

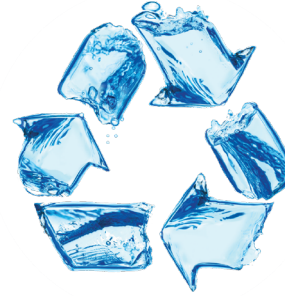
# *REUSExplorer*

Regulations and End-Use Specifications Explorer - a web-based tool to examine state water reuse regulations

September 21, 2022

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EPA Water Reuse Program



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# OVERVIEW



- EPA Water Reuse & WRAP
- WRAP Resources
- Water Reuse 101
- Fit-for-Purpose and regulatory clarity
- Sources and End-use descriptions
- REUSExplorer tool demo & features
- National reuse regulatory landscape
- Key Takeaways





# EPA Water Reuse Program

*Advancing reuse for a water secure future*

**Mission:** Expand water reuse knowledge across the federal government and build **technical, financial, and institutional capacity** to enable communities of all sizes to incorporate reuse as part of a resilient water management strategy

- Facilitate implementation of the **National Water Reuse Action Plan (WRAP)**
- Convener of the Water Reuse **Interagency Working Group** established under the Bipartisan Infrastructure Law (2022) to coordinate all federal reuse efforts



# National Water Reuse Action Plan (WRAP)

## National Water Reuse Action Plan

Improving the Security, Sustainability, and Resilience of Our Nation's Water Resources

Collaborative Implementation (Version 1)



### NATIONAL WATER REUSE ACTION PLAN Update on Collaborative Progress—Year 2 March 2022

The National Water Reuse Action Plan (WRAP) helps drive progress on reuse by leveraging the expertise of scientists, policymakers, and local experts across the country to create a more resilient water future for communities of all sizes. Now two years into WRAP implementation, there are 116 dedicated partner organizations contributing at various scales. Since February 2020, WRAP collaborators have been working through coordinated actions to address barriers to reuse, including issues related to funding, technology, policy, and organizational capacity. Currently, there are 50 WRAP actions, with 13 added since January 2021 on topics such as monitoring practices, plumbing codes and standards, and communication tools. Teams have finished 267 implementation milestones overall and completed 5 total actions to date, which included deliverables related to funding eligibility, tribal outreach and training, and raising global awareness for reuse. Through the Bipartisan Infrastructure Law enacted November 2021, lawmakers called for continued WRAP implementation and the creation of a federal reuse interagency working group: "to advance water reuse across the U.S." (Sec. 50216).

#### WRAP YEAR 2 HIGHLIGHTS

At this stage, WRAP collaborators have delivered many critical outputs that lay the groundwork for more substantial impacts in the coming years. The following is a snapshot of some key activities and accomplishments over the past year.

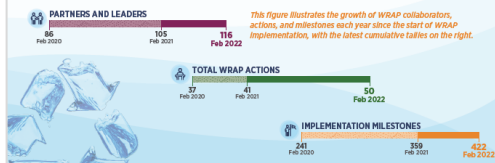
#### Incorporating Water Reuse into Programs and Policies

- Expert convening and report on stormwater capture and use. Investigates opportunities, challenges, and next steps to expand the implementation of stormwater harvesting across the country (Action 3.3, led by EPA, NWSA, WaterReuse, WEF, ReNUWI, and the Johnson Foundation).
- Integrating Water Reuse into the Clean Water State Revolving Fund (document) describes the viability of water reuse in the CWSRF and highlights successful policies and practices that state CWSRF programs implement to support reuse (Action 3.2a, led by EPA).
- \$2.4 million in Conservation Innovation Grants. Awarded across three proposals in this new priority area, reflecting USDA's broader strategy for water reuse on agricultural land (Action 3.1, led by USDA).
- Collaboration on NPDES permitting processes. Enhanced understanding of how permitting can support new water management technologies and strategies, including through development of a training webinar (collaboration between three WRAP action teams: Action 1.6, Action 2.16, and Action 3.1).
- Consequents of Urban Waters and National Estuary Program water reuse activities. Highlights the intersection of reuse with these key community-focused programs (Action 1.6, led by EPA).



In February 2022, EPA staff and Assistant Administrator for Water Patricia Fox toured the Scripps Water Campus in Arizona. The campus has over two decades of experience in reusing potable water, including 17 million gallons of treated wastewater annually through aquifer recharge. Photo credit: EPA

\$1.4 billion invested in 7 reuse infrastructure projects in 2021 through EPA's WRIA loan program.



- Now in its third year, the WRAP facilitates collaborative progress through a series of Actions by:
  - Enabling multistakeholder collaborations
  - Creating necessary tools and resources
  - Funding critical research and technology development
  - Coordinating federal government activities
  - Communicating curated information early and often
- Actions summarized on **online platform: (epa.gov/waterreuse/wraponline)**

# Snapshot of the WRAP



**9 Actions completed**  
**New Actions added quarterly**

# Resources: Water Reuse Information Library

## Sign up for our newsletters:

<https://www.epa.gov/waterreuse/forms/sign-water-reuse-email-updates>

- Features outputs from WRAP actions and resources not directly associated with WRAP activities
- Helps water reuse practitioners access relevant water reuse resources
- Interactive, searchable information library
- Includes publications, fact sheets, webinar recordings, and webpages
- Number of resources will grow over time

<https://www.epa.gov/waterreuse/water-reuse-information-library>

## Water Reuse Information Library

This interactive access relevant sheets, webinar information ab application. Th Action Plan (WF directly associa time as more W and water reus functions and o feedback by er

**Instructions:** Click on a resource in the table to display detailed information about each. You may also use the search function below, which filters results to show only those containing the text string entered.

Search:

Rightmost Column ⓘ: Date Of Publication Release ▾

Show 25 ▾ entries

Name	Description	Focus Area	Water Reuse Applications	Date Of Publication Release
Onsite Water Reuse in San Francisco Webinar Series	The San Francisco Public Utilities Commission (SFPUC) and the San Francisco Department of Public Health (SFDPH) hosted a series of recorded water reuse webinars that provided key updates and technical guidance on implementing onsite non-potable water reuse systems in San Francisco, California.	Science and Specifications	Onsite non-potable	11/1/20
Small and Rural Reuse Projects List	The U.S. Department of Agriculture (USDA) compiled list of reuse projects funded by its water and waste program. Fifty-four projects were identified through the effort.	Finance Support	Landscape irrigation, Industrial	9/30/20
Stormwater Capture Drivers, Impediments, and Future Visions Webinar	This webinar explored stormwater capture drivers, barriers, and future directions.	Science and Specifications	Various applications	2/3/21

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# Motivation for Water Reuse

- Pressures threaten the availability of clean and sustainable water supplies
  - Climate change
  - Aging infrastructure
  - Population growth
- Water reuse can provide alternatives to existing water supplies
  - Potable supply augmentation
  - Agriculture and irrigation
  - Industrial processes
  - Environmental restoration



Denver Water contractors install a purple pipe used to deliver recycled water in northeast Denver, Colorado



# Water Reuse 101: How we conceptualize reuse

A [source of water](#) is any alternative water source that can help offset the demand for traditional freshwater supplies.

A [reuse application](#) or [end-use](#) is the recycling of an alternative source of water that is adequately treated for its intended use.



# Fit-for-Purpose Reuse Conceptual Framework

Lower water quality  
(Untreated)

**QUALITY of SOURCE of WATER**

High water quality  
(Highly treated)

Agricultural reuse

Livestock watering

Landscape irrigation

Onsite non-potable

Potable Reuse

Other centralized non-potable reuse

Environmental Restoration

Recreational impoundments

Industrial water reuse

**REUSE APPLICATIONS**

# WRAP Action 3.1: Compile Fit-For-Purpose Specifications

- There are no federal level water reuse regulations
- States have primacy to develop reuse regulations to supplement Clean Water Act and Safe Drinking Water Act
- Assemble **state regulations** for water reuse based on their underlying technical basis

**REUSExplorer is available at [epa.gov/reuseexplorer](https://epa.gov/reuseexplorer)**

## Action leader

- EPA

## Action Partners

- Association of Clean Water Administrators (ACWA)
- Association of Metropolitan Water Agencies (AMWA)
- Association of State Drinking Water Administrators (ASDWA)
- Association of State and Territorial Health Officials (ASTHO)
- Colorado Department of Public Health and Environment (CDPHE)
- Water Research Foundation (WRF)
- WaterReuse Association (WaterReuse)
- World Bank





# REUSExplorer: Snapshot of State Regulation Summaries by Reuse Application\*

112

State summaries  
currently on  
*REUSExplorer*

161

Expected total by  
end of 2022

## ONLINE NOW

13 Potable water reuse  
12 Onsite non-potable water reuse  
21 Other centralized non-potable reuse  
28 Agricultural irrigation  
32 Landscape irrigation  
6 Livestock watering

## COMING Dec 2022

8 Environmental restoration  
15 Impoundments  
19 Industrial (onsite, imported)  
7 Rainwater (potable)

**36 states have developed at least one reuse regulation**

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# REUSExplorer Tool Demonstration

[Water Reuse](#)

[CONTACT US](#)

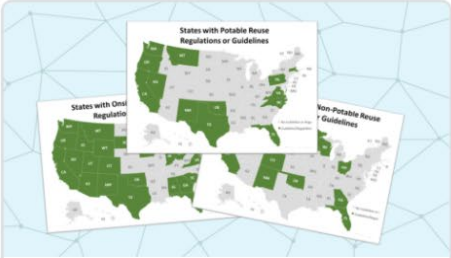
## Regulations and End-Use Specifications Explorer (REUSExplorer)



News in Water Reuse




Recent and Upcoming



Distribution of Reuse

**State**

Optional Selection

**Sources of Water** 

Optional Selection

**Reuse Application** 

Optional Selection

**Search**

# Descriptions of 4 Sources of Water and 9 Reuse Applications

**Sources of Water**

A source of water for reuse purposes is any alternative water source that can help offset the demand for traditional freshwater supplies.

**Treated municipal wastewater**

Treated wastewater effluent discharged from a centralized wastewater treatment plant of any size. Other terms referring to this source of water include domestic wastewater, treated wastewater effluent, reclaimed water, and treated sewage.

**Onsite collected waters**

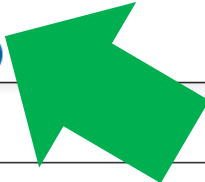
Water sources generated within or surrounding a building, residence, or district. Other terms referring to this source of water include onsite collected rainwater, greywater, blackwater, air conditioning condensate, and foundation water.

**Industry process water**

Water produced during industrial and manufacturing processes. Other terms referring to this source of water include air handling condensate, boiler, cooling or wash water, and water generated during oil and natural gas extraction.

**State**

**Sources of Water** ⓘ



**Reuse Application** ⓘ



**Search**

# REUSExplorer Demo: Multi-Search Capabilities

## State

Arizona  
California  
Colorado  
Florida  
Georgia  
Idaho  
Massachusetts  
Minnesota  
Montana  
Nevada

## Sources of Water

Onsite Collected Waters  
Stormwater  
Treated Municipal Wastewater  
Industry process water — coming soon

**Search**


## Reuse Application

Agriculture-Related Applications  
Landscape-Related Applications  
Livestock Watering  
Onsite Non-Potable Water Reuse  
Other Centralized Non-Potable Reuse  
Potable Water Reuse  
Environmental restoration — coming soon  
Impoundments — coming soon  
Industrial water reuse — coming soon







**State**

Optional Selection

**Sources of Water** 

Optional Selection

**Reuse Application** Potable Water Reuse **Search**

State 	Sources of Water 	Reuse Application 	Summary Document
California	Treated Municipal Wastewater	Potable Water Reuse	<a href="#">See Results</a>
Florida	Treated Municipal Wastewater	Potable Water Reuse	<a href="#">See Results</a>
Massachusetts	Treated Municipal Wastewater	Potable Water Reuse	<a href="#">See Results</a>
Montana	Treated Municipal Wastewater	Potable Water Reuse	<a href="#">See Results</a>
Nevada	Treated Municipal Wastewater	Potable Water Reuse	<a href="#">See Results</a>
New Mexico	Treated Municipal Wastewater	Potable Water Reuse	<a href="#">See Results</a>
North Carolina	Treated Municipal Wastewater	Potable Water Reuse	<a href="#">See Results</a>


**State**

Optional Selection




**Sources of Water** 

Optional Selection

**Reuse Application** 

Potable Water Reuse 

**Search**

State 	Sources of Water 	Reuse Application 	Summary Document
California	Treated Municipal Wastewater	Potable Water Reuse	<a href="#">See Results</a>
Florida	Treated Municipal Wastewater	Potable Water Reuse	<a href="#">See Results</a>
Massachusetts	Treated Municipal Wastewater	Potable Water Reuse	<a href="#">See Results</a>
Montana	Treated Municipal Wastewater	Potable Water Reuse	<a href="#">See Results</a>
Nevada	Treated Municipal Wastewater	Potable Water Reuse	<a href="#">See Results</a>
New Mexico	Treated Municipal Wastewater	Potable Water Reuse	<a href="#">See Results</a>
North Carolina	Treated Municipal Wastewater	Potable Water Reuse	<a href="#">See Results</a>

# California (Treated Municipal Wastewater for Potable Water Reuse)

## On this page:

- [Technical basis](#)
- [Types of planned potable reuse approved for use in California](#)
- [Additional context and definitions](#)
- [Potable reuse specifications \(table\)](#)
- [Upcoming state law or policy](#)
- [References](#)
- [Disclaimer](#)

## REUSExplorer Links

- [REUSExplorer home page](#)
- [News in reuse regulations](#)
- [Maps of states with water reuse regulations or guidelines](#)

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In California, [potable water reuse](#) applications include indirect potable reuse (groundwater replenishment and reservoir water augmentation). The source of water ([treated municipal wastewater](#)) is specified by the state as municipal wastewater. The write-up below uses state terms when discussing sources or uses of water that may differ from the Regulations and End-Use Specifications Explorer's (REUSExplorer's) terms.

\*\*\*\* DISCLAIMER\*\*\*\* -- The REUSExplorer provides summaries of state reuse regulations. It is not intended to replace state regulations on reuse.

# Potable reuse specifications

Summary of California's Potable Reuse Specifications

[Download Table \(.xlsx\)](#)

Recycled Water Class/Category	Source Water Type	Water Quality Parameter*	Specification	Sampling/Monitoring Requirements (Frequency of monitoring; site/ location of sample; quantification methods)
		Viruses (enteric)	12-log enteric virus reduction	On-going monitoring
		<i>Giardia lamblia</i>	10-log <i>Giardia</i> cyst reduction	
		<i>Cryptosporidium</i>	10-log <i>Cryptosporidium</i> oocyst reduction	
		Retention time	Minimum 2 months by added tracer Minimum 3 months by intrinsic tracer	Verified by tracer
		Total nitrogen	≤10 mg/L	Two grab or 24-hour composite samples each week (at least 3 days apart)

Table continues on webpage





## Potable reuse specifications

Summary of California's Potable Reuse Specifications

[Download Table \(.xlsx\)](#)

Recycled Water Class/Category	Source Water Type	Water Quality Parameter*
		Viruses (enteric)
		<i>Giardia lamblia</i>
		<i>Cryptosporidium</i>

**Consistent specifications tables for all states**

## Potable reuse specifications

Summary of Florida's Potable Reuse Specifications

[Download Table \(.xlsx\)](#)

Recycled Water Class/Category	Source Water Type	Water Quality Parameter	Specification	Sampling/Monitoring Requirements (Frequency of monitoring; site/ location of sample; quantification methods)
		Total organic carbon (TOC)	≤5 mg/L (maximum)	Daily
			≤3 mg/L (monthly average)	
		Total suspended solids (TSS)	≤5 mg/L (any one sample)	Measured prior to application of the disinfectant
		Total organic halogen (TOX)	≤0.3 mg/L (maximum)	Daily
			≤0.2 mg/L (monthly average)	

# Downloadable Specifications Tables

## Onsite non-potable reuse specifications

Summary of Minnesota's Non-potable Reuse Specifications

1	Recycled Water Class/Category	Source Water Type	Water Quality Parameter
2	Nonpotable rainwater catchment systems (toilet and urinal flushing, water features, vehicle washing facilities, cooling tower makeup)	Rainwater	Turbidity
3	Nonpotable rainwater catchment systems (toilet and urinal flushing, water features, vehicle washing facilities, cooling tower makeup)	Rainwater	E. coli
4	Nonpotable rainwater catchment systems (toilet and urinal flushing, water features, vehicle washing facilities, cooling tower makeup)	Rainwater	Odor
5	Nonpotable rainwater catchment systems (toilet and urinal flushing, water features, vehicle washing facilities, cooling tower makeup)	Rainwater	Temperature

Download Table (.xlsx)

## Other centralized non-potable reuse specifications

Summary of Minnesota's Other Centralized Non-potable Reuse Specifications

1	Recycled Water Class/Category	Source Water Type	Water Quality Parameter	Specification
2	Disinfected Tertiary (toilet flushing, decorative fountains, artificial snowmaking, structural firefighting, commercial air conditioning involving mist)	Municipal wastewater	Total coliform	2.2 MPN/100
2	Disinfected Tertiary (toilet flushing, decorative fountains, artificial snowmaking, structural firefighting, commercial air conditioning involving mist)	Municipal wastewater	Turbidity	2 NTU (daily average maximum) 10 NTU (daily maximum)

Download Table (.xlsx)

Sampling/Monitoring Requirements (Frequency of monitoring; site/ location of sample; quantification methods)\*

determined on a case-by-case

# Consistent State Regulation Summaries for all Types of Reuse

## Colorado (Onsite Collected Waters for Onsite Non-potable Water Reuse)

### On this page:

- [Technical basis](#)
- [Background on NSF/ANSI Standard 350](#)
- [Types of onsite non-potable reuse approved for use in Colorado](#)
- [Water reuse category/type](#)
- [Additional context and definitions](#)
- [Onsite non-potable reuse specifications \(table\)](#)
- [Upcoming state law or policy](#)
- [References](#)
- [Disclaimer](#)

### REUSExplorer Links

- [REUSExplorer home page](#)
- [News in reuse regulations](#)
- [Maps of states with water reuse regulations or guidelines](#)

In Colorado, [onsite non-potable water reuse](#) include irrigation, toilet and urinal flushing, and vehicle washing, among others. The source of water ([onsite collected waters](#)) is specified by the state as graywater and domestic wastewater (i.e., blackwater). The write-up below uses state terms when discussing sources or uses of water that may differ from the Regulations and End-Use Specifications Explorer's

# Description of the science behind the regulations

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## Technical basis

Colorado approves the onsite non-potable reuse of graywater for subsurface irrigation, and toilet and urinal flushing and domestic wastewater for industrial and commercial uses, landscape and agricultural irrigation, fire protection and toilet and urinal flushing (5 Code Colo. Regs. § 1002-86). All applicable provisions of the Clean Water Act (CWA) (33 U.S.C. §§ 1251 et seq.), including its implementing regulations, must be met in addition to any state water quality standards. Treated graywater is categorized into four classes that vary by design flow requirement and reuse application. There are no treatment requirements for graywater reused onsite for subsurface irrigation. Onsite non-potable water reuse systems treating graywater for urinal and toilet flushing must comply with NSF/ANSI Standard 350 (CDPHE WQCC, 2019) and use a treatment technology that will be “protective of public health” without the need for on-going water quality testing. The Water Quality Control Commission found that the NSF/ANSI standard meets an acceptable technology review protocol that would be certified by a third-party agency to simplify the technology review process for the local jurisdictions (see more information below).

Colorado also approves onsite non-potable reuse of reclaimed domestic wastewater (i.e., onsite treated blackwater) for industrial and commercial uses, landscape and agricultural irrigation, fire protection and toilet and urinal flushing (5 Code Colo. Regs. § 1002-84). The technical basis of pathogen removals is a health-based target of less than 1 infection per 10,000 people per year for Category 3 uses and 1 infection per 100 people per year for Category 2 and Category 1 uses. Category 1 and 2 health-based targets are less stringent than



# REUSExplorer News – Major Reg Developments



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[Water Reuse](#)

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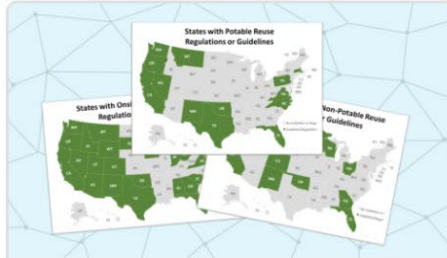
## Regulations and End-Use Specifications Explorer (REUSExplorer)



News in Water Reuse



Recent and Upcoming



Distribution of Reuse

## News in Water Reuse Regulations and Guidelines

Several states are actively working on their reuse regulations or guidelines. This page highlights some of these developments; however, it may not reflect all upcoming changes to state laws or policies.

Please contact [waterreuse@epa.gov](mailto:waterreuse@epa.gov) if the information on this page needs updating or if a state is updating or planning to update its laws and policies and we have not included that information on this page. Please include a link to the relevant state website with the updated information.

### REUSExplorer Links

- [REUSExplorer home page](#)
- [Maps of state regulations and guidelines](#)

### California

- The California State Water Resources Control Board's (SWRCB) Division of Drinking Water is in the process of developing uniform water recycling criteria for **direct potable reuse**. SWRCB is required to complete this process by December 31, 2023 and is currently administering an expert review panel to help guide this process. More information on draft criteria, public meetings, and meetings of the expert panel can be found [here](#).
- SWRCB is in the process of developing risk-based water quality standards for the **onsite treatment and reuse** of non-potable water for non-potable end uses in multifamily residential, commercial, and mixed use buildings. SWRCB is required to adopt regulations by December 1, 2022 and the Department of Housing and Community Development is required to propose necessary building standards by December 1, 2023. More information can be found [here](#).

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# National Reuse Reg Landscape – Maps by End-Use



## News in Water Reuse Regulations and Guidelines

Reuse regulations are in the works by several states. Check out the latest information.

[Latest news](#)



## Recent and Upcoming Water Reuse Activities

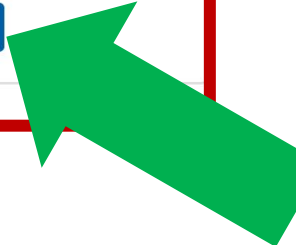
Learn about the latest events and activities, including highlights of the *REUSExplorer*.

[See events](#)

## Distribution of Reuse Regulations and Guidelines

Explore metrics and maps associated with existing reuse regulations.

[View maps](#)



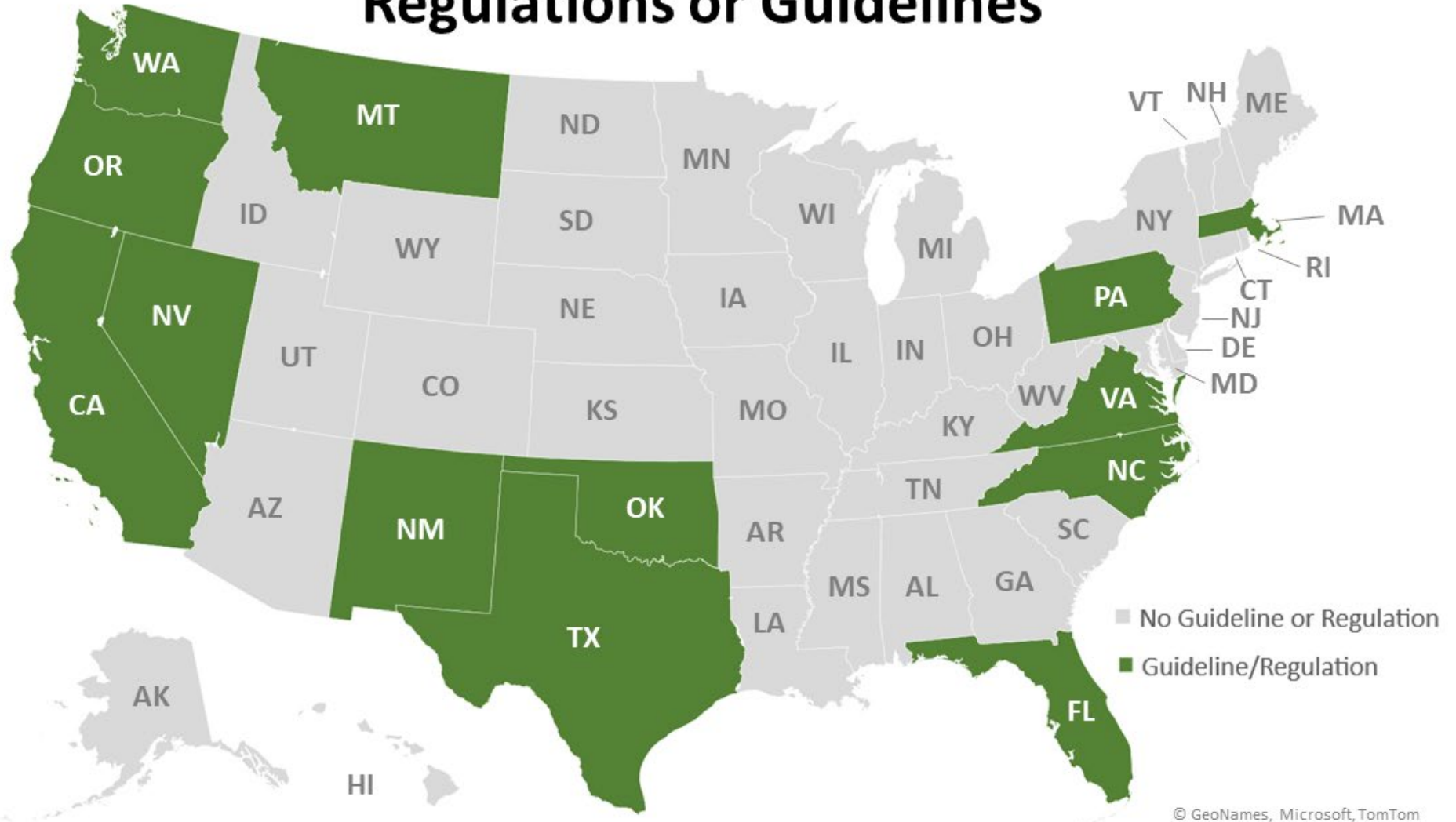
Title	Link
States with Potable Reuse Regulations or Guidelines	
States with Agriculture Reuse Regulations or Guidelines	
States with Onsite Non-Potable Reuse Regulations or Guidelines	

New content to be added throughout 2022.

The use of highly treated recycled water for drinking water purposes. Includes:

- an environmental buffer, such as groundwater aquifer or surface reservoir being withdrawn for potable purposes (**indirect potable reuse**), and
- the introduction of recycled water into a drinking water treatment facility or
- directly into a potable water distribution system (**direct potable reuse**).

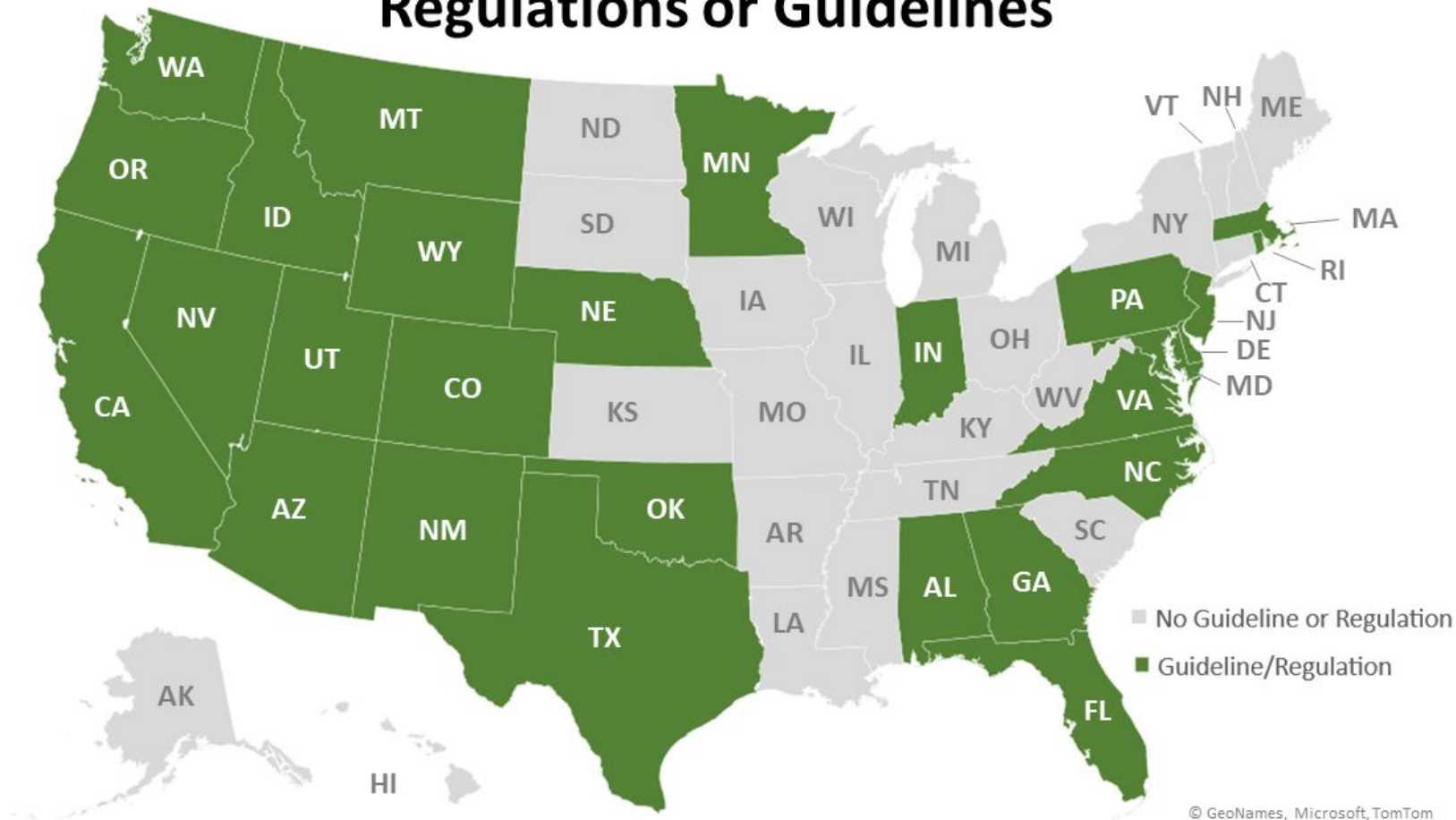
## 13 states - Potable Reuse Regulations or Guidelines





# 28 states - Agricultural Reuse

## Regulations or Guidelines



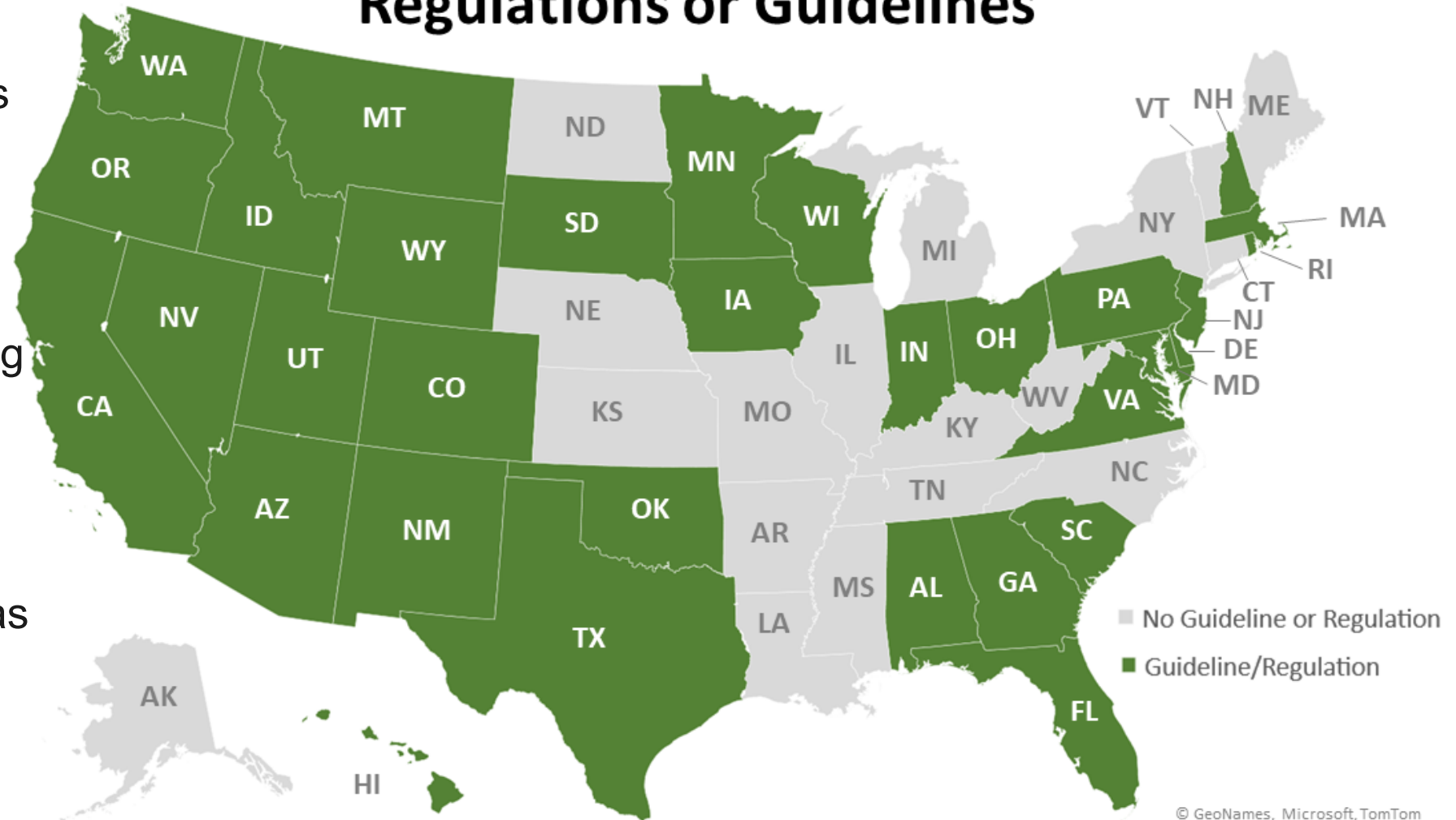
- The use of recycled water to land to assist in the production of
- both **commercially** and **non-commercially** processed
  - **food crops** consumed by humans or livestock and
  - **non-food** crops. Includes pasture for milking and non-milking animals, fodder, fiber, and seed crops, vineyards, orchards, ornamental nursery stock, Christmas trees, and silviculture.
  - Excludes livestock watering, onsite non-potable reuse, and landscape irrigation.

The use of recycled water on land to assist in the

- irrigation of **vegetation** in residential and non-residential areas. Includes
- **impoundments** to store water for irrigation , ornamental vegetation, parks, school yards, sporting facilities (including golf courses), private gardens, roadsides and greenbelts, and cemeteries.
- Excludes irrigation of areas used for agriculture, non-potable and commercial reuse applications, or onsite non-potable reuse.

## 32 states - Landscape Reuse

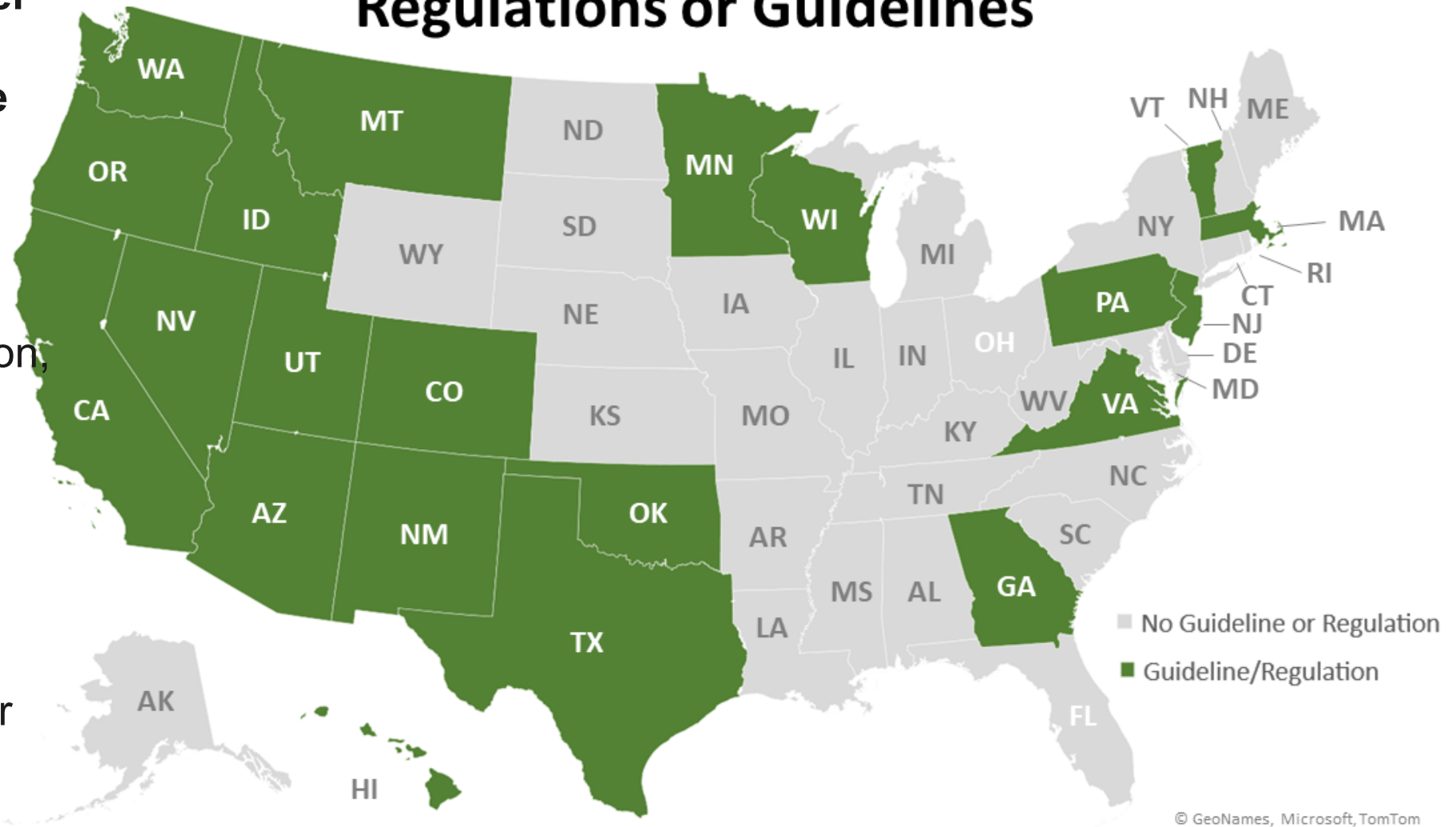
### Regulations or Guidelines



The use of recycled water for **non-potable** reuse applications where the **water does not derive from the same site where it is to be reused**.

- Can include, but is not limited to, toilet flushing,
- dust control, soil compaction, fire protection,
- commercial laundries, vehicle washing, street cleaning, snowmaking, and other similar uses.
- Excludes on-site non-potable applications and the use of recycled water for agriculture or landscape-related applications.

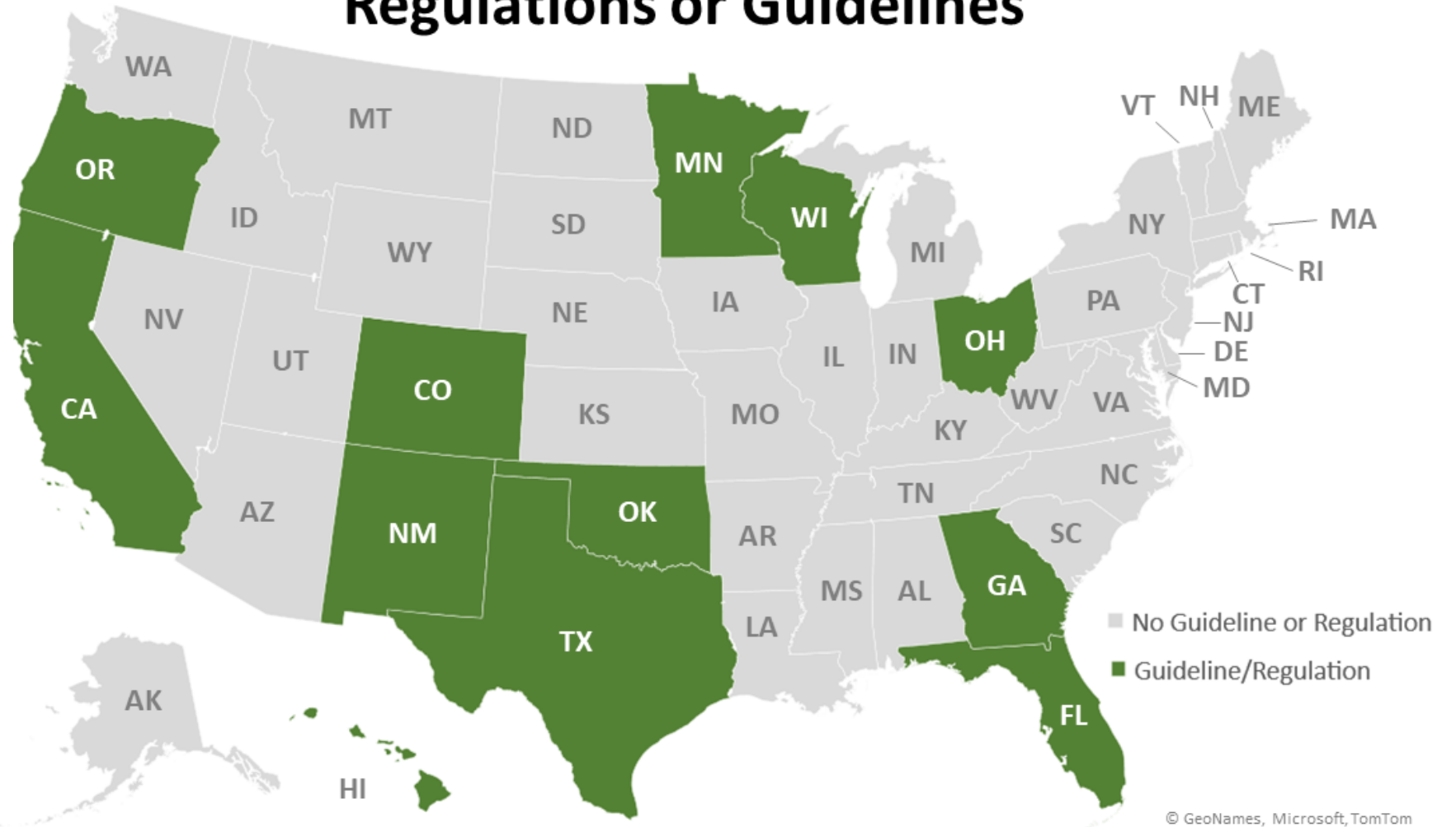
## 21 states - Other Centralized Non-potable Regulations or Guidelines



Water from **onsite sources** collected, treated, and used for **non-potable purposes at the single-building or district scale**.

- Excludes the use of recycled water from a centralized treatment and distribution system for landscape irrigation or commercial uses
- (see “Landscape-related water reuse applications” and “Onsite centralized non-potable reuse”).

## 12 states - Onsite Non-potable Reuse Regulations or Guidelines

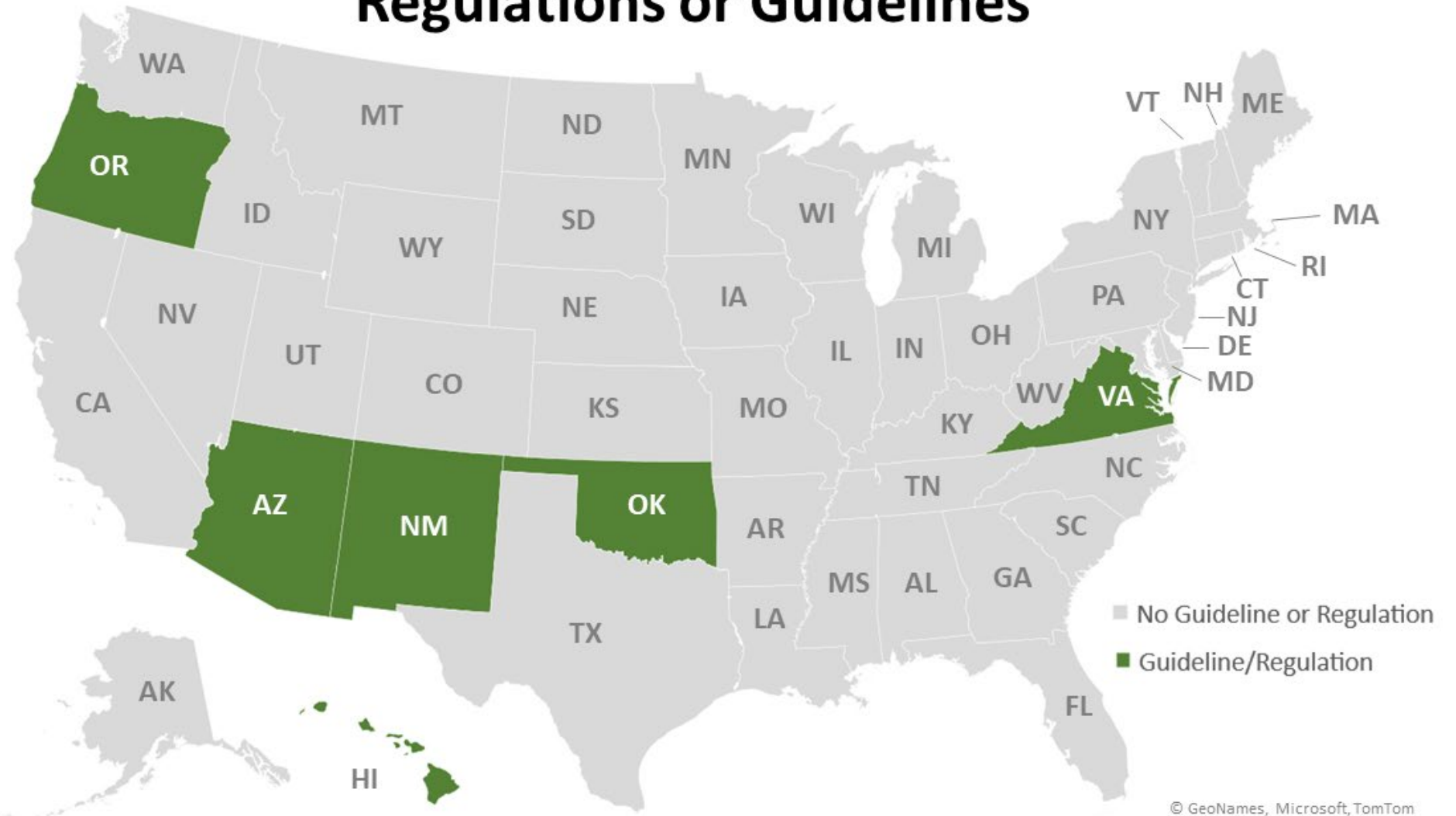




The use of recycled water for **drinking water supplies for livestock.**

- **Excludes** physical application of reclaimed water to pasture for milking and non-milking animals,
- forage crops used as animal feed, and land used for livestock grazing.

## 6 states – Livestock Watering Regulations or Guidelines



# Next Steps: Comprehensive US summaries, Synthesis Research, & Select Int'l Regs

**161\*** Total state summaries by end of 2022

- Synthesis research of US regulations ongoing
- Update every 2 years
- Select international summaries to be included in the future

**ONLINE NOW**

**112**

**DEC 2022**

Potable water reuse

Onsite non-potable water reuse

Other centralized non-potable reuse

Agricultural irrigation

Landscape irrigation

Livestock watering

Environmental restoration

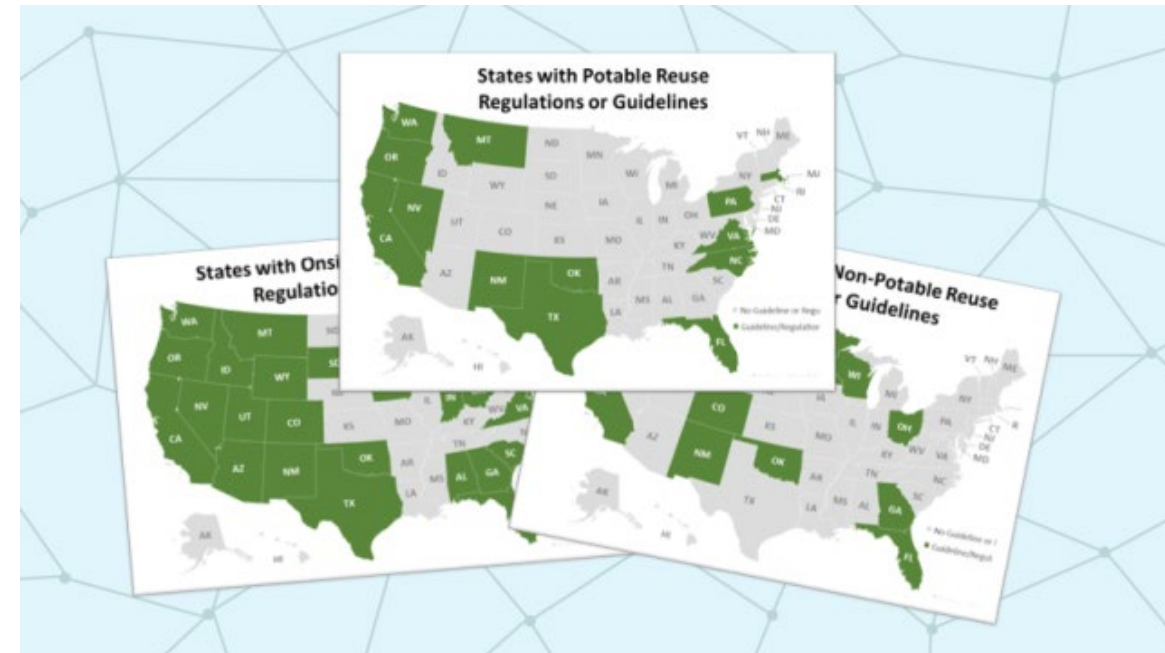
Impoundments

Industrial (onsite, imported)

Rainwater (potable)

# Multifaceted Tool to Enable Reuse

- National view to enable water reuse
- Example needs:
  - *Developing new regulations or writing permits for potable reuse*
  - *What is the technical basis for reuse of greywater in buildings in my state? How does that compare to other states?*
  - *What treatment levels should my company's innovative onsite system target for the national market?*
  - *What is the minimum water quality required for toilet flushing in Minnesota?*



# Key takeaways for REUSExplorer



[epa.gov/reuseexplorer](http://epa.gov/reuseexplorer)

- Transformational tool for multiple stakeholders
  - State regulators and permit writers
  - Industry including engineers and technology companies
  - Researchers and policy makers
- Provides common vocabulary to describe sources of water and reuse applications
- Supports permit writers and regulators to streamline new reuse projects
- Provides downloadable maps and comparable set of specifications across all US states
- Provides comprehensive data (1000s of data elements) for risk-based analysis and comparison

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## Action Partners

- Association of Clean Water Administrators (ACWA)
- Association of Metropolitan Water Agencies (AMWA)
- Association of State Drinking Water Administrators (ASDWA)
- Association of State and Territorial Health Officials (ASTHO)
- Colorado Department of Public Health and Environment (CDPHE)
- Water Research Foundation (WRF)
- WaterReuse Association (WaterReuse)





# Thank you!

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DOD • WEF • USGBC

*WRAP Collaborative*

# Compilation of Water Reuse Web Links

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- **EPA Water Reuse Homepage:** <https://www.epa.gov/waterreuse>
- **REUSExplorer:** [www.epa.gov/reuseexplorer](http://www.epa.gov/reuseexplorer)
- **Water Reuse Activities and Highlights (updated monthly with new papers and events):** <https://www.epa.gov/waterreuse/recent-and-upcoming-water-reuse-activities>
- **News in Reuse Regulations and guidelines:** <https://www.epa.gov/waterreuse/news-water-reuse-regulations-and-guidelines>
- **Maps of states with water reuse regulations or guidelines:** <https://www.epa.gov/waterreuse/maps-states-water-reuse-regulations-or-guidelines>
- **WRAP Online Platform:** <https://www.epa.gov/waterreuse/national-water-reuse-action-plan-online-platform>
- **Curated topical resources (e.g., drought, onsite non-potable):** <https://www.epa.gov/waterreuse/curated-topical-reuse-resources>
- **Water Reuse Information Library:** <https://www.epa.gov/waterreuse/water-reuse-information-library>