IN THE SUPREME COURT OF CALIFORNIA

CLEVELAND NATIONAL FOREST)
FOUNDATION et al.,)
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Plaintiffs and Appellants,	
r familins and Appenants,) S223603
) 5225005
V.	
) Ct.App. 4/1 D063288
SAN DIEGO ASSOCIATION OF)
GOVERNMENTS et al.,)
) San Diego County
Defendants and Appellants;) Super. Ct. No.
Defendants and Appenants,) 37-2011-00101593-
THE PEOPLE,) CU-TT-CTL
)
Intervener and Appellant.)
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CREED-21 et al.,)
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Plaintiffs and Appellants,)
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) Super. Ct. No.
V.) 37-2011-00101660-
) CU-TT-CTL
SAN DIEGO ASSOCIATION OF)
GOVERNMENTS et al.,)
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Defendants and Appellants;	
Defendants and Appenants,)
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THE PEOPLE,)
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Intervener and Appellant.)
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The California Environmental Quality Act (CEQA; Pub. Resources Code, § 21000 et seq.) requires that public agencies assess the environmental impacts of projects requiring government permits. The law is intended "'to alert the public

SEE DISSENTING OPINION

and its responsible officials to environmental changes before they have reached ecological points of no return.' " (*Laurel Heights Improvement Assn. v. Regents of University of California* (1988) 47 Cal.3d 376, 392 (*Laurel Heights*).) One of the impacts that public agencies must analyze under CEQA is whether a project will significantly increase greenhouse gas emissions.

In this case, the project is a regional development plan for the San Diego area intended to guide its transportation infrastructure from 2010 to 2050. The Attorney General and various environmental groups challenged an environmental impact report (EIR) accompanying the plan on several grounds. At issue here is their claim that the EIR failed to adequately analyze the plan's impacts on greenhouse gas emissions and climate change. In particular, the challengers contend that the EIR should have evaluated the plan's impacts against an executive order signed by Governor Schwarzenegger in 2005 declaring a goal of reducing greenhouse gas emissions in California to 80 percent below 1990 levels by the year 2050. The EIR projects that under the plan, greenhouse gas emissions will fall through 2020 but then rise and maintain an upward trajectory through 2050. The challengers claim that this trend is at odds with the state's climate change goals, as reflected in the 2005 executive order, and that the EIR should have clearly analyzed and informed the public about that inconsistency. The San Diego Association of Governments (SANDAG), the regional planning agency that issued the EIR, argues that it was not obligated under CEQA or any other law to use the executive order in its analysis.

We conclude that SANDAG did not abuse its discretion by declining to explicitly engage in an analysis of the consistency of projected 2050 greenhouse gas emissions with the goals in the executive order. The EIR sufficiently informed the public, based on the information available at the time, about the regional plan's greenhouse gas impacts and its potential inconsistency with state climate change

goals. Nevertheless, we do not hold that the analysis of greenhouse gas impacts employed by SANDAG in this case will necessarily be sufficient going forward. CEQA requires public agencies like SANDAG to ensure that such analysis stay in step with evolving scientific knowledge and state regulatory schemes.

I.

We begin with an overview of the regulatory scheme by which this state seeks to address greenhouse gas emissions as part of a global effort to slow climate change.

In June 2005, Governor Schwarzenegger signed Executive Order No. S-3-05, which set overall greenhouse gas emissions reduction targets for California. (Governor's Executive Order No. S-3-05 (June 1, 2005) (hereafter Executive Order or EO).) The Executive Order established three general benchmarks: (1) reduce emissions to 2000 levels by 2010; (2) reduce emissions to 1990 levels by 2020; and (3) reduce emissions to 80 percent below 1990 levels by 2050. These targets were based on a scientific consensus that climate change was largely caused by human activity resulting in elevated levels of carbon dioxide and other heat-trapping gases in the atmosphere and that drastic reductions in greenhouse gas emissions were required to stabilize the climate.

As the California Air Resources Board (CARB), the agency charged with implementing the state's climate change policy, has explained: "The experts tell us that an additional increase in global average temperatures of just 2 degrees Celsius (3.6 degrees Fahrenheit) is very likely dangerous. With a 2 degree Celsius increase, disastrous effects become likely, including more extreme and more frequent severe weather, more wildfires, greater frequency of droughts and floods, rapid and higher sea level rise, and increased habitat destruction and extinctions. These environmental effects will undoubtedly lead to serious economic, political, and national security disruptions.

"In order to reduce the risk of dangerous climate change, we must stabilize atmospheric levels of GHG [greenhouse gas emissions] at approximately 450 parts per million (ppm) by mid-century. We are fast approaching this limit. . . . [¶] In response to the challenge of climate change, California has taken a leadership role by committing to reduce its GHG emissions to 1990 levels by 2020 (about a thirty percent reduction in business-as-usual emissions in 2020) and to eighty percent below 1990 levels by 2050. The latter target is consistent with the scientific consensus of the reductions needed to stabilize atmospheric levels of GHGs at 450 ppm by mid-century." (CARB, Recommended Approaches for Setting Interim Significance Thresholds for Greenhouse Gases under the California Environmental Quality Act (Oct. 24, 2008) p. 3, fns. omitted [preliminary draft staff proposal].)

In 2006, shortly after the Executive Order was issued, the Legislature enacted the California Global Warming Solutions Act of 2006 (Stats. 2006, ch. 488, adding Health & Saf. Code, § 38500 et seq.), commonly known as Assembly Bill No. 32 (AB 32). AB 32 partially adopted the Executive Order's goals by directing CARB to "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." (Health & Saf. Code, § 38550.) The Legislature also directed CARB to prepare a "scoping plan" to identify how to achieve the "maximum technologically feasible and cost-effective reductions in greenhouse gas emissions by . . . 2020." (*Id.*, § 38561, subd. (a).) The scoping plan prepared by CARB explained that " '[r]educing greenhouse gas emissions to 1990 levels means cutting approximately 30 percent from business-as-usual emission levels projected for 2020, or about 15 percent from today's levels.' (Air [Resources] Bd., Climate Change Scoping Plan (Dec. 2008) Executive Summary, p. ES–1 (Scoping Plan).)

The Scoping Plan then set out a 'comprehensive array of emissions reduction approaches and tools' to meet the goal, including expanding energy efficiency programs, achieving a statewide renewable energy mix of 33 percent, developing with our regional partners a cap-and-trade program for greenhouse gases, establishing targets and policies for emissions in transportation and implementing existing clean transportation programs, and creating targeted fees on certain activities affecting emissions. (*Id.*, pp. ES–3 to ES–4.)" (*Center for Biological Diversity v. California Dept. of Fish & Wildlife* (2015) 62 Cal.4th 204, 216 (*Center for Biological Diversity*).)

The Legislature has also adopted the Sustainable Communities and Climate Protection Act (Stats. 2008, ch. 728, § 1; Stats. 2009, ch. 354, § 5), commonly known as SB 375. In enacting this law, the Legislature found that the transportation sector contributed 40 percent of the state's greenhouse gas emissions and that automobiles and light trucks alone are responsible for 30 percent. (Stats. 2008, ch. 728, § 1, subd. (a).) The Legislature also found the state could not meet its emission reduction goals without improved land use and transportation policy. (*Id.*, § 1, subd. (c).) SB 375 directs CARB to develop region-by-region emission reduction targets for automobiles and light trucks for 2020 and 2035. (Gov. Code, § 65080, subd. (b)(2)(A).) CARB must update these targets every eight years until 2050, and it may update the targets every four years based on various factors. (*Id.*, subd. (b)(2)(A).) The targets set by CARB for the San Diego region, using a 2005 baseline, require a 7 percent per capita reduction in greenhouse gas emissions by 2020 and a 13 percent per capita reduction by 2035.

In order to achieve these targets, SB 375 imposes additional requirements on regional transportation plans (RTPs) used by federally designated metropolitan planning organizations (MPOs), such as SANDAG. Every four to five years,

MPOs are required to adopt a comprehensive RTP that addresses no less than a 20-year planning horizon. (23 C.F.R. § 450.324(c).) Under SB 375, MPOs are required to develop a "sustainable communities strategy" (SCS), consistent with the CARB regional targets, as part of their RTPs. (Gov. Code, § 65080, subd. (b)(2).) The strategy must be developed through an intensive public consultation process. (Gov. Code, § 65080, subd. (b)(2)(E), (F).) The strategy must address, among other things, regional distribution of land uses and population, housing needs, and protection of resource areas. (*Id.*, § 65080, subd. (b)(2)(B).)

Importantly, for purposes of this case, the strategy must "set forth a forecasted development pattern for the region, which, when integrated with the transportation network, and other transportation measures and policies, will reduce the greenhouse gas emissions from automobiles and light trucks to achieve, if there is a feasible way to do so, the greenhouse gas emission reduction targets approved by the state board." (Gov. Code, § 65080, subd. (b)(2)(B).) The reductions mandated by SB 375 may be achieved through a variety of means, including "smart growth" planning to maximize building densities at locations served by public transit and to locate residences near needed services and shopping to reduce automobile dependency. Other means include shifting investment toward mass transit, changing transportation pricing, and encouraging car sharing, walking, and biking. (See Cal. Transportation Com., 2010 Regional Transportation Plan Guidelines (2010) pp. 137–138.)

Once an MPO has adopted a sustainable communities strategy that CARB finds acceptable, some transit priority projects consistent with the strategy are exempt from CEQA requirements, whereas other transit priority projects, residential projects, and mixed-use projects consistent with the strategy are subject to streamlined CEQA requirements. (Pub. Resources Code, §§ 21155–21155.4, 21159.28; Cal. Code Regs., tit. 14, § 15183.3 (Guidelines).)

II.

CARB's 2008 scoping plan (Scoping Plan) "encourages local jurisdictions to develop ' "climate action plans" ' or greenhouse gas ' "emissions reduction plans" ' for their geographic areas, and several jurisdictions have adopted or proposed such plans as tools for CEQA streamlining." (*Center for Biological Diversity, supra*, 62 Cal.4th at p. 230.) Pursuant to this directive, SANDAG in 2010 issued its "Climate Action Strategy," (sometimes CAS) that said: "Achieving the near-term goal of reducing statewide greenhouse gas emissions to the 1990 level by the year 2020 is ambitious but likely achievable with available policy measures and technology options. However, the long-term goal of reducing statewide greenhouse gas emissions to 80 percent below the 1990 level by the year 2050 will require fundamental changes in policy, technology, and behavior." (SANDAG, Climate Action Strategy (Mar. 2010) p. 11.) The Climate Action Strategy then recommended a number of land-use and transportation measures designed to reduce greenhouse gas emissions. (*Id.* at pp. 24–55.)

In 2011, SANDAG issued its RTP/SCS plan (Plan) pursuant to Government Code section 65080, subdivision (b). The Plan was adopted as a "blueprint for a regional transportation system, serving existing and projected residents and workers within the San Diego region . . . over the next 40 years, that further enhances quality of life and offers more mobility options for people and goods. The 2050 RTP/SCS looks 40 years ahead, accommodating another 1.2 million residents, half a million new jobs, and nearly 400,000 new homes. The Plan addressed a 40 year period ending in 2050." In addition, SANDAG prepared a draft EIR (occasionally, DEIR) to analyze the Plan's environmental effects, including its projected impact on the region's greenhouse gas emissions.

The draft EIR proposed three different measures — labeled GHG-1, GHG-2, and GHG-3 — for determining whether the region's greenhouse gas emissions

under the Plan would be significant, and it applied each measure to the years 2020, 2035, and 2050. GHG-1 compared the projected total regional GHG emissions to conditions existing in 2010. The draft EIR concluded that after taking into account the transportation and land use changes set forth in the Plan, regional greenhouse gas emissions in 2020 are expected to be lower than in 2010. Therefore, the draft EIR judged the emission impacts for 2020 to be insignificant.

In 2035, the draft EIR found, "[r]egional growth/land use change GHG emissions" are "expected to be greater than in 2010, while transportation-related GHG emissions are expected to be lower than in 2010. The total emissions expected in 2035 for both regional growth/land use change and transportation network improvements would be 30.18 MMT CO_2e [million metric tons of carbon dioxide equivalent], accounting for state measures and including construction-related emissions. Compared with the estimated 2010 emissions of 28.85 MMT CO_2e , this represents an increase over baseline conditions. Therefore, implementation of the 2050 RTP/SCS would lead to an overall increase in GHG emissions in 2035 compared to 2010 levels and constitutes a significant impact

The draft EIR further concluded that "[l]and-use and transportation-related GHG emissions in 2050 are expected to be greater than in 2010. The total emissions expected in 2050 would be 33.65 MMT CO₂e, accounting for state measures. Compared with the estimated 2010 emissions of 28.845 MMT CO₂e, this represents an increase over baseline conditions. Therefore, implementation of the 2050 RTP/SCS would lead to an overall increase in GHG emissions compared to baseline levels and constitutes a significant impact for which mitigation measures are described in Section 4.8.5."

The draft EIR's second measure of significance, GHG-2, compared projected regional emissions with the reduction targets mandated by SB 375. The

draft EIR explained: "GHG-2 analyzes a narrower range of GHG emissions than GHG-1.... SB 375 requires [CARB] to develop regional GHG emission reduction targets, compared to 2005 emissions, for cars and light trucks for 2020 and 2035 for each of the state's MPOs." The draft EIR concluded that the plan would meet CARB's mandated targets of reducing per capita emissions 7 percent below 2005 levels by 2020 and 13 percent below 2005 levels by 2035 through a variety of measures, including denser residential development and increased use of mass transit. In applying GHG-2, the draft EIR made no determination of significant environmental effects with respect to the year 2050 because CARB has not yet established 2050 reduction targets.

The third measure of significance, GHG-3, compared projected regional emissions with applicable emission reduction plans, specifically CARB's Scoping Plan and SANDAG's own Climate Action Strategy. The draft EIR states that, consistent with the Climate Action Strategy, "land use changes and transportation improvements expected as a result of implementation of the 2050 RTP/SCS focus on transit and compact development near transit centers. These are aligned with the policies outlined in the CAS and therefore implementation of the 2050 RTP/SCS would not impede the CAS and would constitute a less than significant impact." As for comparison with the Scoping Plan, the draft EIR said: "The Scoping Plan does not have targets established beyond 2020 and therefore the impacts to the Scoping Plan are not analyzed for 2050."

Several parties filed comments critical of the draft EIR's greenhouse gas emissions analysis. Typical of these comments, the Attorney General observed that the EIR "finds the impact of the RTP/SCS on GHG emissions to be not significant in 2020 . . . , significant in 2035 . . . , and significant in 2050 SANDAG must, however, make a determination whether the project as a whole has significant climate change impacts. We believe strongly that it does. What

the DEIR shows is that the suite of strategies relied on by SANDAG, which include[s] a heavy reliance on roadway expansion projects, does not deliver GHG reductions that are sustainable in the long term. In fact, infrastructure and land use decisions made in the early years of the RTP/SCS may lock in transportation inefficiencies and preclude any realistic possibility of meeting the Executive Order's goal of an 80% reduction in GHG emissions." The Attorney General faulted the draft EIR for rejecting any need to analyze the consistency between the Plan's long-term projections and the 2050 emission reduction objectives of the Executive Order. SANDAG's position, the Attorney General argued, failed to recognize that the Executive Order "is designed to meet the environmental objective that is relevant under CEQA (climate stabilization)."

In the final EIR, SANDAG maintained it had no obligation to analyze projected emissions against the Executive Order's goals: "The 2050 RTP/SCS complies with SANDAG's SB 375 emissions reductions targets, which in turn are based on AB 32 implementation. SANDAG recognizes the aspirational nature of the EO [Executive Order] S-3-05 2050 target, but the 2050 RTP/SCS emissions reductions are not legally required to be consistent with this target, and as explained below, this target is not an appropriate CEQA threshold of significance." The EIR continued: "SANDAG chose not to use the 2050 EO emissions reduction target as a threshold of significance because the EO is not an adopted GHG reduction plan within the meaning of CEQA Guidelines [section] 15064.4(b)(2), and because SANDAG's role in achieving this target is uncertain and likely small. Although comments note the Attorney General . . . [has] advised that the EO 2050 target can inform CEQA analysis, there is no legal requirement to use it as a threshold of significance. Under the CEQA Guidelines and case law, SANDAG retains the discretion to select certain GHG emissions reduction thresholds and not select others. [¶] Furthermore, even if SANDAG had used the

2050 EO emissions reduction target as a threshold of significance, the Impact GHG-1 impact conclusions for 2035 and 2050 would not have changed. These impacts would be significant and unavoidable using either the net increase threshold used in Impact GHG-1, or an EO based threshold."

After SANDAG certified the EIR, two nonprofit groups, CREED-21 and the Affordable Housing Coalition of San Diego County, filed a petition for writ of mandate challenging the EIR's adequacy under CEQA. The Cleveland National Forest Foundation and the Center for Biological Diversity filed a similar petition, in which Sierra Club and the Attorney General later joined.

The superior court issued a writ of mandate in plaintiffs' favor, finding that the EIR failed to fulfill its role as an informational document because it did not analyze the consistency between the Plan's emission impacts and the Executive Order's emission reduction goals. The court also found that the EIR did not adequately address mitigation measures for significant emission impacts. In light of these findings, the court declined to decide any of the other challenges raised in the petitions. The writ of mandate directed SANDAG to set aside its certification of the EIR and to prepare and certify a revised EIR curing the identified deficiencies.

SANDAG appealed, arguing that the EIR complied with CEQA, and the Cleveland National Forest Foundation and other environmental organizations (collectively, Cleveland) cross-appealed, arguing that the EIR further violated CEQA by failing to analyze a reasonable range of project alternatives, by failing to adequately analyze and mitigate the Plan's air quality impacts, and by understating the transportation plan's impacts on agricultural lands. The Attorney General separately cross-appealed, contending that the EIR further violated CEQA by failing to adequately analyze and mitigate the transportation plan's impacts from particulate matter pollution. The Court of Appeal, largely agreeing with plaintiffs,

affirmed the trial court's judgment setting aside the EIR certification but modified the judgment to require that a subsequent EIR fix most of the defects identified in the cross-appeals. Justice Benke dissented from the court's holding that SANDAG was required to analyze the consistency of projected emissions with the goals of the Executive Order and concluded that SANDAG's analysis was supported by substantial evidence.

We granted review on the following question: "Must the environmental impact report for a regional transportation plan include an analysis of the plan's consistency with the greenhouse gas emission reduction goals reflected in Executive Order No. S-3-05 to comply with the California Environmental Quality Act (Pub. Resources Code, § 21000 et seq.)?"

III.

We granted the Attorney General's request to judicially notice the fact that SANDAG updated its RTP/SCS in 2015 in accordance with its statutory mandate and, in doing so, included some analysis of the Plan's consistency with the Executive Order. None of the parties contends, however, that the question of whether CEQA requires such consistency analysis should be dismissed as moot. The parties recognize that this question may recur. SANDAG makes clear that it undertook the consistency analysis in 2015 because it "prudently reacted" to the Court of Appeal opinion below and that whether CEQA requires such analysis is still in dispute. The issue before us presents an important question of law that is likely to recur yet evade review because of the relatively short period between adoption of a RTP and adoption of a successor plan. Accordingly, we proceed to decide the issue even though SANDAG's 2010 regional transportation plan has now been superseded. (See *California Charter School Assn. v. Los Angeles Unified School Dist.* (2015) 60 Cal.4th 1221, 1233–1234.)

A.

"The EIR is the primary means of achieving the Legislature's considered declaration that it is the policy of this state to 'take all action necessary to protect, rehabilitate, and enhance the environmental quality of the state.' ([Pub. Resources Code,] § 21001, subd. (a).) The EIR is therefore 'the heart of CEQA.' [Citations.] An EIR is an 'environmental "alarm bell" whose purpose it is to alert the public and its responsible officials to environmental changes before they have reached ecological points of no return.' [Citations.] The EIR is also intended 'to 'demonstrate to an apprehensive citizenry that the agency has, in fact, analyzed and considered the ecological implications of its action.' [Citations.] Because the EIR must be certified or rejected by public officials, it is a document of accountability. If CEQA is scrupulously followed, the public will know the basis on which its responsible officials either approve or reject environmentally significant action, and the public, being duly informed, can respond accordingly to action with which it disagrees. [Citations.] The EIR process protects not only the environment but also informed self-government." (Laurel Heights, supra, 47 Cal.3d at p. 392.) An EIR "must include detail sufficient to enable those who did not participate in its preparation to understand and to consider meaningfully the issues raised by the proposed project." (*Id.* at p. 405.)

At the same time, courts must proceed with caution when determining the adequacy of EIRs. "In reviewing an agency's compliance with CEQA in the course of its legislative or quasi-legislative actions, the courts' inquiry 'shall extend only to whether there was a prejudicial abuse of discretion.' (Pub. Resources Code, § 21168.5.) Such an abuse 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.'" (*Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova* (2007) 40 Cal.4th 412, 426, fn. omitted

(Vineyard). "'CEQA gives lead agencies discretion to design an EIR ...'

(2 Kostka & Zischke, Practice Under the Cal. Environmental Quality Act [Cont. Ed. Bar (2011)] § 20.81D, p. 1030 (rev. 3/12)) and the agency is not required to conduct every recommended test or perform all requested research or analysis (Guidelines, § 15204, subd. (a)). . . . An EIR is required to evaluate a particular environmental impact only to the extent it is 'reasonably feasible' to do so. (Guidelines, § 15151; 2 Kostka & Zischke, Practice Under the Cal. Environmental Quality Act, *supra*, § 20.81D, p. 1030 (rev. 3/12).)" (*Rialto Citizens for Responsible Growth v. City of Rialto* (2012) 208 Cal.App.4th 899, 937.)

We have also recognized that the analysis of greenhouse gas emissions in an EIR poses particular challenges. "First, because of the global scale of climate change, any one project's contribution is unlikely to be significant by itself. The challenge for CEQA purposes is to determine whether the impact of the project's emissions of greenhouse gases is *cumulatively* considerable, in the sense that 'the incremental effects of [the] individual project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.' (§ 21083, subd. (b)(2); see Guidelines, § 15064, subd. (h)(1).) 'With respect to climate change, an individual project's emissions will most likely not have any appreciable impact on the global problem by themselves, but they will contribute to the significant cumulative impact caused by greenhouse gas emissions from other sources around the globe. The question therefore becomes whether the project's incremental addition of greenhouse gases is "cumulatively considerable" in light of the global problem, and thus significant.' [Citation.]

"Second, the global scope of climate change and the fact that carbon dioxide and other greenhouse gases, once released into the atmosphere, are not contained in the local area of their emission means that the impacts to be evaluated

are also global rather than local. For many air pollutants, the significance of their environmental impact may depend greatly on *where* they are emitted; for greenhouse gases, it does not." (*Center for Biological Diversity, supra*, 62 Cal.4th at pp. 219–220.)

In 2010, the Natural Resources Agency promulgated a guideline for assessing the significance of greenhouse gas emissions impacts under CEQA. Guidelines section 15064.4, subdivision (a) provides in part that "[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." Subdivision (b) states that "[a] lead agency should consider the following factors, among others, when assessing the significance of impacts from greenhouse gas emissions on the environment: [¶] (1) The extent to which the project may increase or reduce greenhouse gas emissions as compared to the existing environmental setting; [¶] (2) Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project; [¶] (3) The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions."

B.

In addressing the controversy between the parties, we begin by noting three points not in dispute. First, the parties agree that the EIR should consider the Plan's long-range greenhouse gas emission impacts for the year 2050. As noted, SANDAG explained in its Climate Action Strategy that "[o]nce in place, land use patterns and transportation infrastructure typically remain part of the built environment and influence travel behavior and greenhouse gas emissions for several decades, perhaps longer." (SANDAG, Climate Action Strategy, *supra*, at p. 25.) The EIR must reasonably evaluate these downstream impacts.

Second, neither party disputes that the Executive Order lacks the force of a legal mandate binding on SANDAG in the preparation of its EIR. What plaintiffs and the Attorney General argue here is that the Executive Order's significance for purposes of CEQA analysis is its scientific basis, i.e., its expression of what scientific research has determined to be the level of emissions reductions necessary to stabilize the climate by midcentury and thereby avoid catastrophic effects of climate change. Nor does any party dispute that the Executive Order's 2050 emissions reduction target is grounded in sound science. In its Climate Action Strategy, SANDAG observed that the 2050 target "is based on the scientifically-supported level of emissions reduction needed to avoid significant disruption of the climate and is used as the long-term driver for state climate change policy development." (SANDAG, Climate Action Strategy, *supra*, at p. 10.)

Third, the parties do not dispute that the projected increase in greenhouse gas emissions under the Plan from 2020 through 2050 is a significant environmental effect. As noted, SANDAG stated in the EIR that implementation of the 2050 RTP/SCS would lead to an overall increase in greenhouse gas emissions in 2050 and that this impact is "significant and unavoidable."

What the parties dispute is whether CEQA required SANDAG to analyze the consistency between the Plan and the Executive Order in assessing the significance of the Plan's impact on greenhouse gas emissions in 2050. The Attorney General and Cleveland argue here, as they did in their comments to the draft EIR, that the EIR inadequately describes the Plan's emission impacts. The Attorney General notes that transportation is responsible for nearly 50 percent of greenhouse gas emissions in the San Diego region, and one of the chief objectives of an SCS is to reduce the total amount of driving in the region, measured as

vehicle miles traveled (VMT). The Attorney General observes: "The total amount of driving expected under the 2050 Plan . . . will increase by more than 50 percent over the life of the Plan. The expected increase in driving is not due solely to increases in population in the San Diego area; under the 2050 Plan, people will drive more on a per capita basis in 2050 than they did in 2010." The Attorney General points to the Plan's projections that daily per capita VMT for all vehicle types would fall in 2020 but would rise by 2035 and would continue to rise through 2050. This increase in total and per capita VMT, the Attorney General contends, drives the upward trend in projected emissions for the San Diego region after 2035.

In light of this projected trend, the Attorney General argues that the EIR's analysis of emission impacts is misleading: "Without placing these emissions into any meaningful context, the EIR summarily concludes that the impacts are 'significant and unavoidable' in 2035 and 2050 because gross annual emissions will be above 2010 levels in these discrete years." According to the Attorney General, this understates and obscures the extent to which the Plan's emission impacts run counter to the state's climate change goals; analyzing the consistency of the Plan with the Executive Order's 2050 emissions reduction target would supply the missing context.

In response to this concern, the final EIR said that "SANDAG chose not to use the 2050 EO emissions reduction target as a threshold of significance because the EO is not an adopted GHG reduction plan within the meaning of CEQA Guidelines 15064.4(b)(2), and because SANDAG's role in achieving this target is uncertain and likely small. Although the comments note the Attorney General . . . [has] advised that the EO 2050 target can inform CEQA analysis, there is no legal requirement to use it as a threshold of significance. Under the CEQA Guidelines

and case law, SANDAG retains the discretion to select certain GHG emissions reduction thresholds and not select others."

In evaluating these arguments, we begin with three points. First, an EIR's designation of a particular adverse environmental effect as "significant" does not excuse the EIR's failure to reasonably describe the nature and magnitude of the adverse effect. (See *Berkeley Keep Jets Over the Bay Committee v. Board of Port Comrs.* (2001) 91 Cal.App.4th 1344, 1371 ["The EIR's approach of simply labeling the effect 'significant' without accompanying analysis of the project's impact on the health of the Airport's employees and nearby residents is inadequate to meet the environmental assessment requirements of CEQA."]; *Galante Vineyards v. Monterey Peninsula Water Management Dist.* (1997) 60 Cal.App.4th 1109, 1123.) An adequate description of adverse environmental effects is necessary to inform the critical discussion of mitigation measures and project alternatives at the core of the EIR. (See Guidelines, § 15151 ["An EIR should be prepared with a sufficient degree of analysis to provide decisionmakers with information which enables them to make a decision which intelligently takes account of environmental consequences."].)

Second, SANDAG's conclusory statement that its role in achieving the Executive Order's 2050 emission reduction target is "likely small" is not a valid reason for rejecting the target as a measure of significance. As noted, "because of the global scale of climate change, any one project's contribution is unlikely to be significant by itself." (*Center for Biological Diversity, supra*, 62 Cal.4th at p. 219.) The solution to climate change requires the aggregation of many small reductions in greenhouse gas emissions by public and private actors at all levels. (See United Nations Framework Convention on Climate Change, Paris Agreement (Dec. 12, 2015, _____U.N.T.S. ____ [English text, p. 52; Annex, p. 21] ["[*recognizing*] the importance of the engagement of all levels of government and

various actors, in accordance with respective national legislation of Parties, in addressing climate change"].) The fact that a regional plan's contribution to reducing greenhouse gas emissions is likely to be small on a statewide level is not necessarily a basis for concluding that its impact will be insignificant in the context of a statewide goal.

Third, we agree with plaintiffs that SANDAG's response in the final EIR that the Executive Order "is not an adopted GHG reduction plan" and that "there is no legal requirement to use it as a threshold of significance" is not dispositive of the issue before us. Although lead agencies have discretion in designing an EIR, the exercise of that discretion must be "based to the extent possible on scientific and factual data." (Guidelines, § 15064, subd. (b).) The Executive Order's 2050 goal of reducing California's greenhouse gas emissions to 80 percent below 1990 levels expresses the pace and magnitude of reduction efforts that the scientific community believes necessary to stabilize the climate. This scientific information has important value to policymakers and citizens in considering the emission impacts of a project like SANDAG's regional transportation plan.

Nonetheless, contrary to what plaintiffs and our dissenting colleague contend, the EIR does not obscure the existence or contextual significance of the Executive Order's 2050 emissions reduction target. The EIR makes clear that the 2050 target is part of the regulatory setting in which the Plan will operate. Further, the EIR straightforwardly mentions the 2050 target in the course of explaining why SANDAG chose not to use the target as a measure of significance. This discussion appears just three pages after the EIR declares, with supporting analysis, that "[1]and-use and transportation-related GHG emissions in 2050 are expected to be greater than in 2010. The total emissions expected in 2050 would be 33.65 MMT CO₂e, accounting for state measures. Compared with the estimated 2010 emissions of 28.85 MMT CO₂e, this represents an increase over

baseline conditions. Therefore, implementation of the 2050 RTP/SCS would lead to an overall increase in GHG emissions compared to baseline levels and *constitutes a significant impact* for which mitigation measures are described in Section 4.8.5." (Italics added.) Similarly, in its responses to comments, the EIR repeatedly mentions the 2050 target in the course of restating its conclusion that the increase in greenhouse gas emissions compared to existing conditions "would be significant in 2035 and 2050." In sum, the basis of plaintiffs' and the dissent's critique of the EIR — i.e., the divergence between projected 2050 emissions and the Executive Order's goals — is apparent in the EIR itself. If the long-term rise in projected emissions was "the elephant in the room" (dis. opn., *post*, at pp. 2, 10, 16), then a fair reading of the EIR confirms that an elephant is hard to hide.

Although there were perhaps clearer or more graphic ways the EIR could have facilitated a comparison between 2050 projected emissions and the Executive Order's 2050 emissions reduction target, we find that the EIR presented the information enabling that comparison "in a manner calculated to adequately inform the public and decision makers, who may not be previously familiar with the details of the project." (Vineyard, supra, 40 Cal.4th at p. 442; see Citizens for a Sustainable Treasure Island v. City and County of San Francisco (2014) 227 Cal.App.4th 1036, 1046 ["[A]n EIR must be upheld if it 'reasonably sets forth sufficient information to foster informed public participation and to enable the decision makers to consider the environmental factors necessary to make a reasoned decision."].) We have made clear, and recently reiterated, that " 'information "scattered here and there in EIR appendices" or a report "buried in an appendix," is not a substitute for "a good faith reasoned analysis." '" (Vineyard, at p. 442; see Banning Ranch Conservancy v. City of Newport Beach (2017) 2 Cal.5th 918, 941.) Here, however, it was not difficult for the public, reading the EIR, to compare the upward trajectory of projected greenhouse gas

emissions under the Plan from 2020 through 2050 with the Executive Order's goal of reducing emissions to 80 percent below 1990 levels by 2050. The fact that part of the discussion of greenhouse gas impacts and the Executive Order occurs in the "Response to Comments" section of the EIR rather than the original draft (see dis. opn., *post*, at p. 8) is not an infirmity. Because a lead agency's response to comments is an integral part of the EIR (see *Rural Landowners Assn. v. City Council* (1983) 143 Cal.App.3d 1013, 1023 [EIRs must adequately address comments of state agencies]), it is reasonable to expect that those interested in the contents of an EIR will not neglect this section.

Moreover, SANDAG did not abuse its discretion in declining to adopt the 2050 goal as a measure of significance in light of the fact that the Executive Order does not specify any plan or implementation measures to achieve its goal. In its response to comments, the EIR said: "It is uncertain what role regional land use and transportation strategies can or should play in achieving the EO's 2050 emissions reduction target. A recent California Energy Commission report concludes, however, that the primary strategies to achieve this target should be major 'decarbonization' of electricity supplies and fuels, and major improvements in energy efficiency [citation]." We cannot say that SANDAG abused its discretion by refusing, on these grounds, to say more in the EIR about whether the projected emissions were consistent with the 2050 goal. Neither the Attorney General nor the other plaintiffs point to any guidance as to how the 2050 goal translates into specific reduction targets broken down by region or sector of emission-producing activity. Further, as SANDAG notes, "there are presently no reliable means of forecasting how future technological developments or state legislative actions to reduce greenhouse gas emissions may affect future emissions in any one planning jurisdiction. . . Lead agencies can only guess how future technical developments or state (or federal or international) actions may affect

emissions from the myriad of sources beyond their control." (See *Marin Mun. Water Dist. v. KG Land California Corp* (1991) 235 Cal.App.3d 1652, 1663 [CEQA does not require analysis of potential impacts from possible future development that are too speculative to evaluate].) It is not clear what additional information SANDAG should have conveyed to the public beyond the general point that the upward trajectory of emissions under the Plan may conflict with the 2050 emissions reduction goal. (Cf. Center for Biological Diversity, supra, 62 Cal.4th at pp. 225–228 [discussing difficulty of inferring required level of emissions reduction for an individual project from a statewide emissions reduction goal].)

Nor can we say it was unreasonable for SANDAG to use its threefold approach in the EIR: (1) Where statute and regulation provide specific regional emissions reduction targets, as for cars and light trucks for 2020 and 2035, the EIR analyzes consistency of projected emissions with those targets (GHG-2). (2) For longer-term emissions through 2050, for which no statute or regulation provides regional or sector targets, the EIR analyzes projected emissions against a baseline of current emissions (GHG-1). This is one of the approaches specified in Guidelines section 15064.4, subdivision (b), which calls on lead agencies to consider "[t]he extent to which the project may increase or reduce greenhouse gas emissions as compared to the existing environmental setting." (3) The EIR analyzes whether the Plan incorporates land use changes and transportation improvement designed to reduce emissions, as reflected in SANDAG's Climate Action Strategy and CARB's Scoping Plan (GHG-3). (See *Center for Biological* Diversity, supra, 62 Cal.4th at p. 229 [recognizing the potential value of " 'performance based standards' " as outlined in the Scoping Plan or other authoritative body of regulation].) Whether or not any one method, by itself, would have provided sufficient analysis, we conclude that these three methods

together adequately informed readers of potential greenhouse gas emission impacts.

We emphasize the narrowness of today's holding. Our decision is not a general endorsement of the adequacy of SANDAG's EIR, much less an endorsement of the adequacy of the regional plan that the EIR analyzes. Specifically, we do not address whether SANDAG's responses to the indisputably significant greenhouse gas impacts of the 2011 regional plan were adequate. The Court of Appeal concluded that the EIR failed to sufficiently consider feasible mitigation measures and project alternatives that would reduce vehicle miles traveled and curb the rise in greenhouse gas emissions. These issues are not before us, and we express no view on them. We hold only that SANDAG, in analyzing greenhouse gas impacts at the time of the EIR, did not abuse its discretion by declining to adopt the Executive Order as a measure of significance or to discuss the Executive Order more than it did.

Moreover, we caution that our conclusion that SANDAG did not abuse its discretion in its analysis of greenhouse gas emission impacts in the 2011 EIR does not mean that this analysis can serve as a template for future EIRs. Under CEQA, "[t]he determination of whether a project may have a significant effect on the environment calls for careful judgment on the part of the public agency involved, based to the extent possible on scientific and factual data." (Guidelines, § 15064, subd. (b).) As more and better data become available, analysis of the impact of regional transportation plans on greenhouse gas emissions will likely improve. Indeed, SANDAG explains that its EIR, in analyzing its 2015 regional transportation plan, "was able to account for many factors in the GHG inventories that were not accounted for in 2011, reflecting 'additional certainty regarding the regulatory environment, including future projections of renewable energy, building energy efficiency, water conservation programs, and solid waste

diversion." A regional planning agency like SANDAG, charged with assisting the implementation of the state's climate goals, must straightforwardly address in the relevant environmental review documents whether its regional transportation plan as a whole is in accord with those goals. Its capacity to do so will likely improve over time.

Furthermore, after briefing was submitted in this case, the Legislature in 2016 enacted Senate Bill No. 32 (SB 32) (2015–2016 Reg. Sess.), adding Health and Safety Code section 38566, which adopts a goal of reducing greenhouse gas emissions by 40 percent below 1990 levels by the year 2030. This 40 percent reduction is widely acknowledged as a necessary interim target to ensure that California meets its longer-range goal of reducing greenhouse gas emissions to 80 percent below 1990 levels by the year 2050. (See Governor's Executive Order No. B–30–15 (Apr. 29, 2015) [explaining the significance of the 40 percent reduction].) SB 32 thus reaffirms California's commitment to being on the forefront of the dramatic greenhouse gas emission reductions needed to stabilize the global climate. The legislation directs CARB to craft regulations to implement its goal. (Health & Saf. Code, § 38566.) These regulations may further clarify the way forward for public agencies to meet the state's 2050 climate goals. This regulatory clarification, together with improved methods of analysis, may well change the manner in which CEQA analysis of long-term greenhouse gas emission impacts is conducted.

In sum, nothing we say today invites regional planners to "shirk their responsibilities" under CEQA or other environmental statutes. (Dis. opn., *ante*, at p. 16.) To the contrary, we affirm that planning agencies like SANDAG must ensure that CEQA analysis stays in step with evolving scientific knowledge and state regulatory schemes.

CONCLUSION

We reverse the judgment of the Court of Appeal insofar as it determined that the 2011 EIR's analysis of greenhouse gas emission impacts rendered the EIR inadequate and required revision. As noted, the Court of Appeal also affirmed the trial court's judgment that the 2011 EIR's analysis of greenhouse gas emission mitigation measures was inadequate, identified other deficiencies in the EIR, and affirmed the issuance of a writ of mandate setting aside the EIR's certification on these grounds. We did not grant review on these issues and express no view on how, if at all, today's opinion affects their disposition. We remand to the Court of Appeal for proceedings consistent with this opinion.

LIU, J.

WE CONCUR:

CANTIL-SAKAUYE, C. J. WERDEGAR, J. CHIN, J. CORRIGAN, J. KRUGER, J.

DISSENTING OPINION BY CUÉLLAR, J.

Through statutes enacted by its elected representatives, the State of California recognizes climate change spurred by greenhouse gases to be a staggering threat to California and the world. The state's response to this challenge reflects not only the projected harm to California but also the state's own contribution to the problem. (See Health & Saf. Code, § 38501.) At the core of that response is a comprehensive effort updating a long-established body of laws designed to protect the environment. Among the most important of those laws is the California Environmental Quality Act (CEQA; Pub. Resources Code, § 21001 et seq.), which requires public officials to disclose the environmental harm of proposed construction projects. Enacted nearly a half century ago, CEQA mandates that "the long-term protection of the environment, consistent with the provision of a decent home and suitable living environment for every Californian, shall be a guiding criterion in public decisions." (Pub. Resources Code, § 21001, subd. (d).) For decades CEQA has ensured public deliberation about present choices that bear future environmental harm. Now, a new generation of state environmental statutes has aligned California law with scientific consensus regarding how to confront climate change. Long-term greenhouse gas emissions have taken their place among the most important harms that CEQA requires public officials to analyze and meaningfully explain.

The question in the case is whether the San Diego Association of Governments (SANDAG) violated CEQA when it issued an environmental impact report (EIR) for a long-term transportation development plan that failed to explain the plan's divergence from long-term greenhouse gas emissions reduction targets first set out in a 2005 executive order. There is no dispute that those targets are relevant to this case regardless of the executive order's legal force, to the extent the targets reflect sound scientific consensus about the steps necessary to stabilize the climate. Likewise, no one disputes that SANDAG has flexibility in designing its regional transportation plan and framing the plan's environmental impact report. Instead, the critical issue in the case is whether the EIR is clear enough about the environmental harm of SANDAG's plan, which reshapes the region's transportation infrastructure in a manner that will increase per capita greenhouse gas emissions and per capita vehicle use in the long term. The answer is no, because among other things the EIR manages to occlude the elephant in the room — that the plan was associated with a major projected increase in greenhouse gas emissions, diverging sharply from emission reduction targets reflecting scientific consensus. This issue matters not only because CEQA aims to facilitate public deliberation and limit the risk that policymakers ignore the environmental consequences of their choices but also because the precise contours of an EIR's impact analysis dictate what mitigation measures and alternative options public officials must consider. Because I believe SANDAG did not fulfill its CEQA obligations, I dissent.

I.

In June 2005, Governor Arnold Schwarzenegger issued Executive Order No. S-3-05, which announced statewide greenhouse gas reduction targets for 2010, 2020, and 2050. The 2050 target proposed to reduce statewide emissions to 80 percent below 1990 levels by that year. This target reflects scientific consensus

about the greenhouse gas emissions reductions necessary to stabilize global temperatures and prevent catastrophic climate effects. The Legislature soon began to carry out the Governor's mandate through a series of statutes. One of the first of these laws was the Global Warming Solutions Act of 2006. (Stats. 2006, ch. 488, § 1, p. 3419.) Since recognized as "landmark legislation," this act "established as state policy the achievement of a substantial reduction in the emissions of gases contributing to global warming." (*Center for Biological Diversity v. California Department of Fish & Wildlife* (2015) 62 Cal.4th 204, 215 (*Center for Biological Diversity*).) The statute directed the Air Resources Board to announce strategies for achieving the Governor's emissions reduction targets. This plan was issued in 2008.

Next came the Sustainable Communities and Climate Protection Act, enacted as SB 375. This act focuses on the role that regional planners will play in reversing climate change. In particular, the Legislature observed that the transportation sector produces a significant share of the state's greenhouse gas emissions. (See Stats. 2008, ch. 728 § 1(a), p. 5065 ["The transportation sector contributes over 40 percent of the greenhouse gas emissions in the State of California; automobiles and light trucks alone contribute almost 30 percent. The transportation sector is the single largest contributor of greenhouse gases of any sector."].) Though new fuel and vehicle technology would help reduce those emissions, the Legislature recognized that those advances would not be enough; instead, the state would also need to reshape its transportation infrastructure to reduce vehicle use. (See *id.*, § 1(c), p. 5065 ["Greenhouse gas emissions from automobiles and light trucks can be substantially reduced by new vehicle technology and by the increased use of low carbon fuel. However, even taking these measures into account, it will be necessary to achieve significant additional

greenhouse gas reductions from changed land use patterns and improved transportation."].)

Apart from any other practical impact they had, these laws also affected CEQA — a statute as ubiquitous in disputes about land and infrastructure as it is important to California's protection of its environment. For 47 years, CEQA has required for "the long-term protection of the environment" to serve as "the guiding criterion in public decisions." (Pub. Resources Code, § 21001, subd. (d), as added by Stats. 1970, ch. 1433, § 1, p. 2781.) In particular, the statute requires agencies that oversee projects like SANDAG's regional transportation plan to prepare an EIR whose "purpose is to inform the public and its responsible officials of the environmental consequences of their decisions *before* they are made." (*Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal.3d 553, 564.) Given CEQA's focus on long-term environmental impact, an agency needs to do more than simply list a few short-term benefits and claim success. Rather, an EIR must look beyond immediate impact and explain clearly whether the project prioritizes "short-term environmental goals to the disadvantage of long-term environmental goals." (Cal. Code Regs., tit. 14, § 15065, subd. (a)(2).)

When it comes to climate change, the state's long-term environmental goals are clear. SB 375 and other statutes have codified into California law the scientific consensus that the state must reduce greenhouse gas emissions over the next few decades. (See, e.g., *Center for Biological Diversity, supra*, 62 Cal. 4th at p. 215; Health & Saf. Code, § 38501.) While the particulars of that goal (exactly what quantities of reduction, through what means, at what times) might remain subject to some debate, the overall trend — reduction of emissions, not steep increases — does not. In October 2011, SANDAG issued one of the plans required by SB 375, along with an EIR laying out the plan's environmental costs. Though this EIR is governed by the same general framework that governs the

validity of an EIR for a typical development project, it was also somewhat distinct in that the whole purpose of the project at issue — the entire reason the Legislature directed SANDAG to issue a regional transportation plan — was to help achieve the state's goal of reducing greenhouse gas emissions from transportation infrastructure. CEQA and SB 375 together created a duty to explain in detail whether SANDAG's regional transportation plan will work "to the disadvantage of" that long-term goal. (Pub. Resources Code, § 21083, subd. (a)(1).) The Court of Appeal was persuaded by the Attorney General and other challengers that the EIR failed that requirement. I agree.

II.

Throughout our CEQA jurisprudence, we have recognized how statutes enacted after CEQA may train attention on certain environmental impacts in ways that limit an agency's discretion about whether and how to depict those particular impacts. For example, we recently explained that the California Coastal Act of 1976's (Coastal Act) "enhanced protection" for sensitive coastal habitats requires heightened CEQA concern for harm to those areas. (*Banning Ranch Conservancy*) v. City of Newport Beach (2017) 2 Cal.5th 918, 936 (Banning Ranch).) In this way, the Coastal Act answers questions that might otherwise have been left to local discretion, and an agency cannot pretend those answers are too speculative for it to incorporate into analysis of potential environmental impact. (Banning Ranch, at pp. 936-937.) SB 375 is another statute that changed how public officials must measure environmental impact. Crucially, this change does not have the same effect on every EIR. Instead, SB 375 took aim at the precise type of public actor whose EIR is under scrutiny in this case: a large regional planner. And it told that actor to do the very thing SANDAG failed to do: take long-term steps to reduce greenhouse gas emissions from transportation, rather than expect these reductions to come from technological advances or other measures.

SB 375's particularized focus sets today's case apart from a typical development project or permit application. In fact, that legislation established that the EIR in this case will *preclude* certain environmental analysis for various future projects. Part of the political bargain behind SB 375 was a tradeoff between centralized coordination and individual action. Once a regional transportation plan is final, SB 375 provides that any future "mixed-use and transit priority projects that are consistent with the limits and policies specified in [the plan] need not additionally analyze greenhouse gas emissions from cars and light trucks." (*Center for Biological Diversity, supra*, 62 Cal.4th at p. 230.) This is another reason why SANDAG was required by both SB 375 *and* CEQA to elaborate on why the plan's long-term emissions increases are harmful. When a regional planner's EIR fails to sufficiently depict long-term impact, the problem trickles down into other projects over the years, further compounding the harm to the Legislature's climate stabilization goals.

Because this case is our court's first effort to address the relationship between SB 375 and CEQA, it's worth emphasizing what is at stake in mapping the intersection of these two statutes. SB 375 is part of a new generation of California law that deals with the complex threat of greenhouse gas emissions. And the parts of the statute at issue in this case specifically confront the role that actors such as SANDAG — the regional planner for a sprawling metropolitan area that millions of Californians call home — play in the generation of greenhouse gases. To the extent climate change is the starkest environmental threat of our time, SB 375 is one of this era's most important environmental statutes. CEQA, meanwhile, has long stood as one of the state's most important classic environmental statutes. Today's majority opinion is the first statement from this court about how the duties created by each of these statutes relate to one another.

By ruling that the EIR in this case passes CEQA muster, the majority does harm not only to CEQA but to SB 375 as well.

III.

The fundamental problem with SANDAG's plan is that it fails the exact long-term environmental goal SB 375 was enacted to further. Climate change is distinct from certain other types of environmental harm in that individual contributions to the overall problem are both small and widespread. But rather than simply accepting the widespread responsibility for greenhouse gas emissions as a structural constraint limiting California's capacity to reduce emissions, SB 375 calls on regional planners to coordinate a response, in the form of centralized plans to reduce greenhouse gas emissions from a region's transportation infrastructure. (See Gov. Code, § 65080, subd. (b)(2).) The legislation begins by warning that the "transportation sector is the single largest contributor of greenhouse gases" in the state, producing nearly half of overall greenhouse gas emissions. (Stats. 2008, ch. 728, § 1(a), p. 5065.) The Legislature thus declared that "greenhouse gas reductions from changed land use patterns and improved transportation" will be "necessary" to slowing climate change. (See *id.*, § 1(c).)

Though the EIR carefully occludes this problem, it nonetheless appears SANDAG largely ignored SB 375's call. As is true statewide, vehicle emissions comprise nearly half of the San Diego region's output of greenhouse gas. But rather than confronting that problem in the manner SB 375 prescribes reductions in overall vehicle use — SANDAG proposes to *increase* vehicle emissions in the long run. Crucially, this increase goes well beyond the effect of population growth. SANDAG's regional transportation plan proposed to increase both per capita greenhouse gas emissions and per capita daily vehicle miles traveled between 2010 and 2050. Once SANDAG's plan is implemented, each

person in the San Diego region will on average be driving more every day and generating more greenhouse gas than the region's inhabitants today. Needless to say, the entire region will be producing far more greenhouse gas from transportation in 2050 than today as well.

Increasing per capita greenhouse gas emissions and vehicle miles traveled over the next 40 years cuts precisely against SB 375's mandate to dramatically *reduce* greenhouse gas emissions and vehicle use in the long run. But because this is a CEQA case, the ultimate question is not whether SANDAG's plan will achieve some particular measure of environmental preservation. Rather, the question is whether SANDAG explained the plan's environmental impact in enough detail and with enough clarity that the public can make an informed decision that the proposed changes are worth the long-term cost to the planet's health, as well as understand the urgency of mitigating the harm. (See *In re Bay–Delta etc.* (2008) 43 Cal.4th 1143, 1162 (*Bay–Delta*) ["The purpose of an EIR is to give the public and government agencies the information needed to make informed decisions, thus protecting ' "not only the environment but also informed self-government." '"].) SANDAG's EIR fails on that score.

Even as SANDAG's plan contemplate, on careful inspection, *four decades* of increased emission of greenhouse gases, its EIR obscures this problem in several ways. For starters, the crucial fact that the plan will increase per capita vehicle miles driven throughout the next 40 years does not appear to have been included anywhere in the body of the EIR's cumulative impact analysis, which is where most people are likely to focus their attention when considering the plan's costs and benefits. Instead, SANDAG appears to have not mentioned this fact up until it issued a response to the objections that the Attorney General filed to the draft EIR. That response to objections triggered by the draft is buried in a nearly 700-page appendix to the EIR. As this court explained just a few months ago,

" " "[i]nformation 'scattered here and there in EIR appendices,' or a report 'buried in an appendix,' is not a substitute for '[the] good faith reasoned analysis' " " " that CEQA requires. (*Banning Ranch, supra*, 2 Cal.5th at p. 941.) Instead, the statute requires for this information to " 'be presented in a manner calculated to adequately inform the public and decision makers, who may not be previously familiar with the details of the project.' " (*Ibid.*)

But the problem with SANDAG's EIR is not simply that the agency failed to mention the projected increases to per capita vehicle use until it responded to outside comments. Even if this information were part of the impact analysis, the EIR would still obscure the plan's long-term environmental harm. SANDAG's EIR uses three significance criteria to depict greenhouse gas emissions under the plan. Only two of these three criteria actually measure emissions levels. The third, labeled GHG-3, addresses the Air Resources Board's statewide "Scoping" Plan" and SANDAG's own "Climate Action Strategy." Neither of these documents establishes specific emissions targets. Instead, they both focus on the general strategies and policies that will be needed to reverse climate change. But even for these strategies and policies, SANDAG's EIR misleads the public. First, the statewide Scoping Plan specifically calls on regional planners to "implement sound land use and transportation policies to lower VMT [vehicle miles traveled] and shift travel modes." The plan also predicts that over the next few decades "[r]egional land use and transportation strategies would grow in importance and reverse the trend of per-capita vehicle miles traveled." Nowhere does the Scoping Plan support SANDAG's implicit assumptions that others will conveniently make up for emissions increases from increased driving. To the contrary: the Scoping Plan expects regional planners to reduce vehicle traffic.

SANDAG's Climate Action Strategy — issued in the same year as the EIR challenged here — similarly lists "Reduce Total Miles of Vehicle Travel" as

"Goal 1" in a list of "land use and transportation-related policy options available to help SANDAG" "achieve short-term (2020) and longer-term (2035 and 2050) goals for greenhouse emissions." The Climate Action Strategy further observed that "[s]tate-level efforts to reduce greenhouse gas emissions . . . will not succeed if the amount of driving — also known as vehicle miles traveled — continues to follow past trends and rates of increase" and warned that improvements in fuel technology alone "will not achieve the long-term 2050 goal for greenhouse gas reduction unless per capita vehicle miles traveled in the state is reduced about five percent below the baseline 2005 level." Indeed, the Climate Action Strategy even proposed strategies for reducing vehicle use, explaining that "[1]owering vehicle miles traveled means providing high-quality opportunities to make trips by alternative means to driving alone . . . and by shortening vehicle trips that are made."

Which brings us to the elephant in the room — one SANDAG'S EIR manages to leave remarkably occluded. Given the relative clarity of statewide statutory goals for greenhouse gas emissions and the nature of SANDAG's responsibilities under CEQA, there is a jarring disconnect between the projected impact of SANDAG's plan and the reference points that GHG-3 uses to measure the plan's harm. Whereas the Air Resource Board's Scoping Plan and SANDAG's Climate Action Strategy both recognize that the San Diego region needs to reduce vehicle use and shift travel modes in the long run, SANDAG's plan projects decades of per capita increases. But instead of acknowledging this problem — the elephant in the room — the EIR states the "[t]he Scoping Plan does not have targets established beyond 2020" and claims that the regional transportation plan "would be aligned with" and "help to implement the goals and policies" of the Climate Action Strategy. SANDAG's attempt to ignore what it recognized just months earlier in its Climate Action Strategy is troubling, since it

lets SANDAG make reassuring promises in an aspirational strategy document while at the same time investing billions in contrary policies whose impact the EIR in this case obscured. An EIR that ignores the authoring agency's own promises to the public does not contribute to "informed self-government" in the way CEQA contemplates. (*Bay–Delta, supra*, 43 Cal.4th at p. 1162.)

Just as misleading is SANDAG's presentation of the two significance criteria in the EIR that quantify emissions increases. GHG-2 is the only one of those two criteria that analyzes greenhouse gas impact for the plan's entire lifetime, rather than just a short-term window before the real harm sets in. This is a problem because SANDAG's plan deviates from the state's long-term goals even as the plan technically meets short-term emissions targets. According to the Attorney General and other challengers, even this short-term good news is not due to anything SANDAG is doing or building. Rather, it comes from the success of the state's new vehicle efficiency regulations as well as the lingering effects of the economic recession. And sure enough, as construction under SANDAG's plan sets in, emissions will increase. Because GHG-2 ends real analysis at 2035 though, it does not depict the harm of the plan's later phases. Instead, SANDAG presents a rosy picture of limited immediate harm, even while it marches the region toward a much worse future. SANDAG needed to communicate this problem better. A future in which the San Diego region's transportation sector emits more greenhouse gas than today — both per capita and cumulatively — is at odds with the state's aim to reduce vehicle use and cut greenhouse gas emissions in the long run, no matter if the plan meets short-term reduction targets.

As for GHG-1, the sole criteria that measures long-term impact in more detail, it too fails to depict the extent of the plan's harm. GHG-1 compares 2010 emissions levels with projections for 2020, 2035, and 2050. The plan first notes that 2020 emissions will be lower than 2010 levels and thus notes that the plan

will not be harmful in that timeframe. Again, this may have more to do with statewide vehicle regulations than any of SANDAG's choices. And more to the point, the state's climate plan is not to reduce transportation emissions for a few years and then give up and begin to increase them again. But that is exactly what SANDAG is proposing. By 2035, as the infrastructure changes take hold, the region's transportation emissions will begin to surpass 2010 levels. That increase becomes more dramatic by 2050, once, in the EIR's words, "most of the highway, transit, and . . . other infrastructure projects, [will] be in place and operational in accordance with the [plan]." The EIR thus notes that the plan will have "a significant impact" by that year.

While SANDAG is correct to note that 2050 greenhouse gas output will be "significant," the EIR never explains the extent and impact of the plan's steep emissions increase. After all, SANDAG's plan does more than simply fall short of statewide emissions reduction goals. Rather, the plan trends in the opposite direction and thus makes those goals difficult to achieve, with no analysis in the EIR of just how difficult. The majority observes that "the basis of the plaintiffs" ... critique of the EIR ... is apparent in the EIR itself." (Maj. opn., *supra*, at p. 20.) Yet CEQA's provisions and purpose are designed to facilitate deliberation by empowering the public to understand environmental consequences, and not simply to ensure that an expert reading an EIR could conceivably connect the dots. (See California Building Industry Assn. v. Bay Area Air Quality Management Dist. (2015) 62 Cal.4th 369, 388.) In the absence of additional explanation and context, the public simply has no way to understand what it means for a raw emissions quantity (in this case, 33.65 million metric tons of carbon dioxide equivalent for 2050 compared to 28.85 for 2010) to be "significant." The EIR never compares the plan's increased greenhouse gas output with the emissions reductions that both scientific consensus and state policy have deemed necessary to stabilize the

climate. And it never explains whether or to what extent long-term emissions reduction goals will remain feasible if SANDAG builds what it has proposed. The EIR's cursory treatment of 2050 impact — with no meaningful effort to explain how the emissions increase is significant — fails to depict the plan's incompatibility with the goals recognized in SB 375 and in SANDAG's own Climate Action Strategy.

SANDAG was not required to reduce emissions at precisely the same rate that the entire state aims to do the same. (Cf. *Center for Biological Diversity, supra*, 62 Cal.4th at p. 226 [noting that "nothing . . . cited in the administrative record indicates the required percentage reduction from business as usual is the same for an individual project as for the entire state population and economy"].) But it needed to explain better the danger of *increasing* vehicle miles traveled and greenhouse gas emissions (both total and per capita), in defiance of the statutory call to dramatically reduce those contributors to climate change. Long-term plans require long-term impact analysis. (See *Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova* (2007) 40 Cal.4th 412, 441.) Instead, this one highlights the plan's limited short-term damage and then fails to contextualize or explain the cause and extent of long-term damage. Difficult though it may be to hide the elephant in the room, the EIR manages time and again to obscure the problems SANDAG's plan would beget.

IV.

California law makes greenhouse gas emission reduction a priority and embraces an understanding of metropolitan governance that places regional planners in a pivotal position to support that long-term goal. Now that SB 375 and other statutes clearly establish both the statewide goal of reducing greenhouse gas emissions and place regional planners in such a crucial role, SANDAG and other regional planning agencies have a duty under CEQA to explain where and how the

regional transportation plans they issue pursuant to SB 375 disadvantage that goal. The first problem with SANDAG failing that duty in this case is that the public was left with little sense of how harmful the region's continual emissions increases will be in the long run. A second, related problem is that this shortsighted discussion of environmental impact limited the EIR's analysis of potential alternatives and mitigation. The majority and I seem to agree that SANDAG and other regional planning authorities have a responsibility to "ensure that CEQA analysis stays in step with evolving scientific knowledge and state regulatory schemes." (Maj. opn., *supra*, at p. 24.) The crux of my concern here is that it is precisely this responsibility SANDAG failed to fulfill. This failure distorts both the public's deliberation about the plan and the agency's proposed efforts to mitigate the harm of the projected emissions increases.

CEQA's environmental protection comes not only from requiring public officials to disclose environmental impact but also from analysis of how harmful impact can be mitigated or avoided. This "mitigation and alternatives discussion forms the core of an EIR." (*Bay–Delta, supra*, 43 Cal.4th at p. 1162.) While the validity of SANDAG's mitigation and alternatives analysis was not the question we granted review on, that issue is not fully separable from the question of whether SANDAG did enough to depict the environmental impact of its plan. An EIR's failure to explain the precise nature and extent of that harm can affect — and in this case, limit — the alternative measures that the agency offers to the public. (See, e.g., *Lotus v. Department of Transportation* (2014) 223 Cal.App.4th 645, 658 ["The failure of [an] EIR to separately identify and analyze the significance of the impacts . . . precludes both identification of potential environmental consequences arising from the project and also thoughtful analysis of the sufficiency of measures to mitigate those consequences."].)

SANDAG was required under CEQA to explain feasible measures for mitigating or avoiding the steep emissions increases (both per capita and cumulative) that its plan proposed. (See Pub. Resources Code, § 21601.) Sometimes it proves difficult for a reviewing court to identify what alternative measures an EIR could in theory have compared to the proposed plan. But the amicus curiae briefing in this case explains that the EIR considered no plans to prioritize mass transit over highway lane construction. This includes two alternative plans — both proposed during the CEQA process by members of the public — that would have led to much lower vehicle miles traveled and overall greenhouse gas emissions while accommodating the region's projected population growth. The EIR never analyzed an alternative plan of that kind. Instead, five of the six alternatives analyzed in the EIR produce either the same or more greenhouse gas emissions as SANDAG's plan. And the one alternative plan that compares favorably to SANDAG's plan would still produce more greenhouse gas emissions in 2050 than the region emitted in 2010. Put simply, despite the mandate in SB 375 that regional planners reduce greenhouse gas emissions, SANDAG refused to consider any future scenario where the region's transportation infrastructure emits less greenhouse gas than today. Part of why the agency could get away with this halfhearted — if not highly misleading mitigation analysis is that it downplayed the impact of increasing greenhouse gas emissions into 2050. As the Court of Appeal found, SANDAG's failure to convey the extent of its long-term harm made it easy for the agency to ignore alternatives to the plan's steep emissions increases.

V.

Together, CEQA and the state's greenhouse gas emission statutes establish the legal structure for how the state is to contend with climate change, and how it may balance the considerable benefits of development with the costs to the

planet's health. In providing that framework, the statutes leave regional planners an important measure of discretion. But there are limits on that discretion. Where statutes establish environmental goals as clearly as SB 375 and the rest of the state's climate change legislation, CEQA requires analysis of whether a project will work "to the disadvantage of" those imperatives. (Pub. Resources Code, § 21083, subd. (b)(1).) At a minimum, SANDAG had to explain how its regional transportation plan affects the state's long-term goal of reducing greenhouse gas emissions from transportation infrastructure.

No one is asking SANDAG to singlehandedly prevent California from blowing through its greenhouse gas emissions limits. But the agency was given a specific role in the state's coordinated climate change agenda: to reduce transportation emissions from the San Diego region. Under SANDAG's plan and according to its projections, the opposite will occur. While the agency is for the most part entitled to make that choice, it does not have discretion to downplay the consequence — one requiring blunter acknowledgement as the elephant in the room that it is. If SANDAG plans to permit hundreds of billions of dollars to be spent in pursuit of a plan that departs so starkly from scientific and political consensus about the emissions decreases needed to avert climate catastrophe, it must explain this divergence in sufficient detail for the public to recognize the long-term harm that will unfold in its name. SANDAG's EIR is too vague and shortsighted to fulfill that duty. In excusing this failure, the majority heightens the risk that other regional planners will shirk their responsibilities, too.

CUÉLLAR, J.

See last page for addresses and telephone numbers for counsel who argued in Supreme Court.

Name of Opinion Cleveland National Forest Foundation v. San Diego Association of Governments

Unpublished Opinion Original Appeal Original Proceeding Review Granted XXX 231 Cal.App.4th 1056 Rehearing Granted

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