Responses to Santa Barbara Channelkeeper's Comments to Proposed Amended Order No. R3-2010-0011

***(1)CONTENTION**: If a sec. 13142.5(b) analysis was never conducted, then the City was never permitted to intake seawater. [¶] Any intake conducted by the City when the plant was operational was therefore done illegally, and the City's current request for an amendment to its NPDES Permit to obtain authorization for the intake of seawater for the first time should thus be considered as a request for authorization for a new industrial installation using seawater. As such, pursuant to sec. 13142.5(b), the RWQCB must require the City to use the best available site, design, technology, and mitigation measures feasible for minimizing the intake and mortality of all forms of marine life.*

(1)RESPONSE: Although the Central Coast Water Board did not consider Water Code section 13142.5, subdivision (b) (hereinafter section 13142.5(b)) when the facility was constructed, the City of Santa Barbara complied with requirements then applied to the facility. The Central Coast Water Board now considers the factors set forth in the statute based upon the data available at the time the facility was constructed. Because the facility was unquestionably new in 1991, this finding is based on the facts at the time.

***(2)CONTENTION**: The Draft Amendment seems to rely primarily on an EIR analysis … Water Code section 13142.5 … is a much stricter standard than CEQA. Therefore, the attempt to retroactively decide what the RWQCB knew in 1991, and what the RWQCB would have considered and approved at that time, is based on inadequate CEQA analyses and a wholly inadequate justification for approval of a facility that was never permitted for seawater withdrawals in the first place.*

(2)RESPONSE: The data set forth in the permit amendment illustrate that the Central Coast Water Board could have made findings at the time of construction that the facility used the best site, design, technology and mitigation measures feasible to minimize intake and mortality of all forms of marine life, consistent with industry standards then prevailing. Both the 1991 and 1994 EIRs contained factual recitations and technical analysis relevant to the section 13142.5 analysis of site, design, technology and mitigation. Consideration of that information is appropriate. (*See, Surfrider Foundation v. California Regional Water Quality Control Board, San Diego Region* (2012) 211 Cal.App.4th 557.)

***(3)CONTENTION**: [T]he Draft Amendment documents that the facility was not adequately analyzed to determine the best available site, design, technology and mitigation measures feasible to minimize the intake and mortality of all forms of marine life in compliance with Water Code section 13142.5(b), and the intake is therefore unpermitted.*

(3)RESPONSE: The Central Coast Water Board did not make a determination regarding section 13142.5(b) when the facility was originally permitted by the Central Coast Water Board. However, the permits issued to the facility by the Central Coast Water Board allowed discharges of seawater and pollutants related to the desalination process, and such discharges would not have occurred unless the intake was operating. In addition, the intake is clearly shown in the "Process Flow Diagram – 10,000 ACRE FEET/YEAR" that was included as Attachment B to Permit 91-83. The City complied with the requirements imposed by the Central Coast Water Board during the public permitting process. In addition, the Coastal Commission issued permits for the facility.

***(4)CONTENTION**: [T]here is no justification for this unusual proposed retroactive permitting process.*

(4)RESPONSE: Section 13142.5(b) applies to new or expanded facilities. Because the Central Coast Water Board did not consider the factors set forth in the statute at the time of the facility's construction, it is appropriate to consider these factors based upon information available at that time.

***(5)CONTENTION**: Nothing in the Draft Amendment reconciles the contradictory findings that subsurface intakes are considered infeasible (via the proposed retroactive determination that the City complied with sec. 13142.5(b)), yet studies of the feasibility of these alternative intakes will not be conducted until after the permit amendment has been adopted by the RWQCB and the City is thus given license to proceed to operate the facility with a screened open ocean intake.*

(5)RESPONSE: Findings set forth in the draft amendment are not contradicted by statements regarding plans for future feasibility studies for subsurface intakes. Findings in the draft amendment concern alternatives available at the time the facility was planned and constructed, while future studies will be based upon the range of technologies now available.

***(6)CONTENTION:** [t]he Draft Amendment's reference to the City's vague suggestion that it may "begin exploring" subsurface intakes is not accompanied by any enforceable condition in the amended permit that the City shall actually construct a subsurface intake if it is found to be feasible – much less any condition to ensure that these studies and modifications are completed prior to operation of the facility.*

(6)RESPONSE: The Central Coast Water Board does not propose requiring subsurface intakes because the draft amendment makes determinations regarding best site, design technology and mitigation measures feasible when the facility was constructed. The City has agreed to undertake additional measures to protect marine life, but the board is not requiring these measures pursuant to section 13142.5(b). Thus, enforceable permit terms for these additional measures are not included.

***(7)CONTENTION**: [I]t is unacceptable to adopt the permit amendment with findings that the City will conduct a feasibility analysis in the future without requiring the promised studies as part of the analysis of compliance with Water Code 13142.5(b) – which is being considered for the first time in the current permit amendment.*

(7)RESPONSE: Requiring feasibility studies for subsurface intakes would assume that the facility is currently being analyzed as a "new or expanded" facility under section 13142.5(b). The draft permit amendment analyzes the facility's compliance with section 13142.5(b) at the time of construction.

***(8)CONTENTION**: The retroactive review and approval process being attempted in this permit amendment sets a dangerous precedent and invites mischief by future project proponents. As described, adoption of this permit amendment would effectively allow project proponents to build seawater desalination facilities without a permit for an intake system that complies with the Water Code, and then later argue that the facility is not "new or expanded" and thus the RWQCB has no authority to enforce the Water Code. This creates a massive loophole that would entirely undermine the letter and intent of the law – both substantively and procedurally.*

(8)RESPONSE: Ocean Plan amendments currently proposed by the State Water Board address construction of future desalination facilities, and will require new or expanded facilities to comply. Regardless of past practice, regional water boards now customarily consider section 13142.5(b) as part of approving any NPDES permit for discharges from a new or expanded facility that includes a seawater intake.

(9)CONTENTION: *The RWQCB's analysis and recommended action to amend the City's permit is unfounded if it relies on the existing physical capacity of the facility to establish that the City's desalination facility is not a "new or expanded" facility. The Draft Amendment inaccurately describes and analyzes the facility in its current state -- either in terms of its physical existence or its permitted existence. The Draft Amendment fails to establish what actual physical capacity currently exists, or whether or not what is now being retroactively approved allows expansion of the current capacity up to a production of 10,000 acre-feet per year (AFY).*

(9)RESPONSE: The Central Coast Water Board is considering a permit amendment to adopt findings regarding best site, design, technology and mitigation measures feasible at the time the facility was constructed. There is no dispute that the facility was new at the time it was constructed and originally permitted for discharge. The original production design capacity was 10,000 AFY. As stated in Attachment G, the objective of the original project was to provide up to 10,000 AFY of water for drought relief. The 1991 and 1996 coastal development permits were for a 10,000 AFY facility. The 1991 and 1994 EIRs document that the maximum design capacity was 10,000 AFY of produced water. (See pages 1-3 of Attachment 2 ("Project Description") of the City's Coastal Development Permit Application for Repair and Maintenance Activities at the Charles Meyer Desalination Facility Offshore Intake Structure, dated October 30, 2014, and amended by the City on December 18, 2014, for a detailed history of the capacity of the facility.) The facility's infrastructure still supports the permitted capacity of 10,000 AFY, but the City will need to replace and add certain modular components (e.g., reverse osmosis trailers, filter vessels, and a pump) in order to reactivate the facility from long-term stand-by mode and achieve the full permitted capacity. Furthermore, the City currently does not intend to operate the facility continuously. Reactivation of the facility is only triggered by a prolonged drought with the goal of deferring reactivation until necessary due to the substantial cost of operation (City of Santa Barbara Long-Term Water Supply Plan, 2011, page 20).

As further support for the permitted 10,000 AFY capacity, NPDES Permit 91-83 found that up to 13.3 million gallons per day (MGD) of wastewater from the desalination facility would be discharged. This is the same discharge volume cited in the Coastal Commission's 1996 staff report for the production capacity of 10,000 acre feet per year and is more than adequate to support 10,000 AFY of produced water. This is also consistent with Finding 1 of Permit 91-83 ("The project would produce between 2,500 and 10,000 acre-feet-per-year (AFY) of water for 5 years"), and with the "Process Flow Diagram – 10,000 ACRE FEET/YEAR" that was included as Attachment B to Permit 91-83.

(10)CONTENTION: *The facility as it currently "exists" has zero intake or mortality of marine life because it has been dismantled and is non-operational, which is why the City is preparing to spend $40 million to re-outfit the facility with the necessary equipment to enable it to operate once again.*

(10)RESPONSE: The findings of the proposed permit amendment are not based upon the facility in its current state, but are based instead on the facility as it was originally analyzed,

permitted and constructed. The proposed recommissioning of the facility will not expand its capacity beyond what the City originally designed and constructed.

(11)CONTENTION: *[T]he City is indeed proposing to "make other changes" to the facility, which are articulated in the Draft Amendment, including for example installing a wedgewire screen across the open ocean intake. Therefore, there is absolutely no basis for the finding that the facility is not "new or expanded".*

(11)RESPONSE: The determination in the proposed permit amendment is based on the facility's being new at the time it was planned and not as it currently exists now. The current changes to the facility will not result in an "expanded" production capacity or higher intake or mortality of marine life. The wedgewire screens are an upgrade to the current technology and will reduce intake or mortality. These screens will be installed on an existing intake structure to replace the current screens. Other modifications include reinstalling underwater pumps that have been stored and maintained out of water, upgrading computer systems and replacing filters. The new screens and other modifications necessary to recommision the facility will not expand the facility's capacity or increase its impacts on marine life.

(12)CONTENTION: *[T]he City should clarify that their stated intent to begin exploring potable reuse options, as well as subsurface seawater intakes, is a commitment to implement these preferred alternatives if they are found feasible. Furthermore, the permit amendment should include condition to require implementation of these alternatives if they are feasible.*

(12)RESPONSE: The Central Coast Water Board is not requiring a new alternatives analysis pursuant to section 13142.5. See Response (6).

(13)CONTENTION: *The Draft Amendment does not adequately analyze the alternatives for minimizing the intake and mortality of marine life – neither individually nor in combination.*

(13)RESPONSE: Findings set forth in the proposed determination of section 13142.5(b) represent alternatives considered by the City that were the industry standard at that time for minimizing the intake and mortality of marine life.

(14)CONTENTION*: Cost should not be a factor when determining the best available technology for Santa Barbara's desalination facility. The Riverkeeper II decision held that in "the EPA's determination of BTA, cost-benefit analysis is not consistent with the requirement of sec. 316(b) that cooling water intake structures 'reflect the best technology available for minimizing adverse environmental impact.'"*[4]

(14)RESPONSE: Costs can be one of the factors used to determine feasibility under section 13142.5(b). (*Surfrider Foundation, supra,* at 582-583.) However, the proposed determinations regarding section 13142.5(b) are not driven by cost. Regardless, reliance on *Riverkeeper II* is misplaced. Both *Riverkeeper II* and *Entergy Corp. v. Riverkeeper Inc.* (2009) 556 U.S. 208 interpreted Clean Water Act section 316(b), which requires that "the location, design, construction, and capacity of cooling water intake structures reflect the best technology available for minimizing adverse environmental impact." Ultimately, the Supreme Court in *Entergy* found that US EPA regulations governing cooling water intake structures (which, as drafted, were inapplicable to intakes not using at least 25% of water withdrawn exclusively for cooling purposes) permissibly used cost in setting performance standards for existing cooling water intake structure compliance with section 316(b). Thus, even to the extent that

Riverkeeper II were found to be analogous in interpreting section 13142.5(b), a position not taken here, those portions of the decision finding cost to be an impermissible consideration no longer govern.

***(15)CONTENTION**: Subsurface intake technologies have advanced dramatically in the last 25 years – something anticipated and promoted under the CWA. The CWA is a technology-forcing statute, and Congress anticipated that as new technologies are developed they would be required in future permit renewals as part of the iterative process.*

(15)RESPONSE: A seawater intake for purposes of desalination is not governed by section 316(b), which only addresses "cooling water intake structures," or any other provision of the Clean Water Act.

***(16)CONTENTION**: [G]iven that the City of Santa Barbara currently does not have the authority to intake seawater, now is the time to assess the best available technology for minimizing the intake and mortality of all forms of marine life.*

(16)RESPONSE: The commenter has not provided support for the proposition that the City's intake lacks authority to intake seawater. While there is no evidence that the Central Coast Water Board considered section 13142.5(b) when it permitted the facility in 1991, the City has generally complied with its NPDES permits and with the requirements imposed on the facility by other agencies. The City's current NPDES permit does not prohibit the intake of seawater. Because the State Water Board and regional water boards now interpret section 13142.5(b) as applicable to seawater intakes used for desalination, the draft permit amendment addresses whether the regional water board could appropriately have made such findings at the time of construction. In addition, whether the City currently has the authority to intake seawater does not directly bear on whether the facility is "new or expanded" under section 13142.5(b).

***(17)CONTENTION:** [T]he City rejected eight other potential sites for the desalination plant in the 1991 EIR for reasons related to tie-ins to the City's water system, availability of existing facilities for brine discharge and seawater intake, and construction-related environmental impacts. None of these satisfies the requirement of sec. 13142.5(b) to use the best available site to minimize the intake and mortality of all forms of marine life. In fact, it appears the most suitable site for the construction of sub-seafloor intake in order to minimize the intake and mortality of marine life was not a consideration for selection the sites for analysis.*

(17)RESPONSE: Section 13142.5(b) states the best available site that is *feasible* should be used to minimize the intake and mortality of all forms of marine life. "Feasible" in this context can be interpreted to mean " 'capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social, and technological factors,'" with consideration given to environmental factors as well as the project's purpose. (*Surfrider Foundation*, *supra* at 582, citing Pub. Resources Code, § 21061.1.) The alternative sites were not considered feasible for multiple reasons listed in the draft permit. The site that was considered feasible was the best site available to minimize marine life mortality since it would utilize existing intake and outfall structures resulting in the fewest impacts to marine life. The City has agreed to undertake additional measures to protect marine life, but these measures are not currently being required pursuant to the section 13142.5(b) determination.

(18)CONTENTION: *There is no indication that the City made an effort to consider a design production capacity that was consistent with minimizing the intake and mortality of marine life. The analysis of subsurface intake at the wastewater treatment plant site found them infeasible for the larger design capacities at that site – much less a determination that a design capacity consistent with what a subsurface intake would supply was not feasible. …[T]he overriding mandate of the Water Code is to minimize the intake and mortality of marine life. The City never adequately analyzed different sites and designs for compliance with that mandate.*

(18)RESPONSE: Initially, subsurface intakes were evaluated under three production scenarios, but ultimately considered infeasible because this would not have provided adequate source water at a capacity that could produce water for the region (including the City of Goleta). The draft permit amendment includes findings that the facility incorporates the best site and design that were available and feasible in 1991 to minimize mortality and intake of marine life. These include use of existing intake and outfalls to reduce construction-related impacts, low velocities for intake, protective screens to reduce entrainment, the outfall contained diffusers for better dispersion, and brine is commingled with wastewater to increase mixing and dilution. These protective design measures were not analyzed at other sites because they were infeasible and would cause construction-related environmental impacts (i.e. destruction of the benthic community). In addition, other sites were located near rocky reef habitat or kelp forests. At those sites, subsurface intakes would potentially have a larger entrainment impact due the richness of marine life compare to a sandy bottom habitat. Based on the facts and technology available at the time, the Central Coast Water Board finds that the City chose the best site considering the combination of factors that were overall more protective of marine life.

(19)CONTENTION: *[N]either the City nor the RWQCB have provided any explanation of how this mitigation fee was calculated. Mitigation fees should be calculated using an area of production forgone (APF) model and acceptable calculation for converting the APF into a restoration project that will fully replace that estimated marine life mortality, or suitable monetary payment to ensure full replacement.*

(19)RESPONSE: Mitigation in the form of a restoration project was not considered necessary at the time the facility was planned since plankton loss due to intake was considered less than significant. At the time the facility was planned and constructed, APF was not a commonly used method to estimate mitigation. Plankton mortality estimates were based on plankton data collected off the coast of Southern California (Peterson et. al.,1986) and local plankton productivity was assumed to be relatively high due to seasonal upwelling processes in the Santa Barbara Channel. Thus, the impact from the seawater intake was not considered to adversely affect plankton populations. For a relative volumetric comparison, the volume of water taken daily (based on the maximum 10,000 AFY capacity) is equivalent to a daily maximum volume of water that would have a radius of 147 m that goes from the surface to the intake depth of 10 m. This is a tiny relative area (compared to the Santa Barbara Channel) especially considering the sandy habitat that it overlies and the movement of currents and mixing in the vicinity.

The additional mitigation funding the City will now provide is not part of the section 13142.5(b) analysis but is an additional voluntary measure to minimize intake and mortality of marine life. The amount of the mitigation fee is based on a review of restoration projects in need of financial support within the Santa Barbara area. Regional Water Board staff identified the Upper Devereux Slough Restoration Project due to its scale, need for funding, and location. The scale of the restoration project is such that with the City's funding, this project will mitigate more than

the anticipated impacts of the desalination facility based on the City's planned operation. The location of the restoration project is suitable because it will help restore wetlands within the general area of the facility (10 miles up the coast) but not in the direct vicinity where the facility would impact the restoration project. The area surrounding the intake is a sandy bottom habitat and it is very difficult to directly compensate for this type of environment. This project will restore important habitat for many types of marine life, including species that will be entrained by the intake.

(20)CONTENTION: *[T]he entrainment and impingement estimates … relied on irrelevant data from a power plant seawater intake that is likely outside or near the edge of any Source Water Body for the proposed facility. And the CEQA analysis apparently used Adult Equivalency Loss (AEL) and/or Fecundity Hindcasting (FH) models to estimate impact. As noted in detail in the draft Ocean Plan amendment for desalination, the scientific community does not consider these models the best science available for estimating impact, nor for estimating a mitigation fee.*

(20)RESPONSE: See Responses (1), (3), and (5) through (12). The analysis used by the City to estimate impacts on the marine environment were commonly used methods at the time the facility was planned. The 1994 EIR cites Peterson et al. (1986). This paper explains the methods used at the time to study this area.

(21)CONTENTION: *The RWQCB cannot approve a first-time permit for the intake based on such flawed analysis, or what is effectively the absence of any support for the notion that the mitigation fee will result in any benefit approaching full replacement of the marine life lost to the screened open ocean intake.*

(21)RESPONSE: The proposed draft amendment adds a section 13142.5(b) determination that the City used the best available site, design, technology, and mitigation measures feasible at the time the facility was constructed. Based on that framework, the section 13142.5(b) analysis does not require additional mitigation or restoration projects to replace lost organisms. Therefore, there is no requirement for an analysis demonstrating that mitigation fee provides full replacement of marine life lost.

(22) CONTENTION: *Paying a mitigation fee in lieu of implementing the best available technology is illegal.*

(22) RESPONSE: The commenter provides no support for the contention, which appears to be based upon the findings of *Riverkeeper I*, interpreting application of Clean Water Act section 316(b). *Riverkeeper I* noted that restoration measures "have nothing to do with the location, the design, the construction, or the capacity of cooling water intake structures . . . ." (358 F.3d 174, 189 (2004).) The Second Circuit Court of Appeals went on to conclude that "restoration measures are inconsistent with Congress's intent that the 'design' of intake structures be regulated directly, based on the best technology available . . . ." (*Id.* at 190.) Section 13142.5(b), unlike section 316(b), addresses a different set of factors, specifically including mitigation. The only California appellate court to consider the state statute has agreed that case law analyzing the Clean Water Act is inapplicable "because of crucial differences in the statutory language." (*Surfrider Foundation, supra, at* 579.)

Regardless, the mitigation fee agreed to by the City does not operate in lieu of best technology available. Mitigation is offered here as an additional measure in support of minimizing intake and mortality of marine life, but is not considered as a part of what was originally before the

Central Coast Water Board. As stated, the Central Coast Water Board is determining whether the City's action would have been consistent with the factors set forth in the statute at the time of construction.

(23)CONTENTION: *A plain reading of Water Code sec. 13142.5(b), like that of CWA sec. 316(b), precludes interpreting the term "mitigation" as synonymous with, or inclusive of, restorative measures. The language in the Porter-Cologne Water Quality Control Act provides that all four elements – site, design, technology and mitigation -- whether read holistically or individually – must "…minimize the intake and mortality of all forms of marine life." In like fashion, restorative measures, by definition, do nothing to "mitigate" the intake and mortality of all marine life in the first instance. The mere use of the term "mitigation" is not sufficient to justify an interpretation of section 13142.5(b) that is inconsistent with Riverkeeper and the Once Through Cooling Policy.*

(23)RESPONSE: Contrary to the commenter's claims regarding the "plain reading" of the statute, the *Surfrider* court found that wetland restoration measures included as part of a plan for compliance with section 13142.5(b) constituted mitigation measures within the meaning of the statute. (211 Cal.App.4th at 581.) The court further concluded that the four statutory elements were not each required to reduce both intake and mortality, but rather the collective set of measures. (*Id*. at 577.) As set forth above and in *Surfrider*, *Riverkeeper I* concerns interpretation of the Clean Water Act, and not section 13142.5(b).

(24)CONTENTION: *The use of a screened open ocean intake in conjunction with a mitigation fee is illegal when subsurface intakes are feasible.*

(24)RESPONSE: The draft amendment includes a site-specific determination based upon the facts as they existed at the time of facility construction. At that time, the City found that a subsurface intake was not feasible. Regardless, no specific configuration of measures can be definitively characterized as illegal under the statute. Each determination must take into account the requirements and variations of the site and feasible options available.

(24)CONTENTION: *The Draft Amendment for the intake inadequately describes the screens and housing, and fails to cite any studies suggesting the undefined screens will have any benefits to minimizing the intake and mortality of marine life. If the City is suggesting a modification to cylindrical wedgewire screens, then there must be a more detailed analysis of how the screens will function. But in any case, the permit amendment must be denied until there is more definition and scientific support for the proposed modification – including time for review and comment by the public.*

(24)RESPONSE: The benefits of upgrading the intake to wedgewire screens are mainly to reduce entrainment of more organisms than the previous screens. There have been many studies to evaluate the effectiveness of wedgewire screens and many have shown to reduce entrainment of fish eggs and larvae, a discussion and list of these studies can be found in Section 8.3.1.2.3 of the Draft Staff Report for the Proposed Desalination Amendment to the Ocean Plan (http://www.waterboards.ca.gov/water_issues/programs/ocean/desalination/docs/draft_desal_sed_070314.pdf). The Ocean Plan amendments are not yet finalized; however, based the research to date, use of wedgewire screens with a slot size below 1.0 mm would be more protective than the technology currently employed by the City. The Central Coast Water Board does not agree the permit should be denied or delayed based on the City's effort to minimize

the intake and mortality of marine life further, based on current technology (wedgewire screens) that was not available when the facility was designed and constructed.

(25)CONTENTION: *The Draft Amendment notes that the Santa Barbara City Council has directed staff to return to City Council after the contract decision is made in April to begin exploring a range of alternatives, including subsurface intake and potable reuse options, and that the City will share the results of this analysis with the RWQCB by June 30, 2017. This has absolutely no bearing on the Draft Amendment and in no way binds the City to do anything, and is thus inappropriate to include in the permit, much less to use as a basis for making an unprecedented and unfounded retroactive determination of compliance with sec. 13142.5(b).*

(25)RESPONSE: The range of alternatives described for future implementation at the facility, including subsurface intake and potable reuse options, are not part of the Central Coast Water Board's findings on compliance with section 13142.5(b). The alternatives constitute additional measures to further minimize intake and mortality of marine life from the intake used at the facility, but are not being considered as a required part of section 13142.5(b) at this time.

(27)CONTENTION*: The permit must set a technology based performance standard for the brine dilution. … Further, there is some discussion of improvements made to existing diffusers. And in a separate section, this is some discussion about the ambient current and seasonal changes in the current velocities and direction. However, there is no discussion of whether the diffuser improvements were designed for brine dilution, nor whether the design factored the changing velocities and the direction of the ocean currents around the diffusers. The permit amendment should include a discussion of all the technological and natural variables, and how the City will ensure rapid dilution in the water column to minimize all adverse impacts to marine and benthic habitat.*

(27)RESPONSE: The comment appears to rely on data gathered and studies conducted as part of the State Water Board's efforts in developing a receiving water limitation for salinity. The Ocean Plan amendments are not yet finalized. The technology used for dilution is described in the existing NPDES permit and described again in the proposed draft amendment. The dilution ratio included in the existing NPDES permit is based on the minimal area where brine can impact the receiving water and will be protective of the surrounding marine environment. Brine discharge from the desalination facility will be commingled with wastewater to decrease the salinity before it is discharged into the receiving water. The outfall also uses diffusers, which were updated in 1975, to increase dispersion of the brine, and the outfall is located miles offshore for increased mixing via ocean currents in the Santa Barbara Channel. If the Ocean Plan amendments are finalized or if otherwise appropriate, this issue may be considered when the permit is next reissued. The City has recently conducted a hydrodynamic modeling study to evaluate how commingled brine and wastewater effluent will impact the receiving water since the diffusers were not originally designed for brine. This study looked at various high and low flow rate scenarios of brine-wastewater effluent and also looked at additional mixing effects by ambient ocean currents. Results of this study conclude that there would be no concerns about meeting the NPDES permit limits or the proposed Ocean Plan amendment limits (Jenkins, 2014, pp 68-69).