



June 25, 2018

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Sent via e-mail to: DesalEIR@WestBasin.org

RE: Environmental Organizations and Green Business Comments on West Basin Municipal Water District Ocean Desalination Draft Environmental Impact Report

Dear Dr. Yu:

We, the undersigned environmental organizations and green businesses, thank you for this opportunity to comment on West Basin Municipal Water District's (West Basin) Draft

Environmental Impact Report (DEIR) prepared pursuant to the California Environmental Quality Act (CEQA) for the proposed Ocean Water Desalination Project (Project).

While we are not opposed to ocean desalination as a source of potable water in appropriate circumstances, we are opposed to West Basin pursuing ocean desalination until the agency has exhausted more cost-effective and environmentally sound options to promote local water self-sufficiency, including:

- Significant additional conservation and efficiency measure to alleviate demand;
- Greater investment in multi-benefit stormwater capture and use;
- Expanding West Basin’s successful water recycling program; and
- Remediation of groundwater in the West Coast Basin through brackish desalination.

In addition to ocean desalination’s detrimental impacts to marine ecosystems, especially when open-ocean intakes are used as is the case of with the proposed Project, it is the most energy-intensive and expensive method of meeting our local water supply needs. At a time when we must be doing everything in our power to reduce our carbon footprint, West Basin must not invest its limited resources in a project whose energy demand will exacerbate climate change impacts, the burden of which will disproportionately impact the communities least equipped to deal with them. Likewise, West Basin should not be pursuing the most expensive option available to enhance local water supplies when much more cost-effective options exist.

In a world of limited resources, committing valuable money, time, and expertise to ocean desalination is not only unwise, but inevitably hinders or even precludes more environmentally and financially sound options. For these reasons, ocean desalination should only be pursued as an option-of-last-resort.¹

CEQA requires that an agency avoid turning the environmental impact report into a post-hoc justification for its preferred alternative. (*Save Tara v. W. Hollywood* (2008) 45 Cal.4th 116, 136.) We are, thus, particularly concerned that the DEIR only analyzes three “build” alternatives and **all three alternatives evaluated involve construction and operation of an ocean desalination plant.** The DEIR does not allow a fully informed consideration of the Project by the public or the decisionmakers. The analyses, in several areas, are inadequate for failing to evaluate significant adverse environmental impacts and adequately mitigate for such impacts. In many areas, the DEIR also lacks substantial evidence to support its findings of less than significant impacts. We thank you for your careful consideration of the comments below.

Energy Impacts

- **The Project would result in the inefficient, wasteful, and unnecessary consumption of energy** and fails to comply with the directive of CEQA Guidelines Appendix F. Ocean desalination is the most energy-intensive option for increasing local water

¹ See CAL. STATE ASSEMBLY SELECT COMM. ON WATER CONSUMPTION AND ALTERNATIVE SOURCES, NEW SOURCES FOR CALIFORNIA’S WATER SUPPLY 3 (2016), available at <https://mavensnotebook.com/wp-content/uploads/2016/04/Final-Report-Select-Committee-on-Water-Consumption-and-Alternative-Sources.pdf> (making the policy recommendation that desalination should be used as an option of last resort).

supplies.² The 20 MGD plant would have the electricity demand of as much as 18,185 homes and the 60 MGD plant would have the electricity demand of as many as 59,751 homes.³ In stark contrast, water conservation results in energy savings. For example, between June 2015 and May 2016, when statewide conservation measures were in place, California's conservation rate of 24.5% over 2013 levels resulted in electricity savings of 1,830 GWh or the electricity use of 274,000 average Californian homes for a year.⁴ In light of the water supply opportunities available that would have significantly less energy impacts or could even result in energy savings, the Project would result in the inefficient, wasteful, and unnecessary consumption of energy.

- The DEIR energy analysis does not present substantial evidence to support its conclusion that the impacts from *the most energy-intensive option for increasing local water supplies would have a less than significant energy impact*. For example, the analysis does not evaluate the potential significant impacts from the SCE electrical power grid upgrades that the DEIR states are anticipated to be required to supply the Project's operations (DEIR, 5.5-21) and does not account for the recent SoCalGas Aliso Canyon natural gas storage facility blowout and limits the grid operator may now impose on usage under certain peak demand conditions.⁵

Greenhouse Gas Impacts

- The Project's greenhouse gas (GHG) impacts should be considered significant. The Project would result in a greater contribution of GHG emissions into our atmosphere, than importing water over hundreds of miles through the State Water Project.⁶ Based on the 2014 power mix of Southern California Edison (SCE),⁷ the **20 MGD ocean desalination plant would contribute as much as 44,702 metric tons of CO₂e emissions per year and the 60 MGD plant would contribute as much as 146,879 metric tons per year.**⁸
- While the DEIR states "West Basin is committed to reducing the Project's GHG emissions to 'net zero' (net carbon neutral) *compared to continued use of imported water*

² HEATHER COOLEY & MATTHEW HEBERGER, KEY ISSUES IN SEAWATER DESALINATION IN CALIFORNIA: ENERGY AND GREENHOUSE GAS EMISSIONS (Pacific Institute 2013), available at <http://pacinst.org/wp-content/uploads/2013/05/desal-energy-ghg-full-report.pdf>; NAT. RES. DEF. COUNCIL, ET AL., PROCEED WITH CAUTION II: CALIFORNIA'S DROUGHTS AND DESALINATION IN CONTEXT (2016), available at <https://www.nrdc.org/sites/default/files/california-drought-desalination-2-ib.pdf>.

³ POWERS ENGINEERING, ASSESSMENT OF ENERGY INTENSITY AND GREENHOUSE EMISSIONS OF PROPOSED WEST BASIN DESALINATION PLANT AND WATER SUPPLY ALTERNATIVES 19 (2018), available at https://www.smarterwaterla.org/wp-content/uploads/2018/01/Powers_Engineering_2018_WB_Desal.pdf.

⁴ Edward S. Spang et al., 2018 *Environ. Res. Lett.* 13 014016, 2, 5–6.

⁵ See POWERS ENGINEERING, *supra* note 3, at 23.

⁶ POWERS ENGINEERING, *supra* note 3, at 22.

⁷ *Id.* at 16.

⁸ *Id.* at 21.

supplied by M[etropolitan] W[ater] D[istrict]” (emphasis added DEIR, 5.7-20.), **the DEIR fails to provide any evidence that MWD will reduce the volume of imported water on a one-to-one basis as a result of the Project.** As a result, the DEIR lacks substantial evidence to show the Project’s GHG contribution could be reduced to “net zero,” and the resulting mitigation proposed is inadequate.

Energy and GHG Mitigation

- **The DEIR fails to adopt adequate mitigation measures for energy and GHG impacts.** In light of the alternative water supply options available that could avoid the significant energy and GHG impacts of the Project, including conservation, stormwater capture, recycling, and remediating brackish groundwater, the DEIR should have analyzed the Project’s impacts in comparison to such alternatives, and ultimately, proposed mitigation that reduced the Project’s GHG emissions *below* that of imported water.

Land Use

- **The Project would conflict with El Segundo’s Local Coastal Program (ESLCP), and therefore, land use impacts should be considered significant.** The ESLCP may need to be amended before a coastal development permit could be issued for the Project because the ESLCP only anticipated minor modifications of existing energy facilities and construction of shoreline protective structures, not major construction of a new ocean desalination facility.
- With the hazards of sea-level rise and the shoreline’s growing susceptibility to erosion, it is unwise to invest half-a-billion dollars to build infrastructure on the coast that will exacerbate climate change.

Marine Biological Resources & Hydrology and Water Quality

- The DEIR uses an improper baseline to determine significant marine biological and water quality impacts by **arbitrarily limiting the environmental setting** to a small rectangular portion of the Santa Monica Bay. As a result of this limited marine study area, the DEIR **fails to account for the interconnectivity between ecosystems within Santa Monica Bay as a whole** and thus, fails to analyze a reasonable scope of impacts. In particular, the DEIR fails to analyze the significant impacts to the network of Marine Protected Areas in the Bay—Mugu Lagoon to Latigo Point Area of Special Biological Significance, the Point Dume State Marine Conservation Area and State Marine Reserve, the Point Vicente SMCA, and the Abalone Cove SMCA.
- While the DEIR discusses the requirements of the California Ocean Plan Desalination Amendment (Ocean Plan), it does not incorporate any of these requirements as a threshold of significance in the marine biological resources or hydrology and water quality analyses. As the Ocean Plan is the regulatory framework specifically adopted to address such impacts from ocean desalination facilities, **the DEIR should have**

evaluated the extent to which the Project will “minimize intakes and mortality to all forms of marine life”⁹ and applied this as a threshold of significance.

- The Ocean Plan requires desalination plants be sited, designed, utilize technology, and be operated to “minimize intakes and mortality to all forms of marine life.”¹⁰ Once-through cooling (OTC) infrastructure was decommissioned due to its adverse environmental impacts. Because the Project, proposes to use this decommissioned intake and discharge infrastructure, the Project’s intake and discharge will have adverse environmental impacts. **Use of this decommissioned OTC infrastructure is not appropriate.**
- The DEIR does not present substantial evidence to support its conclusion that impacts to marine biological resources and water quality would be less than significant. For example, the mere fact that the Project’s intake and brine discharge technology is permissible under the Ocean Plan does not preclude the potential for significant impacts. In fact, the Pacific Institute reports that the **“impacts of impingement and entrainment from desalination plants on the marine environment are not well understood” and may result in significant loss of biological productivity.**¹¹ With respect to **brine discharge impacts**, there is also a “lack of baseline ecological data,” but **studies “clearly demonstrate the potential for acute and chronic toxicity and small-scale alterations to community structure in marine environments.”**¹²

Environmental Justice

- Out of a 1000+ page draft environmental impact report, **only half of a single page is dedicated to analysis of environmental justice impacts and mitigation measures.** (See DEIR, 6-13.)
- **The DEIR analysis fails to account for multiple low-income or minority populations (such as Carson, 82.1% of which is disadvantaged communities, and Inglewood, 100% of which is disadvantaged communities) by analyzing only census tracts where aboveground infrastructure would be implemented (El Segundo and Hawthorne).** (DEIR, 5-13.)
- The DEIR compares the Project’s impacts on census tracts in Hawthorne to impacts on the city of Hawthorne as a whole. This is an unreasonably limited environmental setting and **fails to account for the Project’s impacts on low-income or minority populations in West Basin’s service area as whole, compared to the Project’s impacts on affluent communities in West Basin’s service area.** (DEIR, 6-11.)

⁹ See ST. WATER RESOURCES CONTROL BOARD, FINAL STAFF REPORT INCLUDING THE FINAL SUBSTITUTE ENVIRONMENTAL DOCUMENTATION FOR THE AMENDMENT TO THE WATER QUALITY CONTROL PLAN FOR THE WATERS OF CALIFORNIA, ADDRESSING DESALINATION FACILITY INTAKES, BRINE DISCHARGES, AND THE INCORPORATION OF OTHER NON-SUBSTANTIVE CHANGES, Adopted May 6, 2015, *available at* https://www.waterboards.ca.gov/board_decisions/adopted_orders/resolutions/2015/rs2015_0033_sr_apx.pdf.

¹⁰ *Id.* at 11.

¹¹ HEATHER COOLEY ET AL., KEY ISSUES IN SEAWATER DESALINATION IN CALIFORNIA: MARINE IMPACTS 3 (Pac. Inst. 2013), *available at* <http://pacinst.org/wp-content/uploads/2013/12/desal-marine-impacts-full-report.pdf>.

¹² *Id.* at 14.

- The Project’s significant GHG emission contributions will exacerbate climate change, and **disproportionately impact low-income and minority communities, which are least able to adapt to or recover from climate change impacts.**¹³
- Many low-income and minority communities in West Basin’s service area already suffer from poor air quality.¹⁴ While the DEIR discusses SCE’s power mix, it does not identify the specific plants on which SCE relies. Thus, the **DEIR does not analyze the impacts to the communities that will be most heavily impacted by the Project’s high energy demand.**
- The half-a-billion dollar cost of building the Project will inevitably increase water rates for West Basin’s ratepayers. This **increase in water rates will disproportionately impact low-income populations** in West Basin’s service area relative to the more affluent populations.
- Further, there is significant disparity in the residential per capita water usage (R-GPCD) between the affluent communities and the low-income communities in West Basin’s service area. For example, affluent communities such as Palos Verdes use upwards of 200 R-GPCD, while customers in Hawthorne use only 62 R-GPCD, (DEIR, 7-13.).¹⁵ **The Project would effectively result in low-income communities subsidizing affluent communities’ excessive water consumption.**

Cumulative Impacts

- While the DEIR provides a “Cumulative Projects List” (DEIR, Table 4-1) of past, present, and probable future projects/development in the Project area, **the DEIR does not address how the combined nature of such projects would impact the region.** The mere fact that such future projects would be required to conform to the requirements of applicable regulations, does not necessarily preclude the potential for significant impacts.

Alternatives to the Project

- **The only alternatives the DEIR analyzes are variations on building an ocean desalination plant. The DEIR does not analyze conservation, stormwater capture, recycling, brackish groundwater desalination, or any combination of these water supply options in its alternatives analysis.**
- **The DEIR relies on an unsubstantiated need for the development of 21,500 acre-feet per year (AFY) of new, potable water supply.** Neither West Basin’s 2015 Urban Water Management Plan nor MWD’s Integrated Water Resources Plan support the need

¹³ U.S. GLOBAL CHANGE RESEARCH PROGRAM, THE IMPACTS OF CLIMATE CHANGE ON HUMAN HEALTH IN THE UNITED STATES: A SCIENTIFIC ASSESSMENT (2016), available at <https://health2016.globalchange.gov/>.

¹⁴ See CALENVIROSCREEN 3.0, <https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-30> (last visited June 8, 2018).

¹⁵ STATE WATER RESOURCES CONTROL BOARD, *August Supplier Conservation*, 9, 10 (2017), https://www.waterboards.ca.gov/water_issues/programs/conservation_portal/docs/2017oct/supplierconservation_100317.pdf.

for 21,500 AF of new potable water supply. Yet, the DEIR includes a requirement that 21,500 acre-feet per year (AFY) of new, potable water supply be developed. This 21,500 AFY requirement is not disclosed as a project objective, and instead, operates as a shadow objective, which the DEIR uses to eliminate conservation, stormwater capture, and recycling as alternatives to the Project.

- **Conservation, stormwater capture, recycling, and brackish groundwater desalination are alternatives that would increase local water supplies, avoid the significant adverse environmental impacts of the Project, including the energy, GHG, marine, water quality, and environmental justice impact, and would meet most of the DEIR’s stated project objectives.** The DEIR alternatives analysis is inadequate for failing to, at least, analyze a hybrid alternative that includes a combination of such alternatives.
- In particular, West Basin has been a leader in recycled water with its Edward C. Little Water Recycling Facility (ECLWRF) that currently recycles approximately 35 MGD of secondary effluent from the Hyperion Water Reclamation Plant. While we applaud West Basin’s efforts to increase recycling at ECLWRF to 70 MGD, ECLWRF is “designed for ultimate expansion to 100 MGD.”¹⁶ **Expanding recycling at ECLWRF to its maximum capacity would more than eliminate the need for the 20 MGD plant.**

For the reasons outlined above, as well as those expressed in Los Angeles Waterkeeper and Heal the Bay’s comment letters, we respectfully request that the DEIR be revised and recirculated. We also strongly encourage West Basin to employ a Reduce, Reuse, Recycle, and Restore approach to developing its water supply portfolio and comprehensively explore the numerous opportunities it has for increasing conservation, stormwater capture, recycling, and brackish groundwater remediation, instead of pursuing ocean desalination at this time. Once again, thank you for your careful consideration of our comments.

Sincerely,



Melissa Kelly
Los Angeles Waterkeeper

On behalf of:

Craig Cadwallader
Surfrider, South Bay Chapter

Conner Everts
Desal Response Group

Nancy Shrodes
Heal the Bay

Marcus Eriksen
5 Gyres

¹⁶ CH2M HILL, WATER REUSE CASE HISTORY: WEST BASIN WATER RECYCLING/PETROLEUM REFINERY REUSE PROGRAM (WATER MATCH).

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