



# THE 2022 STATE POLICY SCORECARD FOR WATER EFFICIENCY AND SUSTAINABILITY

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# *Alliance for Water Efficiency*

# AWE: A VOICE FOR WATER EFFICIENCY

- Our mission is to promote an efficient and sustainable water future
- 530+ member organizations in 200 watersheds delivering water to over 50 million water users
- A unique network of water efficiency experts and practitioners
- A forum for collaboration around policy, information sharing, education, and stakeholder engagement
- AWE provides training, research, and other resources for water efficiency professionals
- Advocate for funding and policies that advance water efficiency
- Visit [allianceforwaterefficiency.org/membership](https://allianceforwaterefficiency.org/membership) to learn more

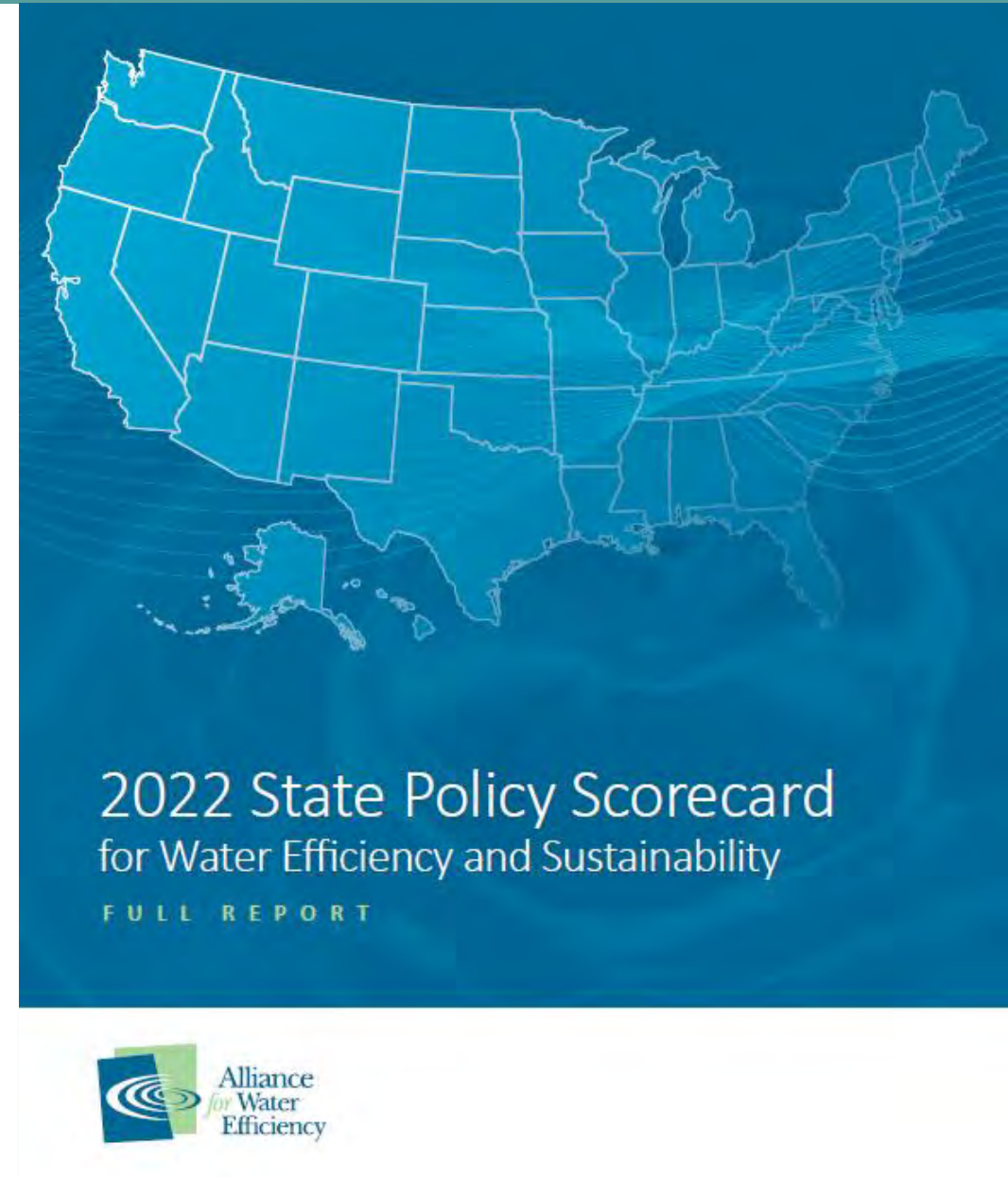


# THANK YOU!

- The Alliance for Water Efficiency thanks those who provided funding to make the 2022 U.S. State Policy Scorecard for Water Efficiency and Sustainability possible, including:
  - The **Park Foundation**
  - The many individuals and organizations who donated to AWE's **Mary Ann Dickinson Water Sustainability Fund**, which earmarked funding received in 2022 for this project
  - AWE members, whose annual dues support the organization's general operating budget
- AWE thanks our incredible project partner, the **Environmental Law Institute**
- This project would not be possible without the assistance of numerous **state agency personnel**, including the representatives who served on the **Project Advisory Committee**.
  - The project team is thankful for their contributions of time and knowledge to the data gathering effort.

# SCORECARD OVERVIEW

- Evaluation of state water efficiency and sustainability policy
  - Not an evaluation of local water agencies/policies
  - Not an assessment of actual water use (e.g., gallons per capita per day) or water availability
- Focus on residential, commercial, industrial, and institutional water use
- Some policies evaluated can relate to agriculture water use, e.g., funding, technical assistance, water loss





# GOALS OF THE SCORECARD

- Encourage states to adopt laws/policies that promote water conservation and efficiency
- Highlight exemplary laws that can be foundational for other states
- Identify opportunities for states to improve
- Report includes individual state scorecards with recommendations



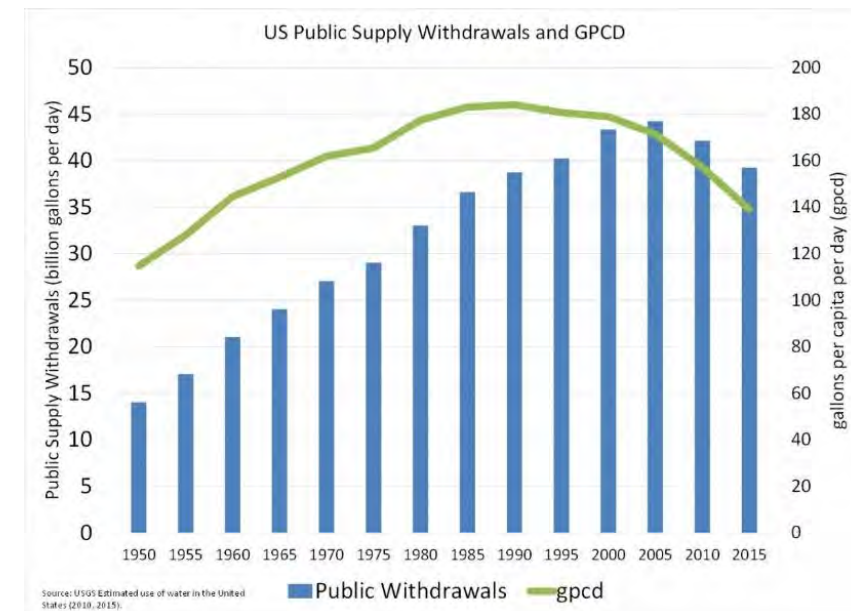
# WATER EFFICIENCY IS IMPORTANT ACROSS THE U.S.

- Fast and cost-effective strategies
- Saves energy and reduces emissions of harmful greenhouse gases
- Increases resilience to climate change and weather extremes
- Protects our rivers, bays, and aquifers by reducing water withdrawals.
- Saves money and resources long term by minimizes need for infrastructure and supply expansion
- Lowers or stabilizes customer water bills, even as rates rise
- Efficiency outdoors reduces runoff and waterway pollution
- Helps communities manage through water supply disruptions

## Los Angeles Times

Want to save energy and fight climate change? Try using less water

BY [SAMMY ROTH](#). STAFF WRITER  
MARCH 4, 2021



# WHY EVALUATE STATE POLICES?

- Providing sustainable water services is increasingly costly and complicated because of climate change and other factors
- States can support local water providers and others who affect water use, including land use authorities, energy companies, developers and builders, businesses, and the general public.
- State's can provide supplemental financial and technical assistance
- Adopting policies and requirements that help ensure best practices are implemented across the entire state, not just by more advanced water providers
- Facilitate planning and cooperation across watersheds and political boundaries
- Congress has authorized billions of dollars for water services as part of the *Infrastructure Investment and Jobs Act* and the *Inflation Reduction Act*.
- Many of these funds will be administered by states and can only be maximized with good state policies in place.

# SCORING CATEGORIES

Figure ES-1

## Primary Scoring Categories from 2017



Figure ES-2

## New Scoring Categories for 2022





# KEY TAKEAWAYS

- Some states improved since 2017, but others made little or no progress on the scorecard categories
- 10 states adopted point-of-sale plumbing efficiency requirements since 2017 that go beyond federal standards, for a total of 15 states plus the District of Columbia.
- 3 states added conservation planning requirements.
- 19 states require some level of water-land use planning coordination
- Lack of state action or progress on:
  - Funding for customer water bill assistance.
  - Water Utilities doing climate action planning
  - Drought preparedness planning
  - State funding for conservation and efficiency
  - Supporting conservation-oriented rates

Table 1  
2022 Scorecard State Scores, Ranks and 2017 Comparisons

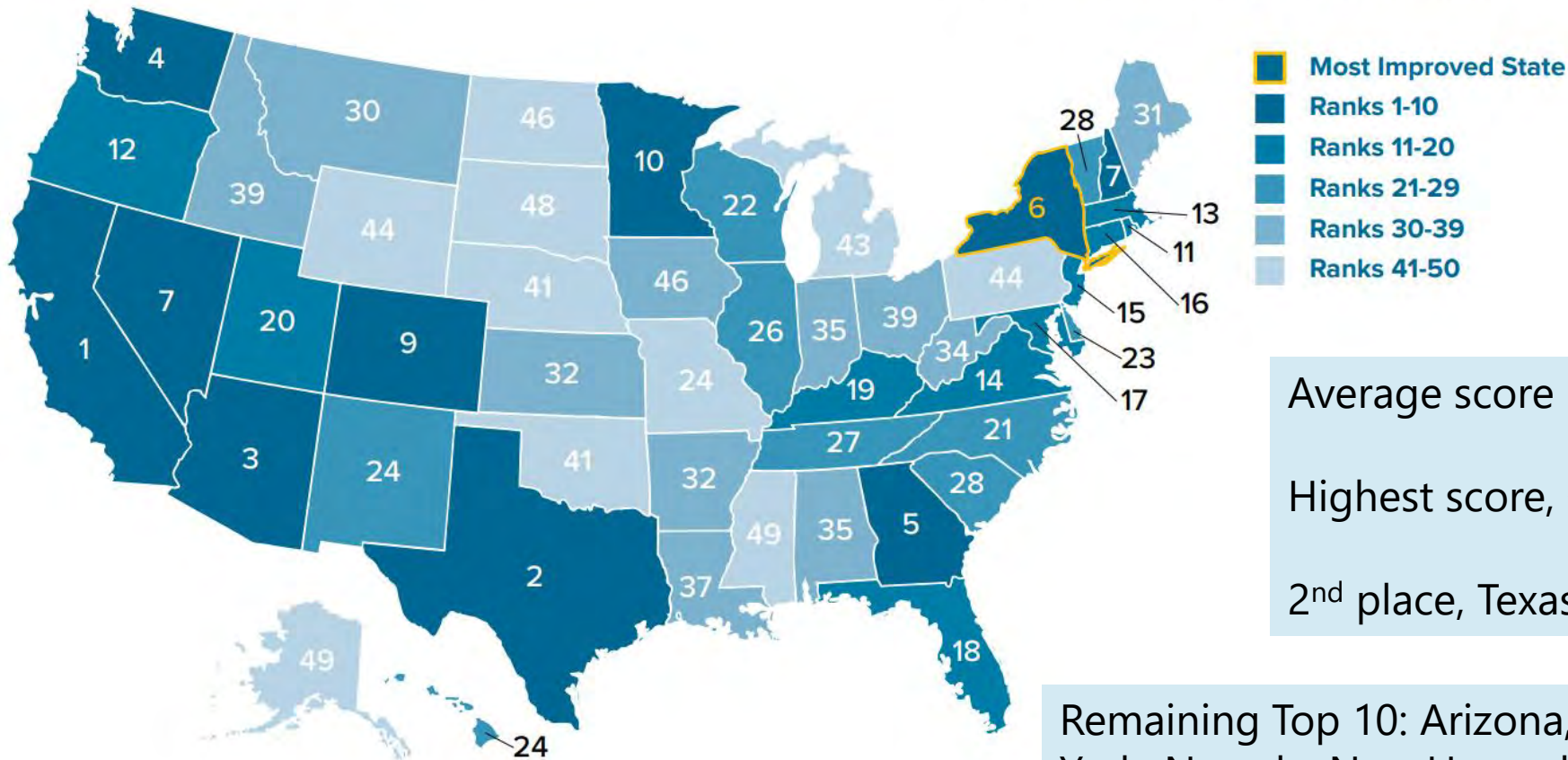
State	2022 Rank	2022 Points	2017 Rank	2017 Points	Rank Change From 2017	Change
California	1	72.5	1	52.5	0	—
Texas	2	54.5	2	51.5	0	—
Arizona	3	50	3	41.5	0	—
Washington	4	49	8	35	4	↑
Georgia	5	46.5	4	40.5	-1	↓
New York	6	46	21	23.5	15	↑
Nevada	T7	43.5	7	35.5	0	—
New Hampshire	T7	43.5	11	32.5	4	↑
Colorado	9	42.5	T5	37.5	-4	↓
Minnesota	10	42	9	34	-1	↓
Rhode Island	11	40.5	13	29.5	2	↑
Oregon	12	40	T5	37.5	-7	↓
Massachusetts	13	38	15	28.5	2	↑
Virginia	14	36.5	10	33.5	-4	↓
New Jersey	15	35	14	29	-1	↓
Connecticut	16	33	T17	26	1	↑
Maryland	17	32	26	14	9	↑
Florida	18	31.5	20	24.5	2	↑
Kentucky	19	28.5	12	30	-7	↓
Utah	20	28	T17	26	-3	↓
North Carolina	21	26	T17	26	-4	↓
Wisconsin	22	23	16	27	-6	↓
Delaware	23	22.5	23	16.5	0	—
Hawaii	T24	20	T24	16	0	—
New Mexico	T24	20	T24	16	0	—
Illinois	26	19	22	18	-4	↓
Tennessee	27	15	T27	13	0	—
South Carolina	T28	13.5	T29	12.5	1	↑
Vermont	T28	13.5	T36	8.5	8	↑
Montana	30	13	38	8	8	↑
Maine	31	12	T45	4	14	↑
Arkansas	T32	11.5	T29	12.5	-3	↓
Kansas	T32	11.5	T32	10.5	0	—
West Virginia	34	11	31	12	-3	↓
Alabama	T35	10.5	T32	10.5	-3	↓
Indiana	T35	10.5	T27	13	-8	↓
Louisiana	37	10	T34	9	-3	↓
Iowa	38	8.5	T36	8.5	-2	↓
Idaho	T39	8	T39	7	0	—
Ohio	T39	8	T34	9	-5	↓
Nebraska	T41	6	T39	7	-2	↓
Oklahoma	T41	6	T39	7	-2	↓
Michigan	43	5.5	T47	3	4	↑
Pennsylvania	T44	5	42	6	-2	↓
Wyoming	T44	5	50	1	6	↑
Missouri	T46	4	T47	3	1	↑
North Dakota	T46	4	T43	5	-3	↓
South Dakota	48	3	T43	5	-5	↓
Alaska	T49	2	49	2	0	—
Mississippi	T49	2	T45	4	-4	↓

Note: Data as of 11/15/22 • T = tied score

# NEW! 1-50 STATE RANKING

## 2022 State Rankings Map

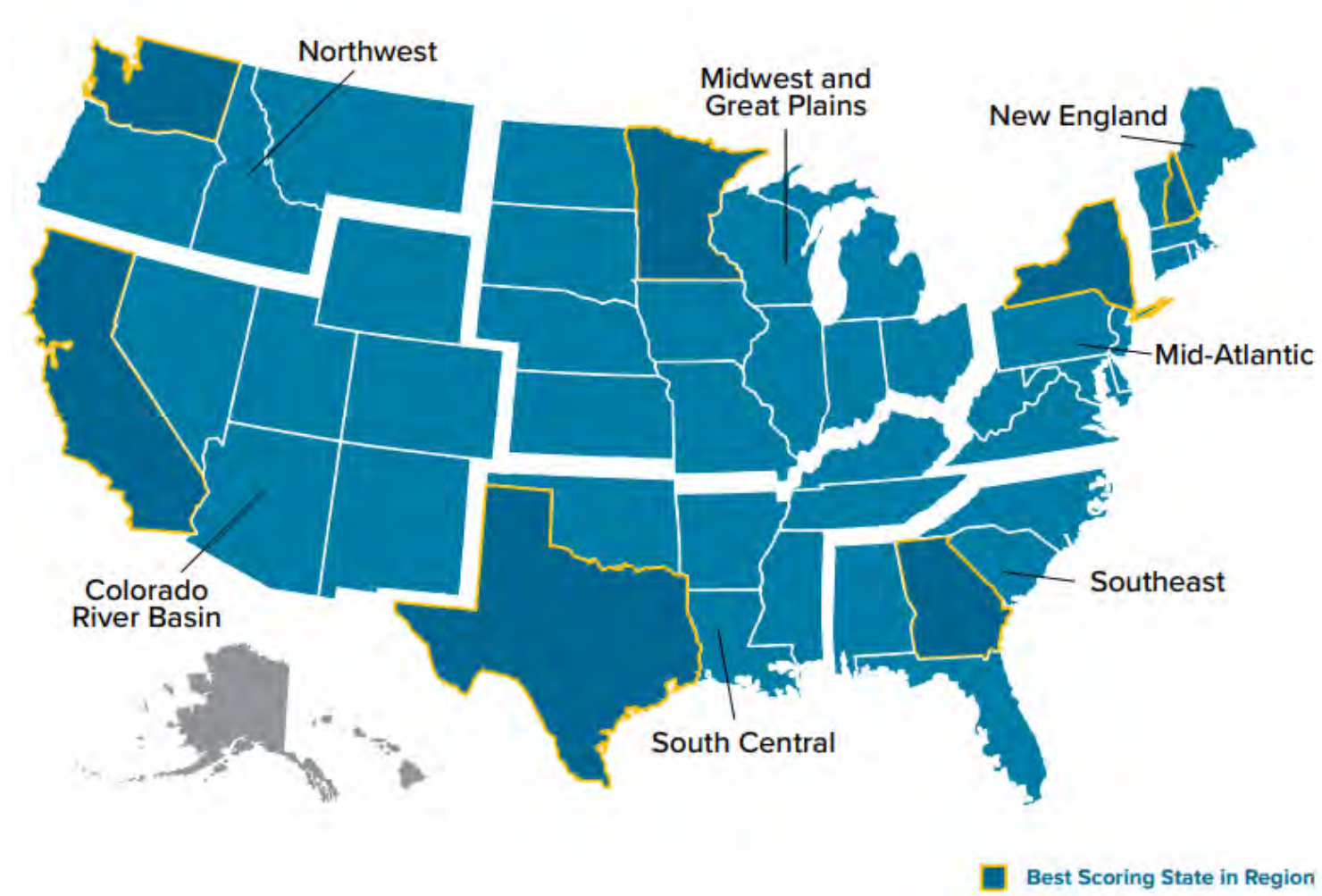
*\*States with the same score are tied for that ranking*



Average score = 23 out of 89 possible points.  
 Highest score, California = 72.5 points.  
 2<sup>nd</sup> place, Texas = 54.5 points.

Remaining Top 10: Arizona, Georgia, Washington, New York, Nevada, New Hampshire, Colorado, and Minnesota .

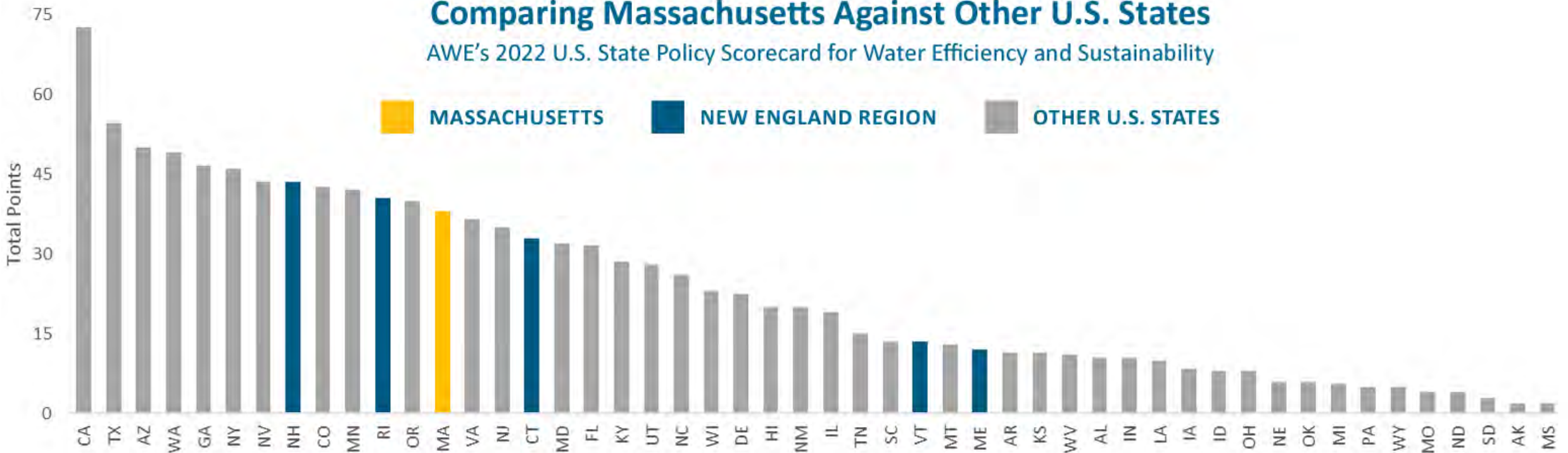
# NEW! REGIONAL RANKINGS



## Comparing Massachusetts Against Other U.S. States

AWE's 2022 U.S. State Policy Scorecard for Water Efficiency and Sustainability

■ MASSACHUSETTS    
 ■ NEW ENGLAND REGION    
 ■ OTHER U.S. STATES



LEARN MORE AT [ALLIANCEFORWATEREFFICIENCY.ORG](https://allianceforwaterefficiency.org)



# CHANGES IN KEY POLICIES FROM 2017 TO 2022

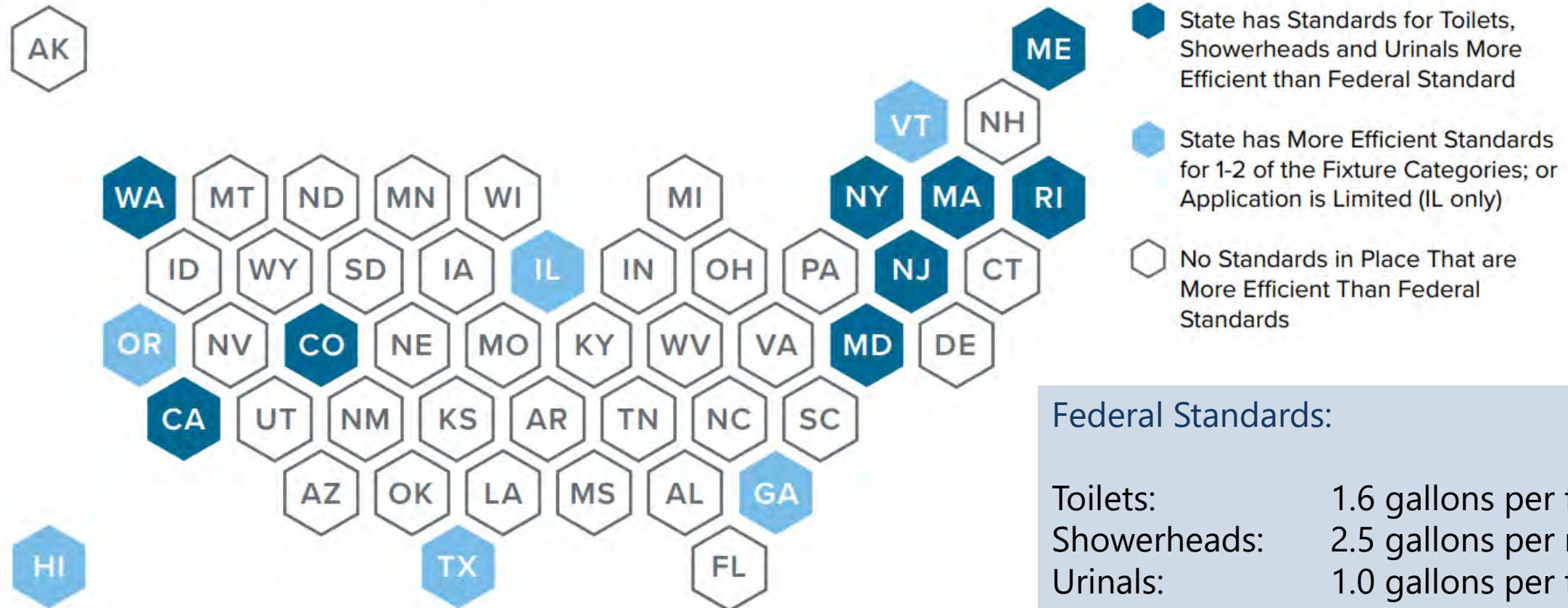
Policies	Number of States		Change
	2017	2022	
<b>Plumbing Fixture Standard and Codes</b>			
Toilets	5	12	7
Showerheads	3	13	10
Urinals	5	13	8
Building & Plumbing Codes	4	6	2
<b>Water Loss Control</b>	23	24	1
<b>Drought Preparedness Planning</b>	19	21	2
<b>Water Conservation Planning</b>			
Required Condition of Water Permits or Water Use Rights	22	22	0
General Requirement of Water Suppliers	15	18	3
<b>State Funding for Water Efficiency Programs</b>	18	19	1
<b>State-provided Technical Assistance for Water Efficiency</b>	30	29	-1
<b>Rate Structures that Encourage Conservation</b>			
Require Volumetric Billing	11	12	1
Require Conservation-oriented Rate Structures	8	8	0

# POINT-OF-SALE FIXTURE STANDARDS



Figure ES-4

## Point-of-Sale Fixtures Standards



# HIGH-EFFICIENCY FIXTURES – PROGRESS SINCE 2017



Table ES-4

## List of States with Point-of-Sale High Efficiency Plumbing Standards

### States that adopted Point-of-Sale High Efficiency Plumbing Requirements since 2017

Toilets	ME, MA, MD, NJ, NY, RI, WA
Showerheads	HI, ME, MA, MD, NJ, NY, OR, RI, VT, WA
Urinals	MA, MD, ME, NJ, NY, RI, VT, WA

### States that Adopted Point-of-Sale High Efficiency Requirements in 2017 or earlier

Toilets	CA, CO, GA, IL, TX
Showerheads	CA, CO, IL
Urinals	CA, CO, GA, IL, TX

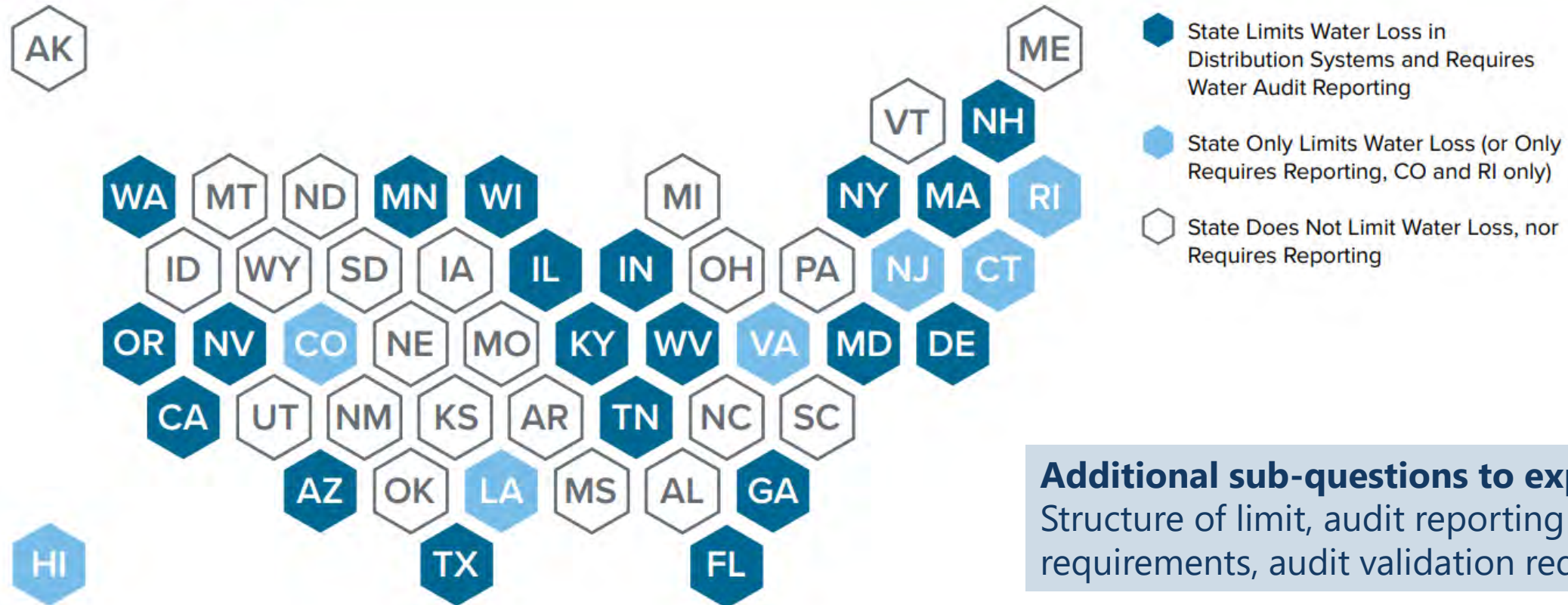
Check the AWE State Fixtures Tracker: <https://www.allianceforwaterefficiency.org/resources/topic/state-fixture-standards-matrix>



# WATER LOSS POLICIES

Figure ES-5

## Water Loss Policies



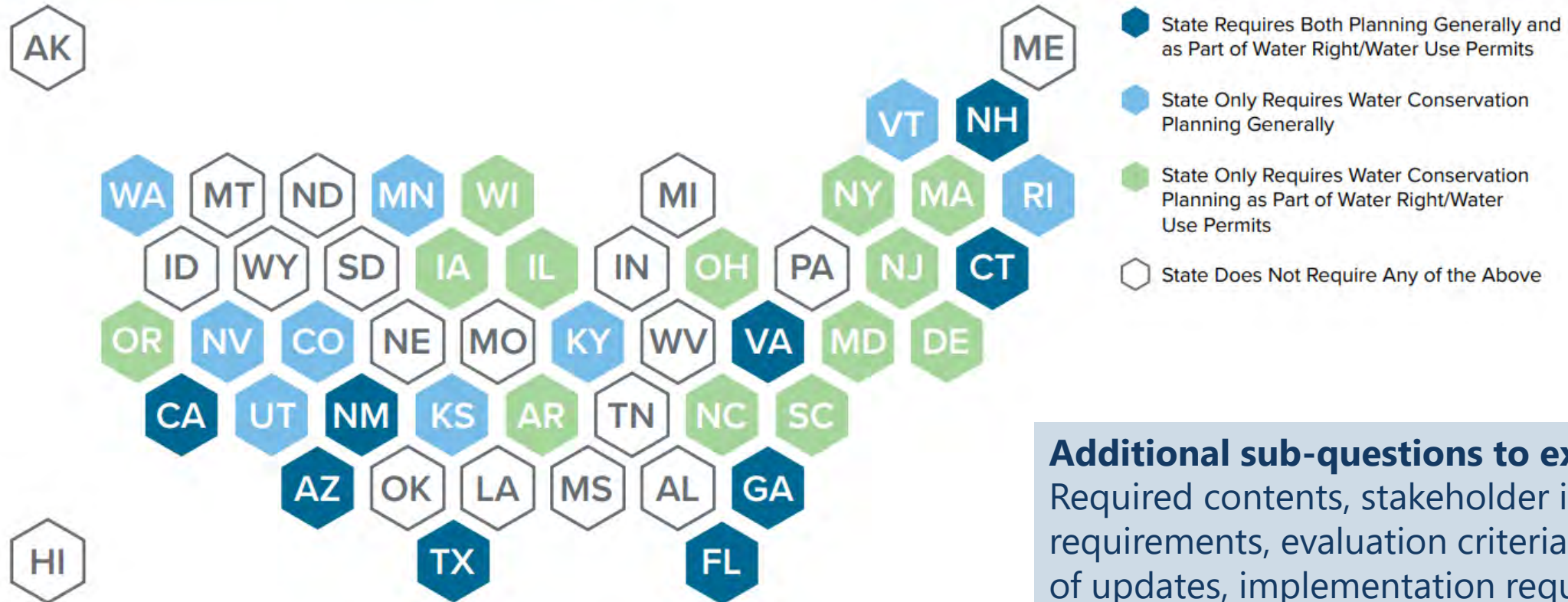
**Additional sub-questions to explore:**  
 Structure of limit, audit reporting requirements, audit validation requirements.



# WATER CONSERVATION PLANNING POLICIES

Figure ES-6:

Water Conservation Planning Policies Map



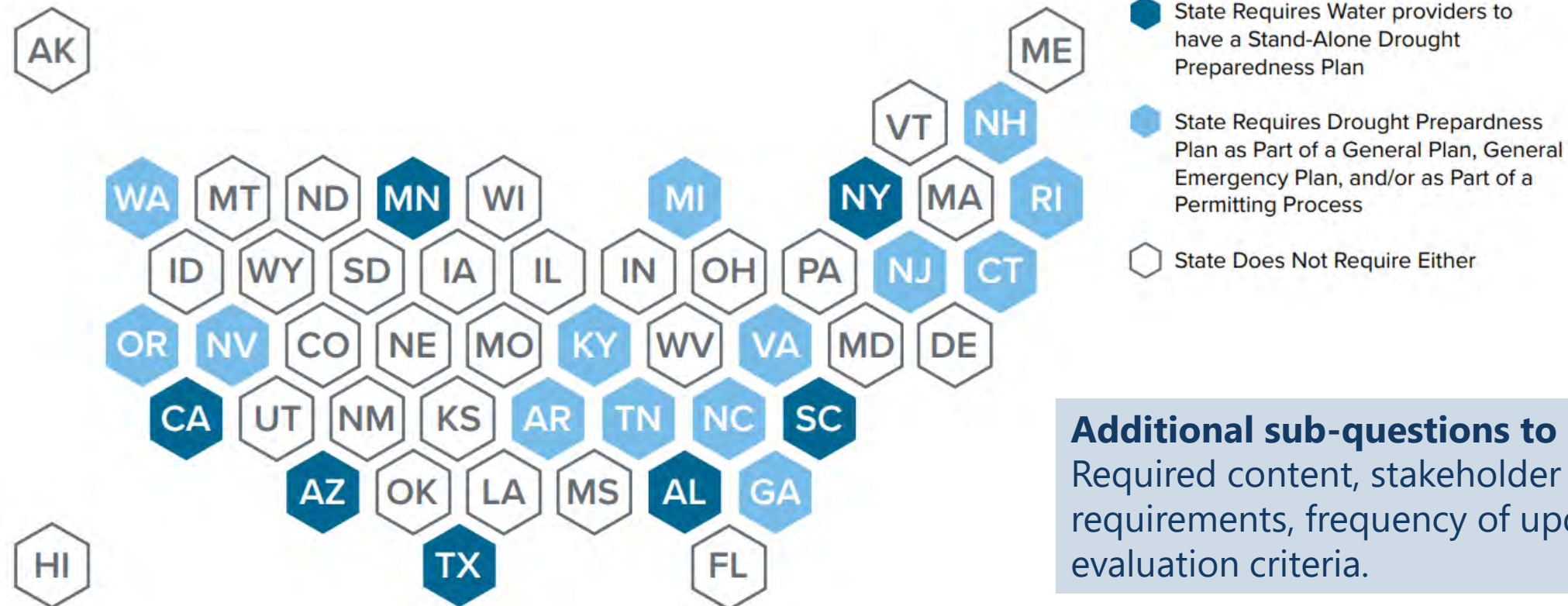
**Additional sub-questions to explore:**  
 Required contents, stakeholder input requirements, evaluation criteria, frequency of updates, implementation requirements.

# DROUGHT PREPAREDNESS

Figure ES-7

Drought Preparedness Planning Policies Map

Only two states (MI, NY) added since 2017, despite widespread and increase frequency of drought across all regions of the U.S.

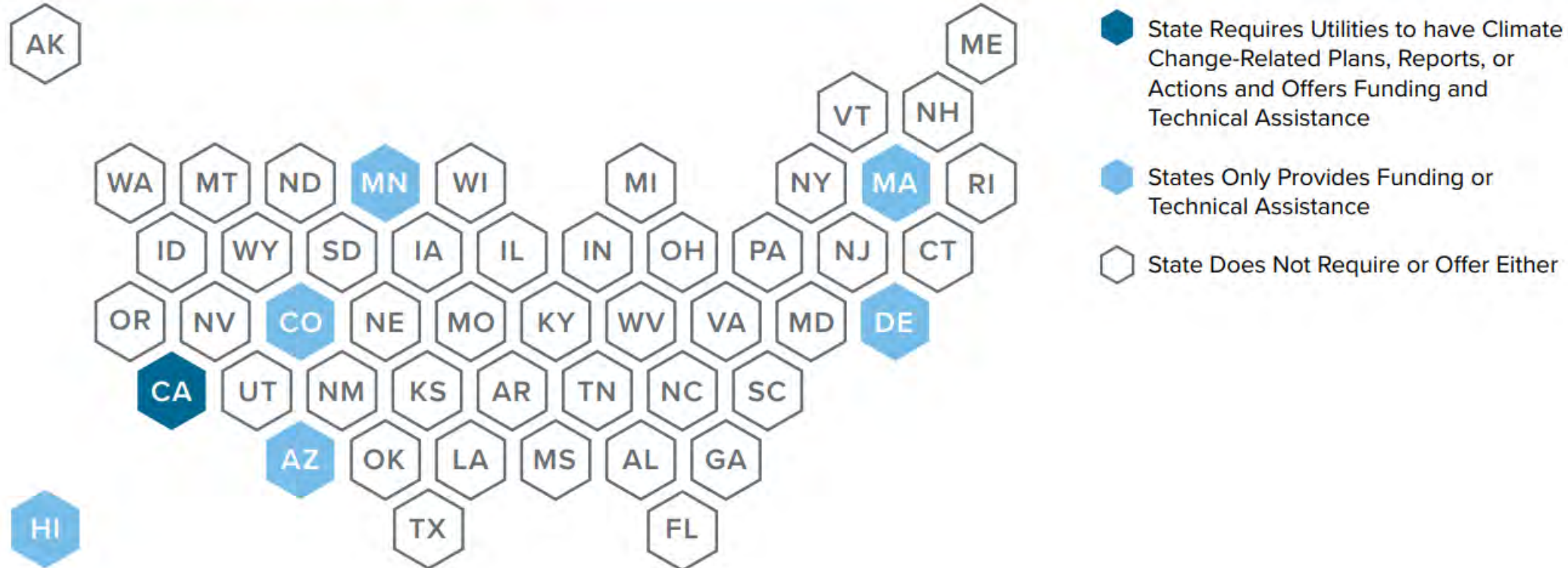


**Additional sub-questions to explore:** Required content, stakeholder input requirements, frequency of updates, evaluation criteria.

# CLIMATE ACTION PLANNING POLICIES

Figure ES-8

## Climate Action Planning Policies

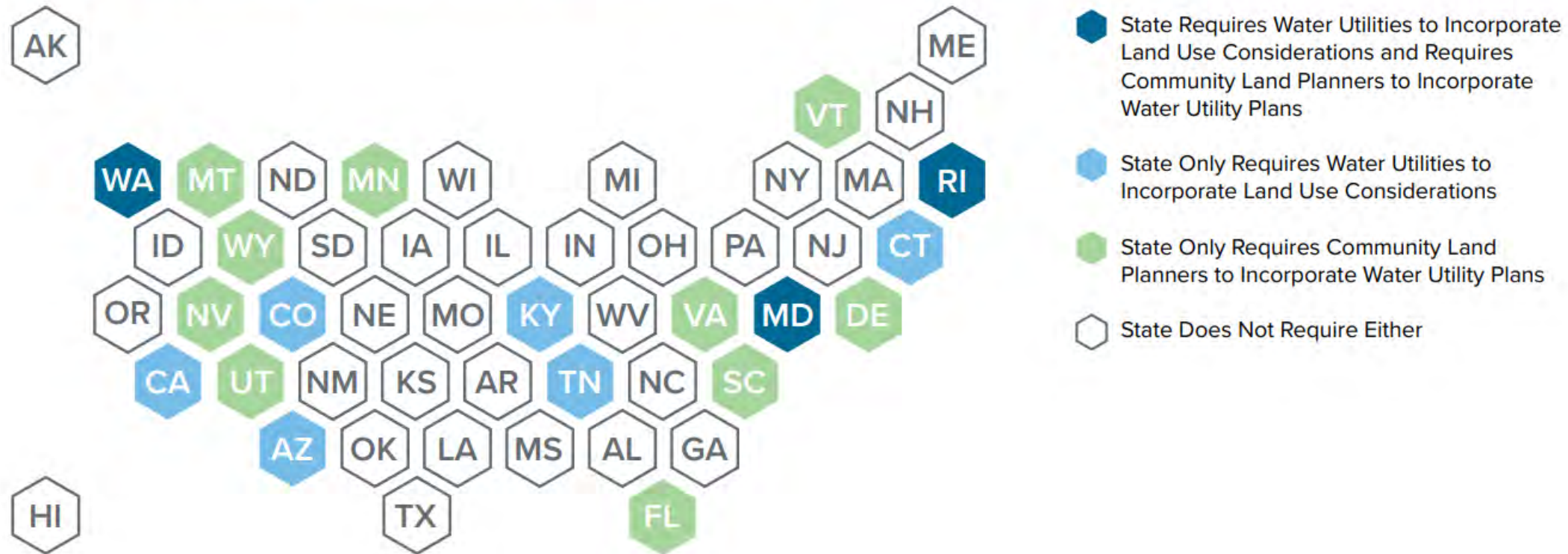




# NEW! WATER AND LAND USE INTEGRATION PLANNING POLICIES

Figure ES-9

## Water and Land Use Integration Planning Policies

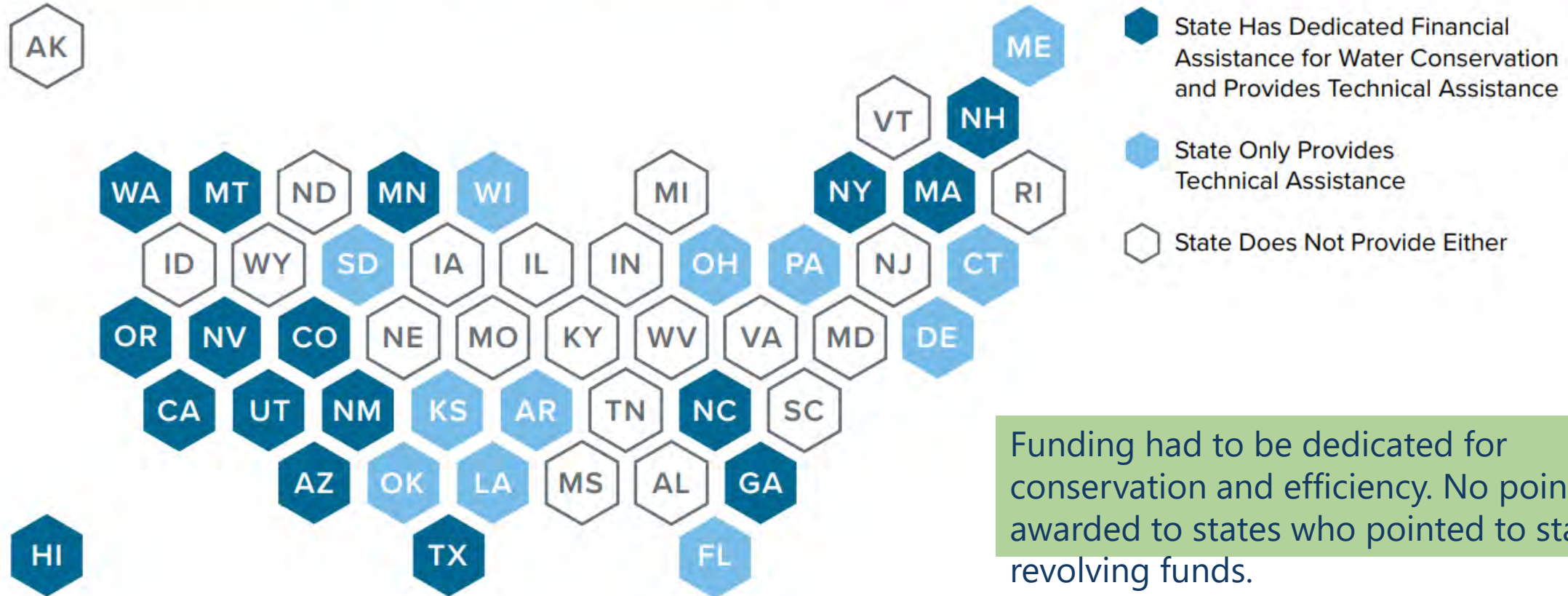




# STATE-PROVIDED FUNDING AND TECHNICAL ASSISTANCE

Figure ES-10

## State-provided Funding and Technical Assistance



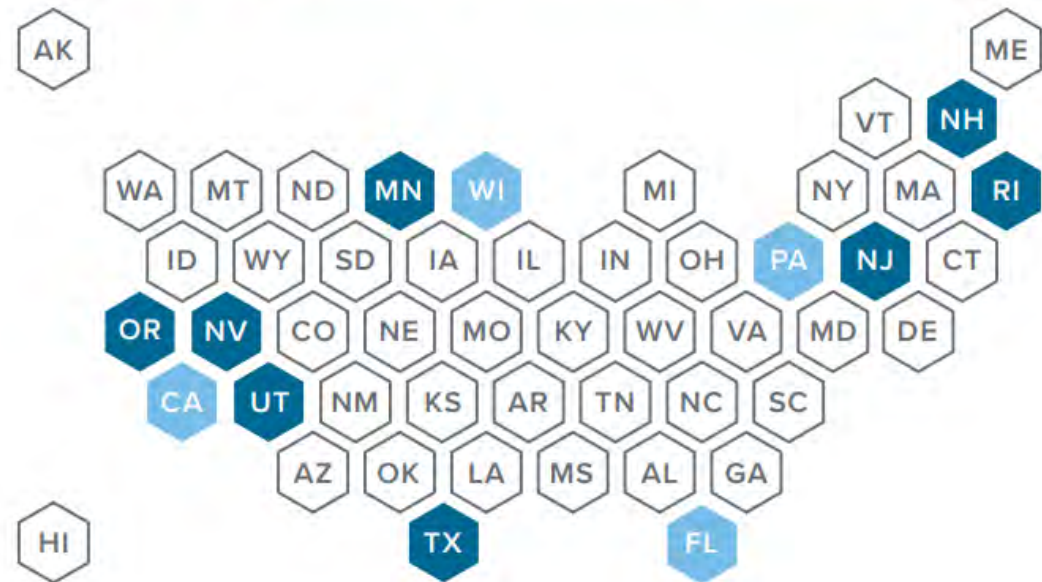
Funding had to be dedicated for conservation and efficiency. No point awarded to states who pointed to state-revolving funds.

# UTILITY RATES

- Volumetric billing: at least a portion of a customer’s bill is a function of how much water they use.
- Conservation-oriented rate structures specifically discourage waste.
  - Inclining block or “tiered” rates
  - Seasonal rates
  - Budget-based rates

Figure ES-11

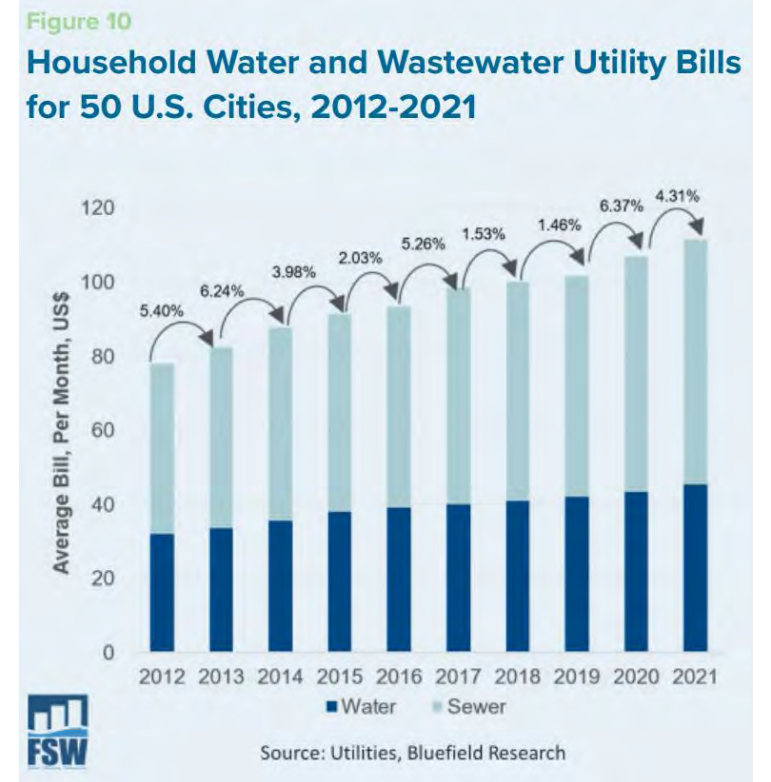
## Rates that Encourage Conservation Policies



- State Requires Water Suppliers to Implement Volumetric Billing and Requires Rate Structures Designed to Encourage Water Conservation
- State Only Requires Water Suppliers to Implement Volumetric Billing
- State Does Not Require Either

# STATE FUNDING FOR CUSTOMER WATER BILL ASSISTANCE

- Low Income Household Water Assistance Program (LIHWAP)
  - All states cited use of LIHWAP except North Dakota
  - Temporary federal funds available for states. Available until September 30, 2023.
- **Recommendation:** Make the federal LIHWAP program permanent, just as the federal Low-Income Home Energy Assistance Program (LIHEAP) is permanent. Moreover, states should help fund customer water bill assistance, focused on low-income households.
- Only one state, Connecticut, reported having state-dedicated funds for customer bill assistance.

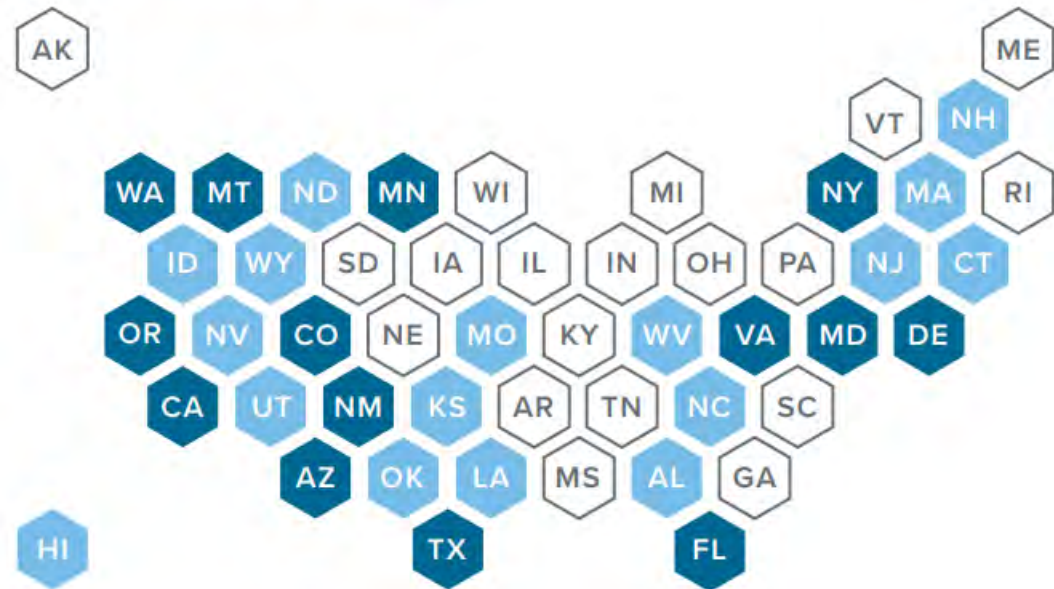







# NEW! WATER REUSE

- Water Reuse:** capturing wastewater, stormwater, saltwater or graywater (e.g., water from showers and washing machines) and cleaning it as needed for a designated beneficial freshwater purpose such as drinking, irrigation, industrial processes, surface or ground water replenishment, and watershed restoration
- State-funding:** Most states pointed to state-revolving funds rather than dedicated funds or grants solely for water reuse projects

Figure ES-12  
Water Reuse Policies



-  State Provides Funding for Water Reuse and has Promulgated Regulations Governing Water Reuse
-  State Promulgated Regulations Governing Water Reuse
-  State Has Neither

*Note:* Some states failed to report regulations or may only have guidelines in place. These states were not awarded points in this round of the Scorecard.

Learn more here:  
[EPA regulation tracker](#)



# WATER-ENERGY NEXUS

- Does the state have a policy to account for energy savings that occur when water savings are achieved with water efficient devices installed in homes and businesses and/or when water loss (“leaks or breaks”) is minimized or prevented in buildings, irrigation systems, and in water utility distribution systems? (Q23)
- Nearly every state requires some type of energy efficiency program where hot water energy savings are accounted for.
- Points were only awarded in the 2022 Scorecard when water system energy savings (the reduction in energy used to collect, treat, and deliver water and collect and treat wastewater) aka “embedded energy” is accounted for.
  - Only three states are known to have this statewide policy—**California, Illinois, and Wisconsin.**

# RECOMMENDATIONS FOR STATES

These are the **top recommendations** states should consider:

---

Adopt laws and codes requiring high efficiency plumbing fixtures

---

Allocate state funding for water efficiency and conservation

---

Require water rate structures that encourage conservation

---

Limit the amount of water lost from utility distribution systems

---

Require water utilities to develop and implement conservation plans

---

Require water utilities to develop and implement drought preparedness plans

---

Require water utilities to develop and implement climate change plans

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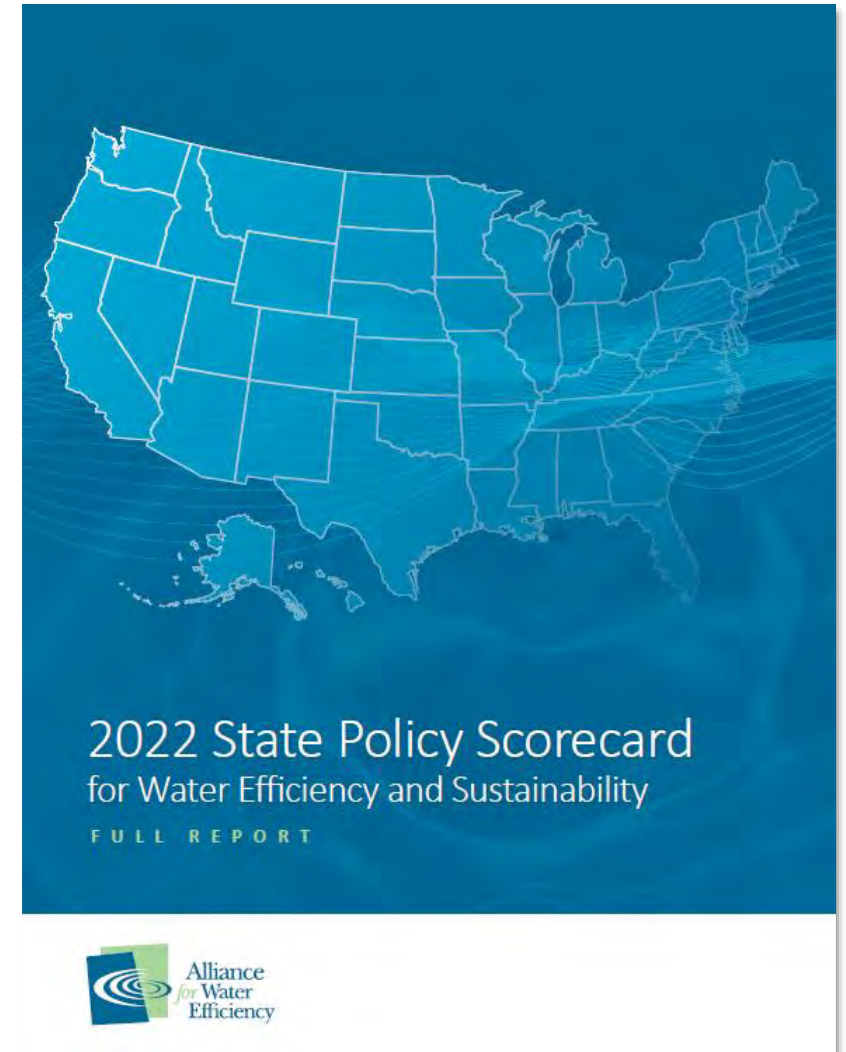
Require coordination between land use and water planning

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Allocate state funding for water reuse/recycling

---

Provide water bill financial assistance for low-income customers and adopt policies that clearly authorize the use of rate revenues for customer financial assistance



# MA SCORECARD

- Top Recommendations:
  - Require drought preparedness plans
  - Require rate structures that encourage conservation
  - Require coordination between land use and water planning




 PROMOTING THE EFFICIENT & SUSTAINABLE USE OF WATER

**2022 U.S. STATE POLICY SCORECARD**  
 for Water Efficiency and Sustainability

**MASSACHUSETTS**
**38**  
POINTS TOTAL
**#13**  
NATIONAL RANKING
**#3** REGIONAL RANKING (OF 6)  
NEW ENGLAND REGION

### About the Scorecard

The 2022 U.S. State Policy Scorecard for Water Efficiency and Sustainability evaluates and scores U.S. states by their adoption of policies and laws that advance water efficiency, conservation, and sustainability. The Scorecard is intended to encourage further legislative action at the state level.

Scorecard Summary	Points
Plumbing Fixture Standards and Codes	12/12
Water Loss Control	6.5/11
Water Conservation Planning	7.5/27.5
Drought Preparedness Planning	0/8.5
Climate Action Planning	2/4
Water-Land Use Planning Integration	0/6
State Funding for Water Efficiency Programs	4/4
State-provided Technical Assistance for Water Efficiency	2/3
Rate Structures that Encourage Conservation	0/4
State Funding for Water Bill Assistance	0/2
State Funding and Support for Water Reuse	2/4
Accounting for Energy Savings from Water Efficiency	0/1
Completion of Survey	2/2
<b>TOTAL POINTS</b>	<b>38/89</b>

### Priority Scoring Factors

The categories below are highlighted in order to encourage states to make the most progress in heavily weighted sectors.

#### Plumbing Fixture Standards and Codes



#### Water Loss Control



#### Water Conservation Planning



#### Drought Preparedness Planning



### Recommendations for Massachusetts

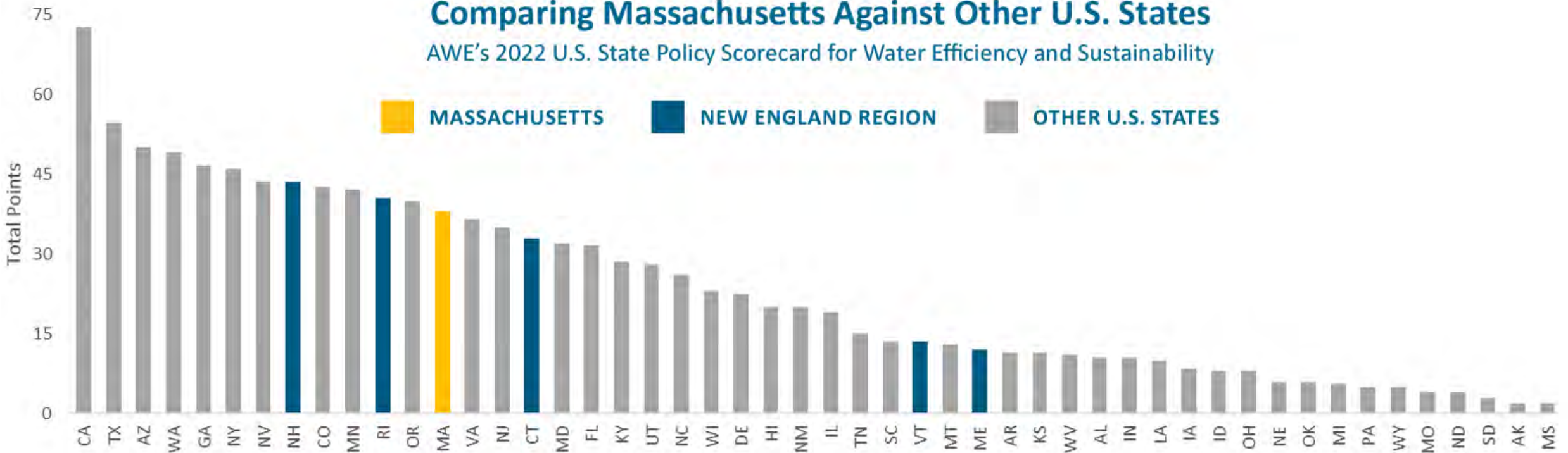
- ✓ Require water utilities to develop and implement drought preparedness plans
- ✓ Require water rate structures that encourage conservation
- ✓ Require coordination between land use and water planning



## Comparing Massachusetts Against Other U.S. States

AWE's 2022 U.S. State Policy Scorecard for Water Efficiency and Sustainability

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# ADD'L OPPORTUNITIES FOR MORE POINTS

- Water loss:
  - Incorporate non-universal numeric limits
  - Require more regular reporting of water loss audits
- Water conservation planning:
  - Adopt as a general planning requirement, not only tied to permits/water rights.
- Provide funding for customer bill assistance; remove any barriers to utilities use of utility revenue for customer assistance programs

# LINKS TO RESOURCES



## [2022 Water Efficiency and Sustainability Scorecard Webpage](https://www.allianceforwaterefficiency.org/2022scorecard)

- <https://www.allianceforwaterefficiency.org/2022scorecard>



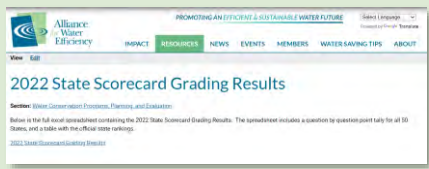
## [AWE Legislative Watch Page](https://www.allianceforwaterefficiency.org/resources/legislative-watch)

- <https://www.allianceforwaterefficiency.org/resources/legislative-watch>



## [State Fixture Standard Matrix](https://www.allianceforwaterefficiency.org/resources/topic/state-fixture-standards-matrix)

- <https://www.allianceforwaterefficiency.org/resources/topic/state-fixture-standards-matrix>



## [Full Scorecard Grading Results](https://www.allianceforwaterefficiency.org/resources/topic/2022-state-scorecard-grading-results)

- <https://www.allianceforwaterefficiency.org/resources/topic/2022-state-scorecard-grading-results>



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# *Alliance for Water Efficiency*

## *Thank You!*

# POSITIVE HIGHLIGHTS

- MA improved our ranking since 2017
- 1 of only 5 states to get full credit for Q5- Plumbing Fixtures Standards and Codes
- Call outs for MVP Program and DEP M36 Grant Program



# AREAS FOR FUTURE FOCUS

- What approaches will be most effective in maximizing our ability to work together? (win-wins)
- How will we measure success?

# MA SCORECARD OPPORTUNITIES DISCUSSION

## Priority Scoring Factors

The categories below are highlighted in order to encourage states to make the most progress in heavily weighted sectors.

### Plumbing Fixture Standards and Codes



### Water Loss Control



### Water Conservation Planning



### Drought Preparedness Planning



## Recommendations for Massachusetts

- ✓ Require water utilities to develop and implement drought preparedness plans
- ✓ Require water rate structures that encourage conservation
- ✓ Require coordination between land use and water planning

## Scorecard Summary

	Points
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State Funding for Water Efficiency Programs	4/4
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Rate Structures that Encourage Conservation	0/4
State Funding for Water Bill Assistance	0/2
State Funding and Support for Water Reuse	2/4
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Completion of Survey	2/2
<b>TOTAL POINTS</b>	<b>38/89</b>