



Regulatory Committee Meeting Agenda

Thursday, August 24, 2023

2:00-3:00 p.m.

Zoom Meeting

Agenda

- Co-Chairs **Kevin Thomas**, Kimley-Horn and **Eric Miller**, Miller Marine Science and Consulting – Welcome

Update Items

- Events update
 - 2024 CalDesal Annual Conference
 - February 8-9, 2024
 - Embassy Suites, Sacramento
 - Call for Abstracts (Attachment)
 - Sponsorship opportunities (Attachment)

Discussion Items

- Draft Seawater Desalination Siting and Streamlining Report to Expedite Permitting
 - CalDesal + coalition public comment letter (Attachment)
 - DRAFT communications/messaging piece (Attachment)
 - “Common sense” streamlining possibilities
 - Next steps?
- CalDesal policy principles and priorities – collaboration with offshore desal technologies (Attachment)
- DWR Resource Management Strategy
 - Upcoming webinar – Wednesday, September 13 – 9:00 AM – 11:30 AM

Recent Project Activity, Upcoming Milestones

- Doheny Desalination Project
- Monterey Desalination Project
- Carlsbad Desalination Facility Intake Project
- MWD desalination siting and technical studies
- Updates on any other ongoing desalination projects?

Other Items

**Next Regulatory Committee Meeting:
Thursday, September 28, 2023 – 2:00 PM**



Call for Abstracts - 2024 CalDesal Annual Conference

Background

The CalDesal Events Planning Committee has opened the call for abstracts for our 2024 Annual Conference, and is looking forward to a strong response.

Details

Date: **February 8-9, 2024**

Location: **Embassy Suites – Sacramento, CA**

Topic Areas

The CalDesal Events Planning Committee is soliciting abstracts on the following topics:

- Desalination technology innovations and advancements
- Brine and concentrate management strategies and concepts
- Ocean and brackish water desalination projects and technologies
- Tackling myths related to desalination
- Renewable energy applications for desalination and reducing the desalination carbon footprint
- Assessing impacts and clarifying mitigation obligations for desalination projects
- Cost, rate structures, and funding for desalination projects
- Desalination and disadvantaged communities
- Permitting/regulatory considerations (e.g., sea level rise, establishing “need”)
- Management innovations and opportunities for desalination project design, construction, and operation
- Other relevant and timely desalination and salinity management topics

Poster Session

The CalDesal Events Planning Committee is also soliciting submittals for a Poster Session during the CalDesal Annual Conference.

Abstract Submission Instructions

Abstracts for presentations and the poster session should be submitted through the following portal:
_____ by **Friday, October 27, 2023.**

Abstracts are limited to 300 words and must include the following:

- Presenter name(s) and affiliation(s)
- Presenter email and phone number
- Presentation title
- Topic area addressed
- Up to 3 images related to your abstract

In addition to serving as a presenter would you be willing to serve as a moderator (yes/no)?

CalDesal 2024 Annual Conference Sponsor Opportunities

Diamond Sponsor: \$5000 (1 Available)

- One 6' table exhibit booth with priority booth placement
- Three full complimentary program registrations for the conference
- Logo recognition on signage at the Conference
- Logo/ad on a running PPT slide during the Conference lunch
- Logo recognition in the event program
- Logo recognition on the CalDesal website during the month of the conference
- Logo recognition in conference marketing communications
- Logo recognition on the cover of the event program
- Logo recognition in post-conference newsletter
- Free full-page ad in the event program
- Special mention in opening session and throughout event
- Signage recognizing level of sponsorship throughout event

Platinum Exhibitor: \$4000 (2 Available)

- One 6' table exhibit booth
- Two full complimentary program registrations for the conference
- Logo/ad on a running PPT slide during the Conference lunch
- Logo recognition in conference marketing communications
- Logo recognition in the event program
- Logo recognition on the CalDesal website during the month of the conference
- Logo recognition in post-conference newsletter
- Logo recognition on signage at the Conference
- Special mention in opening session and throughout event
- Signage recognizing level of sponsorship throughout event
- Half-page ad in event program

Gold Exhibitor: \$3000 (5 Gold)

- One 6' table exhibit booth
- One full complimentary program registration for the conference
- Logo/ad on a running PPT slide during the Conference lunch
- Logo recognition on signage at the Conference
- Name recognition in conference marketing communications
- Name recognition in the event program
- Name recognition on the CalDesal website during the month of the conference
- Name recognition in post-conference newsletter
- Signage recognizing level of sponsorship throughout event
- Half-page ad in event program

Reception Sponsor: \$1250 (2 Available)

- Logo recognition on reception drink tickets
- Logo/ad on a running PPT slide during the Conference lunch
- Name recognition in the event program
- Name recognition on signage at the Conference
- Name recognition in post-conference newsletter
- Signage recognizing level of sponsorship throughout event

Keynote Lunch Sponsor: \$1,000 (1 Available)

- Logo/ad recognition on the Keynote welcome slide
- Logo/ad on a running PPT slide during the Conference lunch
- Name recognition in the event program
- Name recognition in post-conference newsletter
- Name recognition on signage at the Conference

General Sponsor: \$750

- Logo/ad on a running PPT slide during the keynote conference lunch
- Name recognition in the event program
- Name recognition in post-conference newsletter
- Name recognition on signage at the Conference

Conference Bag Swag Item Sponsor: \$500

- Add an item with your organization logo into the bags that will be provided to all attendees at registration (or sponsor the bags themselves – logo bags distributed to all attendees, with various swag items included)
- Sponsor is responsible for providing the swag to CalDesal by January 22, 2024, in order to be included.
- No refunds will be given if your swag arrives too late to be added to the bags.

DIY Sponsorships

- DIY or “do it yourself” sponsorships are for all the creative desal professionals out there. Showcase your organization in a way that we haven’t thought of! Email _____ with your proposed sponsorship and budget and we will work with you to customize a package for your organization!



July 27, 2023

Ms. Courtney Tyler
Clerk to the Board
State Water Resources Control Board
P.O. Box 100
Sacramento, CA 95814
commentletters@waterboards.ca.gov

SUBJECT: Comments on Draft Desalination Siting and Streamlining Report to Expedite Permitting

Dear Ms. Tyler:

On behalf of the undersigned organizations, we offer our public comments on the “Draft Seawater Desalination Siting and Streamlining Report to Expedite Permitting,” that was published on July 12, 2023. While we believe the Governor’s Water Supply Strategy (“Strategy”) and Water Resilience Portfolio (“Portfolio”) provide important foundations for advancing desalination with the inclusion of critical objectives that focus on the expansion of desalination production in California as a component of our state’s water supply and water resilience future, we are concerned that the Draft Siting Criteria report doesn’t facilitate the level of desalination advancement envisioned within the Strategy and Portfolio to address California’s real-time aridification and climate change challenges, and should be subject to a much more comprehensive – and inclusive – public vetting process before it is finalized.

Fundamental Concerns

The following reflects three of the most fundamental concerns the undersigned organizations have relative to the Draft Siting Criteria report. The attached provides more detailed commentary on these top priority issues, along with an identification of additional issues that we believe must also be addressed in advancing the report to its final stages and broader distribution.

(1) Predisposition Toward Small, Distributed, “Boutique” Desalination Projects

The “Draft Seawater Desalination Siting and Streamlining Report to Expedite Permitting,” released for public comment on July 12 by the California Seawater Desalination Interagency Group, doesn’t live up to the water resilience objectives outlined in the Governor’s Strategy and falls far short of the resourcefulness called for in the Governor’s report. Instead, the Desalination Interagency Group’s Draft Siting Criteria report sets the stage for moving California desalination into small, land-based distributed, “boutique” projects that are incapable of scaling in a meaningful way to provide the necessary production capacity that will provide real water resilience benefits for the state’s agricultural, urban, and environmental needs. Further, little if any mention can be found in the Draft Siting Criteria report related to newer technology provided by the emerging presence of “offshore” desalination facilities, which can be aggregated to provide for “scaling-up” as the need grows for more reliable water supplies throughout the state.

The aridification of California – coupled with the rapidly changing and more uncertain climate and hydrology facing the state – requires a much deeper investment in alternatives to our existing water supply sources. Large-scale, regional desalination plants that are planned, designed, constructed, and operated to provide California with a reliable and resilient water supply option going forward – for California’s urban, agricultural, and environmental needs – are critical buffers against increasing climate change challenges and the uncertainties and unreliability of the Colorado River and Bay-Delta hydrologic systems. By focusing entirely on small, distributed, subsurface desalination options – and essentially creating and establishing a predisposition toward those technologies and sizes of projects – the report misses the opportunity to really focus on solving California’s hotter and drier future within the context of the bigger picture of California’s water resilience needs for all sectors of our state. **In virtually every other facet of water and wastewater management in California, the state encourages regional collaboration.** But in the Draft Siting Criteria report, the state is proposing a complete 180-degree turn by **ONLY** encouraging small, distributed desalination plants and creating a predisposition away from regionally collaborative and larger-scale desalination.

(2) Extension of State Reach into Local Affairs

Many provisions of the Draft Siting Criteria report identify state agency roles extending into the traditional purview of locally-elected officials, or, in the case of investor-owned utilities under the purview of the California Public Utilities Commission (CPUC), which is responsible for setting just and reasonable rates to ensure the provision of safe and reliable water service for investor-owned utilities. California’s special districts and municipalities are governed by individuals elected by members of the communities they serve. These elected officials are expected to make decisions in the best interests of their electorate, their communities, and the state, and they often have very difficult jobs to balance perspectives and arrive at decisions that represent the people they are elected to serve. For water agency officials, virtually every decision that is voted upon by a governing body is viewed through a lens of need, reliability, location, community impacts, and affordability. Those are factors that a local governing body is elected to determine for the communities it serves. We are concerned that the Draft Siting Criteria proposes to substantially extend the reach of state agencies far into the purview of locally elected officials.

(3) Mitigation Options and Approaches Must Be Better Defined

Given the critical nature of mitigation in the context of advancing and streamlining water supply reliability projects, like desalination, it is critical that the state take a more active role in developing reasonable mitigation options and approaches. We believe the state must revise its approach to artificial reefs, land leases, and conservation easements to free-up mitigation options for desalination projects. Additionally, while the Draft Siting Criteria report is silent on a mitigation fee option allowed in the current Ocean Plan for compliance with a project's mitigation commitments and obligations, the mitigation fee option must remain viable and available for project proponents, particularly while there is a such a disparate approach to mitigation options and alternatives for a project proponent to consider and implement. Additionally, we recommend the SWRCB develop a concrete process for implementing this mitigation option so that fees can be collected, administered, and put to use.

The attachment provides more detailed perspectives on the fundamental concerns that the undersigned organizations have highlighted, and identifies additional issues that we believe must also be addressed in advancing the report to its final stages and broader distribution.

Thank you for the opportunity to review this Draft Siting Criteria report. We stand ready to actively engage to further shape the report so it presents a meaningful framework and plan for achieving advancements in seawater desalination for California, and appropriately sets a responsible and reasonable tone and structure for advancement into the Ocean Plan's regulatory proceedings that will be forthcoming.

For any questions regarding the comments embodied within this correspondence, please contact CalDesal's Executive Director – Glenn Farrel – at glennf@caldesal.org or at (916) 216-1747.

Sincerely,

Mark Donovan, Board Chair
CalDesal

Charles Wilson, Executive Director
Southern California Water Coalition

Jennifer Capitolo, Executive Director
California Water Association

P. Anthony Thomas, Senior VP for Legislative Affairs
California Building Industry Association

California State Pipe Trades Council

UA Local 250 Pipefitters

Southern California Pipe Trades
District 16

Stephen Pang, State Relations Advocate
Association of California Water Agencies

Brenda Bass, Policy Advocate
California Chamber of Commerce

Attachment

cc:
Secretary Wade Crowfoot, California Natural Resources Agency
Director Karla Nemeth, Department of Water Resources
Chair Joaquin Esquivel, State Water Resources Control Board
Christine Aurre, Office of Governor Newsom
Christine Hironaka, Office of Governor Newsom
Senator Dave Min, Chair – Senate Natural Resources and Water Committee
Assemblymember Rebecca Bauer-Kahan, Chair – Assembly Water, Parks, and Wildlife Committee

Comments on “*Draft Seawater Desalination Siting and Streamlining Report to Expedite Permitting*”

Fundamental Concerns

(1) Predisposition Toward Small, Distributed, “Boutique” Desalination Projects

The prologue to the Governor’s August 2022 report, *California’s Water Supply Strategy: Adapting to a Hotter, Drier Future*, sets an important contextual tone for the recommendations that follow in that report:

Our climate has changed. We are experiencing extreme, sustained drought conditions in California and across the American West caused by hotter, drier weather. Our warming climate means that a greater share of the rain and snowfall we receive will be absorbed by dry soils, consumed by thirsty plants, and evaporated into the air. This leaves less water to meet our needs.¹

In advancing water resilience action items to address the “hotter and drier future” theme, the Governor’s Strategy indicated that California needs to “*become more resourceful with the strategic opportunity that 840 miles of ocean coastline offer to build water resilience.*”² Regrettably, the “**Draft Seawater Desalination Siting and Streamlining Report to Expedite Permitting,**” released for public comment on July 12 by the California Seawater Desalination Interagency Group, doesn’t live up to the water resilience objectives outlined in the Governor’s Strategy and falls far short of the resourcefulness called for in the Governor’s report. Instead, the Desalination Interagency Group’s draft report sets the stage for moving California desalination into small, distributed, “boutique” projects that are incapable of scaling in a meaningful way to provide the necessary production capacity that will provide real water resilience benefits for the state’s agricultural, urban, and environmental needs.

Small, land-based distributed desalination plants clearly have their role in supporting California’s water resilience – particularly in communities that have a specifically identifiable water supply reliability need to protect their local economies and quality of life. Scalable land-based distributed desalination technologies will play an important role in addressing California’s water resilience. But as presented in the Draft Siting Criteria report, a collection of many, individual, separate, land-based distributed desalination plants will not likely have a material effect in addressing the extreme, sustained drought conditions and aridification in California and throughout the southwestern United States that was aptly expressed in the prologue to the Governor’s Strategy.

However, newer technology provided by the emerging presence of “offshore” desalination facilities, which can be aggregated to provide for “scaling-up” as the water resilience need grows, should also be considered as a source of providing reliable water supplies throughout the state.

¹ *California’s Water Supply Strategy: Adapting to a Hotter, Drier Future*, August 2022, pg. 2.

² *Ibid.*, pg. 8.

Over recent years, California’s hydrologic conditions have been impacted by both high temperatures and a lack of precipitation. Even as we emerge from a strong precipitation and snowpack winter, our state’s long-term ability to be water- and drought-resilient and to respond to a rapidly changing climate pattern is challenged. Water use efficiency has been a valuable tool to meet the needs of California’s cyclical drought impacts. Nonetheless, the “New Normal” that we are facing with respect to our climate patterns and hydrology indicates that a broader portfolio of resiliency strategies and investments in water supply infrastructure – including recycled water, potable reuse, stormwater capture, salt and contaminant removal projects, and brackish and ocean water desalination – must be made now so that we can withstand the aridification of California.

Just a little more than a year ago, the water level in Lake Mead (which is the nation’s largest reservoir) had dropped to the lowest point since Hoover Dam was constructed in the 1930s and was at just 34 percent of full capacity. Those factors triggered the federal government to declare a shortage on the Colorado River for the first time ever, and resulted in significant water cutbacks for Arizona, Nevada, and Mexico,³ and threatened California’s water supply reliability and resilience. Similarly, in the Bay-Delta watershed, while 2023 will be the first time in 17 years that there has been a 100 percent allocation for State Water Contractors, the entire decade has reflected a much more dire situation, with six out of the last ten years at less than 35 percent allocation of water supplies annually for those state water project-contracting agencies serving approximately 27 million Californians.⁴

Climate change also poses uncertainties for the future of California’s snowpack, which has traditionally been relied upon for providing fresh water supplies for California’s lakes and reservoirs for consumptive uses throughout the year. However, studies suggest that as the atmosphere warms, more winter precipitation will arrive in the form of rain rather than snow, which will result in less precipitation being stored in the snowpack and more of it becoming runoff that must be somehow captured in surface or groundwater reservoirs. Since 1915, the western United States’ snowpack has declined by 21 percent – an amount equivalent to losing the entire capacity of Lake Mead. Studies indicate that, depending on how aggressively the world moves toward reducing greenhouse gas emissions, the Sierra Nevada could lose another 30 percent to 64 percent of its spring-time snowpack by the end of the century.⁵

The aridification of California – coupled with the rapidly changing and more uncertain climate and hydrology facing the state – requires a much deeper investment in alternatives to our existing water supply sources. Large-scale, regional desalination plants that are planned, designed, constructed, and operated to provide California with a reliable and resilient water supply option going forward – for California’s urban, agricultural, and environmental needs – are critical buffers against increasing climate change challenges and the uncertainties and unreliability of the Colorado River and Bay-Delta hydrologic systems. By focusing entirely on small, distributed, subsurface desalination options – and essentially creating and establishing a predisposition toward those technologies and sizes of projects – the report misses the opportunity to really focus on solving California’s hotter and drier future within the context of the bigger picture of California’s water resilience needs for all sectors of our state. **In virtually every other facet of water and wastewater management in California, the state encourages regional collaboration.**⁶ But in the Draft Siting Criteria report, the state is proposing a complete 180-degree turn by **ONLY** encouraging

³ “As Climate Talks Put Focus on Water Crisis, the Colorado River Provides a Stark Example,” *Los Angeles Times*, Nov. 4, 2021.

⁴ “State Water Project – Historical Table A Allocations – Water Years 1996 – 2023” California Department of Water Resources, April 20, 2023.

⁵ “What Climate Change Could Mean for the Future of California’s Springtime Snowpack,” *The Equation*, Union of Concerned Scientists, March 29, 2019.

⁶ “The Case for Regional Seawater Desalination Planning in California,” Adamson, Kim. *Business Line*, July 17, 2023.

small, distributed desalination plants and creating a predisposition away from regionally collaborative and larger-scale desalination.

Not only is there a tremendous need to remain focused on exploring opportunities for multiple larger-scale (regional) desalination projects – even those that may be advanced by the state or federal governments – that can make greater strides towards water resilience for California and the southwest, there may also be significant issues related to cumulative impacts associated with siting, constructing, and operating a sufficient number of small, distributed desalination plants along California’s coastline to make a meaningful impact on addressing aridification and improving water resilience. It would literally take dozens of small, distributed, “boutique” desalination plants up and down the California coastline to have a material effect on addressing California resilience on a scale appropriate for addressing climate change impacts on the Bay-Delta, California’s snowpack, and the Colorado River system. At 5 MGD per desalination plant, it would take 10 small, distributed plants to scale up to a 50 MGD facility, like the project operating in San Diego County. And California actually needs to consider multiple, larger-scale, regional desalination projects to improve water resilience for California’s urban, agricultural, and environmental uses. Cumulative impacts associated with many small, distributed desalination plants include:

- Every single small desalination plant will require community and stakeholder engagement at each site, which could lead to a fragmented consultation process.
- Dozens of small desalination plants could lead to higher costs per unit of water produced due to the need for duplicative infrastructure that could be avoided with a larger, regional desalination facility.⁷
- The permitting process to accommodate dozens of small desalination plants will overburden an already taxed regulatory process, leading to delays and working contrary to the streamlining and expediting objectives. During a time when SWRCB staff have been backlogged with projects, adding substantial new workload could have a chilling effect on the permitting of new, needed desalination projects.

The bottom line is that, while the Draft Siting Criteria outlines a predisposition toward small, distributed, “boutique” desalination plants, there are much larger water resilience considerations that need to be factored into California’s longer-term gameplan for development of facilities and there needs to be much greater consideration about the possible cumulative impacts that many, small desalination plants can pose for California’s coastline. All of these factors suggest that the state’s work to expedite and facilitate desalination advancement should be expanded to also include an expedited pathway for larger, regional desalination projects to be considered and advanced through the state’s regulatory process.

(2) Extension of State Reach into Local Affairs

Many provisions of the Draft Siting Criteria report (particularly those provisions found on pages 9-10) identify state agency roles extending into the traditional purview of locally-elected officials, or, in the case of investor-owned utilities under the purview of the California Public Utilities Commission (CPUC), which is responsible for setting just and reasonable rates to ensure the provision of safe and reliable water service for investor-owned utilities. California’s special districts and municipalities are governed by individuals elected by members of the communities they serve. These elected officials are expected to make decisions

⁷ *Ibid.*

in the best interests of their electorate, their communities, and the state, and they often have very difficult jobs to balance perspectives and arrive at decisions that represent the people they are elected to serve. For water agency officials, virtually every decision that is voted upon by a governing body is viewed through a lens of need, reliability, location, community impacts, and affordability. Those are factors that a local governing body is elected to determine for the communities it serves.

However, the Draft Siting Criteria proposes to substantially extend the reach of state agencies far into the purview of locally elected officials. The Draft Siting Criteria report outlines a far-reaching state engagement in the analysis of water supply “need” within a local community as a determining factor as to whether a proposed desalination project should be included within a streamlined permitting process. The Urban Water Management Planning Act was created and shaped over the years to accomplish the local determination regarding water supply “need” within a community. The urban water management plan, coupled with a water shortage contingency plan should satisfactorily address the local determination of “need.” Not only does the Draft Siting Criteria report create a broad ranging state role in determining a local community’s water supply and water resilience need, but the Draft Siting Criteria report also advances a conceptual proposal to essentially establish a “loading order” for desalination (Pages 9-10), by requiring a project proponent to demonstrate that it has “*maximized the use of all available conservation measures and water supply options to the extent feasible...*” There is no indication that such a “loading order” requirement has been established and is utilized by the state for the consideration of any other water supply option, including recycled water projects, potable reuse projects, stormwater management projects, etc. Further, it is entirely unclear what standard is being established by the requirement that “ALL” available conservation measures must be maximized. Will affordability and feasibility factors be applied? Do the regulatory agencies have the authority to override locally elected officials regarding the efficacy of conservation measures within a community? This unique “loading order” requirement is an example of the type of factor that is being proposed in the Draft Siting Criteria report as a predisposition against desalination in general. In addition, a “loading order” approach is wholly inconsistent with the Governor’s Strategy and Portfolio, which outline and establish an “All of the Above” approach to water resilience – not a sequential, “loading order” approach that connotes a one-size-fits-all standard for developing water supply reliability and resilience.

Additionally, the Draft Siting Criteria report proposes establishing a state agency analysis of affordability and water rates (Page 11) that is solely unique to the permitting of desalination projects. In no other alternative water supply development – such as potable reuse or stormwater capture – does the state have an engaged role in determining whether the water rates associated with the project are acceptable and whether the cost of water in a local community is deemed “affordable.” Those are decisions that have been – and should continue to remain – in the sole purview of the locally-elected officials serving on California’s water agency boards and in municipal governments or the CPUC. Locally-elected officials serve at the pleasure of their local electorate and are empowered with the authority to make decisions affecting their communities. The Draft Siting Criteria report suggests a much more expansive role for state regulatory agencies to intervene in local decisions about water rates and affordability – but only in the case of desalination projects. This proposed overreach by state agencies into local decisions would set a dangerous precedent and there should be a clear and definitive line that ensures local decisions remain in the sole purview of local officials.

(3) Mitigation Options and Approaches Must Be Better Defined (Pages 20-21)

Given the critical nature of mitigation in the context of advancing and streamlining water supply reliability projects, like desalination, it is critical that the state take a more active role in developing reasonable mitigation options and approaches. We believe the state must revise its approach to artificial reefs, land

leases, and conservation easements to free-up mitigation options for desalination projects. Additionally, while the Draft Siting Criteria report is silent on a mitigation fee option allowed in the current Ocean Plan for compliance with a project's mitigation commitments and obligations, the mitigation fee option must remain viable and available for project proponents, particularly while there is a such a disparate approach to mitigation options and alternatives for a project proponent to consider and implement. Additionally, we recommend the SWRCB develop a concrete process for implementing this mitigation option so that fees can be collected, administered, and put to use.

Additional Issues That Require Further Consideration

Beyond the fundamental concerns that the undersigned organizations have outlined with the Draft Siting Criteria report – predisposition toward small, distributed desalination plants, state agency overreach into local decision-making, and need for improved project mitigation options and approaches – there are a series of additional concerns and issues that we believe require further consideration, clarification, and attention in the Draft Siting Criteria report.

- **Early Consultation (Page 8 of Draft Siting Criteria report):** While we agree with and appreciate the effort to establish a standard for early consultation in the desalination permitting process, there are considerations that we would like to raise for improving and framing the structure of an early consultation process. Early consultation must result in decisions and determinations on which the project proponent can reasonably rely. Early consultation is not useful unless the guidance received is reliable and retained by the state regulatory agencies during the entirety of the permitting process – the state regulatory agencies need to remain on-record with their decisions, guidance, and determinations made during the early consultation process.
- **Sequencing of Project Planning:** The Draft Siting Criteria report does not seem to address the big issues related to the sequencing order for advancement of a project proposal. The project evaluated through CEQA and the project reviewed by the permitting agencies can be vastly different because of regulatory agency-specific required modifications to the project during the permitting and review process. In addition, while the CEQA process centers around an applicant-proposed project, the Draft Siting Criteria report flips this order and suggests that the regional boards will determine the appropriate site, essentially usurping the role of the applicant in developing a project. There is a clear incongruity between a CEQA applicant project proposal and the project that may ultimately be moved through the permitting process pursuant to Ocean Plan requirements, creating inherent legal risks for the project proponent. This increased risk represents a serious obstacle to the timely delivery of much needed new water supplies.
- **Definitional Issues Need to be Addressed:** The Draft Siting Criteria report uses terminology that is ambiguous, vague, and not well-defined, which can result in unintended delays and complications with project advancement due to differences in their interpretation. We request consideration to further clarify and define terminology that may be unclear and vague for project proponents, including the following:
 - “Reasonable” – Page 19 of the report identifies a potential amendment to the Ocean Plan that would allow a regional water board to make a siting determination for a desalination plant from among a “*reasonable range of sites if subsurface intakes are not feasible.*” With the term “reasonable” being highly subjective and quite ambiguous, it would be helpful to have

improved clarity regarding the scope of what constitutes a “reasonable range of sites.”

- “Reliability,” “resilience,” and “need” can all be the same thing and can all be defined and utilized differently among communities. Local officials and the citizens who vote for them should remain the arbiters of what constitutes reliability, resilience, and need for their communities. Given the aridification of the southwestern United States and the unpredictable and uncertain impacts of climate change on conventional water supply sources, the concepts of reliability, resilience, and need are much more closely linked and interrelated than ever before.
- “Significant” and similar content that is not well-defined and can lead to ambiguity and greater conflict should be stricken from the report in favor of standards or metrics that can more easily and readily be identified, measured, and achieved. “Significant” typically insinuates that a statistical analysis has been conducted; therefore, it should be reserved for such cases.
- “Required studies” for projects requiring screened intakes are not defined. Page 15 of the report indicates that the use of screened intakes would “*significantly increase the number of required analyses.*” As part of this report, we would like to request the SWRCB to provide details on studies or reports that are expected to be submitted by applicants with the agencies responsible for approving study methodology and accepting those reports identified if the screened intakes have been determined to be necessary. This could allow applicants to have a clear understanding of the expectations and the level of effort required to gather necessary data to demonstrate best available site, intake, and technology feasible.
- **Integration of Emerging Desalination Technologies:** While the Draft Siting Criteria report focuses exclusively on conventional land-based desalination in establishing an expedited and streamlined framework, we strongly believe that emerging technologies – particularly within the context of offshore desalination, which has a growing presence in California and promises near-term distributed desalination benefits for California communities – must be included in any regulatory or Ocean Plan amendment framework that considers the advancement of desalination for water resilience in this state.

Offshore desalination – whether deep-sea desalination facilities anchored to the ocean floor, or floating buoys, or barges, or similar innovative delivery technologies – must be included in a desalination-focused regulatory framework and structure, with a context that recognizes some important distinctions that merit additional research, examination, funding, piloting, and discourse, including:

- “Siting” differences for offshore desalination facilities, as compared with conventional land-based seawater desalination facilities
- Brine management differences between offshore desalination and conventional land-based desalination
- Differences in permitting and regulatory considerations

- Potential differences in consideration of environmental justice issues
- Issues within the context of alignment with the California Ocean Plan

While not a comprehensive listing of potential considerations that should be evaluated relative to offshore desalination, the Draft Siting Criteria report should acknowledge the offshore desalination opportunities within the broader discussion relative to desalination in California on a going forward basis.

- **DWR Guidebook for Urban Water Management Plans:** Since desalination projects are typically long-lead-time projects for water suppliers, often desalination is already included and considered within UWMPs for many publication cycles. The Draft Siting Criteria report (at page 10) suggests that additional guidance for inclusion of desalination considerations within assessments of water needs, water demands, and future water supply reliability in UWMPs should be updated within DWR’s Guidebook for UWMPs. It is unclear whether the 2025 DWR Guidebook for UWMPs will recognize and “grandfather” UWMPs that have already integrated desalination into water supply options pre-2025.
- **Selection of Scientific Reports Used in Draft Siting Criteria Report:** We request that more expansive scientific analysis be brought to bear in the Draft Siting Criteria report by including peer-reviewed literature. Conclusions in articles and reports authored by organizations or individuals who have historically and publicly opposed desalination are typically biased and lack objectivity required in peer-reviewed literature. We strongly believe that this type of opinion-oriented literature should not be the basis for substantive California policy decisions.

We are also concerned that some of the conclusions included in the Draft Siting Criteria report are taken out of context or are only partially reporting the entirety of scientific conclusions. For instance, Missimer, et al., are cited on Page 14 of the report in drawing the conclusions that:

- Subsurface intakes are the best method for minimizing intake and mortality of all forms of marine life
- Subsurface intake projects require significantly fewer environmental studies and mitigation requirements
- Subsurface intake projects result in total lifetime cost savings over those with surface intakes due to having higher quality feedwater requiring less treatment and lower operational costs

However, the Missimer, et al., citation is only partially stated, and omits additional conclusions that provide the more complete picture associated with subsurface intake projects. Missimer clearly noted that subsurface is **limited in production capacity**, with a maximum production of – at best – 21 MGD of potable water. Missimer also notes that slant wells have **much higher construction and maintenance costs**, and there is also the clear danger that slant wells at high capacity **can draw from inland freshwater aquifers**. The **transmission of sediment-born contaminants** can also increase at high intake volume subsurface intakes.

We request that the report provide greater balance in providing scientific analysis and citation associated with desalination. The report does itself a great disservice by utilizing citations from

entities that are clearly predisposed against desalination generally, and by only partially citing conclusions without offering the complete context for objective analysis.



BIG CHALLENGES CALL FOR BIG SOLUTIONS

Big Challenges

California's climate challenges – which are exacerbating our water resilience needs – require a much deeper investment in alternatives to existing water supply sources.

Large-scale, regional desalination plants that are planned, designed, constructed, and operated to provide California with a reliable and resilient water supply option – for California's urban, agricultural, and environmental needs – can be critical buffers against continued aridification and the uncertainties and unreliability of the Colorado River and Bay-Delta hydrologic systems.

Governor Gavin Newsom – *California's Water Supply Strategy: Adapting to a Hotter, Drier Future* – August 2022

Our climate has changed. We are experiencing extreme, sustained drought conditions in California and across the American West caused by hotter, drier weather. Our warming climate means that a greater share of the rain and snowfall we receive will be absorbed by dry soils, consumed by thirsty plants, and evaporated into the air. This leaves less water to meet our needs.

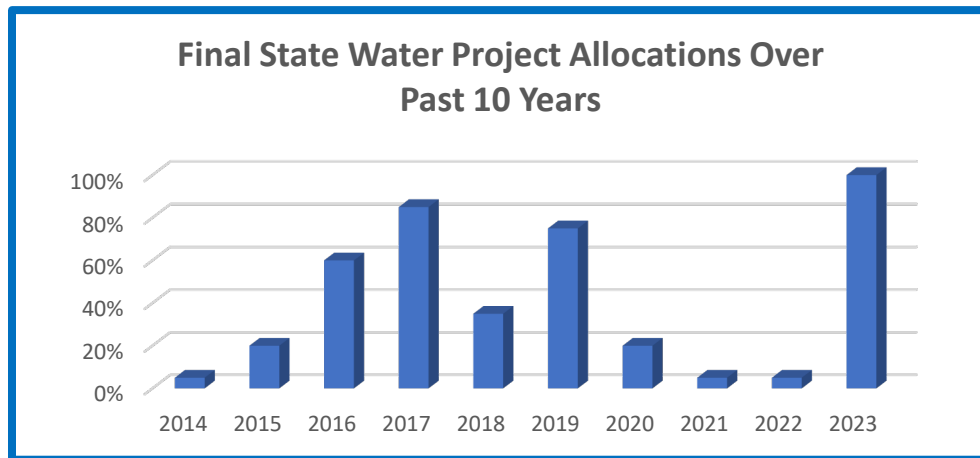
Just a little more than a year ago, the water level in Lake Mead (in the Colorado River Basin) had dropped to the lowest point since Hoover Dam was constructed in the 1930s and was at just 34 percent of full capacity. Those factors triggered the federal government to declare a shortage on the Colorado River for the first time ever, and threatened California's water supply reliability and resilience.



COMMON SENSE DESALINATION PERMIT STREAMLINING

- Enforce and implement the intent of the Permit Streamlining Act in existing law
- Allow pilot projects (particularly for new/emerging technologies for offshore and brackish desal) to be undertaken more expeditiously and with streamlined permitting
- Prioritize state funding towards research that will specifically help regulators efficiently evaluate and permit proposed projects:
 - Entrainment studies
 - Shearing impacts
 - Plankton studies (at depth)
 - Artificial reefs
 - Intake impacts associated with large-scale screened diversions
- Implement appropriate mechanisms to execute a functioning mitigation bank, as currently provided for in the California Ocean Plan

In the Bay-Delta watershed, while 2023 will be the first time in 17 years that there has been a 100 percent allocation for State Water Contractors, the entire decade has reflected a much more dire situation, with six out of the last ten years at less than 35 percent allocation of water supplies annually for those state water project-contracting agencies serving approximately 27 million Californians.



Big Solutions

California needs the state and federal governments to engage – directly and with urgency – to take leadership on developing all types of desalination projects, including large-scale, regional projects. There are creative and innovative opportunities for the state and federal governments to address multiple challenges at one time:

- Water supply resilience for California communities
- Protection of local, regional, and statewide economies
- Safe and abundant drinking water for disadvantaged communities
- Improved opportunities for dedicated in-stream environmental flows

But, we need creative, out-of-the-box approaches to seawater desalination. We need state and federal leadership from our elected and appointed officials. Now is the time to take the first step on **BIG SOLUTIONS** to address California's **BIG** water resilience **CHALLENGES**.

DESALINATION POLICY PRINCIPLES

We acknowledge that our water needs in California are shifting drastically. Even with excellent water management structures in place, there is a need for supplemental fresh water supply. In an effort to support and maintain a prosperous state including a healthy environment and population, we believe in the following principles:

- There is no “silver bullet” for addressing the state’s water and drought resilience needs. Improving water resilience in California requires a diversified portfolio approach to water supply development, which includes the implementation of water use efficiency measures and the availability of, and accessibility to, a broad suite of options that water suppliers may employ for adding resilience to the state’s water supply system.
- Given the availability of new and advanced technology, successful development of projects, and the drought-resilient nature of the supply source, desalination – both seawater and brackish – is an important component for improving California's water resilience going forward.
- Desalination in California can be undertaken and implemented through a wide range of technologies and innovations, and there should be a concerted effort by the state’s regulatory structure to provide pathways for a variety of technologies to be tested, permitted, utilized, and advanced at commercial scale.
- California desalination is not a one-size-fits-all proposition. A wide variety of technologies that includes conventional seawater desalination, offshore surface and deep seawater desalination, and surface and ground water brackish desalination should be supported by California’s policy, regulatory, and permitting structures.
- Given the near-term need to improve our state’s water and drought resilience profile, California’s regulatory and permitting structures related to desalination development should allow for expeditious advancement of projects in a manner that is socially responsible, protective of the environment, and cost-effective.
- The state’s regulatory and permitting structures should also acknowledge and consider all forms and manners of desalination through a lens that recognizes the environmental, equity, access, and environmental justice benefits of responsible desalination projects for improving water and drought resilience in communities throughout the state and for relieving pressure on natural water systems for species and habitat protection. The state should open dialogues

that spur collaboration and set guidelines that allow for innovation and new technologies rather than be prescriptive in nature.

- Climate adaptation demands careful planning for a long-term water supply portfolio that includes all forms and manners of desalination for California's future. As snowpack and precipitation become more variable and unpredictable, employment of desalination technologies throughout the state will become a more necessary component of a diverse water supply portfolio that can respond to resilience challenges affecting every community in California.

DESALINATION POLICY PRIORITIES

- Create pathways for new technologies and innovations in both onshore and offshore seawater desalination and surface and groundwater brackish desalination to be pilot-tested and deployed throughout the state.
- Work collaboratively with state regulators to streamline the permitting process such that it allows for a clear path to project development for all desalination technologies.
- Create opportunities and funding for continued studies and research for:
 - Advancing new desalination technology in all its forms and sizes.
 - Developing and executing tangible research opportunities related to seawater desalination/marine-ocean habitat interface.
 - Improving California's approach to properly addressing project mitigation requirements.
- Open spaces for dialogue amongst a range of stakeholders including government regulators, environmental organizations, tribal groups, academia, and community members to understand and acknowledge the importance of a comprehensive water supply strategy that includes desalination.
- Deploy desalination projects that help to secure long-term, sustainable, and adequate water supply for all Californians.