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CERTIFIED FOR PUBLICATION

COURT OF APPEAL, FOURTH APPELLATE DISTRICT

DIVISION ONE

STATE OF CALIFORNIA

SURFRIDER FOUNDATION,

Plaintiff and Appellant,

v.

CALIFORNIA REGIONAL WATER
QUALITY CONTROL BOARD, SAN
DIEGO REGION,

Defendant and Respondent.

D060382

(Super. Ct. No. 37-2010-90436-CU-
WM-OTL)

POSEIDON RESOURCES
(CHANNELSIDE) LLC, et al.

Real Parties in Interest and
Respondents.

APPEAL from a judgment of the Superior Court of San Diego County, Judith F.
Hayes, Judge. Affirmed.

Irell & Manella, Andra Barmash Greene and Bradley J. Leimkuhler for Plaintiff
and Appellant.

Kamala D. Harris, Attorney General, Kathleen A. Kenealy, Assistant Attorney General, Helen G. Arens and Daniel M. Lucas, Deputy Attorneys General, for Defendant and Respondent.

Latham & Watkins, Christopher W. Garrett, Paul N. Singarella, Jeffrey P. Carlin and Lauren B. Ross for Real Parties in Interest and Respondents Poseidon Resources (Channelside) LLC, Poseidon Resources Corporation and Poseidon Water LLC.

Allen, Matkins, Leck, Gamble, Mallory & Natsis, Jan S. Driscoll and Heather S. Riley for Real Parties in Interest and Respondents City of Carlsbad, Carlsbad Municipal Water District and Vallecitos Water District.

Ronald R. Ball, City Attorney, for Real Parties in Interest and Respondents City of Carlsbad and Carlsbad Municipal Water District.

Sheppard, Mullin, Richter & Hampton and Dana J. Dunwoody for Real Party in Interest and Respondent Cabrillo Power I LLC.

Best, Best & Krieger, Melissa W. Woo and James B. Gilpin for Real Parties in Interest and Respondents Sweetwater Authority, Valley Center Municipal Water District, Santa Fe Irrigation District, Olivenhain Municipal Water District, Rincon del Diablo Municipal Water District and Rainbow Municipal Water District.

Surfrider Foundation (Surfrider) appeals from the trial court's denial of its petition for a writ of mandamus challenging the approval of the National Pollutant Discharge Elimination System (NPDES) permit by the California Regional Water Quality Control Board, San Diego Region (the Regional Board) for a desalination facility that Poseidon Resources (Channelside), LLC (Poseidon) plans to build on the coast in Carlsbad,

California. Surfrider contends that in issuing the NPDES permit the Regional Board failed to comply with the requirements of Water Code section 13142.5, subdivision (b) (section 13142.5(b)),¹ which provides that "[f]or 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." (*Ibid.*) We reject Surfrider's arguments and conclude that the Regional Board complied with section 13142.5(b). Accordingly, we affirm the judgment.

I

FACTUAL AND PROCEDURAL BACKGROUND

Poseidon proposes to build a desalination facility in Carlsbad, California, which will process seawater to provide fresh potable water (the desalination facility). As this appeal arises out of the Regional Board's approval of a NPDES permit needed for the operation of the desalination facility, we begin our discussion by focusing on the relevant features of the proposed facility.

A. *Design of the Desalination Facility*

The proposed desalination facility is designed to produce 50 million gallons per day of desalinated water. In order to operate, the desalination facility will require a total of 304 million gallons per day of seawater both for source water and for the dilution of the concentrated saline wastewater by-product discharge.

¹ Unless otherwise indicated, all further statutory references are to the Water Code.

With a view toward obtaining seawater for desalination while avoiding unnecessary harm to marine life, Poseidon plans to construct the desalination facility adjacent to the existing Encina Power Station (the EPS). The EPS is an electrical power generating station that uses steam generators cooled by a once-through seawater flow system, with seawater drawn from the Pacific Ocean via the Agua Hedionda Lagoon. By virtue of being located next to the EPS, the desalination facility will be able to use the cooling water that the EPS discharges as part of the power plant operations in place of some or all of the seawater needed for desalination. Under this design, even when the EPS's cooling water discharge is not supplying 100 percent of the necessary seawater, the desalination facility will take in additional seawater by using the same intake structure and pumps that are used by the EPS.

Based on historical data from the EPS, the power plant's cooling water discharge will in some cases be able to supply all of the 304 million gallons per day of seawater needed to operate the desalination facility without the need for the intake of additional seawater (Scenario 1).² When the EPS's cooling water discharge is fully supplying the needs of the desalination facility, Poseidon would have little ability to impose additional design elements on the seawater intake structure and intake pumps, as the desalination facility cannot interfere with or interrupt the power plant operations.

² Poseidon's brief refers to this operating scenario of the desalination facility as "Scenario 1" and, as noted below, Poseidon also refers to "Scenario 2" and "Scenario 3." As this terminology is useful, we will employ it during our discussion.

However, when operation of the EPS's cooling water discharge does not provide enough seawater for the desalination facility — for instance, when the EPS is not operating at capacity or temporarily shut down — additional seawater may be taken in through the EPS's cooling water intake structure solely for use in the desalination facility (Scenario 2). In that circumstance, the desalination facility will use additional measures to reduce the intake and mortality of marine life. These additional measures consist of (1) reducing the velocity at the inlet screen to the minimum needed for the desalination facility's operation; (2) pumping the seawater through an optimum combination of existing fine screens and condensers to minimize the velocity and turbulence of the water; (3) using ambient temperature seawater rather than seawater with an elevated temperature as during the EPS's operations; and (4) discontinuing periodic heat treatment of the seawater intake and discharge.³

B. *Agency Approvals of the Desalination Facility*

Prior to the Regional Board's issuance of the NPDES permit that is at issue in this lawsuit, several additional agencies considered and approved the construction and operation of the desalination facility.

³ As the parties point out, the owner of the EPS, Cabrillo Power I LLC, has submitted an application to construct a new power plant at the EPS's site, which, if approved, would initially result in decommissioning some of the EPS's current units, with a possible permanent shutdown at a later date. As stated in the January 2012 brief filed by Cabrillo Power I LLC, the new power plant proposal is currently being reviewed by the California Energy Commission, but it has not yet been approved, and construction has not begun. If the EPS permanently shuts down, there would no longer be any cooling water discharge to be used by the desalination facility. We refer to this operating scenario for the desalination facility as "Scenario 3."

1. *Carlsbad City Council's Consideration of the Final Environmental Impact Report and Its Approval of the Desalination Facility Project*

In June 2006, the Carlsbad City Council certified a final environmental impact report (FEIR) for the desalination facility. The FEIR determined that the desalination facility would not cause significant adverse environmental impacts either when the desalination facility was operating together with the EPS or when the EPS was shut down. In certifying the FEIR, the City of Carlsbad approved the desalination facility with the condition, among others, that a new environmental impact report would be required if the EPS permanently ceased its operations (i.e., in Scenario 3).

2. *Permit from the California Coastal Commission*

In November 2007, the California Coastal Commission (Coastal Commission) granted a coastal development permit for the desalination facility, with the condition, among others, that Poseidon prepare a marine life mitigation plan (MLMP). Specifically, Poseidon was required to document the expected entrainment and impingement of marine life that would be caused by the desalination facility and to develop a plan for mitigation that, to the maximum extent feasible, was comprised of the "creation, enhancement, or restoration of aquatic and wetland habitat."⁴ Several agencies, including the Regional

⁴ The Coastal Commission provided a useful explanation for the terms "entrainment" and "impingement." "Entrainment occurs when small organisms, such as plankton, fish eggs, larvae, etc., are pulled into an open-water intake. . . . Entrainment causes direct impacts by killing the small organisms that are pulled through . . . and causes indirect impacts to the larger marine community by altering the food web and removing part of the community's productivity." "Impingement occurs when fish or other organisms are caught on an intake's screening system and are either killed or

Board and the Coastal Commission, coordinated with Poseidon to develop the required MLMP. In August 2008, the Coastal Commission considered a version of the MLMP, and it agreed to final language for the MLMP in November 2008.

3. *The State Lands Commission's Amendment of Lease of Tidal Lands*

Because the desalination facility will make use of the EPS's intake and discharge channels, which are located on tidal lands under the jurisdiction of the State of California, the State Lands Commission was required to amend its lease of state tidal lands to the EPS in order to allow the desalination facility to operate at the same location. In November 2008, the State Lands Commission approved Poseidon's application for a lease amendment and required Poseidon to comply with the MLMP as adopted by the Coastal Commission. Surfrider filed an unsuccessful petition for writ of mandate to challenge the State Land Commission's approval of the lease amendment, and a December 10, 2010 opinion from this court affirmed the trial court's denial of the petition.

4. *The Regional Board's Approval of an NPDES Permit*

While these other agency approvals were occurring, the Regional Board was considering Poseidon's application for a NPDES permit for the desalination facility. The Regional Board initially issued the NPDES permit in August 2006. At that time, the Regional Board stated that Poseidon must submit a "Flow, Entrainment and Impingement Minimization Plan" covering Scenario 2, i.e., the scenario in which the EPS's operation does not provide for 100 percent of the desalination facility's seawater intake

injured. The impingement rate for an intake is primarily a function of water velocity." When velocity is below a certain level, fish are able to swim away from an intake.

requirements (Minimization Plan). The purpose of the Minimization Plan was to address the requirements of section 13142.5(b), which states that "[f]or 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."

*(Ibid.)*⁵

Poseidon submitted a draft Minimization Plan in February 2007, which the Regional Board determined in February 2008 to be incomplete and in need of revision. After considering a revised Minimization Plan in April 2008, the Regional Board conditionally approved it subject to the requirement that further revisions address, among other things, a proposal for mitigation of the impacts to marine life caused by impingement and entrainment. To satisfy this requirement, Poseidon worked to develop the MLMP.

In November 2008, after the Coastal Commission agreed to the final language of the MLMP, the Regional Board received the MLMP as an amendment to the Minimization Plan. The Regional Board identified additional issues, which were addressed in a further revised Minimization Plan, dated March 27, 2009, that incorporated the MLMP.

⁵ As the Regional Board explained in its August 2006 order with regard to Scenario 1, the operation of the desalination facility concurrently with the EPS "would not trigger the need for additional technology or mitigation to minimize impacts to marine life."

On May 13, 2009, the Regional Board approved the March 27, 2009 version of the Minimization Plan with certain amendments, concluding, among other things, that the desalination facility would comply with section 13142.5(b) when co-located with the EPS. Significantly, the Minimization Plan and the Regional Board's approval covered only the scenario in which the EPS and the desalination facility were co-located (i.e., Scenario 2). In the event that the EPS permanently shuts down (i.e., Scenario 3), Poseidon will be required to reapply to the Regional Board for authorization to operate in a stand-alone mode, and the Regional Board, in that instance, will review whether additional measures are necessary for compliance with section 13142.5(b).

a. *The Minimization Plan*

The Minimization Plan comprehensively addresses the mandate of section 13142.5(b) that the desalination facility use "the best available site, design, technology, and mitigation measures feasible . . . to minimize the intake and mortality of all forms of marine life." (*Ibid.*) It contains separate chapters addressing the "site, design, technology, and mitigation measures" required by section 13142.5(b) for minimizing the intake and mortality of marine life when the EPS is not supplying all of the seawater needed by the desalination facility (i.e., Scenario 2).

Chapter 2 addresses the selection of the site for the desalination facility, explaining that the location next to the EPS was the best available feasible site and that three possible alternative sites for the desalination facility were not feasible because of certain limitations associated with each of them. Specifically, the Minimization Plan considered the following alternative sites: (1) different locations on the property where

the EPS is located, which were determined to be infeasible because the owner of the EPS had reserved that property for future use; (2) the Encina Water Pollution Control Facility, which was found to be infeasible because, due to outfall constraints, the volume of desalinated water production would be limited; and (3) the Maerkle Reservoir, which was declared infeasible for several logistical reasons, including lack of space to accommodate necessary pipelines, the need to pump seawater to a higher elevation, zoning restrictions, and the increased cost associated with piping and pumping seawater and discharge water at the site.

Chapter 3 describes the design of the desalination facility, setting forth the various design features — in addition to its use of the EPS's cooling water discharge — that minimize the entrainment and impingement of marine life. As we have described above, when the EPS is not in operation (i.e., Scenario 2), the desalination facility is designed to (1) reduce the inlet screen velocity to make it easier for marine life to swim away; (2) optimize the way in which seawater is pumped through the existing screens and condensers to minimize the turbulence and velocity that physically damages marine life; (3) use ambient temperature rather than heated seawater which will eliminate marine life mortality associated with elevated seawater temperature; and (4) eliminate periodic heat treatment of seawater intake and discharge used to clean the system when the EPS is in operation, and replace it with a cleaning system using plastic scrubbing balls.

Chapter 4 discusses the technology incorporated into the desalination facility that will minimize impingement and entrainment of marine life, and explains why alternative technological features were not feasible. As chapter 4 describes, the desalination

facility's most relevant technological feature for minimizing marine life mortality is the installation of variable frequency drives on seawater intake pumps. That technology will minimize marine life mortality associated with the intake of seawater by reducing the total intake flow for the desalination facility to no more than needed at any given time. Further, although different intake technology was considered, it was determined that alternative intake technology, in the form of vertical intake wells, slant wells or horizontal wells was not feasible because of the multiple miles of coastline needed to implement that technology and because of the prohibitive cost. The additional option of using an offshore open ocean water intake was rejected because it could adversely affect a greater diversity of marine life species than the proposed intake for the desalination facility when co-located with the EPS.

Chapter 5 quantifies the marine mortality associated with the operation of the EPS intake as well as the marine mortality expected when the desalination facility is operating alone and implementing the design and technological features described above (i.e., Scenario 2). The analysis shows that the design and technology features of the desalination facility would reduce impingement of marine life from that experienced when the EPS's intakes are operating for the power plant (i.e., Scenario 1).

Chapter 6 describes the mitigation measures that Poseidon will undertake to reduce marine life mortality, and it expressly incorporates the MLMP. Under the MLMP, Poseidon will restore up to 55.4 acres of estuarine wetlands in Southern California for the purpose of creating a habitat in which fish populations will increase and thereby offset

the marine life mortality caused by operation of the desalination facility.⁶ The marine life that will flourish in the habitat created by the wetlands restoration will fully offset the marine life mortality that results from operating the desalination facility under any operating scenario. Indeed, as stated in chapter 6 of the Minimization Plan, the MLMP "assures that the biological loss associated with [the desalination facility's] stand-alone estimated entrainment will not only be zeroed out, but will result in a net enhancement of the coastal habitat." Surfrider does not challenge that conclusion, and there is no dispute that the MLMP will, as intended, create an overall benefit to marine life that will offset the marine life mortality cause by the desalination facility.

The final portion of the Minimization Plan, i.e., chapter 7, concludes that based on the discussion in the foregoing chapters the desalination facility "will use the best available site, design, technology and mitigation measures feasible to minimize the intake and mortality of marine life associated with the intake of seawater to support [the desalination facility's] . . . operations." Significantly, the Minimization Plan stresses that the site, design, technology, and mitigation measures that it describes all work *together* to

⁶ As the MLMP explains, it "includes two phases of mitigation — Poseidon is required during Phase I to provide at least 37 acres of estuarine wetland restoration In Phase II, Poseidon is required to provide an additional 18.4 acres of estuarine wetland restoration. . . . Poseidon may chose to provide all 55.4 acres of restoration during Phase I" and may also choose during Phase II to apply for authorization to eliminate the required 18.4 acres of mitigation "and instead conduct alternative mitigation by implementing new entrainment reduction technology or obtaining mitigation credit for conducting dredging." The MLMP identifies 11 nonexclusive possible wetland sites in Southern California as the subject of restoration, but allows Poseidon or the California Department of Fish and Game to select other possible wetland areas.

satisfy section 13142.5(b), and "represent a *balanced approach* to minimizing the potential for intake and mortality from [the desalination facility] under stand-alone operations" which "*individually and collectively* satisfy the obligation under section 13142.5(b) to employ best available feasible measures to minimize such effects." (Italics added.)

b. *The Regional Board's May 13, 2009 Order and Surfrider's Challenge*

Consistent with the Minimization Plan's focus, in separate chapters, on the distinct statutory elements of site, design, technology and mitigation, the Regional Board's May 13, 2009 order approving the amendment to the NPDES permit addressed each of those elements in separate sections of the order. The Regional Board concluded that the Minimization Plan "identifies the best available site, design, technology and mitigation feasible to be used by [Poseidon] to minimize the intake and mortality of all forms of marine life during [the desalination facility's] operations."

Surfrider filed a petition with the State Water Resources Control Board (the State Water Board) for review of the Regional Board's May 13, 2009 order. The petition argued, among other things, that the desalination facility "must comply with the strict mandate of section 13142.5(b), requiring minimization of intake and mortality in the first instance," and that "[m]itigation measures imposed pursuant to section 13142.5(b) cannot comprise . . . after the fact restoration" The State Water Board denied the petition.

Surfrider then filed this action against the Regional Board for a writ of mandamus, naming Poseidon, the City of Carlsbad, Cabrillo Power I LLC, and various interested

municipal water districts as real parties in interest. The petition sought to set aside the Regional Board's May 13, 2009 order approving the Minimization Plan, alleging that the Regional Board "prejudicially abused its discretion and failed to fulfill its duties under . . . section 13142.5(b) when it adopted the [May 13, 2009 order] and approved the Minimization Plan." Surfrider's main argument was that the Regional Board improperly considered "after-the-fact restoration measures in conducting the required analysis under . . . section 13142.5(b)." Specifically, it took the position that "restoration [of wetlands] is plainly inconsistent with the text and intent of the statute to 'minimize the intake and mortality of all forms of marine life'" in that "[r]estoration measures seek to restock fish killed because of impingement and entrainment by [the desalination facility's] operations, which by definition do not minimize the intake and mortality of marine life in the first place."

The trial court denied the petition, rejecting Surfrider's position that, in approving the Minimization Plan, the Regional Board failed to comply with the requirement in section 13142.5(b) that "the best available site, design, technology, and mitigation measures feasible . . . be used to minimize the intake and mortality of all forms of marine life." (*Ibid.*)

II

DISCUSSION

A. *Applicable Review Standards*

Surfrider appeals from the trial court's denial of the petition for a writ of administrative mandamus. "[D]ecisions and orders of the [Regional Board], including

the issuance and renewal of NPDES permits, are reviewable by administrative appeal to the State Water Board, and then by petition for administrative mandamus in the superior court. ([Code Civ. Proc.,] § 1094.5; Wat. Code, §§ 13320, 13330.) In the mandamus proceeding, the superior court is obliged to exercise its independent judgment on the evidence before the administrative agency, i.e., to determine whether the agency's findings are supported by the weight of the evidence. ([Code Civ. Proc.,] § 1094.5, subd. (c); Wat. Code, § 13330, subd. (d).)" (*Voices of the Wetlands v. State Water Resources Control Bd.* (2011) 52 Cal.4th 499, 516 (*Voices of the Wetlands*)). "On appeal, the reviewing court determines whether substantial evidence supports the trial court's factual determinations. [Citations.] The trial court's legal determinations receive a de novo review with consideration being given to the agency's interpretations of its own statutes and regulations." (*City of Rancho Cucamonga v. Regional Water Quality Control Bd.* (2006) 135 Cal.App.4th 1377, 1384.)⁷

B. *The Minimization Plan Does Not Adopt Mitigation in Lieu of Other Measures*

As we have explained, at issue in this case is the Regional Board's compliance with the requirement of section 13142.5(b), which states that in an "industrial installation

⁷ Poseidon and Surfrider have both filed requests for judicial notice. Poseidon requests that we take judicial notice of an entry in the 1971 edition of Webster's Third New International Dictionary, defining the word "mortality." We grant the request. Surfrider's opposed request for judicial notice concerns the Statewide Water Control Policy on the Use of Coastal and Estuarine Waters For Power Plant Cooling, dated October 1, 2010. We determine that the document is not relevant to our analysis because it concerns a federal statute not at issue here, and therefore we deny the request. (*Jordache Enterprises, Inc. v. Brobeck, Phleger & Harrison* (1998) 18 Cal.4th 739, 748, fn. 6 [declining to take judicial notice of materials not "necessary, helpful, or relevant"].)

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." (*Ibid.*)

Surfrider's first contention is that the Regional Board failed to comply with this statutory requirement because, in approving the Minimization Plan, it allowed Poseidon to use "after-the-fact restoration . . . *in lieu of* using the best available measures to minimize the intake and mortality of marine life." (Italics added.) According to Surfrider's characterization of the Minimization Plan, "after-the-fact restoration programs are the *only* measures that will be used to 'minimize the intake and mortality of marine life.'" (Italics added.) Surfrider states that when the desalination facility is operating by itself instead of using cooling water discharge from the EPS, "the *only* measure adopted by the [Regional] Board will be the MLMP" to minimize the intake and mortality of marine life. Based on this factual premise, Surfrider argues that allowing the creation of wetlands, *alone*, to satisfy the obligation to minimize the intake and mortality of marine life is impermissible because it "would allow any new or expanded industrial facility in California that withdraws seawater to do so with relative impunity, so long as its builder promised to create wetlands somewhere else. . . . It is a license to ignore the mandate of the statute." (Fn. omitted.) Surfrider contends that such an approach improperly "allows facilities to discharge their statutory obligations without improving the technological basis of the operation."

1. *The Creation of Wetlands Is Not in Lieu of Other Measures That Will Minimize the Intake and Mortality of Marine Life*

The trial court rejected Surfrider's argument because it found its factual premise to be faulty. As the trial court explained, the Minimization Plan does not rely on the MLMP's required wetland restoration program *alone* to satisfy the requirement in section 13142.5(b) that Poseidon use "the best available site, design, technology, and mitigation measures feasible . . . to minimize the intake and mortality of all forms of marine life." (*Ibid.*) As we will explain, substantial evidence supports the trial court's factual determination, and we reject Surfrider's argument on the same basis as did the trial court.

As described above, in addition to the mitigation measures described in the MLMP, chapters 3 through 5 of the Minimization Plan separately focus on each of the other measures listed in section 13142.5(b), namely the site, design and technological measures that minimize the intake and mortality of marine life. These measures include locating the desalination facility next to the EPS in order to make use of the EPS's cooling water discharge, reducing the inlet screen velocity, optimizing the way seawater is pumped through the existing screens and condensers, using ambient temperature seawater, replacing the cleaning system by using plastic scrubbing balls instead of periodic heat treatment, and installing variable frequency drives on intake pumps. Indeed, the Regional Board's May 13, 2009 order specifically describes each of these measures. The order also specifically incorporates the responsiveness summary prepared by the Regional Board's staff, which clarifies that the Minimization Plan "provides for the implementation of mitigation *in addition to*, as opposed to *in lieu of*, site, design, and

technology measures to minimize the intake and mortality of marine life." (Italics added.)

Therefore, the record unambiguously supports the trial court's finding that the wetland restoration measures in the MLMP were not adopted *in lieu of* site, design and technology measures.⁸

2. *The Site, Design and Technology Measures in the Minimization Plan Are Not "Illusory"*

Surfrider acknowledges that the Minimization Plan discusses site, design and technology measures *in addition to* the mitigation required by the MLMP, but Surfrider argues that the site, design and technology measures are "illusory" and that "the only meaningful measure adopted by the [Regional] Board was the MLMP." Surfrider therefore contends that the Regional Board did not, as statutorily required, implement feasible site, design and technology measures, in addition to mitigation, to minimize the intake and mortality of marine life. We disagree. As we will explain, substantial

⁸ We note that the statutory language refers to "site, design, technology, and mitigation measures." (§ 13142.5, subd. (b).) Nothing in the statutory language indicates that one type of measure should be relied upon to the exclusion of others. "[E]very word, phrase and provision employed in a statute is intended to have meaning and to perform a useful function" (*White v. County of Sacramento* (1982) 31 Cal.3d 676, 681.) Therefore, had the Regional Board *only* relied upon mitigation measures, to the exclusion of site, design and technology measures, serious questions would be presented as to whether the Regional Board complied with the requirements of section 13142.5(b). However, that situation is not presented here, as the record establishes that the Minimization Plan covers site, design, technology *and* mitigation measures, and does not focus on one type of measure to the exclusion of others.

evidence supports a finding that the site, design and technology measures in the Minimization Plan are substantive, not illusory.

a. *The Benefits of the Site of the Desalination Facility Are Not Illusory*

The site of the desalination facility does not provide a merely illusory benefit to the minimization of the intake and mortality of marine life. As the Minimization Plan explains, co-location of the desalination facility with the EPS will minimize the mortality of marine life because the facility will be able to use the cooling water discharge from the EPS instead of taking in new seawater, which has the potential to harm marine life by impingement and entrainment. This measure is real and substantive and, during the entire time that the EPS is an operational plant, will provide a reduction in intake and mortality of marine life that would not otherwise occur if the desalination facility were located at a different site.

Surfrider argues that the benefits of co-location are illusory because the benefit will disappear if the EPS is permanently shut down and no longer provides cooling water discharge. This argument fails because even if the EPS is eventually shut down on a permanent basis, co-location of the desalination facility with the EPS will have already provided many years of minimization of marine life intake and mortality that would not have been achieved had the desalination facility been located at a different site. Further, as we have explained, Poseidon is required to make a *new* application to the Regional Board if the EPS is permanently shut down. At that time the Regional Board will consider whether additional measures are necessary to minimize intake and mortality of

marine life to make up for the loss of the benefits of using the EPS's cooling water discharge.

b. *The Design and Technology Measures Described in the Minimization Plan Are Not Illusory*

Next, Surfrider focuses on several of the design and technological measures described in the Minimization Plan to be implemented when the EPS's cooling water discharge is not supplying all of the seawater that the desalination facility needs, contending that they are merely illusory measures that will fail to minimize the intake and mortality of marine life.⁹

i. *Reduced Intake Screen Velocity*

The Minimization Plan describes the design feature, to be implemented in Scenario 2, of reducing intake screen velocity to insure that "the velocity of the seawater entering the inlet channel is at or below 0.5 feet per second . . . , resulting in impingement

⁹ Surfrider also argues that the design and technology measures described in the Minimization Plan are illusory because they will not be implemented when the EPS is operating to take in seawater and produce cooling water discharge, i.e., in Scenario 1. This argument is misplaced for two reasons. First, when the EPS is supplying all of the seawater needed for desalination operations, operation of the desalination facility will not require the intake of seawater and thus, as the Minimization Plan explains, any marine life mortality caused by the operation of the desalination facility under Scenario 1 is "*de minimus*." Second, the Regional Board directed the preparation of the Minimization Plan to specifically address *only* those instances in which the desalination facility's intake requirements exceed the volume of water being discharged by the EPS (i.e., only Scenario 2, not Scenario 1), and thus there is no merit to Surfrider's criticism of the Minimization Plan on the ground that the measures it describes do not apply in Scenario 1.

losses at the inlet screens being reduced to an insignificant level." Surfrider argues that the Minimization Plan's reliance on reduced intake screen velocity is misplaced.

Surfrider focuses on comments made by the Coastal Commission prior to its eventual approval of the desalination facility, which questioned whether Poseidon would be able to achieve the lowered intake velocity at the inlet screen required by the Minimization Plan. According to Surfrider, based on these comments, "there are substantial questions about whether Poseidon's claimed reduction of impingement is even possible." Specifically, a Coastal Commission staff member's comments questioned whether it was possible for Poseidon to achieve the daily volume of seawater intake of 304 million gallons per day and, at the same time, maintain an intake velocity of no more than 0.5 feet per second as required by the Minimization Plan. In proceedings before the Regional Board, Poseidon responded to the comments of the Coastal Commission staff member by stating that the comments were factually inaccurate and by reaffirming that "Poseidon has consistently stated that it expects that when the desalination project operates in a stand[-]alone mode . . . , that the mean velocity of seawater at the bar rack intake . . . will be 0.5 feet per second." Further, an intake velocity of no more than 0.5 feet per second is a requirement of the Minimization Plan as adopted by the Regional Board.¹⁰ Therefore, the benefit provided by the reduced intake velocity as described in the Minimization Plan is a substantive measure that Poseidon is required to meet. (Cf.

¹⁰ The Minimization Plan provides that "the velocity of seawater entering the inlet channel is at or below 0.5 feet per second . . . , resulting in impingement losses at the inlet screens being reduced to an insignificant level."

Environmental Council of Sacramento v. City of Sacramento (2006) 142 Cal.App.4th 1018, 1042, fn. 5 [rejecting contention that agency did not rely on the best scientific information reasonably available, as required by statute, simply on the basis that agency staff members criticized a draft of the conservation plan at issue, and noting that "[v]ibrant internal debate and dissension throughout the environmental review process is healthy").¹¹

ii. *Variable Frequency Drives*

Surfrider next contends that the use of variable frequency drives on seawater intake pumps is an illusory measure. As we have explained, the variable frequency drives will minimize marine life intake and mortality by reducing the total intake flow for the desalination facility to no more than needed at any given time rather than continuing to use the intake flow that would have been provided had the EPS been operating.

Surfrider argues that the benefit of this measure is illusory because Poseidon cannot

¹¹ Surfrider also cites to an internal e-mail from a Regional Board staff member commenting on a draft of the Minimization Plan. According to those comments, the highest impingement occurs at rotating screens and not at the bar racks. The staff member therefore questioned the focus on reducing the intake velocity at the bar racks, as opposed to at the rotating screens. Based on these comments, Surfrider contends that the benefit of reducing intake velocity at the bar racks is "illusory." We disagree. The record fully supports a finding that an intake velocity of no more than 0.5 feet per second is scientifically recognized as preventing impingement because fish are able to swim away. Further, even if — as the staff member claimed — the majority of the impingement occurred at other screens in the facility, a benefit is still obtained by reducing the intake velocity at the bar racks. Significantly, too, the Minimization Plan does not ignore the seawater velocity at other screens. Instead, it specifically provides, by means of design, that the velocity and turbulence of seawater be lessened as it passes through the fine screens later in the intake stream.

quantify, in detail, the amount that intake and mortality of marine life will be reduced. We reject this argument. The inability to provide precise figures is due to uncertainty about how much seawater the desalination facility will be required to take in to supplement the cooling water discharge from the EPS. Even though the reduction in marine life intake and mortality cannot be precisely quantified because the amount of seawater needed to supplement the EPS's cooling water discharge is uncertain, there is no doubt that marine life intake and mortality will be reduced by the variable frequency pumps, and Surfrider does not contend otherwise.

iii. *Other Design and Technology Features*

In a footnote, Surfrider briefly takes issue with the remaining design and technology features of the desalination facility identified in the Minimization Plan. Surfrider's challenge to those measures is not well developed and requires only brief comment. First, Surfrider argues that the use of the EPS's cooling water discharge is an illusory measure because the EPS may eventually be shut down. This argument fails because it ignores that (1) a significant benefit will be obtained while the EPS remains in operation, and (2) the Minimization Plan only covers the scenario in which the EPS remains in operation, with a new review by the Regional Board to take place if the EPS permanently shuts down. Second, Surfrider contends that the elimination of heated water in the stand-alone operation of the desalination facility is an illusory measure "because Poseidon would not heat the water when it is bypassing the power plant, something that is

already part of the operation."¹² That argument is contrary to the facts set forth in the record. As the Minimization Plan makes clear, when the EPS is in operation, the intake facilities are periodically cleaned using heat treatment. If design modifications were not implemented, the same type of heated cleaning would be used when the desalination facility is using the intake facilities. However, here, the desalination facility has been specially designed to perform cleaning using plastic scrubbing balls, instead of heat, to avoid marine life mortality.

In sum, there is no factual support for Surfrider's contention that restoration of wetlands required by the MLMP was the only substantive measure that the Minimization Plan put in place to reduce the intake and mortality of marine life. Accordingly, we reject Surfrider's argument that the Regional Board improperly required Poseidon to restore wetlands *in lieu* of implementing site, design and technology measures to reduce the intake and mortality of marine life.¹³

¹² We note that the only citation to the record that Surfrider has provided in connection with this argument is a reference to the oral comments of its attorney during a hearing in the trial court.

¹³ Surfrider cites certain broad language appearing in the legislative history of section 13142.5(b), which refers to "'preservation of the California coast,'" the mandate to "'preserve and protect coastal resources,'" and being "'protective of significant coastal resources,'" to argue that it would be contrary to the Legislature's intent if mitigation measures were allowed to be adopted *in lieu of* site, design and technology measures to satisfy section 13142.5(b). We reject this argument on two grounds. First, as we have explained, the Minimization Plan does *not* adopt wetland restoration measures *in lieu of* other measures. Second, the comments about preserving coastal resources in the legislative history to which Surfrider refers are of such a broad and general nature that they have no real value in the more specific issue of statutory interpretation presented by

C. *The Regional Board Properly Included the Mitigation Measures as Described in the MLMP as Part of the Minimization Plan to Comply with Section 13142.5(b)*

Surfrider's next argument is that even if, as we have concluded, the Minimization Plan relies on a combination of site, design, technology and mitigation measures to reduce the intake and mortality of marine life, the mitigation referred to in section 13142.5(b) may not include after-the-fact restoration of wetlands. Surfrider argues that "[c]ompensatory restoration simply does not minimize intake and mortality of marine life and, therefore, fails to comply with the plain language of the law." According to Surfrider, the MLMP therefore should not have been included as part of the Minimization Plan adopted by the Regional Board.

Surfrider first makes several arguments based on the plain language of section 13142.5(b). In evaluating those arguments, we apply the principle that "[w]hen interpreting statutes, we begin with the plain, commonsense meaning of the language used by the Legislature. [Citation.] If the language is unambiguous, the plain meaning controls." (*Voices of the Wetlands, supra*, 52 Cal.4th at p. 519.)

Surfrider first points out that the statute requires "the best available site, design, technology, and mitigation measures . . . be used to minimize the *intake and mortality* of all forms of marine life." (§ 13142.5(b), italics added.) Relying on the phrase "intake and mortality," Surfrider contends that "[m]itigation measures that do not minimize 'intake' *and* 'mortality' do not satisfy Section 13142.5(b)." According to Surfrider,

Surfrider, as mitigation through the creation of wetland habitat is not necessarily contrary to the broad goal of preserving coastal resources.

although restoration of wetlands reduces the overall *mortality* of a marine life population by creating habitat, it does not serve to reduce the *intake* of marine life into the desalination facility. Therefore, according to Surfrider, the restoration of wetlands is not a proper type of mitigation under section 13142.5(b). We disagree.

The statutory language does not have the meaning that Surfrider ascribes to it. "[W]e must 'interpret a statute consistently with the meaning derived from its grammatical structure.'" (*Moore v. Hill* (2010) 188 Cal.App.4th 1267, 1281.) When the normal rules of grammar are applied, section 13142.5(b) simply does not state that a specific site, design, technology or mitigation measure may be used *only* if that specific measure serves *both* to reduce intake and to reduce mortality. The relevant portion of the statute is split into two clauses. The first clause describes the command of the statute, namely that "the best available site, design, technology, and mitigation measures feasible shall be used." (*Ibid.*) This clause refers to a *set* of measures, described in the plural, which *collectively* are comprised of site, design, technology and mitigation measures. The second clause explains the *purpose* for which that *set* of measures shall be used, namely "to minimize the intake and mortality of all forms of marine life." (*Ibid.*) Contrary to Surfrider's interpretation, the statute does not state that *each and every* measure must *individually* serve to minimize both intake *and* mortality of marine life. Instead, the plain meaning of the two clauses is that the *collective set* of measures, described in the first clause in the *plural*, must serve to reduce both intake and mortality. Thus, the meaning of the statute, based on its plain language, is that when taken *in combination*, the goal of reducing the intake and mortality of marine life must be

accomplished by adopting the best available and feasible site, design, technology and mitigation measures. If one such measure contributes only to reducing the intake of marine life *or* to reducing the mortality of marine life, that measure may still be used, in combination with other measures, to fulfill the statutory requirements.

Surfrider contends that it would "effectively delete 'intake' from the statute" if the statutory language is read to permit mitigation measures that reduce marine life mortality but do not reduce marine life intake. This argument lacks merit. As we interpret the statute, "intake" is still a very relevant concept, as all of the site, design, technology and mitigation measures, when taken *collectively*, should, if feasible, achieve a reduction in the intake *and* mortality of marine life.¹⁴

In a similar argument, Surfrider contends that "[t]he ordinary meaning of 'mitigation' supports a reading of the statute that does not encompass the use of compensatory measures. . . . Mitigation . . . involves reducing or limiting the CDP's intake and mortality of marine life, not 'compensat[ing] for' it." To support this argument, Surfrider relies on the dictionary definition of "mitigate" and "mitigation."

¹⁴ As Poseidon points out, the lack of common sense to Surfrider's proposed interpretation of the statute is demonstrated by another of the measures described in the Minimization Plan. Specifically, as we have described, marine life mortality is reduced in Scenario 2 by eliminating heat treatment of the seawater because elevated water temperatures can harm marine life. The implementation of this measure does not reduce the intake of marine life, but it does reduce marine life mortality. Under Surfrider's interpretation of the statute, such a measure would not be permitted because it does not reduce *both* intake *and* mortality.

In Webster's Third New International Dictionary (2002) at page 1447, "mitigation" is defined as "abatement or diminution of something painful, harsh, severe, afflictive, or calamitous."¹⁵ Based on this definition, the compensatory measure of creating additional marine life habitat in Southern California's coastal wetlands can be defined as mitigation. As we have explained, the statute calls for the implementation of mitigation and other measures that collectively reduce the mortality and intake of marine life. The most applicable definition of "mortality" is "the proportion of deaths to population or to a specific number of the population." (Webster's 3d New Internat. Dict., *supra*, p. 1472.)¹⁶ Increasing the population of marine life in an ecosystem by restoring wetlands habitat serves as "abatement or diminution of" the proportion of death to a population of the marine life because it increases the population. Accordingly, restoration of wetlands falls within the definition of mitigation as "abatement or diminution of something painful, harsh, severe, afflictive, or calamitous." (Webster's 3d New Internat. Dict., *supra*, p. 1447.) In this instance, it is marine life mortality that is abated or diminished.

Further, although this case is not controlled by the California Environmental Quality Act (Pub. Resources Code, § 21000 et seq.) (CEQA), the use of the word "mitigation" in that statutory scheme shows that a commonly used meaning includes

¹⁵ Surfrider cites to the Compact Edition of the Oxford English Dictionary, which contains a similar definition, according to which "mitigation" means, among other things, "alleviation of anything painful, oppressive, or calamitous."

¹⁶ Similarly, Poseidon cites Merriam-Webster's dictionary, which states that mortality is "the proportion of deaths to population."

compensatory measures to restore harm done to the environment.¹⁷ The regulations implementing CEQA define mitigation measures in the context of minimizing environmental impacts to include "[c]ompensating for the impact by replacing or providing substitute resources or environments" and "[r]ectifying the impact by repairing, rehabilitating, or restoring the impacted environment." (Cal. Code Regs., tit 14, § 15370, subds. (e), (c); see also, e.g., *Mira Mar Mobile Community v. City of Oceanside* (2004) 119 Cal.App.4th 477, 495 [under CEQA, mitigation required for project would include a total of 2.58 acres of mitigation by preserving, restoring and creating coastal sage scrub habitat to compensate for impacted habitat].)

Surfrider contends that we should look to the case law interpreting a portion of the federal Clean Water Act (33 U.S.C. §§ 1251-1387) to determine whether mitigation may properly include compensatory measures. The case law that Surfrider relies on interprets section 316(b) of the Clean Water Act (33 U.S.C. § 1326(b)), which provides that regulations governing the cooling water intake structures for power plants "shall require

¹⁷ The concept of mitigation is relevant in CEQA cases based on several statutory provisions, including that (1) "it is the policy of the state that public agencies should not approve projects as proposed if there are feasible alternatives or feasible mitigation measures available which would substantially lessen the significant environmental effects of such projects" (Pub. Resources Code, § 21002); and (2) "[e]ach public agency shall mitigate or avoid the significant effects on the environment of projects that it carries out or approves whenever it is feasible to do so." (*Id.*, § 21002.1, subd. (b).)

that the location, design, construction, and capacity of cooling water intake structures reflect the best technology available for minimizing adverse environmental impact."¹⁸

Surfrider cites *Riverkeeper, Inc. v. U.S. E.P.A.* (2d Cir. 2004) 358 F.3d 174, 190-192 (*Riverkeeper I*), which held that the federal Environmental Protection Agency exceeded its authority by promulgating a regulation that permitted compliance with section 316(b) of the Clean Water Act through marine life and habitat restoration measures such as restocking fish killed by a cooling water intake system with those bred in a hatchery or improving the habitat surrounding the intake structure. Focusing on the statutory language, which refers to "'location, design, construction, and capacity'" of the cooling structures, *Riverkeeper I* explained that restoration measures, "however beneficial to the environment, have nothing to do with the location, the design, the construction, or the capacity of cooling water intake structures, because they are unrelated to the structures themselves." (*Id.* at p. 189.) With regard to the statutory reference to "technology available for minimizing adverse environmental impact" (33 U.S.C. § 1326(b), *Riverkeeper I* held that "[r]estoration measures *correct* for the adverse

¹⁸ The parties agree that the Clean Water Act does not apply in this case because it does not concern the cooling water intake for a power plant. Nevertheless, Surfrider argues that case law interpreting the Clean Water Act is relevant to section 13142.5(b) because section 316(b) of the Clean Water Act is purportedly a "similar provision[]" and, in cases in which the Clean Water Act does apply, "California implements the [Clean Water Act] through the Porter-Cologne Act ([§] 13000 et seq.)," which includes section 13142.5(b). (*City of Arcadia v. State Water Resources Control Bd.* (2006) 135 Cal.App.4th 1392, 1405.)

environmental impacts of impingement and entrainment; they do not *minimize* those impacts in the first place." (*Id.* at p. 189, italics added.)

Later, in *Riverkeeper, Inc. v. U.S. E.P.A.* (2d Cir. 2007) 475 F.3d 83 (*Riverkeeper II*) the Second Circuit reaffirmed its conclusion in *Riverkeeper I* that "restoration measures contradict the unambiguous language of section 316(b)." (*Riverkeeper II*, at p. 110.) *Riverkeeper II* explained that "[r]estoration measures are not part of the location, design, construction, or capacity of cooling water intake structures, . . . and a rule permitting compliance with the statute through restoration measures allows facilities to avoid adopting *any* cooling water intake structure technology at all, in contravention of the Act's clear language as well as its technology-forcing principle." (*Ibid.*) *Riverkeeper II* also stated that the statute's reference to "technology available for minimizing" could not be read to include "compensati[on] . . . after the fact," because the dictionary definition of minimize was "to reduce to the smallest possible extent." (*Ibid.*)¹⁹

The case law analyzing section 316(b) of the Clean Water Act is inapplicable here because of crucial differences in the statutory language. As highlighted in *Riverkeeper I* and *Riverkeeper II*, section 316(b) of the Clean Water Act does not permit restoration measures to satisfy the requirement that "the location, design, construction, and capacity

¹⁹ In *Voices of the Wetlands, supra*, 52 Cal.4th at page 507, our Supreme Court declined to reach the issue addressed in *Riverkeeper I* and *Riverkeeper II* of whether compensatory mitigation and habitat restoration measures are excluded under section 316(b) of the Clean Water Act.

of cooling water intake structures reflect the best technology available for minimizing adverse environmental impact" (33 U.S.C. § 1326(b)) primarily because the statute — which is focused on technology measures — does not refer to "restoration" or any similar concept, but only to "location, design, construction, and capacity" of cooling water intake structures. (*Ibid.*) In contrast, section 13142.5(b) explicitly includes "mitigation" as one of the measures that must be implemented to reduce the mortality and intake of marine life. Thus, section 13142.5(b) includes an express provision permitting the implementation of mitigation measures — which as we have explained includes wetland restoration under its plain meaning — but section 316(b) of the Clean Water Act, in contrast, is quite different in that it makes no mention of mitigation, restoration or any similar concept.

In addition, by referring solely to "the location, design, construction, and capacity of cooling water intake structures," section 316(b) of the Clean Water Act specifically focuses *only* on the nature of the intake structures themselves, to the exclusion of other measures for limiting environmental harm. In contrast, section 13142.5(b) focuses on seawater intake systems to the extent it refers to measures that minimize the *intake* of marine life, but goes further by also focusing on measures unrelated to intake systems that more generally serve to minimize the mortality of marine life. This is a significant difference in the statutory language between section 316(b) of the Clean Water Act and section 13142.5(b), and accounts for the difference in whether restoration measures fall within the scope of the statute.

Further, we are not convinced by Surfrider's observation that section 13142.5(b) and section 316(b) of the Clean Water Act both refer to measures that "minimize" an impact. The Clean Water Act relies solely on *technological* measures to minimize an adverse environmental impact, while section 13142.5(b) more broadly relies on *mitigation* and other measures to minimize the impact on marine life mortality. Thus, although *Riverkeeper I* and *Riverkeeper II* conclude that the statutory reference to "minimiz[ing]" an environmental impact does not include the concept of after-the-fact compensation, those comments are inapposite here because they were made in a wholly different statutory context.²⁰

Surfrider argues that because some industrial installations, such as power plants, will be regulated both by section 316(b) of the Clean Water Act and by section 13142.5(b), it "would result in an inconsistent statutory scheme" to interpret one of the statutes to allow mitigation measures. Surfrider complains that "facilities that are

²⁰ Indeed, with regard to the Clean Water Act, we note (as did the trial court) that regulations promulgated under the Clean Water Act in a different context support the conclusion that the plain meaning of the term "mitigation" includes compensatory restoration of wetlands. The relevant regulations were promulgated to implement section 404 of the Clean Water Act, which concerns the issuance of permits for "discharge of dredged or fill material into the navigable waters" (33 U.S.C. § 1344(a)), including into certain wetland areas. (*Butte Environmental Council v. U.S. Army Corps of Engineers* (9th Cir. 2010) 620 F.3d 936, 940.) The regulations allow "compensatory mitigation" in the form of creation or restoration of wetlands to be considered when permit decisions are made concerning discharge into wetlands, as long as all appropriate and practicable steps have been taken to first avoid and then minimize adverse impacts to the aquatic ecosystem. (*Butte Environmental Council*, at p. 947 [citing "Compensatory Mitigation for Losses of Aquatic Resources" (73 Fed. Reg. 19,594, 19,594 (Apr. 10, 2008)).] These regulations, promulgated under the Clean Water Act, are further support that the plain meaning of the term "mitigation" may encompass environmental restoration.

regulated by both [s]ection 316(b) [of the Clean Water Act] and section 13142.5(b) would be subject to a higher standard than facilities regulated only by section 13142.5(b)." According to Surfrider, to avoid such inconsistency, we should interpret section 13142.5(b), like section 316(b) of the Clean Water Act, to exclude mitigation measures. We disagree. It is the role of Congress to determine whether the standards of the Clean Water Act should be applicable in specific situations. In this case, Congress chose not to regulate desalination facilities under the Clean Water Act, with the result that the California's own statutory standards are controlling, not the federal standards. It is not our role to reevaluate that legislative decision. In this case, we therefore apply the standards of the California statute, without attempting to harmonize the federal standards.

For all of these reasons, we find no merit in Surfrider's argument that the restoration of wetlands required by the MLMP was improperly included in the Minimization Plan as one of the measures to minimize the intake and mortality of marine life.

D. *Surfrider's Challenge to the Regional Board's Analysis Lacks Merit*

Surfrider's final contention is that, in several respects, the Regional Board used the wrong approach when considering whether the Minimization Plan complied with the requirement of section 13142.5(b) that "the best available site, design, technology, and mitigation measures feasible . . . be used to minimize the intake and mortality of all forms of marine life." (*Ibid.*) As Surfrider explains, it is "specifically challenging the legal sufficiency of the analytical framework adopted by the [Regional] Board in evaluating the proposed [desalination facility's] compliance with the Water Code."

The plain language of section 13142.5(b) requires that only *feasible* measures be implemented to minimize the intake and mortality of marine life. Surfrider's first argument is that in deciding whether other sites, designs or technologies were feasible for the desalination facility, the Regional Board improperly focused on "whether alternatives would meet Poseidon's and the City of Carlsbad's predetermined business goals for the project."²¹

As set forth in the Regional Board's May 13, 2009 order, the four fundamental project objectives set by Poseidon were "(1) to provide a local and reliable source of potable water not subject to variations of drought or political or legal constraints; (2) to reduce local dependence on imported water; (3) to provide water at or below the cost of imported water supplies; and (4) to meet the [desalination facility's] planned contribution of desalinated water as a component of satisfying regional water supply planning goals." In the course of describing the feasibility of certain alternative sites or technologies for

²¹ Surfrider also contends that in rejecting certain alternatives as infeasible, the Regional Board "improperly zeroed in on whether the proposed alternatives met the project objectives — without regard to the mandate of section 13142.5(b)." To the extent Surfrider is contending that the Regional Board should have factored in whether certain alternatives would minimize the intake and mortality of marine life when deciding whether those alternatives were "feasible," that argument is analytically flawed. Section 13142.5(b) requires that the best available site, design, technology, and mitigation measures be used to minimize the intake and mortality of all forms of marine life, but qualifies that provision by stating that those measures need be implemented only if "feasible." Therefore, the feasibility analysis regarding a certain measure is separate from — and precedes — the analysis of whether implementation of that measure, *if feasible*, will minimize the intake and mortality of marine life.

the desalination facility, the Minimization Plan refers to certain of these project objectives.²²

To evaluate Surfrider's argument, we begin with the applicable definition of "feasible." Although section 13142.5(b) refers to "feasible" measures to minimize intake and mortality, the Water Code does not provide a definition of that word. The Minimization Plan and the Regional Board's May 13, 2009 order chose to use the definition set forth in CEQA, under which "'[f]easible' means capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social, and technological factors." (Pub. Resources Code, § 21061.1.) Surfrider does not expressly reject the idea of borrowing CEQA's definition of feasibility in this context. Rather, it argues that "the fact that this definition of feasible permits the [Regional] Board to take into account 'economic' factors does not permit the [Regional] Board to give unequal weight to cost considerations." It contends that the Regional Board unduly focused on Poseidon's goal of "'provid[ing] water at or below the cost of imported water supplies.'" We disagree.

Under the case law applying CEQA's definition of feasibility, "[a]though a lead agency may not give a project's purpose an artificially narrow definition, a lead agency may structure its EIR alternative analysis around a reasonable definition of underlying purpose and need not study alternatives that cannot achieve that basic goal." (*In re*

²² For example, when discussing the feasibility of certain alternative sites or technologies for the desalination facility the Minimization Plan refers to Poseidon's goals of providing water at or below a certain cost and of supplying a certain volume of water.

Bay-Delta etc. (2008) 43 Cal.4th 1143, 1166.) According to our review of the record, the Regional Board fully complied with that approach. The identified purpose of providing water at or below the cost of imported water supplies is a sensible and reasonable project goal for a desalination facility, and is not unduly narrow.²³ Further, although the Regional Board, in adopting the Minimization Plan, placed *some* weight on Poseidon's economic goals when considering feasibility of various site and technology alternatives to the desalination facility, that consideration was only one of many, including to a great extent, consideration of the adverse environmental impact that would be present were alternative approaches selected. Therefore, we conclude that the Regional Board properly considered Poseidon's objectives, along with other factors, in analyzing whether certain alternatives were feasible.

Second, Surfrider contends that the Regional Board "completely relied on Poseidon's and other agencies' representations of whether alternatives were feasible rather

²³ Surfrider also contends that the Regional Board applied an unduly narrow definition of the project goals because it assumed that the desalination facility should be co-located with the EPS, and that the desalination facility should be able to produce 50 million gallons per day of water. The first point lacks merit because the Regional Board did not assume that the desalination facility should be co-located with the EPS. On the contrary, the Minimization Plan contains a lengthy discussion of whether alternative sites are feasible. Second, we reject Surfrider's contention that the Regional Board applied an unduly narrow definition of project objectives by accepting Poseidon's goal of producing 50 million gallons per day of desalinated water per day. That goal is reasonably developed to meet the goal of contributing desalinated water as a component to satisfy the regional water supply, and is not overstated, as statistics identified by the Regional Board show that an output of 50 million gallons per day would supply about 10 percent of the desalinated water needed in California by 2030, and roughly a third of the desalinated water needed to ensure a regional supply.

than conduct an independent analysis." We reject this argument because it is refuted by the text of the Minimization Plan and the Regional Board's May 13, 2009 order. Both of those documents contain extensive and detailed discussion about the feasibility of alternatives to the proposed site, design and technology of the desalination facility, and that analysis is set forth independently rather than relying on the analysis and conclusions of other agencies. In addition, the record contains extensive analysis by the Regional Board's own staff. The Regional Board adopted as findings the 236-page responsiveness summary prepared by its staff analyzing the Minimization Plan, and it conducted several public hearings on the Minimization Plan before approving it.²⁴

Third, in a related argument, Surfrider states that "the [Regional] Board's analysis was not independent because the analysis . . . generally follows CEQA findings made by the Coastal Commission and the City of Carlsbad. These findings led to the equating of the minimization of environmental impact with the minimization of intake and mortality."²⁵ As with the previous argument, this contention lacks merit because it is contrary to the text of the Minimization Plan and the Regional Board's May 13, 2009 order. Those documents clearly and specifically focus on the requirements of section

²⁴ Moreover, to the extent the Regional Board relied on the feasibility analysis performed by the City of Carlsbad under CEQA, such reliance would be proper because, as we have discussed, CEQA's definition of "feasible" may be applied in an analysis conducted under section 13142.5(b).

²⁵ Similarly, Surfrider contends that it was wrong for the Regional Board to rely in part on the City of Carlsbad's analysis in the [F]EIR, because "the [F]EIR does not review intake and mortality — it analyzes other environmental impacts."

13142.5(b) to minimize the intake and mortality of marine life, not the broader environmental impacts at issue in CEQA.

Fourth, Surfrider argues that the Regional Board "should have performed a quantitative analysis comparing the intake and mortality caused by each available site, design, technology, and mitigation measure." According to Surfrider, "[t]he only way to properly determine whether or not a particular balance of measures is the 'best' at minimizing intake and mortality of marine life is by comparative analysis to determine how much marine life will be saved by the adoption of each measure and then selecting the best." Surfrider points to no statutory language or other authority requiring a quantitative analysis, and we are aware of none. The analysis contained in the Minimization Plan and the Regional Board's May 13, 2009 order extensively evaluates both the feasibility of alternative measures and the benefits of the site, design, technology and mitigation measures that were adopted, based on all of the available data. The thorough analysis reflected in the record satisfies the requirements of section 13142.5(b).

Finally, Surfrider contends that in approving the Minimization Plan the Regional Board did not properly analyze the impact to marine life mortality if the desalination facility operated permanently in a stand-alone mode, i.e., Scenario 3. This contention fails because, as we have explained, the Regional Board's May 13, 2009 order expressly stated that in the event the EPS is permanently shut down, Poseidon will have to obtain a new NPDES permit for operation under those conditions and the Regional Board will consider the implementation of additional measures at that time. It was reasonable for the Regional Board to defer the decision about what measures to require as a condition of

operating the desalination facility in the future under Scenario 3, as that analysis will take place years in the future when new technology or designs may be available or environmental conditions may have changed. Requiring the Minimization Plan to address Scenario 3 at this point, prior to the development of new technology and without an understanding of future environmental conditions, would not further the goal of minimizing the intake and mortality of marine life.²⁶

DISPOSITION

The judgment is affirmed.

IRION, J.

WE CONCUR:

HUFFMAN, Acting P.J.

HALLER, J.

²⁶ Surfrider also asserts that the "EPS may also cease discharging seawater that could be used as source water, but continuing operating — effectively foreclosing review for years if not decades." If Surfrider means to suggest that the terms of the Regional Board's May 13, 2009 order might foreclose further review by the Regional Board in the event that new facilities are constructed at the EPS's site, but no units remain that produce cooling water discharge, we reject that reading of the May 13, 2009 order. The Regional Board stated that it would require Poseidon to obtain further review of its NPDES permit in the event the EPS permanently shuts down, creating a situation in which Poseidon "proposes to independently operate the existing EPS seawater intake and outfall for the benefit of [the desalination facility]." That statement plainly describes a situation in which all of the currently operating units at the EPS that produce cooling water discharge are permanently shut down.