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Water Resources in SW Missouri: What MoDNR Sees

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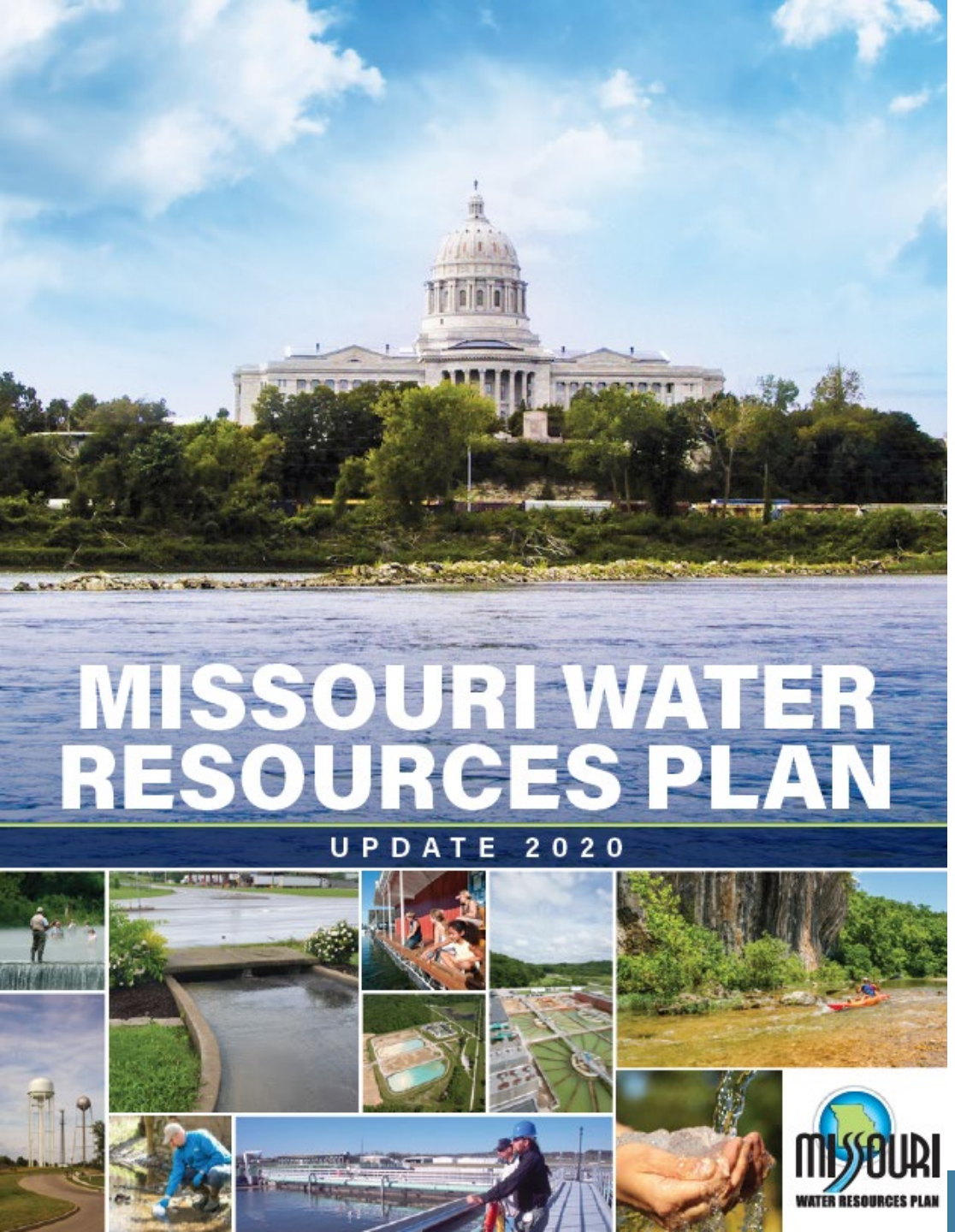
McDaniel Lake in Springfield, 1954



- These are the children of the Durden Family, Philip, Rebecca, Ruth, and Stephen, standing on the bottom of McDaniel Lake.

- Fulbright Spring was the only dependable water source for Springfield during the extended drought of the 1950s.

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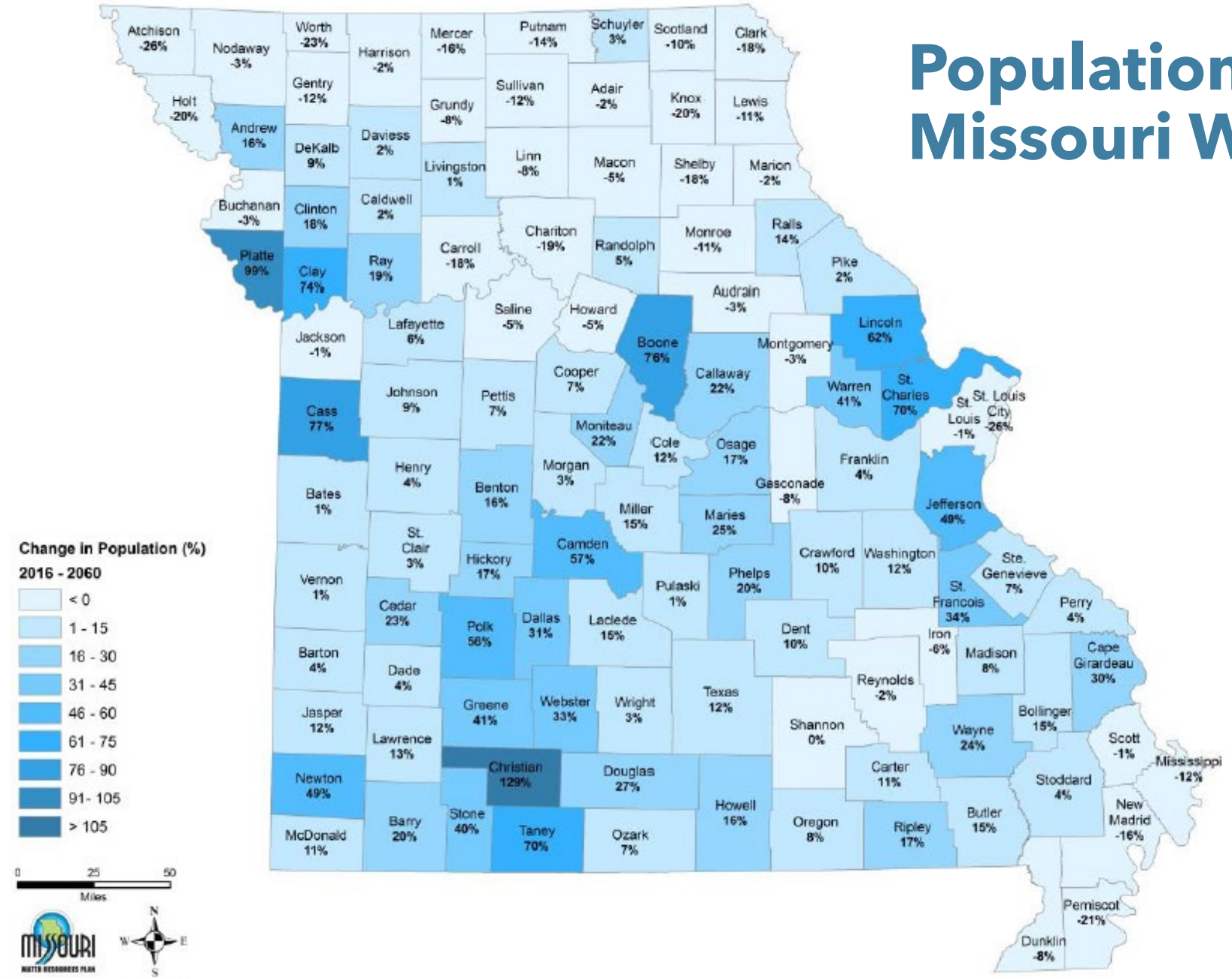


Missouri Water Resources Plan

1. Develop estimates of water **demand** for all sectors of water use
2. Assess water **supplies**
3. Identify **infrastructure** needs, costs, and financing
4. Assess **scenarios** of potential future conditions

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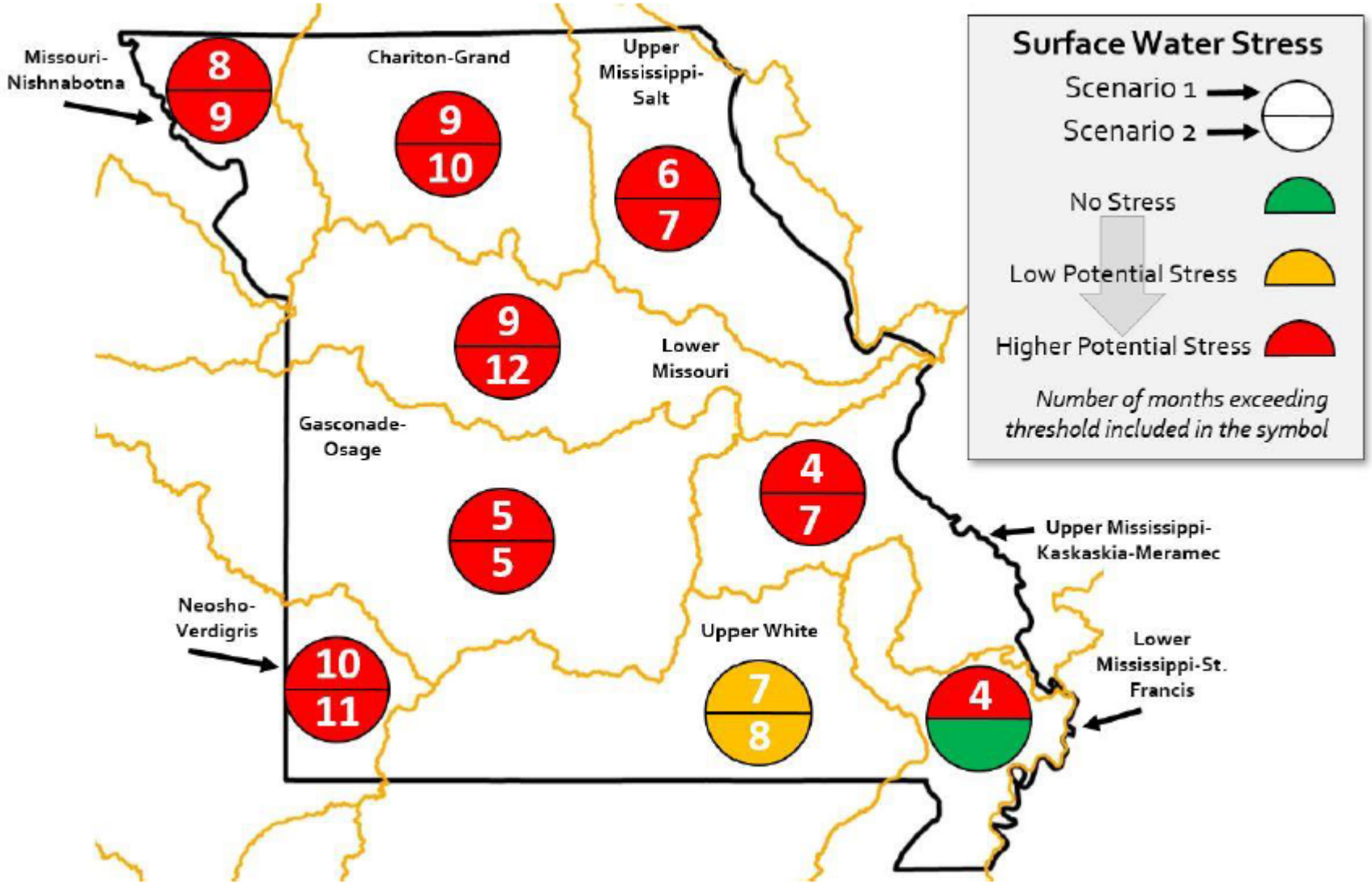
Population Growth in the Missouri Water Plan



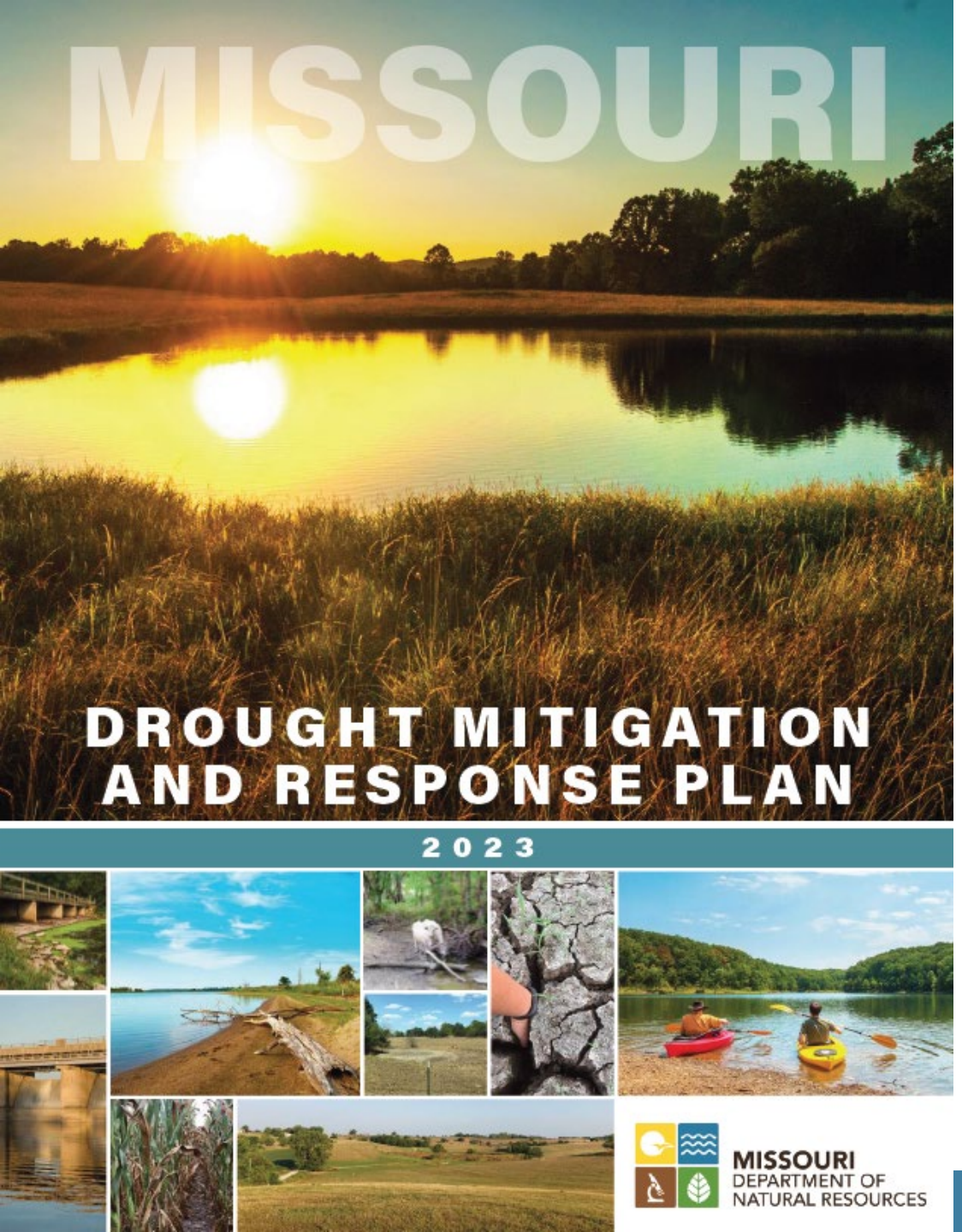
Sources: Derived from Woods & Poole Inc. 2017

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Business-as-Usual vs. Strong Economy/High Water Stress Drought of Record



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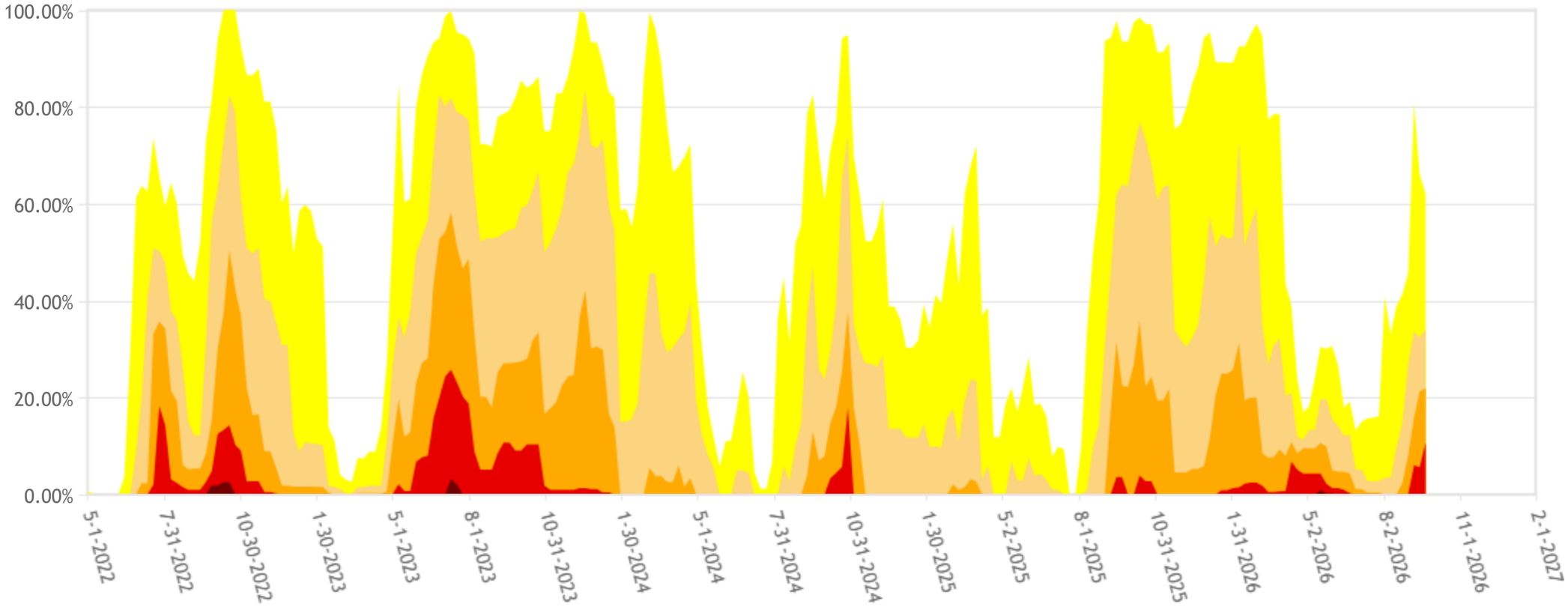


Missouri Drought Mitigation and Response Plan

1. Describes the **types of droughts** and **impacts**.
2. Assesses **resiliency to drought**
3. Quantifies potential **economic impacts**.
4. Examines the regional **likelihood** of and **susceptibility** to drought.
5. Characterizes regional **vulnerability** to drought.
6. Explores **mitigation actions.**
7. Offers **region-specific** drought mitigation and response actions.

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Missouri Percent Area in U.S. Drought Monitor Categories



From the U.S. Drought Monitor website, https://droughtmonitor.unl.edu/DmData/TimeSeries.aspx, 9-24-2026

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Multipurpose Water Resources Fund (MPWRF)

- Provides funding for water resources projects
  - Primarily source water development projects
  - Can be used for planning, design, construction, or renovation
- Money appropriated into the Fund by legislature
- Sponsors apply for funding
  - Specific amounts of money for specific project tasks
  - Projects can be multi-phased
  - Projects get reimbursed for expenses
- Sponsors propose remittance plan

Multipurpose Fund Support for SWMO Water

- Award 1 - $1,045,000 – 2021 to 2025 – Included matching funds for PAS Study
- Award 2 - $750,000 – 2025 to present
- Award 3 - $13,404,000 for Stockton Reservoir Storage with an option for another $15,339,638 in 10 to 15 years – finalized May 2026
    - SWMO Water has committed to remitting 50% of award over 30 years

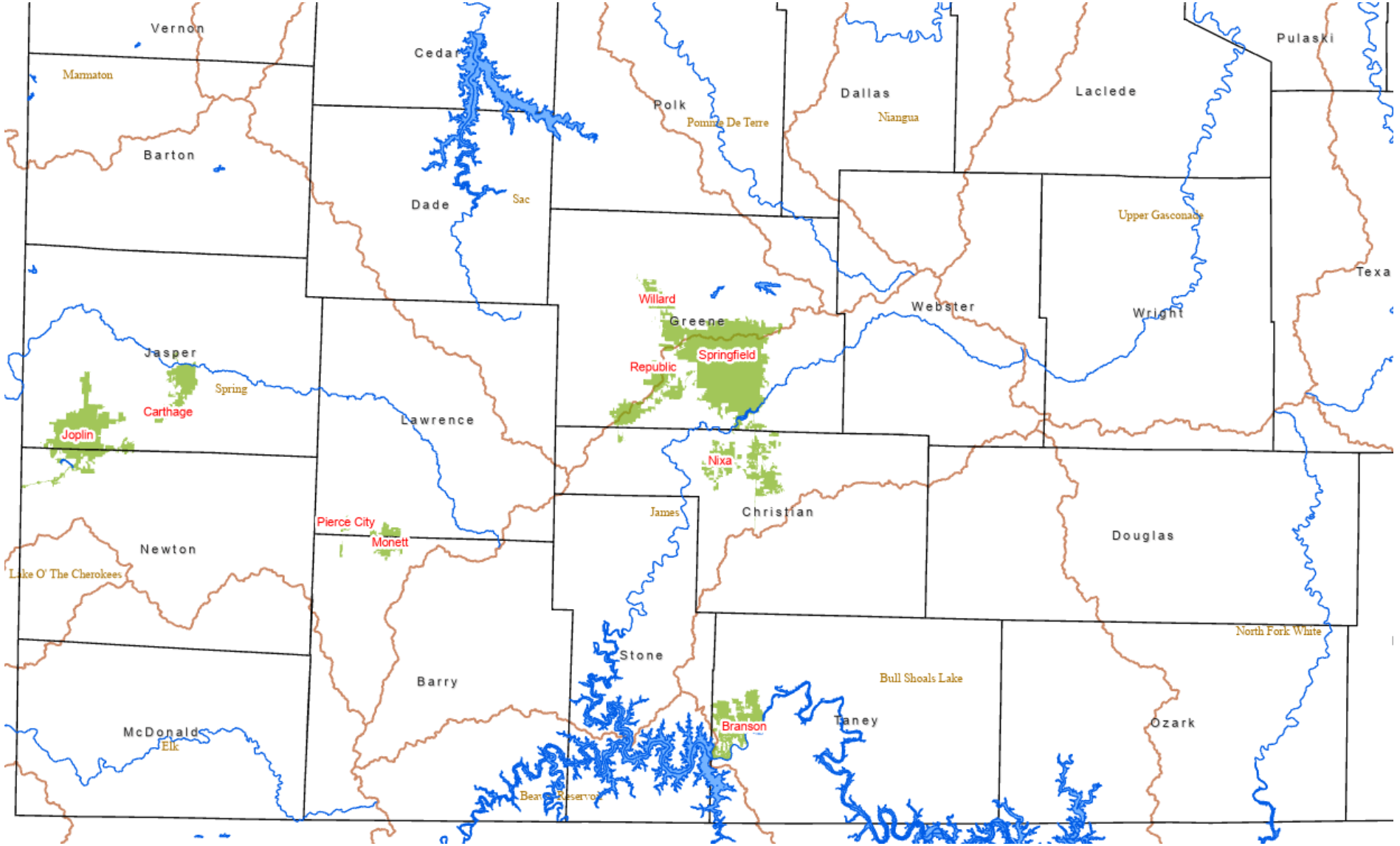
Missouri Return Flow Legislation

- Effective 28 August 2026
- **644.083. Right to return flow for water stored in reservoir owned by United States Army Corps of Engineers. –** 1. Notwithstanding any provision of law to the contrary, a person who has contracted for the right to store water in a reservoir owned by the United States Army Corps of Engineers shall have exclusive rights to any return flows generated directly or indirectly to that reservoir by the person. The rights under this section shall be subject to regulatory requirements imposed by the state and to the availability to the person of unused storage capacity within the reservoir to store such return flows.

2. For purposes of this section, **"return flow"** means water that is discharged directly or indirectly to a reservoir from a water reclamation facility.

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Missouri Return Flow Legislation



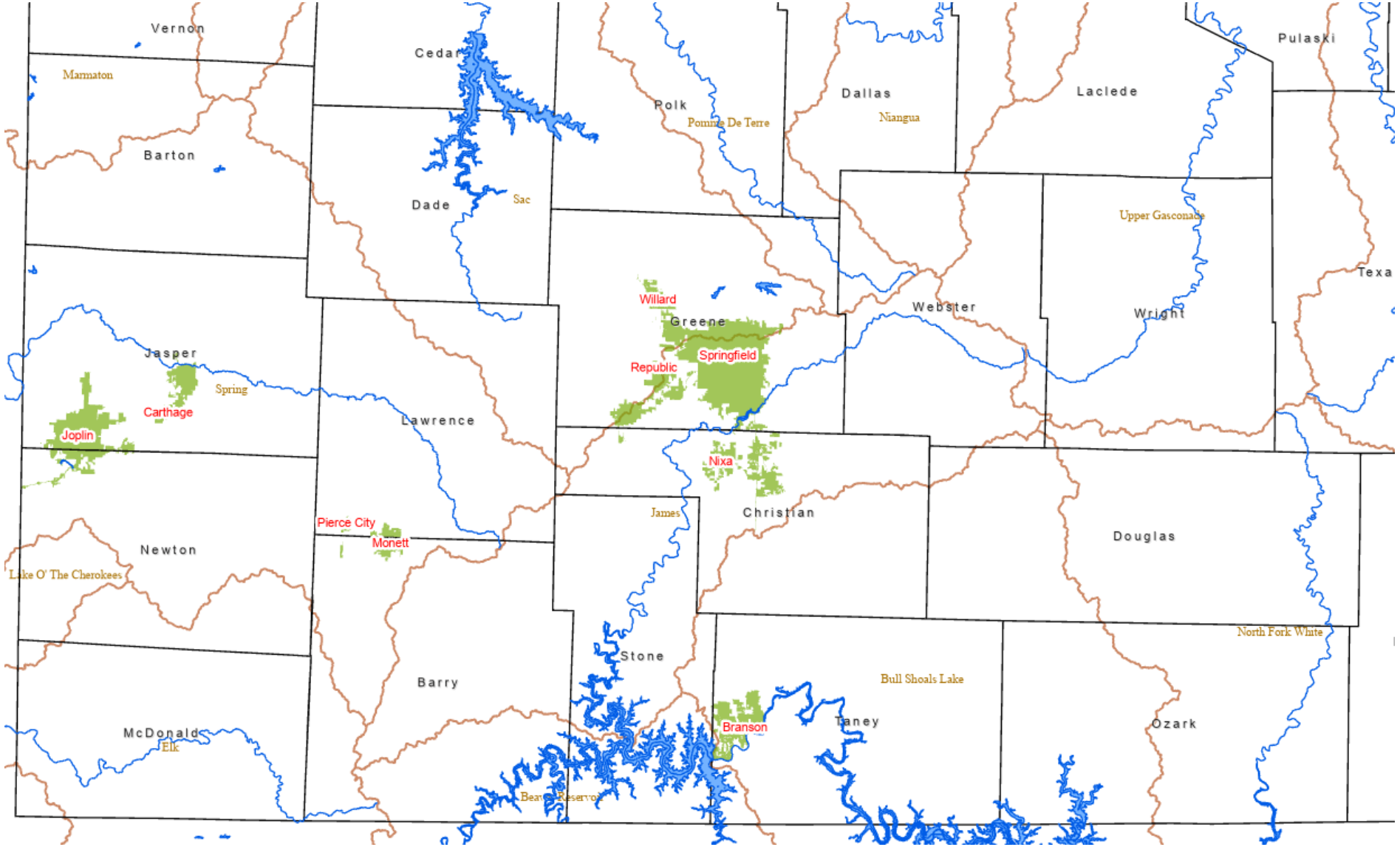
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Protecting Water Quality in Stockton Reservoir

- ***256.443. Plan, content — approval of plan by director — eligibility of projects to receive contributions, grants or bequests for construction or renovation costs, limitation. —** 1. The plan shall include a description of the project, the need for the project, land use and treatment measures to be implemented to protect the project from erosion, siltation and pollution, procedures for water allocation, criteria to be implemented in the event of drought or emergency, and such other information as the director may require to adequately protect the water resource.

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Protecting Water Quality in Stockton Reservoir



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Watershed Committee of the Ozarks Little Sac Implementation Grant

- $666,667 project funded by a $400,000 grant through 319 program
- Project implements best management practices in the 390 sq mi Little Sac River Basin that eventually contributes to Stockton Reservoir
- Project goal is to
  - Improve water quality
  - Reduce bacteria
  - Decrease soil erosion
  - Increase riparian corridor
  - Lower nutrient levels
- Project partners include Watershed Committee of the Ozarks, City Utilities of Springfield, Green and Polk County Soil and Water Districts, MDC, DNR, and local landowners and businesses

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Water Preservation Act

- The purpose of the Water Preservation Act is to provide a mechanism to safeguard Missouri's water resources for the use and enjoyment of Missouri citizens and visitors, including municipal, domestic, agricultural, industrial, commercial, and recreational water users.
- Historically, Missouri statutes did not have protections in place to evaluate or prohibit any export of water out of state.



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How does the Water Preservation Act protect Missouri's water resources?

Missouri Revised Statutes Chapter 640 Section 406 protects Missouri's water resources by:

- Restricting water export methods,
- Requiring a permit for water exportation,
- Allowing Major Water Users to request reevaluation of permits,
- Reevaluation of permits during state of emergency drought conditions, and
- Requiring annual reporting from water exporters.



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Missouri Revised Statutes Chapter 640 Section 406

- The statute was signed into law July 2025, and the statute became effective on August 28, 2025.
- RSMo Section 640.406 applies to any entity who exports water out of the state of Missouri.
- The Missouri Department of Natural Resources administers the law in conjunction with the Missouri Soil and Water Districts Commission.



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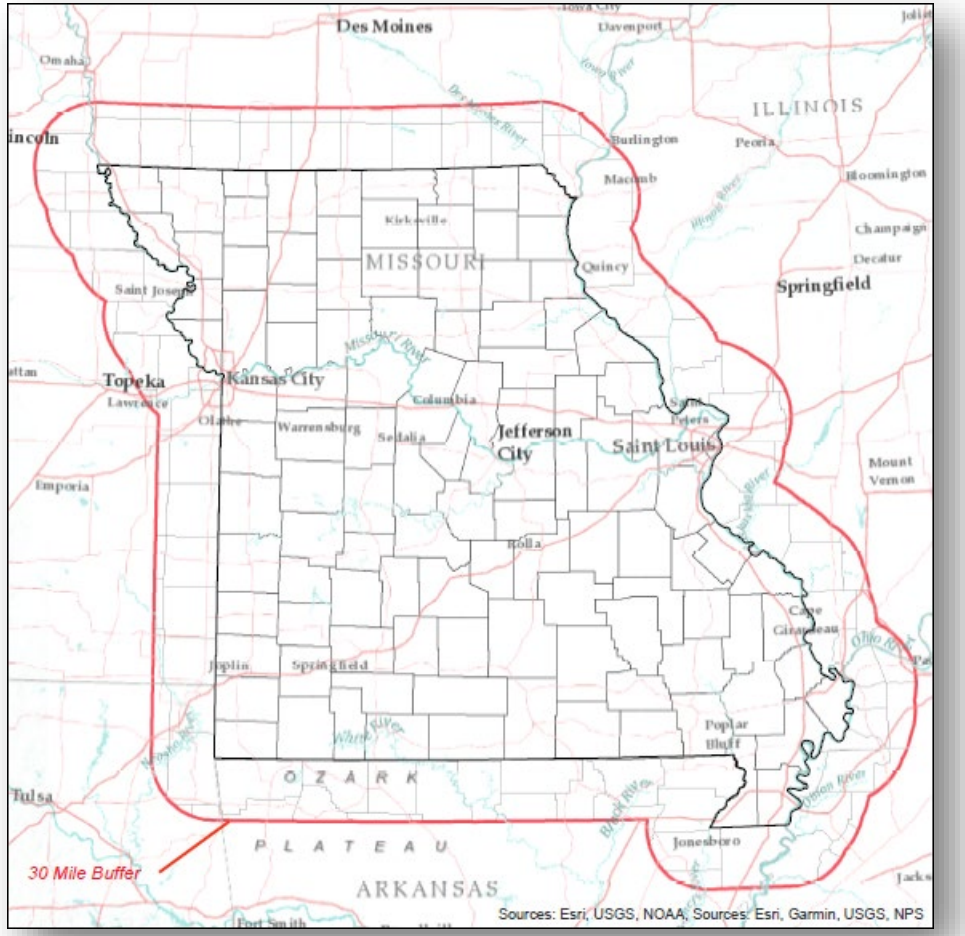
Restricting Water Export Methods

Permit is now required to export water.

Two exemptions are included in the Water Preservation Act and include:

- Exportation of bottled water or water packaged in containers intended for single use.
- The withdrawal and end use of water resources are within 30 miles of Missouri's border; end use refers to the final location for which the exported water will be used, consumed or applied for a stated beneficial use.

Additionally, it is unlawful for any person to withdraw water from any water resource for exportation outside the state of Missouri by use of a pipeline facility, unless the withdrawal and end use of the water by the pipeline facility is within 30 miles of the Missouri border.



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Hydrologic Monitoring Networks

- Data gaps in Missouri's networks prevent informed decision-making at the local level in various areas of the state
- Underestimation of drought designations can result
- Ongoing funding is required to provide for continued maintenance and expansion of:
  - Missouri soil moisture network
  - Missouri streamgage network
  - Missouri groundwater level observation network



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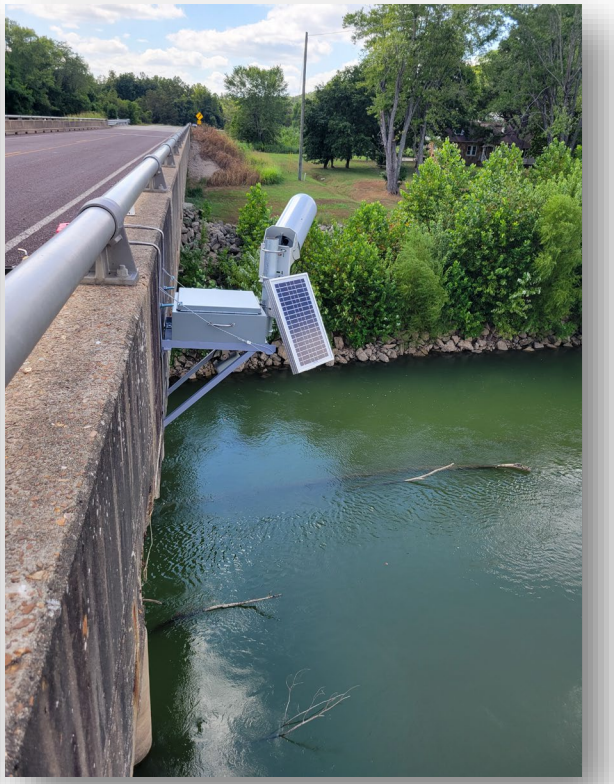
Monitoring Our Water Resources



Groundwater & Precipitation Monitoring



Soil Moisture Monitoring



Surface Water Monitoring

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Solvency of Smaller Communities and Their Ability to Deliver Utilities

- ~1,500 public water systems
- ~85% are considered small and serve 3,300 or fewer
- Funding Options
  - State Revolving Funds
  - USDA Rural Development Water & Environmental Programs
  - EPA's Water Finance Clearinghouse
- Regionalization
- Joint Municipal Utility Commission Act



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Cybersecurity for the Water Sector

- Assess Your Risk
- Create a Plan
- Learn About Cybersecurity
- Respond to an Incident
- Cybersecurity Funding
- Sign up: Cybersecurity Alerts



https://www.epa.gov/cyberwater

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Questions

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