

IN THE COURT OF APPEAL OF THE STATE OF CALIFORNIA

SECOND APPELLATE DISTRICT

DIVISION FIVE

CENTER FOR BIOLOGICAL
DIVERSITY et al.,

Plaintiffs and Respondents,

v.

CALIFORNIA DEPARTMENT OF FISH
AND GAME,

Defendant and Appellant;

THE NEWHALL LAND AND FARMING
COMPANY,

Real Party in Interest and Appellant.

B245131

(Super. Ct. No. BS131347)

APPEAL from a judgment of the Superior Court of Los Angeles County, Ann I. Jones, Judge. Reversed with directions.

Office of the General Counsel, Thomas R. Gibson, General Counsel and John H. Mattox, Senior Staff Counsel; Thomas Law Group, Tina A. Thomas, Ashle T. Crocker and Amy R. Higuera, for Defendant and Appellant California Department of Fish and Game.

Gatze Dillon & Balance, Mark J. Dillon and David P. Hubbard; Morrison & Foerster and Miriam A. Vogel; Nielsen Merksamer Parinello Gross & Leoni and Arthur

* Pursuant to California Rules of Court, rules 8.1100 and 8.1110 this opinion is certified for publication except for part IV(G).

G. Scotland; and Downey Brand and Patrick G. Mitchell, for Real Party in Interest and Appellant The Newhall Land and Farming Company.

John Buse and Adam Keats; Chatten-Brown and Carstens, Jan Chatten-Brown and Doug Carstens, for Plaintiffs and Respondents Center for Biological Diversity, Friends of the Sara Clara River, Santa Clarita Organization for Planning and the Environment, and California Native Plant Society.

Jason Weiner; Chatten-Brown and Carstens, Jan Chatten-Brown and Doug Carstens, for Plaintiffs and Respondents Wishtoyo Foundation/Ventura Coastkeeper.

I. INTRODUCTION

Defendant, California Department of Fish and Wildlife (the department), and real party in interest, The Newhall Land and Farming Company (the developer), appeal from a judgment granting a mandate petition. The judgment, entered October 15, 2012, was granted in favor of plaintiffs: Center for Biological Diversity; Friends of the Santa Clara River; Santa Clarita Organization for Planning the Environment; Wishtoyo Foundation/Ventura Coastkeeper; and California Native Plant Society. The litigation and appeal arise from the department's December 3, 2010: certification of the revised final environmental impact statement and impact report; approval of the Newhall Ranch Resource Management and Development Plan (resource management plan); the adoption of the Spineflower Conservation Plan (conservation plan) and Master Streambed Alteration Agreement (streambed alteration agreement); and issuance of two incidental take permits.

The environmental impact statement and report and other documents were jointly prepared by the department and the Army Corps of Engineers (the corps). For reasons we will explain, both federal and state environmental review were necessitated for the project. For clarity's sake, the environmental impact statement and report will be referred to as the environmental impact report as we are only reviewing the relevant state law issues.

For environmental impact report purposes, there are two components to the project. First, the environmental impact report assesses the effect of the resource management plan. The resource management plan includes the streambed alteration agreement. And the resource management plan necessarily resulted in the required issuance of two incidental take permits. Second, the environmental impact report evaluates the effects on the environment of the conservation plan. Both the resource management and conservation plans are stand-alone planning documents. We reverse.

II. FACTUAL MATTERS

A. Newhall Ranch Specific Plan (the specific plan)

On March 23, 1999, the County of Los Angeles Board of Supervisors (the county) specific plan: approved a final environmental impact report; adopted findings; approved a mitigation plan; and approved various aspects of the proposed development. For environmental review purposes, the project included a water reclamation plant. None of the issues relating to the water reclamation plant construction is pertinent to our discussion. The specific plan was challenged in Kern County Superior Court. (*United Water Conservation Dist. v. County of Los Angeles* (Super. Ct., Kern County, 2000, No. 239324RDR).) On August 1, 2000, Judge Roger W. Randall issued a writ of mandate. The county was ordered to void its certification of the final environmental impact report with respect to five different issues. In addition, the county was ordered to vacate the project approvals. In this regard, the county was directed to ensure consistency of the specific plan with broader general plan policies as they relate to natural resources and water supplies.

On May 27, 2003, the county approved the specific plan and an 85-page document entitled, “Additional [California Environmental Quality Act] Findings and Statement of Overriding Considerations Regarding The Newhall Ranch” The final additional findings and overriding considerations statement was necessitated by Judge Randall’s judgment. According to the May 27, 2003 findings: “As approved by the Board of Supervisors, the revised Specific Plan (May 2003) would include a broad range of residential, mixed-use and non-residential land uses within five villages. As revised by the Board of Supervisors, the Specific Plan allows for up to 21,308 dwelling units (including 423 second units), 629 acres of mixed-use development, 67 acres of commercial uses, 249 acres of business park land uses, 37 acres of visitor-serving uses, 1,014 acres of open space, including 181 acres of community parks and 833 acres in other open spaces, 5,157 acres in special management areas, 55 acres in 10 neighborhood

parks, 15-acre lake, public trail system, an 18-hole golf course, two fire stations, a public library, an electrical station, reservation of five elementary school sites, one junior high school site and one high school site, a 6.8 million gallon per day water reclamation plant and other associated community facilities. The build-out of the Specific Plan is projected to occur over approximately 25 to 30 years, depending upon economic and market conditions. Build-out of the Specific Plan would eventually result in an on-site resident population of 57,903 persons.” The specific plan contemplated the need for future federal, state and other governmental agency environmental review, permits, agreements and authorizations.

After the May 27, 2003 approval of the specific plan as amended, the county filed a return in the Kern County litigation. Judge Randall approved the county’s May 27, 2003 determination and discharged the August 1, 2000 writ of mandate. There was an appeal which resulted in a settlement. On April 1, 2004, the appeal was dismissed. Judge Randall had no further contact with any of the issues in this case. The remainder of our discussion focuses on decisions made by Los Angeles Superior Court Judge Ann I. Jones. For clarity’s sake, we refer to Judge Jones as the trial court.

B. The Approval Of The Final Environmental Impact Report

1. The specific plan and adjoining areas

The documents at issue resulted in environmental decisions affecting the specific plan and adjoining areas. According to the environmental impact report, the following is the project area: “The [project] area is located in a portion of the Santa Clara River Valley within northwestern Los Angeles County, between the city of Santa Clarita to the east and the Los Angeles County/Ventura County jurisdictional boundary line to the west. The Los Padres National Forest is located to the north of the [project] area, the Angeles National Forest is to the north and east, and the Santa Susana Mountains are to the south.” One of the documents promulgated as part of the environmental review and

approval process was the resource management plan. The boundary of the resource management plan includes the 11,999 acre specific plan site. Also, the resource management plan area includes the 1,517-acre Salt Creek conservation area in Ventura County. The Salt Creek conservation area adjoins the specific plan area and is southeast of the area to be developed. A component of the resource management plan is the conservation plan which we will discuss later in greater detail. The conservation plan's boundary encompasses two other planning areas. They are the Entrada and Valencia Commerce Center Planning Areas which are located to the east and northeast of the development area respectively. Thus, the environmental planning and certification process extends beyond the development and specific plan areas.

2. Environmental documents

a. agencies

The department's approval of the project is predicated on a series of interrelated documents described in the first paragraph of this opinion: the environmental impact report; the resource management plan; the conservation plan; the streambed alteration agreement; and the two incidental take permits. The documents resulted from a joint action of the project by the department and the corps as permitted by the Guidelines for Implementation of the California Environmental Quality Act. (Cal. Code Regs., tit. 14, § 15052¹.) The department is the lead agency under the California Environmental Quality Act. (Pub. Resources Code, § 21067²; Guidelines, §§ 15050-15051.) The corps is the lead agency under the National Environmental Policy Act. (40 C.F.R.

¹ Future references to the Guidelines are to Guidelines for Implementation of the California Environmental Quality Act. (Cal. Code of Regs., tit. 14, § 15000 et seq.)

² Unless otherwise noted, future statutory references are to the Public Resources Code.

§ 1501.5(a)(2) (2013); see *Save Our Ecosystems v. Clark* (9th Cir. 1984) 747 F.2d 1240, 1249.)

b. precertification and issuance events

As noted, the specific plan contemplated further environmental review. The initial process for preparation of the environmental impact report commenced on February 9, 2000. But the scoping process was held in abeyance pending the outcome of the Kern County litigation concerning the specific plan. The scoping process for the environmental impact report began on February 9, 2000, and ended on August 24, 2005. On July 19, 2005, the corps issued a notice of intent to prepare a draft environmental impact report. (70 Fed.Reg. 41380 (Jul. 19, 2005).) On July 25, 2005, the department issued a notice of preparation of a draft environmental impact report. The project was described in the preparation notice as: the streambed alteration agreement; incidental take permits; and the conservation plan. The department's July 25 draft environmental impact report preparation notice requested that any comments be sent no later than September 5, 2005. The final public scoping meeting was held on August 24, 2005. On April 27, 2009, the corps and the department released the draft environmental impact report. The 60-day public comment period concluded on June 26, 2009. The public comment period was then extended for another 60 days to August 25, 2009. On June 18, 2010, the department and the corps released the final environmental impact report. As required by federal, but not state law, an additional 45-day comment period was provided by the corps. The additional federally mandated comment period ended on August 3, 2010. The corps drafted responses to the comments. The department deferred certification until after the corps completed the additional comment period. On December 3, 2010, the department certified the environmental impact report.

c. environmental impact report and adoption of findings

The department and the corps jointly prepared the 5,828-page project level environmental impact report. For purposes of the California Environmental Quality Act, the project is defined as follows: “[T]his document will also function as a project-level [environmental impact report] for the proposed [resource management plan] and [conservation plan] project components. The [environmental impact report] identifies and discloses the proposed [project’s] significant environmental impacts and identifies feasible mitigation measures and project alternatives. [The department] has determined that certification of the [environmental impact report] in compliance with [the California Environmental Quality Act] is required before it may decide whether to issue the requested [streambed alteration agreement] and [incidental take permits] for the proposed [project] activities.” When finally certified, the project was defined as follows, “Newhall Ranch Resource Management and Development Plan (RMDP) and Spineflower Conservation Plan (SCP), and associated Master Streambed Alteration Agreement (No. 1600-2004-0016-RS) (MSAA) and Incidental Take Permits (ITPS) (Nos. 2081-2008-012-05 and 2081-2008-013-05).” In other words, the environmental impact report relates to general planning and conservation steps resulting from the county’s specific plan. Depending on economic conditions and the like, it is anticipated that within the specific plan area there will be several residential and commercial developments. The environmental impact report does not authorize any specific future construction and the like apart from that discussed in the resource management plan. Rather, the focus of the environmental impact report is on two steps in the pre-residential and commercial construction environmental planning--the resource management and conservation plans. Additionally, the environmental impact report was a necessary precondition to the issuance of the streambed alteration agreement and incidental take permits. And, as noted, the streambed alteration agreement and incidental take permits are part of the resource management plan.

The environmental impact report consists of: an executive summary and introduction; a project description; an account and comparison of project alternatives and cumulative impacts including irreversible changes; consideration of growth inducing and federal impacts; a evaluation of global climate change impacts; an environmental impact analysis of alternatives and mitigation; an examination of surface water hydrology and flood control; a discussion of geomorphology and riparian resources; an evaluation of issues related to water quality; an analysis of jurisdictional waters and streams; a discussion of traffic and noise; an assessment of questions involving visual, cultural, paleontological, agricultural, water and biological resources; a description of land use, parks, recreation, trails, hazards, hazardous materials, solid waste services and public safety services related issues; and an evaluation of socioeconomics and environmental justice. Finally, the revised final version of the environmental impact report identifies the preparers and agencies consulted and references cited.

The environmental impact report analyzes the developer's proposed project and seven alternatives. Chapter 5 of the environmental impact report details the department's consideration of seven different alternatives. Alternative No. 1 is the so-called no-action/no project option. Alternative No. 2 is the project as proposed in the draft environmental impact report. The final environmental impact report made changes to Alternative No. 2 from that discussed in the draft version. The project consists of this final version of Alternative No. 2. The changes reduced the significant environmental impacts of the project.

d. resource management plan

In order to comply with the county's specific plan, the resource management plan was developed. The resource management and development plan was prepared by Dudek, a Valencia, California environmental consulting firm. (Dudek is referred to in planning documents as "Dudek" and "Dudek and Associates." We will refer to the consultant utilizing its title in the document we are discussing.) Dated December 3,

2010, the 337-page resource management plan (some pages are blank) is described in the environmental impact report as a conservation, mitigation and permitting plan. The resource management plan will be used in the future to obtain federal and state permits. These permits will be used to implement infrastructure and other improvements required to facilitate future build-out of the county's specific plan.

e. conservation plan

The San Fernando Spineflower (*Chorizanthe parryi ssp. Fernandina*) (spineflower) is listed as an endangered species under the California Endangered Species Act (endangered species act). (Fish & G. Code, § 2050 et seq.) The 162-page December 3, 2010 conservation plan permanently expands the existing spineflower preserve system. The spineflower is identified as a candidate species under the federal Endangered Species Act of 1973. (16 U.S.C. § 1531 et seq.; Pub. L. No. 93-205 (Dec. 28, 1973) 87 Stat. 884.) The preserve system is designed to maximize long-term persistence of the spineflower.³

f. permitting and other actions

Also on December 3, 2010, four other actions were taken. The first action consisted of a “dredge and fill permit.” In order for the department to implement the management and development plan, it was necessary to secure a dredge and fill permit from the corps. Such a permit was mandated by title 33 United States Code section 1344(b), which is part of the Clean Water Act. (33 U.S.C. § 1251 et seq.) As part of the issuance of the dredge and fill permit, the corps and the department conducted joint environmental review. The second action consisted of the streambed alteration

³ For clarity's sake we will refer to our state's endangered species act as the “endangered species act.” We will refer to federal act as the “federal Endangered Species Act.”

agreement. The developer entered into the streambed alteration agreement with the department. (Fish & G. Code, §§ 1602-1603, 1605.)

A third action consisted of the issuance of two incidental take permits. (Fish & G. Code, §§ 86, 2080, 2081, subd. (b).) One permit is for the spineflower. A separate multispecies incidental take permit was issued for the: western yellow-billed cuckoo (*Coccyzus americanus occidentalis*); southwestern willow flycatcher (*Empidonax traillii extimus*); and least Bell's vireo (*Vireo bellii pusillus*). The developer's request for an incidental take permit in connection with six species not listed in the endangered species act was denied. Fourth, a Mitigation and Monitoring and Reporting Program (mitigation program) was established for the streambed alteration agreement and the two incidental take permits. The mitigation program is to be used by the department to track compliance with the mitigation requirements. (§ 21081, subd. (a)(1); Guidelines, § 15097.)

g. findings

Also, on December 3, 2010, the department issued its 213-page California Environmental Quality Act factual findings and overriding considerations statement in connection with: the streambed alteration agreement; the incidental take permits; and the conservation plan. And the department issued its 43-page factual findings as required by title 14 California Code of Regulations section 783.5, subdivision (d)(2)(B)(5) for the incidental take permits for the: spineflower; Western yellow-billed cuckoo; Southwestern willow flycatcher; and Least Bell's vireo.

III. POST-CERTIFICATION EVENTS

On January 3, 2011, plaintiffs filed their Code of Civil Procedure sections 1085 and 1094.5 mandate petition. The mandate petition challenges the: certification of the project's environmental impact report; conservation plan; streambed alteration

agreement; and issuance of two incidental take permits. The first cause of action challenges the department's certification of the environmental impact report. The first cause of action also alleges the environmental impact report fails to comply with statutory and regulatory requirements in 10 respects: the description of the project and the affected environment; water quality; biological resources; greenhouse gas emissions; cultural resources; air quality; traffic; punitive impacts; alternatives; and inadequate response to public comments.

The second cause of action alleges a failure to recirculate the draft environmental report requires the certification be set aside. After the draft environmental impact report was prepared, comments were submitted to the department which provided significant new information within the meaning of section 21092.1 and Guidelines section 15088.5. The comments described project impacts relating to biological and cultural resources and greenhouse gas emissions. Despite the development of significant new information on the severity of the project impacts, the department failed to recirculate any portion of the draft environmental impact report. As a result, the petition alleges the failure to recirculate the draft environmental impact report is not supported by substantial evidence and its approval must be set aside.

The third cause of action challenges the spineflower and multi-species incidental take permits. According to plaintiffs, the department's determinations concerning the spineflower and multi-species incidental take permits are not based upon the best reasonably available scientific and other information. The mandate petition alleges the issuance of the incidental take permits was an abrogation of the department's affirmative duty to protect public trust resources.

The fourth cause of action, filed pursuant to Code of Civil Procedure section 1085, alleges the department's findings are not supported by substantial evidence. The defective findings are required by applicable environmental laws including the endangered species and California Environmental Quality Acts. According to the mandate petition, substantial evidence did not support the department's findings in connection with: significant environmental impacts; the overriding considerations

statement; feasible alternatives or mitigation measures; whether environmentally superior alternatives were infeasible due to costs; the damage done to the spineflower species; the continued existence and take of other species including the Southwestern willow flycatcher, and the Least Bell's Vireo and Yellow-billed Cuckoo; and the incidental take permits.

The fifth cause of action challenges the issuance of the streambed alteration agreement. No issue has been raised on appeal concerning the propriety of the streambed alteration agreement. The sixth cause of action alleges a violation of Fish and Game Code section 5515. Fish and Game Code section 5515 provides, except in limited exceptions, that "fully protected fish or parts thereof" may not be taken or possessed under any circumstances. The department's project authorization will result in the prohibited take of the Unarmored Threespine Stickleback (stickleback). This would result from: the direct destruction of its habitat; localized alterations in streamflow; other hydrological and fluvial geomorphological changes; and facilitation of hybridization of other stickleback species that could result in the extinction of the native population.

On September 20, 2012, the hearing was held on plaintiff's mandate petition. At the conclusion of the hearing, the trial court issued its tentative statement of decision. We need not detail the contents of the tentative statement of decision. The trial court's final statement of decision materially modified the September 20, 2012 document. On October 11, 2012, the department and the developer filed objections to the tentative statement of decision.

On October 15, 2012, the trial court's final statement of decision was filed. In its final statement of decision, the trial court ruled that the department abused its discretion in six aspects: First, the trial court ruled that environmental impact report failed to adequately discuss the impact of dissolved copper discharged from the project area on steelhead smolt. The trial court ruled, "The [environmental impact report] fails to consider . . . whether the dissolved copper discharged from the [p]roject [a]rea . . . would adversely affect restored habitat for endangered steelhead smolt." Second, the trial court ruled the department's analysis of the spineflower mitigation measures was legally

impermissible. And, in a related vein, the trial court ruled there was no substantial evidence the mitigation matters were adequate. Third, the trial court ruled the environmental impact report's selection of a baseline for assessing the cumulative impacts of the project's greenhouse gas emissions was, as a matter of law, inappropriate. In addition, the trial court ruled that certain aspects of the department's baseline analysis in the environmental impact report were not supported by substantial evidence. Fourth, the trial court ruled that the environmental impact report's assessment of the project's impact on Native-American cultural resources was not supported by substantial evidence. Fifth, the trial court ruled the department failed to prevent the taking of the stickleback, a fully protected fish under Fish and Game Code section 5515, subdivision (a)(1). Sixth, the trial court ruled the department unduly relied upon the specific plan and failed to conduct an independent review of project impacts. The trial court rejected all of plaintiffs' other numerous contentions.

On October 15, 2012, judgment was entered in plaintiffs' favor. The judgment ordered the department to set aside the approvals of the: resource management plan; conservation plan; incidental take permits; and streambed alteration agreement. Further, the department was ordered to set aside its certification of the final environment impact report. Finally, the department was ordered to set aside its findings, overriding interests statement and mitigation program. As noted, the findings, overriding interests statement and mitigation program related to the: resource management plan; spineflower conservation plan; incidental take permits; and streambed alteration agreement. Further, pursuant to section 21168.9, subdivision (a)(2), the department and the developer are enjoined from implementing any of the activities specified in the: resource development and spineflower conservation plans; incidental take permits; and streambed alteration agreement. The injunction expires once the department certifies an environmental impact report that complies with the deficiencies identified in the statement of decision. The peremptory writ of mandate, filed on October 15, 2012, paralleled the requirements imposed by the judgment.

On November 13, 2012, the developer filed its notice of appeal. On November 20, 2012, the department filed its notice of appeal. On November 21, 2012, the department filed an amended notice of appeal. All appeals have been considered together.

IV. DISCUSSION

A. Standards Of Review For Environmental Impact Report Issues

An environmental impact report's fundamental purpose is to inform public officials and the people they serve of any significant adverse effects a project is likely to have on the environment. (§ 21061; *Neighbors for Smart Rail v. Exposition Metro Line Const. Authority* (2013) 57 Cal.4th 439, 447; *Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova* (2007) 40 Cal.4th 412, 428.) Reviewing courts presume the correctness of an agency's decisions in the environmental impact report context. (*San Diego Citizenry Group v. County of San Diego* (2013) 219 Cal.App.4th 1, 11; *State Water Resources Control Board Cases* (2006) 136 Cal.App.4th 674, 723.) Our Supreme Court has described the limited nature of judicial review: "In reviewing agency actions under [the California Environmental Quality Act], . . . section 21168.5 provides that a court's inquiry 'shall extend only to whether there was a prejudicial abuse of discretion. Abuse of discretion is established if the agency has not proceeded in a manner required by law or if the determination or decision is not supported by substantial evidence.'" (*Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal.3d 553, 564; see *Mount Shasta Bioregional Ecology Center v. County of Siskiyou* (2012) 210 Cal.App.4th 184, 195.)

Thus, our standard of review depends upon the nature of the challenge to an environmental impact report. Our Supreme Court explained this dichotomy: "In evaluating an [environmental impact report] for [California Environmental Quality Act] compliance, then, a reviewing court must adjust its scrutiny to the nature of the alleged defect, depending on whether the claim is predominantly one of improper procedure or a

dispute over the facts. For example, where an agency failed to require an applicant to provide certain information mandated by [the California Environmental Quality Act] and to include that information in its environmental analysis, we held the agency ‘failed to proceed in the manner prescribed by [the California Environmental Quality Act].’ (*Sierra Club v. State Bd. of Forestry* (1994) 7 Cal.4th 1215, 1236; see also *Santiago County Water Dist. v. County of Orange* [(1981)] 118 Cal.App.3d [818], 829 [[environmental impact report] legally inadequate because of lack of water supply and facilities analysis].) In contrast, in a factual dispute over ‘whether adverse effects have been mitigated or could be better mitigated’ (*Laurel Heights Improvement Assn. v. Regents of University of California* (1988) 47 Cal.3d [376,] 393), the agency’s conclusion would be reviewed only for substantial evidence.” (*Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova* (2007) 40 Cal.4th 412, 435.)

In terms of the correctness of the department’s environmental conclusions, our Supreme Court has explained: “Thus, the reviewing court ““does not pass upon the correctness of the [environmental impact report’s] environmental conclusions, but only upon its sufficiency as an informative document.”” [Citations.] We may not set aside an agency’s approval of an [environmental impact report] on the ground that an opposite conclusion would have been equally or more reasonable.” (*Citizens of Goleta Valley v. Board of Supervisors, supra*, 52 Cal.3d at p. 564, quoting *Laurel Heights Improvement Assn. v. Regents of University of California, supra*, 47 Cal.3d at p. 392 and *County of Inyo v. City of Los Angeles* (1977) 71 Cal.App.3d 185, 189.) Thus, we defer to an agency’s resolution of conflicting opinions and evidence. (*Western States Petroleum Assn. v. Superior Court* (1995) 9 Cal.4th 559, 572; accord *Environmental Council of Sacramento v. City of Sacramento* (2006) 142 Cal.App.4th 1018, 1042.) Virtually every contention (with exceptions we shall discuss) posited by plaintiffs contravene the foregoing standard of review for an environmental conclusion. With little exception, plaintiffs’ analysis requires reweighing of conflicting opinions and evidence.

Our standard of review is the same as that of the trial court. We do not review the trial court’s decision; rather, we examine the department’s adherence to the law and

environmental conclusions as specified above. (*Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova*, *supra*, 40 Cal.4th at pp. 426-427; *Melom v. City of Madera* (2010) 183 Cal.App.4th 41, 47-48.) We will refer to the trial court’s analysis because it serves as the basis for much of the parties’ analysis. However, with one exception (the admissibility of a post-environmental impact statement certification document), we are not reviewing the trial court’s decision but the agency’s determinations.

B. Stickleback Take Issues And The Endangered Species Act

1. Stickleback

The stickleback’s presence in the resource management plan’s area was described in a report prepared by Entrix, Inc., one of the developer’s environmental consultants. The Entrix, Inc. “Special Status Aquatic Species Habitat Assessment for the Santa Clara River” describes the stickleback presence in the resource management plan area in part thusly: “Populations of [stickleback] are restricted to three sections of the upper Santa Clara River including the Newhall Ranch reach, which represents the downstream demarcation of the [stickleback] species. . . . The [stickleback] is a small, largely annual fish that requires shallow, slow, marginal stream flows with abundant aquatic vegetation for cover. The male guards territories and builds a small nest of decaying vegetation where he guards the eggs until they hatch. Large numbers of stickleback can exist in the summer and fall with the long breeding season in southern California, and breeding can be almost all year in dry years when a stream is minimally disrupted by storm flows. Under optimum conditions, up to a few hundred stickleback can exist within approximately [10] meters of stream. Strong storm flows can severely reduced localized populations until the streams stabilize in spring and the numbers can build up again. Backwater habitats within the Santa Clara River are utilized by [stickleback] as refugia during storm events.” According to an Entrix, Inc. study, in the resource management

plan area, the stickleback is abundant. The stickleback's population is dependent on interannual hydrological conditions which includes the frequency and intensity of flood events.

Dr. Camm Swift, a biologist whose qualifications we will relate shortly, reported that in occasional dry years when no peak storms occur, reproduction occurs virtually year-round. But generally, the greatest numbers of stickleback are present from around mid-summer to late fall. This occurs because reproduction has increased the number of juvenile as well as adult stickleback. These large numbers are usually decimated by peak storm flows generally beginning in late November. In other words, in normal or heavy rainfall years, the stickleback population is typically at its nadir in late fall and winter.

A United States Forest and Wildlife Service (federal wildlife service) summary describes the stickleback as a small scale freshwater fish inhabiting slow-moving reaches or quiet-water micro-habitats of streams and rivers. The stickleback primarily feed on insects, small crustaceans and snails. To a lesser degree, the stickleback feed on nematodes, flatworms and terrestrial insects.

2. Development related activities

The resource management plan contemplates bridge, road and other construction as a precursor to future development: "The [resource management plan] consists of development-related infrastructure improvements in or adjacent to the Santa Clara River and tributaries located in the [resource management plan] area to implement the County-approved Specific Plan. The [resource management plan] infrastructure components are comprised of bridges/road crossing culverts, bank stabilization, drainage facilities, water quality control facilities, tributary drainage modification and conversion, utility corridor and crossings, temporary haul routes for grading equipment, the discharge outfall of the previously-approved Newhall Ranch Water Reclamation Plant, roadway improvements to [State Route]-126, and recreation facilities." The resource management plan contemplates that two bridges will be constructed.

3. Mandatory mitigation requirements designed to insure no stickleback take occurs

We turn now to the mitigation measures imposed on the developer. The mitigation measures are attached to the department's factual findings of fact and are discussed in the environmental impact report. The mitigation measures relate to the biological resources discussion in the environmental impact report. Therefore, the mitigation measures are identified by the letters "BIO" followed by a number. We describe them in great detail.

BIO-43 sets forth requirements for preconstruction surveys by qualified biologists: "Prior to initiating construction for the installation of bridges, storm drain outlets, utility lines, bank protection, trails, and/or other construction activities that result in any disturbance to the banks or wetted channel, aquatic habitats within construction sites and access roads, as well as all aquatic habitats within 300 feet of construction sites and access roads, shall be surveyed by a qualified biologist for the presence of . . . stickleback. . . . The [c]orps and [the department] shall be notified at least 14 days prior to the survey and shall have the option of attending. The biologist shall file a written report of the survey with both agencies within 14 days of the survey and no later than 10 days prior to any construction work in the riverbed. If there is evidence that fish spawn has occurred in the survey area, then surveys shall cease unless otherwise authorized by [the federal wildlife service]. If surveys determine that gravid fish are present, that spawning has recently occurred, or that juvenile fish are present in the proposed construction areas, all activities within aquatic habitat will be suspended. Construction within aquatic habitats shall only occur when it is determined that juvenile fish are not present within the [project] area." In addition, BIO-43 imposes mitigation measure monitoring requirements. The fish surveys must be completed prior to construction and documented in a written report. The department must be notified at least 14 days prior to the survey. The survey report is to be filed with the department within 14 days of the survey. At the latest, the biologist's report must be delivered to the department no sooner than 10 days prior to construction.

BIO-44 requires the developer to prepare a “Stream Crossing and Diversion Plan” to protect stickleback during construction. BIO-44 imposes the following requirements: “Temporary bridges, culvert crossings, or other feasible methods of providing access across the river shall be constructed outside of the winter season and not during periods when spawning is occurring. Prior to the construction of any temporary or permanent crossing of the Santa Clara River, the applicant shall develop a Stream Crossing and Diversion Plan. The plan shall include the following elements: the timing and methods for pre-construction aquatic species surveys; a detailed description of the diversion methods (*e.g.*, berms shall be constructed of on-site alluvium materials of low silt content, inflatable dams, sand bags, or other approved materials); special-status species relocation; fish exclusion techniques, including the use of block netting and fish relocation; methods to maintain fish passage during construction; channel habitat enhancement, including the placement of vegetation, rocks, and boulders to produce riffle habitat; fish stranding surveys; and techniques for the removal of crossings prior to winter storm flows. The Plan shall be submitted to the [federal wildlife service] and [the department] for approval at least 30 days prior to implementation.”

BIO-44 further requires that if stickleback are present and spawning has not occurred, they are to be relocated prior to streambed diversion or any crossing of the stream. To prevent stickleback from entering construction areas, block nets of 1/8 inch “woven mesh” are to be set up both up and down stream. In terms of high temperature or low humidity conditions, BIO-44 imposes additional requirements. “On days with possible high temperature or low humidity (temperatures in excess of 80 [degrees] F), work will be done in the early morning hours, as soon as sufficient light is available, to avoid exposing fishes to high temperatures and/or low humidity. If high temperatures are present, the fishes will be herded to downstream areas past the block net. Once the fishes have been excluded by herding, a [federal wildlife service] staff member or his or her agents shall inspect the site for remaining or stranded fish. A [federal wildlife service] staff member or his or her agents shall relocate the fish to suitable habitat outside the [project] area (including those areas potentially subject to high turbidity). During the

diversion/relocation of fishes, the [federal wildlife service] or his or her agents shall be present at all times.”

BIO-44, as in the case of other mitigation measures, is subject to specified monitoring requirements. The Stream Crossing and Diversion Plan must be prepared and submitted to the federal wildlife service and the department. Any follow-up procedures are to be conducted prior to the commencement of construction. The crossing and diversion plan must be submitted to the department at least 30 days prior to implementation.

BIO-45, the lengthiest and most comprehensive of the mitigation measures, identifies standards for stream diversion bypass channels. The diversion bypass channels are to be constructed in compliance with BIO-44. BIO-45 states: “The diversion channel shall be of a width and depth comparable to the natural river channel. . . . [T]he bypass channel will be constructed prior to diverting the stream, beginning in the downstream area and continuing in the upstream direction. Where feasible and in consultation with [the department/federal wildlife service], the configuration of the diversion channel will be curved (sinuous) with multiple sets of obstructions (i.e., boulders, large logs, or other [department/federal wildlife service]-approved materials) placed in the channel at the point of each curve (i.e., on alternating sides of the channel.) If emergent aquatic vegetation is present in the original channel, the applicant will transplant suitable vegetation into the diversion channel and on the banks prior to or at the time of the water diversion. A qualified restoration ecologist will supervise the construction of the diversion channels on site. The integrity of the channel and diversion shall be maintained throughout the intended diversion period. Channel bank or barrier construction shall be adequate to prevent seepage into or from the work area.” No construction of diversion channels is to commence if surveys indicate that: gravid fish are present; spawning has recently occurred; or juvenile fish are present in the construction areas.

Once the need for diversion has concluded, either at the commencement of winter or completion of construction, BIO-45 imposes additional requirements on the developer. Under those circumstances, the developer is required to coordinate with the department

and the federal wildlife service to determine if the diversion should be left in place. In the alternative, the developer, the department and the federal wildlife service may conclude that the original stream course should be reinstated. If the original stream course is to be reinstated, BIO-45 requires the following: “If [the department/federal wildlife service] determine the stream should be diverted to the original channel, the original channel will be modified prior to re-diversion (*i.e.*, while dry) to construct curves (sinuosity) into that channel, including the placement of obstructions (*i.e.*, boulders, large logs, or other [department/federal wildlife service]-approved materials). The original channel will be replanted with emergent vegetation as the diversion channel was planted.”

BIO-45 also imposes dewatering requirements. Many of the dewatering requirements do not relate to the stickleback or other fish. However, in terms of fish, which includes the stickleback, BIO-45 states: “Fish shall be excluded from any artificial flowing channels from dewatering discharge. Methods to ensure separation may include, but are not limited to: block netting at the confluence; creation of a physical drop greater than four inches at the confluence; or maintaining a velocity range unsuitable for fish passage, such as a berm at the confluence with small diameter pipes for discharge.”

All dewatering and diversion activities are to fully comply with BIO-45 throughout the entire construction period. All diversion channels are to be approved by the department and the federal wildlife service prior to construction. In addition, all proposed channels that are to be in existence at the conclusion of construction activities are subject to approval by the department and the federal wildlife service. BIO-45 contains monitoring requirements. Field monitoring is to be conducted daily by a qualified restoration ecologist. And the developer is required to submit reports annually by April 1 to the department until all success criteria have been met.

BIO-46 imposes requirements for a biologist to be present during any stream diversion or culvert installation activity. BIO-46 states: “During any stream diversion or culvert installation activity, a qualified biologist(s) shall be present and shall patrol the areas within, upstream and downstream of the work area. The biologists shall inspect the

diversion and inspect for stranded fish or other aquatic organisms. Under no circumstances shall the . . . stickleback be collected or relocated, unless [federal wildlife service] personnel or their agents implement this measure. Any event involving stranded fish shall be recorded and reported to [the department] and [the federal wildlife service] within 24 hours.” BIO-46 contains its own mitigation measure monitoring requirements. There are to be follow-up procedures conducted during the construction period. The department is to receive reports from the developer annually by April 1.

BIO-47 imposes requirements on the developer in connection with stream alterations: “Slow moving water habitats shall be constructed upstream and downstream of any river crossing or bridge construction area to provide refuge for special-status fishes during construction. Where feasible and in consultation with [the department] and [the federal wildlife service], the applicant shall enhance slow moving water habitats for each linear foot disturbed by hand-excavating shallow side channels and placing multiple sets of obstructions (*e.g.*, boulders, large logs, or other [department] and [federal wildlife service]-approved materials) in the channel.” The mitigation measure monitoring requirements for BIO-47 are: required habitat areas are to be in place prior to the commencement of stream crossings or bridge construction; field inspections are to occur prior to beginning construction operations; the department must approve all preconstruction materials; the developer must consult with the department and the federal wildlife service when enhancing slow-moving water habitats; and the developer must submit reports to the department annually by April 1 until success criteria are met.

Finally, BIO-48 states: “Installation of bridges, culverts, or other structures shall not impair the movement of fish and aquatic life. Bottoms of temporary culverts shall be placed at or below channel grade. Bottoms of permanent culverts shall be placed below channel grade. Culvert crossing shall include provisions for a low flow channel where velocities are less than two feet per second to allow fish passage.” The BIO-48 mitigation measure monitoring requirements are: the “[g]rading/construction plans” are to implement the specified drainage design measures; drainage plans are to be reviewed prior to the start of construction; the drainage plans are to be provided in conjunction

with the construction notification to the department and the corps; and reports are to be provided to the department annually by April 1.

4. Findings concerning the stickleback and the endangered species act

a. environmental impact report findings

The environmental impact report makes various findings concerning the effect of the construction related activities. As a general matter, the environmental impact report specifies that there would be direct and indirect impacts on special status species such as the stickleback. The environmental impact report specifies that there will be temporary impacts resulting from implementation of the resource management plan. The environmental impact report states: “Although no substantial permanent impacts to . . . stickleback habitat would occur through implementation of the [resource management plan], the [project] would temporarily affect habitat when construction occurs directly in aquatic habitat, such as the active stream channel. Bridge construction, in particular, could directly affect aquatic habitat occupied by . . . stickleback through direct impacts to the flowing stream, stream diversion, and dewatering when construction is occurring within the [Santa Clara] River corridor. Direct impacts from temporary construction would be significant absent mitigation primarily due to permanent and temporary disturbance to aquatic habitat from construction of [resource management plan] facilities within the Santa Clara River.” At another point in the environmental impact report, the department relates the following anticipated activities will cause direct but temporary impacts on the stickleback during construction: stream diversion; species exclusion; unauthorized entry of equipment into ponded or flowing waters; placement of fill in occupied waters; dewatering activities; discharge of pollutants; and unauthorized entry of personnel into occupied waters. These activities, according to the environmental impact report, can result in the following impacts: inadvertently directing fish to unsuitable habitats; blocking fish passage; stranding stickleback in unsuitable water

quality conditions; crushing or entombment of stickleback; unauthorized collection of stickleback; or physical disturbance of river edge habitats. In terms of short term construction related impacts, the environmental impact report identifies hydrologic and water quality effects. According to the environmental impact report, *absent mitigation*, these construction related direct and temporary impacts to individual stickleback would be significant.

The environmental impact report identifies other impacts on the stickleback as significant absent mitigation: alterations in base flows; timing and duration of flood flows; biochemical changes; condition and composition of the substrate; aquatic and riparian vegetation (including exotic species); water temperatures; increased pollutants from irrigation runoff; increased runoff from roadways; the effects of increased human presence; and increased predation by exotic predators, such as bullfrogs and non-native fish. Finally, the environmental impact report considers the potentiality of downstream stickleback outside the project area moving upstream. The department's concern is that this could lead to genetic introgression. However, given the unlikely prospect of such occurring, the department categorizes this risk as less than significant. In terms of permanent post-construction impacts on the stickleback, the developer's consultant, Entrix, Inc., concluded there would be less than significant or no impacts as result of the bridge construction.

We turn now to the construction issue raised in a comment and the department's and the corps' responses thereto. The comment and the department's and the corps' responses directly relate to the issue of whether a take of the stickleback is expected to occur. During the comment period, the department and the corps received an August 8, 2010 letter from Dr. Jonathan N. Baskin. Dr. Baskin is a Professor Emeritus of Biological Sciences at California State Polytechnic University, Pomona. Much of Dr. Baskin's letter comments on inadequacy of the discussion concerning impacts from the bridge construction portions of the project. In the middle of his letter Dr. Baskin's notes: "Also, it is clear that there will be a large amount of construction in the river channel,

which will require impacts to the flowing water that could contain the [stickleback]. How will this be implemented without ‘take’ of the [stickleback]?”

The staff of the department and the corps clearly understood Dr. Baskin was raising the issue of whether a take within the meaning of Fish and Game Code section 86 will occur. The responses of the department and the corps to the comments directly address Dr. Baskin’s concerns. The department and the corps note the potential adverse impacts on the stickleback. The department and the corps jointly conclude the implementation of the mitigation measures discussed above will “avoid take” of the stickleback. Later in their responses to Dr. Baskin’s letter, the department and the corps explain: “Note that these mitigation measures were designed with input and direction from [Dr. Swift]. Based on the [environmental impact statement/environmental impact report] analysis presented, with implementation of the applicable mitigation measures, there is a high degree of confidence that the proposed [project] and alternatives would not cause a take of [the stickleback].” We will discuss Dr. Swift’s analysis in greater detail shortly.

b. incidental take permit findings

As noted, the department issued two incidental take permits. The department made factual findings under the endangered species act in connection with the spineflower and multispecies incidental take permits. Those factual findings also refer to other endangered species including the stickleback. The department expressly bars any taking of any other endangered species in the findings as well as the streambed alteration agreement. In the incidental take findings, the department found: “The Spineflower [incidental take permit] and Multi-species [incidental take permit] do not authorize the take of any fully protected species. (See Fish & G. Code §§ 3511, 4700, 5050, 5515.) [The department] has advised [the developer] of the requirement to avoid take of fully protected species and believes that [the developer] can carry out Covered Activities pursuant to the Spineflower [incidental take permit] and Multi-species [incidental take

permit] in a manner consistent with the Fish and Game Code provisions governing fully protected species. [The department's] determination regarding consistency with Fish and Game Code provisions governing fully protected species is based on [the department's] preparation and certification of the [final environmental impact statement/environmental impact report], which considered the environmental effects related to the issuance of the Spineflower [incidental take permit] and Multi-species [incidental take permit] and recommended avoidance, minimization and mitigation measures related to fully protected species documented to occur within the vicinity of the [project] area or that have some potential to occur due to the presence of suitable habitat. These fully protected species include . . . the [stickleback].”

In the next paragraph of its factual findings, the department explains the federal wildlife service may be issuing an opinion which may authorize a take of the stickleback. In that regard, the department notes that the federal wildlife service may conclude there is possibility of a take of the stickleback under the federal Endangered Species Act. Nonetheless, the department concluded the project could be completed in a manner consistent with the Fish and Game Code provisions governing the take of fully protected species such as the stickleback.⁴

⁴ The full finding is as follows: “There are a few species that are fully protected under the Fish and Game Code and that are also listed species under the Federal [Endangered Species Act]. For federally-listed species on the [project] site, the [c]orps and [the developer] have requested a biological opinion from the [federal wildlife service], which, when issued, may or may not include take authorization for federally listed species, including [stickleback] and California condor. It is possible the [federal wildlife service] may conclude in an abundance of caution that there is some potential for federally-defined ‘take’ of these species. (See 50 C.F.R. § 17.3 (‘harm’ component of take definition can include habitat modification under certain circumstances).) However, whether or not the [federal wildlife service] takes such a conservative approach consistent with the federal definition of ‘take,’ based on the analysis set forth in the [environmental impact statement/environmental impact report], and as discussed above, [the department] finds that the [project] can be carried out in a manner consistent with the Fish and Game Code provisions governing fully protected species.”

5. Evidence re: take

The department's conclusion that no take of the stickleback would occur was based upon multiple scientific studies. The department relied upon 10 different reports which extensively discuss: the status of the stickleback between 1989 and 2010; the location of the stickleback in relation to portions of the Santa Clara River; the habitat of the stickleback in the Santa Clara River area; and the characteristics of Santa Clara River flows including after recent and future projected flooding. The studies indicate there are times and places in the project area where stickleback are absent or rarely observed in the Santa Clara River in the resource management plan area. After the 2005 flooding, the stickleback were not observed in the Santa Clara River at all in the resource management plan area. Two separate studies indicate that the resource management plan activities will not alter the general morphology of the Santa Clara River or the adjacent rearing and flood refuge areas. According to a multi-year survey by Entrix, Inc. scientists, the proposed project will result in changes in refuge for the stickleback: "Implementation of [the proposed project] is expected to result in a gain in natural refugia acreage under two, five, ten, and [one-hundred-year] flood conditions. A loss of 6.9 and 0.4 acres is expected under twenty and [fifty-year] flood conditions, respectively. Disturbed refugia acreage is expected to increase during a five, ten or [one-hundred-year] flood event. Two, twenty, and [fifty-year] flood events are predicted to result in a loss of small amounts of disturbed refugia acreage under the proposed alternative." The Entrix, Inc. study concluded: no impacts to fish species, which includes the stickleback, would occur in the Santa Clara River tributaries; there will be no alteration in the general morphology of the Santa Clara River or adjacent habitat; under flood conditions there will be no discernible difference in the marginal stickleback habitat under the various alternatives; and the resource management plan would not interfere with the persistence and overall survival of the stickleback.

Dr. Swift, one of the leading authorities in the field of stickleback protection, prepared a technical discussion of issues, including relocation of the stickleback. Dr.

Swift prepared the analysis for Entrix, Inc. Dr. Swift possesses department and federal wildlife service collecting permits for the stickleback. Dr. Swift co-authored the federal wildlife service recovery plan for the stickleback. He did so as a member of the federal stickleback recovery team between 1972 and 1995. He conducted habitat surveys in the upper Santa Clara River and nearby lower Santa Paula creek. In connection with a project in the City of Valencia, Dr. Swift participated in the relocation of stickleback. In addition, Dr. Swift surveyed and participated in trapping of stickleback at Vandenberg Air Force Base. Dr. Swift has participated both in federal and state assessment and survey programs and helped draft restoration and mitigation plans for freshwater fish.

Dr. Swift described methods for monitoring and moving the stickleback: “Stickleback are often monitored and/or moved from the areas of stream subject to a variety of construction activities. These methods have been utilized numerous (probably hundreds) of times for . . . stickleback in the Santa Clara River and tributaries, San Antonio Creek, Santa Barbara County, and in Shay Creek, San Bernardino County. These various projects have been approved numerous times by the [department] and the [federal wildlife service]. This typically involves utilizing biologists that have proper collecting permits from both the [federal wildlife service] and [the department] (State Scientific Collecting Permit with a Memorandum of Understanding covering collecting, handling, holding, and transferring live specimens of the fully protected . . . stickleback).” Typically, these projects utilize biologists who were trained in collecting, handling and transferring live stickleback.

Dr. Swift described the methodology for use of nets and relocation of stickleback away from construction areas. We only briefly discuss Dr. Swift’s extensive analysis. The key elements of stickleback protection in construction areas are as follows. To begin with, the river construction area is isolated with block nets of specified dimensions. Dr. Swift characterizes the zones above and below the construction zone as buffer areas. The buffer areas are 50 to 100 meters above and below the construction area. Once the blocking nets are secured, fish are removed from the construction area. This is accomplished by using seine netting to herd the fish until they can be placed in containers

for movement beyond the buffer areas. An option is to move the fish a greater distance than just beyond the buffer nets. Dr. Swift indicated that the stickleback should be kept in containers temporarily.

Safe movement of stickleback can best be accomplished after the first peak storm has passed. This is because the stickleback population will be at its lowest level. This will reduce the necessity of handling larger numbers of stickleback. Dr. Swift specified the temperatures when stickleback should not be moved and stated these activities should be scheduled early in the morning when the water is cool.

Another option is to reroute an existing river channel. In this scenario, two rescues occur. First, the fish in the current channel are captured with the seine netting. Second, the channel gradually becomes dry and the remaining fish are exposed and picked up by the biologists. Another technique in an area consisting of a relatively wide, flat floodplain would be simply to dig the new channel. Then the current channel would be blocked and the fish in it rescued.

If the riverbed is rerouted, Dr. Swift identified requirements specific to the stickleback. Dr. Swift specified: the passage area in the rerouted streambed should be greater or equal in width to maintain normal stream processes; a natural watercourse bottom and hydraulic condition is preferable; a minimum water depth of eight inches (six inches is probably adequate for the stickleback); appropriate water velocities and methods of increasing the speed of water in the rerouted stream; no waterfalls or baffles should be present in stickleback passages; and the water surface in the rerouted stream must blend smoothly with the up and downstream edges of the passage area.

Another option is simply to install a bridge-like platform across the river channel to be used as a structure from where work is performed. Under these circumstances, the river would never be entered by biologists or construction employees. This will result in shading of the river channel as will eventually occur once bridge construction has been completed. Construction crews in this scenario would have to take precautions to prevent leakage of fluids from the project into the river.

Yet another option is to avoid any encroachment on the river channel. Dr. Swift explained: “[S]ome projects never encroach entirely on the wetted channel thus maintaining habitat and passage between the up and downstream parts of the floodplain. With this method a berm or access route would follow the construction footprint out on to the floodplain. The bridge would be built outward from scaffolding or other temporary support on each side of the wetted channel. Each of the outward extensions would join over the stream such that work could all be done from over the river without going into it. Such a method should allow year round work and should get very favorable response from the regulatory agencies. This method was utilized when the additional bridge was built by Cal Trans over Malibu Lagoon. A berm encroached out a short distance into the lagoon from one side and all work was done outward from it. Later this berm was removed and another was built extending from the opposite side. Thus the Malibu Lagoon was never entirely blocked and stream and tidal flow was always possible during the project.” In Dr. Swift’s view, any such design that maintains the natural river channel in the low flow season and allows for the passage of fish is a more desirable construction option.

6. Trial court’s ruling

The trial court ruled the department failed to prevent the taking of the stickleback, a fully protected fish under Fish and Game Code section 5515, subdivision (a)(1). Before setting forth the trial court’s ruling, it is necessary to provide some background concerning incidental take permits. The endangered species act was originally adopted in 1982. (Stats. 1984, ch. 1240, § 2, pp. 4243-4249.) When originally adopted, the endangered species act did not permit the department to authorize a take of a protected animal. Fish and Game Code section 2081 was adopted in 1997. (Stats.1997, ch. 567, § 2, pp. 3440-3441.) Fish and Game Code section 2081, subdivision (b) permits the department to issue incidental take permits under specified circumstances. Such permits may be issued if the take is incidental to otherwise lawful activity. As will be noted, the

trial court ruled that an environmental impact report could not be certified without the issuance of an incidental take permit.

The trial court ruled that the department agreed the resource management area construction, if unmitigated, would have a significant effect on the stickleback. The trial court ruled: “In response, therefore, the [environmental impact report] recommended a number of mitigation measures, including surveys to identify the presence of [stickleback] and other protected fish, suspending construction [if] spawn or juvenile fish are present, and providing alternative diversion flows and methods to maintain fish passage for aquatic species and other methods. However, the very ‘mitigation’ methods recommended to be conducted with supervision by a [federal fish and wildlife service] biologist, such as block netting and fish relocation, falls within the meaning of [an] illegal ‘taking’ under the . . . Fish and Game Code. Accordingly, while the proposed mitigation strategies designed by [Dr. Swift] may not occasion a take under federal law, it would cause a taking of the [stickleback] under California law. [¶] Thus, where there is a mitigation proposal that by its very terms constitutes an illegal taking of the [stickleback] under state law, the strategy fails to be a reasonable and realistic alternative. Without the issuance of an [incidental take permit], the mitigation measure cannot be implemented. Therefore, there is no substantial evidence to support the mitigation strategy on which [the department] relies to conclude that the construction processes associated with the [project] will not result in an illegal taking of the [stickleback].”

The trial court in a footnote briefly adverted to the public trust doctrine. The trial court never ruled that a violation of the public trust doctrine had occurred. Rather, the trial court’s ruling addresses the issue of whether the mitigation techniques constitute a taking of the stickleback within the meaning of Fish and Game Code section 86. The trial court stated: “[T]he principal issue which is currently ripe for adjudication is whether the proposed mitigation of the[project’s] impacts on the [stickleback] will result in the taking of a fully protected species without first obtaining [an incidental take] permit. This issue is a well-defined and concrete controversy that goes to the heart of the adequacy of the [environmental impact report].”

7. Overview of the endangered species act and the definition of take

a. definition of take

The Fish and Game Code was originally adopted in 1933. (31 West's Ann. Fish and Game Code (1984) "California Codes," p. VI.) In 1933, the Legislature defined "take" in former Fish and Game Code section 2, "As used in this code: [¶] . . . e. 'Take' means hunt, pursue, catch, capture, or kill." (Stats. 1933, ch. 73, § 2, p. 394.) In 1947, former Fish and Game Code section 2, subdivision (e) was amended to state: "As used in this code: [¶] . . . e. 'Take' means hunt, pursue, catch, capture, kill, or possess, or attempt to hunt, pursue, catch, capture, kill, or possess." (Stats. 1947, ch. 590, § 1, p. 1588.) In 1957, Fish and Game Code section 2 was recodified in section 86 and amended to state, "'Take' means hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." (Stats. 1957, ch. 456, § 2, p. 1310.) The pertinent statutory change in 1957 was to delete the term "possess" or an attempt to do so from the definition of take. The definition of take today remains the same as it was when Fish and Game Code section 2, subdivision (e) was recodified in section 86 in 1957. Thus, today the term take is defined in Fish and Game Code section 86, "'Take' means hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." (See Rep. prepared for Sen. Com. on Natural Resources on Assem. Bill No. 3309 (1983-1984, Reg. Sess.) as amended Jun. 26, 1984, p. 4 ["For the purpose of these provisions, 'take' would be defined as the usual acts to hunt, pursue, catch, capture, or kill and would additionally embrace acts to harass, harm, shoot, wound, destroy, trap, or collect, which would conform to federal law."]) The reference to federal law is to the federal Endangered Species Act which was enacted on December 28, 1973. (16 U.S.C. § 1531 et seq.)

b. Assembly Bill No. 2395 (1970 Reg. Sess.)--1970 legislation concerning endangered species and fully protected status for the stickleback

We turn now to the 1970 adoption of Assembly Bill No. 2395 (1970 Reg. Sess.). Assembly Bill No. 2395 (1970 Reg. Sess.) consisted of new provisions and amendments to the Fish and Game Code designed to protect endangered or rare species. There are three aspects to the 1970 legislation. Section 1 enacted Fish and Game Code sections 900 through 903. (Stats. 1970, ch. 1036, § 1, pp. 1847-1848.) The second portion of the 1970 legislation, sections 3 through 8, either amended or adopted provisions providing special protections for specified birds, mammals, reptiles and amphibians, and fish. (Stats. 1970, ch. 1036, § 1, pp. 1848-1850.) The third aspect of Assembly Bill No. 2395 (1970 Reg. Sess.) was the amendment to former Fish and Game Code section 12004, subdivision (f) which specified penalties for illegal takes of protected species. (Stats. 1970, ch. 1036, § 9, p. 1850.)

In the first part of Assembly Bill No. 2395 (1970 Reg. Sess.), the Legislature enacted former Fish and Game Code sections 900 through 903. Former Fish and Game Code sections 900 through 903 required the department to: establish criteria for establishing if a species or subspecies is endangered or rare (former Fish & G. Code, § 901); biennially inventory and enumerate this state's threatened birds, fish, mammals, amphibia and reptiles; make a determination concerning a specie's condition "with respect to its being endangered or rare" or becoming so (former Fish & G. Code, § 902); and biennially report the foregoing inventory. (Former Fish & G. Code, § 903.) In addition, the department was to make recommendations concerning adding or deleting species from the "fully protected" category. (Former Fish & G. Code, § 903, subd. (a).⁵)

⁵ Former Fish and Game Code section 903, subdivision (a) stated in part: "The department shall submit to the Governor and the Legislature biennially, not later than January 1, the first of which shall be submitted no later than January 1, 1972, a full and accurate report of the inventory, including recommendations for: [¶] (a) The addition n or deletion of endangered and rare species under the fully protected category when necessary."

Article 1 of the 1970 legislation is entitled, “California Species Preservation.” (Stats. 1970, ch. 1036, § 1, p. 1847.) Former Fish and Game Code section 900 stated, “The intent of the legislature and the purpose of this article is to preserve, protect and enhance the birds, mammals, fish, amphibia, and reptiles of this state.” (Stats. 1970, ch. 1036, § 1, p. 1847.) In 1984, Fish and Game Code sections 900 through 903 were repealed and replaced with the endangered species act. Some, but not all, 1984 legislative documents refer directly or indirectly to the 1970 legislation as the endangered species act. (Enrolled Bill Report prepared by Department of Fish and Game, Sep. 11, 1984, pp. 1-2 [“The California Endangered Species Act became law in 1970.”]; Rep. prepared for Assem. Com. on Water, Parks and Wildlife on Assem. Bill No. 3309 as amended April 23, 1984, p. 2 [“The 1970 Endangered Species Act expressed the Legislature’s concern over California’s threatened fish and wildlife, defined ‘rare’ and ‘endangered’, and granted the Fish and Game Commission authority to declare certain animals rare or endangered.”]; Legislative Analyst, analysis of Assem. Bill No. 3309 (1983-1984 Sess.) as amended Apr. 23, 1984, May 18, 1984, p. 1 [“This bill recasts existing law and adds new provisions to the California Endangered Species Act of 1970”].)

As noted, former Fish and Game Code section 903, subdivision (b) referred to adding or deleting endangered and rare species from the “fully protected” category. The second portion of Assembly Bill No. 2395 (1970 Reg. Sess.) involved the “fully protected” category of endangered species. The “fully protected” category referred to species identified in Fish and Game Code sections 3511 (birds), 4700 (mammals), 5050 (reptiles and amphibians) and 5155 (fish). (Stats. 1970, ch. 1036, §§ 4-8, pp. 1848-1850.) The 1970 legislation established designations of fully protected fish. (Legis. Counsel’s Dig., Assem. Bill No. 2395 (1969-1970 Reg. Sess.); 2 Stats. 1970, Summary Dig., p. 142; Stats. 1970, ch. 1036, § 8, p. 1849.) New Fish and Game Code section 5515, subdivision (a)(1)⁶ provided specified protections for the stickleback and other fish. Fish and Game

⁶ As adopted in 1970, Fish and Game Code section 5515, subdivision (i) stated in part: “Fully protected fish . . . may not be taken or possessed at any time and no provision of this code or any other law shall be construed to authorize the issuance of

Code section 5515, is relied upon by plaintiffs to support their contention that an unlawful take of the stickleback will occur. Finally, former Fish and Game Code section 12004 was amended to clarify the circumstances where violations of specified statutes were punishable as misdemeanors. (Stats. 1970, ch. 1036, § 9, p. 1850; Stats. 1969, ch. 1043, § 1, p. 2028.)

- c. the endangered species act and provisions relating to live trapping and transplantation carried out for purposes of conservation

In 1984, the Legislature adopted the endangered species act. The endangered species act repealed Fish and Game Code section 900 et seq. which, as noted, some legislative documents referred to as the “Endangered Species Act of 1970.” In its place, the endangered species act adopted Fish and Game Code sections 2050 through 2085. The endangered species act is supported by a series of legislative findings and declarations including: certain species are threatened with extinction; this threat arises because the species’ habitats are endangered with “destruction, adverse modification, or severe curtailment, or because of overexploitation, disease, predation, or other factors”; such species are of ecological, historical, recreational, esthetic, economic and scientific value to Californians; and the conservation and protection of endangered species is a matter of statewide concern. (Fish and Game Code section, § 2051⁷, subds. (b) and (c).)

permits or licenses to take any fully protected fish and no such permits or licenses heretofore issued shall have any force or effect for any such purpose; except that the commission may authorize the collecting of such species for necessary scientific research. Legally imported fully protected fish . . . may be possessed under a permit issued by the department. [¶] The following are fully protected fish: [¶] (i) Unarmored threespine stickleback . . .” (Stats. 1970 ch. 1036, § 8, pp. 1849-1850.)

⁷ Fish and Game Code section 2051 states in its entirety: “The Legislature hereby finds and declares all of the following: [¶] (a) Certain species of fish, wildlife, and plants have been rendered extinct as a consequence of man’s activities, untempered by adequate concern and conservation. [¶] (b) Other species of fish, wildlife, and plants are in danger of, or threatened with, extinction because their habitats are threatened with destruction, adverse modification, or severe curtailment, or because of overexploitation,

The endangered species act reflects the state policy to conserve and protect endangered species. (Fish & Game, Code § 2052.) State agencies are obligated to seek to conserve endangered species and further the purposes of the endangered species act. (Fish & Game, Code § 2055⁸.) Conserving a species has as its goal the use of methods and procedures which are necessary to make a species no longer in need of the protections of the endangered species act. (Fish & G. Code, § 2061⁹.) Among the legislatively approved *conservation* methods is the use of live trapping and transplantation. (Fish & G. Code, § 2061.) We shall discuss Fish and Game Code section 2061 with its approval of live trapping and transplantation as it applies to this case later in this opinion.

The endangered species act prohibits the taking of endangered species. Fish and Game Code section 2080 states in part, “No person shall . . . take . . . any species . . . that the commission determines to be an endangered species . . . , or attempt any of those acts, except as provided in this chapter” As noted, the term take is defined in Fish and Game Code section 86. The prohibition against taking any endangered species in Fish and Game Code section 2080 is central to the endangered species act. (*Environmental*

disease, predation, or other factors. [¶] (c) These species of fish, wildlife, and plants are of ecological, educational, historical, recreational, esthetic, economic, and scientific value to the people of this state, and the conservation, protection, and enhancement of these species and their habitat is of statewide concern.”

⁸ Fish and Game Code section 2055 states, “The Legislature further finds and declares that it is the policy of this state that all state agencies, boards, and commissions shall seek to conserve endangered species and threatened species and shall utilize their authority in furtherance of the purposes of this chapter.”

⁹ Fish and Game Code section 2061 states in its entirety: “‘Conserve,’ ‘conserving,’ and ‘conservation’ mean to use, and the use of, all methods and procedures which are necessary to bring any endangered species or threatened species to the point at which the measures provided pursuant to this chapter are no longer necessary. These methods and procedures include, but are not limited to, all activities associated with scientific resources management, such as research, census, law enforcement, habitat acquisition, restoration and maintenance, propagation, live trapping, and transplantation, and, in the extraordinary case where population pressures within a given ecosystem cannot be otherwise relieved, may include regulated taking.”

Protection Information Center v. California Dept. of Forestry and Fire Protection (2008) 44 Cal.4th 459, 507; *Watershed Enforcers v. Department of Water Resources* (2010) 185 Cal.App.4th 969, 974.)

As noted, the department has imposed extensive mitigation requirements on the developer. The endangered species act also specifies requirements for mitigation measures. Directly pertinent to the approval of the environmental impact report, Fish and Game Code section 2053 states in part: “The Legislature further finds and declares that it is the policy of the state that state agencies should not approve projects . . . which would jeopardize the continued existence of any endangered species . . . if there are reasonable and prudent alternatives available consistent with conserving the species [¶] Furthermore, it is the policy of this state and the intent of the Legislature that reasonable and prudent alternatives shall be developed by the department, together with the project proponent and the state lead agency, consistent with conserving the species, while at the same time maintaining the project purpose to the greatest extent possible.” The term “project” in Fish and Game Code section 2064 is defined for purposes of the endangered species act, “‘Project’ means project as defined in Section 21065 of the Public Resources Code.”

The role of mitigation requirements imposed by the department is discussed in Fish and Game Code section 2052.1: “[I]f any provision of this chapter requires a person to provide mitigation measures . . . to address a particular impact on a . . . endangered species, the measures or alternatives required shall be roughly proportional in extent to any impact on those species that is caused by that person. Where various measures or alternatives are available to meet this obligation, the measures or alternatives required shall maintain the person’s objectives to the greatest extent possible consistent with this section. All required measures or alternatives shall be capable of successful implementation. This section governs the full extent of mitigation measures or alternatives that may be imposed on a person pursuant to this chapter” Fish and Game Code section 2052.1 does not affect the aforementioned state policy to conserve,

protect, restore and enhance endangered species. Fish and Game Code section 2052.1 states, “This section shall not affect the state’s obligations set forth in Section 2052.”

The endangered species act was adopted as part of an amalgamation of Assembly Bill Nos. 3270 and 3309 (1983-1984 Reg. Sess.) in 1984. (4 Stats. 1984, ch. 1240, § 5, p. 4249; Leg. Counsel’s Dig., Assem. Bill No. 3309 (1983-1984 Reg. Sess.) 4 Stats. 1984, Summary Dig., pp. 426-427.) The 1984 endangered species act replaced statutes prohibiting the importation, take, possession or sale of rare or endangered species as determined by the department. (Stats. 1970, ch. 1510, §§ 1-4, pp. 2998-2999; Leg. Counsel, Rep. on Assem. Bill No. 3309 (1983-1984 Reg. Sess.) Sep. 17, 1984, p. 4.) Documents prepared in connection with Assembly Bill No. 3309 (1983-1984 Reg. Sess.) discussed several of its purposes. One important purpose was to provide for more careful deliberation during California Environmental Quality Act review. (Leg. Counsel, Rep. on Assem. Bill No. 3309, *op. cit.*, p. 6.) The Legislative Counsel explained: “This legislation would provide a greater degree of protection for endangered and rare [threatened] species through that part of the [California Environmental Quality Act] process involving State lead agencies, without substantially impairing the ability of state agencies to carry out their statutory missions.” (*Ibid.*) The relationship between the endangered species and California Environmental Quality Acts find both direct and indirect references in Fish and Game Code sections 2053 through 2055 and 2063 through 2065. Section 3 of the 1984 endangered species act enacted section 21104.2¹⁰ which requires a state lead agency to consult with the department in preparing an environmental impact report. (Stats. 1984, ch. 1240, § 3, p. 4248.) Other legislative documents note that both the endangered species and California Environmental Quality Acts impose mitigation requirements in connection with projects. (Legislative Analyst, analysis of Assem. Bill No. 3309 as amended Apr. 23, 1984, May 18, 1984, pp. 2-3; Assem. Ways

¹⁰ Section 21104.2 states, “The state lead agency shall consult with, and obtain written findings from, the Department of Fish and Game in preparing an environmental impact report on a project, as to the impact of the project on the continued existence of any endangered species or threatened species pursuant to Article 4 (commencing with Section 2090) of Chapter 1.5 of Division 3 of the Fish and Game Code.”

and Means Republican Analysis prepared for Assem. Bill No. 3309, May 21, 1984, p. 1.) Thus, the endangered species act is tethered to the California Environmental Quality Act. We construe them together. (*Baker v. Workers' Comp. Appeals Bd.* (2011) 52 Cal.4th 434, 446; *Dyna-Med, Inc. v. Fair Employment & Housing Com.* (1987) 43 Cal.3d 1379, 1387.)

The endangered species act is to be liberally construed. (*California Forestry Assn. v. California Fish & Game Commission* (2007) 156 Cal.App.4th 1535, 1545; *San Bernardino Valley Audubon Society v. City of Moreno Valley* (1996) 44 Cal.App.4th 593, 601.) This state's endangered species act is largely patterned on the federal Endangered Species Act. (16 U.S.C. § 1531 et seq.; Letter concerning Assem. Bill No. 3309 (1983-1984 Reg. Sess.) by Assemblymember Jim Costa to Governor George Deukmejian, Aug. 30, 1984, pp. 1-2; Rep. prepared for Assem. Com. on Water, Parks and Wildlife on Assem. Bill No. 3309 (1983-1984 Reg. Sess.) as amended Apr. 23, 1984, p. 1.) And decisional authority concerning that federal endangered species act is typically given great weight. (*San Bernardino Valley Audubon Society v. City of Moreno Valley, supra*, 44 Cal.App.4th at p. 603.)

8. Forfeiture

The department and the developer argue that plaintiffs failed to exhaust their administrative remedies during the comment period as required by section 21177, subdivisions (a) and (b).¹¹ After a draft environmental impact report is prepared, the

¹¹ Section 21177, subdivisions (a) and (b) state: “(a) An action or proceeding shall not be brought pursuant to Section 21167 unless the alleged grounds for noncompliance with this division were presented to the public agency orally or in writing by any person during the public comment period provided by this division or prior to the close of the public hearing on the project before the issuance of the notice of determination. [¶] (b) A person shall not maintain an action or proceeding unless that person objected to the approval of the project orally or in writing during the public comment period provided by this division or prior to the close of the public hearing on

public is entitled to make comments on its contents. The lead agency then prepares a final environmental impact report which incorporates the comments to the document. (*Laurel Heights Improvement Assn. v. Regents of University of California, supra*, 47 Cal.3d at p. 391; *Banning Ranch Conservancy v. City of Newport Beach* (2012) 211 Cal.App.4th 1209, 1220-1221.) As a general rule, a commenter's failure to raise an issue during the comment period prevents its relitigation in a subsequent mandate proceeding. (*Tomlinson v. County of Alameda* (2012) 54 Cal.4th 281, 289-291; see *Environmental Protection Information Center v. Department of Forestry & Fire Protection* (2010) 190 Cal.App.4th 217, 237.) No plaintiff sufficiently directly raised any issue concerning whether a take was expected to occur which violated the endangered species act. However, the take issue was raised in Dr. Baskin's August 8, 2010 letter. An exception to the exhaustion of administrative remedies rule in the environmental impact report preparation context arises when the issue is presented to the lead agency by a non-litigant. Here the take issue was raised by Dr. Baskin during the comment period. Thus, it can now be asserted by plaintiffs. (*Gilroy Citizens for Responsible Planning v. City of Gilroy* (2006) 140 Cal.App.4th 911, 920; *Galante Vineyards v. Monterey Peninsula Water Management Dist.* (1997) 60 Cal.App.4th 1109, 1118-1121.)

9. The department's argument that a taking can only involve mortal injury to an endangered species

At issue here is whether there is substantial evidence that department's approval of the project will not result in a "take" of the stickleback. The department and the developer argue a take can *only* occur if an endangered species is killed. We disagree.

As noted, the term take is defined in Fish and Game Code section 86. The term has been defined depending in part upon context. For example, in *Environmental*

the project before the filing of the notice of determination pursuant to Sections 21108 and 21152."

Protection Information Center v. California Dept. of Forestry & Fire Protection, supra, 44 Cal.4th at page 507, our Supreme Court explained: “Central to [endangered species act] is its prohibition on the taking of an endangered or threatened species. (Fish & G. Code, § 2080.) To ‘take’ in this context means to catch, capture or kill. (Fish & G. Code, § 86.)” (See *Watershed Enforcers v. Department of Water Resources, supra*, 185 Cal.App.4th at p. 974.) The department relies upon language in a Third Appellate District opinion, *Environmental Council of Sacramento v. City of Sacramento, supra*, 142 Cal.App.4th at page 1040 (*Environmental Council*): “We reject any insinuation that the definition of “take” under Fish and Game Code section 2081, subdivision (b)(2) encompasses the taking of habitat alone or the impacts of the taking. As section 86 of the Fish and Game Code makes clear, proscribed taking involves mortality.”

We disagree with the argument that a take must *always* involve mortality on the part of an endangered species. Here, context supplies the proper analysis. Fish and Game Code section 86 uses the disjunctive, to describe a take; to “hunt, pursue, catch, capture, or kill” not merely mortality. Moreover, Fish and Game Code section 86 includes an attempt to “hunt, pursue, catch, capture, or kill” not merely completing any of the proscribed conduct. The *Environmental Council* opinion discusses whether a taking of habitat alone or the impact of a take can be unlawful. The *Environmental Council* opinion arose in the context of the adequacy of a mitigation measure requiring the purchase of a half-acre for habitat reserves for every acre that is developed. (*Environmental Council, supra*, 142 Cal.App.4th at pp. 1038-1041.) At issue was whether habitat loss equated with a take of an endangered hawk and snake. That is the context in which the mortality issue arose. And, our Supreme Court made clear in *Environmental Protection Information Center* that a take involves the “catch, capture or kill” of an endangered species. (*Environmental Protection Information Center v. California Dept. of Forestry & Fire Protection, supra*, 44 Cal.4th at p. 507.) Neither the department’s environmental impact report, mitigation findings, nor comment responses assert a take only occurred when a species member died. Thus, we respectfully reject the department’s position that a take can only occur when there is mortality.

Our view in this regard is consistent with the federal courts' discussions of a take under the federal Endangered Species Act. As noted, we can examine federal decisions in evaluating the scope this state's endangered species act. (*San Bernardino Valley Audubon Society v. City of Moreno Valley*, *supra*, 44 Cal.App.4th at p. 601; Assem. Com. on Water Parks and Wildlife, Analysis of Assembly Bill No. 3309 as amended April 23, 1984, p. 2 ["This bill would clarify and strengthen the California Endangered Species Law by incorporating key provisions and concepts of the federal Endangered Species Act into state law."]) Ninth Circuit Judge Diarmuid O'Scannlain described the scope of a take under the federal Endangered Species Act: "The [federal Endangered Species Act] makes it illegal to 'take any such [listed endangered] species within the United States.' 16 U.S.C. § 1538(a)(1)(B). The statute defines 'take' to mean 'harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct[,] *id.* § 1532(19), and includes federal agencies, officers, and employees among those defined as 'persons' liable for a taking, *id.* § 1532(13). Implementing regulations promulgated by the Secretary of the Interior further define 'harass' as 'an intentional or negligent act or omission which creates the likelihood of injury to wildlife by annoying it to such an extent as to significantly disrupt normal behavioral patterns which include, but are not limited to, breeding, feeding, or sheltering.' 50 C.F.R. § 17.3." (*Cold Mountain v. Garber* (9th. Cir. 2004) 375 F.3d 884, 889 [but for causation required to show a violation of the federal Endangered Species Act]; see *Babbitt v. Sweet Home Chapter Of Communities For A Great Ore.* (1995) 515 U.S. 687, 696, fn. 9.) Similarly, Ninth Circuit Judge Harry Pregerson explained: "16 U.S.C. § 1532(19) defines 'take' as any action that, *inter alia*, 'harms' wildlife. While Congress did not define 'harm,' it explicitly intended the term 'take' to be construed broadly: 'Take' is to be 'defined in the broadest possible manner to include every conceivable way in which a person can "take" or attempt to "take" any fish or wildlife.' S.Rep. No. 307, 93d Cong., 1st Sess. (1973), *reprinted* in 1973 U.S.C.C.A.N. 2989, 2995. [¶] It is clearly conceivable that one can inflict great harm on a protected species by creating an imminent threat of harm to that species. Such a threat therefore falls easily within the broad scope of Congress'

definition of ‘take.’” (*Forest Conservation Council v. Rosboro Lumber Co.* (9th Cir. 1995) 50 F.3d 781, 784.) Nothing in the judicial interpretation of the federal Endangered Species Act imposes the strict mortality requirement asserted by the department and the developer in our case.

10. There is substantial evidence no take or possession within the meaning of Fish and Game Code sections 86 and 5515, subdivision (a)(1) respectively will occur

- a. stickleback mortality

The most difficult issue to us is whether there will be a take by reason of a killing of a stickleback. To us, this is a very close question. As noted, Dr. Swift described the process as using nets to keep the stickleback away from the construction areas. In addition, Dr. Swift described placing the stickleback in temporary containers from construction areas.

However, there is substantial evidence no death will occur given the extraordinary measures taken by the department to ensure the sticklebacks’ safety. The department has undertaken extensive surveys of stickleback habitat and the Santa Clara River. The developer retained Dr. Swift, who the record indicates is one of the leading authorities in the field of stickleback protection, to conduct surveys and mitigation strategies. We have already extensively described the mitigation measures in BIO 43-48. (See part IV(B)(3), *supra.*) We will not repeat them here. The department has expressly prohibited the developer from taking stickleback; i.e., killing any of them. Dr. Swift has explained in considerable detail how to relocate the stickleback or to build a temporary river channel to bypass the bridge construction sites. Nothing in Dr. Swift’s discussion indicates any stickleback will be killed. Plaintiffs argue there will be stickleback deaths. However, the extensive mitigation measures coupled with Dr. Swift’s expertise constitute substantial evidence no deaths will result.

- b. the parties' contentions concerning whether the mitigation measures themselves constitute a taking

Plaintiffs argue that the mitigation measures themselves constitute a take as prohibited by Fish and Game Code sections 86 and 5515, subdivision (a)(1). Plaintiffs' argument is as follows: "[T]he Department's mitigation measure for permanent and temporary crossings and diversions of the River (BIO-44) provides that special status fish, including stickleback, will be 'relocated' from the construction area by U.S. Fish and Wildlife Service staff or their agents. . . . Here 'relocation' would require 'capture,' which is expressly prohibited as take under the Fish and Game Code. (Fish & G. Code[,], § 86.) Mitigation measure BIO-44 further provides that any remaining fish after the initial relocation will be relocated 'to suitable habitat outside the [project] area (including those areas potentially subject to high turbidity).' Although the Department suggests that relocation would be accomplished by 'a herding technique' with 'block net' in order to 'relocate' fish, any such relocation of stickleback—especially stranded fish—outside the [project] area would be impossible without physically capturing them. Similarly, mitigation measure BIO-46 specifically contemplates collection and relocation of stickleback by "[federal wildlife service] personnel or their agents.' . . . Like BIO-44, this mitigation measure purports to authorize the capture of stickleback in contravention of the express terms of section 5515." Fish and Game Code section 5515, subdivision (a)(1)¹² states in part: "Except as provided in Section 2081.7 or 2835, fully protected fish

¹² The current pertinent provisions of Fish and Game Code section 5515 are: "(a)(1) Except as provided in Section 2081.7 or 2835, fully protected fish or parts thereof may not be taken or possessed at any time. No provision of this code or any other law shall be construed to authorize the issuance of permits or licenses to take any fully protected fish, and no permits or licenses heretofore issued shall have any force or effect for that purpose. However, the department may authorize the taking of those species for necessary scientific research, including efforts to recover fully protected, threatened, or endangered species. Prior to authorizing the take of any of those species, the department shall make an effort to notify all affected and interested parties to solicit information and comments on the proposed authorization. The notification shall be published in the

or parts thereof may not be taken or possessed at any time. No provision of this code or any other law shall be construed to authorize the issuance of permits or licenses to take any fully protected fish, and no permits or licenses heretofore issued shall have any force or effect for that purpose.” As explained earlier, plaintiffs reason placing a stickleback in a container, moving it and placing it back into a stream constitutes possession of a fully protected species.

By contrast, the department and the developer argue the use of live trapping and transplantation techniques approved in Fish and Game Code section 2061 do not constitute a prohibited take or possession. They reason the entire statutory scheme must be construed together. To prohibit the use of live trapping and transplantation techniques, they assert, would render the language appearing in Fish and Game Code section 2061 surplusage. And, they argue that Fish and Game Code section 2055 requires the department to utilize its authority to further the purposes of the endangered species act. One of the purposes of the endangered species act, according to the developer and the department, is to engage in conservation actions which may include live trapping and transplantation. (Fish & G. Code, § 2061.) .

The department and the developer have the better argument for reasons we shall specify. Unlike the parties who present their cases in largely absolutist terms, we see the issue as more subtle. The subtlety arises from the ambiguity of the statutory language. On one hand, Fish and Game Code section 5150, subdivisions (a)(1) and (b)(9), enacted effective January 1, 1971, prohibits a take or possession of the stickleback. On the other

California Regulatory Notice Register and be made available to each person who has notified the department, in writing, of his or her interest in fully protected species and who has provided an e-mail address, if available, or postal address to the department. Affected and interested parties shall have 30 days after notification is published in the California Regulatory Notice Register to provide any relevant information and comments on the proposed authorization. [¶] (2) As used in this subdivision, ‘scientific research’ does not include any actions taken as part of specified mitigation for a project, as defined in Section 21065 of the Public Resources Code. [¶] (3) Legally imported fully protected fish or parts thereof may be possessed under a permit issued by the department. [¶] (b) The following are fully protected fish: [¶] . . . (9) Unarmored threespine stickleback (*Gasterosteus aculeatus williamsoni*).”

hand, the subsequently enacted endangered species act permits live trapping and transplantation techniques if performed for conservation purposes. Such techniques, as explained by Dr. Swift, can involve the possession and movement of the stickleback in containers to other parts of the Santa Clara River. That ambiguity, as we will explain, requires an analysis of the legislative histories of the endangered species act and Fish and Game Code section 5515.

c. no unlawful taking result from the live trapping and transplantation of the stickleback

At the outset, it is appropriate to clarify the *fully protected nature* of the species listed in Fish and Game Code section 5515, subdivision (a)(1). Although designated as fully protected, the enumerated species in Fish and Game Code section 5515, subdivision (b) are subject to a taking or possession under specified circumstances. The department is expressly authorized to permit a take or possession of a stickleback in order to conduct scientific research. (Fish & G. Code, § 5515, subd. (a)(1).) (However, the department is expressly prohibited from characterizing a project's mitigation measure as scientific research. (Fish & G. Code, § 5515, subd. (a)(2).)) Even a fully protected fish may be taken or possessed if it is part of a specified settlement agreement relating to water-related issues in the southern portion of the state. (Fish & G. Code, §§ 2081.7, subd. (a), 5515, subd. (a)(1).) And, a take or possession of a fully protected fish is authorized under specific circumstances pursuant to the Natural Community Conservation Planning Act. (Fish & G. Code, §§ 2821, subd. (a), 5515, subd. (a)(1).) Although characterized in 1970 as fully protected, the Legislature has authorized the take or possession of fully protected fish in these enumerated circumstances.

We now turn to whether an unlawful take or possession of the stickleback will occur under the department's mitigation measures. One aspect of the mitigation measures issue is easy to resolve. Placing nets up and downstream from a construction site does not effectuate a take or possession under any rational definitional theory. Placing nets to protect the stickleback from swimming into a construction area does not

constitute an effort to “hunt, pursue, catch, capture, or kill” or attempt to do so. (Fish & G. Code, § 86.) Nor does it constitute possession within the meaning of Fish and Game Code section 5515, subdivision (a)(1).

A closer argument is whether efforts to herd the stickleback beyond the netted area or place them in containers for movement constitute pursuing, catching or possession-related conduct. Fish and Game Code section 86 classifies pursuing or an attempt to pursue an endangered species as a take. A sound argument can be made that the herding techniques constitute pursuing within the meaning of Fish and Game Code section 86. Plaintiffs’ strongest argument is premised upon both Fish and Game Code sections 86 and 5515, subdivision (a)(1). Plaintiffs argue that placing the stickleback in a container and moving it constitutes catching or capturing within the meaning of Fish and Game Code section 86. And, as noted, Fish and Game Code 5515, subdivision (a)(1) prohibits possession of a fully protected fish.

However, when the pertinent provisions of the Fish and Game and Public Resources Codes are construed together, no unlawful take will occur. This is largely an issue of statutory interpretation. Our Supreme Court has specified the standards of statutory construction applicable here: “As in any case involving statutory interpretation, our fundamental task here is to determine the Legislature’s intent so as to effectuate the law’s purpose. [Citation.] We begin by examining the statute’s words, giving them a plain and commonsense meaning. [Citation.]’ (*People v. Murphy* (2001) 25 Cal.4th 136, 142.) “When the language of a statute is clear, we need go no further.” [Citation.] But where a statute’s terms are unclear or ambiguous, we may “look to a variety of extrinsic aids, including the ostensible objects to be achieved, the evils to be remedied, the legislative history, public policy, contemporaneous administrative construction, and the statutory scheme of which the statute is a part.” (*In re M.M.* (2012) 54 Cal.4th 530, 536.)” (*People v. Harrison* (2013) 57 Cal.4th 1211, 1221-1222.) We construe all the provisions of a statute as a whole: “The statutory language is not read in isolation, however. Rather, we consider its terms ‘in the context of the statutory framework as a whole in order to determine its scope and purpose and to harmonize the

various parts of the enactment. If the language is clear, courts must generally follow its plain meaning unless a literal interpretation would result in absurd consequences the Legislature did not intend.’ (*Coalition of Concerned Communities, Inc. v. City of Los Angeles* (2004) 34 Cal.4th 733, 737.)” (*Los Angeles Unified School Dist. v. Garcia* (2013) 58 Cal.4th 175, 186.) And we must give meaning to every word of a statute so as to avoid a construction making any language surplusage. (*Briggs v. Eden Council for Hope & Opportunity* (1999) 19 Cal.4th 1106, 1118; *Reno v. Baird* (1998) 18 Cal.4th 640, 658.) Finally, we have a duty to harmonize statutes which cover the same subject area. (*Sierra Club v. Superior Court* (2013) 57 Cal.4th 157, 165-166; *Pacific Palisades Bowl Mobile Estates, LLC v. City of Los Angeles* (2012) 55 Cal.4th 783, 805.)

We turn now to the statutory language. Fish and Game Code section 2052 expressly states it is this state’s policy to conserve endangered species. Conservation includes “the use of, all methods or procedures” which are necessary to bring any endangered species to the point that it no longer needs protection. (Fish & G. Code, § 2061.) Among the methods and procedures which may be used to conserve a species are “live trapping” and “transplantation.” (Fish & G. Code, § 2061.) Further, it is this state’s policy of this state that “reasonable and prudent alternatives” shall be developed by the department and the project proponent which are consistent with conserving an endangered species. (Fish & G. Code, § 2053.) Fish and Game Code section 2055 expressly requires state agencies to “conserve endangered species” and utilize their authority to further the purposes of the endangered species act. Thus, we conclude: Fish and Game Code section 2061 expressly permits the use of live trapping and transplantation if done for purposes of conservation; Fish and Game Code section 2055 requires the department use its authority to further the endangered species act’s purposes which includes conservation; and all of this has occurred in the context of the imposition of mitigation measures. Hence, the live trapping and transplantation techniques used in this case do not constitute an unlawful take or possession.

Construed as a whole, the statutory scheme permitted the department to approve live trapping and transplantation for purposes of conservation under these circumstances.

Both the endangered species provisions and Fish and Game Code section 5515, subdivision (a)(1) protections for the stickleback were enacted at the same time in 1970. These provisions were enacted together as part of Assembly Bill No. 2395 (1970 Reg. Sess.). (Stats. 1970, ch. 1036, §§ 1, 8, pp. 1847-1848, 1849-1850; Leg. Counsel's Dig., Assem. Bill No. 2395 (1970 Reg. Sess.) 2 Stats. 1970, Summary Dig., p. 142.) In 1984, the Legislature intended to change the state of the law resulting from the 1970 adoption of Assembly Bill 2395 (1970 Reg. Sess.). According to the Legislative Analyst, Assembly Bill No. 3309 recast existing law and added new provisions to the 1970 act. (Leg. Analyst, analysis of Assembly Bill No. 3309 as amended Apr. 23, 1984, pp. 1-2.) The report prepared for the Senate Committee on Natural Resources stated that Assembly Bill No. 3309 repealed the 1970 law and replaced it with the endangered species act. (Rep. prepared for Sen. Com. on Natural Resources on Assem. Bill No. 3309 (1983 Reg. Sess.) as amended Jun. 26, 1984, p. 2.) According to the Legislative Counsel, "Both this bill and Assem. Bill No. 3270 . . . would repeal Chapter 1.5 . . . as added by Chapter 1510 of the Statutes of 1970, and each bill would enact a new Chapter 1.5 which is different." According to the Legislative Counsel, the new legislation enacted the endangered species act which provided for "the regulation of specified acts" relating to endangered species. (Legis. Counsel, Rep. on Assem. Bill No. 3309 (1983-1984 Reg. Sess.) p. 1.) The Department of Fish and Game Enrolled Bill Report for Assembly Bill No. 3309, states the legislation was intended to amend existing endangered species provisions adopted in 1970. (Dept. of Fish and Game, analysis of Assem. Bill No. 3309 (1983-1984 Reg. Sess.) Sep. 11, 1984, p. 1.) The parks and recreation department explained the legislation clarified California's laws regarding the protection of endangered species and their habitats. (Dept. of Parks and Recreation analysis of Assem. Bill No. 3309 (1983-1984 Reg. Sess.) p. 2.) Thus, the 1984 legislation, which includes for the first time the use of live trapping and transplantation for conservation purposes, materially changed state of the law from that in 1970.

Furthermore, there are two other reasons why plaintiffs' take or possession contention is unpersuasive. To begin with, we cannot read Fish and Game Code sections

86 and 5515, subdivision (a)(1) in isolation. Rather, as noted, we must construe them in light of the entire statutory scheme. The entire statutory scheme includes the use of live trapping and transplantation as a conservation measure. Plaintiffs' analysis treats Fish and Game Code section 2061 and its related provisions as surplusage. We cannot accept this line of analysis. (*Briggs v. Eden Council for Hope & Opportunity*, *supra*, 19 Cal.4th at p. 1118; *Reno v. Baird*, *supra*, 18 Cal.4th at p. 658.) Further, we have a duty to harmonize conflicting statutes to the extent rationally possible. The 1984 enactment of the endangered species act grants the department the authority, when pursuing a strategy of conservation, to use live trapping and transplantation techniques. That is consistent with a prohibition on the possession or take of the stickleback when other non-legislatively approved conservation techniques are utilized. In this way, in the context of a mitigation measure, Fish and Game Code sections 86 and 5515, subdivision (a)(1) and Fish and Game Code section 2061 can be harmonized. (*Sierra Club v. Superior Court*, *supra*, 57 Cal.4th at pp. 165-166; *Pacific Palisades Bowl Mobile Estates, LLC v. City of Los Angeles*, *supra*, 55 Cal.4th at p. 805.)

11. Other arguments

Two final comments are in order concerning the taking or possessing issue. First, plaintiffs in the trial court requested and here ask that we rely upon a post-environmental impact report certification opinion prepared by the wildlife service. The document at issue is a 2011 Biological Opinion issued by the federal wildlife service. The opinion was issued after the environmental impact report's certification. Such post-administrative agency decision papers are typically inadmissible under these circumstances. (*Western States Petroleum Assn. v. Superior Court*, *supra*, 9 Cal.4th at p. 579; *Outfitter Properties, LLC v. Wildlife Conservation Bd.* (2012) 207 Cal.App.4th 237, 251.) We decline to consider the post-environmental impact report certification wildlife service opinion concerning whether a take occurs under the federal Endangered Species Act.

Second, plaintiffs argue that the department has violated its public trust doctrine duties. The public trust doctrine provides that fish and wildlife resources are held in trust for the people of California by the department. (Fish & G. Code, § 711.7, subd. (a); see *Environmental Protection Information Center v. California Dept. of Forestry & Fire Protection*, *supra*, 44 Cal.4th at p. 515.) No public trust violation has occurred. The department has not authorized any unlawful take or possession of the stickleback. And the department has properly documented the pertinent analysis in the environmental impact report and other planning documents. (*Ibid.* [“[T]he duty to protect wildlife is primarily statutory.”]; Fish & G. Code, § 1801, subd. (h) [state policy concerning “preservation, conservation, and maintenance of wildlife resources” limited to situations “specifically provided [for] by the Legislature”].) We are not imposing a strict statutory straightjacket on the public trust doctrine. Here, the department fully complied with its obligation to prevent an unauthorized take or possession of an endangered species and suitably documented its decisionmaking process. Under these circumstances, where an endangered species is in fact protected by extensive mitigation measures under properly documented department regulation, no public trust violation has occurred. (See *National Audubon Society v. Superior Court* (1983) 33 Cal.3d 419, 447, fn. 27 [“the noncodified public trust doctrine remains important both to confirm the state’s sovereign supervision and to require consideration of public trust uses in cases filed directly in the courts”]; *Center for Biological Diversity, Inc. v. FPL Group, Inc.* (2008) 166 Cal.App.4th 1349, 1363 [public trust doctrine applies to protection of wildlife].)

C. Cultural Resources

1. The environmental impact report’s analysis.

The cultural resources discussion relating to Native-American affairs consumes 45 pages of mainly single-spaced analysis. This discussion draws upon extensive portions of the approved specific plan environmental impact report. The specific plan

environmental impact report concludes: the area had a very low density of archaeological sites; with but two exceptions, the sites were concentrated in the Santa Clara River; its implementation would result in a significant impact on Native-American cultural resources; and the mitigation measures would be sufficient to reduce the effects of development to less-than-significant levels. The specific plan mitigation requirements require: mitigating damage to three sites by avoidance and preservation; mitigating disturbance of one site and, if infeasible, to “relocate, utilize and reinter the disturbed” remains; and, if during construction additional artifacts were uncovered, an archaeologist must take specified corrective action.

The specific plan environmental impact report describes in detail the steps taken to identify Native-American cultural resources. That 297-page discussion is part of the administrative record in our case. The December 3, 2010 environmental impact report synthesizes the analysis in the specific plan environmental impact report.

In 1994, a consulting firm, W&S Consultants of Simi Valley, California was retained by the developer to evaluate Native-American resources in the specific plan area. Phase I of the Native-American environmental process began with an archival records search at the University of California at Los Angeles Archaeological Information Center. In addition, W&S Consultants reviewed other published records and maps in an effort to define the zones most likely to contain Native-American sites. Previous studies had only uncovered two archaeological sites within the specific plan area.

The Phase I archaeological study was conducted in June and July of 1993 and February through April of 1994. The Phase I survey of the 12,000-acre study area was conducted by Dr. David S. Whitley, Dr. George Gumerman, Dr. Robert Rechtman, Joseph M. Simon, Tamara Whitley, and Thomas Haile. Survey crew members spaced themselves at approximately 15 to 20 meter intervals and walked the property in transects. Using their expertise, the staff identified areas for potential Native-American habitats.

In August and September, 1994 W&S Consultants undertook a Phase II study of the eight sites within the specific plan area. The purpose of the Phase II study was to

determine the size, nature and significance of the eight archaeological sites. The environmental impact report describes the Phase II study process: “During the Phase II study, test pits were excavated to ascertain the presence or absence of any subsurface archaeological deposit and, where present, the depth and horizontal extent of such deposits. Excavation units were then placed in areas where the probability of deposition was deemed highest on each site. Conversely, areas of exposed bedrock and erosional ridges, hilltops, and slopes were tested less intensively because of the very limited likelihood that they could accumulate subsurface archaeological deposits. Excavation units were sufficiently dispersed across the general area of each site to insure that accurate site boundaries could be established. All artifacts and archaeological indicators were collected and bagged by unit level, and stratigraphic profiles were prepared.” The results of the Phase II excavations and determinations are documented in a 220-page mostly single spaced report prepared for the developer by W&S Consultants.

The W&S Consultants staff involved in the August and September Phase II archaeological test excavations included: Dr. Whitley who served as one of the principal investigators; Dr. Rechtman who acted as the field director; and Mr. Simon, who acted as one of the principal investigators. Dr. Glenn Russell of the University of California at Los Angeles Institute of Archaeology provided chronometric analyses. Dr. Paul Bouey conducted obsidian source tracing. Dr. Whitley and Ms. Whitley conducted laboratory analyses. Assisting as Native-American monitors of the Phase II testing were Richard and Anthony Angulo of the California Indian Foundation.

During the Phase II investigation, the W&S Consultants staff conducted an investigation of a site identified as CA-LAN-2233. As will be noted, the circumstances of the discovery and recovery of human remains at the CA-LAN-2233 site serves as a basis for the parties’ contentions. The report prepared for the developer dated October 14, 1994, discusses the discovery of the human remains at the CA-LAN-2233 site. During the Phase II investigation, the W&S Consultants staff uncovered a human burial in the CA-LAN-2233 site. The W&S Consultants report details discovery of the human remains and the notification of both Native-American and coroner’s staff: “Inspector

Nils Linder of the Los Angeles County Coroner's Office was notified of this discovery, while the California Indian Council Foundation was consulted with regards to its disposition, and provided monitoring services during its exposure and recording. At the request of this last group, it was decided to expose and record as much of the burial as possible, but to leave it in place" The area where human remains were discovered in the CA-LAN-2233 site was along the highway right-of-way and therefore outside of the project area. As will be noted, the human remains were discovered by Caltrans employees along the right-of-way for State Route 126. This was outside the project area as will be discussed. There is no basis for concluding that W&S Consultants had authority to dig Phase II pits outside of the project area. And, as explained previously, the decision to leave the remains in place in consultation with California Indian Council Foundation was an entirely reasonable course of action.

In October 1996, during a widening project of State Route 126, human remains were discovered at the CA-LAN-2233 archaeological site. Caltrans staff then proceeded in accordance with Guidelines section 15064.5, subdivision (e),¹³ which applies to the

¹³ Guidelines section 15064.5, subdivision (e) states: "(e) In the event of the accidental discovery or recognition of any human remains in any location other than a dedicated cemetery, the following steps should be taken: [¶] (1) There shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until: [¶] (A) The coroner of the county in which the remains are discovered must be contacted to determine that no investigation of the cause of death is required, and [¶] (B) If the coroner determines the remains to be Native American: [¶] 1. The coroner shall contact the Native American Heritage Commission within 24 hours. [¶] 2. The Native American Heritage Commission shall identify the person or persons it believes to be the most likely descended from the deceased Native American. [¶] 3. The most likely descendent may make recommendations to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in Public Resources Code section 5097.98, or [¶] (2) Where the following conditions occur, the landowner or his authorized representative shall rebury the Native American human remains and associated grave goods with appropriate dignity on the property in a location not subject to further subsurface disturbance. [¶] (A) The Native American Heritage Commission is unable to identify a most likely descendent or the most likely descendent failed to make a recommendation within 24 hours after being

accidental discovery of human remains. After consultation with other responsible agencies, the environmental impact report describes what occurred: “In December 1996, an archaeological investigation was undertaken by Caltrans environmental staff in accordance with the Treatment Plan. In the course of locating the burial, Caltrans staff encountered four additional interments. (Waugh, 1999). The undertaking was then terminated until a revised plan could be formulated and consultation could be effected with all appropriate persons. Subsequently, archaeological excavations were conducted at the site from February 2 to 28, 1997. During highway construction in August 1997, six additional burials were encountered and an emergency excavation was conducted by staff and graduate students under the direction of Dr. Philip Walker of the Department of Anthropology at the University of California, Santa Barbara . . . , who was contracted to serve on a standby basis in case of late discovery. Additional burials were removed during this phase of the emergency excavation. A total of 45 burials were recovered during the three excavation sessions.” All human remains and the accompanying grave goods were interred in accord with the wishes of a designated tribal representative.

In January, 2004, a second Phase I archaeological study of a portion of the specific plan area was conducted by W&S Consultants. This was done in order to update the results of the prior 1993 and 1994 field surveys. A total of eight prehistoric archaeological sites were identified during the Phase I surveys in 1993 and 1994.

The department concluded there were no direct impacts as a result of the approval of Alternative No. 2. Of the eight archeological sites, only two were subject to the resource management plan related construction impacts. (One site, CA-LAN-982H, where there was a potential impact, had been removed from development under the resource management plan. CA-LAN-982H was donated to the Archaeological Conservancy and was no longer subject to any aspect of the project components.) No

notified by the commission. [¶] (B) The descendant identified fails to make a recommendation; or [¶] (C) The landowner or his authorized representative rejects the recommendation of the descendant, and the mediation by the Native American Heritage Commission fails to provide measures acceptable to the landowner.”

archeological sites were located in areas where the spineflower preserves are located. The two sites were labeled CA-LAN-2133 and CA-LAN-2233. Only these two sites were subject to potential indirect impacts.

The northern portion of the CA-LAN-2233 site was located in one area of potential development which is referred to for planning purposes as the Homestead Project. That area would be capped with two feet of sterile dirt and no excavations in the archeological site would be permitted. As to CA-LAN-2133, the property must be left in its current state. A corps' document prepared by Santa Barbara consulting firm, URS, explains: "The proposed treatment for CA-LAN-2133 is avoidance and burial-in-place with a public exclusion overlay. The site is located in an area of the project that is not planned for urban land uses and is within a natural open space designation within the Specific Plan's designated River Corridor area. The River Corridor is a restricted access area, which will exclude the public and potential for vandalism to maintain the site's integrity. Because the site lies within a natural open space area, and habitat for numerous sensitive species, no capping is proposed. The grading related to a major roadway is expected . . . but should avoid impacts to the site altogether. However, should the road engineering require disturbance to the site, then a data recovery program will be implemented"

2. Procedural aspects

The mandate petition alleges the project area contains the Chumash and Tataviam Tribes' ancestral homes. The petition alleges: "[T]he [project] area is rich with these tribes' historic and cultural resources. To the Tataviam and Chumash, any area with historic value such as their burial sites, village sites, or sacred sites have deep religious, spiritual, and cultural significance. The Tataviam and Chumash thus retain strong cultural and religious attachment to the lands and cultural resources within the [project] area." According to the mandate petition: these tribal areas will be subject to excavation, earthmoving and other disturbance; the project's development envelope contains tribal

burial sites, sacred grounds, village sites, and unearthed cultural artifacts; for these tribes, the condor is of cultural and religious significance; the Chumash Tribe has collected condor feathers in the project area which are used for ceremonial offerings and regalia and wishes to do so in the future; the project will have an adverse effect on wildlife components including condors which are critical components of the tribes' cultural landscape; and the project will have adverse impacts on other Native-American resources; the earthmoving would have "devastating and irreversible impacts" on the historic, cultural and religious resources to the Tataviam and Chumash burial and buried cultural artifacts. Finally, the mandate petition alleges the environmental impact report does not discuss the effects on the Chumash cultural resources.

The developer's and department's answers allege the Native-American cultural resources discussion and mitigation environmental impact report complied with the law. In their oppositions to the mandate petition, the developer and the department asserted that all Native-American cultural resources issues had been forfeited. They reasoned no Native-American cultural resources issues had been raised within the applicable comment periods. The forfeiture objections were reiterated at the hearing on the petition.

The trial court agreed in part with plaintiffs' contentions. The trial court ruled the environmental impact report's assessment of the project's impact on Native-American cultural resources was not supported by substantial evidence. First, the trial court ruled that there was no attempt by the developer's consultant to perform random test pit sampling or engaging in any other inquiry in the specific plan area. Second, the trial court ruled that the developer's consultants' archaeological exhumations were inaccurate, incomplete and partial. The trial court adverted to studies conducted by Caltrans archaeologists including artifacts not uncovered by the developer's consultant. The statement of decision extensively refers to the studies of the Caltrans archaeologists. Third, the trial court questioned the reliability of the developer's consultants' conclusions in light of a corrected misapprehension as to whether a tribe was extinct. Fourth, the trial court found the cultural impact mitigation measures were insufficient.

3. No grounds exist to set aside the environmental impact certification because of errors in connection with the Native-American cultural resources discussion

a. forfeiture

The department and the developer argue that plaintiff's Native-American cultural resources were not preserved for presentation in the mandate petition. The public comment period for the draft environmental impact report commenced on April 27 and closed on August 25, 2009. Section 21117, subdivision (a) states, "An action or proceeding shall not be brought pursuant to Section 21167 unless the alleged grounds for noncompliance with this division were presented to the public agency orally or in writing by any person during the public comment period provided by this division or prior to the close of the public hearing on the project before the issuance of the notice of determination." There is no pertinent statutory or regulatory requirement of a public hearing in connection with an agency's decision to certify an environmental impact report. The comment period must be for a minimum of 30 days. (§ 21091, subd. (a); see *Ross v. California Coastal Com.* (2011) 199 Cal.App.4th 900, 935.) The exact issue raised in a mandate petition must have been presented to the lead agency during the comment period. (*North Coast Rivers Alliance v. Marin Municipal Water Dist. Bd. of Directors* (2013) 216 Cal.App.4th 614, 623; *Sierra Club v. City of Orange* (2008) 163 Cal.App.4th 523, 535-536.) In order for the comments to preserve the right to utilize an environmental impact report, they must be raised during the comment period. (*Mount Shasta Bioregional Ecology Center v. County of Siskiyou, supra*, 210 Cal.App.4th at pp. 215-216; *Sierra Club v. City of Orange, supra*, 163 Cal.App.4th at p. 537.) The lead agency, although it has the discretion to do so, is not obligated to respond to untimely comments. (§ 21091, subd. (d)(1); Guidelines, § 15088, subd. (a); *Gray v. County of Madera* (2008) 167 Cal.App.4th 1099, 1110.) Court of Appeal authority holds a failure to exhaust administrative remedies contention is reviewed de novo. (*Sierra Club v. City of Orange, supra*, 163 Cal.App.4th at p. 535; *Citizens for Open Government v. City of*

Lodi (2006) 144 Cal.App.4th 865, 873.) Even if we were to apply a more deferential standard of review, we would reach the same conclusion.

None of the Native-American cultural resources issues which served as the basis for the writ of mandate was preserved during the comment period which concluded on August 25, 2009. Thus, they may not be utilized as grounds for judicial review. Plaintiffs argue that these issues were raised in August 2010 in letters to the department by Chumash Ceremonial Elder Mati Waiya and the Wishotoyo Foundation. However, these letters were sent after the conclusion of the comment period as extended until August 25, 2009. There is no merit to the argument that otherwise generalized criticisms regarding the draft environmental impact report were sufficient to preserve the issues relied upon by the trial court.

b. the merits

None of plaintiffs' contentions may serve as a basis for disapproving the environmental impact report because of its failure to adequately address issues relating to Native-American cultural resources. First, the department's cultural impact analysis is supported by substantial evidence. As noted, an extensive pre-onsite survey archival analysis was conducted by the W&S Consultants' professionals. The entire project area was walked in an ordered manner to determine the existence of Native-American cultural resources. Thereafter, excavations occurred in areas which the archival research, prior studies and the extensive intensive onsite survey indicated Native-American cultural resources were potentially present.

Plaintiffs argue it is necessary that further testing be done in the project area to determine if there were additional Native-American cultural assets present. There was no requirement that further random selection test pits be dug. As it was, the limited amount of water in the project area made it unlikely that Native-American cultural resources could be found in significant quantities. Further, the intensive survey conducted by W&S Consultants was consistent with that recommended by the United States Department of

the Interior. (48 Fed. Reg. 44716, 44722 (Sep. 29, 1983).) There was no requirement additional research be conducted before certifying the environmental impact report. (*Association of Irrigated Residents v. County of Madera* (2003) 167 Cal.App.4th 1383, 1396; *Gray v. County of Madera, supra*, 167 Cal.App.4th at p. 1125.)

Second, there is insufficient evidence that W&S Consultants failed to uncover burial grounds. Plaintiffs argue human remains were found in an area bisected by State Route 126. The area where the human remains were found in 1996 during a Caltrans widening project on State Route 126 was the subject of 1994 test pits dug by W&S Consultants. This is reflected in the documentation prepared in connection with the county specific plan. This documentation was prepared after the conclusion of the Phase II investigation conducted by W&S Consultants. However, the undisputed evidence indicates that the remains are not within the project area. The discovery of human remains in the CA-LAN-2233 site resulted from the W&S Consultants testing in 1994. The discovery of human remains during the 1996 Caltrans State Route 126 widening project did not require the department to conduct new surveys and the like.

Third, during the extended comment period provided for by federal law, Mr. Waiya and the Wishtoyo Foundation provided documentation concerning past Native-American occupancy of the project site. None of the evidence cited in the two letters may serve as a basis for setting aside the environmental impact report certification. As noted, it was not presented during the comment period mandated by California law.

Fourth, in any event, section 4.10 of the environmental impact report constitutes a stand-alone assessment of the Native-American cultural impacts of the project. This stand alone assessment, relying on the W&S Consultants analysis, was prepared by department staff. The environmental impact report references the prior analysis of the Native-American cultural impacts developed in connection with the final approval of the specific plan. As noted, the specific plan environmental review concluded there was a very low density of archeological sites. The environmental impact report extensively recites the historical evidence of Native-Americans in the project area and the results of the Phase II test pits. In addition, the environmental impact report details the results of

the discovery of probable Native-American remains during the State Route 126 widening project discussed previously. There is no merit to plaintiffs' argument that the department ignored the state of the evidence.

Fifth, the mitigation measures discussed in the environmental impact report comply with Guidelines section 15126.4, subdivision (b)(3)(A). Section 21002¹⁴ explains that projects should be disapproved, as proposed, if there are feasible mitigation alternatives to serious environmental impacts. (See *Sierra Club v. State Bd. of Forestry*, *supra*, 7 Cal.4th at p. 1229; *Citizens of Goleta Valley v. Board of Supervisors*, *supra*, 52 Cal.3d at p. 565.) An environmental impact report must identify how significant impacts to the environment can feasibly be mitigated. (§ 21002.1, subs. (a)-(c)¹⁵; Guidelines, §

¹⁴ Section 21002 states in part, “The Legislature finds and declares that 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, and that the procedures required by this division are intended to assist public agencies in systematically identifying both the significant effects of proposed projects and the feasible alternatives or feasible mitigation measures which will avoid or substantially lessen such significant effects.”

¹⁵ Section 21002.1, subdivisions (a) through (c) state: “In order to achieve the objectives set forth in Section 21002, the Legislature hereby finds and declares that the following policy shall apply to the use of environmental impact reports prepared pursuant to this division: [¶] (a) The purpose of an environmental impact report is to identify the significant effects on the environment of a project, to identify alternatives to the project, and to indicate the manner in which those significant effects can be mitigated or avoided. [¶] (b) Each 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. [¶] (c) If economic, social, or other conditions make it infeasible to mitigate one or more significant effects on the environment of a project, the project may nonetheless be carried out or approved at the discretion of a public agency if the project is otherwise permissible under applicable laws and regulations.”

15126.4, subd. (a)(1)¹⁶; *City of Marina v. Board of Trustees of California State University* (2006) 39 Cal.4th 341, 359.)

In the case of cultural resources, Guidelines section 15126.4, subdivision (b)(3) states in part: “Public agencies should, whenever feasible, seek to avoid damaging effects on any historical resource of an archaeological nature. The following factors shall be considered and discussed in an [environmental impact] report for a project involving such an archaeological site: [¶] (A) Preservation in place is the preferred manner of mitigating impacts to archaeological sites. Preservation in place maintains the relationship between artifacts and the archaeological context. Preservation may also avoid conflict with religious or cultural values of groups associated with the site. [¶] (B) Preservation in place may be accomplished by, but is not limited to, the following: [¶] 1. Planning construction to avoid archaeological sites; [¶] 2. Incorporation of sites within parks, greenspace, or other open space; [¶] 3. Covering the archaeological sites with a layer of chemically stable soil before building tennis courts, parking lots, or similar facilities on the site; [¶] 4. Deeding the site into a permanent conservation easement.” (See *California Oak Foundation v. Regents of University of California* (2010) 188 Cal.App.4th 227, 279-280.)

The environmental impact report provides for appropriate mitigation under these standards. There are two burial sites at issue; CA-LAN-2233 and CA-LAN-2133. As to both locations, the mitigation plan bars development and preserves the archaeological sites. Further, as to CA-LAN-2133, a 100-foot buffer has been imposed around the site. And to the extent feasible, proposed road construction activities are to avoid CA-LAN-2133 and the buffer area. Additionally, the URS Corporation Treatment Plan explains why the proposed road should not affect the resources at CA-LAN-2133. The environmental impact report and the specific plan provide contingency strategies if the roadway unexpectedly intrudes on CA-LAN-2133 or the buffer zone: if preservation is

¹⁶ Guidelines section 15126.4, subdivision (a)(1) states in part, “An [environmental impact report] shall describe feasible measures which could minimize significant adverse impacts”

infeasible, a Phase III data collection (salvage excavation) operations are to be completed; if additional artifacts are unexpectedly uncovered during grading, an archaeologist is to be notified to “stabilize, recover and evaluate such finds”; the site is to be preserved by placing water permeable netting and two feet of sterile fill material over the area; in the event that a Phase III excavation must occur, it will be done in consultation with the Tataviam community; any earth disturbance within 300 feet will result in fencing and an additional 50-foot buffer; the discovery of any cultural resources will result in the immediate cessation of grading to be followed by an evaluation with a Native-American representative; and the discovery of any human remains must be handled or treated consistent with section 5097.98 and Guidelines section 15064.5, subdivision (e).

Sixth, plaintiffs fault the 1994 W&S Consultants’ report because it erroneously states that the Tataviam Tribe is extinct. The erroneous 1994 statement that the Tataviam Tribe was extinct was *not* a finding by W&S Consultants’ staff. Rather, as explained in the environmental impact report, it was a citation to the conclusions of a 1978 article. As explained in the environmental impact report: “[T]he assertion that the Tataviam Tribe is extinct was not a finding of W&S Consultants, but instead was a citation to a statement made by Chester King and Thomas C. Blackburn, 1978, on page 536 of the scholarly article ‘Tataviam,’ in *The Handbook of North American Indians, Volume 8: California*, edited by Robert F. Heizer, pp. 535-537 (Washington, D.C.: Smithsonian Institution).” As the environmental impact report explains, this error, based on a scholarly source, was corrected by W&S Consultants in an apology letter to the tribe. In any event, the environmental impact report, although citing to the W&S Consultants’ analysis, is the product of department staff preparation. The error in the article is attributable not to W&S Consultants but to the article’s authors. Nothing in the citation to a scholarly article as occurred here may serve as a basis for disapproving an environmental impact report.

D. The Specific Plan And Alternative 6

The trial court ruled the department unduly relied upon the county's specific plan and failed to conduct an independent review of project impacts. The department analyzed eight alternatives; seven (Alternatives 2-7) proposed by the developer. As required by Guidelines, section 15126.6, subdivision (e), the department considered a so-called "No project" alternative. Under Alternative 1, none of the contemplated development under the resource management plan would occur including establishment of the new spineflower preserves. Further, none of the dedicated space in the project area would be managed as proposed by the project. In addition, the environmental impact report analyzes seven additional alternatives that permit development in the project area.

Alternative 6 is described in the environmental impact report and findings of fact and overriding considerations statement as: eliminating a planned Commerce Center Drive bridge; expanding the size of major tributary channels; significantly increasing the acreage of the spineflower preserve; facilitating development within the Entrada Planning Area; and facilitating no development within the Valencia Commerce Center Planning Area. The department's findings of fact and overriding considerations statement discusses 19 different environmental categories. In its findings and overriding considerations statement, the department found that Alternative 6 was infeasible. There were two core grounds for the department's infeasibility findings as to Alternative 6. To begin with, the department found Alternative 6 did not meet the project objectives. In addition, the department found the costs rendered Alternative 6 infeasible.¹⁷

¹⁷ The project's factual findings and overriding considerations statement sets forth the following findings concerning Alternative 6: "Based on the whole of the record, [the department] finds that Alternative 6 does not meet the project's objectives and is not feasible due to the costs associated with the alternative. Alternative 6 fails to facilitate the development of interrelated villages that provide a balance of land uses similar in size and proportion to those approved in the Specific Plan. In addition, Alternative 6 precludes additional commercial development at [Valencia Commerce Center]. Therefore, it would not achieve the project objectives. Additionally, the costs for Alternative 6 would be much greater than the normal costs for a project of this type and

The mandate petition alleges that the department has a duty to consider all reasonable alternatives. The mandate petition alleges: the environmental impact report utilizes an impermissibly narrow set of alternatives; the environmental impact report contains no substantial evidence “regarding the infeasibility of alternatives”; the environmental impact report fails to evaluate “a genuine environmentally superior alternative that combines elements of Alternative 7 with a [conservation plan] and no fill of Potrero Canyon”; and the absence of “a true environmentally superior alternative” prevents a meaningful consideration of project alternatives.

The statement of decision materially differs from the allegations in the mandate petition. The trial court found that Alternative 6 would result only in a small reduction in residential units. The trial court ruled, “Nor does such a minor reduction in the number of residential units increase costs so significantly as to render this alternative economically infeasible.” The trial court found that the department failed to independently assess mitigation measures that would reduce the significant environmental impacts. Rather, the trial court ruled the department remained “wedded” to the specific plan.¹⁸ These findings were not the result of a direct challenge to the project based on a theory articulated by plaintiffs in the mandate petition.

would, therefore, not be reasonable overall. Alternative 6 is, therefore, not practical economically feasible. Finally, Alternative 6 results in some impacts exceeding the Draft LEDPA Project, specifically with regards to Traffic and Land Use, and as such, it is not a feasible alternative.”

¹⁸ The trial court ruled: “[T]he law requires not only that a public agency decision-makers document and consider the environmental implications of their actions, but also that [they] refrain from approving projects with significant environmental effects if there are feasible alternatives or mitigation measures that can substantially lessen or avoid these effects. Thus, the agency must first identify the significant environmental effects and then mitigate those adverse effects to the imposition of mitigation measures or through the selection of feasible alternatives. And, public agencies must deny approval of a project with significant adverse effects when feasible alternatives or feasible mitigation measures can substantially lessen such effects. When, as in this case, the agency failed to perform an independent analysis and assessment of mitigation measures that could substantially lessen or avoid these of facts – electing instead simply to remain

An environmental impact report must describe alternatives to the proposed project. (§ 21100, subd. (b)(4); Guidelines, § 15126.6, subds. (a)-(d); *Stockton Citizens for Sensible Planning v. City of Stockton* (2010) 48 Cal.4th 481, 498.) Additionally, the environmental impact report must identify and assess whether a proposed alternative is infeasible. (*The Flanders Foundation v. City of Carmel-by-the-Sea* (2012) 202 Cal.App.4th 603, 620-621; *Preservation Action Council v. City of San Jose* (2006) 141 Cal.App.4th 1336, 1353.) Among the factors an agency must consider is the economic feasibility of a project alternative and consistency with a specific plan. (Guidelines, § 15126.6, subd. (f)(1)¹⁹; *The Flanders Foundation v. City of Carmel-by-the-Sea*, *supra*, 202 Cal.App.4th at p. 622-623.) In assessing economic infeasibility, an agency must determine the following, “[W]hether the marginal costs of the alternative as compared to the cost of the proposed project are so great that a reasonably prudent property owner would not proceed with the rehabilitation.” (*Uphold Our Heritage v. Town of Woodside*

wedded to an existing Specific Plan configuration – the agency has failed to conduct the analysis and to proceed in a manner required by law.”

¹⁹ Guidelines, section 15126.6, subdivision (f)(1) states: “Rule of reason. The range of alternatives required in an [environmental impact report] is governed by a ‘rule of reason’ that requires the [environmental impact report] to set forth only those alternatives necessary to permit a reasoned choice. The alternatives shall be limited to ones that would avoid or substantially lessen any of the significant effects of the project. Of those alternatives, the [environmental impact report] need examine in detail only the ones that the lead agency determines could feasibly attain most of the basic objectives of the project. The range of feasible alternatives shall be selected and discussed in a manner to foster meaningful public participation and informed decision making. [¶] (1) Feasibility. Among the factors that may be taken into account when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries (projects with a regionally significant impact should consider the regional context), and whether the proponent can reasonably acquire, control or otherwise have access to the alternative site (or the site is already owned by the proponent). No one of these factors establishes a fixed limit on the scope of reasonable alternatives. (*Citizens of Goleta Valley v. Board of Supervisors*[,*supra*,] 52 Cal.3d 553; see *Save Our Residential Environment v. City of West Hollywood* (1992) 9 Cal.App.4th 1745, 1753, fn. 1).”

(2007) 147 Cal.App.4th 587, 600; see *The Flanders Foundation v. City of Carmel-by-the-Sea*, *supra*, 202 Cal.App.4th at p. 622.) We review an infeasibility finding for substantial evidence. (*Id.* at p. 621; § 21081.5, subd. (a)(3); Guidelines, § 15091, subd. (a)(3).)

As noted, at issue here is whether there was improper reliance upon the specific plan. The department was authorized by Guidelines section 15126.6, subdivision (f)(1) to consider an extant specific plan in assessing infeasibility. More to the point, all development, including the assessment of alternatives in an environmental impact report, must proceed in a fashion consistent with the specific plan. (*Citizens of Goleta Valley v. Board of Supervisors*, *supra*, 52 Cal.3d at pp. 570-573; see *A Local & Regional Monitor v. City of Los Angeles* (1993) 16 Cal.App.4th 630, 644-645.) The ambitious specific plan calls for transforming currently open space into: a broad range of residential mixed-use and non-residential land uses; the construction of up to 21,308 dwelling units; 629 acres of mixed-use development; 67 acres of commercial uses; and up to 5 elementary, 1 junior high and 1 high schools sites; 55 acres of neighborhood parks; a 15-acre lake; an 18-hole golf course; and public safety and infrastructure facilities sufficient to support the contemplated 5 new villages including a 6.8 million gallon per day water reclamation plant.

Substantial evidence supports the department's economic infeasibility finding as to Alternative 6. The department determined in assessing the costs of the project to use a standard industry metric such as cost per developable acre. The department relied on the following: "For a master-planned development project, it is appropriate to use standard industry metrics such as cost per developable acre, that capture the relationship of costs of development potential. Like the cost metrics endorsed by the courts in *Friends of the Earth* [*v. Hintz* (9th Cir. 1986) 800 F.2d 822, 831-834] and *Sierra Club v. Flowers* [(S.D. Fla. 2006) 423 F.Supp.2d 1273, 1333], cost per developable acre is an objective measure that is not tied to any subjective or unique characteristic of the applicant. . . . Cost per net developable acre is based on verifiable information that is neither proprietary nor applicant-specific. In addition, it allows a direct and meaningful comparison of the relative costs associated with alternatives of different sizes or different amounts of

development potential, in a way that the total project cost does not. Therefore, it is well-suited to evaluating whether the costs associated with additional avoidance are reasonable, compared either to the typical costs for that type of project or to the applicant's proposed project." Further, the corps found: "Including residential, commercial and industrial development, Alternative 6 would result in approximately 2,310.7 acres of total development area (of the 2,310.7 acres approximately 1,976.4 acres would be residential development area). Alternative 6 would yield a total of 2,310.7 net developable acres at a total development cost of \$2,757,365,000, which yields a substantial increase in the average development cost of \$1,193,303 [\$1,193,148] per net developable acre (approximately a 15.0 percent [13.4 percent] increase compared to the proposed project). When compared to the modified version of Alternative 3 [Draft LEDPA], Alternative 6 would provide approximately 6 acres of additional avoidance of waters of the United States (66.3 acres compared to 60.7 acres). Based on the above comparison, avoidance of approximately 6 additional acres of waters of the United States under Alternative 6 would require a substantial increase in cost per net developable acre when compared to the modified version of Alternative 3. In consideration of the relatively high cost for the proposed project, a 15% [13.4%] increase in cost per net developable acre would not be practicable and, therefore, Alternative 6 would not represent the least environmentally damaging practicable alternative." The department quite reasonably could reject Alternative 6 as economically infeasible because of its substantially increased costs.

Additionally, substantial evidence supports the department's finding that Alternative 6 was infeasible because it did not meet the project's objectives. The department identified the project's basic objectives, based upon the specific plan, as follows: creating a major new community of interrelated villages consisting of industrial, commercial and residential uses; creating various land uses with a wide range of housing; designating sites for public facilities for schools, fire stations, parks and a water reclamation project; permitting the development of medical care, child care, commercial

recreation, worship and cultural facilities; providing for flexibility to respond to changing market conditions; and providing a tax base to fund public services.

The department concluded Alternative 6 eliminated all new commercial development in the Valencia Commerce Center Planning Area. This would lead to a loss of 3.4 million square feet of commercial use in the Valencia Commerce Center Planning Area. Further, Alternative 6 would only allow for “partial buildout” of the specific plan area. The environmental impact report explains in terms of the specific plan area, “[T]he Specific Plan’s approved 20,885 residential units would be reduced by 1,098 units to 19,787 units, and the approved 5.55 [million square feet] of commercial uses would be reduced by 216,000 square feet.” Likewise there would be a reduction in the number of residential units in the Entrada Planning Area of 1,300 to 425 residences. A comparison of Figures 8-1 and 8-5 illustrates the material reduction in development between Alternatives 2 and 6; thereby increasing per residence costs and reduced tax base. Moreover, Alternative 6 would delete the plan to build a bridge across the Santa Clara River at Commerce Center Drive thereby: reducing development in the easternmost portion of the project area; prohibiting the development of a coherent village in the project’s eastern sector; and impeding the construction of interrelated villages. The corps found that the failure to construct the Commerce Center Drive bridge by itself would cause Alternative 6 to fail to meet the specific plan objective of creating interrelated villages.

Plaintiffs assert that projected population growth in Los Angeles County did not justify a need for future development. As a result, they argue the department improperly rejected unspecified alternatives. However, there is substantial evidence by 2040 population in the county will increase to 12,491,606 persons. This will constitute an increase of 2,098,421 residents as compared to the county’s 2009 population. These projections, from the California Department of Finance, constitute substantial evidence of long-term population growth and a corresponding need for increased housing. Nothing that occurred during the corps’ and department’s evaluation of the project alternatives permits the environmental impact report to be set aside.

E. Steelhead smolt

The mandate petition alleges in varying ways that the environmental impact report fails to analyze the impacts of runoff from the Santa Clara River. More particularly, there are two paragraphs in the mandate petition which relate directly to steelhead smolt. For example, plaintiffs allege the environmental impact report fails to analyze and mitigate water quality impacts below the “dry gap” in the Santa Clara River and coastal marine waters. At another point, the mandate petition alleges: “The [environmental impact report] fails to identify the [project]’s significant water quality impacts to southern steelhead smolt residing in the Santa Clara River estuary, migrating adult steelhead in the Santa Clara River, or migrating steelhead smolt in the Santa Clara River, nor does it provide measures to mitigate those impacts to a less than significant effect.” Plaintiffs argued in their papers, “The [environmental impact report] fails to analyze the sub-lethal impacts of the [project]’s discharges of dissolved copper on juvenile steelhead.” The trial court ruled that the environmental impact report failed to adequately discuss the impact of dissolved copper discharged from the project area on steelhead smolt. The trial court ruled, “The [environmental impact report] fails to consider . . . whether the dissolved copper discharged from the [p]roject [a]rea . . . would adversely affect restored habitat for endangered steelhead smolt.”

First, this entire sub-lethal copper discharge/steelhead smolt issue has been forfeited because it was not raised during the comment period for the environmental impact report. As noted, the public comment period for the draft environmental impact report ended on August 25, 2009. Section 21177, subdivision (a) bars consideration of that issue unless it raised it during the public comment period or prior to the close of the public hearing on the project. (*Mount Shasta Bioregional Ecology Center v. County of Siskiyou*, *supra*, 210 Cal.App.4th at p. 215; *Sierra Club v. City of Orange*, *supra*, 163 Cal.App.4th at p. 537.) As previously discussed, the exact issue raised in a mandate petition must have been presented to the lead agency during the comment period. (*North Coast Rivers Alliance v. Marin Municipal Water Dist. Bd. of Directors*, *supra*, 216

Cal.App.4th at p. 623; *Sierra Club v. City of Orange*, *supra*, 163 Cal.App.4th at pp. 535-536.) The issue concerning the steelhead smolt was not raised until almost one year after the comment period closed. The first time the issue was raised was in an August 3, 2010 letter from Jason Weiner, an associate director and staff counsel for Ventura Coastkeeper. The comment period expired on August 25, 2009. Here, the steelhead smolt issues were not raised during the statutory and regulatory prescribed comment period. Thus, they have been forfeited and may not serve as a basis for setting aside the environmental impact report.

Second, even if the issue had been preserved, there is substantial evidence that the project's impacts on the steelhead smolt would be less than significant. The environmental impact report describes the Santa Clara River and the so-called "dry gap." The Santa Clara River is described as a perennial stream which extends to about 3.5 miles downstream of the Los Angeles and Ventura Counties jurisdictional boundary line. This area of the Santa Clara River is dry most of the year with water present only when rainfall creates stormwater runoff. This is an area where with the Santa Clara River goes underground. The dry gap extends downstream to the confluence of the Santa Clara River with the Piru River. The confluence occurs between the area of the communities of Piru and Fillmore.

The Biological Resources' discussion in the environmental impact report references the steelhead smolt. The environmental impact report states steelhead smolt have never been reported in Reach 5. This was because all of the steelhead smolt's habitat was below the dry gap. In the Water Quality discussion in the environmental impact report, department scientists analyzed copper runoff. In terms of dissolved copper runoff, projections are regulated by the California Toxics Rule criteria. The California Toxics Rule Threshold for dissolved copper is 32 micrograms per liter. In May 2000, the federal Environmental Protection Agency enacted water quality standards for certain toxic pollutants. The federal agency action was necessitated because California had failed to adopt water quality standards for certain toxic pollutants including dissolved copper. (40 C.F.R. § 131.38 (2014); 65 Fed.Reg. 31682, 31711 et seq. (May 18, 2000);

see 33 U.S.C. § 1313(c)(4); *Waterkeepers Northern California v. State Water Resources Bd.* (2002) 102 Cal.App.4th 1448, 1455.) The California Toxics Rule thresholds establish ambient water quality objectives. Dissolved copper is often found in urban runoff. The environmental impact report concludes, after considerable specific scientific analysis: “Although the trace metal loadings are predicted to increase . . . , comparison of post-development conditions . . . , to the [California Toxics Rule] shows that the dissolved copper . . . concentrations are below the benchmark [California Toxics Rule] criteria. The estimated dissolved copper and total lead concentrations are within the range of observed concentrations in Santa Clara River Reach 5.” After mitigation, department scientists calculate that dissolved copper will be discharged into the Santa Clara River in concentrations of 8.4 micrograms per liter. This contrasts with the existing copper concentrations in Reach 5 of the Santa Clara River which range from 3.3 to 22.6 micrograms per liter. The environmental impact report concludes: “With the implementation of regulatory requirements, Mitigation Measures SP-4.2-7 and WQ-1, comprehensive [project design features], including site design, source control [best management practices], treatment [best management practices], and the comparison with instream water quality monitoring data and benchmark water quality criteria, Specific Plan build-out would not have significant water quality impacts resulting from trace metals under Significance Criteria 1 through 3.” As can be noted, after the comment period, there was little discussion of the steelhead smolt downstream from the dry area.

This makes sense because nothing in the comments referenced any issue regarding steelhead smolt. Further, the discussion concerning water quality indicates the buildout would not produce significant environmental impacts. This was because the copper levels would be below the California Toxics Rule threshold. The foregoing constitutes: a discussion of the environmental consequences sufficient to provide informed environmental review; a finding that copper levels would produce no significant environmental impact; and a finding that copper levels would be below the California Toxics Rule threshold. This constitutes substantial evidence the project impacts on steelhead smolt would be less than significant.

After the department approved the environmental impact report and while the corps was receiving comments, the issue of steelhead smolt and copper levels was raised by Mr. Weiner. In response during the federal comment period, the department and the corps provided additional details. Those comments constitute part of the administrative record which we review for substantial evidence.

The additional discussion after the department issued (but did not certify) the environmental impact report reaches the same conclusions. The additional discussion verifies that steelhead smolt had been found in Santa Paula Creek. The department concluded: “[T]he predicted concentration of dissolved copper in runoff from the [project] site after the implementation of proposed project design features . . . would be well within the range of concentrations observed within Reach 5 of the River under existing conditions. As a result, the proposed [project] would not result in a substantial change to existing dissolved copper concentration conditions. Furthermore, the predicted concentration of copper and other metals in runoff water would be substantially below California Toxics Rule thresholds, which establish ambient water quality objectives for protection of aquatic life. The analysis provided by the [environmental impact report] concluded that with the implementation of proposed mitigation measures, the proposed [project] and alternatives would not result in substantial changes to existing water quality conditions. Furthermore, the proposed [project] and alternatives would not substantially alter the existing concentrations of dissolved copper that currently exist in the Santa Clara River; and, therefore, the [project] would not result in significant impacts to steelhead or other special-status fish species.” Finally, the additional comments discussed other environmental impacts that were unlikely during wet and dry years and during storms. The corps agreed with the department’s assessment that the discharge of dissolved copper would not have a significant impact on steelhead smolt even during storm events.

The department and the developer argue the trial court ruled the threshold assessment standard utilized in the environmental impact report process was improper. The department and the developer cite to the following language in a footnote of the statement of decision, “The [environmental impact report] fails to consider, much less

evaluate, whether the dissolved copper discharged from the [project area] (which is four times over the steelhead smolt sub-toxicity levels) over the Dry Gap and into the lower reaches of the Santa Clara [River] would adversely affect restored habitat for endangered steelhead smolt.” We do not believe this constitutes any finding concerning the department’s selection of a significance threshold. In any event, substantial evidence supports the department’s selection of a threshold for evaluating toxicity issues for steelhead smolt. The department relied upon applicable water quality standards including the California Toxics Rule.

F. Spineflower Mitigation Measures And Incidental Take Permit

1. Spineflower

The conservation plan describes the spineflower as a low-growing herbaceous annual. Germination occurs after onset of late-fall and winter rains. The conservation plan states that different cohorts emerge from the seed bank over the winter and early spring growing season. Initially formed as a basal rosette, flowering stalks appear as days lengthen and flowering stocks are produced in springtime. Flowering generally occurs between April and June. The overall size of spineflowers vary. The conservation plan describes the leaves and flowering in detail. By late summer, the spineflower plant dies. Seeds are eventually released. But the exact mechanism and timing of the seed release has not been described. The spineflower is protected under the endangered species act. It is a candidate species under the federal Endangered Species Act.

2. Documents

The conservation plan is discussed at length in the environmental report. In addition to the environmental impact report, the department issued a series of documents concerning spineflower related issues: the findings of fact and overriding considerations

statement; the department's findings of fact under the endangered species act; a 290-page spineflower mitigation and monitoring plan; an incidental take permit for the spineflower; and the 308-page final conservation plan. (As noted, an incidental take permit allows the take of an endangered species which is incidental to an otherwise lawful activity. (Fish & G. Code, §§ 2080-2081; *California Native Plant Society v. County of El Dorado* (2009) 170 Cal.App.4th 1026, 1039.))

3. Environmental impact report discussion

As noted, the conservation plan extends beyond the boundaries of the specific plan approved by the county. The conservation plan extends also to the Valencia Commerce Center and the Entrada Planning Areas. These two latter areas are included within the environmental impact report project area because the conservation plan covers a larger geographical area than the resource management plan. The environmental impact report describes the conservation plan as a component of the project. The conservation plan is designed to conserve, manage and permanently protect a system of preserves. Those preserves are designed to maximize the long-term persistence of core occurrences of spineflower.

The conservation plan objectives include: providing potential pollinators; restoring of degraded or damaged habitat by use of buffers to minimize the effect of adjoining land uses; maintaining connectivity between preserves and other protected areas (e.g. the Santa Clara River, open areas and utility easements and the like); enhancing spineflower populations; and providing a suitable habitat to accommodate natural evolutionary and ecological occurrences such as spatial and colonization events.

The environmental impact report explains the spineflower was believed to be extinct until it was rediscovered in 1999 on property in Ventura County in the vicinity of Laskey Mesa. Prior to 1999, the last time spineflower had been observed was in 1927 in the Castaic area of the county. The Ventura County area where the spineflower was discovered has now become an open space preserve. According to the federal wildlife

service, there are only two known locations where the spineflower can be found. One is the Ventura County open space preserve near Laskey Mesa while the other is in the project area. (Endangered and Threatened Wildlife and Plants; Review of Native Species That Are Candidates for Listing as Endangered or Threatened; Annual Notice of Findings on Resubmitted Petitions; Annual Description of Progress on Listing Actions, 72 Fed. Reg. 69034, 69082 (Dec. 6, 2007).) The two spineflower populations are approximately 17 miles apart.

The distribution of the spineflower in the conservation plan area was documented annually during six growing seasons between 2002 and 2007 by Dudek and Associates and FL_x, a Santa Barbara environmental consulting firm. The environmental impact report describes the studies as focused plant surveys. The surveys were floristic in nature and conducted pursuant to accepted scientific protocol. The surveys were conducted on foot. Locations were documented by global positioning system and aerial photography technologies.

The environmental impact report explains six general occurrences of spineflowers have been identified in the project area: Airport Mesa; Grapevine Mesa; Potrero Canyon; San Martinez Grande Canyon; Entrada Planning Area; and the Commerce Center Planning Area. As we will note, the specific plan created two preserve areas--Airport and Grapevine Mesas. The soils at the six sites vary among combinations of sandy and gravelly silt and clay loams. The occurrences of spineflower populations in the conservation plan area are generally close to one another. Each of the individual growth areas is separated from one another by site features such as roadways, ridge lines or State Route 126. But there are scattered, intervening spineflower occurrences which are not located within the six general population areas.

In order to identify and design spineflower preserve areas, a habitat suitability index was used for the entire study area. All of the developer's landholdings containing spineflower populations are analyzed in the conservation plan. The habitat suitability index was developed using the following datasets: vegetation; soils; geology; elevation; and aspect. This research did not produce the anticipated results. The environmental

impact report explains: “Unfortunately, the results did not produce the anticipated predictive standards. The results of this effort suggested that either the existing habitat data may be too coarse to resolve the actual habitat features that spineflower selects or that habitat features is not predictive of spineflower occurrence.” Department scientists concluded that it would not be prudent to use the “datasets” to evaluate the preserve areas nor to develop management and monitoring strategies based on the index. Rather, department scientists utilized a representative model test to evaluate the proposed preserve areas, “Thus, a representative model was utilized to evaluate the proposed spineflower preserve areas, and compared the distribution of the individual attributes within each dataset for the entire study area and for the proposed preserve areas.”

The specific plan requires the developer establish spineflower preserves. Each preserve will be deeded in perpetuity to the department as a permanent conservation easement. There are two existing preserves in Airport and Grapevine Mesas created by the specific plan. The existing Airport Mesa conservation easement is 20 acres. In addition, there is a 44-acre preserve at Grapevine Mesa. Also, spineflower preserves will be created in the Potrero and San Martinez Grande Canyons and the Entrada Planning Area. The total preserve area created by the conservation plan is 167.56 acres plus expansion areas. The conservation plan’s preserves are designed to accommodate expansion over time. The currently existing spineflower occurrences in the Valencia Commerce Center Planning Area will not be preserved. (The spineflower occurrences in the Valencia Commerce Center Planning Area consist of approximately 4.2 percent of the cumulative growth in the conservation plan space.)

Surrounding the preserves will be buffers. These buffers are included in the 167.56-acre total preserve area. The buffers are located on the preserves’ core perimeters and the outer preserve boundaries or urban edges. The buffer zone widths were designed with adjacent land uses in mind as well as potential edge effects. A buffer represents the area within the preserve between the core perimeter and the preserve boundary (urban edge). Further, site-specific factors were considered in designing the preserves including percent slope, micro-topography, vegetation type and density. Other design factors

including brow ditches and swales are to be installed to intercept water before it reaches preserve areas. Some development areas have mitigating factors incorporated into the design that may offset risk factors. Likewise, fencing will be installed to preclude intrusion by humans and vehicles.

The 2002 through 2007 surveys uncovered only 13.88 acres of actual spineflower growth in the specific plan and Entrada Planning Areas. As noted, the total preserve area is 167.56 acres. The core growth area is 56.79 acres. The buffer areas occupy 110.77 acres. And the conservation plan provides for 42.90 acres of expansion areas. An expansion area is described as follows in the environmental impact report, "Expansion area represents the area interior to the core that is not part of the cumulative area occupied." Thus, the 167.56-acre spineflower preserve figure does not include the additional 42.90-acre expansion areas.

The planned preserves materially increase the areas of potential growth beyond the 13.88 acres of actual spineflower uncovered in the 2004 through 2007 surveys. As previously noted, two presently existing preserves have been granted to the department under the specific plan. In the Airport Mesa area, the 2002 through 2007 surveys indicated 5.22 acres were occupied with spineflowers. The specific plan only provided for a 20-acre preserve at Airport Mesa. Under the conservation plan, the Airport Mesa preserve area will be dramatically increased to: a core growth area of 26.16 acres; a buffer area of 18.82 acres; and an expansion area of 20.94 acres. In the Grapevine Mesa area, the specific plan provided for a 44-acre preserve. The 2002 through 2007 surveys indicated 4.02 acres had spineflower growth in the 44-acre preserve. Under the conservation plan, the Grapevine Mesa preserve will provide for: a core growth area of 9.01 acres; a buffer area of 37.33 acres; and an expansion area of 4.99 acres. Thus, the Grapevine Mesa area will increase from 44 acres to 46.34 acres.

The conservation plan establishes three new preserve areas in: Potrero Canyon; San Martinez Grande Canyon; and the Entrada Planning Area. In the Potrero Canyon area, the 2002 through 2007 surveys uncovered only 1.32 acres of spineflowers. Under the conservation plan, the Potrero Canyon preserve will consist of: a core growth area

of 4.37 acres; 10.43 acres of buffer; and an expansion area of 3.05 acres. In the San Martinez Grande Canyon area, the 2002 through 2007 surveys indicated spineflowers populated only 2.29 acres. Under the conservation plan, the San Martinez Grande Canyon area preserve will consist of: a core growth area of 8.24 acres; a 26.17-acre buffer area; plus a 5.95-acre expansion area. And a new preserve will be established in the Entrada Planning Area. The 2002 through 2007 surveys reveal only 1.03 acres were occupied by spineflowers. The conservation plan creates a 27.02-acre preserve in the Entrada Planning Area which consists of: a 9-acre core area; an 18.02-acre buffer area; and a 7.97-acre expansion area.

The conservation plan does result in the take of 6.06 acres of existing spineflower growth areas. Hence, the need for an incidental take permit as the spineflower is a protected species under the endangered species act. In the specific plan area, the acreage of actually existing spineflower growth which will be taken by location will be: Airport Mesa, 2.87 acres; Grapevine Mesa, .78 acres; and Potrero Canyon, .48 acres. No spineflower will be taken from the San Martinez Grande Canyon preserve area. In the Entrada Planning Area, 1.09 acres of spineflowers will be removed. In the Valencia Commerce Center Planning Area, all .85 acres of actual growth will be taken. The conservation plan preserves 68.6 percent of the existing spineflower populations but dramatically increases the area to allow future growth.

4. Factual findings and overriding considerations statement

The department's factual findings and overriding considerations statement provides different statistical data. The factual findings provide a broader analysis of other data but do not focus on actual growth areas. The department found that with the implementation of the mitigating measures, the approval of the conservation plan would not have a significant impact on the environment. The department's factual findings identified the following benefits: preserves will include habitat for potential pollinators and dispersal agents; the preserve management will allow restoration of degraded and/or

damaged habitats and enhance future growth; site-specific buffers on the parameters of actual growth areas will minimize and control adverse edge effects from adjacent land use changes; the preserves will maintain biological connectivity between preserves and permanently protected and managed open space areas; management in open space areas will allow restoration of degraded and/or damaged habitats; the spineflower preserves will maximize genetic diversity and overall population size, while capturing the range of environmental conditions where other plant populations are present; the habitat will accommodate natural evolutionary and ecological processes for the spineflower, such as spatial fluctuations and colonization events; and the conservation plan provides endowments for the protection of spineflower habitats.

Further, the department found: “In light of the scale of this [project] and the unique opportunities that the subject large private landholding of [the project] provides for large-scale conservation and preservation of species and their habitats (specifically, the ability to require long-term conservation of 8,500 acres of natural habitat) and recognizing that primary land use authority for the development of the [project] site rests with Los Angeles County, which has already approved the [s]pecific [p]lan, [the department] finds that the above benefits of the [resource management plan/conservation plan project] outweigh the unavoidable significant adverse environmental impacts of the [project]. The benefit of the [resource management plan/conservation plan project], as described above, is hereby determined to be a basis for overriding all unavoidable project-level and cumulative environmental impacts identified in the [environmental impact report] and in these findings.”

5. Incidental take permit and supporting findings

The spineflower incidental take permit consists of 59 pages of analyses, charts, conditions and data. The permit sets forth milestones which are conditions of issuance and maintenance of the permit. Within 45 days, the developer is required to: irrevocably offer to dedicate and record the dedication of the preserves mandated by the spineflower

conservation plan; record the same for the adaptive management area next to the San Martinez Grande Canyon preserve; fund the first installment for the preserve next to Santa Martinez Grande Canyon area (\$1,305,309); initiate specified fencing; and commence a habitat characterization study. Within one year of the incidental take permit's issuance, a second set of milestones in different planning areas were to be completed which involve: millions of dollars of preservation expenditures; insuring financial security for future conservation and monitoring expenditures; recordation of deed restrictions; and partial implementation of the conservation and monitoring plans. The permit requires, prior to the commencement of development activities, that a biological monitor be identified. The biological monitor is vested with the authority to shut down all development activity.

The factual findings for the spineflower incidental take permit the taking of 4.85 acres of the area occupied by the plant. This will result from the buildout of the specific plan and Entrada and Valencia Commerce Center Planning Areas. But these impacts will, according to the incidental take permit's factual findings, be minimized and fully mitigated. This alleviation will result from the avoidance and mitigation measures specified in the environmental impact report and incidental take permit.

6. Conservation plan

The conservation plan consists of 17 sections: the description of the biological goals and objectives of establishing the preserve areas; a species description; an analysis of the surveys conducted in 2000 through 2007 in the project area; the environmental setting and existing land uses; the methodology used to design the spineflower preserves; a separate description of the preserves including buffer distances; a listing of management activities designed to minimize or eliminate risk factors from development and to achieve the project's biological goals; a description of an adaptive management program which includes plans to monitor the preserves and make adjustments over time; a monitoring program which is designed to measure the success of the conservation

process, track the viability of spineflower populations and remediate damage resulting from wildfires or geological events; the use of short term bonds to fund in perpetuity the management, monitoring and reporting requirements imposed by the plan; identification of the developer as the party responsible for plan implementation; reporting requirements; the schedule for compliance with the monitoring and management requirements; conservation and take estimates; and eight pages of supporting scientific studies used as references in the preparation of the document. In addition, the conservation plan consists of six appendices which include: a listing of invasive ornamental plants which are prohibited in landscape areas adjacent to the preserve areas; an extensive discussion of strategies for controlling the invasive Argentine ant (*Linepithema humile*) which can adversely potentially affect spineflower population; and an adaptive management program module. Portions of this latter part of the appendix paralleled and repeated material parts of section 10 of the conservation plan which described the adaptive management strategy.

The conservation plan summarizes its methodology as follows: “[T]he long-term conservation of spineflower will be achieved first by establishing a system of preserves to protect the core occurrences of spineflower in the project study area, and second, by implementing management and monitoring within an adaptive management framework to maintain or enhance the protected spineflower occurrences. [¶] The preserve design and adaptive management framework proposed in this plan have been developed based on the following biological goals and objectives, which describe the desired conditions of (1) the spineflower populations, (2) the communities in which the spineflower occurs, and (3) the ecosystem processes known or hypothesized to maintain the spineflower populations and associated communities. For each goal, a set of objectives provides the steps for attaining the goals, and a short explanation or rationale is provided for each objective.” This is accomplished by increasing spineflower density within the preserves and reducing or preventing “identified stressors or anthropogenic factors” which threaten individual and population growth. And because there are gaps in the understanding of the ecology of the spineflower, the conservation plan requires practices to be instituted to

increase knowledge of the species. All of this is to be accomplished while maintaining native plant diversity within the preserves.

According to the conservation plan: “In general, more abundant populations (i.e., those comprising more individuals) will have a greater probability of persisting and maintaining genetic diversity necessary to adapt to a changing environment than smaller (less abundant) populations. . . . Management of preserves will be designed to remove unnatural barriers to spineflower populations and maintain conditions conducive to persistence of a viable seed bank, in order to increase abundance and enhance long term population persistence.” The conservation plan also was designed to allow other species to flourish and contribute to plant diversity.

There were aspects of the studies however which did not logically correlate and future studies were necessary: “It is important to emphasize that the population numbers described above are estimates: spineflower populations are highly aggregated and densities vary considerably within the same polygon. Preliminary studies indicate that variability between areas is lower than the variability from year to year (Dudek and Associates 2006d), although the exact area of occupancy has changed each year. For example, in 2002, 2004, and 2007—years of low abundance—spineflower occurred in some areas where they did not occur in 2003, a highly abundant year. These results need further analyses and will be addressed by future monitoring described in Section 11.0 [of the conservation plan]. Analysis of variance (ANOVA) tests of the density of spineflower individuals and acres occupied at the five core locations gave contrasting results. The area occupied varied more between sites than between years, while density varied more annually than between sites. There was no significant interaction between year and site when a two-way ANOVA was used, which means all of the sites tended to change year to year in a similar fashion. More data are needed, but the preliminary interpretation is that preferred spineflower location is controlled by intrinsic environmental characteristics (e.g., soil type), while population density (and, in turn, actual numbers of individuals) is controlled by extrinsic environmental characteristics (e.g., rainfall).”

The department qualified the foregoing uncertainty analysis in the next paragraph of the conservation plan: “After mapping the boundaries of each polygon, the number of individuals was counted/estimated in a rectangular ‘sample estimation area,’ which is a subset of the total polygon. The sample estimation area was between 200 centimeters (10 by 20 centimeters) and 2 meters (1 by 2 meters), depending on various factors (e.g., size of the polygon, plant densities, variation in plant densities within the polygon). The number of subsets within the total polygon was determined and added/multiplied, resulting in a total estimate of the number of individuals of the polygon (e.g., $4 \times 125 = 500$; $8 \times 12 = 96$; $9 \times 100 = 900$). This number was then rounded to the nearest magnitude or multiple of a magnitude (e.g., 500, 100, 1,000). Although the spineflower population numbers are expected to overestimate true population densities (Dudek and Associates 2006d), the area occupied should be accurate, as it represents completely mapped units. The general agreement between population estimates and occupied area indicates that, at least for general qualitative analyses, the population estimates are adequate.” (Fns. omitted.) We will detail other aspects of the conservation plan in our extensive discussion of the merits of plaintiffs’ contentions. The conservation plan identifies seven pages of government and private sector scientific studies and documents utilized in the development of the preserves. This does not include dozens of scientific articles identified by private sector consultants and public entity staff.

7. The petition and the ruling

In the first cause of action for violation of section 21000 et seq., the petition alleges that the environmental impact report’s evaluation is defective. The petition alleges: the analysis of the project impacts on the spineflower is based on a misunderstanding of its population dynamics that is contrary to available scientific evidence; the environmental impact report underestimates the project’s impacts on the spineflower; the environmental impact report fails to evaluate the effect of permanently removing most of the spineflower’s seed bank from the project area on the viability of the

proposed reserves; and the conservation plan and the environmental impact report rely on unproven and ineffective mitigation measures. As to the third cause of action for violation of the endangered species act, the petition alleges: the spineflower incidental take permit authorizes the destruction of approximately 24 percent of its habitat located in the specific plan area, i.e., Entrada and Valencia Commerce Center Planning Areas; the department has failed to insure that the impacts of the spineflower incidental take permit have been fully mitigated; the department has not insured that the conservation measures required by the spineflower incidental take permit are capable of successful implementation; the department has failed to insure there is adequate funding to implement the conservation plan; the department has failed to insure that the issuance of the spineflower incidental take permit would not jeopardize the continued existence of specified covered species; the department's conclusions the spineflower incidental take permit would not likely jeopardize the continued existence of the covered species are not based on the best scientific evidence; those conclusions are not based on other reasonably available information; the conservation plan arbitrarily designates some areas as "core habitat" which ignore the spineflower population dynamics and high annual variability; the incidental take permit does not minimize or fully mitigate damage to other covered species; and the department has violated its duty to protect public trust resources. Finally, in the fourth cause of action, the petition alleges that no substantial evidence supports the department's findings that: the impacts of the take of spineflowers will be minimized and fully mitigated; the spineflower conservation measures are capable of successful implementation; and the issuance of the incidental take permit will not jeopardize the continued existence of "the covered species."

The trial court ruled the department's analysis of the spineflower mitigation measures was legally impermissible. The trial court ruled there was no substantial evidence the proposed mitigation measures were adequate. The trial court ruled the department failed to: competently evaluate the potential for growth in the seven preserves; provide "useful information" concerning the spineflower habitat; evaluate how the spineflower pollinates; conduct research about the existence of seed banks in the

project area; and require the developer to protect seeds banks if they are discovered in the area to be developed. The trial court ruled: the developer lacked “any underlying scientific understanding of the” spineflower and the department decided to await further analysis of the plant’s physical and biological habitat; there was no substantial evidence of habitat, ecology and propagation of the spineflower in the record and, “Only the creation or restoration of new Spineflower land can mitigate for the loss of any existing wildflower habitat.” Finally, the trial court ruled the mitigation plan was not supported by “any” substantial evidence and thereby violated unspecified provisions of the California Environmental Quality Act.

8. Substantial evidence supports the department’s mitigation plan determinations

The parties agree we apply a substantial evidence standard of review to the mitigation issue. The conservation plan is the result of years’ long extensive, collaborative and scientific analysis by credentialed scientists. The conservation plan resulted from changes occurring in the iterative process. This process was directed by an array of department scientists whose names we have listed in the margin.²⁰ In addition, the developer’s consultant, Dudek and Associates, utilized 43 biologists in conducting surveys and scientific analyses. Spineflower surveys of the conservation plan area were conducted by Dudek and Associates, URS Corporation and FL_x. Dudek and Associates scientists conducted 21 surveys of the project area in order to identify the spineflower

²⁰ The scientific staff involved in the preparation of the conservation plan included: John Willoughby, M.S., of the federal land management bureau; Sherri Miller, M.S., B.S.; Kamarul Muri, B.S.; Callie Ford, B.S.; Dr. Phil Behrends; Dr. Jodi McGraw; Scott White, M.A., B.A.; Dr. Nathan Gale; Dr. Anujah Parikh; Christopher Julian, B.S.; Kevin Hunting, Department Regional Manager; Mary Meyer, M.A., B.A., a department plant and ecology scientist; Dennis Bedford, a department environmental scientist; Michael J. Mulligan, a regional manager for the department; Mary Ann Showers, the department’s lead botanist; Terri Dickerson, the department’s senior environmental scientist; Betty Courtney, the department senior environmental scientist; and Dr. Edmund J. Pert, the department’s regional manager.

habitat. Those surveys are part of the administrative record. In terms of the 2002 through 2007 surveys, the conservation plan details the matters studied: “The data discussed includes the number and distribution of occurrences and ecological indicators such as slope, aspect, vegetation, soils, and pollinators. The data also includes the results of the on-site geology and soils testing.”

Moreover, an August 13, 2004 study prepared by Allen E. Seward Engineering, Inc. (Seward study) describes the spineflower habitat. The Seward study, which was a follow-on to a 2002 analysis, was accomplished utilizing: subsurface investigations involving 39 test pits; surface analysis at 175 plant stations; laboratory testing; and geologic analyses. The Seward study found geologic and geomorphic conditions that were fairly consistent at each occurrence site including: the types of geologic formations where spineflowers grow with specified rare exceptions; the largely consistent nature of soils where spineflowers grow; the probable subsoil soils composition range which support spineflower growth; soil coloration; and the slope gradients where spineflowers flourish.

The conservation plan provides additional information concerning spineflower populations and the like. The 2002 through 2007 spineflower population surveys were conducted “throughout” the specific plan and Entrada and Valencia Commerce Center Planning Areas. The spineflower population dramatically increased between 2004 and 2006. But in 2007, the population decreased significantly. The size of the population correlated to annual rainfall figures—the greater the moisture, the larger the spineflower population.

The conservation plan describes varying factors which affect spineflower propagation including the absence of competing species depending on the direction the plot faces. This analysis was premised on test-plot experiments at Laskey Mesa, the results of which were published in 2003. A second Laskey Mesa study indicates the use of herbicides to defoliate followed by planting spineflower produced flowering. And the Dudek and Associates studies indicate environmental conditions and competition affect spineflower population density. One study relied on by the department was co-authored

by 10 scientists with the California State University, Fullerton. That study, published by the California Botanical Society, examined the reproductive factors of pollination interactions and germination success including identifying six pollinators which provided a majority of visits to spineflowers. The study concluded that the spineflower's rarity is due to the destruction of its habitat—the exact problem the preserves are designed to resolve. Further, the authors of the California State University, Fullerton study expressed their appreciation to the Dudek and Associates, Inc. and Sapphos Environmental, Inc. staffs.

One study cited in the conservation plan is an extensive analysis prepared by Glenn Lukos Associates and Sapphos Environmental Inc. in February 2000 (Lukos-Sapphos). The Lukos-Sapphos study of the spineflower was prepared for the Ahmanson Land Company. The Las Virgenes site is the only known area of spineflower growth outside the specific plan and Entrada and Valencia Commerce Center Planning Areas. The Lukos-Sapphos study concluded the spineflower prefer open habitats, free of shade and competing plants and has a wide tolerance for soil properties. The Lukos-Sapphos study specifically details propagation (by a diverse set of insects) and germination of the spineflower. After summarizing the factors which affect maintenance of the species in the Las Virgenes area, the Lukos-Sapphos study concluded, “[T]here is every reason to believe that this plant can be restored in historic localities, and successfully managed onsite by a combination of methods that incorporate a knowledge of its biology.”

To sum up, the conservation plan dramatically expands the area for potential growth of the spineflower. Between 2002 and 2007 surveys uncovered only 13.88 acres of actual spineflower growth in the specific plan and in the Entrada Planning Areas. The preserves will expand 13.88 acres of actual spineflower growth to: core growth areas of 56.79 acres; buffer areas occupying 110.77 acres; and expansion areas of 42.90 acres. In the five preserve areas, two of which already exist but will be expanded, the department, utilizing recognized biological strategies, expects to dramatically increase the area of spineflower growth.

The foregoing constitutes substantial evidence which supports the department's scientific strategies and mitigation findings. In addition, the foregoing constitutes substantial evidence that: the take is incidental to an otherwise lawful activity; the impacts of the spineflower take have been minimized and fully mitigated; the spineflower mitigation requirements are capable of successful implementation; the incidental take permit is consistent with the provisions of California Code of Regulations, title 14, section 783.0 et seq.; and there is adequate funding to support the spineflower mitigation measures. (Fish & G. Code, § 2081, subd. (b)(1)-4.) In addition, the foregoing constitutes substantial evidence that: the incidental take permit will not jeopardize the spineflower's continued existence; the department has used the best scientific and other information that is reasonably available to make the determination the spineflower's continued existence will not be jeopardized; and the department has utilized such information to evaluate the adverse impacts of the taking on the spineflower species ability to survive in light of population trends, other threats and further reasonably foreseeable impacts. (Fish & G. Code, § 2081, subd. (c).)

Plaintiffs' other arguments fall into five general areas. First, plaintiffs argue the department admitted it had little knowledge of the spineflower. Plaintiffs reason this lack of substantive knowledge therefore supports the trial court's ruling that the department's mitigation and other spineflower analysis is not supported by substantial evidence. Plaintiffs' argument in this regard takes the department's cautionary analysis out of its context. As noted, the conservation plan indicates that future study is warranted because of the variables in spineflower growth and the like. After acknowledging the problems of assessing spineflower growth in the context of preserves, the department, as noted, expressly stated in the conservation plan, "The general agreement between population estimates and occupied area indicates that, at least for general qualitative analyses, the population estimates are adequate." The department acted with candor in evaluating the difficulties of protecting an endangered species. This is particularly true in that only one other place in the world, in Ventura County, is there a viable spineflower population.

The department's conclusions in this regard are buttressed by extensive scientific and academic research.

Second, plaintiffs rely on views expressed by Ms. Myers, a department scientist, concerning earlier versions of the conservation plan. However, Ms. Myers's disagreement with earlier versions of the conservation plan is not pertinent to the issue of whether the environmental impact report's conclusions are supported by substantial evidence. (*Environmental Council, supra*, 142 Cal.App.4th at p. 1042, fn. 5; *Preserve Wild Santee v. City of Santee* (2012) 210 Cal.App.4th 260, 280.) Third, most of plaintiffs' analysis requires us to reweigh conflicting conclusions offered by Ms. Myers and others rather than engage in deferential substantial evidence review.

Fourth, the department's comprehensive monitoring plan does not amount to deferring appropriate environmental actions. A conservation plan that adapts to changing scientific knowledge does not necessarily violate the endangered species act. (*Environmental Council of Sacramento, supra*, 142 Cal.App.4th at pp. 1025-1026.) It is appropriate that the department, as it has done so under the conservation plan, require the developer to engage in studies concerning spineflower: genetic structure; breeding and pollination; habitat; and soil disturbance. Under these circumstances, the requirement that future research be conducted concerning the spineflower is not deferring an environmental decision--it is sound ecological management. Finally, monitoring the developer's conduct within the preserve areas for a prolonged period of time does not constitute deferring an environmental decision.

Fifth, there was no requirement that a separate habitat conservation plan be prepared. An extraordinary amount of scientific inquiry preceded the issuance of the environmental impact report and incidental take permit. Under these circumstances, no obligation to prepare a separate habitat analysis exists under either the endangered species or California Environmental Quality acts. The legal issue before us is whether substantial evidence supports the department's conclusions. It does. We need not discuss plaintiffs' other contentions.

9. No abuse of discretion occurred in connection with the issuance of the incidental take permit

Insofar as plaintiffs contend the incidental take permit should not have been issued (as distinguished from an attack on the environmental impact report), such a challenge is without merit. Our Supreme Court has identified the applicable standard of review of an agency regulatory decision such as issuance of an incidental take permit: “[T]he standard for review of agency decisions in connection with regulatory approvals is generally one of abuse of discretion. “Abuse of discretion is established if the respondent [agency] has not proceeded in the manner required by law, the order or decision is not supported by the findings, or the findings are not supported by the evidence.” [Citations.]’ (*Sierra Club v. State Bd. of Forestry*[, *supra*,] 7 Cal.4th [at p.] 1236.)” (*Environmental Protection Information Center v. California Dept. of Forestry And Fire Protection*, *supra*, 44 Cal.4th at pp. 478-479.) All of the foregoing analysis as it relates to the environmental impact report applies equally to the issuance of the incidental take permit. No abuse of discretion occurred.

[Part IV (G) is deleted from publication]

G. Baseline For Assessing Cumulative Impacts Of Greenhouse Gas Emissions And Related Significance Analysis

1. Overview

The trial court ruled the environmental impact report’s selection of a baseline for assessing the cumulative impacts of the project’s greenhouse gas emissions was, as a matter of law, inappropriate. In addition, the trial court ruled that certain aspects of the department’s significance analysis in the environmental impact report is not supported by

substantial evidence. Much of the following discussion involves the Health and Safety Code section 38550 goal of reducing greenhouse gas emissions to 1990 levels.

2. Summary of environmental impact report's discussion of greenhouse gas emissions

The environmental impact report's 150-page Global Climate Change analysis consists of: an introduction including an analysis of the strategies in the Valencia Commerce Center and Entrada Planning Areas which can be expected to reduce greenhouse gas emissions; a discussion of how the quantity of greenhouse gas emissions are calculated; federal and state imposed requirements including Health and Safety Code section 38500 et seq., section 21083.05, Guidelines section 15604 and Green Building Standards; a Global Climate Change analysis; a discussion of significance thresholds; the greenhouse gas emissions' impacts on the project and alternatives; and a statement of mitigation measures. We will describe the particulars of the environmental impact report's greenhouse gas emissions discussion in greater detail later in this opinion.

3. Trial court's ruling

a. technical and legal background

The trial court found several errors in the department's greenhouse gas emissions assessment. Before summarizing the trial court's findings, it is appropriate to provide some technical background and define several terms utilized by the parties and the trial court. In 2006, Health and Safety Code section 38500 et seq., which is entitled the California Global Warming Solutions Act of 2006 (global warming act), was enacted. The term "greenhouse gases" is defined by Health and Safety Code section 38505, subdivision (g) which is part of the global warming act to include: carbon dioxide; methane; nitrous oxide; hydrofluorocarbons; perfluorocarbons; sulfur hexafluoride; and nitrogen trifluoride. More generally, greenhouse gases are described as "any gas that

absorbs infrared radiation in the atmosphere” and, consequently, also include water vapor, ozone and hydrochlorofluorocarbons. (*POET, LLC v. State Air Resources Bd.* (2013) 218 Cal.App.4th 681, 699, fn. 3.)

Health and Safety Code section 38550 requires the California Air Resources Board (air resources board) to develop a plan to limit statewide greenhouse gas emissions to 1990 levels by 2020. Health and Safety Code section 38550 states: “By January 1, 2008, the state board shall, after one or more public workshops, with public notice, and an opportunity for all interested parties to comment, determine what the statewide greenhouse gas emissions level was in 1990, and approve in a public hearing, a statewide greenhouse gas emissions limit that is equivalent to that level, to be achieved by 2020. In order to ensure the most accurate determination feasible, the state board shall evaluate the best available scientific, technological, and economic information on greenhouse gas emissions to determine the 1990 level of greenhouse gas emissions.” (See *Association of Irrigated Residents v. State Air Resources Bd.* (2012) 206 Cal.App.4th 1487, 1490; *Utility Consumers’ Action Network v. Public Utilities Com.* (2010) 187 Cal.App.4th 688, 694.)

The air resources board has determined, by law, greenhouse gas emissions must be reduced to 1990 levels by the year 2020. This is to be accomplished by developing actions to reduce greenhouse gas emissions. The lead agency for accomplishing this reduction in greenhouse gas emissions is the air resources board. (Health & Saf. Code, § 38510.) On December 11, 2008, the air resources board issued its 121-page “Climate Change Scoping Plan” which proposed a comprehensive set of actions designed to reduce overall greenhouse gas emissions. (See *Association of Irrigated Residents v. State Air Resources Bd.*, *supra*, 206 Cal.App.4th at p. 1492.)

The air resources board’s scoping plan’s executive summary states, “This plan calls for an ambitious but achievable reduction in California’s carbon footprint. Reducing greenhouse gas emissions to 1990 levels means cutting approximately 30 percent from business-as-usual emissions levels projected for 2020, or about 15 percent from today’s levels.” The term “business-as-usual emissions levels” refers to what will occur if there is no transition to renewable energy technologies and increased energy

efficiency programs. The scoping plan defines the business as usual methodology as a means of identifying the quantity of emissions if no greenhouse gas reduction measures are undertaken. The scoping plan also utilizes the term “no action taken” scenario to describe the level of greenhouse gas emissions if no environmentally appropriate corrective action is taken. The planned deviation from the business as usual or no action taken scenario is described in the air resources board’s scoping plan thusly: “Significant progress can be made toward the 2020 goal relying on existing technologies and improving the efficiency of energy use. A number of solutions are ‘off the shelf,’ and many - especially investments in energy conservation and efficiency - have proven economic benefits. Other solutions involve improving our state’s infrastructure, transitioning to cleaner and more secure sources of energy, and adopting 21st Century land use planning and development practices.” These terms, business as usual or no action taken, appears throughout the statement of decision and in the parties’ discussion of the legal issues. Now we turn to the trial court’s findings.

b. statement of decision

First, the trial court ruled judicial evaluation of the threshold determination was *not reviewed for substantial evidence*. Rather, according to the trial court, judicial review consists of an assessment of whether the department proceeded in a manner prescribed by law in making a threshold determination. The trial court ruled in connection with the baseline issue: “Whether or not a proper baseline determination has been proffered by the expert is not a question of ‘substantial evidence.’ Rather, the question presented here is whether the [department]’s analysis has proceeded in a manner required law by using a realistic measure of the impact of the current project on the environment. Thus, the standard of review . . . is *de novo*.” The trial court also ruled: “[T]he use of an improper baseline interferes with the [environmental impact report’s] ability to assess the impacts of the proposed project. In cases in which a project is being proposed for undeveloped

pieces of property . . . , the baseline has been existing environments, rather than some hypothetical impacted future environment that might occur without the project.”

Second, the trial court faulted the department’s analysis concerning greenhouse gas emissions. The trial court’s analysis follows. When the environmental report was prepared, the air resources board had not yet recommended a return to the 1990 emission levels as a basis for a significance determination. The department’s consultant estimated the existing activities in the project area resulted in 10,272 metric tons of carbon dioxide equivalents emissions. After completion of full development, the consultant estimated the annual emission level would be 269,000 metric tons of carbon dioxide emissions.

According to the trial court, the department concluded the project would not significantly affect the environment. The department compared the level of emissions after the use of new technologies and environmentally responsible practices with the scenario where no changes are made. As noted, if no changes in environmental regulation and practices occur, that is referred to as the business as usual or no action taken scenario. The trial court ruled: “But, a magnitude change of this size did not support a finding that the project would have a significant climate change impact. Instead, [the department] asked whether this numeric increase would impede the State of California’s compliance with [global warming act’s] emissions mandate. If the [L]egislature’s mandate could be reached, then it could be concluded that the [project] would not significantly affect the environment. This single ‘significance determination’ is based on the unsubstantiated assumption that [the] new development that is 29% below ‘business as usual’ . . . is consistent with California’s near-term emissions reduction objectives, and therefore, would not result in a cumulatively considerable environmental impact on global warming.” (Fns. omitted.)

The trial court concluded the department’s foregoing analysis was inappropriate: “The question to be answered in an [environmental impact report] is not whether this project will result in non-compliance with a state-wide legislative objective, but rather whether the project will have adverse environmental effects and whether those impacts can be avoided or substantially lessened by way of feasible mitigation. A baseline

analysis of impacts on the existing environment, therefore, is required to inform decision-makers of the magnitude (or significance) of the cumulative environmental impact [of the project] on greenhouse gas emissions. Whether such a project would assist or defeat (or, more likely, have no effect on) the state's efforts at reducing these levels is not the proper question.”

The trial court continued: “In contravention of [the California Environmental Quality Act], the [environmental impact report] presumes, without any substantial evidence in the record to support the claim, that because the [air resources board] Scoping Plan states that California's overall emissions must be reduced to 29% below ‘business as usual’ to meet legislative targets, that new developments (such as this one) need only reduce greenhouse gases to 29% below ‘business as usual’ to fully mitigate its impacts under [the California Environmental Quality Act.] In fact, given that opportunities for reducing emissions from the already built environment present greater challenges, there is no legitimate basis upon which to presume that expectations for minimizing emissions from new developments should be greater. In fact, as recognized by the Attorney General, ‘new development[s] must be more [greenhouse gas-]efficient than this average, given past and current sources of emissions, which are substantially less efficient tha[n] this average, will continue to exist and emit.’” (Fn. omitted.)

The trial court noted that the air resources board was fully engaged in an effort to reduce greenhouse gas emissions in order to comply with the 2020 goals. The trial court stated: “The 29% below ‘business as usual threshold’ adopted by [the department] as a significance threshold will be largely achieved through compliance with existing and anticipated regulatory requirements. Thus, the 31% below ‘business as usual’ conditions promised by this [project] - in effect - awards emission reduction ‘points[’] to [the developer] for mitigation already required by local or state law.”

The trial court then criticized the department for misrepresenting the air resources boards' implementation of unspecified portions of Health and Safety Code section 38500 et seq. The trial court ruled: “In addition, the ‘methodology’ employed in this case did not even use the entire mandate under [the air resources board's] implementation of [the

global warming act] to assess environmental significance. Rather, the [department] ‘cherry picked’ [the air resources board’s] thresholds. There are two different aspects of the [air resources board’s] greenhouse gas targets in its plan. Not only does [the air resources board] propose a 30 percent reduction of the state’s [business as usual] projected emissions in 2020, but it also proposes a ten percent reduction from *actual* 2002-2004 average emissions. Using the ‘actual’ 2002-2004 greenhouse gas level as a ‘baseline’ -- which [the air resources board] also proposes as using as a measure of compliance with [the global warming act] -- the [project] would be environmentally significant if it fails to meet [Health and Safety Code section 38510’s] requirement of decreasing greenhouse gases from 2002-2004 levels by 10 percent.”

The trial court ruled that using a business as usual measure to evaluate whether a significant environmental impact resulted would defeat the goals of the global warming act. The trial court ruled: “By partially importing a regulatory measure intended to address a legislative mandate and using it as a measure of significance in an [environmental impact report] approval process, project planners are making the achievement of [Health and Safety Code section 38510’s] mandates more difficult. New developments of the type under consideration here must actually reduce greenhouse gas emissions from the business as usual baseline in order to allow ‘past and current sources of emissions,’ which are substantially less efficient than this [project] pre-development, to continue to exist and emit.”

The trial court indicated the absence of federal guidance or appellate decisions made the department’s greenhouse gas effects task “particularly” problematic. And the trial court acknowledged the law does afford “some reasonable discretion” to the department. Then, the trial court ruled that the department’s consultant’s conclusion did not constitute substantial evidence. According to the trial court, the consultant’s analysis of environmental significance was not adequately supported by facts and analysis contained in the environmental impact report. The trial court concluded: “As time has progressed, there has emerged greater consensus . . . regarding how global climate change should be analyzed and which significance criteria are to be used. In further

proceedings in this case, that growing guidance will assist decision-makers in the evaluation of greenhouse gas emissions from this proposed [project].” (Fn. omitted.)

4. The parties’ contentions

The department and the developer argue the trial court utilized the wrong standard of review. Additionally, the department and the developer contend that the trial court mistakenly confused the baseline assessment with the significance determination. In that regard, they contend that the environmental impact report adequately addresses both assessments.

Plaintiffs argue that the trial court correctly rejected the department’s greenhouse gas emissions analysis in the environmental impact report. Plaintiffs contend the substantial evidence test is not the correct standard for making a baseline determination. Additionally, adopting the trial court’s analysis, plaintiffs contend that the significance analysis utilized an impermissible, illusory environmental baseline. Finally, plaintiffs contend that the discussion concerning greenhouse gas emissions and the business as usual concept was insufficient.

5. The department’s baseline determination

As noted, plaintiffs contend that the proper standard of review of an agency determination for a baseline analysis is not substantial evidence. Guidelines section 15125, subdivision (a) sets forth the regulatory requirements for a baseline discussion in an environmental impact report: “An [environmental impact report] must include a description of the physical environmental conditions in the vicinity of the project, as they exist at the time the notice of preparation is published, or if no notice of preparation is published, at the time environmental analysis is commenced, from both a local and regional perspective. This environmental setting will normally constitute the baseline physical conditions by which a lead agency determines whether an impact is significant.

The description of the environmental setting shall be no longer than is necessary to an understanding of the significant effects of the proposed project and its alternatives.” The determination of an environmental baseline for the existing conditions in a project area is largely factual in nature. (*Neighbors for Smart Rail v. Exposition Metro Line Const. Authority, supra*, 57 Cal.4th at p. 449; *Save Our Peninsula Committee v. Monterey County Bd. of Supervisors* (2001) 87 Cal.App.4th 99, 120.) If there are differing methodologies or opinions by consultants for determining a project’s baseline, it is the agency’s duty to decide such disputes. (*Ibid.*; see *Sunnyvale West Neighborhood Association v. City of Sunnyvale City Counsel* (2010) 190 Cal.App.4th 1351, 1378, disapproved on another point in *Neighbors for Smart Rail v. Exposition Metro Line Const. Authority, supra*, 57 Cal.4th at p. 457.) Our Supreme Court has synthesized the flexible nature of an agency’s discretion in identifying the baseline physical conditions in assessing an environmental impact’s significance: “[N]either [the California Environmental Quality Act] nor the . . . Guidelines mandates a uniform, inflexible rule for determination of the existing conditions baseline. Rather, an agency enjoys the discretion to decide, in the first instance, exactly how the existing physical conditions without the project can most realistically be measured, subject to review, as with all [California Environmental Quality Act] factual determinations, for support by substantial evidence.” (*Neighbors for Smart Rail v. Exposition Metro Line Const. Authority, supra*, 57 Cal.4th at p. 449, quoting *Communities for a Better Environment v. South Coast Air Quality Management Dist.* (2010) 48 Cal.4th 310, 328; see *Cherry Valley Pass Acres & Neighbors v. City of Beaumont* (2010) 190 Cal.App.4th 316, 336.) As a result, we respectfully disagree with plaintiffs that we should apply a standard of review other than substantial evidence in assessing the department’s baseline analysis.

The department’s baseline determination is supported by substantial evidence. As will be noted, the department identified the amount of greenhouse gas emissions currently emanating from the project site. The existing environmental setting typically is the baseline. (Guidelines, § 15125, subd. (a); *Neighbors for Smart Rail v. Exposition Metro Line Const. Authority, supra*, 57 Cal.4th at p. 448.) We agree with the department

that the trial court’s ruling, as do some aspects of plaintiffs’ analysis, conflated the baseline with the significance determination. We need not decide whether that conflation warrants reversal on its own. Rather, we will address the merits of the significance determination.

6. Substantial evidence supports the department’s greenhouse gas emissions assessments
 - a. regulatory requirements for a greenhouse gas emissions discussion in an environmental impact report

Guidelines section 15064 sets forth the general requirements for determining whether a project may have a significant effect on the environment. The environmental impact report must discuss the project’s significant environmental impacts. (Guidelines, § 15126, subd. (a); *North Coast Rivers Alliance v. Marin Municipal Water Dist. Bd. of Directors*, *supra*, 216 Cal.App.4th at p. 625.) Guidelines section 15064.4, subdivision (a) requires an agency to determine the significance of greenhouse gas emissions emanating from the project. The lead agency’s responsibility is defined as follows: “A lead agency should make a good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate or estimate the amount of greenhouse gas emissions resulting from a project. A lead agency shall have discretion to determine, in the context of a particular project, whether to: [¶] (1) Use a model or methodology to quantify greenhouse gas emissions resulting from a project, and which model or methodology to use. The lead agency has discretion to select the model or methodology it considers most appropriate provided it supports its decision with substantial evidence. The lead agency should explain the limitations of the particular model or methodology selected for use; and/or [¶] (2) Rely on a qualitative analysis or performance based standards.” (See *North Coast Rivers Alliance v. Marin Municipal Water Dist. Bd. of Directors*, *supra*, 216 Cal.App.4th at p. 650 [environmental impact report]; *Citizens for Responsible Equitable*

Environmental Development v. City of Chula Vista (2011) 197 Cal.App.4th 327, 329, 336 [mitigated negative declaration].)

In assessing the significance of greenhouse gas emissions impacts, the lead agency considers three factors. To begin with, the lead agency evaluates the extent to which the project affects greenhouse gas emissions when compared to the existing environmental setting. (Guidelines, § 15064.4, subd. (b)(1).) Additionally, the lead agency determines whether the project greenhouse gas emissions exceed a significance threshold that it determines applies to the project. (Guidelines, § 15064.4, subd. (b)(2).) Finally, the agency evaluates the extent to which the project complies with regulatory requirements imposed by other government agencies for the mitigation of greenhouse gas emissions. (Guidelines, § 15064.4, subd. (b)(3); see *North Coast Rivers Alliance v. Marin Municipal Water Dist. Bd. of Directors*, *supra*, 216 Cal.App.4th at p. 650; *Citizens for Responsible Equitable Environmental Development v. City of Chula Vista*, *supra*, 197 Cal.App.4th at p. 336.)

b. The environmental impact report's significance discussion

The environmental impact report relies upon the air resources board's assessment as to the necessary greenhouse gas emissions reductions that must be achieved to comply with the 1990 levels. The environmental impact report states: “[The air resources board] found, by its emission estimates, that emissions must be reduced about 29 percent below the [no action taken] scenario for California to achieve the . . . reduction mandates. [¶] The . . . [no action taken] scenario relies on specific assumptions, including assumptions relating to electricity generation, vehicle fuel efficiency, and building energy efficiency. In particular, [the air resources board] assumed that all new electricity generation would be supplied by natural gas plants, no regulatory action would impact vehicle fuel efficiency, and building energy efficiency codes would be held at the 2005 . . . standards.”

According to the environmental impact report, worldwide emissions of greenhouse gas emissions in 2004 totaled 26.8 billion tons. In 2004, the United States emitted about 7 billion tons of greenhouse gas emissions. Energy-related fossil fuel combustion results in 80 percent of United States greenhouse gas emissions. According to the California Environmental Protection Agency, in 2004, California emitted .497 billion tons of greenhouse gases. The percentages of greenhouse gas emissions, according to the California Environmental Protection Agency in 2004 were: 81 percent emanated from fossil fuel combustion; 4 percent from process emissions; 5.6 percent were comprised of methane emissions; 6.8 percent resulted from nitrous oxide emissions; and fluorinated gases which have a very high global warming potential accounted for 2.9 percent of emissions. The highest end use category for greenhouse gas emissions are transportation related including industrial and residential uses.

At present, roughly 10,272 tons of greenhouse gas emissions are estimated to emanate from the project site. The department estimated that the project, utilizing new environmental efficiencies and strategies, will result in 269,000 metric tons of greenhouse gas emissions on an annualized basis. If no action is taken, (the business as usual scenario), the annualized total of project greenhouse gas emissions in 2020 will be 390,046 tons. Thus, in 2020, the emissions of the project will be 31 percent below the level if no action were taken (the business as usual scenario). The department compared the project with state, national and global greenhouse gas emissions levels. In 2004, greenhouse gas emissions totaled: 26.8 billion tons globally; 7 billion tons nationally; and 0.480 billion tons for California. By contrast, the project's discharge at the conclusion of the buildout will be: 0.001 percent of global emissions; 0.0038 percent of national emissions; and 0.056 percent of statewide emissions. Thus, the department calculated on an annualized basis: the present level of greenhouse gas emissions, 10,272 tons; the project's emission level if no environmentally protective actions are taken (the business as usual or no action taken scenario), 390,046 tons; the project's emission levels if environmental safeguards designed to meet the Health and Safety Code section 38550 targets, 269,000 tons; and the percentage reduction in emission levels if no effort is made

to meet the Health and Safety Code section 38550 targets, 31 percent. According to ENVIRON International Corporation, the developer's consultant, these figures, in terms of compliance with the Health and Safety Code section 38550 target, are extremely conservative. This is because the statistics do not include the developer's own efforts to reduce further greenhouse gas emissions.

One final point is an order concerning the foregoing statistical emission data. At one place in the environmental impact report, the department states that in 2004, California emitted 0.497 billion tons of greenhouse gases. Later in the environmental impact report, the department states the 2004 emission level was "about" .480 billion tons. No party asserts these differing emission tonnage figures are of statistical or legal consequence.

The department declined to make a significance determination based upon these numbers. The environmental impact report, in reference to the foregoing statistical data states: "The above analysis is not intended to suggest that the proposed [project's] emissions are *de minimis*; instead, it is provided for overall context. In general, the combined emissions of projects globally appear to be the primary cause of global climate change, even though many [project]-specific emissions appear small when viewed in isolation."

Additionally, the department noted there is an absence of scientific and factual information regarding when particular quantities of greenhouse gas emissions become significant. Further, there is no consensus among governmental agencies as to whether a particular project may result in a potentially significant impact on greenhouse gas emissions. When the environmental impact report was circulated, neither the corps nor the department found any other federal, state, regional or local agency had adopted greenhouse gas emissions significance thresholds.

In the response to comments made after the environmental impact report was circulated, evidence of other agencies' adoption of significance thresholds was discussed. After the draft environmental impact report was prepared, the department distributed its responses to comments. The department noted, as of that date, no statewide agency had

promulgated a significance threshold for greenhouse gas emissions. Neither the air resources board nor the South Coast Air Quality Management District had promulgated significance threshold determination standards. But the San Joaquin Valley Air Pollution Control District provided a tiered method of assessing a project's significance. The San Joaquin Valley District developed a significance determination when there was a 29 percent reduction from a business as usual emissions level. The San Joaquin Valley District concluded under those circumstances the greenhouse gas emissions levels should be determined to have a less than significant individual and cumulative impact. The Sacramento Metropolitan Air Quality Management District recommended that thresholds of significance should be related to the Health and Safety Code section 38550 goals. According to the Sacramento district, “[A] possible threshold of significance could be to determine whether a project’s emissions would substantially hinder the State’s ability to attain the goals identified in [Health and Safety Code section 38550] (*i.e.*, reduction of statewide [greenhouse gas] emissions to 1990 levels by 2020; approximately a 30 percent reduction from projected 2020 emissions).”

The Bay Area Air Quality Management District adopted a different significance determination from that used in the environmental impact report in this case. The Bay area district posited three criterion: does the project comply with a qualified greenhouse gas reduction strategy?; would the project emit less than 1,100 metric tons of greenhouse gas emissions equivalent yearly?; or would the project emit less than 4.6 metric tons of greenhouse gas equivalents per service population per year? If the project did not meet one of these three criteria, then its greenhouse gas impacts would be deemed significant.

The environmental impact report acknowledges a significant increase in the amount of greenhouse gas emissions from the project site over the existing scenario. The environmental impact report states: “[T]he increase, alone, is not sufficient to support a significance determination because of the absence of scientific and factual information regarding when particular quantities of greenhouse gas emissions become significant (as climate change is a global issue). Accordingly, and as discussed further below, the analysis also considers whether the proposed [project’s] emissions . . . would impede the

State of California’s compliance with the statutory emissions reduction mandate established by [Health and Safety Code section 38550].”

Rather, than exclusively focus on the emissions differential, the department concluded the significance determination should be premised on the Health and Safety Code section 38550 target. The department adopted the following significance criterion to assess impacts: “[The department] has determined it is appropriate to rely on [the global warming act], and specifically Health [and] Safety Code, section 38550, as a benchmark and use the statute to inform its judgment as to whether the [project’s] [greenhouse gas] emissions would result in a significant impact. (See Cal. Code Regs. tit. 14, § 15064, subd. (f)(1).) Accordingly, the following significance criteria is used to assess impacts: [¶] Will the proposed [project’s] [greenhouse gas] emissions impede compliance with the [greenhouse gas] emission reductions mandated in [the global warming act]?”

c. significance determination

Once an agency determines an environmental impact report must be prepared, the document must contain a discussion of the project’s significant ecological impacts. (§ 21002.1, subd. (a); *Protect The Historic Amador Waterways v. Amador Water Agency* (2004) 116 Cal.App.4th 1099, 1109 [“Thus, in preparing the [environmental impact report], the agency must determine whether any of the *possible* significant environmental impacts of the project will, in fact, be significant.”].) If an agency determines that any effect will not be significant, there need only be a brief discussion as to why the environmental impacts will be nonserious. (§ 21100, subd. (c); Guidelines, § 15128; *Protect The Historic Amador Waterways v. Amador Water Agency, supra*, 116 Cal.App.4th at p.1109.)

The department has discretion to select the significance criterion for greenhouse gas emissions. (Guidelines, § 15064.4, subd. (a); *Citizens for Responsible Equitable Environmental Dev. v. City of Chula Vista, supra*, 197 Cal.App.4th at p. 336.) The Court

of Appeal for the First Appellate District, Division Four explained a lead agency's responsibilities in assessing the significance of greenhouse gas emissions: "In assessing the significance of these emissions, the lead agency should consider the extent to which the project may affect emissions levels; whether emissions exceed an applicable threshold of significance; and whether the project complies with regulations or requirements adopted to implement statewide, regional, or local plans to reduce [greenhouse gas emissions]." (*North Coast Rivers Alliance v. Marin Municipal Water District Board of Directors*, *supra*, 216 Cal.App.4th at p. 650; see *Citizens for Responsible Equitable Environmental Dev. v. City of Chula Vista*, *supra*, 197 Cal.App.4th at p. 335.) The use of Health and Safety Code section 38550 as a basis for a significance determination has been upheld in two other cases. (*Friends of Oroville v. City of Oroville* (2013) 219 Cal.App.4th 832, 841 ["The City properly adopted Assembly Bill 32's reduction targets for [greenhouse gas] emissions as the threshold-of-significance standard in determining whether the [project's] [greenhouse gas] emissions constituted a significant environmental impact."]; *Citizens for Responsible Equitable Environmental Dev. v. City of Chula Vista*, *supra*, 197 Cal.App.4th at p. 336 ["Here, the City properly exercised its discretion to utilize compliance with [AB 32] as the threshold."].)

The department found the impact would be less than significant because the project's emissions were 31 percent below the level that would be expected if no action is taken: "The proposed [project] will result in the emission of about 269,000 metric [tons] of [greenhouse gases] on an annualized basis (and incorporating vegetation and construction emissions). These emissions or 31 percent below the level that would be expected if the proposed [project] and resulting development were constructed consistent with [the air resources board's] assumptions for the [board's] 2020 [no action taken] scenario. Because this reduction exceeds the 29 percent reduction required for California to achieve the [Health and Safety Code section 38550] reduction mandate, the proposed [project] would result in a less-than-significant impact." The environmental impact report assessed the reductions in greenhouse gas emissions if the Health and Safety Code section 38550 standards were met. For example, in terms of residential developments, if

no action were taken to reform environmental policies, 86,607 tons of greenhouse gases would be released into the environment in 2020. But if the environmental reforms resulting from the global warming act's enactment, the residential greenhouse gas emissions would be reduced to 59,449 tons annually for a 31 percent reduction.

No doubt, inherent in the department's analysis are some projections involving uncertainty in evaluating greenhouse gas emissions. However, Guidelines section 15144 recognizes that an environmental impact report necessarily involves a degree of forecasting: "Drafting an [environmental impact report] . . . necessarily involves some degree of forecasting. While foreseeing the unforeseeable is not possible, an agency must use its best efforts to find out and disclose all that it reasonably can." (Guidelines, § 15144; *Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova*, *supra*, 40 Cal.4th at p. 428; *Communities for a Better Environment v. City of Richmond* (2010) 184 Cal.App.4th 70, 96.) Further, Guidelines section 15064.4, subdivision (a) requires a lead agency to "make a good-faith effort" to "describe, calculate or estimate" the amount of greenhouse gas emissions. Nothing in the greenhouse gas emissions section of the environmental impact report contravenes these requirements.

7. Plaintiffs' criticisms of the environmental impact report

Plaintiffs argue: the department used an impermissible illusory baseline; disclosure of existing greenhouse gas emissions does not satisfy unspecified portions of the California Environmental Quality Act; the air resources board's business as usual (no action taken) standard does not provide a proper baseline for greenhouse gas emissions significance analysis; other significance thresholds would have avoided the use of an illusory environmental baseline; the analysis in the environmental impact report obstructs the goals of unspecified provisions of the global warming act; and the environmental impact report improperly takes credit for existing ecological regulations and legislation. These contentions have no merit.

The environmental impact report assesses: the current greenhouse gas emissions; the anticipated changes resulting from the project's development; and significance in terms of 2020 compliance with Health and Safety Code section 38550. As we have explained, utilizing this form of environmental analysis has been expressly approved on two occasions by two different Courts of Appeals. (*Friends of Oroville v. City of Oroville, supra*, 219 Cal.App.4th at p. 841; *Citizens for Responsible Equitable Environmental Dev. v. City of Chula Vista, supra*, 197 Cal.App.4th at p. 336.) The department declined to solely rely on the increase in greenhouse gas emissions as a baseline for determining significance. Further, the department declined to utilize the numerical percentages of total worldwide, national and state emissions as the basis for its significance determination. This was because the scientific community could not *quantify* when a particular increase was *significant*. It bears emphasis that the department is vested with the discretion to select a threshold to apply to greenhouse gas emissions. (Guidelines, § 15064.4, subd. (a); *Citizens for Responsible Equitable Environmental Dev. v. City of Chula Vista, supra*, 197 Cal.App.4th at p. 336.)

Further, the statistical analysis was premised upon an extensive environmental evaluation prepared by ENVIRON International Corporation. The October 2009 ENVIRON International Corporation technical addendum updated its prior calculations concerning greenhouse gas emissions. The ENVIRON International Corporation analysis was premised in material part on the air resources board scoping plan. Further, the updated technical analysis was premised upon: environmental legislation which requires electricity sellers to increase renewable energy percentages; an executive order, effective November 11, 2008, which requires increased procurement of eligible renewable energy resources by 2020; new statutory requirements for reducing greenhouse gas emissions by 2016; and new federal fuel efficiency and emissions standards requirements.

The analysis in the October 2009 ENVIRON International Corporation technical update evaluated various types of emissions. For example, the update identified the greenhouse gas emissions from renewable and nonrenewable power sources. In doing so, the consultant relied upon the California Climate Action Registry General Reporting

Protocol. Further, the consultant referred to the climate action registry database for data provided by Southern California Edison Company, the likely energy provider for the project area. Also, the October 2009 technical update evaluated emissions resulting from the construction of 6,346 residences in the project area. The technical assessment was premised upon an energy modeling package approved by the California Energy Commission. The analysis was based upon various models for residences compliant with 2005 and 2008 versions of the California Building Standards Code. (Tit. 24, Cal. Code Regs.) In addition, the technical update calculated emissions per dwelling unit assuming the developer was able to provide a 15 percent improvement over California Building Standards Code requirements.

Also, the ENVIRON International Corporation update evaluated nonresidential power usage. Much of the data was taken from a 2006 California Energy Commission report on commercial end-use power usage. The nonresidential power usage analysis evaluated separate scenarios depending upon compliance with the 2008 California Building Standards Code requirements. A separate analysis was made if solar panels were utilized in nonresidential development and for each design alternative. Much of the source materials for the ENVIRON International Corporation analysis were from California Energy Commission documents.

Additionally, the technical update evaluated greenhouse gas emissions from municipal sources in the project area. Among the municipal sources evaluated were: water distribution and reclamation facilities; vehicle use in connection with water distribution and reclamation; swimming pools; and recreation centers under each of the design alternatives. Most of these calculations relied upon documents provided by: the California Climate Action Registry Database; the California Energy Commission; studies by other municipalities; federal Environmental Protection Agency energy department studies; and academic studies.

Based upon this data, the ENVIRON International Corporation analysis evaluated greenhouse gas emissions for each design municipal sources alternative if no action were taken to improve environmental practices. In addition, the technical update evaluated

municipal greenhouse gas emissions if sounder environmental practices were adopted. The source information for these comparisons were analyses prepared by the California Energy Commission, other municipalities, federal agencies, and the air resources board. There is no merit to plaintiffs' challenges to the department's environmental impact report and the consultants' analysis. The department's environmental baseline and significance conclusions, premised in part upon the ENVIRON International Corporation technical update and the air resources board scoping report, are supported by substantial evidence.

Only one other of plaintiffs' arguments warrants further explicit analysis. Plaintiffs infer that Deputy Attorney General Timothy E. Sullivan has raised issues pertinent to the present environmental impact report. In fact, in his November 4, 2009 letter, Mr. Sullivan addressed a staff report concerning greenhouse gas emissions prepared by the San Joaquin Valley Air Pollution Control District. Plaintiffs rely on Mr. Sullivan's following comments: "Because 'business as usual' for a development project is defined by the Staff Report as what was typically done in similar projects in the 2002-2004 timeframe, and requirements affecting [greenhouse gas] emissions have advanced substantially since that date, it appears that the Air District's proposal would award emission reduction 'points' for undertaking mitigation measures that are already required by local or state law. [¶] Similarly, we are concerned that project proponents could 'game' the system. Under the current proposal, each project will be considered against a hypothetical project that could have been built on the site in the 2002-2004 time period. It is not clear why the project should be compared against a hypothetical project if that hypothetical project could not legally be built today, and the approach would appear to offer an incentive to project proponents to artificially inflate the hypothetical project to show that the proposed project is, by comparison, [greenhouse gas] efficient." (Fns. omitted.)

For a multitude of reasons, Mr. Sullivan's November 4, 2009 letter, by itself or in conjunction with other analyses, does not permit the environmental impact report to be set aside. Those reasons include: on November 4, 2009, Mr. Sullivan was not evaluating

the present environmental impact report; Mr. Sullivan was explaining the difficulty of merely applying Health and Safety Code section 38550 and Executive Order S-03-05 requirements to future unspecified hypothetical projects; the environmental impact report in this case sets a specific environmental objective--exceeding the Health and Safety Code section 38550 standards; and the environmental impact report does not discuss a mere *hypothetical project* but concretely identifies the number of greenhouse gas triggering facilities, activities and the anticipated emissions levels. Finally, the developer correctly notes that the Attorney General has taken no position in connection with the present environmental impact report. Mr. Sullivan's November 4, 2009 discussion about the San Joaquin Valley air pollution district's staff report does not permit the environmental impact report's certification to be set aside.

Plaintiffs' argument is that the environmental impact report did not examine existing onsite emissions, the project as originally conceived, as well as projected greenhouse gas emissions' impacts have no merit. The environmental impact report analyzed the project if no action was taken. The project as originally conceived was not hypothetical. It consisted of anticipated real construction on and development of presently open space. Plaintiffs' repeated characterizations some hypothetical project was analyzed have no merit. Nor is there any merit to the argument that the department was *required* to adopt baseline and significance analysis utilized by others. It was the department's obligation to select an appropriate baseline and there was no requirement that analysis adopted by others be utilized in the environmental impact report. Nor does utilization of the Health and Safety Code section 38550 targets obstruct the goals of the global warming act. Finally, the authority cited by plaintiffs is neither controlling nor does it provide a ground to set aside the environmental impact report's certification. We, with respect, reject plaintiffs' challenges to the greenhouse gas analysis in the environmental impact report.

[The balance of the opinion is to be published]

V. DISPOSITION

The judgment is reversed. Upon remittitur issuance, judgment is to be entered in favor of defendant, California Department of Fish and Wildlife, and the real party interest, The Newhall Land and Farming Company. Defendant and real party in interest shall recover their costs incurred on appeal jointly and severally from plaintiffs: Center for Biological Diversity; Friends of the Santa Clara River; Santa Clarita Organization for Planning the Environment; Wishtoyo Foundation/Ventura Coastkeeper; and California Native Plant Society.

CERTIFIED FOR PARTIAL PUBLICATION

TURNER, P. J.

We concur:

MOSK, J.

KRIEGLER, J.