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November 26, 2014

Peter von Langen
Central Coast Regional Water Quality Control Board
895 Aerovista Place, Suite 101
San Luis Obispo, CA 93401-7906

**Re: Amended Order No. R3-2010-0011, NPDES Permit No. CA0048143:
Waste Discharge Requirements for the El Estero Wastewater Treatment
Facility, City of Santa Barbara**

Dear Mr. von Langen:

Please accept the following comments on the Draft Proposed Amendment of Waste Discharge Requirements Order No. R3-2010-0011, NPDES Permit No. CA0048143 (“Draft Amendment”) for the El Estero Wastewater Treatment Facility in the City of Santa Barbara (“City”), which are hereby submitted by Santa Barbara Channelkeeper. Channelkeeper is a non-profit organization dedicated to protecting and restoring the Santa Barbara Channel and its watersheds, and for the past several months we have been tracking and providing input on the City’s effort to reactivate its dismantled desalination plant. We are particularly concerned about the City’s attempt to utilize an open ocean intake to draw seawater into the facility in light of the State Water Resources Control Board’s move to require desalination facilities in California to utilize subsurface intakes as the preferred technology to minimize the intake and mortality of all forms of marine life through its imminent amendment to the California Ocean Plan.

As noted in Attachment G of the Draft Amendment, the Central Coast Regional Water Quality Control Board (“RWQCB”) failed to consider Water Code section 13142.5(b) when it issued the permit that first authorized the brine discharge from the desalination facility in 1991. Water Code section 13142.5(b), which became effective on January 1, 1977, provides as follows:

“For each new or expanded coastal powerplant or other industrial installation using seawater for cooling, heating, or industrial processing, the best available site, design, technology, and mitigation measures feasible shall be used to minimize the intake and mortality of all forms of marine life.”

The Draft Amendment states that the RWQCB “issued NPDES Permit No. 91-83, which authorized the *brine discharges* from the Desalination Facility, in September 1991. The Regional Water Board has reissued the NPDES Permit for the El Estero Wastewater Treatment Facility four times since then; each subsequent NPDES Permit has continued to *authorize the discharge of brine* from the Desalination Facility through the El Estero Wastewater Treatment Facility’s ocean outfall.” The RWQCB acknowledges the omission of a sec. 13142.5(b) analysis during its authorization and subsequent reissuance of the NPDES Permit.

Keeping watch for clean water

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The Draft Amendment states that, based “on a review of all available Regional Water Board records for the permitting of the Desalination Facility, there is no indication that the Regional Water Board considered section 13142.5(b) during the permitting of the Desalination Facility. Thus, the Regional Water Board did not make a formal determination about whether the Desalination Facility complied with sec. 13142.5(b) at the time it first authorized the Desalination Facility’s brine discharge in NPDES Permit No. 91-83.” 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.

Retroactive Determination

The RWQCB now seeks to make a retroactive determination about the City’s compliance with sec. 13142.5(b) based on information that is more than 20 years old. The Draft Amendment seems to rely primarily on an Environmental Impact Report (EIR) analysis of potentially significant impacts to make this retroactive determination. It is important to note that Water Code section 13142.5(b) mandates minimizing the intake and mortality of all forms of marine life -- which is a much stricter mandate 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.

As noted above, the 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. However, the Draft Amendment seems to simultaneously imply that the permit for the brine discharge, originally permitted in 1991 and subsequently renewed, somehow allows an associated withdrawal of seawater – but only after the RWQCB approves a retroactive analysis of what should have been considered and approved prior to construction and operation of the facility. The facility was constructed and briefly tested without a permit, and there is no justification for this unusual proposed retroactive permitting process. Further, the Draft Amendment cites a statement by the City that it will direct its staff to begin exploring a range of alternatives, including subsurface intakes and potable reuse options, after the City decides whether to issue a Design, Build, Operate contract in the future. 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. And inexplicably, the 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.

The City cannot make contradictory statements about the adequacy of studies performed 20+ years ago to demonstrate the infeasibility of subsurface intakes and a vague suggestion to explore it in the future, and the RWQCB cannot approve the permit amendment based on these contradictory assertions. Further, it 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.

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.

We request the RWQCB to conduct a present-day 13142.5(b) analysis to determine the best available site, design, and technology for the City of Santa Barbara’s Desalination Facility in order to authorize –for the first time – the City’s ability to intake seawater in a way that complies with the Water Code. Most importantly, the RWQCB must require the City to conduct a subsurface feasibility study **before** giving any authorization for the intake of seawater.

New or Expanded Vs. Existing

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). There is currently a “design” for a 10,000 AFY facility that the RWQCB has never analyzed nor permitted to withdraw seawater, and there is a physically existing shell of a facility that may in the future be capable of producing some unknown quantity of product water after significant re-construction – which, again, has never been permitted to withdraw seawater.

The Draft Amendment states that “The City is not proposing at this time to increase the designed or permitted capacity above 10,000 AFY or make any other changes to the Desalination Facility that could result in higher intake or mortality of marine life, so the resumption of operation of the Desalination Facility would not be considered an “expanded” facility. This is wrong on numerous counts.

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. Operation of the facility with an open ocean screened intake, as the City proposes, will indeed result in higher intake and mortality of marine life than what currently occurs—regardless of what was “designed” or envisioned as a possibility in the past. Moreover, the 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.”

Furthermore, there is a real and legitimate distinction between the actual production capacity of the facility and its permitted capacity. In fact, according to the City’s 2011 Long-Term Water Supply Plan, the facility was built at an original capacity of 7,500 AFY, and sale of a portion of the facility reduced the production capacity to a maximum of 3,125 AFY; it never had the actual capacity to produce 10,000 AFY. Therefore, the RWQCB has never previously “permitted” a seawater intake for a 10,000 AFY facility, and there is no physical capacity to produce 10,000 AFY. Consequently, there is no conceivable argument that the facility is not required to meet the mandates of section 13142.5(b) because it is not “new or expanded.” It is, in fact, new or expanded and therefore must be fully analyzed for compliance with the substantive mandates of section 13142.5(b).

Finally, the 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 to be feasible. Furthermore, the permit amendment should include conditions to require implementation of these alternatives if they are feasible.

SECTION 13142.5(b) ANALYSIS

First, it is important to clarify that the elements of the Water Code section 13142.5(b) analysis are all intended to ensure minimization of the intake and mortality of all forms of marine life. Further, the elements must be read as individual considerations, as well as how they can be effectively combined in a way that results in minimizing the intake and mortality of marine life. For example, it is not adequate to conclude that a “site” is preferable for some reason, and then conclude that a “technology” is not feasible because of some constraints at that given site. “Site” and “technology” must be considered in combination to achieve the goal of minimizing intake and mortality of marine life. The Draft Amendment does not adequately analyze the alternatives for minimizing the intake and mortality of marine life -- neither individually nor in combination.

Feasibility of Subsurface Intakes

The Draft Amendment notes that the City analyzed the feasibility of three seawater intake technologies prior to selecting an open ocean intake and rejected them due to cost or lack of other large-scale applications. Again, this does not satisfy the requirement of sec. 13142.5(b) to use the best available technology to minimize the intake and mortality of all forms of marine life.

When determining the feasibility of the best available technology, cost should not be a factor. In *Entergy Corp. v. Riverkeeper, Inc. (Riverkeeper II)*,¹ the Supreme Court found that sec. 316(b) of the Clean Water Act (“CWA”) authorizes the U.S. EPA to compare costs that are reasonably borne by the industry in determining the best technology available for minimizing environmental impact at cooling water structures. Importantly, however, U.S. EPA is not required to consider costs in conducting this analysis.² *Riverkeeper II* held that the use of the term “Best Technology Available” (“BTA”) prevents the use of inferior technologies, or what the court referred to as “second best.”³

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 Most importantly, the court determined that “the statutory language requires that the EPA’s selection of BTA be driven by technology, not cost.”⁵ “The Agency is therefore precluded from undertaking such cost-benefit analysis because the BTA standard represents Congress’s conclusion that the costs imposed on industry in adopting the best cooling water intake structure technology available (i.e., the best-performing technology that can be reasonably borne by the industry) are worth the benefits in reducing adverse environmental impacts.”⁶ In brief, there is no legislative intent to include a cost-benefit analysis in CWA section 316(b), nor is there any such intent evident in the Porter-Cologne Water Quality Control Act sec. 13142.5(b). They are similar and must be enforced similarly.

Regardless of what technologies existed in the early 1990s, the City of Santa Barbara should be required to implement the best technology available today to comply with the Water Code. 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.

Today, subsurface wells and infiltration galleries are internationally accepted as the best management practice for reducing impacts to the marine environment, and provide rate-payers with reduced costs. Subsurface intakes “always produce a higher quality feedwater compared to

¹ *Entergy Corp. v. Riverkeeper, Inc.*,¹ 129 S.Ct. 1498 (2009) (“*Riverkeeper II*”).

² *Id.*

³ *Id.* at 108. Congress’s use of the superlative “best” in the statute cannot be read to mean that a facility that achieves the lower end of the ranges, but could do better, has complied with the law. The statutory directive requiring facilities to adopt the *best* technology cannot be construed to permit a facility to take measures that produce second-best results, especially given the technology-forcing imperative behind the Act. *Natural Res. Def. Council v. U.S. Evtl. Prot. Agency*, 822 F.2d 104, 123 (D.C. Cir. 1987). Insofar as U.S. EPA establishes performance standards instead of requiring facilities to adopt particular technologies, it must require facilities to choose the technology that permits them to achieve as much reduction of adverse environmental impacts as is technologically possible.

Riverkeeper II, 475 F.3d at 108.

⁴ *Id.*

⁵ *Id.*

⁶ *Id.*

conventional open-ocean intakes.”⁷ Improvements in water quality lead to a reduction in chemical use and power consumption causing a reduction in the carbon footprint and in potential environmental impacts.⁸ Elimination of impingement and entrainment impacts on the environment is also an added advantage of using a subsurface intake system.⁹

Subsurface wells are currently used on large-scale applications worldwide. The Oman desalination plant (23 MGD capacity) receives 100 percent of its feedwater from subsurface wells – proving subsurface intakes are feasible for large-scale desalination facilities. The design uses 32 wells drilled over a 12.5 acre area to deliver a total of 58 MGD of feedwater to the desalination facility.¹⁰ Monitoring from Oman shows that significant water quality improvements are being achieved by using subsurface intakes instead of open ocean intakes.¹¹ Recent data from Oman also “demonstrates that subsurface intake systems produce high quality seawater by removing nearly all of the algae, a high percentage of the bacteria, a significant amount of the organic carbon, and a high percentage of the marine biopolymers that are currently believed to facilitate membrane biofouling.¹² The Oman plant’s design capacity far exceeds that of the City’s proposed intake – clearly exhibiting that subsurface wells today are a well-established technology for large-scale application.

Infiltration galleries are also a well-established technology for large-scale application. The Fukuoka desalination plant (27 MGD capacity) in Japan has constructed a subsurface infiltration gallery to provide the plant’s feedwater. The plant has been operating successfully for eight years without the need to clean the offshore gallery and with minimal cleaning of the membranes.¹³ Monitoring of the feedwater pumped from the gallery shows a very significant improvement in water quality,¹⁴ which requires less energy and allows Japan to provide cheaper desalinated water to their customers. Galleries are quickly becoming the technology of choice for seawater intakes because they can be built practically anywhere – including the proposed size and site of the City of Santa Barbara’s desalination facility.

Regardless of whether a subsurface intake would have been deemed infeasible in the early 1990s, they are feasible now. There has been no showing that a subsurface intake is infeasible at this current time. And given 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.

⁷ Missimer et al., *Subsurface Intakes for Seawater Reverse Osmosis Facilities: Capacity Limitation, Water Quality Improvement, and Economics*. 322 *Desalination* 37, 49 (2013); available at: <http://www.kysq.org/docs/2013%20Desalination-Subsurface%20Intakes.pdf>.

⁸ *Id.*

⁹ *Id.*

¹⁰ *Id.*

¹¹ *Id.*

¹² *Id.* at 46.

¹³ A. Shimokawa, *Fukuoka District desalination system with some unique methods*, National Centre of Excellence in Desalination, International Desalination Intakes and Outfalls Workshop Proceedings, Adelaide, South Australia, May 16–17, 2012.

¹⁴ Missimer et al., *Subsurface Intakes for Seawater Reverse Osmosis Facilities: Capacity Limitation, Water Quality Improvement, and Economics*. 322 *Desalination* 37, 44 (2013); available at: <http://www.kysq.org/docs/2013%20Desalination-Subsurface%20Intakes.pdf>.

Therefore, we request that the RWQCB conduct a proper sec. 13142.5(b) analysis to determine if subsurface intakes are currently feasible at the City's desalination facility before amending the City's permit to authorize the intake of seawater.

Site

As noted in the Draft Amendment, the 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 intakes in order to minimize the intake and mortality of marine life was not a consideration for selecting the sites for analysis. Therefore, the RWQCB cannot make that determination retroactively now.

Design

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 intakes at the wastewater treatment plant site found them infeasible for the larger design capacities envisioned. But similar analyses were apparently not conducted for alternative design capacities at that site – much less a determination that a design capacity consistent with what a subsurface intake would supply was not feasible.

Again, the 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.

Mitigation Funding

In an EIR in 1994, the City based its estimates of plankton volume and mortality on plankton data collected offshore of Ormond Beach – approximately 40 miles away from the actual intake – between 1982-1984. An analysis of plankton mortality needs to be made based on data collected at the location of the actual intake, not 40 miles away, and within a time horizon far closer to the time the facility intends to be operated.

The Draft Amendment notes that the City has offered to pay \$500,000 as mitigation for the intake and mortality of aquatic life that will occur through the operation of the desalination facility. However, neither 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 foregone (APF) model and acceptable calculations for converting the APF into a restoration project that will fully replace that estimated marine life mortality, or suitable monetary payments to ensure full replacement.

As noted above, the entrainment and impingement estimates were not properly based on sampling at the site – but instead 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.

Finally, the Draft Amendment fails to specify the maximum capacity of seawater they are proposing to permit the City to withdraw through the intake, which is standard practice for other desalination facility permits and clearly necessary. Without any estimation whatsoever as to the amount of seawater the City plans to withdraw through its open ocean intake, no realistic estimation of appropriate mitigation can be made.

Given these inadequacies in the sampling, modeling and calculations, the City's offer of \$500,000 in mitigation fees is entirely arbitrary and unsupported. The RWQCB cannot approve a first-time permit for the intake based on such a flawed analysis, or what is effectively the absence of any support for the notion that the mitigation fee will result in any benefits approaching full replacement of the marine life lost to the screened open ocean intake.

In-Lieu Mitigation

Paying a mitigation fee in lieu of implementing the best available technology is illegal. The Draft Amendment states that "the City has agreed to provide for new mitigation funding prior to placing the Desalination Facility back into production mode." This mitigation funding will be used to mitigate for the marine life mortality caused by an open ocean screened intake – a sub-par technology compared to the best available technology of subsurface intakes, which, as noted above, are feasible. Therefore, the City's obligation to pay mitigation fees in lieu of constructing subsurface intakes should be found to be illegal.

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." The *Riverkeeper* court's decision is instructive to interpreting sec. 13142.5(b): "restoration measures substitute after-the-fact compensation for adverse environmental impacts that have already occurred for the minimization of those impacts in the first instance."¹⁵ 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.

The use of a screened open ocean intake in conjunction with a mitigation fee is illegal when subsurface intakes are feasible. The RWQCB should conduct a proper subsurface intake feasibility analysis before permitting the intake of seawater with an open ocean intake and mitigation fees.

Updated Screens

In order to reduce entrainment of aquatic life, the City apparently plans to install screens with a 1.0 mm or smaller slot size, and the Draft Amendment states that these are consistent with the currently proposed technology standards for screens for ocean intakes. This is in fact at the high

¹⁵ 475 F.3d at 110 (citing *Riverkeeper I*, 358 F.3d at 189).

end of the possible screen size requirements being contemplated in the draft Ocean Plan Amendment and, moreover, this technology standard was challenged in public comment and that challenge has not been resolved by the State Water Board. Thus, the adequacy of small-mesh screens for minimizing the intake and mortality of all forms of marine life is questionable at best, and the RWQCB cannot make a permit amendment authorizing such technology when no such standard yet exists.

Further, the purported benefits of fine mesh screens for minimizing the intake and mortality of marine life are associated with “cylindrical wedgewire screen” assemblies. In other words, the purported benefits are not just from the slot size, but from the design of the screen housing.

We do not agree that cylindrical wedgewire screens with small slot sizes have been shown to minimize intake and mortality of aquatic life in the marine environment similar to the area serving this facility – these screens were initially designed for use in rivers and other areas with strong single-direction currents well above the intake velocity. But fine mesh screens that are not housed in cylindrical housings raise even greater concerns.

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.

Future Intake Analysis

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).

What should be included in the permit, however, is a condition that the City conduct an analysis of the feasibility of a subsurface intake NOW as required by sec. 13142.5(b), and if that analysis demonstrates that a subsurface intake is in fact feasible, a condition that the City’s desalination facility install and utilize it as the best available technology feasible as is required by law – prior to operation of the facility.

Dilution

The permit must set a technology based performance standard for the brine dilution. Properly designed spray brine diffusers are considered the best technology available for rapid dilution. And the experts convened by the State Water Resources Control Board recommended the discharge “shall not exceed 2 parts per thousand (ppt) above natural background salinity, to be measured as total dissolved solids (TDS) no more than 100 meters (328 ft) horizontally from the

discharge.” This permit must include a similar or more protective standard.

The Draft Amendment has some discussion of predictable varying volumes of fresh water discharged and available for brine dilution. Apparently there are predictable times when the fresh water discharge will be minimal – primarily during dry weather periods. The Draft Amendment does not adequately discuss even greater potential reductions in discharge volumes from the wastewater treatment facility as a result of greater indoor water conservation efforts by the City – especially during dry weather periods. Nor does it explain how the desalination facility will operate at greater production capacity at the same times (dry weather) – producing more brine with less available fresh water for dilution.

Further, there is some discussion of improvements made to the existing diffusers. And in a separate section, there is some discussion about ambient currents and seasonal changes in 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 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 life and benthic habitat.

Finally, Attachment G includes a vague statement that the City may begin to explore potable reuse options in the future. It is not clear if this would be an alternative to the proposed seawater desalination facility or an additional facility at the site or elsewhere. Regardless, however, the Draft Amendment does not address what effect any such wastewater recycling facility might have on the availability of fresh water for brine dilution.

It is abundantly clear that mistakes were made in the original permit for this facility and the subsequent renewals. The facility should not have been constructed without a permit to withdraw seawater based on a full analysis showing compliance with Water Code section 13142.5(b), and temporary test operations of the facility without a permit to withdraw seawater were clearly illegal.

Despite these errors and omissions, however, the RWQCB cannot manufacture a procedure for a retroactive sec. 13142.5(b) compliance determination.

At a minimum, the RWQCB must make findings that:

- the withdrawal of seawater for operation of the desalination facility was never permitted by the RWQCB;
- any past operation of the facility was an illegal operation without an adequate NPDES/WDR permit;
- the proposed seawater intake “site, design, technology and mitigation” is being considered for the first time in this proposed permit amendment, and thus the facility is

“new or expanded” and must be consistent with the mandates of Water Code section 13142.5(b);

- the analysis of section 13142.5(b) must be based on best science and technology available today, and the alternatives cannot be constrained by what was proposed and considered in 1991, and;
- the discharge approval must be updated to ensure compliance through best available technology in today’s standards.

Only after having made these findings can the RWQCB consider alternatives for amending the City’s permit to include allowances for a seawater intake and updated brine discharge.

Because the RWQCB is considering a permit amendment to allow the withdrawal of seawater for the first time, it is mandatory that the RWQCB to do a full analysis to ensure compliance with the Water Code. This analysis requires, in part, a thorough analysis of whether subsurface intakes are feasible for the requested design capacity, or other design capacities. Until that analysis is provided by the City, the application is incomplete and should be denied.

Thank you for the opportunity to provide comments on the proposed amendment the City of Santa Barbara’s NPDES permit for the El Estero Wastewater Treatment Plant. Please do not hesitate to contact me if you have any questions regarding these comments.

Sincerely,



Kira Redmond
Executive Director