

Modernization of the California Water Plan

CWEMF 2026 Annual Meeting

April 20, 2026



Session Presentations

1. Modernization of the California Water Plan through implementation of new legislation (SB 659 and SB 72) – Jose Alarcon (DWR), Karandev Singh (DWR)
2. Modernization of approach to developing resource management strategies (RMS) and update to RMS contents – Megan Fidell (DWR)
3. Modernizing data tools for public access through the Watershed Hub – Lucian Filler (DWR), Melissa Stine (Woodard & Curran)
4. Modernizing metrics and data for future scenarios – California Environmental Flows Framework – Caileen Yu (DWR)
5. Modernized population allocation for urban water use planning: automated Census population estimation across different boundaries using parcels and building footprints – Melika Mani(DWR), & James Common (DWR)



A New Era in California Water Planning

The California Department of Water Resources (DWR) is embarking on the 2028 California Water Plan, a multiyear effort to modernize statewide water planning and deliver a more action-oriented, measurable blueprint for long-term water reliability and resilience.

[Learn More](#)

SB 659

SB 72

Technical Working Workgroup

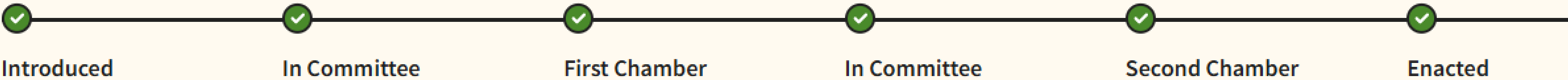


CALIFORNIA DEPARTMENT OF
WATER RESOURCES

SB 659: California Water Supply Solutions Act of 2023.

Session Year: 2023-2024 House: Senate Latest Version Date: 2023-10-08

Current Status: **PASSED** ✓ (2023-10-08: Chaptered by Secretary of State. Chapter 624, Statutes of 2023.)



Timing and Intent

- Bill signed in 2023
- Increase groundwater recharge

SB 659

- Amended WC Section 10004
- Added WC Section 10004.7



CALIFORNIA DEPARTMENT OF
WATER RESOURCES

SB 659: Key Mandates to Increase Recharge



- Part of California Water Plan
- Develop actionable recommendations
- Estimate recharge potential
- Discuss variability of water available for recharge
- Identify legal, financial, regulatory opportunities & barriers
- Develop best practices



SB 659: General Approach



Utilize Collaborative Platforms



Compile a Body of Knowledge



Develop Actionable Recommendations



CALIFORNIA DEPARTMENT OF
WATER RESOURCES

SB 659: Collaborative Platforms

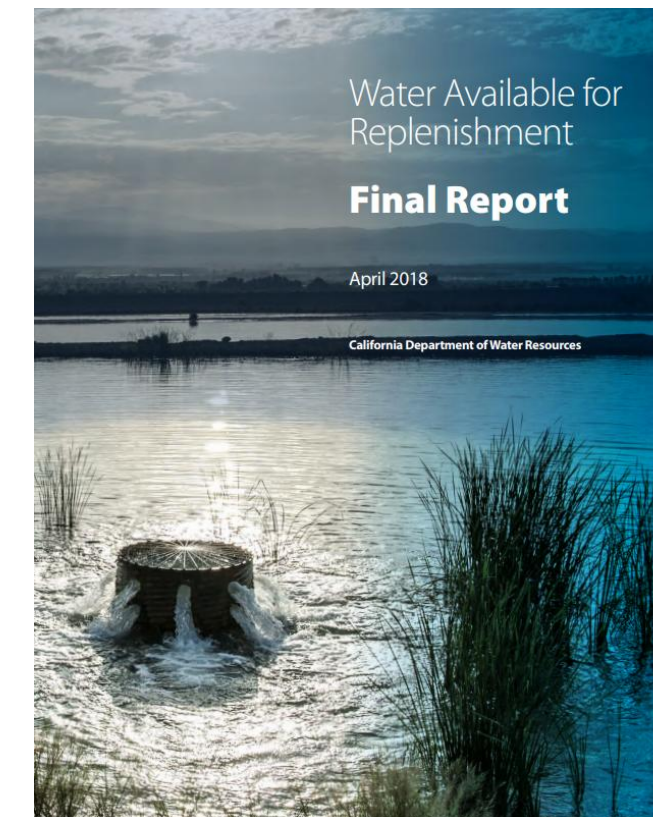
Consult and Seek Input from:

- CWP Public AC
- CWP Tribal AC
- State Agencies (SWRCB, RWQCBs, CDFW, etc.)
- Existing Recharge Groups



SB 659: Body of Knowledge

- Identifying suitable recharge locations
- Variability of water available for recharge
- Estimate of recharge potential
- Best practices:
 - Protect water quality
 - Protect access to safe drinking water
 - Others



Recharge Area Identification,
Utilization, and Protection
Resource Management Strategy

CALIFORNIA WATER PLAN UPDATE 2023
September 2024



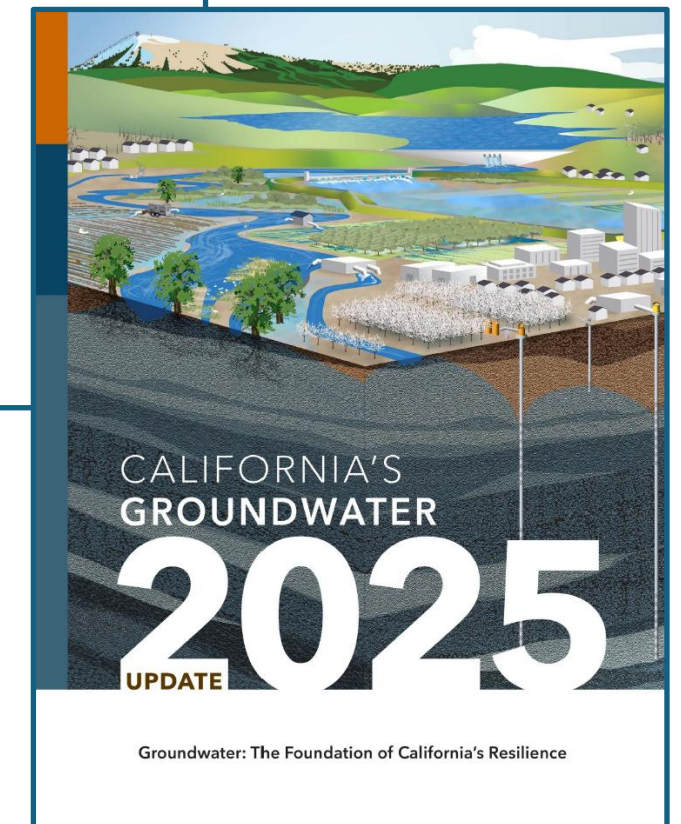
SB 659: Body of Knowledge cont.

- Compile legal and regulatory requirements
- Explore financial and regulatory incentives
- Evaluate cost & benefits
- Assess recharge currently occurring
- Infrastructure considerations

Conjunctive Water Management
Resource Management Strategy

CALIFORNIA WATER PLAN UPDATE 2023

October 2024



CALIFORNIA DEPARTMENT OF
WATER RESOURCES

SB 659: Actionable Recommendations

Identify immediate opportunities & potential long-term solutions to advance Groundwater Recharge



Collaborative Platforms



Body of Knowledge



Actionable Recommendations



CALIFORNIA DEPARTMENT OF
WATER RESOURCES

SB 72: The California Water Plan: long-term supply targets (2025)

- Signed by Governor on October 1, 2025; **now in effect**
- Shifts the California Water Plan (CWP) focus from **actionable, target-driven planning**
- Integrates new requirements **beginning with 2028 Update**



SB-72 The California Water Plan: long-term supply targets (2025)

Several water code changes notably:

- **Section 10004** rewritten
- **Section 10004.5** expanded with new responsibilities
- **Section 10004.6** updated to require:
 - Interim planning target in 2028
 - Regional water supply targets beginning with 2033 Update
- **Section 10013** removed



Senate Bill No. 72

CHAPTER 210

An act to amend Sections 10004.5 and 10004.6 of, to repeal Section 10013 of, and to repeal and add Section 10004 of, the Water Code, relating to water.

[Approved by Governor October 1, 2025. Filed with Secretary of State October 1, 2025.]

LEGISLATIVE COUNSEL'S DIGEST

SB 72, Caballero. The California Water Plan: long-term supply targets. Existing law requires the Department of Water Resources to update every 5 years the plan for the orderly and coordinated control, protection, conservation, development, and use of the water resources of the state, which is known as "The California Water Plan." Existing law requires the department to include a discussion of various strategies in the plan update, including, but not limited to, strategies relating to the development of new water storage facilities, water conservation, water recycling, desalination, conjunctive use, and water transfers, that may be pursued in order to meet the future needs of the state. Existing law requires the department to establish an advisory committee to assist the department in updating the plan.

This bill would revise and recast certain provisions regarding The California Water Plan to, among other things, require the department to expand the membership of the advisory committee to include, among others, tribes, labor, and environmental justice interests. The bill would require the department, as part of the 2033 update to the plan, to update the interim planning target for 2050, as provided. The bill would require the target to consider the identified and future water needs for all beneficial uses, including, but not limited to, urban uses, agricultural uses, tribal uses, and the environment, and ensure safe drinking water for all Californians, among other things. The bill would require the plan to include specified components, including a discussion of the estimated costs, benefits, and impacts of any project type or action that is recommended by the department within the plan that could help achieve the water supply targets. The bill would require the department to report to the Legislature the amendments, supplements, and additions included in the updates of the plan, together with a summary of the department's conclusions and recommendations, in the session in which the updated plan is issued. The bill would also require the department to conduct public workshops to give interested parties an opportunity to comment on the plan.

COMMUNICATION & OUTREACH

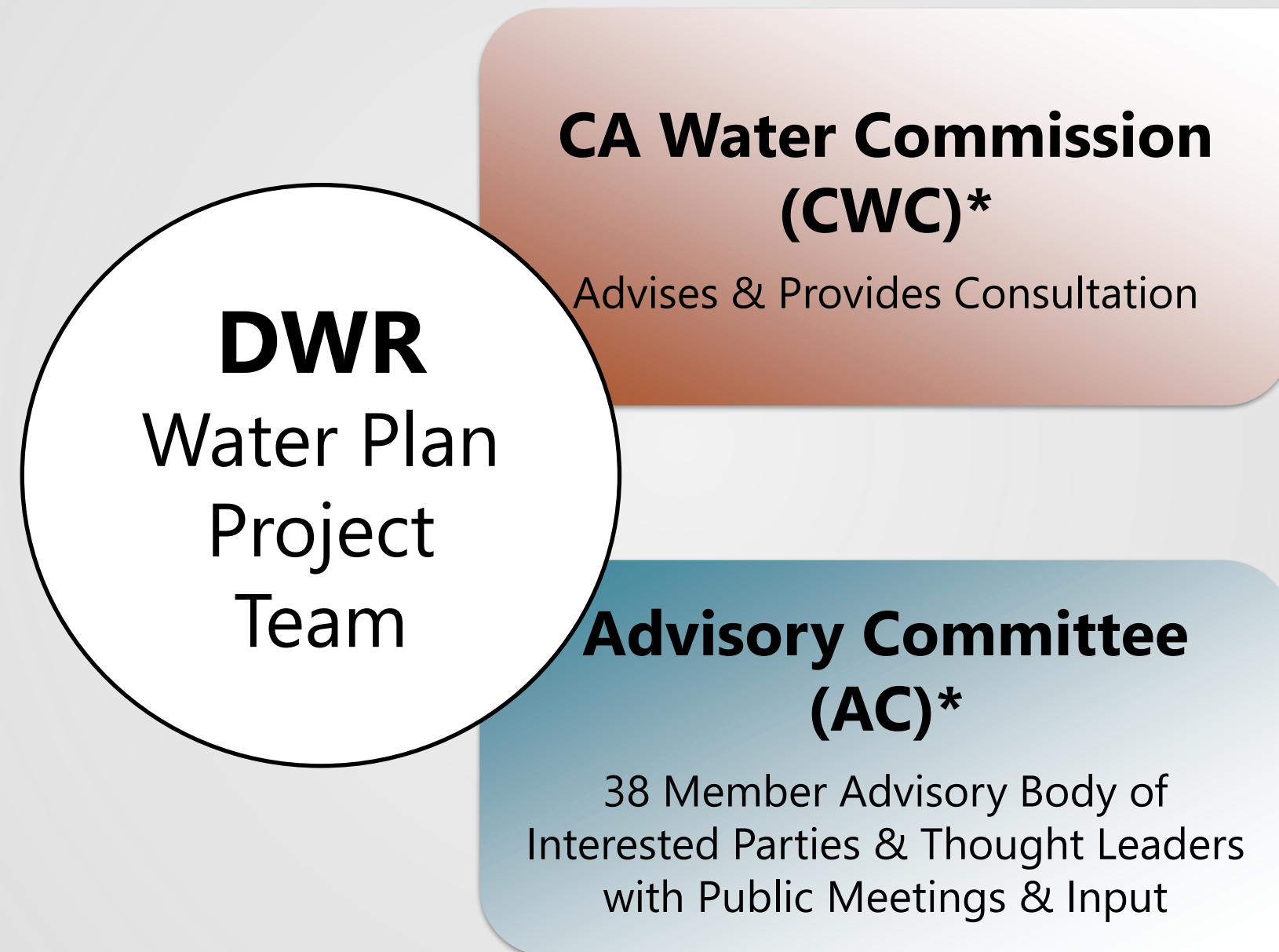
Section 10004

- Section rewritten; overall intent remains similar
- Key updates focus on advisory committee composition and representation
- Expands inclusion of diverse interests and communities

“To develop the plan, the department, in consultation with the California Water Commission, shall establish an advisory committee, composed of representatives of agricultural and urban water suppliers, local government, business, agriculture, tribes, labor representatives from building and construction trades, labor representatives from public agencies involved in critical water infrastructure, including, but not limited to, water treatment and water wholesalers, environmental justice interests, environmental interests, and other interested parties, to assist and provide input to the department in the updating of The California Water Plan.”



CWP Engagement and Coordination Architecture



*Engagement pathways mandated under SB 72.



Advisory Committee Composition

SB 72 Categories

- ☐ Agricultural Water Suppliers
- ☐ Agriculture
- ☐ Business
- ☐ Environmental Interests
- ☐ Environmental Justice Interests
- ☐ Labor Representatives – Public Agencies
- ☐ Labor Representatives – Trades
- ☐ Local Government
- ☐ Local Water Supply Agencies
- ☐ Other Interested Parties
- ☐ Researchers and Experts
- ☐ Tribes
- ☐ Urban Water Suppliers

Geographic Coverage

- ☐ Statewide
- ☐ Tribal Areas
- ☐ Sacramento Valley
- ☐ San Joaquin Valley
- ☐ Delta
- ☐ San Francisco Bay
- ☐ Mountain Counties/ Sierras
- ☐ North Coast
- ☐ Central Coast
- ☐ Southern CA

California Water Plan 2028 Advisory Committee Members



Aaron Fukuda
General Manager
Tulare Irrigation District

[Read Bio](#)



Alex Biering
Director of Policy Advocacy
California Farm Bureau

[Read Bio](#)



Ali Chehrehsaz
Chief Executive Officer
TerraVerde Energy

[Read Bio](#)



Anja Raudabaugh
Chief Executive Officer
Western United Dairies

[Read Bio](#)



Anna Schiller
Senior Program Manager
Environmental Defense Fund

[Read Bio](#)



Ann Willis
California Regional Director
American Rivers

[Read Bio](#)

For complete list ,visit californiawaterplan.com



CALIFORNIA DEPARTMENT OF
WATER RESOURCES

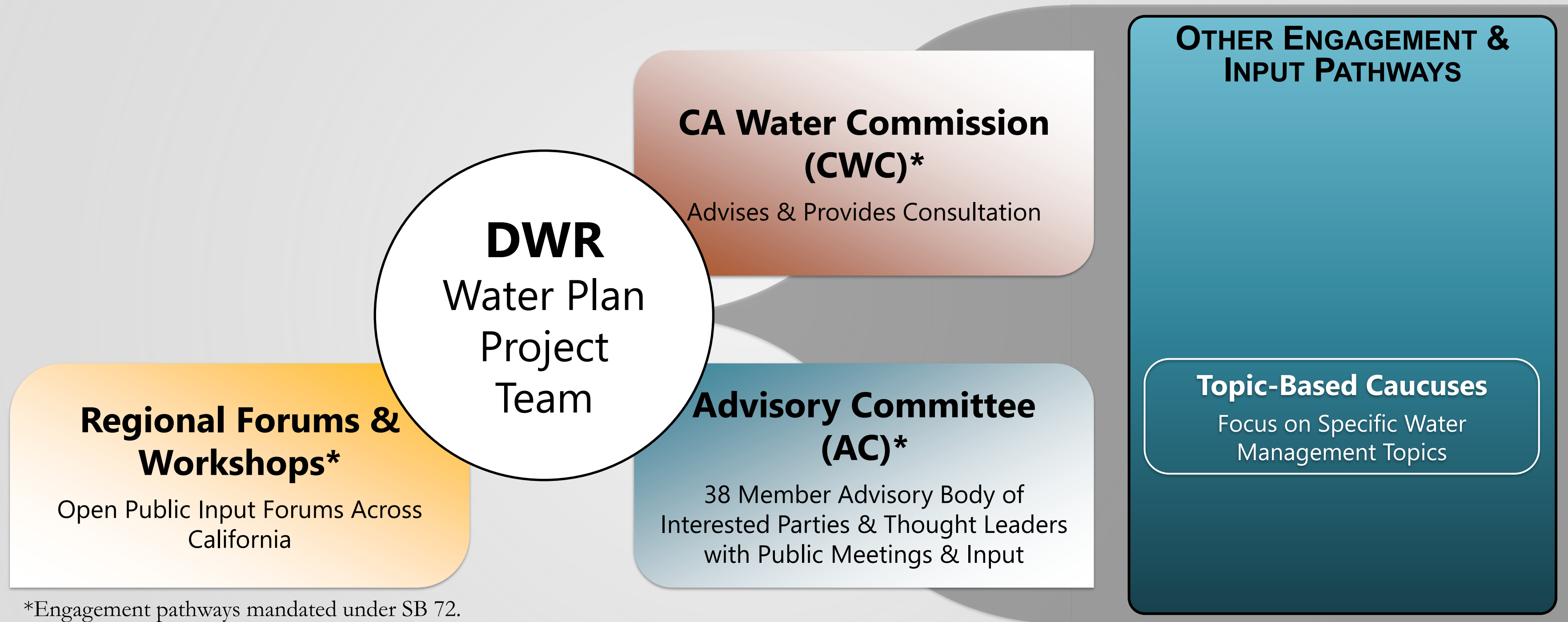
Section 10004.5(b)

- Expands DWR's communication and engagement responsibilities
- Requires statewide public workshops
- Emphasizes regions most impacted by climate extremes

“In preparing any update of The California Water Plan, the department shall conduct a **series of public workshops** to give interested parties an opportunity to comment on the plan. The department shall select workshop locations to **maximize geographic distribution**, to ensure that regions of the state that have been impacted the most by drought, flood, and other weather extremes are included, and to ensure the workshops are accessible to communities with minority populations, communities with low-income populations, or both.”



Engagement and Coordination Architecture



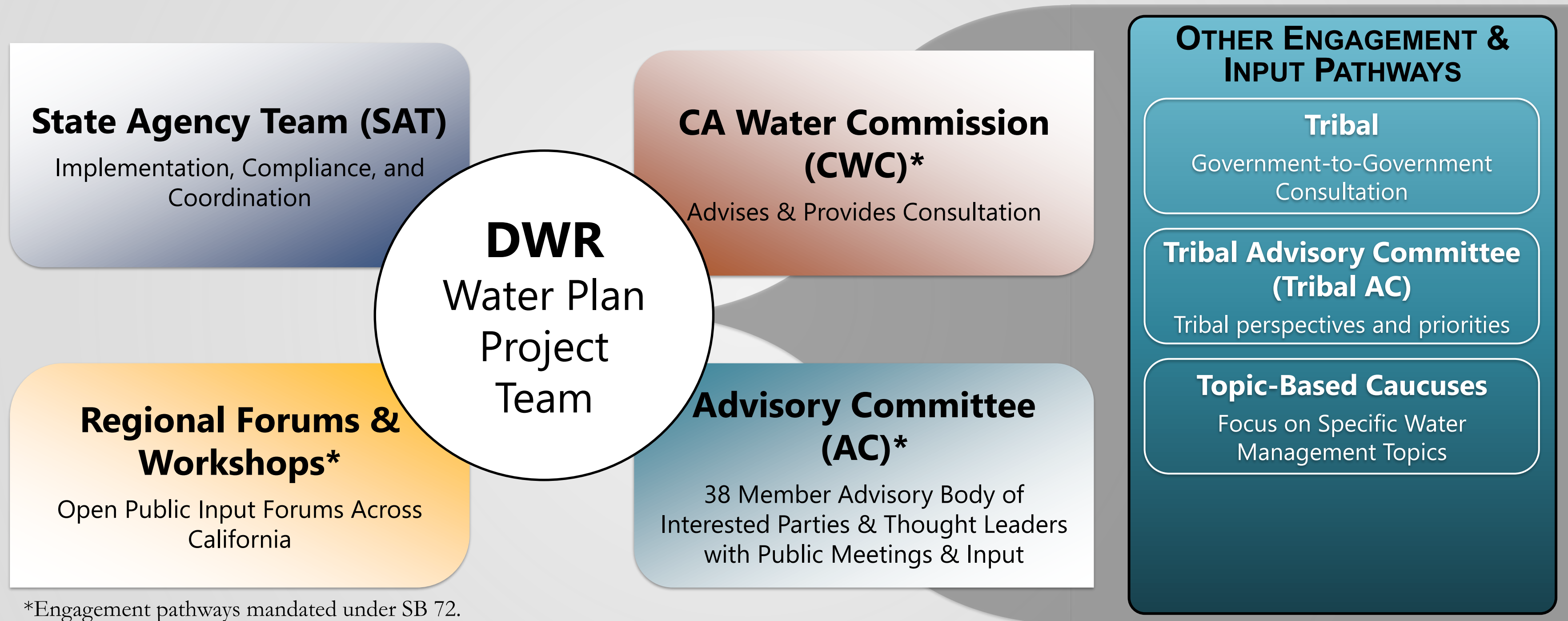
Section 10004.6 (c)(11)

- Strengthens coordination with partner agencies

“Current and projected water and infrastructure needs of disadvantaged communities, as defined in Section 79505.5, served by public water systems, state small water systems, and individual domestic wells, including, but not limited to, access to safe and affordable drinking water and sanitation, water quality, and water supply. The department may **incorporate by reference the State Water Resources Control Board’s Drinking Water Needs Assessment or other available relevant assessments or reports.**”



Engagement and Coordination Architecture



State Agency Team (SAT)

- ✓ California Coastal Commission
- ✓ California Department of Conservation
- ✓ California Department of Fish and Wildlife
- ✓ California Department of Food and Agriculture
- ✓ California Department of Forestry and Fire Protection
- ✓ California Department of Parks and Recreation
- ✓ California Department of Water Resources
- ✓ California Department of Water Resources Tribal Affairs Office
- ✓ California Energy Commission
- ✓ California Environmental Protection Agency
- ✓ California Natural Resources Agency
- ✓ California Public Utilities Commission
- ✓ California Water Commission
- ✓ Central Valley Flood Protection Board
- ✓ Colorado River Board
- ✓ Delta Stewardship Council
- ✓ Governor's Office of Emergency Services
- ✓ Governor's Office of Land Use and Climate Innovation
- ✓ State Lands Commission
- ✓ State Water Resources Control Board



CALIFORNIA DEPARTMENT OF
WATER RESOURCES

FUTURE WATER NEEDS ASSESSMENT & ADAPTATION STRATEGY PORTFOLIO

Section 10004.5 (c)

- Develop regional-specific water need targets by sector
- Identify portfolios of regional and local water projects and actions
- Evaluate projects based on costs, benefits, and impacts

“Each update of the plan shall include, at a minimum, all of the following components:

(1) A discussion of **environmental needs** on a **regional basis**. [...]

(2) A discussion of **urban sector water needs** on a **regional basis**.

(3) A discussion of **agricultural water needs** on a **regional basis**.

(4) A summary of sources that could finance project types or actions within the various strategies.

(5) A discussion of the **estimated costs, benefits, and impacts of any project type or action** that is recommended by the department within the plan that could help achieve the water supply targets. [...]

(6) A report on the **development of regional and local water projects within each hydrologic region** of the state undertaken to improve water supplies ... and minimize the need to import water from other hydrologic regions.”



Section 10004.5(a) & 10004.6 (c)

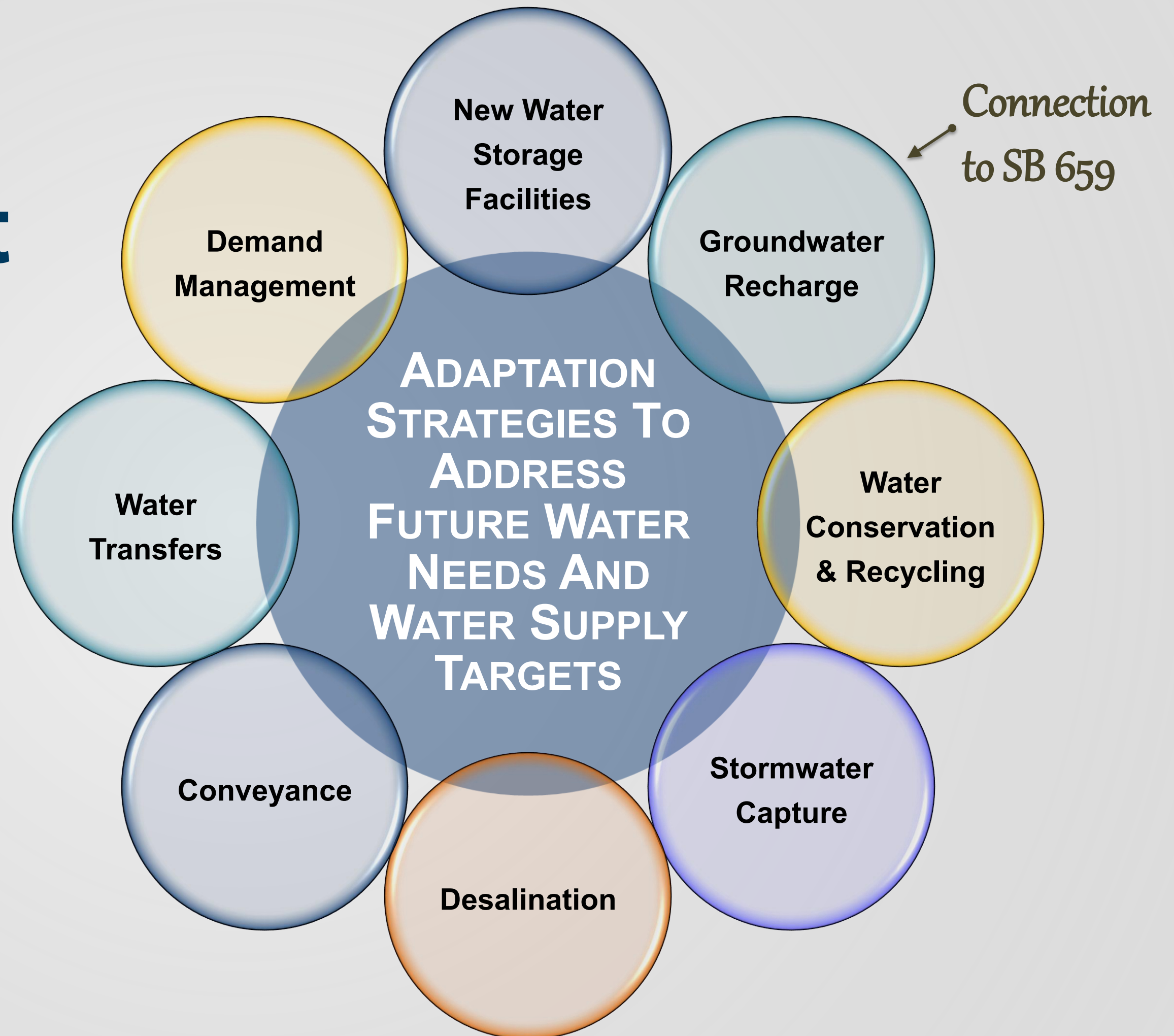
- Expands portfolio of strategies to meet future water needs
- Includes supply and demand-side actions
- Requires integration of localized climate change impacts

“10004.5. (a) As part of the requirement of the department to update The California Water Plan pursuant to subdivision (b) of Section 10004, the department shall include in the plan a discussion of various strategies, including, but not limited to, those relating to the development of new water storage facilities, water conservation, **groundwater recharge**, water recycling, desalination, conjunctive use, **conveyance**, **stormwater capture**, **water transfers**, and **demand management activities** that may be pursued in order to meet the future water needs of the state and the water supply targets developed by the department.

10004.6 (c) On or before January 1, 2002, December 31, 2027, and one year prior to issuing each successive update to The California Water Plan, the department shall release a preliminary draft of the assumptions and other estimates upon which the study will be based [...]: **(7) Opportunities for demand management. [...] (12) Climate change impacts by region and resulting water supply trends, including changes in timing and intensity of snowmelt runoff..”**



SB 72 Water Management Strategies



Section 10013

- Emphasis on regional and local project development
- Section removed; key elements retained in 10004.5 and 10004.6

~~"The department, as a part of the preparation of the department's Bulletin 160-03, shall include in the California Water Plan a report on the **development of regional and local water projects within each hydrologic region** of the state, as described in the department's Bulletin 160-98, to **improve water supplies** to meet municipal, agricultural, and environmental water needs and **minimize the need to import water from other hydrologic regions**. The report shall include, but is not limited to, **regional and local water projects** that use technologies for desalting brackish groundwater and ocean water, reclaiming water for use within the community generating the water to be reclaimed, the construction of improved potable water treatment facilities so that water from sources determined to be unsuitable can be used, and the construction of dual water systems and brine lines, particularly in connection with new developments and when replacing water piping in developed or redeveloped areas."~~



WATER SUPPLY PLANNING TARGETS

Section 10004.6 (f) – 2028 Update

- Establishes interim statewide target of 9 million acre-feet by 2040
- Achieved through a portfolio approach, including, storage expansion, conservation and efficiency, demand management and alternative supplies

“As part of the 2028 update to the plan, the department shall include an interim planning target of 9,000,000 acre-feet of additional water, water conservation, or water storage capacity to be achieved by 2040. This target may be achieved through strategies, including, but not limited to, a combination of the development of new or expanded surface or groundwater storage, conservation efforts, including the ongoing implementation of the Making Conservation a California Way of Life regulation, ... or the development of stormwater capture, graywater, recycled water, or other water supplies.”



Evolution of CWP Planning Framework Under SB 72

	Update 2028
Water Supply Target	9 million acre-feet
Target Development Basis	Planning-level estimate
Planning Horizon	2040 (~15 years)
Spatial Resolution	Statewide

“9 million acre-feet target” determination

SECTION 1. The Legislature finds and declares all of the following: [...]

(d) Dependent on the extent of drought or flood conditions, the Department of Water Resources has calculated that the **volume of water used by people in California for agricultural, urban, and environmental purposes ranges from 60,000,000 acre-feet per year to 90,000,000 acre-feet per year.** [...]

(f) California is experiencing significant impacts of a changing climate on our water supply systems and environment, including fisheries and ecosystems.

(g) According to the Department of Water Resources, **hotter and drier weather may diminish our existing water supply.**

(h) A **10-percent loss of water supplies** could mean the disappearance of **about 6,000,000 acre-feet to 9,000,000 acre-feet of water.**



Interim Planning Target = **Maximum Water Use** x **Loss Factor**

Section 10004.6 – 2033 Update

- Updates 2028 target into data-driven regional targets
- Based on 2050 water needs across all beneficial uses

“As part of the 2033 update to The California Water Plan, the department shall update the required planning target pursuant to subdivision (f) for 2050. The target shall consider the identified and future water needs for all beneficial uses, including, but not limited to, urban uses, agricultural uses, recreational uses, tribal uses, and the environment, recognize the impacts of climate change on the state’s water resources, ensure safe drinking water for all Californians, and reflect statewide, regional, and local planning efforts. In establishing the long-term supply target, the department shall analyze current and future water needs trends [...]”



Evolution of CWP Planning Framework Under SB 72

	Update 2028	Update 2033
Water Supply Target	9 million acre-feet	Based on assessed future water needs (all beneficial uses)
Target Development Basis	Planning-level estimate	Data-driven
Planning Horizon	2040 (~15 years)	2050 (~20 years)
Spatial Resolution	Statewide	Regional



Section 10004.6 (3) – Update 2028 & Beyond

- Establishes a 50-year planning horizon
- Advances analysis to watershed-scale resolution

“Subsequent updates of the plan shall include a range of water supply targets that consider future scenarios with a 50-year planning horizon at a watershed scale.”



Evolution of CWP Planning Framework Under SB 72

	Update 2028	Update 2033	Update 2038 & Beyond
Water Supply Target	9 million acre-feet	Based on assessed future water needs (all beneficial uses)	Refined from future water needs assessments
Target Development Basis	Planning-level estimate	Data-driven	
Planning Horizon	2040 (~15 years)	2050 (~20 years)	50 year horizon (~2085)
Spatial Resolution	Statewide	Regional	Watershed-scale

Overall, SB 72 positions the Water Plan as a more central tool for guiding California's long-term water management decisions.

SUMMARY OF SB 72 WATER CODE CHANGES

- ✓ Expands **communication and engagement** to better reflect Californians' needs
- ✓ Introduces **long-term water supply targets** with regional planning focus
- ✓ Retains core elements of existing Water Plan requirements
- ✓ Advances a more **strategic, data-driven approach** to long-term water planning – in line with the approach California Water Plan has been on



For more information and future updates, visit californiawaterplan.com



[About the Water Plan](#)

[Public Involvement](#)

[Tribal Engagement](#)

[Resources](#)

[Media](#)

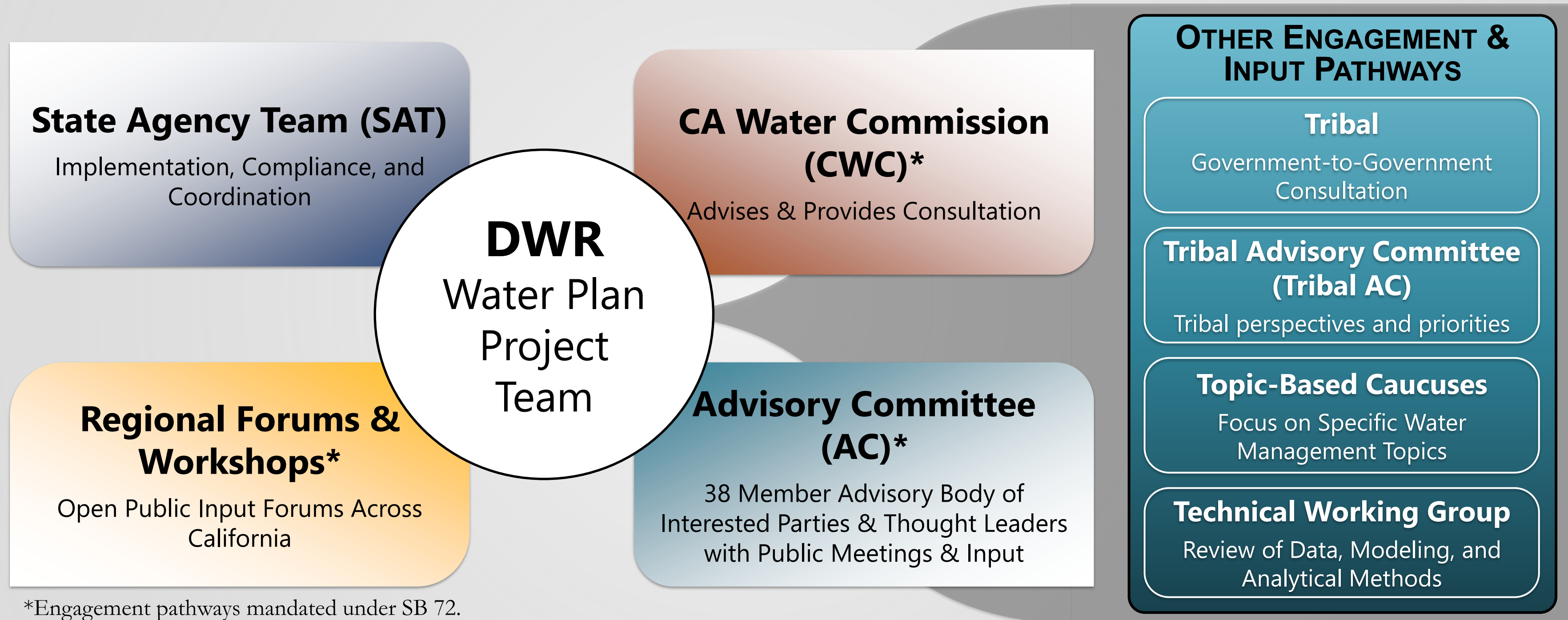
[Contact Us](#)

A New Era in California Water Planning

The California Department of Water Resources (DWR) is embarking on the 2028 California Water Plan, a multiyear effort to modernize statewide water planning and deliver a more action-oriented, measurable blueprint for long-term water reliability and resilience.

[Learn More](#)

TECHNICAL WORKING GROUP (TWG)



Mission

- ❑ Provide independent technical review and advice to DWR to support development of Water Plan Updates 2028 and 2033
- ❑ Strengthen the technical foundation, credibility, and transparency of the Water Plan
- ❑ Use the best available science, information, and technology



Purpose Statement

“Using the best available science, information, and technology, the California Water Plan (CWP) Technical Working Group (TWG) will provide independent technical review and advice to the California Department of Water Resources (DWR) to support development of 2028 CWP and the 2033 CWP, strengthening the technical foundation, credibility, and transparency of the CWP.”



Composition



DWR convened and appointed
Represents a diverse cross-section of the water community

- **Technical expertise** in hydrology, climate science, groundwater management, urban and agricultural and ecosystem management, economics, land use, and water operations
- **Broad representation** across federal, Tribal, state, regional, and local agencies, academia, non-governmental organizations, and the private sector



TECHNICAL EXPERTISE

- ❑ Climate & Hydroclimate Modeling and Risk Analysis
- ❑ Groundwater Management & Managed Aquifer Recharge (MAR)
- ❑ Urban Water Management & Demand Modeling
- ❑ Agricultural Water Management & Irrigation Systems
- ❑ Economic & Socioeconomic Analysis (including Agriculture & Land Use Planning)
- ❑ Environmental & Ecosystem Management
- ❑ Water Systems Operations & Reservoir Management
- ❑ Water Quality Management
- ❑ Flood Management & Forecast-Informed Reservoir Operations (FIRO)
- ❑ Water Accounting & Data Systems
- ❑ Water Systems Modeling (e.g., WEAP, CalSim, Integrated Models)
- ❑ Nature-Based Solutions & Watershed Management
- ❑ Multi-benefit & Conjunctive Use Strategies
- ❑ Alternative Water Supplies & Water Reuse Systems
- ❑ Water Rights & Regulatory Frameworks

ORGANIZATIONAL REPRESENTATION

- ❑ State Agency
- ❑ Federal Agency
- ❑ Local/ Regional Agency
- ❑ Academia/ Research
- ❑ Non-government Organization
- ❑ Private Sector/ Consulting

85

PROSPECTIVE
MEMBERS

19 DWR

29 STATE/
FEDERAL/
LOCAL AGENCY

20 ACADEMIA/
RESEARCH

9 NGOs

8 PRIVATE
SECTOR

Expectations

- voluntary, uncompensated positions
- three meetings per Water Plan Update cycle
- webinar-only and hybrid formats as necessary
 - in-person attendance in Sacramento encouraged where possible



Upcoming Events

- ✓ Kick-off meeting on May 26th
(10:30 AM – 12:30 PM,
webinar only)
- ✓ First workshop on July/
August 2026
- ✓ Follow-on workshops
 - **Update 2028:** Oct/Nov 2026 and
Jul/Aug 2027
 - **Update 2033:** Jan/Feb 2028,
Oct/Nov 2028, and Jan/Feb 2030



CALIFORNIA DEPARTMENT OF
WATER RESOURCES

QUESTIONS?

Karandev Singh

Karandev.Singh@water.ca.gov

INTERESTED IN JOINING?



Bring your expertise.

Inform the science.

Shape the Plan.

Join me at the Poster Session | Tuesday 5 PM – 7 PM | Sierra 1