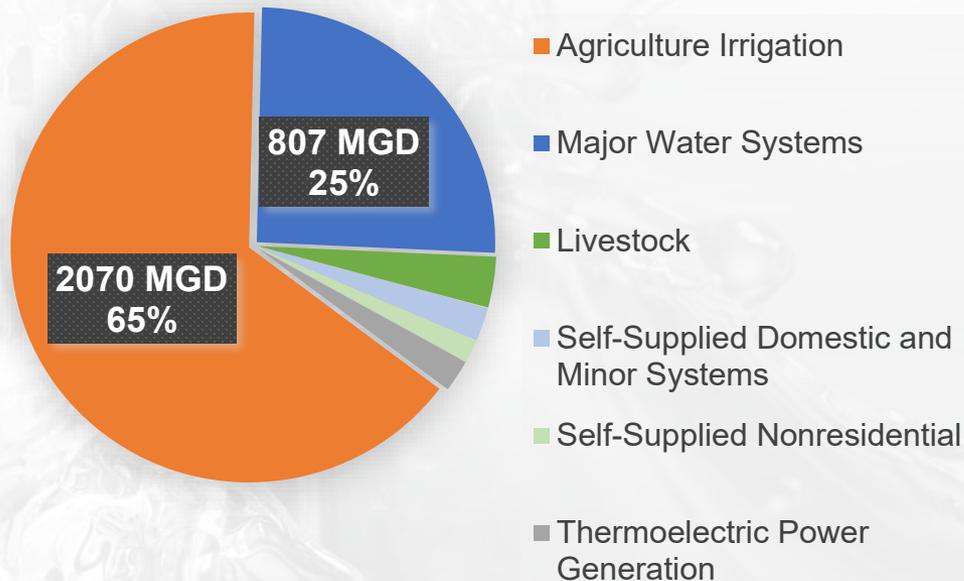
- Gather public and stakeholder input
- Develop estimates of water **demand** for all sectors of water use
- Assess water **supplies**
- Identify **infrastructure** needs, costs and financing
- Assess **scenarios** of potential future conditions



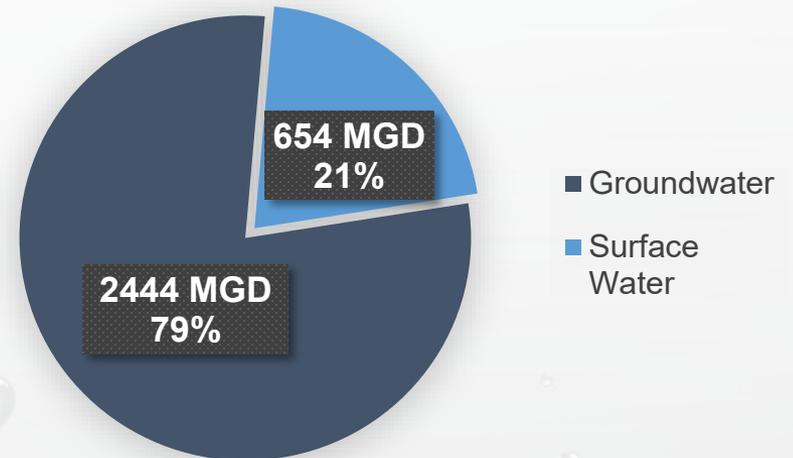


Highlights

Current Demands by Sector



Current Demands by Source



*Excluding Thermoelectric Power Generation Demands

Highlights



22%

Population Growth



18% or 583 MGD

Increase in Water Demand

\$9.5 billion+

in Wastewater Infrastructure Needs

\$8.4 billion+

in Drinking Water Infrastructure Needs

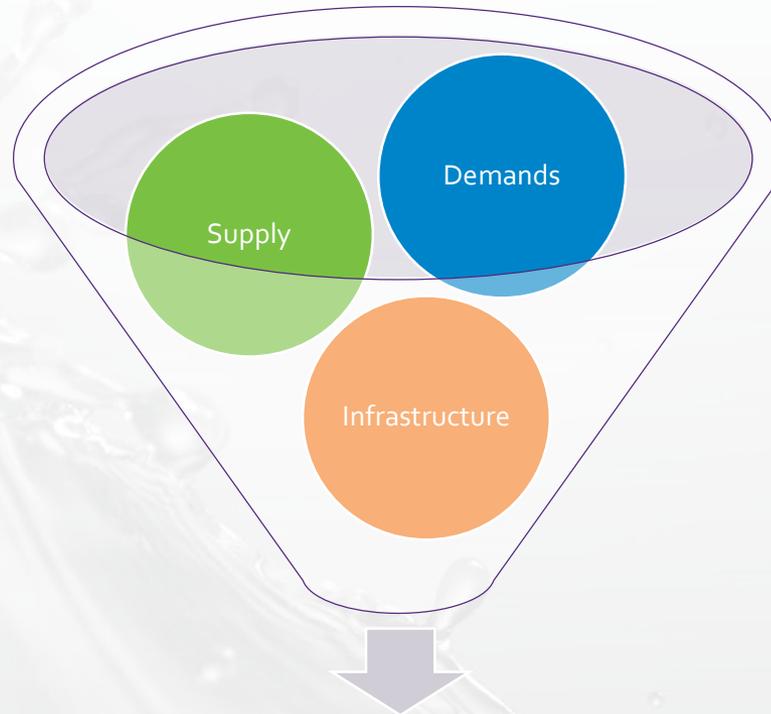
Putting It All Together: Scenario Planning

Demands

Supply

Infrastructure

Scenario
Planning



Scenario Planning

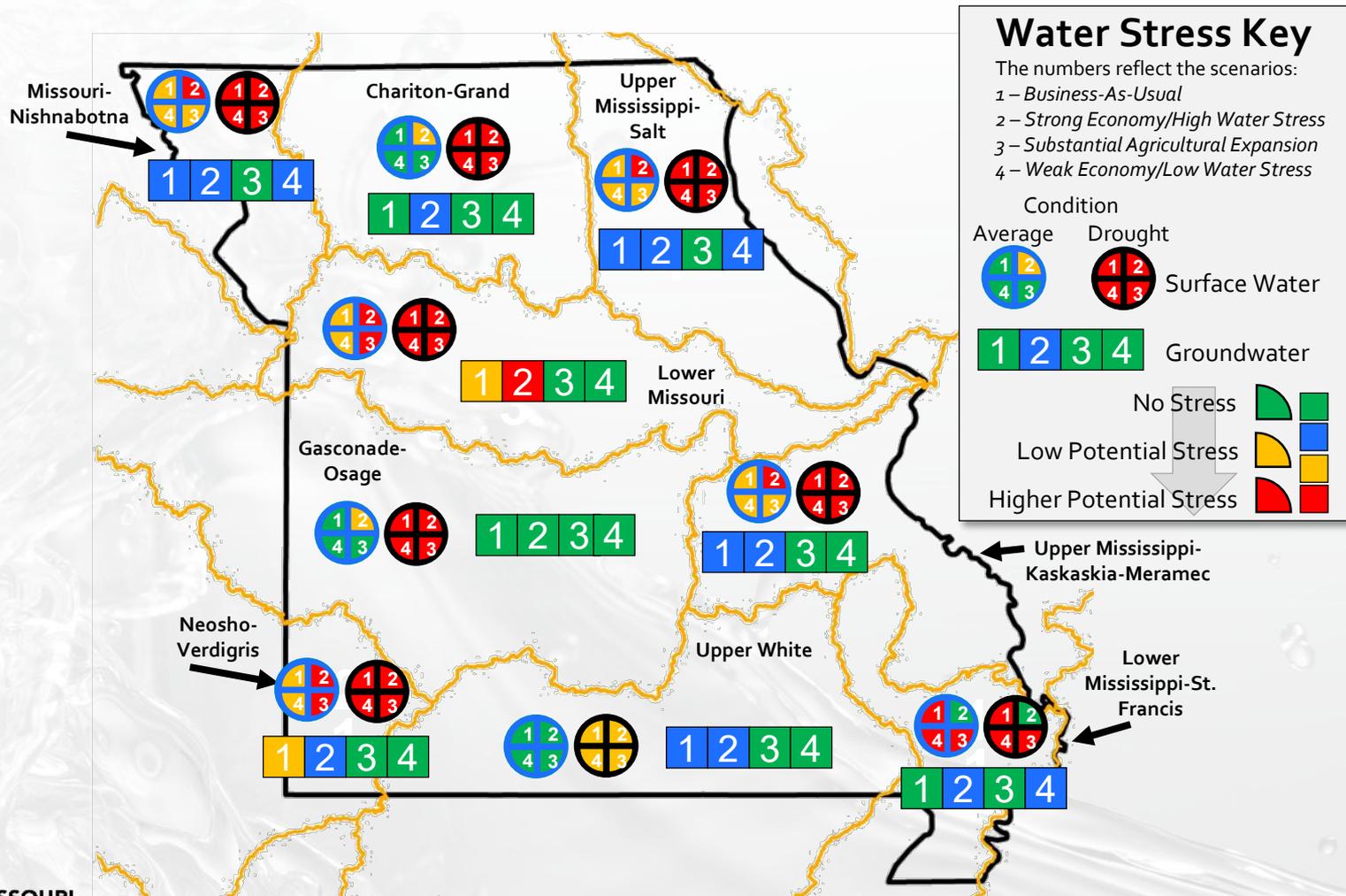
Major Uncertainties & Drivers



Proposed Scenarios

Scenario Number & Name	Uncertainty Drivers					
	M&I and Rural Water Demands	Agriculture Demands	Climate	Water Treatment Levels	Supply Constraints	Reservoir Regulations
1. Business as Usual	Baseline M&I Demands	Medium Irrigation Demands	Historical Temperature and Precipitation	Existing Water Treatment Levels	Bed Degradation	No Reallocation of USACE Reservoirs for Supply in Missouri
	Baseline Rural Demands	Medium Processing Demands				Existing Permitting Process for New Storage Reservoirs
2. Strong Economy/ High Water Stress	High M&I Demands	High Irrigation Demands	Hotter Temperature and Lower Precipitation	High Increase in Water Treatment Levels	Upstream Diversions out of Missouri River Limitations on Groundwater (Select Areas) Prolonged Supply Disruption on River Intakes Bed Degradation	Limited Reallocation of USACE Reservoirs for Supply in Missouri
	Higher Rural Demands	Medium-High Processing Demands				Streamlined Permitting Process for New Storage Reservoirs
3. Substantial Agricultural Expansion	Baseline M&I Demands	Medium Irrigation Demands	Warmer Temperature and Greater Precipitation	Moderate Increase in Water Treatment Levels	Upstream Diversions out of Missouri River Limitations on Groundwater (Select Areas) Bed Degradation	Limited Reallocation of USACE Reservoirs for Supply in Missouri
	Baseline Rural Demands	High Processing Demands				Existing Permitting Process for New Storage Reservoirs
4. Weak Economy/ Low Water Stress	Low M&I Demands	Medium Irrigation Demands	Warmer Temperature and Greater Precipitation	Existing Water Treatment Levels	Bed Degradation	No Reallocation of USACE Reservoirs for Supply in Missouri
	Baseline Rural Demands	Medium Processing Demands				Existing Permitting Process for New Storage Reservoirs

Scenario Results



Recommendations from the Plan

Planning

- Prepare for droughts by updating the state drought plan and encouraging water supply systems to develop drought contingency plans.
- Support regional planning groups to collaboratively and proactively address water resource challenges specific to a river basin, subregion, or watershed.

Implementation

- Promote and support regionalization and consolidation, especially in areas where technical, managerial, and economic resources are limited and source waters are difficult to develop.
- Encourage and promote water conservation as a viable option within a water supply portfolio to meet municipal and industrial (M&I) water supply needs.

Recommendations from the Plan

Funding

- Continue to leverage existing state and federal programs, such as the Multipurpose Water Resource Program Fund, to finance water and wastewater infrastructure.
- Offer and promote programs to educate utilities on effective rate setting that allows for replacement and expansion of infrastructure.

Data

- Improve data and information collection to better support decision-making and future water planning and to defend Missourians' rights to utilize both surface water and groundwater.

Where are we now?

CONTENTS



Introduction



Recommendations



Physical Setting



Demands



Water Supply



Infrastructure



Funding Opportunities



Options to Meet Future Water Needs



Planning Methods



Future Scenarios Assessed



References

Next Steps/Implementation

- Coming Up
 - Missouri Drought Mitigation Plan
- In Progress
 - Missouri Water Supply Studies
 - Soil Moisture Network
 - Multipurpose Water Resource Program Fund
- Go to our **Website** for more: <https://dnr.mo.gov/mowaterplan/>

Prepared by



For



MISSOURI
DEPARTMENT OF
NATURAL RESOURCES

Missouri Geological Survey

In cooperation with



**US Army Corps
of Engineers.**



University of Missouri

DNR.MO.GOV/MOWATERPLAN

Safe Drinking Water Commission

Department of Natural Resources
Division of Environmental Quality
Water Protection Program
Public Drinking Water Branch

October 14, 2020

Agenda Item #C-2

2019 Annual Compliance Report

Issue:

The Department has completed and made available to the public the Annual Compliance Report for 2019. This report is required by the Safe Drinking Water Act and includes enforcement and violation information for calendar year 2019. This presentation will provide a summary of the key points in the document in order to brief the commission on where Missouri public water systems stand in terms of compliance with federal regulation.

Attachments:

PowerPoint presentation
Annual Compliance Report

Presented by:

Thomas Adams, Data Management Unit Chief, PDWB



MISSOURI
DEPARTMENT OF
NATURAL RESOURCES

Annual Compliance Report

Thomas Adams

Background

- Required by 1996 Amendments to the Safe Drinking Water Act
- Annual report of previous year's violations
- Due to the Environmental Protection Agency (EPA) by June 30
- Made available to the public via the Department's website

ACR Path - <https://dnr.mo.gov/>

Programs ▾

- Energy Loan Program
- Environmental Remediation Program
- Environmental Services Program
- Geological Survey Program
- Human Resources - Jobs
- Land Reclamation Program
- Missouri Geological Survey
- Missouri State Parks
- Regional Offices
- Soil and Water Conservation Program
- State Historic Preservation Office
- Waste Management Program
- Water Protection Program**
- Water Resources Center

Public Drinking Water Branch

- Annual Compliance Reports
- Backflow Prevention

recommendations concerning the resources needed

The annual compliance report differs from the Consumer Confidence Report produced by the water system for their customers.

- [2019 Annual Compliance Report](#) 
- [2018 Annual Compliance Report](#) 
- [2017 Annual Compliance Report](#) 
- [2016 Annual Compliance Report](#) 
- [2015 Annual Compliance Report](#) 
- [2014 Annual Compliance Report](#) 
- [2013 Annual Compliance Report](#) 
- [2012 Annual Compliance Report](#) 
- [2011 Annual Compliance Report](#) 
- [2010 Annual Compliance Report](#) 
- [2009 Annual Compliance Report](#) 
- [2008 Annual Compliance Report](#) 
- [2007 Annual Compliance Report](#) 
- [2006 Annual Compliance Report](#) 
- [2005 Annual Compliance Report](#) 



MISSOURI
DEPARTMENT OF
NATURAL RESOURCES

ANNUAL COMPLIANCE REPORT OF MISSOURI PUBLIC WATER SYSTEMS



Jefferson County Water Authority Treatment Plant



MISSOURI
DEPARTMENT OF
NATURAL RESOURCES

2019

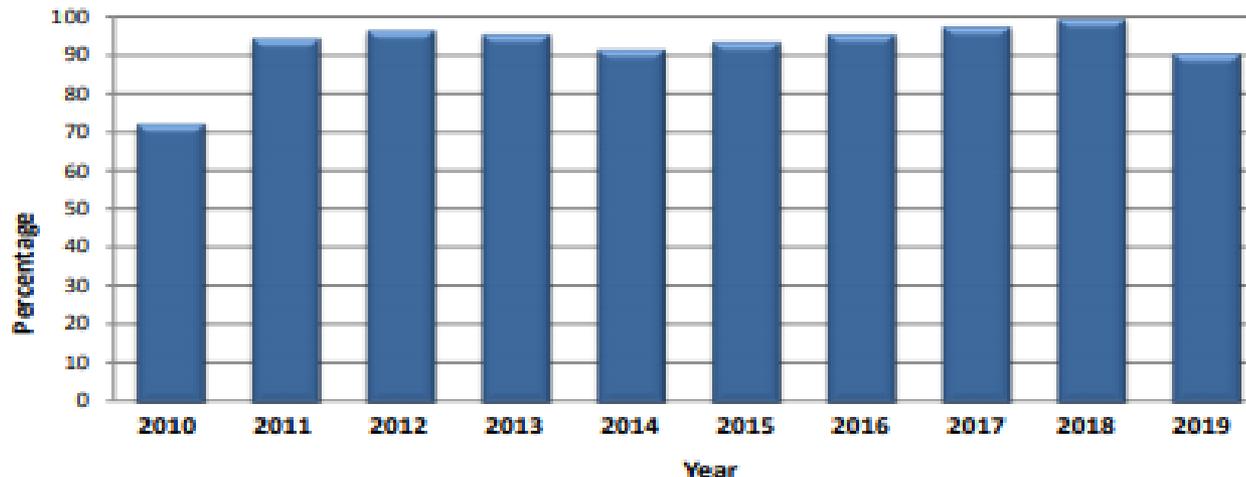
Items of Emphasis

- Population Served Water Meeting All Health-Based Requirements
- Health-Based Violations by Rule
- Percentage of Population Served by Water Sources
- Universe of Public Water Systems(PWS)
- Table View of All Violations
- Listing of Individual Violations

Population Served Water Meeting All Health-Based Requirements

- 90.1% of population was served by a PWS with no health-based violations
- 98.8% of population was served by a PWS with no health-based violations if flooding-related violations are removed
- 99.4% health-based compliance with the person-months measure

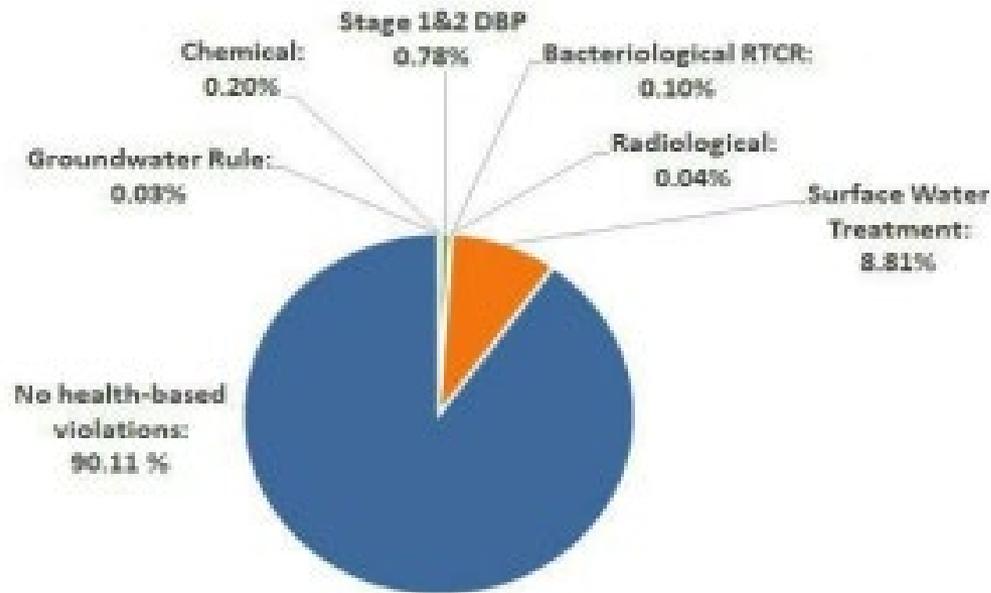
**Drinking Water Trends Community Systems:
% Population Served Meeting All Health-based Requirements**



The lower compliance percentage for 2019 reflects violations issued to systems impacted by flooding.

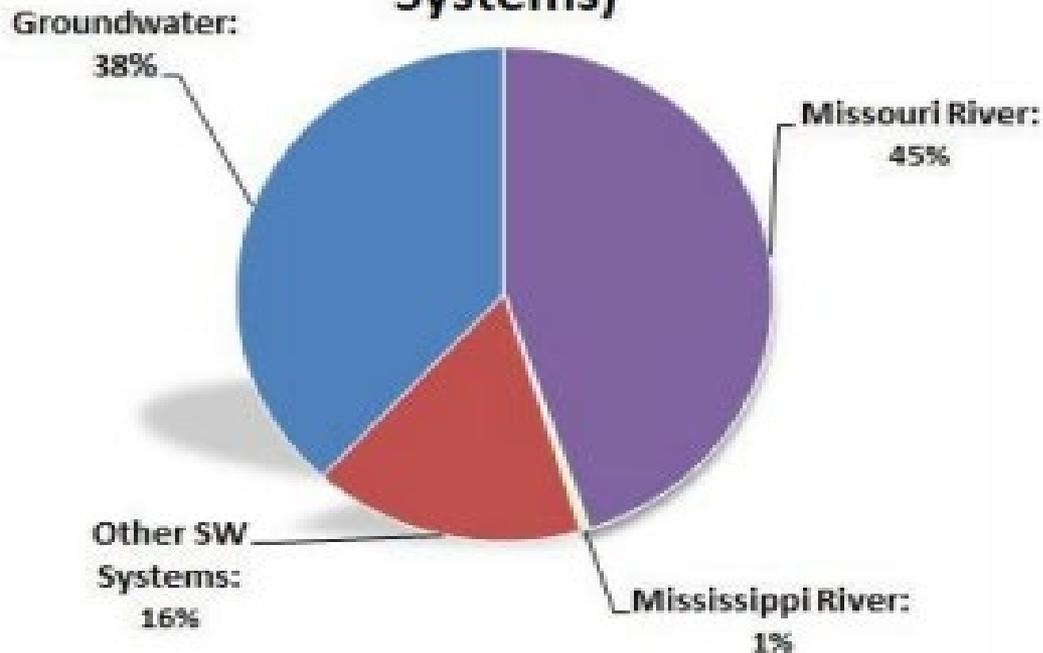
Health-Based Violations by Rule

Percent Population of Community Water Systems in Violation of Health-based Standards



Percentage of Population Served by Water Sources

**Source of Water
(Percent of Population Served by Public Water
Systems)**



*Population served by alluvial wells are included in the groundwater percentage

Universe of Public Water Systems

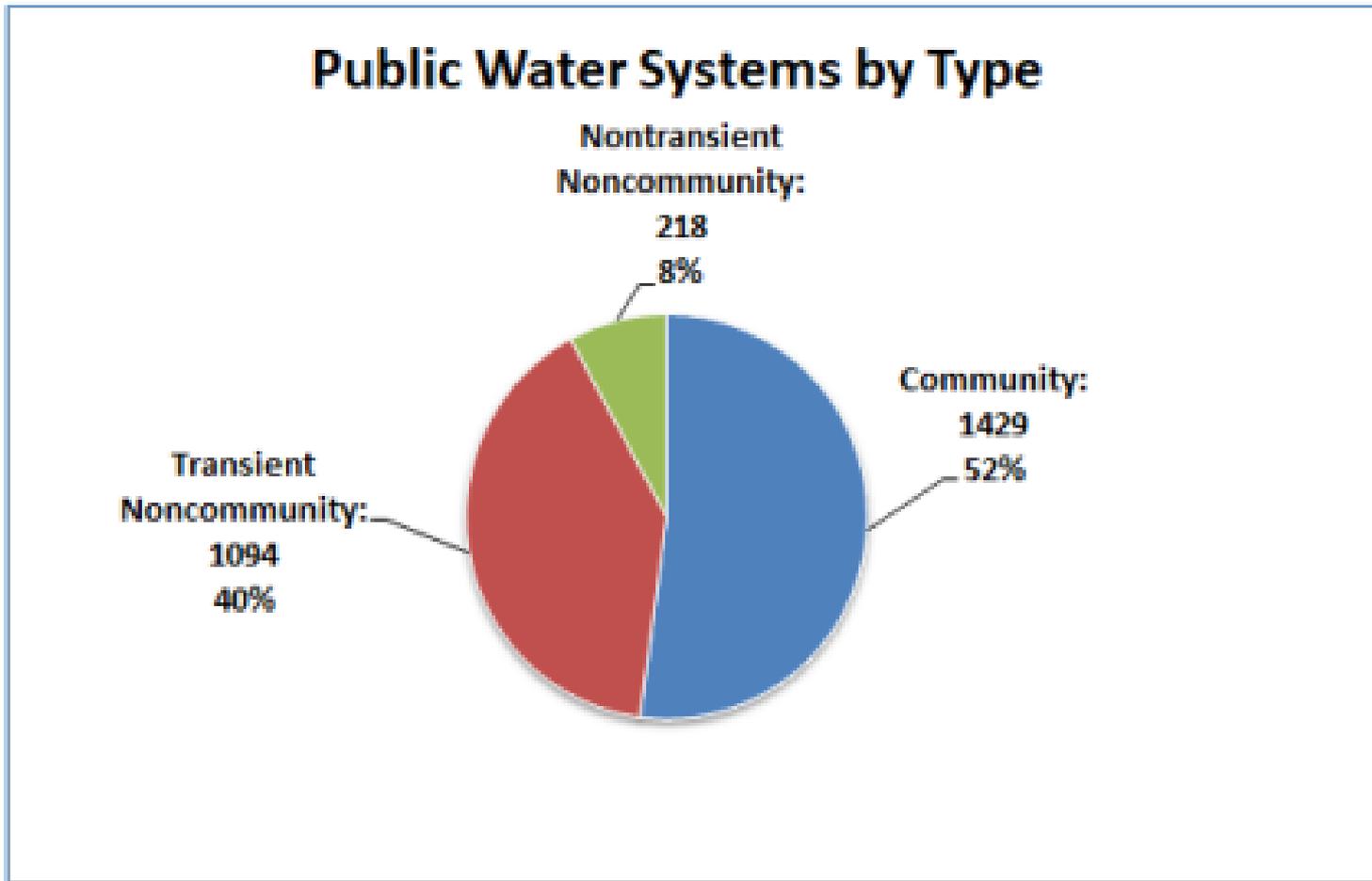


Table View of All Violations

Microbiological Contaminants: Jan. 1, 2019 – Dec. 31, 2019

	MCL Presence/ Absence	MCL		Treatment Technique		Significant Monitoring /Reporting	
		No. of Violations	No. of Systems with Violations	No. of Violations	No. of Systems with Violations	No. of Violations	No. of Systems with Violations
Revised Total Coliform Rule							
Acute MCL Violations	Presence	20	19				
Level 1 Assessment Violations				14	14		
Level 2 Assessment Violations				1	1		
Treatment Technique, Other				7	7		
Major Routine						481	290
Minor Routine						40	36
Reporting/Notification						2	2
Subtotal		20	19	22	23	523	313

Some systems may have violations in multiple categories.

Listing of Individual Violations

Appendix A Health Based Compliance

IV. Radiological MCL Violations

County	ID #	System Name	Chemical
LINCOLN	MO6010902	SILEX PWS	COMBINED RADIUM (-226 & -228)
LINCOLN	MO6030021	CHAMPION FARMS SUBDIVISION	GROSS ALPHA, EXCL. RADON & U
LINCOLN	MO6030021	CHAMPION FARMS SUBDIVISION	COMBINED RADIUM
MCDONALD	MO5010449	LANAGAN PWS	COMBINED RADIUM
OZARK	MO5024444	OZARK COUNTY PWSD 1	GROSS ALPHA, EXCL. RADON & U
OZARK	MO5024444	OZARK COUNTY PWSD 1	COMBINED RADIUM (-226 & -228)
ST. FRANCOIS	MO4010456	LEADWOOD PWS	GROSS ALPHA, EXCL. RADON & U
ST. FRANCOIS	MO4010456	LEADWOOD PWS	COMBINED RADIUM

Appendix A Health Based Compliance

V. Surface Water Violations

The following systems violated the Surface Water Rule, Treatment Technique for Turbidity or other surface water requirements in the months or annual period indicated.

County	ID #	System Name	Period	Violation
ADAIR	MO2010097	BRASHEAR PWS	June-December	Failure Address Deficiency
CASS	MO1010301	GARDEN CITY PWS	January	Combined Filter Effluent Turbidity
JACKSON	MO1010415	KANSAS CITY PWS	March	Failure to Provide LT2 Treatment
LAFAYETTE	MO1010464	LEXINGTON PWS	June	Combined Filter Effluent Turbidity
LAFAYETTE	MO1010464	LEXINGTON PWS	March	Combined Filter Effluent Turbidity

APPENDIX B

Chronic Major Monitoring Violators

The following systems had 3 or more major monitoring violations of the Revised Total Coliform Rule in 2019.

County	System Name	PWS ID #	Months
BARRY	MITCHELS PLAZA	MO5210653	June, July, October
BARRY	PARADISE VALLEY CAMPING CLUB	MO5243077	April – May, August
BENTON	AMERICAN LEGION POST 217	MO3281109	January-February, September

Contact Information

- URL for 2019 Annual Compliance Report (ACR)
https://dnr.mo.gov/env/wpp/fyreports/documents/2019-annual-compliance-report-PUB2262_000.pdf
- URL for past ACRs
<https://dnr.mo.gov/env/wpp/fyreports/index.html>
- Questions? Contact
 - Thomas Adams (573-751-8330) or
Thomas.adams@dnr.mo.gov
 - Nicole Mortenson (573-751-8526) or
Nicole.Mortenson@dnr.mo.gov

ANNUAL COMPLIANCE REPORT OF MISSOURI PUBLIC WATER SYSTEMS



Jefferson County Water Authority Treatment Plant



MISSOURI
DEPARTMENT OF
NATURAL RESOURCES

2019

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Cover photo courtesy of Jefferson County Water Authority.

Summary

In Missouri, the Public Drinking Water Branch of the Missouri Department of Natural Resources is responsible for implementing the Safe Drinking Water Act to assist the state's 2,741 public water systems in providing safe drinking water. The department establishes regulatory limits and monitors for 91 different chemical and microbiological contaminants in public water supplies. This report provides information on how well Missouri's public water systems are meeting these standards.

This report is the 24th Annual Compliance Report produced by the department. It contains compliance statistics for Missouri's public water systems for calendar year 2019. The report shows that 90.1% of Missouri's population served by a community public water system, received water that met all health-based standards during this period, compared to 2018, when the percentage was 98.8 %. The lower compliance percentage for 2019 was caused primarily by historic flooding, which produced unprecedented and unanticipated conditions at several system, including one of Missouri's largest. In most cases, the flooding-related violations persisted for less than a month. Without the flooding-related impacts, Missouri's percentage for 2019 would have been 98.8 %.

The department prepares this report annually to comply with statutory obligations of the federal Safe Drinking Water Act, and to provide the public with a better understanding of the importance of safe and abundant drinking water. The department will provide this report to the U.S. Environmental Protection Agency, who will use the information to prepare a national report on the performance of the nation's public drinking water systems.

What is a Public Water System?

A public water system provides drinking water through piping or other constructed conveyances for human consumption to at least 15 service connections, or serves an average of at least 25 people for at least 60 days each year.

There are three types of public water systems:

1. **Community systems** include towns, water districts, subdivisions, mobile home parks and residential facilities, such as nursing homes or prisons.
2. **Nontransient noncommunity systems** regularly serve the same 25 people at least six months per year. Examples include schools and factories.
3. **Transient noncommunity systems** serve at least 25 people per day, at least 60 days of the year. Examples include restaurants, resorts and campgrounds. These smaller systems are typically located in rural areas where it is not feasible to connect to a municipal water supply or a water district.

The department's requirements for construction, operation, and monitoring for systems vary based on their type, population and source of water. For systems that are not public water systems, such as homes served by private wells local and county health agencies and the Missouri Department of Health and Senior Services facilitate water testing. Data for these private systems is not included in this report.

The Missouri Public Water Universe

In 2019, there were 2,741 active public water systems in Missouri. Of this total, 1,429 were community, 218 were nontransient noncommunity, and 1,094 were transient noncommunity systems.

In 2019, Missouri's community water systems served more than 5 million residents. The Missouri River is the largest source of drinking water for Missourians. The river's abundant supply of water and its proximity to the state's major population centers make it a valuable resource to the communities that draw from it.

Groundwater is the next most common source of drinking water for community water supplies. In southern Missouri, high-quality groundwater is easy to obtain and typically requires very little treatment for use as drinking water.

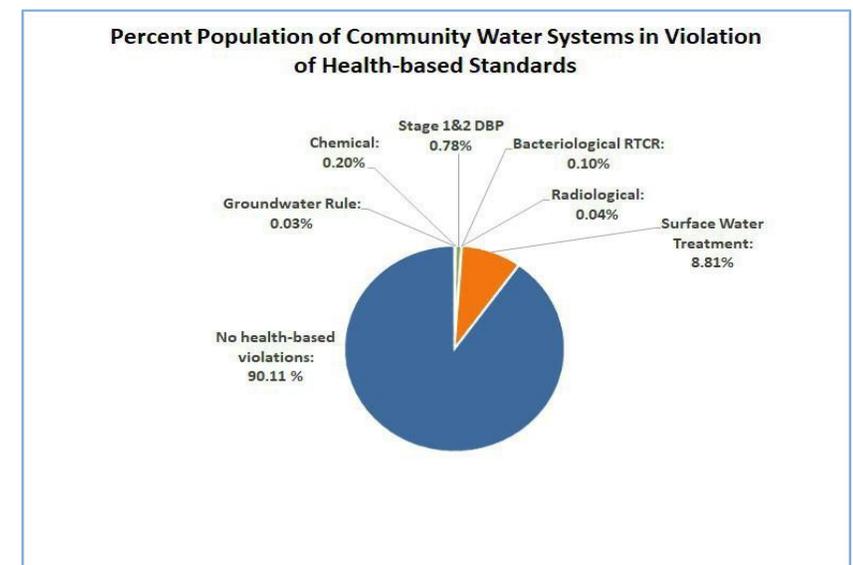
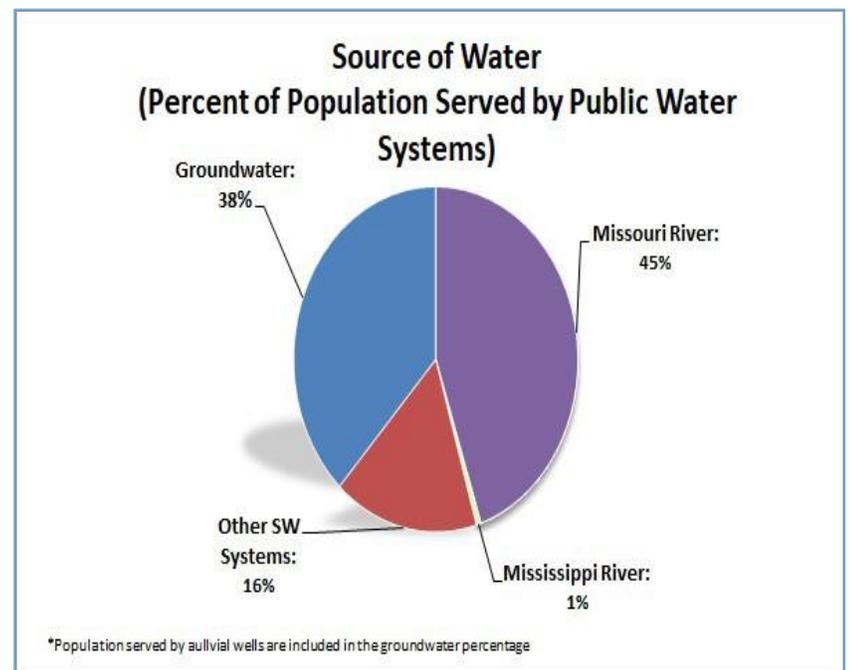
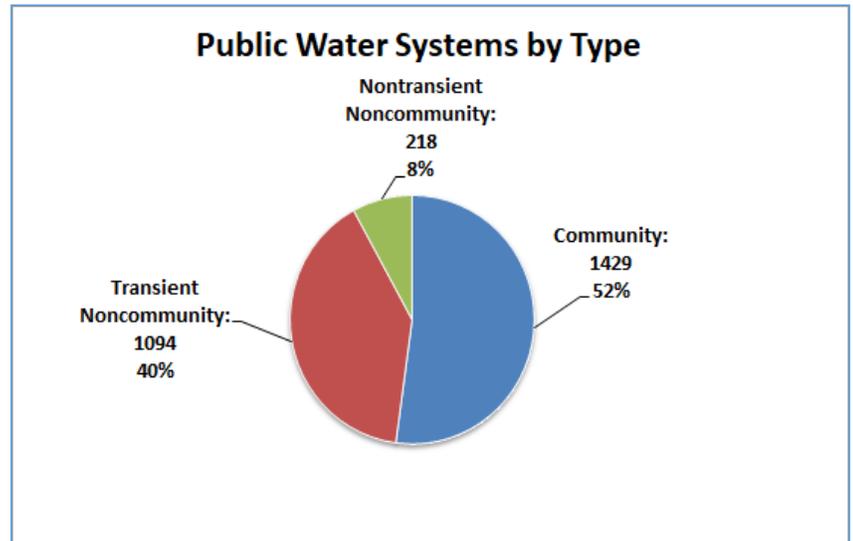
Public water systems utilizing groundwater as their source serve approximately 38.1 % of Missourians who receive their water from a public water system.

All other public water system customers receive their water from community systems that draw from other types of surface water sources. Particularly prevalent in the northern part of Missouri, these sources include rivers and reservoirs.

Analysis of Compliance

Missouri requires testing for 91 different regulated chemicals and microbiological contaminants on a regular schedule. The Summary of Violations Table in this report counts individual violations by contaminant type. These counts may include multiple violations for the same system, depending on the monitoring schedule for the particular contaminant.

Appendices A and B list specific systems by county that have had violations of different drinking water rules. These rules include the Revised Total Coliform Rule, Radionuclide Rule, Stage 2 Disinfectants and Disinfection Byproduct Rule and the Surface Water



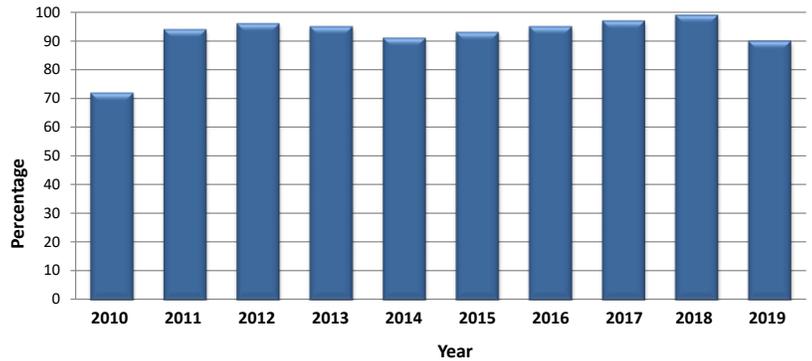
Treatment Rule.

Maximum Contaminant Level (MCL) and treatment technique violations represent the most significant impact on public health. In 2019, 90.1 % of Missouri public water supply customers had water that met all MCL and treatment technique requirements. The Drinking Water Trends Community Systems Chart shows the 10 year trend for this measure. The lower compliance percentage for 2019 was caused primarily by historic flooding, which produced unprecedented and unanticipated conditions at several systems, including one of Missouri's largest. In most cases, the flooding-related violations persisted for less than a month, however because this metric is a rolling average, the one-time drop in compliance is reflected in the subsequent 12 months. Without the flooding-related impacts, Missouri's percentage for 2019 would have been 98.8%.

Because the above measure counts all MCL and treatment technique violations during the year equally, with no consideration given to the duration of the violation, EPA and the states developed an additional compliance measure called "person-months" that represents the population served by community water systems that meet health-based standards on a monthly basis. Missouri achieved 98.6 % compliance with this measure in 2019.

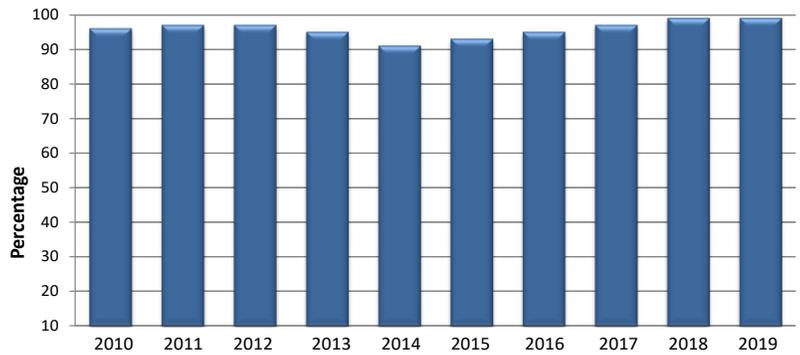
EPA calculates many of the MCL and treatment technique violations-based on chronic, that is, long-term, regular, and consistent exposure. EPA MCL's on acute (short-term) exposure can include turbidity exceedances or E.coli detects. In 2019, the department issued 20 violations for acute contaminants to 19 public water systems, equal to 0.69 % of all Missouri systems. All of these violations were associated with the detection of E.coli.

**Drinking Water Trends Community Systems:
% Population Served Meeting All Health-based Requirements**

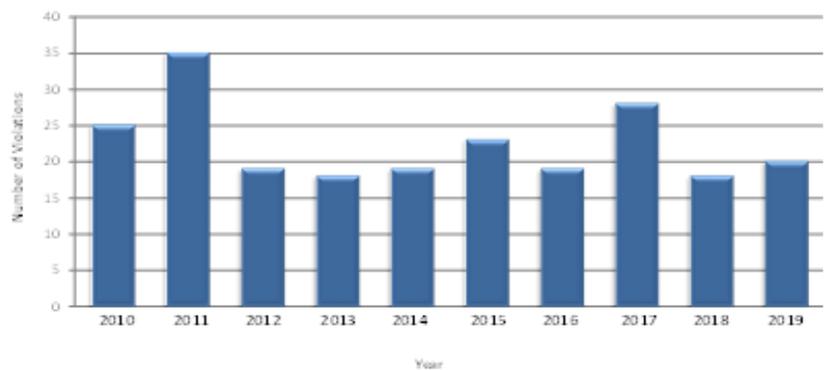


The lower compliance percentage for 2019 reflects violations issued to systems impacted by flooding.

% Person-Months Measured



E. coli Acute MCL Violations



How to Find More Information on Your Water System

Community water systems must distribute Consumer Confidence Reports annually to water customers. These reports provide detailed information about sources and levels of contaminants in the drinking water and must list all violations of state and federal requirements for the calendar year. In 2019, 87.1 % of Missouri's community water systems distributed their Consumer Confidence Reports properly. You may obtain a copy of the Consumer Confidence Report for your public water system by contacting your service provider or the department's Consumer Confidence Report website at dnr.mo.gov/ccr/index.html. The department also maintains the Drinking Water Watch website at dnr.mo.gov/DWW/, which provides additional information on all of Missouri's public drinking water systems, including information on inventories, sample results, compliance activities and water quality.

For More Information

Information about Missouri's public water systems can be obtained by writing to the Missouri Department of Natural Resources, Water Protection Program, Public Drinking Water Branch, P.O. Box 176, Jefferson City, MO 65102-0176 or calling 800-361-4827 or 573-751-0124.

Information is also available on the department's website at dnr.mo.gov/env/wpp/dw-index.html.



Explanation of Terms in Violations Tables

The following descriptions apply to the violations table.

Filtered Systems: Water systems that have installed filtration treatment [10 CSR 60-4.050].

Ground Water Rule: A rule (10 CSR 60-4.025) that requires monitoring of groundwater sources for E. coli contamination. It relies on four strategies to address this risk: periodic sanitary surveys, triggered source water monitoring in the case of a positive sample, corrective action for a system found to have a significant deficiency or source water E. coli contamination, and compliance monitoring to ensure the treatment technology is reliable.

Inorganic Contaminants: Non-carbon-based compounds such as metals, fluoride and nitrates. These contaminants are naturally-occurring in some water, but can also enter water through human activities [10 CSR 60-4.030]

Lead and Copper Rule: A rule (10 CSR 60, Chapter 15) to address lead and copper corrosion, which poses health risks when ingested at any level, and can enter drinking water from household pipes and plumbing fixtures. Violations are reported for: failure to monitor, failure to install optimal corrosion control treatment or a source water treatment system that would reduce lead and copper levels in water at the tap, failure to replace lead service lines on the schedule required by the regulation and failure to provide required public education about reducing or avoiding lead intake from drinking water.

Maximum Contaminant Level (MCL): The highest amount of a contaminant allowed in drinking water. MCLs ensure drinking water does not pose a health risk and are defined in milligrams per liter (parts per million) unless otherwise specified.

Monitoring: Sampling and analytical testing specified by the department, including testing methods, and frequency [10 CSR 60-4.010]. Failure to test and failure to report results timely are significant monitoring violations.

Organic Contaminants: Carbon-based compounds, such as industrial solvents and pesticides. These contaminants generally enter water through runoff from cropland or discharge from factories [10CSR 60- 4.040 and 4.100].

Radionuclides: Radioactive particles that occur naturally in water or result from human activity. Safe drinking water regulations set MCLs on five types of radionuclides: radium-226, radium-228, uranium, gross alpha and beta particle/photon radioactivity [10 CSR 60-4.060].

Surface Water Treatment Rule: A series of rules promulgated from 1989-2009 that establish criteria under which water systems supplied by surface water sources, or groundwater sources under the direct influence of surface water, must filter and disinfect their water (Surface Water Treatment Rule, Interim Enhanced Surface Water Treatment Rule, Long Term1 Enhanced Surface Water Treatment Rule, Long Term2 Enhanced Surface Water Treatment Rule) [10 CSR60-4.050and60-4.052].

Treatment Techniques: Enforceable procedures or levels of technological performance that public water systems must follow to ensure control of contaminants for which no MCL is established. For example, EPA established treatment techniques for viruses, bacteria, turbidity, and failure to correct a significant deficiency.

Violation: A failure to meet any state or federal drinking water regulation.

Organic Contaminants: Jan. 1, 2019 - Dec. 31, 2019

	MCL (mg/L)	MCL		Treatment Technique		Significant Monitoring/Reporting	
		No. of Violations	No. of Systems with Violations	No. of Violations	No. of Systems with Violations	No. of Violations	No. of Systems Violations
Organic Contaminants							
1,1,1-Trichloroethane	0.2	0	.0			25	25
1,1,2-Trichloroethane	0.005	0	0			25	25
1,1-Dichloroethylene	0.007	0	0			25	25
1,2,4-Trichlorobenzene	0.07	0	0			25	25
1,2-DCBP	0.0002	0	0			0	0
1,2-Dichloroethane	0.005	0	0			25	25
1,2-Dichloropropane	0.005	0	0			25	25
2,3,7,8-T CDD (Dioxin)	3x10-8	0	0			0	0
2,4,5-TP	0.05	0	0			7	7
2,4-D	0.07	0	0			7	7
Acrylamide				0	0		
Alachlor	0.002	0	0			0	0
Aldicarb	0.003	0	0			7	7
Aldicarb Sulfone	0.002	0	0			7	7
Aldicarb Sufoxide	0.004	0	0			7	7
Atrazine	0.003	0	0			7	7
Benzene	0.005	0	0			25	25
Benzo[a]pyrene	0.0002	0	0			0	0
BHC Gamma	0.0002	0	0			7	7
Carbofuran	0.04	0	0			7	7
Carbon tetrachloride	0.005	0	0			25	25
Chlorobenzene	0.1	0	0			25	25
Chlordane	0.002	0	0			7	7
cis-1,2-Dichloroethylene	0.07	0	0			25	25
Dalapon	0.2	0	0			7	7
Di(2-ethylhexyl)adipate	0.4	0	0			0	0
Di(2-ethylhexyl)phthalate	0.006	0	0			0	0
Dichloromethane	0.005	0	0			25	25
Dinoseb	0.007	0	0			7	7
Diquat	0.02	0	0			0	0
Endothall	0.1	0	0			0	0
Endrin	0.002	0	0			7	7
Epichlorohydrin				0	0		
Ethylbenzene	0.7	0	0			25	25
Ethylene dibromide	0.00005	0	0			0	0
Glyphosate	0.7	0	0			0	0
Heptachlor	0.0004	0	0			7	7

¹Values are in milligrams per liter (mg/L), unless otherwise specified

*Shaded areas indicate a Violations is not applicable in this category

Organic Contaminants: Jan. 1, 2019 - Dec. 31, 2019

	MCL (mg/L)	MCL		Treatment Technique		Significant Monitoring/Reporting	
		No. of Violations	No. of Systems with Violations	No. of Violations	No. of Systems with Violations	No. of Violations	No. of Systems with Violations
Heptachlor epoxide	0.0002	0	0			7	7
Hexachlorobenzene	0.05	0	0			0	0
Hexachlorobenzene	0.001	0	0			7	7
Hexachlorocyclopentadiene	0.05	0	0			7	7
Lasso	0.05	0	0			7	7
Lindane	0.0002	0	0			0	0
Methoxychlor	0.04	0	0			7	7
Monochlorobenzene	0.1	0	0			0	0
o-Dichlorobenzene	0.6	0	0			25	25
Oxamyl (Vydate)	0.2	0	0			7	7
Para-Dichlorobenzene	0.075	0	0			25	25
Pentachlorophenol	0.001	0	0			7	7
Picloram	0.5	0	0			7	7
Simazine	0.004	0	0			7	7
Styrene	0.1	0	0			25	25
Tetrachloroethylene	0.005	0	0			25	25
Toluene	1	0	0			25	25
Total PCB	0.0005	0	0			0	0
Toxaphene	0.003	0	0			7	7
Trans-1,2-Dichloroethylene	0.1	0	0			25	25
Trichloroethylene	0.005	0	0			25	25
Vinyl chloride	0.002	0	0			25	25
Xylenes (total)	10	0	0			25	25

Disinfection Byproducts Rule: Jan. 1, 2019 - Dec. 31, 2019

	MCL	MCL		Treatment Techniques		Significant Monitoring/Reporting	
		No. of Violations	No. of Systems with Violations	No. of Violations	No. of Systems with Violations	No. of Violations	No. of Systems with Violations
Total trihalomethanes	0.80	48	19			26	24
Haloacetic acids	0.60	12	7			26	24
Disinfection byproducts		60	21	0	0	56	26
Total Organic Compounds				7	3		
Insufficient or Non-certified Operator				0	0		

Inorganic Contaminants: Jan. 1, 2019 - Dec. 31, 2019

	MCL (mg/L)	MCL		Treatment Technique		Significant Monitoring/ Reporting	
		No. of Violations	No. of Systems with Violations	No. of Violations	No. of Systems with Violations	No. of Violations	No. of System Violations
Inorganic Contaminants							
Antimony	0.006	0	0	0	0	24	24
Arsenic	0.010	0	0	0	0	24	24
Asbestos	7 million fibers/L	0	0	0	0	0	0
Barium	2	0	0	0	0	24	24
Beryllium	0.004	0	0	0	0	24	24
Cadmium	0.005	0	0	0	0	24	24
Chromium	0.1	0	0	0	0	24	24
Cyanide (as free cyanide)	0.2	0	0	0	0	14	14
Fluoride	4.0	5	2	0	0	24	24
Mercury	0.002	0	0	0	0	24	24
Nitrate	10 (as nitrogen)	0	0	0	0	0	0
Nitrite	1 (as nitrogen)	0	0	0	0	0	0
Selenium	0.05	0	0	0	0	24	24
Thalium	0.002	0	0	0	0	24	24
Total nitrate and nitrite	10 (as nitrogen)	0	0	0	0	53	53

Radiological Contaminants: Jan. 1, 2019 - Dec. 31, 2019

	MCL (pCi/L)	MCL		Treatment Technique		Significant Monitoring /Reporting	
		No. of Violations	No. of Systems with Violations	No. of Violations	No. of Systems with Violations	No. of Violations	No. of Systems with Violations
Radiological Contaminants							
Gross Alpha	15 pCi/L	9	3			13	13
Radium-226 and radium-228	5 pCi/L	18	5			22	22
Gross beta	4 mrem/yr	0	0			0	0
Subtotal		27	5			35	14

Microbiological Contaminants: Jan. 1, 2019 – Dec. 31, 2019

	MCL Presence/Absence	MCL		Treatment Technique		Significant Monitoring /Reporting	
		No. of Violations	No. of Systems with Violations	No. of Violations	No. of Systems with Violations	No. of Violations	No. of Systems with Violations
Revised Total Coliform Rule							
Acute MCL Violations	Presence	20	19				
Level 1 Assessment Violations				14	14		
Level 2 Assessment Violations				1	1		
Treatment Technique, Other				7	7		
Major Routine						481	290
Minor Routine						40	36
Reporting/Notification						2	2
Subtotal		20	19	22	23	523	313

Some systems may have violations in multiple categories.

Surface Water Treatment Rule: Jan. 1, 2019 – Dec. 31, 2019

	MCL	MCL		Treatment Technique		Significant Monitoring /Reporting	
		No. of Violations	No. of Systems with Violations	No. of Violations	No. of Systems with Violations	No. of Violations	No. of Systems with Violations
Surface Water Treatment							
Filtered Systems							
Monitoring, routine/repeat						1	1
Treatment Techniques				5	4		
Unfiltered Systems							
Monitoring, routine/repeat							
Failure to Filter							
Subtotal				5	4	1	1

Lead and Copper Rule: Jan. 1, 2019 – Dec. 31, 2019

	MCL	MCL		Treatment Technique		Significant Monitoring /Reporting	
		No. of Violations	No. of Systems with Violations	No. of Violations	No. of Systems with Violations	No. of Violations	No. of Systems with Violations
Lead and Copper Rule							
Initial lead and copper tap monitoring and reporting						1	1
Follow-up or routine lead and copper tap monitoring and reporting						28	28
Treatment Installation							
Public education				0	0	0	0
Subtotal				0	0	29	29

Public Notification: Jan. 1, 2019 – Dec. 31, 2019

	MCL	MCL		Treatment Technique		Significant Monitoring /Reporting	
		No. of Violations	No. of Systems with Violations	No. of Violations	No. of Systems with Violations	No. of Violations	No. of Systems with Violations
Public Notification						172	117
Consumer Confidence Reports ¹						184	184
Subtotal						356	272

¹ Violations for failure to produce and distribute the Consumer Confidence Report in 2019.

Groundwater Rule: Jan. 1, 2019 – Dec. 31, 2019

	MCL	MCL		Treatment Technique		Significant Monitoring /Reporting	
		No. of Violations	No. of Systems with Violations	No. of Violations	No. of Systems with Violations	No. of Violations	No. of Systems with Violations
Groundwater Rule							
Failure to treat				8	4		
Failure to address contamination				0	0		
Failure to address deficiency				2	2		
Public notice						0	0
Sanitary Survey						4	4
Major routine and follow up monitoring						87	60
Subtotal				10	7	91	63

Appendix A: Health Based Compliance

I. Revised Total Coliform Rule – Acute MCL Violations

The following systems were under boil water orders due to acute MCL violations for E. coli bacteria for the months listed.

County	ID#	System Name	Month(s)	Issue	Rescind
BARRY	MO5031106	RIVERSIDE PARK 2 ND ADD	September	10/4/19	10/18/19
BENTON	MO3210344	DARS CAFÉ	August	8/29/19	9/19/19
BENTON	MO3190902	HEADWATERS MOTEL	July	7/4/19	9/3/19
BENTON	MO3210904	LAKE HILLS MOTEL	September	9/14/19	10/28/19
BOLLINGER	MO4292325	PATTON JUNCTION SERVICES INC	June	6/20/19	6/28/19
CAMDEN	MO3191837	HAWKS NEST CONDO ASSN	October	10/18/19	11/4/19
CAMDEN	MO3212445	MARINERS PIER 31	July	7/10/19	8/5/19
CAPE STORAGE	MO4071647	ENCLAVE APTS & AFFORDABLE MINI	March	3/24/19	4/1/19
CAPE STORAGE	MO4071647	ENCLAVE APTS & AFFORDABLE MINI	August	8/3/19	8/21/19
CARROLL	MO2010578	NORBORNE PWS	September	9/5/19	9/9/19
FRANKLIN	MO6243055	CAMP WOODLAND HILLS	June	6/1/19	6/11/19
FRANKLIN	MO6273242	FRANKLIN BAPTIST ASSN	November	11/14/19	1/9/20
FRANKLIN	MO6048249	SPRING MEADOWS MHP	August	8/19/19	9/12/19
HICKORY	MO5010197	CROSS TIMBERS PWS	February	2/26/19	3/6/19
JASPER	MO5041599	PLEASANT VALLEY MHP	May	5/28/19	7/8/19
MORGAN	MO5301489	BLUE ANCHOR BAY CONDOMINIUMS	August	8/30/19	9/18/19
MORGAN	MO5193232	LAKESHORE CONDOS	June	6/21/19	1/23/20
POLK	MO5010387	HUMANSVILLE PWS	October	10/8/19	10/11/19
PULASKI	MO4031631	RIDGE CREEK WATER CO LLC	November	11/1/19	11/22/19
STONE	MO5191311	BRADFORD INN	May	5/30/19	6/20/19

Appendix A Health Based Compliance

II. Revised Total Coliform Rule: Level 1 and Level 2 Assessment

For the Revised Total Coliform Rule, the following systems have exceeded the coliform treatment technique trigger – triggering an assessment on more than one occasion in 2019. These assessments are triggered for the following reasons: system collecting forty (40) or more samples per month exceeding 5.0% total-coliform positive samples for the month, systems collecting fewer than forty (40) samples per month having two (2) or more coliform-positive samples for the month, failing to collect every required repeat sample after any coliform-positive sample, or incurring an E. coli MCL violation.

County	ID#	System Name	Assessment
BARRY	MO5010730	SELIGMAN PWS	2
BARRY	MO5253262	CORAL FOUNTAIN LAKESIDE ESTATES NO 1	3
BARRY	MO5261623	COUNTRY VILLAGE MHP	2
BENTON	MO1242804	CLEAR CREEK RV PARK	2
BENTON	MO3010400	IONIA PWS	2
BENTON	MO3210344	DARS CAFÉ	2
BENTON	MO3240554	CITY UNION MISSION	2
CAMDEN	MO3071339	TT SEWER	2
CAMDEN	MO5301556	BELLA SERA CONDOS	2
CAPE	MO4071647	ENCLAVE APTS & AFFORDABLE MINI STORAGE	2
CEDAR	MO5010241	EL DORADO SPRINGS PWS	2
CRAWFORD	MO6171255	STEELVILLE RIII HIGH SCHOOL	2
DUNKLIN	MO4024209	SYLVAN MANOR SUBD	2
FRANKLIN	MO6036085	SPRING MEADOWS MHP	2
FRANKLIN	MO6048249	FRANKLIN BAPTIST ASSN	3
GREENE	MO5036258	EASTBOUROUGH SUBD	2
HICKORY	MO5010197	CROSS TIMBERS PWS	2

HICKORY	MO5213020	PITTSBURG PUB AND PATIO	2
HICKORY	MO5218044	POMME DE TERRES SHADOW LAKE GOLF COURSE	2
JEFFERSON	MO6036271	RAINTREE PLANTATION	2
JEFFERSON	MO6213191	VILLA ANTONIO WINERY	2
LINCOLN	MO6251637	BUELAH LAND ESTATES	2
MILLER	MO3241749	CAMP BAGNELL	2
MONITEAU	MO3024395	MONITEAU COUNTY PWSD 1	2
MORGAN	MO3211033	BUFFALO BENNY'S BAR	2
MORGAN	MO5301489	BLUE ANCHOR BAY CONDOMINIUMS	2
NEWTON	MO5033107	SHADY LANE SUBDIVISION	2
NEWTON	MO5241734	KOA CAMPGROUND	2
OSAGE	MO3010517	META PWS	2
OZARK	MO5211828	OZARK PLAZA MOTEL AND RV PARK	2
PETTIS	MO1283265	CASA INC	2
PULASKI	MO3010219	DIXON PWS	2
PULASKI	MO3010720	ST ROBERT PWS	2
PULASKI	MO4031631	RIDGE CREEK WATER COMPANY LLC	5
STONE	MO5030473	STARLIGHT VILLAGE	2
TANEY	MO5031481	OAKBROOK ESTATES	3
TANEY	MO5171233	MARK TWAIN R VIII ELEMENTARY SCHOOL	2
TANEY	MO5191015	DRIFTWATER RESORT LLC	2
TANEY	MO5211978	AREA 71 BRANSON	2
TANEY	MO5283168	JARRMIC LLC	2
WASHINGTON	MO4010003	CALEDONIA PWS	2
WRIGHT	MO5010351	HARTVILLE PWS	2

Appendix A Health Based Compliance

III. Chemical MCL Violations

County	ID#	System Name	Chemical
BARTON	MO5010446	LAMAR PWS	TOTAL TRIHALOMETHANE (TTHM)
BARTON	MO5010446	LAMAR PWS	TOTAL HALOACETIC ACIDS (HAA5)
BATES	MO1010698	ROCKVILLE PWS	TOTAL HALOACETIC ACIDS (HAA5)
CALDWELL	MO1024079	CALDWELL COUNTY PWSD 2	TOTAL HALOACETIC ACIDS (HAA5)
CALDWELL	MO1024079	CALDWELL COUNTY PWSD 2	TOTAL TRIHALOMETHANE (TTHM)
CASS	MO1010024	ARHIE PWS	TOTAL TRIHALOMETHANE (TTHM)
CASS	MO1010301	GARDEN CITY PWS	TOTAL HALOACETIC ACIDS (HAA5)
CASS	MO1010301	GARDEN CITY PWS	TOTAL TRIHALOMETHANE (TTHM)
CLAY	MO1010546	MOSBY PWS	TOTAL TRIHALOMETHANE (TTHM)
COOPER	MO3010089	BOONVILLE PWS	TOTAL TRIHALOMETHANE (TTHM)
COOPER	MO3024170	COOPER COUNTY CONS PWSD #1	TOTAL HALOACETIC ACIDS (HAA5)
COOPER	MO3024170	COOPER COUNTY CONS PWSD#1	TOTAL TRIHALOMETHANE (TTHM)
GRUNDY	MO2010753	SPICKARD PWS	TOTAL TRIHALOMETHANE (TTHM)
GRUNDY	MO2024237	GRUNDY COUNTY PWSD 1	TOTAL TRIHALOMETHANE (TTHM)
HENRY	MO1021175	HENRY COUNTY PWSD 4	TOTAL TRIHALOMETHANE (TTHM)
HENRY	MO1021175	HENRY COUNTY PWSD 4	TOTAL HALOACETIC ACIDS (HAA5)
HOWARD	MO2010566	NEW FRANKLIN PWS	TOTAL TRIHALOMETHANE (TTHM)
JACKSON	MO1010921	UNITY VILLAGE	TOTAL TRIHALOMETHANE (TTHM)
LAFAYETTE	MO1010184	CONCORDIA PWS	TOTAL HALOACETIC ACIDS (HAA5)
LAFAYETTE	MO1010254	EMMA PWS	TOTAL TRIHALOMETHANE (TTHM)
LAFAYETTE	MO1024326	LAF JO SALINE CO CONSE PWSD 2	TOTAL TRIHALOMETHANE (TTHM)
LINCOLN	MO6024340	LINCOLN COUNTY PWSD 1	FLUORIDE
LINCOLN	MO6030021	CHAMPION FARMS SUBDIVISION	FLUORIDE
MERCER	MO2010515	MERCER PWS	TOTAL HALOACETIC ACIDS (TTHM)
MONROE	MO2010538	MONROECITY PWS	TOTAL HALOACETIC ACIDS (TTHM)
PERRY	MO4024456	PERRY COUNTY PWSD 2	TOTAL HALOACETIC ACIDS (TTHM)
SALINE	MO2010029	ARROW ROCK PWS	TOTAL HALOACETIC ACIDS (TTHM)
SULLIVAN	MO2010329	GREEN CITY PWS	TOTAL HALOACETIC ACIDS (TTHM)

Appendix A Health Based Compliance

IV. Radiological MCL Violations

County	ID #	System Name	Chemical
LINCOLN	MO6010902	SILEX PWS	COMBINED RADIUM (-226 & -228)
LINCOLN	MO6030021	CHAMPION FARMS SUBDIVISION	GROSS ALPHA, EXCL. RADON & U
LINCOLN	MO6030021	CHAMPION FARMS SUBDIVISION	COMBINED RADIUM
MCDONALD	MO5010449	LANAGAN PWS	COMBINED RADIUM
OZARK	MO5024444	OZARK COUNTY PWSD 1	GROSS ALPHA, EXCL. RADON & U
OZARK	MO5024444	OZARK COUNTY PWSD 1	COMBINED RADIUM (-226 & -228)
ST. FRANCOIS	MO4010456	LEADWOOD PWS	GROSS ALPHA, EXCL. RADON & U
ST. FRANCOIS	MO4010456	LEADWOOD PWS	COMBINED RADIUM

Appendix A Health Based Compliance

V. Surface Water Violations

The following systems violated the Surface Water Rule, Treatment Technique for Turbidity or other surface water requirements in the months or annual period indicated.

County	ID #	System Name	Period	Violation
ADAIR	MO2010097	BRASHEAR PWS	June-December	Failure Address Deficiency
CASS	MO1010301	GARDEN CITY PWS	January	Combined Filter Effluent Turbidity
JACKSON	MO1010415	KANSAS CITY PWS	March	Failure to Provide LT2 Treatment
LAFAYETTE	MO1010464	LEXINGTON PWS	June	Combined Filter Effluent Turbidity
LAFAYETTE	MO1010464	LEXINGTON PWS	March	Combined Filter Effluent Turbidity

APPENDIX B

Chronic Major Monitoring Violators

The following systems had 3 or more major monitoring violations of the Revised Total Coliform Rule in 2019.

County	System Name	PWS ID #	Months
BARRY	MITCHELS PLAZA	MO5210653	June, July, October
BARRY	PARADISE VALLEY CAMPING CLUB	MO5243077	April – May, August
BENTON	AMERICAN LEGION POST 217	MO3281109	January-February, September
BENTON	HEADWATERS MOTEL	MO3190902	January, June, December
BENTON	JESTERS HOUSE	MO1212836	February, June, October, November
BENTON	PUMP N MUNCH	MO1292877	February, April, November
BENTON	REEL & TRIGGER RESORT	MO3190260	February, May, August-December
BUTLER	NEELEY VILLE PWS	MO4010993	January-February, September, November
CAMDEN	AROUND THE BEND BARBQ	MO3212580	June, October-November
CAMDEN	BASS COVE LODGE	MO3218227	May-July
CAMDEN	BAYMONT INN & SUITES	MO3190958	February-April, August
CAMDEN	LITTLE NIANGUA CAMPGROUND	MO5242623	May-July, September
CAMDEN	RED FOX BAR & GRILL	MO3212446	February-March, November
DALLAS	RIDGEVIEW ESTATES	MO5033116	January-May, July, September-October
DOUGLAS	FRATERNAL ORDER OF EAGLE 3748	MO5218158	May, July, September
HOWARD	GLASGOW PWS	MO2010308	April-May, July
JEFFERSON	A & H COUNTRY ESTATES	MO6048200	January-June
JEFFERSON	PARSONS OIL COMPANY LLC	MO6292713	June, August-September, November
JEFFERSON	PRO STOP	MO6292691	February, April-June, October-November
LACLEDE	COMPETITION GENERAL STORE	MO5212762	April, June-July
LINCOLN	TIMBER RIDGE ESTATES	MO6031217	January-May
MCDONALD	ELK O VUE RIVER PARK MHP	MO5041094	February-March, May-June, September-October
MILLER	EVELYNS RESTAURANT AND BAR	MO5212698	May-July, September
MILLER	LOOK OUT POINT SUBDIVISION	MO3036018	October-December
MILLER	OLD TOWNOSAGE	MO5212967	January-February, July
MISSISSIPPI	ANNISTON PWS	MO4010018	April, October, November
MORGAN	THE VILLAS OF HARBOUR HILLS	MO5031482	April, June-July, November
NEWTON	BOONDOCKS ENTERPRISES LLC	MO5041190	June-July, September, November

OZARK	OUTPOST RANCH HOUSE	MO5212896	May-July
PEMISCOT	HAYTI HEIGHTS PWS	MO4010959	January, July, October
PETTIS	CAMP BRANCH BAPTIST CHURCH	MO1272873	February, April, December
PETTIS	CRESTVIEW MHP	MO3048254	January-December
PUTNAM	LAKE THUNDERHEAD	MO2036165	March, July, November
REYNOLDS	SUNSET POINT RESORT	MO4190876	June-August
ST. CHARLES	WILDSCHUETZ BROTHERS FARM	MO6213205	February, April-May, September
ST. CLAIR	OSCEOLA PUBLIC SCHOOL	MO5171551	June-July, November
ST. FRANCOIS	FARMINGTON AMVETS POST 113	MO4250576	April, June, September, November, December
STONE	KINGDOM HEIGHTS	MO5031103	February-June, September-October
STONE	WHITE OAK STATION #6	MO5258122	April, June-July, December
TANEY	AREA 71 BRANSON	MO5211978	April, June, December
TANEY	GATEWAY TO BRANSON EXPRESS STOP	MO5292590	January, June, September, November
TANEY	JARRMIC LLC	MO5283168	January, April-May
TANEY	SENIOR FRIENDSHIP SITE	MO5218056	January, May, November
TANEY	SOUTH BRANSON BUSINESS CENTER	MO5182954	April-June
TANEY	TANEY COUNTY MEMORIAL POST 5168	MO5218299	May, August-September
WEBSTER	DOGWOOD TAVERN	MO5213087	January, April, June, September

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PO BOX 176

Jefferson City, MO

65102-0176

800-361-4827

dnr.mo.gov

PUB2662

Safe Drinking Water Commission

Department of Natural Resources
Division of Environmental Quality
Water Protection Program
Public Drinking Water Branch

October 14, 2020

Agenda Item # C-3

Operator Certification Annual Report

Issue:

Drinking water operators provide a critical service to their neighbors and customers. The daily operational activities they perform serve to protect public health and maintain safe and reliable operations of water treatment and distribution facilities.

The Missouri Department of Natural Resources' Operator Certification Section provides for the training, examination and certification of drinking water treatment, drinking water distribution, wastewater treatment, and concentrated animal feeding (CAFO) operators. The Department issues, renews, deactivates, suspends and revokes certificates according to state regulations.

This presentation provides highlights from the annual Operator Certification Program Report and a general update of the program.

Attachments:

PowerPoint presentation
Annual Report

Presented by:

Darlene Helmig, Chief, Operator Certification Section, PDWB



Operator Certification

Darlene Helmig

Operator Certification Section Chief

Water Protection Program

Operator Certification Annual Report

- Reporting period is July 1 through June 30.
- Submitted to EPA on August 19, 2020.
- EPA reviews the report and determines if Missouri is meeting federal requirements for an Operator Certification Program.

Annual Reporting Period - Highlights

- 1,648 drinking water systems required to have a certified operator.
- 5,510 active drinking water treatment and distribution certificates.



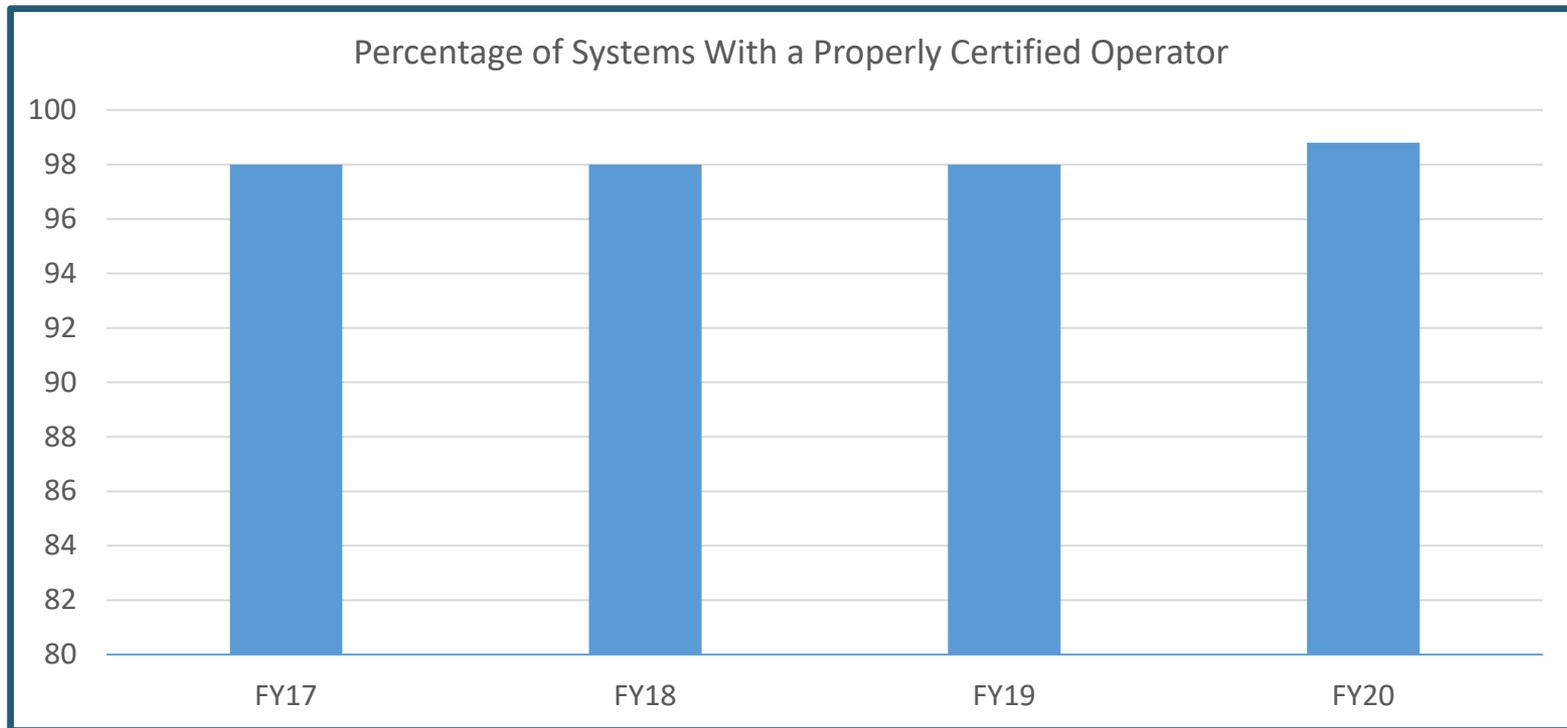
Number of Certified Operators

- Trend is slow decline in active certificates

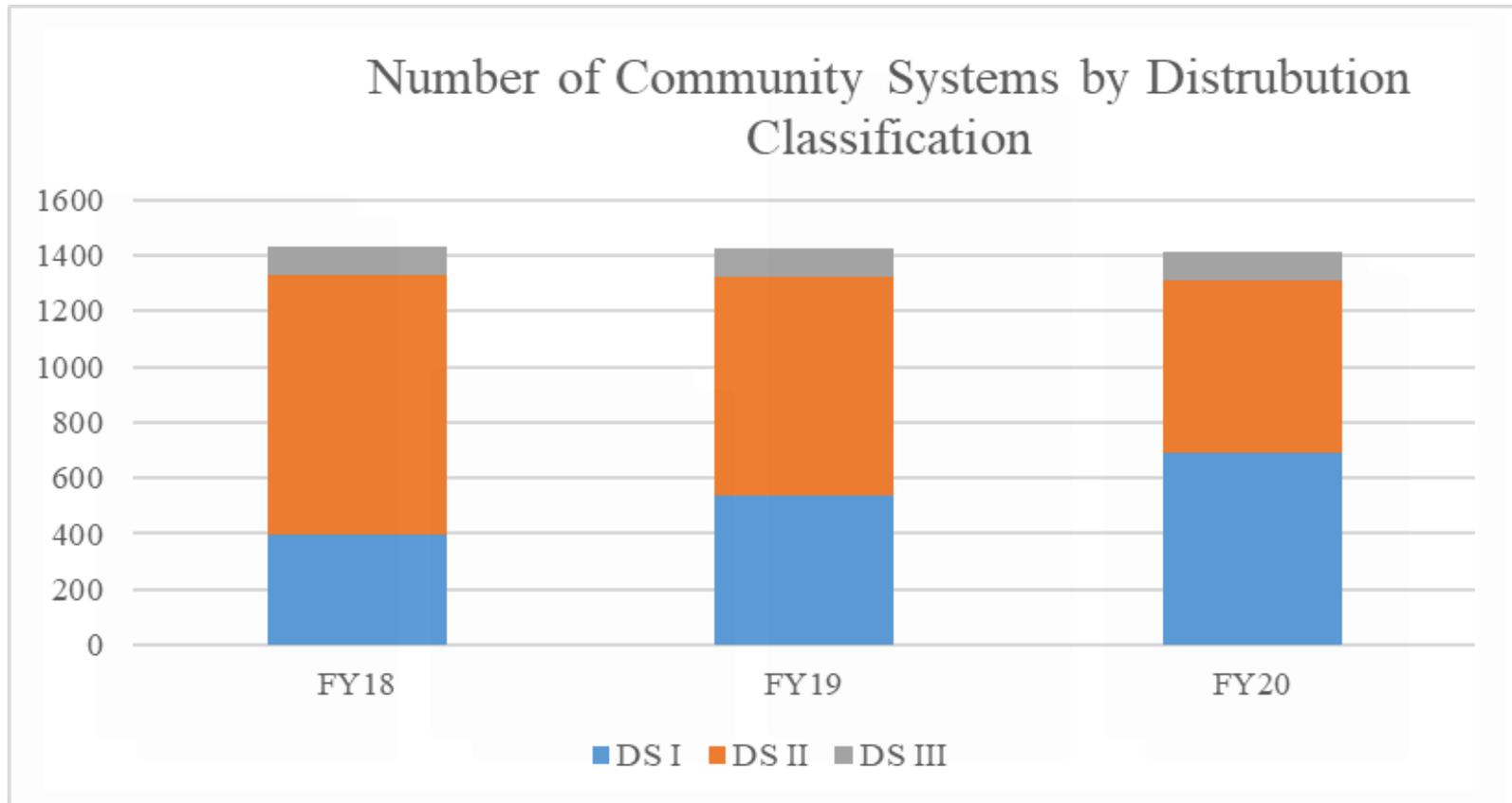
	FY17	FY18	FY19	FY20
Treatment A	582	562	547	530
Treatment B	125	115	107	106
Treatment C	748	718	682	647
Treatment D	843	851	832	797
Distribution I	847	850	859	851
Distribution II	1,085	1,083	1,084	1,045
Distribution III	1,712	1,648	1,610	1,534
Totals	5,942	5,827	5,721	5,510

DW Systems With a Properly Certified Operator

Compliance rate increased from 98% to 98.8% for FY20.



Results of System Classification Changes



Renewal Process Changes

- Process modifications to encourage certified operators to renew prior to expiration date.
- Department will mail initial renewal postcard 90-days before expiration date (currently 60-days).
- Department will mail second notice just prior to expiration date. Second notice will look more like an invoice and be folded in an envelope.
- Department plans to use auto-dialer 30-days after expiration date, which is still within the 60-day grace period to renew as a last reminder.

In-Person Exams Resumed July 2020

- Exams were cancelled due to COVID-19 beginning in late March and resumed in July.
- All backlog of applications received during the that time has been addressed.
- Exam sessions feature added safety measures:
 - 6-foot seating
 - one morning session to allow for room cleaning before and after the session (no afternoon session)
 - Hosted in Jefferson City, and each RO.
 - Schedule of upcoming sessions available online. As those fill, additional dates added.
 - Face coverings recommended, and required if local orders are in place.

Virtual Training: a New Training Format

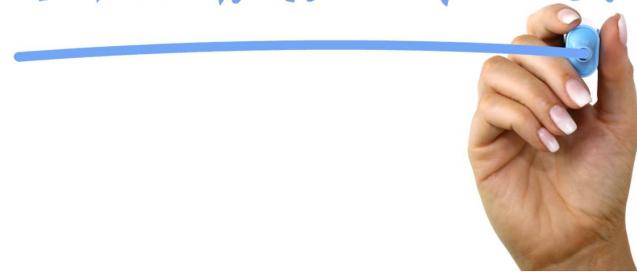
- Pre-COVID, only 2% of courses completed were correspondence or computer-based.
- In July and August, 73% of training completed was for virtual courses.
- Virtual format is a live, distance learning, classroom experience and occur using a variety of platforms like Zoom and WebEx that allow for student/teacher interaction and attendance verification.
- Great feedback.

Rule Suspension – Renewal Training

- Temporary rule suspension for 10 CSR 60-14.020(8)(C) allowing people to renew certificates without meeting renewal training requirements.
- Rule was suspended pursuant to Executive Orders 20-04 and 20-09 and effective from April 30, 2020 through June 15, 2020.
- Extended to Dec. 30, 2020.

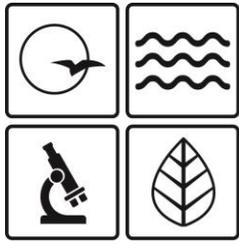
Additional information can be found in the Annual Operator Certification Report.

THANK YOU



Darlene Helmig
Operator Certification Section
Water Protection Program
573-751-1600

<https://apps5.mo.gov/operator/index.do>



MISSOURI
DEPARTMENT OF
NATURAL RESOURCES

Drinking Water
Operator Certification Program
Annual Report for State Fiscal Year 2020

Reporting period July 1, 2019 through June 30, 2020

Missouri Department of Natural Resources
Division of Environmental Quality
Water Protection Program
Public Drinking Water Branch
Operator Certification Section
P.O. Box 176
Jefferson City, MO 65102-0176

Overview of Operator Certification Program

Drinking water operators provide a critical service to their communities. They perform the daily operational activities of the system while serving to protect public health by providing an adequate supply of safe drinking water to their customers.

An operator certification program provides training and testing so that operators possess the knowledge, skills, and abilities to maintain certification and stay current with new regulations and emerging technologies. Through these efforts, consumers can be confident that their water is safe to drink.

The Missouri Department of Natural Resources' Operator Certification Section (OpCert) provides for the training, examination, and certification of drinking water treatment, drinking water distribution, wastewater treatment, and concentrated animal feeding (CAFO) operators. The Section issues, renews, deactivates, suspends, and revokes certificates according to state regulations. This report reflects only the drinking water portion of this effort, which comprises about two thirds of the Section's duties.

The Department formatted this report to identify each of the nine baseline standards for operator certification programs established by the U.S. Environmental Protection Agency and to highlight Missouri's efforts related to each item. The report concludes with a look ahead to projects anticipated for the coming state fiscal year.

Public Health Objectives

The federal guidelines that establish the requirements for operator certification programs include the following three public health objectives:

- Provide customers of any public water system with an adequate supply of safe, potable drinking water.
- Provide consumers confidence that their water is safe to drink.
- Train and certify public water system operators and ensure that they have knowledge and understanding of the public health reasons for drinking water standards.

EPA uses these public health objectives in its review and evaluation of State, operator certification programs, and in its determination as to whether the State programs meet the requirements of the guidelines. Agencies must evaluate and adjust operator certification programs at times to ensure they meet these key public health objectives.

Addressing Public Health during COVID-19

During the reporting period, a global pandemic emerged from a novel coronavirus, called COVID-19. To reduce transmission of the virus, governments and businesses instituted travel restrictions and social distancing practices, which caused operator certification trainers to cancel in-person training courses. At the same time, Missouri identified certain segments of the workforce, including water and wastewater professionals as an essential workforce, vital to the public health, quality of life, and well-being of the people of Missouri, and the sustainability and resiliency of communities.

On March 18, 2020 and April 24, 2020, Governor Michael Parson issued Executive Orders (EO) 20-04 and EO 20-09 respectively. In the executive orders, Governor Parson declared a state of emergency due to the spread of COVID-19 and allowed for the suspension of rules to respond to the emergency.

Pursuant to the executive orders, the Department temporarily suspended 10 CSR 60-14.020(8)(C) for drinking-water operators whose certifications expired during the suspension of this rule. 10 CSR 60-14.020(8)(C) requires that before a certificate will be renewed, the operator must submit documentation of training sufficient to meeting the minimum hours for the certificate level, as indicated in Table 4. Training organizations had cancelled and postponed classes because of social-distancing requirements related to the COVID-19 emergency, and many professionals could not obtain the minimum training hours during the emergency despite their best efforts. The temporary suspension made it possible for certified operators of public water systems to renew their certificates without obtaining the minimum amount of renewal training that otherwise would be required, so they could continue providing professional services for public water systems.

The rule suspension became effective April 30, 2020, and initially was set to expire on June 15, 2020. On June 11, 2020, the Governor extended the EO's to December 30, 2020, through EO 20-12, which would allow for these rule suspensions to remain in place for that time period. The Department will evaluate the necessity for maintaining the rule suspension while the EO's are in place. These suspensions did remain in place for the duration of this annual report period.

During the reporting period, 36 individuals renewed drinking water distribution certificates who were unable to complete training. Distribution certificates normally require between 10 and 30 hours of training during a three-year certificate cycle. On average, these renewal applicants had completed 63 percent of the training. There were 23 drinking water treatment certificates renewed under this temporary rule suspension who completed, on average, 81 percent of training.

The decision to provide a temporary rule suspension for operator training supports the greater public health objectives identified above by allowing certified operators to continue to serve their communities. The alternative would have been to deprive systems of the services of these professionals, during a time of crisis calling for more, not fewer resources. The Department judged that this rule suspension would provide a net benefit to public health.

1. Authorization

The Final Guidelines for the Certification and Recertification of Operators of Community and Nontransient Noncommunity Public Water Systems, 64 Fed. Reg. 5916 (February 5, 1999) requires states that make changes to the regulations or statutes, to submit a new State Attorney General's certification, or certification from delegated counsel, and a copy of the revised regulations or statutes.

The Missouri Department of Natural Resources completed regulatory amendments to the operator certification rules that became effective during the previous state fiscal year, on

February 28, 2019. On July 25, 2019, the Department submitted to EPA, an Attorney General's statement and revised regulations and statutes. The U.S. Environmental Protection Agency reviewed the revised regulations and statutes, program description, and crosswalk and in a memorandum, dated September 30, 2019, approved Missouri's operator certification program.

Antibacksliding

The rule amendments comply with the antibacksliding provision. No backsliding occurred, and the regulations continue to meet the Final Guidelines. In a memorandum dated September 30, 2019, the U.S. Environmental Protection Agency, approved Missouri's operator certification program and agreed that no backsliding has occurred.

2. Classification of Systems, Facilities, and Operators

Missouri regulations require the certification of all operating personnel who make independent process control/system integrity decisions about water quality or quantity that affect public health. The regulations also require the certified operator to be on-site or available for contact promptly to initiate appropriate action in a timely manner. There are 1,648 public drinking water systems in Missouri that are required to have a chief operator certified at the level appropriate to the system's classification.

The Department classifies all Missouri community and nontransient noncommunity public water systems and those transient noncommunity public water systems that use surface water or groundwater under the direct influence of surface water based on: (a) complexity, size, and source water for treatment facilities; and (b) complexity and size for distribution systems. Treatment system classifications range from the least complex, level "D", to the most complex, level "A". Distribution system classifications range from the least complex, DS-I to the most complex, DS-III.

For detailed information on classification criteria changes that took place during the amendments that became effective last state fiscal year, please review Missouri's updated Program Description that was included in the Department's July 25, 2019, submittal to EPA along with a copy of the amended rules and Attorney General's statement.

The bar chart below, Figure 1, shows how the classification changes have affected community drinking water distribution systems. The stacked bar shows that following the rule amendments, the proportion of DS-I systems increased dramatically. We believe this change accurately assigns the proper designation to these smaller, less complicated water systems.

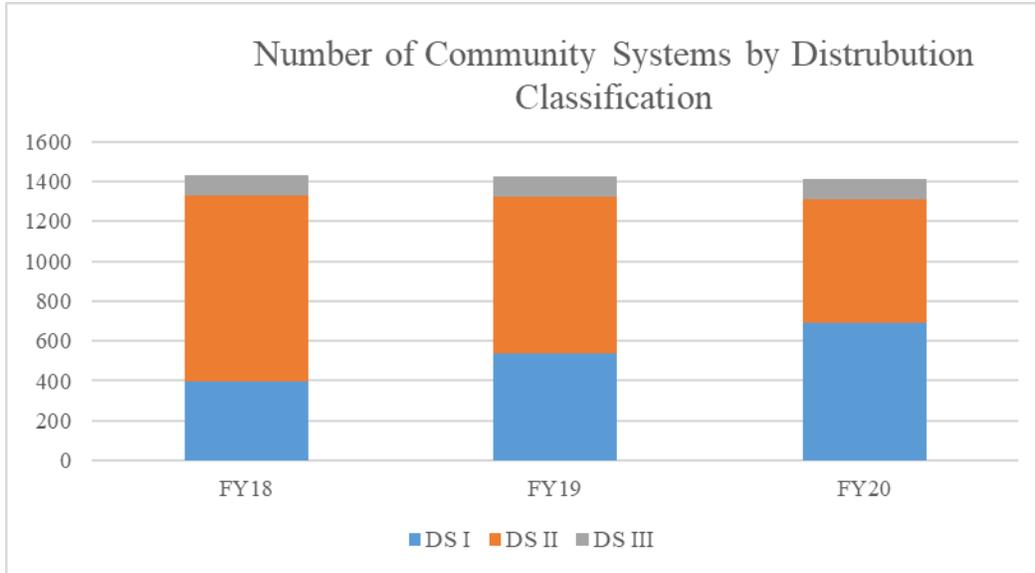


Figure 1.

Number of Community Systems by Treatment and Distribution Level
 (Examples: towns, water districts, subdivisions and mobile home parks)

	Wholesale No Distribution	Distribution I	Distribution II	Distribution III	Totals
Distribution Only		656	458	36	1,150
Treatment A	1	0	12	24	37
Treatment B	1	2	37	22	62
Treatment C	0	29	75	10	114
Treatment D	0	6	49	9	64
Totals	2	693	619	101	1,427

Number of Nontransient Noncommunity by Treatment and Distribution Level
 (Examples: schools and factories)

	Wholesale No Distribution	Distribution I	Distribution II	Distribution III	Totals
Distribution Only		172	31	2	205
Treatment A	0	0	2	0	2
Treatment B	0	1	4	0	5
Treatment C	0	5	2	0	7
Treatment D	0	1	0	0	1
Totals	0	179	39	2	220

Missouri regulations require transient, noncommunity systems that use surface water or groundwater under the direct influence of surface water to have a certified operator. Examples of these types of systems include restaurants, resorts and rest stops. Missouri has one system in this category. The Department classified this system as a drinking water treatment level “B” and a distribution level “II”.

3. Operator Qualifications

Missouri regulations specify that applicants must meet the following requirements to demonstrate they have the necessary skills, knowledge, ability and judgment prior to becoming certified:

- Examination – Individuals must obtain a minimum passing score of 70 percent to become certified. Exams cover subjects an operator needs to know for that particular type and level of certification. A group of subject matter experts validates exam questions to ensure questions are relevant, and appropriate to the level of exam. As a member of the Association of Boards of Certification, Missouri references their need-to-know criteria and job task-analysis surveys.
- Experience – Each type and level of certification requires a defined minimum amount of on-the-job experience, which increases with each classification level. Individuals may substitute post high school education for experience. The Department provides credit for experience in a related field up to a maximum amount of substitution for each certificate level. Individuals cannot count experience used to meet the experience requirement towards the education requirement.
- Education – Individuals can meet the minimum education requirement with any of the following: high school diploma; general equivalency diploma (GED); successful completion of a Department-approved training course; or six months of additional experience. Individuals cannot count training or educational experience as hands-on operational experience requirement.

Certification by Examination

Persons seeking certification by examination must submit an application for certification along with a \$45 fee. By regulation, the Department must provide a minimum of four exam sessions per year. During the fiscal year, the Department provided 46 exam sessions statewide, well exceeding the regulatory requirement.

Each year, the Department schedules 32 exam sessions at six locations throughout the state. This fiscal year, 24 of those sessions were completed, but the Department cancelled eight sessions scheduled in April, May, and June due to COVID-19. In addition to the regular exam sessions, trainers may schedule special exam sessions to coincide with the completion of multi-day pre-certification training courses. There were 22 special exam sessions held in FY20. The following table shows how many individual exams the Department administered (both regular and special sessions) for the last four fiscal years. In FY20, the Department administered 708 exams. This is a decrease from previous fiscal years, and attributable to the cancellation of

exams for a three-month period. If exam rates had stayed consistent through the last quarter of the fiscal year, the Department was on pace to provide 885 drinking water exams, which would have been consistent with previous years.

Number of Individual Examinations Administered

Examination Type	FY17	FY18	FY19	FY20
Treatment	368	329	349	295
Distribution	520	577	546	413
Total	888	906	895	708

Multi-day training sessions continue to be a valuable training opportunity for operators. Most individuals seeking certification will voluntarily attend training, however, if an examinee fails the same type and level of exam three times and has not completed a multi-day pre-certification course in the last 12 months, they must do so before taking the exam a fourth time.

The following table shows that special exam sessions held after a multi-day pre-certification course have consistently higher pass rates compared to the regular, open session exams.

Comparison of Exam Pass Rates Showing Higher Pass Rate Following Completion of Training

	Distribution Exams – Percent Passing		Treatment Exams – Percent Passing	
	Regular Exam Session	Special Exam Session (Following Training)	Regular Exam Session	Special Exam Session (Following Training)
FY17	49%	75%	38%	54%
FY18	47%	67%	37%	66%
FY19	43%	65%	37%	52%
FY20	39%	65%	40%	50%

Certification without Examination (Grandparenting)

Missouri no longer issues grandparented certificates. However, there are a number of operators maintaining previously issued grandparented certificates. Grandparented certificates are valid for the operator named on the certificate and are restricted for use only for the specified water system. The Department issued grandparented certificates to operators in responsible charge of systems, and not previously required by the Department to have a certified operator prior to August 1, 2001. All applications for grandparented certificates were due by February 5, 2003. While the Department does not issue new grandparented certificates, operators may renew active certificates if they meet renewal requirements.

At the end of the reporting period, 100 grandparented certificates remain active from the original 1,225 certificates issued by the Department. This represents eight percent of the original certificates issued. If an operator allows their grandparented certificate to expire, the operator must meet requirements for regular, non-grandparented certification, including passing the appropriate examination.

On-The-Job Experience

Once an applicant passes an exam, the Department reviews the information for sufficient work experience and either issues a certificate, or notifies the applicant of any deficiency in their work experience or education. Drinking water examinees have eighteen months from the date of the test to obtain additional, qualifying work experience and become certified without having to retest. The Department issues the certificate when the applicant completes the required work experience during the required timeframe.

Active Certificates

The following table shows the total number of active Missouri certificates. There are 5,510 active drinking water treatment and distribution certificates, which is down slightly from last year's 5,721 certificates.

Number of Active Drinking Water Certificates by Type and Level

	FY17	FY18	FY19	FY20
Treatment A	582	562	547	530
Treatment B	125	115	107	106
Treatment C	748	718	682	647
Treatment D	843	851	832	797
Distribution I	847	850	859	851
Distribution II	1,085	1,083	1,084	1,045
Distribution III	1,712	1,648	1,610	1,534
Totals	5,942	5,827	5,721	5,510

The Department issues new certificates throughout the year to individuals who meet minimum experience requirements, pass exams, or apply for reciprocity. The following table breaks down the new certificates issued during the reporting period by type and level. According to state regulations, the Department issues certificates that are valid for a three-year period.

New Drinking Water Certificates Issued in FY 2020

	New Certificates Issued Exam Process	New Certificates Issued Reciprocity	Totals
Treatment A	11	1	12
Treatment B	9	1	10
Treatment C	29	1	30
Treatment D	57	1	58
Distribution I	99	2	101
Distribution II	59	1	60
Distribution III	33	1	34
Totals	297	8	305

The following tables show the number of contract operators listed on the Department’s website. Participation is relatively stable. Phone numbers are available online for contract operators making it easier for drinking water systems to contact operators.

Number of Drinking Water Treatment Contract Operators Listed Online

Treatment Certificate Level	FY17	FY18	FY19	FY20
A	47	45	46	47
B	4	5	5	4
C	42	45	44	44
D	25	24	25	23
Total Treatment	118	119	120	118

Number of Distribution Contract Operators Listed Online

Distribution Certification Level	FY17	FY18	FY19	FY20
DS III	104	102	102	102
DS II	58	65	61	63
DS I	21	18	20	18
Total Distribution	183	185	183	183

4. Enforcement

Enforcement activities broadly fall into two categories: water systems that fail to have a properly certified operator, and suspension or revocation actions against certified operators.

Systems without Properly Certified Operators

The Department’s website at dnr.mo.gov/operator provides a way to search for drinking water systems that do not have a properly certified operator designated in the Safe Drinking Water Information System (SDWIS) database. A computer program nightly compares information from the OpCert database and SDWIS database and updates SDWIS with each operator’s records regarding the type and level of certification they hold. This communication and comparison between databases allows for very accurate information. It also means that with each new certificate issued and deactivated, new systems appear on the list and others return to compliance daily.

Using the Department’s website, system representatives can view their point of contact information, print it, and submit contact changes to the Department, including updates for their certified operator. Systems can also use the website to find contract operators. The website allows systems to search for certified operators in several ways, including by county or the type of certification held.

At the end of this reporting period, of the 1,648 systems that require a certified operator, 20 systems failed to have a properly certified operator. This is a 98.8 percent compliance rate. The

chart below shows that over the last several years, the number of systems in non-compliance tends to fluctuate. The number changes to reflect status changes, which may happen daily.

Number of Systems without a Properly Certified Operator

	FY17	FY18	FY19	FY20
No Operator Listed	14	13	9	11
Operator Listed in SDWIS is Not Certified	14	21	11	6
Operator Listed in SDWIS is Inadequately Certified	5	5	3	3
Totals	33	39	23	20

The Department offers assistance through a number of avenues to help systems obtain a properly certified operator. Some of those key compliance assistance efforts, discussed later in more detail, include:

- Department-issued training vouchers that systems can use to pay for training courses and certification exam fees;
- A website that provides information on certified operators who have self-identified as being available for contract operations (www.dnr.mo.gov/operator);
- Circuit riders who provide a variety of assistance to systems, including answering questions related to certification;
- Frequent opportunities throughout the year and across the state to take certification exams; and
- Partnership with the Missouri Department of Corrections to provide training courses in a correctional institution.

Where our assistance efforts do not result in system compliance with the operator certification requirement, the Department has a progressive enforcement process. The following table shows the type and number of operator certification-enforcement actions during the fiscal year.

Number of Enforcement Activities Involving Violations of Operator Certification Requirements

	Issued in FY19	Issued in FY20
Notice of Non-Compliance Letters	48	3
Letters of Warning (LOWs)	37	20
Notices of Violation (NOVs)	110	67
Bilateral Compliance Agreements (BCAs)	3	1
Administrative Orders on Consents (AOCs)	0	0
Referred to the Missouri Attorney General’s Office	0	0

Water systems that use a chemical disinfectant and do not have a properly certified operator, receive a Type 12 violation, which is a federal violation. In subsequent months, the Department records the violation as a state violation. Type 12 violations require public notice and establish points on the Enforcement Tracking Tool report.

Operator Certification Suspensions and Revocations

Based on the frequency and severity of violations, the Department may suspend or revoke an operator's certificates. Items that can lead to this action include practicing fraud or deception in obtaining certification, gross negligence, malpractice or incompetence in operating a public water system, sabotaging a water system, misleading or lying to a government official regarding a water system, participating in sample tampering or selective sampling, falsifying facility operating records or reports, or other willful violations.

Revocation activities are the result of investigations conducted by Department investigators and experienced regional office team members. The investigations are often initiated via complaints or tips from water system co-workers, the public, or by Departmental team members noticing unusual monitoring reports (e.g., identical daily chlorine residuals measurements) or obtaining evidence of sample tampering (e.g., chlorine in a bacteriological sample received from a public water system that is not a chlorinated system).

During the fiscal year, the Department revoked a drinking water certificate from one individual, for falsifying records. No suspensions or denials occurred during the reporting period.

5. Certification Renewal

Each type and level of certification has specific renewal requirements outlined in state regulation. Certificates are valid for three years from the date of issuance. During that time, operators, including grandparented operators, must receive approved continuing education in order to renew their certificate. State regulations specify minimum training requirements for each type and level of certification.

Renewal Training Hours Required

Certificate Level	Renewal Hours
A	30
B	30
C	30
D	20
DS III	30
DS II	20
DS I	10

The following chart shows the number of applications for certificate renewal that the Department processed during the reporting period.

Number of Drinking Water Certificates Renewed in FY 2020

	Renewed Certificates
Treatment A	158
Treatment B	25
Treatment C	175
Treatment D	193
Distribution I	167
Distribution II	263
Distribution III	396
Total	1,377

Operator Training

Trainers host Department-approved courses year-round at various locations throughout the state. Department team members, professional organizations, and private companies sponsor and conduct training. The Operator Certification Section reviews all courses and awards credit towards the continuing education requirement. Training providers submit a Request for Training Course Approval form with a course outline and training materials. An Operator Certification Section team member reviews the outlines and materials, and requests needed changes. The Section then awards approval and renewal training hours based on the subject matter and student contact time.

In addition to traditional classroom-style training, operators can also complete approved correspondence and computer-based courses for renewal hour credit. This includes traditional correspondence, online courses, webinars and webcasts. Below is a comparison of the total number of courses approved during the fiscal year with drinking water subject matter. The Operator Certification page of the Department's website provides a list of approved courses for operators to consider.

COVID-19 generated a dramatic increase in online and correspondence training. In previous years, in-person training accounted for 98 percent of completed training. In March of 2020, most trainers cancelled in-person training courses in response to social distancing requirements and travel restrictions. Certified operators responded by turning to distance-learning options like online and correspondence courses. The Department also began approving virtual training courses, which are live training events using platforms like WebEx and Zoom that allow interaction between attendees and the trainer. The chart below shows that during this fiscal year, 10% of training was distance learning, with virtual courses well attended.

Number of Training Courses by Type

	Number of Courses	Attendees	Percentage of Total Attendees
In-Person Training Courses	695	10,142	90%
Virtual Training Courses (live distance learning)	59	740	7%
Correspondence and Computer Based Training	354	393	3%
All Training	1,108	11,275	100%

The Department does not require certified operators to take additional training beyond the minimum renewal requirements, except for those individuals that fail an exam three times and are required to take training prior to a fourth exam.

Certified operators can track their training hours and renew certificates online at the Department's website. The site summarizes all training on record for that person's certificate during the current renewal cycle and indicates the number of additional hours needed. The operator can print a hard copy of the report or request a copy from the Department's Operator Certification Section. State regulations require certified operators to complete all renewal training by the expiration date on the certificate.

Training Vouchers

The Department issues vouchers with assigned monetary value, to drinking water systems to pay for operator certification fees and eligible drinking water training fees. The Department utilizes Drinking Water State Revolving Fund set-asides to fund this program.

Drinking water systems have flexibility to use the vouchers in a manner that will best meet their needs, whether that is paying for renewal training for an existing operator or seeking certification for a new or back-up operator. Each year, the Department issues vouchers to approximately 1,500 community and nontransient noncommunity drinking water systems with service populations of 3,300 or less. Ninety percent of the public water systems in Missouri receive vouchers. Distribution-only systems receive \$625 per year; and those that have a treatment classification receive \$950 per year. During FY20, Department team members processed 1,404 vouchers, totaling \$240,475, from 644 different water systems.

Surveys included with the voucher include a question asking whether they would have been able to attend the training without the use of the voucher. These responses show overwhelmingly that a majority of individuals would not have been able to attend the training of their choice without the voucher program.

6. Resources Needed to Implement the Program

FTEs and Funding

The Department's Operator Certification Section administers key components of the certification program, with support from Regional Office and Central Office team members. The staffing levels and funding is sufficient to implement Missouri's certification program meeting the Final Guidelines for the Certification and Recertification of Operators of Community and Nontransient Noncommunity Public Water Systems, 64 Fed. Reg. 5916 (February 5, 1999).

The Operator Certification Section has 6.0 full time employees (FTEs). Seventy percent of the Sections' workload and FTE time is drinking water related and the remaining 30 percent is wastewater and CAFO. At the end of the report period, one position was vacant, with intent to fill in the future.

The Department has five regional offices located in Macon, St. Louis, Poplar Bluff, Springfield, and Lee's Summit. Each regional office has two Water Specialist positions who provide training and technical assistance, generally one Water Specialist focuses on drinking water and one on wastewater. Regional Offices also have inspectors who contribute to the operator certification activities in several ways, including conducting sanitary surveys and site visits, investigating concerns, conducting Level 2 Assessments, and determining system classifications and compliance.

Public Drinking Water Branch team members also perform activities that contribute to operator certification activities. These include reviewing monitoring data and reports from water systems for compliance, providing assistance and answering questions from operators, keeping up-to-date operator contact information for each water system, and enforcing operator certification requirements.

Missouri does not have a dedicated operator certification fund that is self-sufficient. Fees from certification testing and renewal go into the Primacy Fee Fund. The Department funds the Operator Certification Program through the Drinking Water State Revolving Fund Capitalization Grant. During this review period, the Department hosted discussions with stakeholders about raising drinking water fees, which include operator certification fees. The Department plans to initiate rulemaking in this regard in the next reporting period.

Working Relationships

Operator Certification team members work closely throughout the year with the Department's regional offices, central office team members, trainers (both Departmental and non-Departmental), and circuit riders. It is a combined effort to achieve a compliance rate of 98.8 percent of drinking water systems having a properly certified operator.

Water Specialists fill an important role because they have hands-on operational experience as certified operators. They bring a wealth of personal experience to the agency and their duties include providing training and technical assistance. The Operator Certification Section reviews annual training plans from the Water Specialists. The Section combines all of the annual training plans into one document and shares the resulting spreadsheet with non-Department trainers in an

effort to improve coordination, reduce training date/location conflicts, and demonstrate areas in the state that may be in need of training.

Partnership with the Missouri Department of Corrections

The Department of Natural Resources and the Department of Corrections have worked together since 2017 to provide operator certification training opportunities to offenders. In August of 2019, the Department held a drinking water distribution multi-day pre-certification training course at the Ozark Correctional Center for 15 offenders. Ten of the individuals passed the certification exam, met minimum qualifications, and earned certification. In February 2020, the Department began a wastewater treatment course for individuals in the Maryville Treatment Center. Due to COVID-19 concerns, the Department was unable to complete the course.

Department team members work closely with the Department of Corrections' Re-entry Coordinator to provide follow-up information to probation and parole offices for those completing the program about potential employment opportunities.

Circuit Rider

The Department has a contract with the Missouri Rural Water Association (MRWA) to provide a variety of assistance to public drinking water systems. Missouri's Office of Administration procured the contract through a competitive bid process. The assistance includes a variety of technical assistance to drinking water systems. Some of the operator certification assistance includes updating contact information, explaining the importance of having a certified operator, encouraging administrators to train or hire a certified operator, and offering information on upcoming training courses.

Data Management

The OpCert database tracks examinations, renewals, training courses, training hours, and issuing certificates. Team members use LXR Test software to score and manage exams, organize exam question banks, record validation data, develop exams, and provide statistical analysis of question performance.

A wide variety of information is available to the public on the Department's web site. These online resources allow certified operators to track their training hours, update contact information, and renew certificates online. It also allows people to search for certified operators in their area and verify certification.

7. Recertification

Individuals may lose their certificates by either failing to meet renewal criteria or from a revocation action. Following is a breakdown of the recertification requirements for these two categories.

Failure to Renew

The Department issues certificates for three-year cycles. Sixty days prior to the expiration date of each certificate, the Department mails a renewal postcard to the operator. Operators return the postcard, along with a \$45 renewal fee, to the Department or they may go online and renew the

certificate with a credit card. Following the expiration date of the certificate, there is a sixty-day grace period for returning the renewal application and fee. Applications submitted during the grace period require a \$10 per month late fee, for a maximum of \$20.

The Department sends a second, late-reminder, postcard to operators near the expiration date of the certificate to encourage them to renew their certificates during the sixty-day grace period. Following the expiration date of the certificate, there is a sixty-day grace period for returning the renewal application and fee. During the fiscal year, 102 operators renewed their certificates during the sixty-day grace period. An individual is not certified with an expired certificate. Individuals who do not renew certificates within the grace period following the expiration date are lapsed and deactivated. Any operator with a lapsed certificate must submit a new application and reexamine. The applicant must meet all current experience and education requirements.

Revocation

Revocation is not necessarily permanent. Once the Department revokes an operator’s certificate(s), the individual may pursue recertification by going through the examination process. Individuals must wait at least one year following the date of revocation to file an application for examination. Acceptance of any application for examination is at the Department’s discretion. The Department did not receive any applications during the reporting period from operators with previously revoked certificate(s).

8. Stakeholder Involvement

Missouri has an extensive public participation process. Operator Certification team members are available at a number of events and meetings throughout the year to engage with stakeholders and to be present during meetings that may include discussion pertaining to operator certification. Speaking engagements include time for questions and discussion with stakeholders and team members are often available at water and wastewater industry conferences for stakeholder feedback. Speaking engagements, availability sessions, and stakeholder meetings provide generous dialogue and the continued engagement with stakeholders helps the operator certification program can remain effective. Discussions focus on a variety of drinking water system issues including compliance, certification requirements, technology changes, and laboratory procedures. The following is a list of stakeholder activities that Operator Certification Section conducted or participated in during the review period:

7/16/2019	Governor Parson signed a proclamation declaring August 18-24, 2019, as Water and Wastewater Treatment Workers Week in Missouri.
8/1/2019 – 8/2/2019	Missouri Water & Wastewater Conference’s (MWWC) annual conference. OpCert team members were available for questions, comments, and discussion at an OpCert booth and following the OpCert presentation during the conference.
8/5/2019	Meeting with Missouri Rural Water Association (MRWA) to discuss priorities for the EPA Training and Technical Assistance (T/TA) grant.
9/11/2019	Meeting with subject matter experts (SMEs) to validate drinking water distribution exam questions and discuss current industry practices for exam material relevancy

10/2/2019	Meeting with SMEs to validate drinking water treatment exam questions and discuss current industry practices for exam material relevancy
10/16/2019	Safe Drinking Water Commission (SDWC) public meeting. Provided an operator certification presentation and available for questions and discussion.
1/10/2020	Meeting with MRWA to discuss T/TA grant
1/13/2020	Participated in the EPA and Department quarterly safe drinking water meeting
1/15/2020	SDWC public meeting – available for OpCert feedback and discussion
1/21/2020	Public Drinking Water Branch (PDWB) fee stakeholder meeting - available for OpCert questions and discussion
1/31/2020	PDWB fee stakeholder meeting – available for OpCert questions and discussion
2/10/2020	PDWB fee stakeholder meeting – available for OpCert questions and discussion
2/18/2020	Regional Office/Central Office (ROCO) coordination call – available for questions and discussion
2/20/2020	PDWB fee stakeholder meeting – available for OpCert questions and discussion
2/21/2020	Provided an OpCert presentation and focused workforce discussion with Missouri Public Utility Alliance roundtable meeting
3/11/2020	Meeting with Midwest Assistance Program (MAP) to discuss T/TA grant
3/17/2020	PDWB fee stakeholder meeting – available for OpCert questions and discussion
3/31/2020	PDWB fee stakeholder meeting – available for OpCert questions and discussion
4/21/2020	ROCO coordination call – discussed OpCert training waiver and exam cancellations due to COVID-19
4/22/2020	Annual Region 7 States OpCert and Capacity Development virtual meeting (week 1)
4/29/2020	Annual Region 7 States OpCert and Capacity Development virtual meeting (week 2)
4/30/2020	Annual Operator Certification and Water Specialist Coordination meeting. Discussed training goals, shared lessons learned about virtual training format, discussed exam cancellations, and rule suspensions for training waivers.
5/6/2020	Annual Region 7 States OpCert and Capacity Development virtual meeting (week 3)
5/12/2020 – 6/23/2020	Worked with RO team members and Department leadership gathering input and incorporating feedback to create guidance document on resuming in-person exams and Department-hosted training courses
5/13/2020	Annual Region 7 States OpCert and Capacity Development virtual meeting (week 4)
5/19/2020	ROCO coordination call – OpCert agenda items for rule suspension waivers, exam cancellations and drafting guidelines to resume

5/27/2020	Annual Region 7 States OpCert and Capacity Development virtual meeting (week 5)
6/23/2020	Participated in the EPA and Department quarterly safe drinking water meeting
6/23/2020	ROCO coordination call – available for OpCert discussion

9. Program Review

For an operator certification program to remain relevant, it must be flexible to incorporate industry and regulatory changes. The Department’s Operator Certification Section team members generate monthly reports for internal review. Department management reviews the annual Operator Certification Program Report prior to submitting the report to EPA. This in-depth annual report covers work associated with each of the federal baseline standards.

Routine operator certification program reviews take place throughout the year as the Department develops work plans and holds budget discussions. These reviews include reviewing regulations, examination and testing, training, compliance and enforcement, data management, budget, and staffing. Upon request, the Operator Certification Section provides internal and external trainers diagnostic exam results showing how a group of students performed to provide feedback by exam topic to aid the trainer in understanding how students performed. Annual meetings between Operator Certification team members and Regional Office Water Specialists provides interaction about training plans and coordination efforts. Operator Certification exam content is reviewed and regularly hosts exam validation workshops for the review and validation of exam material.

10. Implementation Schedule Update

In addition to core work duties, team members anticipate the following activities in the coming fiscal year:

Training Plans

Water Specialists submit their annual training plans to the Operator Certification Section. The Section reviews the plans and distributes the plans to trainers outside the agency for them to consider. Trainers use the annual plan to select training topics, locations and dates to cover better the statewide needs of operators.

Water & Wastewater Digest

The Operator Certification Section will continue to compile articles of interest for operators and send out a quarterly newsletter to all certified operators and others who have indicated interest in receiving the publication. Beginning next fiscal year, the newsletter will no longer be a hard-copy print publication. The Department will continue to email an electronic copy of the newsletter to certified operators and post it online.

Software

Department team members are aware that the company, LXR Test., no longer provides support for the software that the Department uses to manage operator certification exams. It is not urgent to switch software since it continues to be functional and compatible with existing scanners and

computers. However, in the coming fiscal year, Operator Certification Section team members plan to consider other software options for a long-term solution and planned transition to other software. This review will include considerations on migrating or converting the existing databanks to any new platform, and possibly opening the door for computer-based exams down the road.

Renewal Process Change

The Department is planning some modifications to its renewal process to encourage certified operators to renew certificates prior to the expiration date. The Department is planning to send out renewal postcards earlier, giving operators more advance notice of the need to renew. The Department is also developing a second notice that resembles an invoice. The Department will mail this second notice just prior to expiration date, giving another opportunity to renew before the expiration date. For those operators who fail to renew before the expiration date and are in the 60-day grace period to renew following the expiration date, the Department is working towards implementing the use of the auto-dialer to call operators and leave a phone message as a last reminder.

Drinking Water Fees

The Department has hosted several in-depth stakeholder meetings during this fiscal year to discuss changes to the drinking water fee structure. This may include future changes to the drinking water operator certification fees for exams, renewals, and reciprocity certificates. The Department anticipates additional discussion in the coming year. Changes to the fee amounts will require an amendment to the state regulations.

Conclusion

The Department's operator certification program contains all the regulatory elements required by each of the nine baseline standards established by the U.S. Environmental Protection Agency. Missouri looks forward to continuing to uphold the professional standards and issue certificates of competency to operators possessing the necessary knowledge, skill, and ability.

Safe Drinking Water Commission

Department of Natural Resources
Division of Environmental Quality
Water Protection Program
Public Drinking Water Branch

October 14, 2020

Agenda Item # C-4
Alternative Inspection Methodologies

Issue:

Briefing on Department efforts to develop alternate inspection procedures to safely perform inspections during the current COVID environment.

Attachments:

PowerPoint presentation

Presented by:

Lance Dorsey, Chief, Compliance & Enforcement Section PDWB



Alternative Inspection Methodologies

Lance Dorsey – PDWB

Alternative Inspection Methodologies

- Due to COVID-19 all field work was temporarily halted between March and June 2020.
- Drinking water field staff restructured the inspection procedures to allow social distancing and maintain safety once field work continued.
- This was accomplished by establishing the social distancing and safety rules with the Public Water System (PWS) before the inspection and completing as much desk review as possible. Once on site, social distancing was maintained, especially indoors.
- The success of this initial effort led to a new effort to try to develop a fully remote sanitary survey methodology which would eliminate the need for an on site visit.

Fully Remote Sanitary Survey Methodology

- This methodology was developed with the idea that the inspector would have some familiarity with the PWS.
- After an initial briefing with the PWS over the phone the process proceeds in four phases:
 - I. Information requests
 - II. Document review & management assessment
 - III. Facility walk-through
 - IV. Follow-up, findings, and debriefing

Fully Remote Sanitary Survey Methodology

I. Information requests

- Option 1 – Desktop assessment - minimal operator interaction required
- Option 2 – Desktop assessment with operator participating over the phone/video call

Fully Remote Sanitary Survey Methodology

II. Document review & management assessment

- Option 1 – facility with scanning capability
- Option 2 – facility with video/camera, but no scanner
- Option 3 – facility with no capacity to scan documents/records

Fully Remote Sanitary Survey Methodology

III. Facility walk-through

- Option 1 - Remote video call with supporting photos and documentation
- Option 2 – Recorded video of facility walk through sent to Department
- Option 3 – Use of ‘still’ photographs of specific elements which are then emailed to the Department

Fully Remote Sanitary Survey Methodology

IV. Follow-up, findings, and debriefing

- Phone or video call

Fully Remote Sanitary Survey Methodology

Questions?

Safe Drinking Water Commission

Department of Natural Resources
Division of Environmental Quality
Water Protection Program
Public Drinking Water Branch

October 14, 2020

Agenda Item #C-5

Final Federal Lead Free Pipes, Fittings, and Fixtures Rule

Issue:

Congress passed the Reduction of Lead in Drinking Water Act in January 2011. The Act contained several items that required further rulemaking to clarify. EPA developed a proposed rule, published in the Federal Register on January 17, 2017, to address these items. EPA recently finalized this rulemaking in the Federal Register on September 1, 2020.

The purpose of the new rule is to enact the new lead free standards that change the amount of lead allowed in materials. It also restricts the installation and introduction of non-compliant material into commerce. The rule requires materials such as pipe, fittings and fixtures to meet a new lead free standard of 0.25%. The old standard for lead content was 8%. Material that met the old standard became illegal to sell or install on January 4, 2014, which was the effective date for the new standard. The lead content in solder remains the same in the new standard at 0.2%. In the interim period between the effective date in the law and the enactment of the rule by regulation, EPA's guidance was to quote the law and not a regulation when enforcing the new standards.

This rule provides health benefits by reducing the amount of lead ingested by the public when consuming water. These benefits not only help our regulated water systems, but also people who receive their water from private wells. The rule accomplishes this by requiring bathroom fixtures, pipes, pumps etc. to meet the new standard for lead content in materials when manufactured. Since these requirements have been in effect since January 4, 2014, the rule has 30 days for implementation after publication, but the manufacturer's certification and labeling requirements have 3 years for implementation.

Attachments:

PowerPoint presentation

Presented by:

Jeff Pinson, Lead and Copper Rule Manager, PDWB



Use of Lead Free Pipes, Fittings, Fixtures, Solder and Flux for Drinking Water

Safe Drinking Water Commission Meeting

October 14, 2020

Jeff Pinson, Lead and Copper Coordinator

History of Reducing Lead in Drinking Water

In 1986, Congress amended the Safe Drinking Water Act (SDWA) to prohibit the use of Pipes, Solder, and Flux that are not lead free:

- Lead Free definition – Solder and Flux could contain no more than 0.2% lead and pipes could have no more than 8% lead. The use of any material that did not meet the lead free standard is prohibited.

History of Reducing Lead in Drinking Water

In 1996, Congress further amended the SDWA to include the Lead Free standard pipe fittings, plumbing fittings and fixtures. The amendment also included:

- Requiring new plumbing to meet the lead free leaching standard.
- Made it illegal to introduce into commerce materials for use in drinking water that do not meet the lead free standard.

History of Reducing Lead in Drinking Water

In 2011, Congress enacted the Reduction of Lead in Drinking Water Act.

- Redefined lead free from 8% to 0.25% as a weighted average for Pipes, Fittings, and Fixtures.
- Two exemptions: One for non-potable use and two for toilets, urinals, etc.
- The effective date of the Act, January 4, 2014.
- Illegal to introduce into commerce or install materials not meeting the new lead free standard after the effective date.

History of Reducing Lead in Drinking Water

Community Fire Safety Act of 2013:

- Added a further exemption from the new lead free standard for fire hydrants.
- On January 17, 2017, EPA published the proposed rulemaking “Use of Lead Free Pipes, Fittings, Fixtures, Solder and Flux for Drinking Water” in the Federal Register.
- On September 1, 2020 EPA published the final rule in the Federal Register. Requires update of 10 CSR 60-10.040

Use of Lead Free Pipes, Fittings, Fixtures, Solder, and Flux for Drinking Water

- Definition of lead free pipe, fittings, and fixtures is 0.25% lead as a weighted average on all wetted surfaces.
- Definition of lead free solder and flux is 0.2% lead.
- Calculation methodology for determining compliance with the lead free standard.
- Prohibitions – No person may use any materials that are not lead free in any “PWS” or residential or Non-residential application for human consumption.

Use of Lead Free Pipes, Fittings, Fixtures, Solder, and Flux for Drinking Water

- State enforcement of use prohibitions.
- Introduction into commerce prohibitions.
- Exemptions.
- Labeling of solder and flux not lead free.
- Certification of products.
- Compliance provisions.

Questions?

Thank you.

jeff.pinson@dnr.mo.gov

Safe Drinking Water Commission

Department of Natural Resources
Division of Environmental Quality
Water Protection Program
Public Drinking Water Branch

October 14, 2020

Agenda Item #C-6
Attorney General's Office Legal Update

Issue:

Routine update to the Commission regarding legal issues, appeals, etc.

Recommended Action:

Information only.

Presented by:

Tim Duggan, Assistant Attorney General, AGO

Safe Drinking Water Commission

Department of Natural Resources
Division of Environmental Quality
Water Protection Program
Public Drinking Water Branch

October 14, 2020

Agenda Item # C-7
Branch Chief's Update

Issue:

Routine update to the Commission regarding Public Drinking Water Branch activities

Recommended Action:

Information only.

Presented by:

David Lamb, Chief, Public Drinking Water Branch

Safe Drinking Water Commission

Department of Natural Resources
Division of Environmental Quality
Water Protection Program
Public Drinking Water Branch

October 14, 2020

Agenda Item #D

Adoption of the final Fiscal Year 2021 Missouri Drinking Water State Revolving Fund Intended Use Plan

Issue:

The proposed Fiscal Year 2021 Drinking Water State Revolving Fund (DWSRF) Loan Program and Set-Aside Programs Intended Use Plan (IUP) is provided for approval.

Background:

The Draft Fiscal Year 2021 DWSRF IUP was placed on public notice August 11, 2020. A public meeting was held on August 27, 2020, and the comment period subsequently closed on September 11, 2020.

Comments were received from the Missouri Public Utility Alliance. A copy of the comments and staff responses are attached.

A copy of the final IUP is attached. A full color version will be available at <https://dnr.mo.gov/env/wpp/srf/drinkingwater-assistance.htm> after it is adopted by the Commission.

Two notable program changes will be implemented with the adoption of this IUP by the Safe Drinking Water Commission:

- Additional subsidization (grants and principal forgiveness) will be offered not only to disadvantaged communities, as in the past, but now will also be offered to any system with a project that will provide service to a disadvantaged community. This change is expected to facilitate regionalization and consolidation of those drinking water systems with the greatest compliance and affordability challenges.
- The standard interest rate offered to our borrowers remains 30% of market rate for a term of 20 years. Extended term loans up to 30 years are now available at the standard

subsidized interest rate plus 0.5% percent for applicants experiencing a significant financing challenge.

For FY2021, approximately \$6 million, or 31 percent, of the federal capitalization grant will be utilized as Set-Asides, funding the Public Drinking Water Branch's capacity development activities. A total of \$111,013,794 is available for use towards funding projects (this includes federal capitalization grant, state match, and loan repayments and interest). Of the total available, \$94,808,880 is available for loans and \$16,204,914 is available as additional subsidization (grant, principal forgiveness or negative interest). After all funds are committed to projects that meet the readiness to proceed criteria (bond is in place and an acceptable engineering report has been submitted), the remaining available balance is approximately \$75.3 million.

The Fundable list is divided by project size:

- Sixteen projects are listed on the Very Small Community list. Ten of these systems meet the definition of "disadvantaged" and are therefore eligible for additional subsidization. All available additional subsidization funds are allocated to these ten small, disadvantaged communities based upon the highest priority points.
- One project is listed on the Small Community Fundable List

There are three projects on the Planning List (not fundable due to no bonds in place or engineering report or both) with a total of project costs of \$11,994,312.

The Department has updated this final IUP, presented for the Commission's approval, since the draft IUP was placed on public notice based on the progress of planned projects, emerging program needs and public comments. The following is a summary of project-specific changes subsequent to the draft IUP:

- The City of Newburg's funding amount request and amount allocated increased.
- Moniteau Co. PWSD #1 moved from the planning list to the fundable list (page 14).
- The City of Centertown was moved from the Sources and Uses table to the fundable list (page 14) due to project delays.

The following is a summary of other changes subsequent to the draft IUP:

- Page 3 and 9 - The amount available for DWSRF projects in FY2021 was updated from \$109 million to \$111 million based on changes to the project tables.
- Appendix 2, page 19 and Appendix 7, page 38 - A caveat was added notifying applicants that it is important to submit applications early in the project planning process in order to facilitate communication with the Department on each step to ensure the project meets all state and federal funding requirements.

Recommended Action:

Staff recommends the adoption of the FY 2021 DWSRF IUP.

Suggested Motion:

"I move that the Safe Drinking Water Commission approve the Fiscal Year 2021 Drinking Water State Revolving Fund Intended Use Plan as presented today with an effective date of October 14, 2020."

Attachments:

FY 2021 DWSRF IUP

MPUA Comments

Staff Response to MPUA Comments

Presented by:

Hannah Humphrey, Director, Financial Assistance Center

DRINKING WATER

State Revolving Fund

Loan Program and Set-Aside Programs

Intended Use Plan for Fiscal Year 2021

Oct. 1, 2020 through Sept. 30, 2021

Proposed – October 14, 2020



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Cover photo is the City of Campbell 100,000-gallon water tower.
Photo by Maguire Iron, Inc.

Drinking Water State Revolving Fund Program

The Missouri Department of Natural Resources administers the Drinking Water State Revolving Fund (DWSRF). As a condition of a federal agreement with Environmental Protection Agency (EPA), the Department must submit an annual plan for the use of federal funds awarded and a strategy for managing the program in accordance with the Safe Drinking Water Act (SDWA). This DWSRF Intended Use Plan (IUP) is the annual plan for Federal Fiscal Year (FFY) 2021.

Missouri applies to the EPA annually for a capitalization grant to fund its DWSRF program and capacity development programs. These funds are combined with the required state match and made available to Missouri communities in the form of low-interest loans. As the loans are repaid, the money is reused, or revolved, by the program to provide for future projects.

Approximately \$474 million in loans and additional subsidization has been obligated through the Drinking Water State Revolving Fund since 1996.

The DWSRF loan program was established by the Safe Drinking Water Act Amendments of 1996 to provide a renewable financing source for low-interest loans to public drinking water systems for high-priority infrastructure projects. Operation and management of Missouri's DWSRF program is directed by regulations 10 CSR 60-13.020 through 10 CSR 60-13.030 available at sos.mo.gov/cmsimages/adrules/csr/current/10csr/10c60-13.pdf.

The DWSRF is managed by the Department and the Environmental Improvement and Energy Resources Authority (EIERA). The Department, with oversight from the Safe Drinking Water Commission (SDWC or Commission), is responsible for programmatic functions, including processing applications, priority scoring, IUP preparation, environmental review and permitting, reporting, and financial assistance disbursement and repayment processing. EIERA issues bonds, manages related tax issues and monitors post-issuance compliance. The Department and EIERA work together to maximize the amount of construction that can be supported by the program. The Department reserves the right to refinance, assign, pledge, or leverage any loans originated through the DWSRF Program.

The Department continually refines the DWSRF program to ensure it offers affordable financing to meet today's high priority water quality improvement needs and provides a stable source of funding for drinking water infrastructure projects well into the future. This IUP summarizes the development and management of the DWSRF priority lists and assurances required by federal mandates. It also details the proposed distribution of Missouri's anticipated DWSRF capitalization grants, state match funds, the repayments of previously awarded loans, and the interest earnings from the repayment account for FFY 2021.

Federal Fiscal Year 2021 Drinking Water State Revolving Fund Program Goals

Each year, the Department evaluates the operations and the financial structures of the DWSRF to gauge program effectiveness and to improve program services and investment returns. The Department develops both long-term and short-term goals to continually improve the program:

Long-term goals:

- Provide assistance to projects that protect public health by ensuring Missouri citizens served by public water supplies will have water that is safe to drink.
- Provide assistance to projects that increase the long-term sustainability of existing and proposed water systems, and encourage projects to consolidate, interconnect, or regionalize drinking water systems.
- Maintain the long-term integrity of the revolving fund by applying prudent financial standards to assistance provided to participants.
- Encourage systems to choose projects with the most cost-effective solutions.
- Protect source water for drinking water systems.
- Manage projects and work efficiently with participants to ensure projects proceed toward a binding commitment in a timely manner.
- Continue to implement and enhance the Department's Capacity Development Program, which implements a strategy to improve the technical, managerial, and financial capacity of Missouri's public water systems. Additional information is available at dnr.mo.gov/env/wpp/cap-dev.htm.

Short-term goals:

- Implement a marketing strategy focused on recruiting large projects to increase use of the DWSRF program.
- Utilize additional subsidization incentives to assist disadvantaged communities and regionalization projects.
- Plan and implement a programmatic financing structure that offers a reliable funding mechanism for entities with significant capital spending needs.
- Have the DWSRF priority point criteria (Appendix 5) and readiness-to-proceed criteria (Appendix 6) updated and approved by the Missouri SDWC in fall 2020, prior to the application receipt deadline (March 1, 2021).

Federal Fiscal Year 2021 Drinking Water State Revolving Fund Available Funding

During FFY 2021, the DWSRF program expects to have approximately \$111 million available for new DWSRF projects. This includes carry-over monies from previous years, loan repayments, interest earnings on investments of DWSRF resources, and federal capitalization grants and state match.

Eligible project types

Eligible projects include infrastructure improvements that facilitate compliance with national primary drinking water regulations or otherwise significantly advance the public health protection objectives of the Safe Drinking Water Act. Projects may be new construction or the improvement or renovation of existing facilities.

Drinking water projects may include the following:

- Treatment plants
- Transmission and distribution mains
- Supply sources (i.e. wells, interconnections, and surface water intakes)
- Storage facilities
- Water security projects
- Purchase of a reservoir water rights in order to meet drinking water health protection objectives of the Safe Drinking Water Act

Certain water projects are ineligible for assistance including the following:

- Construction or rehabilitation of dams
- Construction or rehabilitation of most water reservoirs
- Projects needed primarily for fire protection
- Projects needed primarily to serve future population growth

Eligible expenses and allowable construction costs also include engineering costs for planning and design, land if needed for the project, and legal costs associated with the project. Eligible and ineligible expenses are further described in the DWSRF Eligibility Handbook available at epa.gov/drinkingwatersrf/dwsrf-eligibility-handbook.

Eligible borrowers

- Political subdivisions (including counties, incorporated cities and towns, and regional water or sewer districts) that are not owned by the federal government
- Not-for-profit corporations providing a wholesale or regional water supply
- Investor-owned water utility corporations

All eligible applicants must demonstrate technical, managerial, and financial capacity to enter into a binding financial commitment.

Terms of financial assistance

The DWSRF offers a fixed-rate loan with a standard interest rate that is 30 percent of the market rate. The market interest rate is based on The Bond Buyer 25-Revenue Bond Index, which provides an estimate of the yield on a 30-year revenue bond offered under current market conditions, which is comparable to an AAA-rated municipal market rate. Loan proceeds must be expended within 36 months of the loan closing.

The standard loan term is 20 years or the useful life of the project, whichever is less. Terms of up to 30 years, not to exceed the useful life of the project, may be available for applicants experiencing a significant financing challenge. The Department evaluates extended-term financing requests on a case-by-case basis, and adds 0.5 percent interest to the standard rate for projects with extended-term financing. The Department charges an annual fee of 0.5 percent of the outstanding loan balance to help administer the DWSRF program.

DWSRF additional subsidization in the form of grant funding, negative interest, or principal forgiveness, in conjunction with a loan, may be available for eligible borrowers in accordance with current federal appropriations (see Loans with additional subsidization, page 6).

Distribution of funds

Missouri law requires the Department to allocate funds by population size category as shown below, to the extent possible:

- 20 percent to very small community systems serving up to 3,300 people
- 15 percent to small systems serving 3,301 to 9,999 people
- 65 percent to general communities (not restricted by population served)

After the Department allocates funds to all fundable projects within a particular category, it may transfer remaining unobligated funds to another category for which funds are not sufficient to satisfy all fundable projects. This approach maximizes the availability of funding to meet ready-to-proceed, documented infrastructure needs, and fully commit Drinking Water SRF funds as required by federal law.

The Department will consider funding applications for eligible private entity borrowers if funding is still available after all funding applications by political subdivisions have been satisfied.

Project Prioritization

The DWSRF Priority Points Criteria (Appendix 5) and Distribution-of-Funds and Readiness-to-Proceed Criteria (Appendix 6) are the basis for project ranking and funding allocation. The priority point criteria describe the criteria the Department uses to prioritize loan applications. The most serious problems are given the highest priority. The readiness-to-proceed criteria describe the minimum criteria an applicant must meet to be eligible to be placed on the fundable list.

Intended Use Plan listing process

The Department reviews the project applications based on DWSRF eligibility requirements and assigns priority points based on the DWSRF Priority Points Criteria to eligible projects. Next, the Department

places eligible projects on the DWSRF Project Priority List and ranks projects by priority point score within each funding category.

The DWSRF Project Priority List contains the following categories:

- **Fundable List:** This list includes projects that meet the readiness-to-proceed criteria. i.e., those for which the applicant has submitted a complete engineering report, documentation of an acceptable debt instrument, and any necessary funding commitments from other state and/or federal agencies contributing funds to the project. The Department schedules these projects for financial assistance during the current fiscal year, and allocates available funds accordingly.
- **Fundable Contingency List:** This list includes projects that meet the readiness-to-proceed criteria, however sufficient SRF funding is unavailable, or the project is not expected to need funds in the current fiscal year. These projects may receive assistance if funds become available during the fiscal year.
- **Planning List:** This list includes projects for which the Department has received an application, but is awaiting submittal of an engineering report and/or an acceptable debt instrument. The Department works with these communities to assist them in meeting readiness-to-proceed criteria. Once the criteria are met, the Department may move the project to the fundable list if funds are available.

Modifications to Project Priority List

After the Missouri SDWC adopts the DWSRF Project Priority Lists, it may modify the lists or redistribute the available funds as outlined below:

- **Inadequate allocations:** If federal DWSRF allocations are less than anticipated, or if previous allocations are reduced, the Department may recommend reducing project commitments.
- **Unanticipated or uncommitted funds:** The availability of unanticipated or uncommitted funds can result in a project moving from the contingency list to the fundable list or vice versa. The Department's goal is to fund all projects if possible.
- **Bypass:** The Department may recommend that the Commission move a project from the Fundable Priority List to the Fundable Contingency List if it is not making timely progress in order to make the committed funds available to another project that is ready to proceed. Bypass procedures are described in Appendix 6.
- **Project removal:** The Department may recommend removal of the project from the priority list at the request of the applicant or if the Department finds the project is ineligible for DWSRF assistance.

Before taking action to modify the Project Priority List, the Department will notify those applicants directly affected.

Additional Subsidization

The Safe Drinking Water Act allows the state to provide additional subsidization in the form of grants, principal forgiveness, or negative interest loans. The Department offers additional subsidization for eligible design and construction projects and to fund engineering reports. Only political subdivisions (including counties, incorporated cities and towns, and regional water or sewer districts), and not-for-profit corporations may receive additional subsidization. The Department determines the amount of the capitalization grant to be allocated for additional subsidization each year based on federal appropriation and Missouri's DWSRF program needs. FFY 2021 additional subsidization funding allocations are described in Appendix 1.

Loans with additional subsidization

The Department obligates additional subsidization funding to eligible projects on the Fundable List in priority order based on eligibility and available funding. The additional subsidization commitment is for two IUP cycles, and is awarded when the applicant enters into a binding financial commitment. Failure to make timely progress may result in bypass and the loss of the additional subsidization commitment.

The Department offers additional subsidization to two types of projects, subject to available funding. They are:

- Additional subsidization funding in the form of a grant, in combination with a loan, to public water systems proposing a project that will regionalize and/or consolidate a public water system that meets the state disadvantaged community criteria
- Additional subsidization in the form of a grant or principal forgiveness, in combination with a loan, to public water systems that meet the state disadvantaged community criteria making needed improvements to their own system

State regulations define a disadvantaged community as any applicant serving a population of 3,300 or fewer, whose average user rates for 5,000 gallons will be at or above two percent of the recipient median household income, and the recipient median household income is at or below 75 percent of the state average.

The America's Water Infrastructure Act of 2018 mandated changes to DWSRF additional subsidization that compel the state to provide additional subsidization through two distinct authorities.

- **Congressional authority:** Additional subsidization issued with the Congressional authority may be in the form of grant funds, negative interest, or principal forgiveness. The Department will provide this additional subsidization as grant funds. Under state law pertaining to municipal borrowing, recipients receiving grants and loans are permitted to use bond authority for the loan amount only.
- **Safe Drinking Water Act Authority:** Additional subsidization issued with the Safe Drinking Water Act statutory authority must be in the form of negative interest or principal forgiveness. The Department will provide this additional subsidization as principal forgiveness. Under state law pertaining to municipal borrowing, recipients receiving a grant and a loan must obtain bond authority for the total project amount, which includes the amount of principal forgiveness.

Recipients that represent a town, village, city of the third or fourth class, or a charter city with less than 30,000 inhabitants may opt to issue and use bond authority for the amount of principal forgiveness through a special obligation bond without voter approval, issued under Section 91.450 RSMo.

The Department will determine whether to award an applicant's additional subsidization as a grant or principal forgiveness, based on the borrower's disadvantaged status, amount of funding available through the each of the authorities described in the above bullets, the borrower's existing bonding capacity, and/or its ability to issue bonds under Section 91.450 RSMo. The Department will work with each system individually to identify which funding option can be utilized.

Engineering Report grants

Additional subsidization in the form of a grant is available through the DWSRF to assist small communities with engineering costs to plan for drinking water system improvements related to the system's compliance and ability to provide safe drinking water. Municipalities, counties, public sewer districts, and public water districts with a population of fewer than 3,300 residents may apply. Larger systems developing a plan to serve a system with a population of 3,300 or less may also apply. Funding is offered through a competitive, annual funding cycle. The Department will accept applications each year through December 31. Appendix 2 describes the amount of grant funds committed for Engineering Reports. Appendix 7 includes application instructions.

Program commitments and state assurances

Federal appropriations to the DWSRF program primarily fund high-priority infrastructure projects. However, the Safe Drinking Water Act also allows states to set aside up to 31 percent for authorized projects that support public drinking water program activities. See Appendix 3 for details on Missouri's set-asides.

The Department makes a number of program commitments and state assurances related to managing the DWSRF. See Appendix 4 for a list of these commitments and assurances.

Plan for timely and expeditious use of funds

Federal law and regulations direct states to manage all SRF programs in a manner that ensures timely and expeditious use of all funds. Because not all available funds are committed to projects in this IUP, the Department developed a strategic plan for improving the prompt use of DWSRF funds. The plan includes, but is not limited to, increasing marketing and workshops; developing a DWSRF guidance for communities; targeting outreach to communities and privately owned utilities with large capital projects; streamlining processes to decrease the time from application to funding; and creating new project management tools for staff.

Missouri Water and Wastewater Review Committee

The Missouri Water and Wastewater Review Committee is a group representing three agencies, including the Department, the Missouri Department of Economic Development's Community Development Block Grant Program, and the U.S. Department of Agriculture - Rural Development, which provide funding to communities for water and wastewater infrastructure improvements. The

committee convenes once a month to review proposals and engineering reports, and make recommendations to optimize project funding. This collaborative effort is intended to stretch limited financial assistance dollars to support the greatest number of projects for Missouri communities.

Application deadline

The Department accepts applications at any time. Applications received or postmarked by March 1 will receive priority consideration for funding in the next fiscal year's IUP. See Appendix 2 for more information about applying for funding.

Projects being funded in fiscal year 2021

The list of projects being funded in FFY 2021 is ranked by priority in Appendix 1.

Appendix 1: Project Priority Lists and Financial Tables

Estimated Sources and Uses of Funds

During FFY 2021, the DWSRF program expects to have approximately \$111 million available for loans and additional subsidization during this fiscal year. The estimate includes carry-over monies from previous years, repayments, interest earnings on investments of DWSRF resources, federal capitalization grants, and the state match.

The Department allocates funds to projects that are on a Fundable List as approved by the SDWC. The amount of funds made available through this IUP may be revised at any time due to changing economic conditions.

The estimated sources and anticipated uses of funds are available in the following table. The amounts reflected are as of December 31, 2019.

**Drinking Water State Revolving Fund
Estimated Sources and Uses of Funds
FFY 2021 Intended Use Plan**

Estimated Sources as of December 31, 2019		
Anticipated Capitalization Grants for Drinking Water State Revolving Fund	\$	54,047,419
Cash Balance *	\$	54,771,842
Anticipated Loan Repayments and Investment Earnings Net of Bond Payments (1/1/20 - 9/30/22)	\$	54,873,329
State Match - FFY 2021 Capitalization Grant **	\$	675,003
Total Estimated Sources		\$ 164,367,593
Estimated Uses		
Undisbursed Amounts Committed to Existing Projects	\$	5,882,850
Anticipated Funds Committed to Drinking Water Set-Aside Activities	\$	14,875,895
Anticipated Direct Loans Closing between 1/1/20 and 9/30/20	\$	27,609,708
Anticipated Grants Awarded between 1/1/20 and 9/30/20	\$	4,985,346
Anticipated Additional Subsidization Available for FFY 2021 DWSRF IUP Projects	\$	16,204,914
Anticipated Loan Funds Available for FFY 2021 DWSRF IUP Projects	\$	94,808,880
Total Estimated Uses		\$ 164,367,593

* On October 18, 2018, the Environmental Improvement and Energy Resources Authority issued bond series 2018A in tax exempt revenue bonds, of which \$10,020,000 was for the Drinking Water State Revolving Fund. Bond proceeds support approximately three years of state match requirements to the FFY2018, 2019 and 2020 capitalization grants. The bond proceeds were deposited into the Water & Wastewater Loan Revolving Fund for disbursement, and will provide all but \$675,003 of state match for the FFY2020 capitalization grant (utilized in this FFY2021 Intended Use Plan).

** A bond sale or a transfer of loan administration fees is expected to provide the remaining \$675,003 in state match needed.

Loan and Grant Commitments 1/1/20 through 9/30/20	Loan	Grant	Total
Marshfield - Funded 1/15/20	\$ 6,164,000	\$ -	\$ 6,164,000
Madison Co - Funded 2/7/20	\$ 1,369,000	\$ 2,000,000	\$ 3,369,000
Centralia	\$ 2,744,000	\$ -	\$ 2,744,000
Missouri American Water	\$ 10,315,000	\$ -	\$ 10,315,000
Pierce City	\$ 2,508,612	\$ 2,000,000	\$ 4,508,612
Carrollton	\$ 4,180,647	\$ -	\$ 4,180,647
Laurie	\$ 328,449	\$ 985,346	\$ 1,313,795
Total Commitments 1/1/20 through 9/30/20	\$ 27,609,708	\$ 4,985,346	\$ 32,595,054

Project Priority Lists

A comprehensive list of FFY 2021 applicants is followed by the Project Priority Lists.

- Under 10 CSR 60-13.020, applications are valid for two years (or two IUP cycles). Applicants that have not received their funding at the end of two years may reapply to the program. A project's position on the fundable, contingency, or planning list may change with each subsequent application. The Department may de-obligate funding from projects that are not making adequate progress within the allotted two years and reallocate those funds to other projects.
- Projects carried over from the FFY 2020 IUP remain eligible for FFY 2021 and retain the points and additional subsidization they received under the criteria in effect at the time they initially applied, unless the SDWC bypassed or removed the project, or the proposed loan recipient has requested to be removed. Carry-over status is indicated in the table. Carry-over project applicants in the FFY 2021 IUP must reapply by March 1, 2021, in order to compete for funding in the FFY 2022 IUP.
- For more information on the DWSRF Program, contact the Department's Financial Assistance Center at 573-751-1192, or fac@dnr.mo.gov.

List of Fiscal Year 2021 Applicants

	Applicant	Priority Points	Service Area Population	Financial Assistance Request
	Archie	106	1,170	\$ 5,403,169
	Bowling Green	41	5,334	\$ 845,325
	Brashear	54	273	\$ 950,748
C	Camden County PWSD #1	95	220	\$ 3,417,000
	Cass Co. PWSD #10	34	2,500	\$ 1,706,681
	Centertown	94	278	\$ 1,156,084
C	Chamois	105	396	\$ 1,514,707
	Cole Co. PWSD #4	14	7,568	\$ 4,203,880
	Daviess Co. PWSD #3	92	337	\$ 2,387,263
	Harry S Truman PWSD #2	54	3,200	\$ 2,000,000
	Licking	83	3,124	\$ 3,834,764
	Memphis, Phase II	55	1,822	\$ 2,519,050
	Moniteau Co. PWSD #1	90	203	\$ 2,592,500
C	Newburg	90	470	\$ 1,486,808
	Plattsburg	92	2,319	\$ 3,650,558
C	Princeton	135	1,166	\$ 3,886,100
C	Saline County PWSD #1	52	591	\$ 1,096,462
C	Silex	100	283	\$ 2,266,138
	Urbana	75	417	\$ 1,873,236
C	Warsaw	65	2,125	\$ 4,905,003
Total Comprehensive List Projects				\$ 51,695,476

Note: C = Carried over from the last Intended Use Plan

Allocation Of Available Loan Funds

Missouri law requires that twenty percent and fifteen percent of available funds, respectively, shall be made available to water systems serving populations of 3,300 or less (designated as very small communities) and water systems serving populations of 3,301 to 9,999 (designated as small communities). The remaining sixty five percent (designated for general community) is not restricted by population served.

- The fundable project lists may change significantly between the draft Intended Use Plan placed on public notice and the final version approved by the Safe Drinking Water Commission.
- The inclusion of a project on the fundable list is not a guarantee of funding. Other factors, such as timely progress, compliance with program requirements, and funding availability, may impact project funding.

Allocation of Available Funds

Funding Category	Percent of Fundable List Allocation	Loan	Additional Subsidization	Total
Very Small Community (1)	20%	\$ 6,297,845	\$ 15,904,914	\$ 22,202,759
Small Community (2)	15%	\$ 16,652,069	\$ -	\$ 16,652,069
General Community	65%	\$ 71,858,966	\$ 300,000	\$ 72,158,966
Total Allocation of Available Funds		\$ 94,808,880	\$ 16,204,914	\$ 111,013,794

(1) Service area population of 3,300 or fewer.

(2) Service area population of 3,301 to 9,999.

Additional Subsidization Available

Type	Available Amount	Explanation of Additional Subsidization
Additional Subsidization With Loans	\$ 15,904,914	Allocated to fundable projects on Project Priority Tables
Engineering Report Grants (General Community)	\$ 300,000	Reserved for FFY 2021 awards via competitive selection
Total	\$ 16,204,914	

Financial Summary of the Fundable Projects

	Loans				Additional Subsidization			
	Very Small Community	Small Community	General Community	Total	Very Small Community	Small Community	General Community	Total
Allocation of Available Funds	\$ 6,297,845	\$ 16,652,069	\$ 71,858,966	\$ 94,808,880	\$ 15,904,914	\$ -	\$ 300,000	\$ 16,204,914
Total Projects on Fundable List (1)	\$ 18,632,660	\$ 845,325	\$ -	\$ 19,477,985	\$ 15,904,914	\$ -	\$ -	\$ 15,904,914
Transfer	\$ 12,334,815	\$ (12,334,815)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	\$ -	\$ (3,471,929)	\$ 3,471,929					
Funding Assistance Planned (2)	\$ 18,632,660	\$ 845,325	\$ 75,330,895	\$ 94,808,880	\$ 15,904,914	\$ -	\$ 300,000	\$ 16,204,914
Balance Available after Projects Funded (3)	\$ -	\$ -	\$ 75,330,895	\$ 75,330,895	\$ -	\$ -	\$ 300,000	\$ 300,000

(1) From the Project Lists on the subsequent pages.

(2) Funding Assistance Planned = Allocation + Transfers.

(3) Balances may be shifted to other categories to fund projects that are ready to proceed.

DWSRF Fiscal Year 2021 Project Priority Lists

Carryover	Disadvantaged	Priority Points	Applicant	Project #	Description/ Needs Category	Service Area Population	Amount Requested	Loan Amount	Additional Subsidization Amount	Est. Financing Schedule FY - Quarter
<i>Note: An explanation of the abbreviations and codes appears at the end of the project lists.</i>										
FUNDABLE LIST - AVAILABLE FUNDS (Debt instrument secured and engineering report submitted)								\$ 94,808,880	\$ 16,204,914	
Very Small Community (Systems that serve a population of 3,300 or fewer)								\$ 18,632,660	\$ 15,904,914	
C	D	135	Princeton	DW291370-01	TP, Dis, Stor Rehab, Well, Well Rehab	1,166	\$ 3,886,100	\$ 1,886,100	\$ 2,000,000	21-4
C	D	105	Chamois*	DW291365-01	Well, Stor Rehab, Dis	396	\$ 1,514,707	\$ 345,000	\$ 1,035,000	21-4
C	D	100	Silex	DW291377-01	TP, Dis, Stor	283	\$ 2,266,138	\$ 566,534	\$ 1,699,604	21-4
C	D	95	Camden County PWSD #1	DW291373-01	Dis, Stor, Stor Rehab, Well Rehab, TP	220	\$ 3,417,000	\$ 1,417,000	\$ 2,000,000	21-4
	D	94	Centertown	DW291337-02	Stor, Dis	278	\$ 1,156,084	\$ 289,021	\$ 867,063	21-1
C	D	90	Newburg	DW291229-02	Dis, Stor, Well Rehab	470	\$ 1,486,808	\$ 371,702	\$ 1,115,106	21-4
	D	83	Licking**	DW291380-01	Dis, Stor, Well	3,124	\$ 3,834,764	\$ 1,834,764	\$ 1,893,926	21-4
	D	75	Urbana	DW291367-01	Dis, Well Rehab	417	\$ 1,873,236	\$ 468,309	\$ 1,404,927	21-1
C	D	65	Warsaw*	DW291293-02	Dis	2,125	\$ 4,905,003	\$ 1,278,700	\$ 2,000,000	21-4
	D	55	Memphis, Phase II	DW291363-02	Dis, Stor Rehab	1,822	\$ 2,519,050	\$ 629,762	\$ 1,889,288	21-4
		92	Plattsburg	DW291210-03	Dis, Stor	2,319	\$ 3,650,558	\$ 3,650,558	\$ -	21-4
		90	Moniteau Co. PWSD #1*	DW291378-01	Dis, Stor, Well Rehab	203	\$ 2,592,500	\$ 500,000	\$ -	21-4
		54	Harry S. Truman PWSD #2	DW291239-02	Stor	3,200	\$ 2,000,000	\$ 2,000,000	\$ -	21-4
		54	Brashear	DW291347-01	Stor	273	\$ 950,748	\$ 950,748	\$ -	21-4
C		52	Saline County PWSD #1	DW291359-01	Dis, Stor	591	\$ 1,096,462	\$ 1,096,462	\$ -	21-4
		34	Cass Co. PWSD #10*	DW291249-03	Stor	2,500	\$ 1,706,681	\$ 1,348,000	\$ -	21-4
Very Small Community Total							\$ 38,855,839	\$ 18,632,660	\$ 15,904,914	
Balance								\$ -	\$ -	

Carryover	Disadvantaged	Priority Points	Applicant	Project #	Description/ Needs Category	Service Area Population	Amount Requested	Loan Amount	Additional Subsidization Amount	Est. Financing Schedule FY - Quarter
Small Community (Systems that serve a population of 3,301 to 9,999)							\$ 845,325	\$ -		
		41	Bowling Green	DW291167-04	Dis	5,334	\$ 845,325	\$ 845,325	\$ -	21-4
Small Community Total							\$ 845,325	\$ 845,325	\$ -	
Balance								\$ -	\$ -	
General Community							\$ 75,330,895	\$ 300,000		
General Community Total							\$ -	\$ -	\$ -	
Balance							\$ 75,330,895	\$ 300,000		
Total Fundable List Projects							\$ 39,701,164	\$ 19,477,985	\$ 15,904,914	
Balance of Fundable List							\$ 75,330,895	\$ 300,000		
FUNDABLE CONTINGENCY LIST (Debt instrument secured and engineering report submitted; fundable if funds become available)							\$ -	\$ -		
Total Fundable Contingency Projects							\$ -	\$ -	\$ -	

Carryover	Disadvantaged	Priority Points	Applicant	Project #	Description/ Needs Category	Service Area Population	Amount Requested	Loan Amount	Additional Subsidization Amount	Est. Financing Schedule FY - Quarter
PLANNING LIST - AVAILABLE FUNDS								\$ -	\$ -	
(Debt instrument and engineering report not yet secured/submitted)										
		106	Archie	DW291142-03	Dis, Stor, TP	1,170	\$ 5,403,169	\$ -	\$ -	
		92	Daviess Co. PWSD #3	DW291379-01	Dis, TP	337	\$ 2,387,263	\$ -	\$ -	
		14	Cole Co. PWSD #4	DW291208-04	Dis, Stor	7,568	\$ 4,203,880	\$ -	\$ -	
Total Planning List Projects							\$ 11,994,312	\$ -	\$ -	

Description Reference List		
C	Carried over from the last Intended Use Plan	TP - Treatment Well - Well
D	Disadvantaged	Stor – Storage Stor Rehab - Storage Rehabilitation
		Dis – Distribution Well Rehab - Well Rehabilitation
		Rehab - Rehabilitation

Notes:

* Applicant has a maximum bonding capacity that the loan amount cannot exceed.

** Application not received by March 1, 2020.

Final eligible costs will be determined as documents are submitted and the project progresses toward loan closing.

Financing schedule shown is for planning purposes only. Final scheduling will be determined as documents are submitted and approvals obtained.

Carry over projects from the fiscal year 2021 list must reapply to be considered for the fiscal year 2022 list.

Distribution of Loan Administration Fees

The fees charged by the Missouri DWSRF program are not included as principal in DWSRF loans. Depending on the source of the loan and the timing of the payment with the administration fee, the administration fee is considered to be program income.

The administration fees collected are considered:

- program income earned during the capitalization grant period,
- program income earned after the capitalization grant period, or
- non-program income.

Source And Distribution Of Funds			
Loan Administration Fees¹			
As of Dec. 31, 2019			
Income	Program Income Earned During Grant Period	Program Income Earned After Grant Period	Non-Program Income
Beginning Balance as of 07/01/19	\$ 1,497,723	\$ 647,207	\$ 239,846
FY 20 Income (thru 12/31/19)	\$ 48,946	\$ 432,391	\$ 99,635
FY 20 Interest Earnings (thru 12/31/19)	\$ 13,892	\$ 9,034	\$ 2,902
Subtotal	\$ 1,560,561	\$ 1,088,632	\$ 342,383
Expenditures Thru 12/31/19			
FY 20 Program Administration	\$ (13,263)	\$ (1,113)	\$ -
FY 20 PSD Expenditures	\$ -	\$ -	\$ -
FY 20 Transfer to Loan Program (FFY 2019 State Match) ²	\$ -	\$ -	\$ -
Subtotal	\$ (13,263)	\$ (1,113)	\$ -
Income Less Expenditures	\$ 1,547,298	\$ 1,087,519	\$ 342,383
Projected Income			
FY 20 Income (01/01/20 - 06/30/20)	\$ 48,020	\$ 304,091	\$ 100,782
FY 20 Interest Income (01/01/20 - 06/30/20)	\$ 15,517	\$ 16,563	\$ 4,922
FY 21 Income (07/01/20 - 06/30/21)	\$ 92,542	\$ 657,825	\$ 187,959
FY 21 Interest Income (07/01/20 - 06/30/21)	\$ 32,659	\$ 24,979	\$ 11,614
Subtotal	\$ 188,738	\$ 1,003,458	\$ 305,277
Projected Expenditures			
FY 20 Program Administration	\$ (20,369)	\$ -	\$ -
FY 20 State Parks Drinking Water Infrastructure	\$ -	\$ -	\$ -
FY 20 Technical Assistance Grants	\$ -	\$ (25,000)	\$ (25,000)
FY 21 Transfer to Loan Program (FFY 2020 State Match) ³	\$ -	\$ (756,633)	\$ -
FY 21 Program Administration	\$ (34,964)	\$ -	\$ -
FY 21 Technical Assistance Grants	\$ -	\$ (25,000)	\$ (25,000)
Subtotal	\$ (55,333)	\$ (806,633)	\$ (50,000)
Total Actual and Projected	\$ 1,680,703	\$ 1,284,344	\$ 597,660

¹ The distribution of loan administration fees to various Department activities is subject to change throughout the Fiscal Year. Actual fund uses will be shown in detail in the Fiscal Year 2021 Drinking Water State Revolving Fund Annual Report. FY 2021 projected expenditures do not automatically carry over from one year to the next.

² Loan administration fees were transferred into the loan program and used as the source of state match for the FFY 2019 Capitalization Grant.

³ The Department may utilize proceeds of a bond sale or a transfer of loan administration fees to generate state match for FFY 2020 Capitalization Grant. A loan administration fee transfer for state match is shown to illustrate the fee balance for such alternative.

“During the grant period” is defined as the time between the effective date of the grant award and the ending date of the award reflected in the final grant financial report.

Administration fees charged by the program are deposited into an account outside of the DWSRF fund. In accordance with federal regulations, the Department may use the fees charged for program administration or other purposes in accordance with 40 CFR 31.25 (g)(2) and (3) and federal capitalization grant requirements.

The Department may use loan administration fees or proceeds from a bond sale as state match for the FFY 2020 federal capitalization grant. If loan administration fees are used, the Department transfers funds from a dedicated fee account into the DWSRF fund for use as loans.

Appendix 2: Drinking Water State Revolving Fund Loan Application Instructions

DWSRF applications received or postmarked by March 1, 2021, that meet readiness-to-proceed criteria will receive priority for additional subsidization and loan funding for FFY 2022. The Department accepts applications throughout the year; project additions may be made to the IUP up to four times per year.

Under 10 CSR 60-13.020, applications are valid for two years (or two IUP cycles). Applicants that have not received their funding at the end of two years may reapply to the program. A project's position on a fundable, contingency, or planning list may change with each subsequent application. The Department may also de-obligate funding from projects that are not making adequate progress within the allotted two years, and reallocate those funds to other projects.

It is important that any community who wishes to apply for this funding opportunity submit their application early in the project planning process. Early application and communication with the Department on each step are imperative to ensure the project meets all state and federal funding requirements.

How to complete a DWSRF application

1. The application form, instructions, and guidance documents are available online at dnr.mo.gov/env/wpp/srf/srf-app_guid.htm. The Department encourages potential applicants to contact the Financial Assistance Center for assistance with application submittal. You can reach the Financial Assistance Center at 573-751-1192 or fac@dnr.mo.gov.
2. Applicants should submit the following with their application (along with documentation of any funding commitments from other state and/or federal agencies contributing funds to the project):
 - **A complete engineering report:** The engineering report must meet all criteria listed in the Engineering Report Submittal Checklist found here: dnr.mo.gov/forms/780-2091-f.pdf. Submittal of an incomplete engineering report will delay progress and, ultimately, project funding.
 - **An acceptable debt instrument:** A debt instrument acceptable for a DWSRF loan is typically a revenue or general obligation bond. The Department will consider other types of debt instruments on a case-by-case basis.

A borrower may submit an application without either an engineering report or debt instrument. Such projects do not meet the meet readiness-to-proceed criteria and will be placed on either the Contingency or Planning List for a loan-only commitment. The Department will work with these applicants to assist them in achieving readiness-to-proceed status.

Professional Services

Engineering Services: State statute requires that all engineering reports, plans and specifications must be signed, sealed, and dated by a Missouri professional engineer. Applicants must procure engineering services in accordance with Sections 8.285 through 8.291, RSMo.

Financial Advisor: The Department strongly encourages applicants to retain the services of a registered municipal financial advisor. Municipal financial advisors are required to be registered with the Securities Exchange Commission. Additional information is available online at <https://www.sec.gov/info/smallbus/secg/muni-advisor-reg-secg.htm>.

Additional subsidization

Additional subsidization in the form of a grant or principal forgiveness, in conjunction with a loan, may be available to eligible applicants.

Additional subsidization is offered for two types of projects:

- Additional subsidization funding in the form of a grant, in combination with a loan, is available to public water systems proposing a project that will regionalize and/or consolidate a public water system that meets the state’s disadvantaged community criteria.
- Additional subsidization in the form of a grant or principal forgiveness, in combination with a loan, is available to public water systems that meet the state’s disadvantaged community criteria making needed improvements to their own system.

Under state regulation, a disadvantaged community is any applicant serving a population of 3,300 or fewer, whose average user rates for 5,000 gallons will be at or above two percent of the recipient median household income, and the recipient median household income is at or below 75 percent of the state average as determined by the most recent decennial census. Applicants that feel the decennial census does not accurately reflect their community’s median household income may conduct an income survey. In order to be accepted by the Department, this survey must be overseen by a state or local federal agency. Contact fac@dnr.mo.gov to inquire about conducting an income survey.

Disadvantaged community projects may be funded through a combination of 75 percent additional subsidization and 25 percent loan, with a maximum additional subsidization of \$2 million per applicant. Each grant dollar awarded reduces the project’s loan amount.

Additional subsidization funds are obligated to eligible projects on the Fundable List in priority order based on eligibility and available funding for the application cycle of two IUP years, and awarded when the applicant enters into a binding financial commitment. Failure to make timely progress may result in bypass and the loss of the additional subsidization commitment.

Appendix 3: Drinking Water State Revolving Fund

Program Administration

The Department's Water Protection Program is the delegated authority for the administration of federal funds made available to the state under the provisions of the Safe Drinking Water Act by the EPA. The funds are for financing a variety of eligible projects and are to be used in perpetuity for low-interest loans made from the DWSRF.

This IUP describes the proposed use of funds reserved for financial assistance for drinking water infrastructure improvements during FFY 2021 (Oct. 1, 2020, to Sept. 30, 2021). This IUP shall remain effective until Sept. 30, 2021, or until such time as the FFY 2022 IUP becomes effective.

Cash flow model

Missouri uses the cash flow model for the DWSRF (see illustration below).

The cash flow model diagram on the following page illustrates the SRF flow of funds. Construction loan repayments must begin within one year after the initiation of operations (the date when the first major constructed component is capable of being used for its intended purpose).

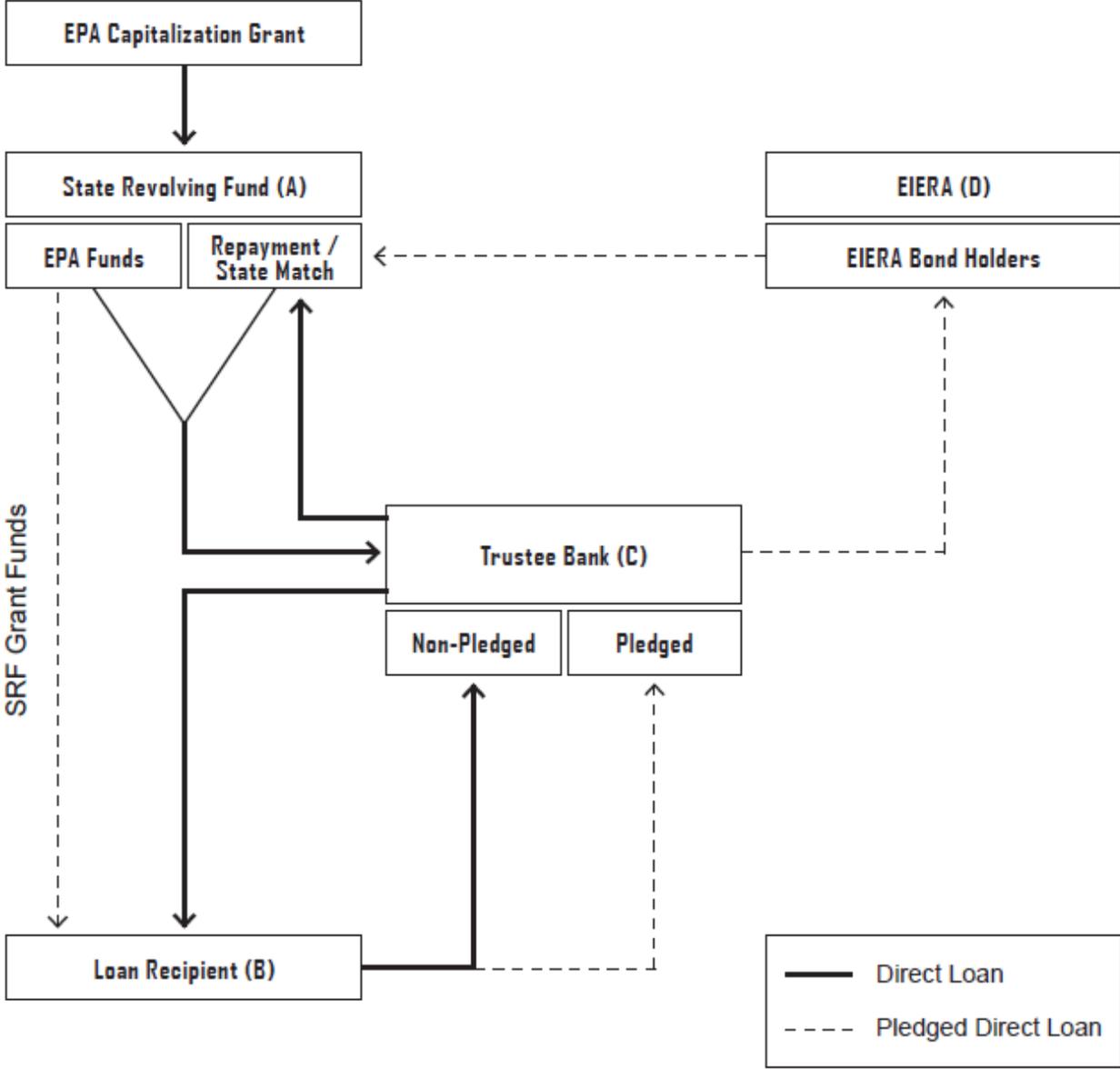
The loan repayment schedules will generally consist of semi-annual interest payments and semi-annual or annual principal payments. The trustee bank holds the periodic participant repayments in separate recipient accounts outside the DWSRF. Interest earnings on these recipient accounts are credited to the communities' debt service account, which reduces the amount of interest to be paid by the communities.

The Department receives federal Capitalization Grants from EPA. There is a 20 percent state match required to receive the grants. The funds are deposited into the SRF (A) and are used in accordance with applicable federal and state program requirements. State match funds are disbursed prior to using Capitalization Grant funds.

Under the cash flow model loan program, the Department purchases the debt obligations of the participants directly. As construction progresses, funds are released from the DWSRF (A) to the recipient (B) through the trustee bank (C) so the construction costs can be paid. Recipients of additional subsidization receive the funds directly from the DWSRF program. Upon completion of the project, the loans are adjusted to reflect the final loan amount.

Loan recipients send their loan principal and interest payments to the trustee bank (C). At such time as the DWSRF program needs to replenish the repayment fund, the EIARA (D) exercises its authority to sell bonds, and the direct loans are pledged to retire the EIARA debt. The proceeds of this sale are deposited into the DWSRF repayment account. The principal and interest payments on the EIARA bonds are secured through the pledge of the direct loan principal and interest payments from previous DWSRF program participants. Any surplus principal and interest that is not needed for the EIARA debt service is deposited into the repayment account.

DWSRF Cash Flow Model



Cross-collateralization of funds

The U.S. Departments of Veterans Affairs and Housing and Urban Development, and the Independent Agencies Appropriations Act of 1998 (Public Law 105-65), authorized limited cross-collateralization between the DWSRF and the Clean Water SRF. Cross-collateralization allows states to use Clean Water SRF funds as security for bonds issued to finance DWSRF projects and vice versa. The cross-collateralization of the two funds may enhance the lending capacity of one or both SRFs. State statute 644.122, RSMo. provides the state’s legal authority to implement cross-collateralization.

Transfer of Funds from the Drinking Water State Revolving Fund to the Clean Water State Revolving Fund

Section 302 of the Safe Drinking Water Act Amendments of 1996 authorized the transfer of funds between the DWSRF and the Clean Water SRF. The rules governing the transfer of funds limit the dollar amount a state can transfer to no more than 33 percent of a DWSRF capitalization grant. As funding is available and as needs arise, the Department can transfer loan funds with the approval of the Missouri SDWC, the Missouri Clean Water Commission, and EPA. Transfers between the two funds may enhance the lending capacity of one or both state revolving funds. State statute 644.122, RSMo. provides Missouri’s legal authority to implement this transfer of funds. No transfers are planned for FFY 2021.

A listing of current and recent transfers is below:

Fiscal Year	Clean Water SRF	DWSRF
2013	\$10,000,000	(\$10,000,000)
2013*	\$18,500,000	(\$18,500,000)
2015	(\$5,000,000)	\$5,000,000
2016	(\$5,000,000)	\$5,000,000

*Federal capitalization grant portion.

The Department, with prior approval from the Missouri SDWC, the Missouri Clean Water Commission, and EPA as appropriate, reserves the right to make additional transfers in the future.

Assistance for disaster relief

The Department may provide financial assistance to projects that address direct or indirect damage to a drinking water system in a state or federally declared disaster area through the DWSRF. The Department may provide these projects with advance authority to construct in accordance with 10 CSR 60-13.030(4). These projects may be given preferential priority ranking when determining the use of available DWSRF loan funds.

Drinking Water State Revolving Fund Capitalization Grant Allocations

The Safe Drinking Water Act Amendments of 1996 authorize funding for the DWSRF, and Congress appropriates this funding annually. Each state and U.S. territory is eligible for a portion of this funding. EPA provides the state with a federal DWSRF capitalization grant based on the state's proportional share of total eligible needs reported in the most recent drinking water infrastructure needs survey conducted every four years.

The Act authorizes the state to use the capitalization grant to fund low-interest loans for high priority infrastructure projects. The Act also authorizes the state to use a portion of the funding, known as "set-asides," for health effects studies, small system technical assistance, monitoring of unregulated contaminants, and operator certification reimbursement grants.

The Department will use the DWSRF federal capitalization grant to fund loans, additional subsidization, and authorized set-aside activities for FFY 2020. As allowed by the Act, the Department is reserving 31 percent of the grant for set-aside authorized activities. If the Department is not able to use the full 31 percent for set-aside activities this grant period, the Department may use the difference for financing infrastructure projects.

The Department's Public Drinking Water Branch manages and implements set-aside activities. This section of the IUP indicates how the Department intends to use the set-aside funds that will be available from the FFY 2020 capitalization grant.

A. Distribution of Set-Aside Funds

The Department will deposit set-aside funds from the FFY 2020 capitalization grant in a separate account. Table 1 shows the intended distribution of these set-asides.

The Department reserves the right to utilize any unused set-aside authority from the federal FFY 2020 capitalization grant for future set-aside expenditures.

Table 1. Distribution of Set-Aside Funds

Set-Aside Activities	Percent Capitalization Grant	Amount
DWSRF Administration and Technical Assistance	4 percent	\$776,440
Small System Technical Assistance	2 percent	\$388,220
Public Water System Supervision	10 percent	\$1,941,100
Local Assistance and Other State Programs	15 percent	\$2,911,650
Total	31 percent	\$6,017,410

B. Description of Set-Aside Activities

1. DWSRF Administration and Technical Assistance

This set-aside provides funding to administer the programs established under section 1452 of the federal Safe Drinking Water Act and to provide technical assistance to public water systems. The Department intends to use this set-aside for salaries and associated expenses to administer the DWSRF loan program, including the following:

- Assistance to loan applicants and loan recipients.
- Project review and approval.
- Assistance with the needs survey, project prioritization, loan issuance, payment, and accounting activities.
- Tracking repayments and project inspections.
- Supplies, equipment, and staff training.

The Department may also use a portion of this funding to contract for assistance to help potential loan applicants with setting rates or with other similar tasks that may serve as a barrier to meeting loan eligibility criteria.

The Department is reserving the full four percent allowed under this set-aside. If the entire authorized amount is not used, the Department will reserve the unused balance for eligible activities the following year.

2. Small Systems Technical Assistance

This set-aside provides funding for technical assistance to public water systems that serve 10,000 or fewer people. The Department intends to use this set-aside to assist small public water systems in the following ways:

- Complying with existing and near-term federal Safe Drinking Water Act requirements.
- Providing vouchers to eligible community and non-transient non-community water systems to defray the costs associated with operator training and certification.
- Other technical assistance activities that will improve compliance with safe drinking water requirements.

The Department is reserving the full two percent allowed under this set-aside. If the entire authorized amount is not used, the Department will reserve the unused balance for eligible activities the following year.

3. Public Water System Supervision

This set-aside provides funding for primacy program support, developing and implementing a capacity development strategy, and operator certification. The Department intends to continue using this set-aside for the following authorized activities:

- Primacy program activities, including program administration, inspections and sanitary surveys, rule development, primacy applications, compliance and enforcement, and information and data management.
- Technical assistance.
- Development and implementation of the capacity development strategy.
- Operator certification program administration.
- Administration of grant programs for well plugging.
- Comprehensive Performance Evaluation Training.

The Department is reserving the full ten percent allowed under this set-aside. If the entire authorized amount is not used, the Department will reserve the unused balance for eligible activities the following year.

4. Local Assistance and Other Programs authorized by Section 1452(k) of the Safe Drinking Water Act

The Act allows states to set aside up to 15 percent of the capitalization grant for the following:

- Source water protection loans to acquire land or easements.
- Source water protection loans to implement local, voluntary source water protection programs.
- Assistance, including technical, managerial, and financial assistance, to any public water system as part of a capacity development strategy.
- Expenditures for the establishment and implementation of wellhead protection programs compliant with section 1428 of the act.

The Department intends to use this set-aside to provide technical, managerial, and financial assistance to public water systems as part of the capacity development strategy and for wellhead protection. The types of activities the Department intends to fund with this set-aside include, but are not limited to, the following:

- Contracting circuit riders to provide leak detection surveys; compliance assistance; operator training; and technical, managerial, and financial capacity assistance to water systems.
- Grants to community water systems to plug abandoned drinking water wells that threaten aquifers.
- Contracting with the University of Missouri for maintaining public water system source water assessment and delineation information.
- Performing Vulnerability Assessments and Groundwater Under the Influence of Surface Water Determinations.
- Other activities as appropriate to implement the capacity development strategy or promote wellhead protection.

The Department is reserving the full 15 percent allowed under this set-aside. If the entire authorized amount is not used, the Department will reserve the unused balance for eligible activities the following year.

Appendix 4: Environmental Protection Agency Requirements and Assurances

The Department receives a federal capitalization grant annually from the EPA, and is required to provide a 20 percent state match. This appendix contains program commitments to assure the Department manages the DWSRF program in compliance with the capitalization grant agreement.

Additional subsidization

The Clean Water Act allows the state to use SRF funds to provide additional subsidization for eligible projects in the form of grants, principal forgiveness, or negative interest loans. The FFY 2020 capitalization grant mandates that states use at least 14 percent for additional subsidization to any DWSRF-eligible recipient, and that at least six percent shall go to state-defined disadvantaged communities. The required amount that the Department must utilize to provide additional subsidization for qualifying DWSRF-eligible recipients is \$2,717,540 (14 percent) and \$1,164,660 (six percent) for qualifying state-defined disadvantaged communities.

The table below shows the amount of the funding currently available for FFY 2021 by capitalization grant year.

Capitalization Grant Year	Amount
2016 Federal Fiscal Year Required Amount	\$692,591
2017 Federal Fiscal Year Required Amount	\$3,327,400
2018 Federal Fiscal Year Required Amount	\$3,916,400
2019 Federal Fiscal Year Required Amount	\$3,879,800
2019 Federal Fiscal Year Disadvantaged Required Amount	\$1,163,940
2019 Federal Fiscal Year Disadvantaged Supplemental Amount	\$4,327,929
2020 Federal Fiscal Year Required Amount	\$2,717,540
2020 Federal Fiscal Year Disadvantaged Required Amount	\$1,164,660

These additional subsidization funds will be committed to projects as they become fundable using the guidelines described in Appendix 3.

For each capitalization grant, the Department intends to reserve any carry-over additional subsidization funds for projects the following fiscal year unless modified as described in this plan.

Public review and comment

Federal law requires SRF programs to prepare an annual IUP, including Project Priority List and Priority Point Criteria. The IUP describes how the Department intends to use the DWSRF funds to support the overall goals of the DWSRF program. The Department must place the draft IUP on public notice to allow for public review and comment. The Department holds a public meeting during the public comment period to allow interested parties to hear testimony from the Department on the draft

plan and provide the public an opportunity to comment. The Department considers all written and verbal comments presented during the comment period, makes appropriate modifications, and provides a response to all comments. Any applicant aggrieved by his/her standing may appeal to the Commission during the public comment process.

Environmental review

Federal law requires SRF programs to subject projects receiving CWSRF funding to a state environmental review process that conforms generally to the National Environmental Policy. The Department's environmental review process, described within regulation 10 CSR 60-13.030, fulfills this requirement. The Department will determine whether an environmental impact statement is necessary during review of the project's engineering report. Most projects are determined to have no significant impact or can meet a categorical exclusion. The Department will accept environmental determinations completed by other state and federal agencies on a case-by-case basis.

Federal project requirements

A number of federal and state laws and executive orders apply to projects receiving federal financial assistance through the SRF program. Federal requirements that may apply to DWSRF participants include the Davis Bacon Act, American Iron and Steel (AIS), Disadvantaged Business Enterprise, Public Awareness, Water Systems Assessment, Single Audit, various environmental statutes, the Uniform Relocation and Real Property Acquisition Policies Act, Debarment and Suspension Executive Order 12549, restrictions on lobbying, and others. A complete list of requirements that apply to SRF projects is available upon request from the Financial Assistance Center.

Binding commitments

The Department intends to enter into binding commitments for a minimum of 120 percent of each EPA grant payment into the DWSRF within one year of the receipt of each payment, as required by federal law. DWSRF capitalization grant funds are typically fully used within a two-year period.

Expenditure of funds

The Department intends to expend all funds in the CWSRF in an expeditious and timely manner, as required by federal law.

Anticipated cash draw ratio (proportionality)

Missouri uses the cash flow model of the DWSRF. The federal capitalization grant is not used as security on the state match bonds. State match funds are deposited prior to using capitalization grant funds for set-aside expenditures. State match funds are disbursed prior to using capitalization grant funds for the loan program.

For more information, contact the Department of Natural Resources' Financial Assistance Center at 573-751-1192, fac@dnr.mo.gov, or dnr.mo.gov/env/wpp/srf/.

Appendix 5: Drinking Water State Revolving Fund Priority Points Criteria

General Information

This document sets forth the priority points criteria and procedures used to evaluate proposed DWSRF projects for FFY 2022. The priority points criteria forms the basis for project ranking and funding allocation.

The Department must annually prepare a DWSRF IUP that includes lists of projects expected to qualify for financing within the fiscal year addressed by the plan. Projects are listed so that the most serious problems are given the highest priority. Consistent with the federal Safe Drinking Water Act, priorities are based primarily on protection of public health, compliance with the Act, and household affordability. Each project's priority score is generated from an assignment of points based on the priority points criteria, and projects are ranked in priority order in each funding category. Only those proposed projects identified within the plan's project lists are eligible to receive financial assistance.

The Department must annually seek public comments on the priority point criteria proposed. The priority points criteria must be approved by the Missouri SDWC at least 60 days before the annual application deadline.

Assignment of Priority Points

Priority points shall be assigned only for the criteria below when the proposed project is intended to correct the violations, deficiencies, or problems associated with the points. For example, if a public water system has had persistent violations of a Treatment Technique, Maximum Contaminant Level (MCL), or secondary MCL, but the proposed project does not address the persistent violations, deficiencies, or problems, the Department will not assign points associated with those violations.

The sections on Distribution System Reliability (section III.B.) and Design Considerations (section III.F.) are limited to a maximum of 20 points each. This is done to ensure projects addressing MCL violations are not overwhelmed by projects addressing only design considerations or distribution system problems. The 25 points available for violations of acute risk contaminant MCLs are used as the baseline in developing the priority point criteria.

The Department will rank projects by the total number of points received. In the event of a tie, the projects receiving the highest number of points under Distribution System Reliability and Design Considerations (sections III.B. and III.F.) with the 20-point maximum limits lifted will receive the higher ranking. The second tie-breaking criteria will be the number of affordability points. The applicant with the highest affordability points will receive the higher ranking. The third tie-breaking criteria will be the number of people served. The system serving the larger number of people will receive the higher ranking.

For projects that involve the refinancing of existing debt, the Department will assign priority points for affordability only.

The Department will not assign priority points to a project intended to correct deficiencies resulting solely from inadequate operation and maintenance of the public water system.

Priority point assignment and listing in the plan does not guarantee all financial and project eligibility requirements have been met.

Priority Points

I. Safe Drinking Water Act Compliance

For this category, priority points apply solely to projects for existing public water systems as defined in 40 CFR 35.3520. (See the lists on pages 35 and 36, Safe Drinking Water Act Compliance Priority Points: Existing and Anticipated Regulations for further explanation of categories A through E below.).

A. **Acute Risk Contaminants (such as E coli, turbidity, or nitrates).** 25 points will be assigned for persistent violations of MCLs or treatment performance criteria for acute risk contaminants within the past 36 calendar months.

B. **Treatment Technique Requirements.** 20 points will be assigned for persistent violations of treatment technique requirements (for example, the Surface Water Treatment Rule, lead and copper, etc.).

C. **Compliance.** 20 points will be assigned for project to enable an eligible public water system to comply with an administrative order, a bilateral compliance agreement, or other enforceable document issued by the Department.

D. Non-Acute Risk Contaminants

1. 20 points will be assigned for persistent violations of any non-acute risk primary MCL within the past 36 calendar months.

2. 15 points will be assigned for persistent violations of any secondary MCL within the past 36 calendar months.

E. **Anticipated Federal Regulations.** 15 points will be assigned for proposed projects to enable the public water system to comply with anticipated federal regulations identified on the attached list, Safe Drinking Water Act Compliance Priority Points: Existing and Anticipated Regulations.

II. Public Health

A. **Waterborne Disease Outbreak.** 25 points will be assigned if a waterborne disease outbreak declared by the Missouri Department of Health and Senior Services is attributable to an existing

public water system and 51 percent or more of the cost of the proposed project addresses the problem(s) causing the waterborne disease outbreak.

B. Inadequate Water Supply.

1. 20 points will be assigned if the private or noncommunity wells or sources in the proposed project service area are unable to consistently provide an adequate amount of potable water for general household purposes and 51 percent or more of the cost of the proposed project addresses this need. Private or noncommunity wells or sources contaminated by commercial, industrial or mining wastes will be considered in this category.
2. 10 points will be assigned if an existing public water system can document its inability to consistently maintain at least 35 pounds per square inch (psi) as a normal working pressure in the distribution system.
3. 10 points will be assigned if an existing public water system can document its inability to consistently maintain pressures of at least 20 psi at all service connections, including fire flow.

III. Public Water System Infrastructure Improvement (priority points are applied in this category only to existing eligible public water system projects)

A. System source reliability

1. 10 points will be assigned to a project that addresses a need for a new backup well or a backup interconnection with another public water system.
2. 10 points will be assigned if the system has one or more improperly constructed wells.

B. Distribution system reliability (maximum 20 points).

1. 10 points will be assigned if the system has water loss that exceeds ten percent of the drinking water produced by the system.
2. 10 points will be assigned if the distribution system is anticipated to exceed design capacity or useful facility life within the next five years.
3. 10 points will be assigned if the distribution system has faulty waterlines or substandard waterline materials.
4. 5 points will be assigned if the public water system requires additional system isolation and flushing measures.
5. 5 points will be assigned if the public water system requires looping of waterlines.

C. Disinfection. 15 points will be assigned if a public water system is unable to maintain a disinfectant residual at all points in its distribution system.

D. Storage Facilities. 10 points if a system has storage facilities in poor condition, not related to inadequate maintenance of the facilities.

E. **Reliability of service.** 10 points will be assigned if a system has water storage capacity that is less than one day's average use or lacks adequate standby power.

F. **Design considerations** (maximum 20 points).

1. 20 points will be assigned if the source or treatment facility is anticipated to exceed its useful life or if the demand is expected to exceed its design capacity within the next five years.
2. 20 points will be assigned if a system has suffered significant degradation of the quality of the raw water supply.
3. 20 points will be assigned if a system has suffered significant degradation of the quality of finished water in storage.
4. 10 points will be assigned if a system currently does not meet existing state requirements for the treatment or storage of waste residues generated by the water treatment plant.

G. **Useful Life of Disinfection or Turbidity.** 20 points will be assigned if the treatment facility(ies) for required disinfection or turbidity removal are severely deteriorated and beyond the facility's useful life.

H. **Vulnerability.**

1. 10 points will be assigned to a water system whose source is vulnerable to natural disasters (such as flood or drought) or contamination.
2. 10 points will be assigned to a water system whose treatment plant is vulnerable to natural disasters (such as flood, earthquake, etc.) or contamination.
3. 10 points will be assigned if 51 percent or more of the proposed project cost is for repair or replacement of an existing public water system damaged or destroyed by a natural disaster. In order to be assigned these points, the project must be located in an area declared a federal or state natural disaster area, and a description of the public water system damaged or destroyed by the natural (disaster must be submitted along with a statement that other state or federal disaster relief is not sufficient to meet the costs of the project).

IV. Affordability (priority points are applied in this category only to the projects of publicly owned water systems).

A. **Determining Annual Median Household Income.** The state's annual median household income level must be determined from the latest decennial census of the United States, The system's annual median household income level must be determined from the county, city, village, town's income data from the latest decennial census of the United States, or from an income survey overseen by a state or federal agency.

1. A community water system will use the annual decennial median household income for the appropriate political subdivision or subdivisions encompassing its service area.

2. A non-municipal community water system will use the annual decennial median household income for the smallest political subdivision encompassing the nonmunicipal community water system.

B. Assignment of Affordability Points (maximum 25 points).

1. 20 points will be assigned to a project if the median household income of the applicant is less than 75 percent of the state median household income as reported in the most recent decennial census.
2. 1 to 25 points will be assigned based on the ratio of the current monthly water bill for 5,000 gallons of water to the monthly median household income for the project area to be served (expressed in percent times ten and rounded to the nearest whole number).

For example: Monthly water bill = \$20 Annual median household income = \$24,000
Monthly median household income = $\$24,000/12 = \$2,000$ ($\$20/\$2,000$) x 100% = 1%
 $1 \times 10 = 10$ points.

V. Regionalization, Interconnection, and Security

A. Interconnection.

1. 20 points will be assigned for systems affected by drought for projects that will result in interconnections with other systems or for upgrades to existing systems to address drought-related problems.
2. 20 points will be assigned to address systems prone to flooding that will result in interconnections with other systems or for upgrades to existing systems to address flood-related problems.

B. Consolidation.

1. 20 points will be assigned if the proposed project provides necessary infrastructure upgrades to a primary water system, allowing it to continue or expand service as a regional water supplier.
2. 20 points will be assigned for consolidation of public water systems, where at least one of the systems has demonstrated technical, managerial, and financial capacity with respect to the National Primary Drinking Water Regulations. This would include newly formed regional water suppliers (generally water districts), which will allow small water systems within their boundaries to consolidate.
3. 20 points will be assigned if the proposed project will result in a new water distribution system or existing distribution system upgrade to meet the standards of a regional water supplier for the purpose of consolidation.
4. 10 points will be assigned for consolidation of public water systems where the proposed project will result in a regional management system responsible for the day-to-day operation

of the water system, where the management system has the required technical, managerial, and financial capacity to meet the National Primary Drinking Water Regulations. If the project meets the criteria for the points under item V.B.4., points under these criteria will not be awarded.

- C. **Security.** 10 points will be assigned for eligible security measures, including vulnerability assessments, emergency response plans, fencing, security cameras, and lights, motion detectors, secure chemical and fuel storage, security hatches and access panels, cross-connection control, and supervisory control and data acquisition (SCADA).

VI. Technical, Managerial, and Financial Capacity Demonstration

- A. **Wellhead and Source Water Protection.** 10 points will be assigned to applicants who have a Department-approved wellhead or source water protection plan.
- B. **Board Member or City Council Member Training.** 10 points will be assigned if 50 percent of the governing body has received training related to the operation and management of the water utility.
- C. **Operation and Maintenance Plan and Budget.** 10 points will be assigned if the system has a complete operation and maintenance plan and includes these items in their annual budget.
- D. **Asset Management.** 10 points will be assigned if the system has completed an asset inventory, including the condition and age of assets, for all critical assets in their system and has incorporated replacement schedules into annual and capital improvement budgets.

SDWA Compliance Priority Points: Existing and Anticipated Regulations

Maximum Contaminant Levels (MCL) and Treatment Technique Requirements. Acute Risk Contaminants

10 CSR 60-4.022 (or Missouri State Revised Total Coliform Rule in effect at the time of application) Maximum Microbiological Contaminant Levels and Monitoring Requirements, subsections (7)(A) and (7)(B).

10 CSR 60-4.030 Maximum Inorganic Chemical Contaminant Levels, Action Levels, and Monitoring Requirements, paragraphs 13, 14, and 15 of subsection (1)(A).

10 CSR 60-4.050 Maximum Turbidity Contaminant Levels and Monitoring Requirements, subsections (2)(A) and (2)(B).

Treatment Technique Requirements

10 CSR 60-4.025 Ground Water Rule, section (4).

10 CSR 60-4.050 Maximum Turbidity Contaminant Levels and Monitoring Requirements, section (2).

10 CSR 60-4.052 Source Water Monitoring and Enhanced Treatment Requirements, sections (1) and (2).

10 CSR 60-4.055 Disinfection Requirements, subsection (1)(A), section (2), section (3), section (4), section (5) and section (6).

10 CSR 60-4.094 Disinfectant Residuals, Disinfection Byproduct Precursors and the Stage 2 Disinfectants/Disinfection Byproducts Rule.

10 CSR 60-15.010 General Requirements (lead and copper), sections (4), (5) and (6). Non-Acute Primary MCL.

10 CSR 60-4.030 Maximum Inorganic Chemical Contaminant Levels, Action Levels, and Monitoring Requirements, section (1).

10 CSR 60-4.040 Maximum Synthetic Organic Chemical Contaminant Levels and Monitoring Requirements, section (1).

10 CSR 60-4.060 Maximum Radionuclide Contaminant Levels and Monitoring Requirements, subsections (1)(A)-(D).

10 CSR 60-4.100 Maximum Volatile Organic Chemical Contaminant Levels and Monitoring Requirements, section (2).

Secondary MCL

10 CSR 60-4.070 Secondary Contaminant Levels and Monitoring Requirements, section (1).

New and Anticipated Federal Regulations

None at this time.

Appendix 6: Drinking Water State Revolving Fund Readiness to Proceed & Fund Reserves

General Information

In an effort to ensure that committed loan funds are used as quickly as reasonably possible, the Department uses a “readiness -to-proceed criteria” to determine fundable status and the distribution of available and anticipated DWSRF funds.

DWSRF Fund Reserves

Consistent with state law, the Department will initially reserve available funds by population-size category (for projects that meet the application deadline and readiness-to-proceed criteria), as shown below:

- 20 percent to very small community systems serving up to 3,300 people,
- 15 percent to small systems serving 3,301 to 9,999 people,
- 65 percent to general communities (not restricted by population served).

After the Department allocates funds to all fundable projects within a particular category, it may transfer remaining unobligated funds to another category for which funds are not sufficient to satisfy all fundable projects.

Readiness to Proceed

A project is ready to proceed when, at a minimum, the applicant has submitted a complete engineering report and has secured bond authorization (or another acceptable debt instrument). A complete engineering report must adequately address the information required by sections 1-4 of the Engineering Report Submittal Checklist, <https://dnr.mo.gov/forms/780-2091-f.pdf>.

The following describes how the Department lists projects for the purpose of committing DWSRF loan and grant funds.

- **Fundable Contingency List Fundable List:** This list includes projects that meet the readiness-to-proceed criteria. i.e., those for which the applicant has submitted a complete engineering report, documentation of an acceptable debt instrument, and any necessary funding commitments from other state and/or federal agencies contributing funds to the project. The Department schedules these projects for financial assistance during the current fiscal year, and allocates available funds accordingly. All eligible carry over applications from last year’s fundable list will retain their funding commitment from the previous IUP, unless bypassed.
- **Fundable Contingency List:** This list includes projects that meet the readiness-to-proceed criteria, but sufficient SRF funding is unavailable or the project is not expected to need funds in the current fiscal year. These projects may receive assistance if funds become available during the fiscal year.

- **Planning List:** This list includes projects for which the Department has received an application, but is awaiting submittal of an engineering report and/or an acceptable debt instrument. The Department works with these communities to assist them in meeting the readiness-to-proceed criteria. Once the criteria are met, the Department may move the project to the fundable list if funds are available.

Bypass Procedures

With the Commission's approval, the Department may bypass any project on the fundable list that does not make satisfactory progress toward meeting requirements in order to make the committed funds available to other projects that are ready to proceed.

Applicants are expected to make timely progress based on a reasonable project-specific schedule developed in coordination with the applicant. The Department may recommend that the SDWC bypass a project for failure to meet the schedule. The applicant will be notified of the recommendation of their project being bypassed and the date and time of the Commission meeting where the recommendation of bypass will be presented.

After Commission approval, bypassed projects will be removed from the fundable priority list and added to the fundable contingency list. If the application is still valid, it will be placed on a project list, in priority order, for funding consideration in the next federal fiscal year. If not, reapplication will be necessary as outlined in the IUP. Funds recovered through project bypass will be considered uncommitted and available for distribution to the next priority project in accordance with the procedures outlined in the IUP.

Appendix 7: Drinking Water State Revolving Fund Engineering Report Grants

Engineering Report Grant applications received or postmarked by December 31, 2020, will be scored based on criteria outlined in the application, and competitively awarded during FFY 2021. The application and instructions are available online at https://dnr.mo.gov/forms/docs/780-2912-f_000.pdf.

Purpose

The purpose of this funding is to assist small communities with engineering costs to plan for drinking water system improvements related to compliance and ability to provide safe drinking water, including compliance with the National Primary Drinking Water Regulations and the Missouri public drinking water regulations. Funding comes from the DWSRF capitalization grant's additional subsidization allocation.

Description

Eligible systems may receive a 50 percent grant with a 50 percent recipient match, not to exceed a maximum grant amount of \$15,000. If the eligible system successfully applies for a DWSRF loan and meets readiness-to-proceed criteria within a year of report completion, up to \$15,000 of the recipient's match are eligible to be reimbursed as a grant at the time of the loan closing.

Eligible systems that meet the definition of a disadvantaged community may receive up to 100 percent of the costs for engineering report services, not to exceed a maximum grant amount of \$30,000. DWSRF regulations define a disadvantaged community as one that has a population of 3,300 or less, whose decennial median household income is at or below 75 percent of the state average, and whose user rates are at or above two percent of the decennial median household income.

Eligible applicants

The grant is available for municipalities, counties, public sewer or water districts, political subdivisions, or instrumentalities of the state operating a community water system serving a population equal to or less than 3,300. Municipalities, counties, public sewer or water districts, political subdivisions, or instrumentalities of the state operating a larger system that are developing a plan to serve a system under a population of 3,300 through regionalization or consolidation may also apply.

In order to be eligible, the applicant must: 1) submit a complete application by the deadline; 2) have no outstanding fees due to the Department; 3) not already have an engineering report for the same issues; and 4) agree to make a good faith effort to pursue the recommendations contained in the approved engineering report.

Grant Timeframe

It is important that any community who wishes to apply for this funding opportunity submit their application early in the project planning process. Early application and communication with the Department on each step are imperative to ensure the project meets all state and federal funding requirements. Engineering report projects that the applicant has already started are not eligible for funding through this program.

Once the grant is awarded, the recipient has six months for the engineering report to be completed and approved by the Department. Funding provided under this program shall only be used as reimbursement of expenses for services provided during the project's budget period. The Department will hold the final 10 percent of the reimbursement until the report has been approved by the Department. The complete engineering report must be submitted to the Department for review and approval no later than 60 days prior to the end of the budget period of the award. This ensures adequate time is allowed for a response to comments. No payments may be made to the recipient for engineering expenses incurred after the budget period has expired without an amendment to the grant.

Recipients should wait for notice from Financial Assistance Center to initiate work under this grant in order to ensure all costs incurred are reimbursable.

Cost Eligibility

Eligible costs are those that are directly incurred in the development of the engineering report. This includes the cost of engineering services, investigations, and other services incurred in preparation of the engineering report. The costs:

- May include other items deemed reasonable, necessary, and allocable to the project.
- Must result in an engineering report that makes reasonable and cost-effective recommendations that will meet the Missouri drinking water law requirements.
- Must be within the Department-approved scope of the project.

Ineligible costs include, but are not limited to:

- Any engineering services completed prior to the award.
- Preparation of the engineering report grant application.
- Ordinary operating expenses of the recipient including salaries and expenses of elected and appointed officials, and preparation of routine financial reports and studies.
- Preparation of applications and permits required by federal, state, or local laws, regulations, or procedures.
- Preparation of applications for future funding for work following the engineering report.
- Administrative, engineering, and legal activities associated with the establishment of special departments, agencies, commissions, regions, districts, or other units of government.
- Fines and penalties due to violations of, or failure to comply with, federal, state, or local laws, regulations, or procedures.
- Force account labor including engineering.
- Costs outside the scope of the Department-approved project.

Selection Process

Complete applications received by December 31 will be ranked according to eligible projects based on scoring criteria are specified in the application and instructions. Only applications that have been completely filled out, signed, and include the required supporting documentation will be ranked. Points will be assigned only for engineering report elements that address deficiencies or problems with the system. For example, if the system has had persistent violations of a secondary maximum contaminate level, the engineering report must address that problem in order to receive priority points.



Water Protection Program - Financial Assistance Center

PO Box 176 • Jefferson City, MO 65102-0176

573-751-1192 • fac@dnr.mo.gov • dnr.mo.gov



Serving Municipal Utilities

September 11, 2020

VIA EMAIL: fac@dnr.mo.gov

Missouri Department of Natural Resources
Water Protection Program, Financial Assistance Center
ATTN: Sharon Davenport
P.O. Box 175
Jefferson City, MO 65102-0176

RE: Drinking Water Intended Use Plan Comments

Dear Ms. Davenport:

The Missouri Public Utility Alliance (MPUA) appreciates the opportunity to comment on the proposed Drinking Water State Revolving Fund (DWSRF) Intended Use Plan (IUP) for fiscal year 2021. We are appreciative of the work completed within the WPP Financial Assistance Center (FAC). FAC staff is efficient and responsive while working with both our agency and our municipal utility members. Please accept our written comments on behalf of our member utilities.

- 1) MPUA supports the Department's proposed funding allocations to the following communities:
 - Newburg - \$282,456 loan with a \$847,370 grant
 - Warsaw – 1,278,700 loan with a \$2,000,000 grant
 - Memphis - \$629,762 loan with a \$1,889,288 grant
 - Centralia - \$2,744,000 loan
 - Carrollton - \$4,180,647 loan
- 2) We suggest that the Department considers providing regional training on compliance with the Lead and Copper Rule with the money set aside for small systems technical assistance.
- 3) The proposed IUP indicates that the Drinking Water Engineering Grants will be taken out of the DWSRF set-aside funds and will be placed in the DWSRF loan funds. After reviewing the Table 3.11: Eligible Construction and Non-construction Project Costs, we are concerned that the engineering grants may be ineligible for the use of DWSRF funds. It is clear that non-construction activities are eligible if it is included as part of the loan's project budget; but what

if the recipient does not complete the construction part of the project with the DWSRF? Are you going to require every public water system that is seeking an engineering grant to also apply for an DWSRF construction project? We request clarification on these issues.

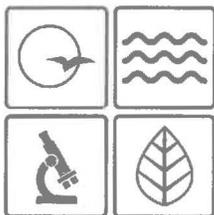
Thank you for your consideration of these comments. If you have questions, please contact me at 573-825-7244 or lhirschvogel@mpua.org.

Sincerely,



Lacey Hirschvogel,
Environmental and Public Policy Manager

cc: Ewell Lawson, MPUA



Missouri Department of dnr.mo.gov

NATURAL RESOURCES

Michael L. Parson, Governor

Carol S. Comer, Director

September 21, 2020

Lacey Hirschvogel
Environmental and Public Policy Manager
Missouri Public Utility Alliance
808 I-70 Drive SW
Columbia, MO 65203

RE: Missouri Public Utility Alliance (MPUA) – Drinking Water State Revolving Fund,
Intended Use Plan Comments, Response to Comments

Dear Lacey Hirschvogel:

Thank you for your letter dated September 11, 2020, to the Missouri Department of Natural Resources providing comments on the Drinking Water State Revolving Fund (DWSRF) Intended Use Plan (IUP) placed on public notice. Please find specific responses to your comments below.

Comment 1: MPUA supports the Department's proposed funding allocations to the following communities:

- Newburg - \$282,456 loan with a \$847,370 grant
- Warsaw - 1,278,700 loan with a \$2,000,000 grant
- Memphis - \$629,762 loan with a \$1,889,288 grant
- Centralia - \$2,744,000 loan
- Carrollton - \$4,180,647 loan

Response: Thank you for your comment.

Comment 2: We suggest that the Department considers providing regional training on compliance with the Lead and Copper Rule with the money set aside for small systems technical assistance.

Response: The Department appreciates the suggestion from MPUA that the Department consider providing regional training on compliance with the Lead and Copper Rule with the money set aside for small system technical assistance. Once the Lead and Copper Rule is finalized, the Department will evaluate the final provisions of the rule and look to develop a plan for providing training assistance to Missouri systems. That assistance may be funded by the Small System Technical Assistance Set Aside or through other available resources.

Comment 3: The proposed IUP indicates that the Drinking Water Engineering Grants will be taken out of the DWSRF set-aside funds and will be placed in the DWSRF loan funds. After reviewing the Table 3.11: Eligible Construction and Non-construction Project Costs, we are concerned that the engineering grants may be ineligible for the use of DWSRF funds. It is clear

Lacey Hirschvogel
September 21, 2020
Page 2

that non-construction activities are eligible if it is included as part of the loan's project budget; but what if the recipient does not complete the construction part of the project with the DWSRF? Are you going to require every public water system that is seeking an engineering grant to also apply for an DWSRF construction project? We request clarification on these issues.

Response: The DWSRF Eligibility Handbook of 2017 contains Table 3.11 describing eligible costs related to Construction projects. The table is intended to make clear that a borrower may not use DWSRF funds for engineering and legal work that is unrelated to its construction project. However, many other, non-construction activities are eligible for DWSRF funding as described elsewhere in the handbook and "States have considerable flexibility regarding the use of their capitalization grant funds."

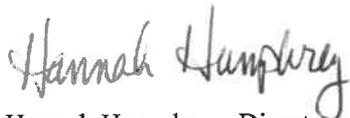
Section 3.3 Eligible Projects states: "The SDWA provides that DWSRF financial assistance may be used by an eligible public water system only for expenditures of a type or category which the EPA Administrator has determined will facilitate compliance with national primary drinking water regulations or otherwise significantly further the health protection objectives of the Act." This Section includes nine tables that describe eligible project types with examples. Section 3.3 concludes, "In addition, other activities eligible for an assistance agreement could include planning and design, water utility audits, leak detection studies, identification of service line materials, optimization studies, drought contingency plans, and other evaluations that might results in a capital project or in a reduction in demand to alleviate the need for additional capital investment."

Thus, Drinking Water Engineering Report grant recipients are not required by federal law to apply for DWSRF funding for a construction project. However, a Department grant condition for drinking water and clean water engineering report grants is the recipient agrees to make a good faith effort to pursue recommendations as contained in the approved engineering document. If the recommended work is construction, the recipient may apply for either DWSRF or U.S. Department of Agriculture's Rural Development financing.

We appreciate you having taken the time to review the IUP and help us improve its quality. If you have any questions regarding the Department's responses, please feel free to contact me at 573-751-1192 or Department of Natural Resources, Water Protection Program, P.O. Box 176, Jefferson City, MO 65102-0176. Thank you.

Sincerely,

WATER PROTECTION PROGRAM



Hannah Humphrey, Director
Financial Assistance Center

HH/cs

Safe Drinking Water Commission

Department of Natural Resources
Division of Environmental Quality
Water Protection Program
Public Drinking Water Branch

October 14, 2020

Agenda Item # E
New Business

Issue:

This routine agenda item provides the Commission the opportunity to discuss last minute or minor issues arising after the agenda has been finalized.

Recommended Action:

Information only.

Presented by:

Liz Grove, Chair, SDWC

Safe Drinking Water Commission

Department of Natural Resources
Division of Environmental Quality
Water Protection Program
Public Drinking Water Branch

October 14, 2020

Agenda Item # F
Open Comment Session

Issue:

This routine agenda item provides an opportunity for the public to comment on any issues pertinent to the Commission's roles and responsibilities.

Recommended Action:

Information only.

Presented by:

Liz Grove, Chair, SDWC

Safe Drinking Water Commission

Department of Natural Resources
Division of Environmental Quality
Water Protection Program
Public Drinking Water Branch

October 14, 2020

Agenda Item #G
Future Meeting Dates

Information:

Tentative meeting dates and locations:

Date	Time	Location
Monday, November 23, 2020	10:00 A.M.	Virtual Meeting
Wednesday, January 13, 2021	10:00 A.M.	Virtual Meeting
Wednesday, April 14, 2021	10:00 A.M.	TBD

Recommended Action:

Information only.

Presented by:

Liz Grove, Chair, SDWC

Safe Drinking Water Commission

Department of Natural Resources
Division of Environmental Quality
Water Protection Program
Public Drinking Water Branch

October 14, 2020

Agenda Item # H
Closed Session

Issue:

This portion of the meeting may be closed if such action is approved by a majority vote of the Safe Drinking water Commission members who constitute a quorum, pursuant to Section 610.021, RSMo.

Presented by:

Liz Grove, Chair, SDWC

Safe Drinking Water Commission

Department of Natural Resources
Division of Environmental Quality
Water Protection Program
Public Drinking Water Branch

October 14, 2020

Agenda Item # I
Meeting Adjournment

Issue:

Routine conclusion of Commission business.

Recommended Action:

Commissioners vote to adjourn the meeting

Suggested Motion Language:

Chair Grove, I move this meeting of the Safe Drinking Water Commission be adjourned.

Presented by:

Liz Grove, Chair, SDWC