2024 VT 2

No. 23-AP-084

In re Petition of Vermont Gas Systems, Inc.
(Catherine Bock, Appellant)

Supreme Court

On Appeal from
Public Utility Commission

October Term, 2023

Anthony Z. Roisman, Chair

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PRESENT: Reiber, C.J., Eaton, Carroll, Cohen and Waples, JJ.

¶ 1. **COHEN, J.** This appeal concerns an order of the Vermont Public Utility Commission approving a contract under 30 V.S.A. § 248(i) for the purchase of out-of-state renewable natural gas by petitioner, Vermont Gas Systems, Inc. (VGS). On appeal, intervenor Catherine Bock disputes the Commission's findings with respect to the contract's contribution towards satisfying emissions reductions under the Vermont Global Warming Solutions Act of 2020, 2019, No. 153 (Adj. Sess.) (GWSA). Intervenor also challenges the Commission's finding that the contract, with a condition imposed by the Commission, will comply with least-cost planning principles. For the reasons that follow, we affirm.

## I. Facts & Procedural History

¶ 2. The following facts are drawn from the Commission's decision adopting the hearing officer's findings of fact and are undisputed unless otherwise noted. In June 2022, VGS petitioned the Commission, pursuant to 30 V.S.A. § 248(i),[1] for the approval of a contract with Archaea Energy Marketing LLC (Archaea). The contract, which has an initial term of fourteen-and-a-half years, requires VGS to purchase a minimum volume of renewable natural gas (RNG) that will be produced and transported from a landfill operated by Archaea in Waterloo, New York. The contract was part of an effort by VGS to invest in nonfossil gas (such as RNG) and incorporate RNG into its gas supply for the purpose of meeting regulatory requirements and reducing greenhouse gas emissions.

¶ 3. Among its many provisions, the contract allows VGS to annually increase the purchase volume of RNG from Archaea by a specific amount. It also allows VGS to either retain RNG it purchases or designate volumes of RNG for Archaea to resell through renewable transportation fuel markets.[2] If VGS exercises its option to resell RNG into those markets, its share of the proceeds would be applied towards the total cost of the RNG purchased, thereby reducing the cost for its customers.

¶ 4. In response to the petition, and upon the recommendation of the Department of Public Service, the Commission initiated an investigation into the contract pursuant to § 248(i)(3)

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[1] In general, 30 V.S.A. § 248(i) requires a company to obtain the Commission's approval of certain types of contracts. This includes any contract for the purchase of out-of-state gas and exceeds a period of five years. Id. § 248(i)(1)(B).

[2] Although not entirely clear based on the record and briefing, the resale option apparently does not simply concern the resale of physical RNG through renewable transportation fuel markets. Rather, it appears that the resale option contemplates the sale of carbon credits that are associated with RNG. In essence, RNG is assigned a carbon intensity which translates into one ton of carbon avoided, and the amount of carbon avoided through RNG is assigned a value that entities can purchase as a credit. Entities purchasing RNG-associated credits do so to meet both federal obligations and state-mandated caps on carbon emissions. For the purpose of simplicity, however, we refer to resales of any type pursuant to the contract's option as the resale of RNG.

and appointed a hearing officer to conduct proceedings. Intervenor, a ratepaying customer of VGS, successfully moved to intervene. According to intervenor, the purpose of her intervention was to protect her interest, as a ratepayer, of any increase to rates for an energy source that intervenor claimed has no environmental benefit.

A. Hearing Officer's Proposal For Decision and Findings of Fact

¶ 5. After receiving prefiled testimony, exhibits, and public comments, and after conducting an evidentiary hearing, the hearing officer submitted a proposal for decision containing findings of fact and recommending that the Commission approve the contract subject to the Department's proposed condition. Relevant here, the hearing officer determined that, for any volumes of RNG resold into the transportation fuel markets, VGS would apply its share of the proceeds against the overall cost of RNG within its supply portfolio. This would allow VGS to "buy down" the cost of the RNG volumes delivered to VGS's retail customers.

¶ 6. The hearing officer found that the contract would provide meaningful and appreciable environmental benefits, relying on a host of supportive predicate findings. In particular, the hearing officer found that VGS had a three-pronged strategy for reducing greenhouse gas emissions and for responding to regulatory and legal requirements (including the GWSA): (1) weatherization and efficiency; (2) in-home installations of devices such as heat pump water heaters, hybrid heating systems, and geothermal systems; and (3) supply of low-carbon alternative energy sources such as RNG. The contract was intended to further VGS's third strategy. The hearing officer found that RNG has a carbon intensity of twenty-six percent to forty-three percent less than its geologic gas counterpart. As such, each unit of geologic gas displaced by RNG in VGS's supply portfolio would result in a reduction of greenhouse gas emissions by those amounts. Thus, the hearing officer found that if VGS replaced ten percent of the geologic gas contained in its supply portfolio with RNG, it would reduce its greenhouse gas emissions by approximately four percent.

¶ 7. The hearing officer found that the contract was also consistent with the Vermont 2022 Comprehensive Energy Plan, which itself was intended by the Department to effectuate the emission reduction goals required under the GWSA. Underlying that finding was evidence concerning not only the environmental benefits associated with the contract, but also the contract's cost-effectiveness. The hearing officer determined that the best method for assessing the cost-effectiveness of the contract's environmental benefits would be to compare the cost paid for RNG under the contract with the "social cost of carbon." This method provides a dollar estimate of the future damage caused by a metric-ton increase in carbon dioxide emissions or, equivalently, the benefits of reducing those emissions by the same amount in a given year. The hearing officer found that the contract would be consistent with the Comprehensive Energy Plan and the GWSA if the cost paid for emission reductions resulting from RNG remained below the calculated social cost of carbon.

¶ 8. The proposed decision also detailed the regulatory backdrop of the contract, specifically VGS's regulatory obligations and prior decisions by the Commission endorsing VGS's purchase of RNG as a way to reduce greenhouse gas emissions. The hearing officer concluded that the contract satisfied those obligations. In particular, the hearing officer found that the contract was consistent with VGS's alternative regulation plan approved by the Commission pursuant to 30 V.S.A. § 218d, and VGS's most recent integrated resource plan approved by the Commission under 30 V.S.A. § 218c. The hearing officer found that both plans contemplated VGS's increase of RNG in its supply portfolio as part of an effort "to limit VGS's greenhouse gas emissions." And the contract would satisfy traditional least-cost planning principles, as required under VGS's integrated resource plan, if VGS exercised its resale option to ensure that the premium cost of RNG passed on to its customers "does not exceed the cost of carbon reductions effectuated by the RNG acquired under the [c]ontract." In the context of least-cost planning, the hearing officer explained that "[c]omparing the premium paid for RNG under the [c]ontract against

the cost of greenhouse gas reductions is a reasonable means" for assessing whether the contract is cost-effective financially and environmentally.

¶ 9. The proposed decision addressed arguments raised by intervenor throughout the proceedings. With respect to the contract's environmental benefits, the hearing officer noted the dispute over "whether and to what extent such benefits will in fact materialize." While the hearing officer credited the concerns raised by intervenor's expert witness about the extent of RNG's environmental benefits, resolving the dispute was "not material because it is clear that the parties agree that there will be some level of greenhouse gas reductions." The hearing officer pointed to testimony by intervenor's expert that greenhouse gas emissions would be reduced by at least twenty-six percent for every unit of geologic gas displaced by RNG. The hearing officer acknowledged the risk that this estimate of RNG's environmental benefits could be affected by future refinements of the method for calculating RNG's carbon intensity. But the hearing officer found that risk was sufficiently mitigated because the contract allows VGS to increase supply, decrease supply, or resell RNG. Thus, the hearing officer found that the methods used by VGS to calculate the contract's potential greenhouse gas reductions were "sufficiently accurate."

¶ 10. The proposed decision also addressed intervenor's argument that the contract would not sufficiently move VGS towards meeting the GWSA emissions reduction obligations. The hearing officer agreed that the contract would not single-handedly meet the GWSA's reduction obligations, but noted that the contract was only one aspect of VGS's "multi-faceted approach to reducing greenhouse gas emissions and meeting GWSA mandates." Although other approaches—such as efficiency, weatherization, and in-home appliance installations—may prove to be more cost-effective than RNG in terms of reducing greenhouse gas emissions, the hearing officer observed that some of VGS's customers "are unable to fuel switch away from natural gas in the near-term future, whether for financial or logistical reasons." The RNG to be purchased under the contract would be aimed at reducing emissions for those customers.

B. Commission's Approval of the Contract

¶ 11. In November 2022, the Commission issued an order adopting the hearing officer's proposed decision and approving the contract. The Commission found the contract to be consistent with statewide energy and policy objectives contained in the Comprehensive Energy Plan and the GWSA, as well as VGS's existing regulatory obligations.

¶ 12. The Commission responded to numerous arguments raised by intervenor. It rejected intervenor's contention that the contract was out of step with the GWSA. In doing so, it reiterated the hearing officer's reasoning for why the contract furthered the GWSA's greenhouse gas reduction obligations and highlighted the evidence underlying that determination. As for intervenor's argument regarding the contract's cost-effectiveness, the Commission found that any revenues generated from the resale of RNG "will serve to put downward pressure on rates" and that the contract does not permit VGS "to generate windfalls or excess profits through the sale of RNG attributes." To ensure the contract remained cost-effective and was consistent with least-cost planning principles, the Commission adopted the Department's proposed condition incorporating the social cost of carbon as a method for measuring the contract's cost-effectiveness.

¶ 13. The Commission also rejected intervenor's challenges to numerous factual findings, including intervenor's contention that VGS failed to adequately demonstrate how the contract would displace natural gas demand or its emissions. It noted that VGS must pursue all cost-effective approaches for reducing the impact of greenhouse gas. That obligation, the Commission observed, included VGS's customers who would continue to use natural gas, renewable or otherwise. It emphasized VGS's responsibility to those customers, with the contract being "only one component of a broader array of measures that VGS intends to implement to address its overall greenhouse gas emissions."

¶ 14. Intervenor moved for reconsideration, largely arguing the same claims of error raised in this appeal. In January 2023, the Commission issued an order denying intervenor's motion. This appeal followed.

## II. Analysis

¶ 15. This Court generally reviews decisions of the Commission with deference and, in doing so, "we accord a strong presumption of validity to the [Commission's] orders." In re Stowe Cady Hill Solar, LLC, 2018 VT 3, ¶ 15, 206 Vt. 430, 182 A.3d 53 (quotation omitted) (alteration in original). We have previously explained that "[i]n a § 248 proceeding, the [Commission] is engaged in a legislative, policy-making process." In re Twenty-Four Elec. Utils., 160 Vt. 227, 233, 627 A.2d 355, 359 (1993) (quotation omitted). "Out of respect for the expertise and informed judgment of agencies, and in recognition of this Court's proper role in the separation of powers, we accord agency decisions substantial deference." In re Portland Street Solar LLC, 2021 VT 67, ¶ 12, 215 Vt. 394, 264 A.3d 872 (quotation omitted).

¶ 16. On appeal, intervenor does not challenge the criteria that the Commission used to evaluate the contract under 30 V.S.A. § 248(i).[3] Nor does intervenor raise arguments that the Commission erred as to questions of law.[4] Instead, intervenor argues that the Commission's

[3] Intervenor concedes that 30 V.S.A. § 248(i) does not require the Commission to make any specific findings when deciding to approve a contract that falls within the statute's purview. Section 248(i) is silent on that front, and that silence stands in contrast to other subsections. See id. § 248(b) (delineating findings that Commission must make in granting certificate of public good). On its face, § 248(i) affords the Commission with substantial discretion over whether to even initiate investigative proceedings or issue a decision regarding approval. Id. § 248(i)(3) (providing that Commission may initiate investigation, but contract will be deemed approved if Commission fails to do so within thirty days and issue decision within 120 days after initiation of investigation). Given intervenor's concession, we leave for another day what, if any, particular facts the Commission must find when it decides to investigate and render a decision on a petition under § 248(i).

[4] In some instances, intervenor speculates that the Commission might have intended to render legal interpretations and, if it did, erred as to questions of law. These one-sentence arguments, however, are not adequately briefed, and we decline to review them to the extent they are actually raised. See Kneebinding, Inc. v. Howell, 2020 VT 99, ¶ 61, 213 Vt. 598, 251 A.3d 13 ("Mere naked statements, unsupported by argument or citation of authorities, constitute inadequate

decision must be reversed and remanded because the evidence in the record does not support its factual findings.

¶ 17. Accordingly, the scope of our review is narrow and restricted. We uphold factual findings made by the Commission unless they are clearly erroneous. Stowe Cady Hill Solar, 2018 VT 3, ¶ 15; see also 30 V.S.A. § 11(c) ("Upon appeal to the Supreme Court, [the Commission's] findings of fact shall be accepted unless clearly erroneous."). To demonstrate clear error, intervenor carries a heavy burden. In re Vt. Elec. Power Co., 2006 VT 69, ¶ 6, 179 Vt. 370, 895 A.2d 226. "Only when we have reviewed the entire record and have been left with the definite and firm conviction that a mistake has been committed will we hold a finding to be clearly erroneous." In re Vt. Elec. Power Co., 131 Vt. 427, 432, 306 A.2d 687, 690 (1973). Thus, so long as the Commission's factual findings are supported in the evidentiary record, those findings will not be overturned for clear error. Vt. Elec. Power Co., 2006 VT 69, ¶ 10.

A. GWSA

¶ 18. Intervenor argues that the Commission clearly erred in finding that the contract would sufficiently implement the GWSA's greenhouse gas reduction requirements. We disagree.

¶ 19. To provide some relevant context to this claim, a brief examination of the GWSA is useful. Effective as of September 2020, the GWSA represents the Legislature's response to the growing climate crisis caused by greenhouse gas emissions. 2019, No. 153 (Adj. Sess.), § 2, [https://perma.cc/AVC5-4SXS] (cataloging legislative findings). It provides, in part, that the state of Vermont "shall" reduce greenhouse gas emissions by "not less than 40 percent from 1990

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briefing and merit no consideration." (quotation omitted)). Moreover, the record and the parties' briefing leave us with little doubt that the claims of error focus solely on the Commission's findings of fact. And to the extent that the Commission considered statutes and other regulatory directives for rendering its decision, we do not exercise pure de novo review of the Commission's interpretations. Instead, we defer "to an administrative agency's interpretation of a matter within its legislatively delegated expertise" and will dispense with that deference only if the interpretation is "plainly incorrect." Zlotoff Found., Inc. v. Town of South Hero, 2020 VT 25, ¶ 21, 212 Vt. 63, 231 A.3d 1146 (quotation omitted).

greenhouse gas emissions by January 1, 2030 pursuant to the State's 2016 Comprehensive Energy Plan." Id. § 3(a)(2); 10 V.S.A. § 578(a)(2). To facilitate the reduction requirements, "all State agencies shall consider any increase or decrease in greenhouse gas emissions in their decision-making procedures" with respect to, inter alia, "the purchase and use of equipment and goods." 2019, No. 153 (Adj. Sess.), § 3(c); 10 V.S.A. § 578(c). To assist in implementing its objectives, the GWSA created the Vermont Climate Council. 10 V.S.A. § 591(a). The GWSA requires the Council to adopt a Vermont Climate Action Plan setting forth "specific initiatives, programs, and strategies that the State shall pursue to reduce greenhouse gas emissions; achieve the State's reduction requirements pursuant to section 578 of [Title 10]; and build resilience to prepare the State's communities, infrastructure, and economy to adapt to the current and anticipated effects of climate change." Id. § 591(b)(2); id. § 592(a)-(b). Among its many requirements, the Climate Action Plan must identify initiatives, programs, and strategies that will "reduce greenhouse gas emissions from the transportation, building, regulated utility, industrial, commercial and agricultural sectors." Id. § 592(b)(1). In December 2021, the Council issued its Climate Action Plan.

¶ 20. In January 2022, the Department issued a Comprehensive Energy Plan which implements state-wide energy policies, including the greenhouse gas reduction requirements under the GWSA and the Climate Action Plan. See 30 V.S.A. § 202b(a). By statutory mandate, the Comprehensive Energy Plan must "seek to implement the State energy policy set forth in section 202a of [Title 30], including meeting the State's greenhouse gas emissions reductions requirements pursuant to [the GWSA], and shall be consistent . . . with the Vermont Climate Action Plan." Id. § 202b(a). And the Comprehensive Energy Plan makes clear that its primary purpose is to "be consistent with the requirements of the GWSA and the [Climate Action Plan]" and to be used in a manner to implement the underlying policy objectives. Vt. Dep't of Pub. Serv., 2022 Vt. Comprehensive Energy Plan, 15 (Jan. 14, 2022) [https://perma.cc/A329-QSR4].

¶ 21. With this backdrop in mind, we now turn to the substance of intervenor's claim. Intervenor challenges the Commission's finding that the VGS-Archaea contract would result in a displacement of geologic gas and result in a reduction in greenhouse gas emissions. According to intervenor, that finding lacks support in the record. Intervenor asserts that the Commission has apparently approved the contract on the basis that it will implement the requirements of the GWSA without any evidence to support that the contract will result in reduced emissions.

¶ 22. These arguments, however, misapprehend "displacement" as that term was used by the Commission and overlook the evidence in the record. The Commission found that the "primary environmental benefit of the [c]ontract will be to displace geologic natural gas with RNG." This finding was supported by the testimony of VGS's witness, Gregory Morse. Morse testified that one of VGS's three strategies for reducing greenhouse gas emissions, consistent with the GWSA, was to provide existing customers with alternative low-carbon energy supplies such as RNG to "displace" traditional natural gas.

¶ 23. The genesis of intervenor's misunderstanding of "displacement" appears to be testimony from intervenor's expert witness, Emily Grubert. Grubert understood displacement to require that the contract "actually results in lower fossil natural gas demand." But the record reveals that the Commission did not find that the contract would displace demand for natural gas. Rather, the record demonstrates that the Commission found that RNG purchased under the contract would displace geologic gas that would have otherwise been consumed by VGS customers "who are unable to fuel switch away from natural gas in the near-term future."

¶ 24. The record is replete with evidence supporting the Commission's conclusion that RNG purchased under the contract would reduce greenhouse gas emissions by replacing the geologic gas to be consumed by VGS's customers. Both the Department's witness and VGS's witness testified that the contract would allow VGS to purchase an amount of RNG representing ten percent of VGS's total demand. Between the testimony from the Department's witness and

intervenor's expert, the evidence establishes that RNG has a carbon intensity of twenty-six percent to forty-three percent less than its geologic gas counterpart. Thus, for every unit of RNG consumed in place of geologic gas, greenhouse gas emissions would be reduced by a percentage within that range. Grubert also testified that if VGS managed to satisfy ten percent of its demand with RNG (as opposed to geologic gas), VGS would reduce its overall greenhouse gas emissions by up to four percent. Crediting Grubert's testimony, the Commission found that if VGS replaced "[ten percent] of geologic natural gas from its projected supply portfolio by 2030 with RNG purchased under the [c]ontract, there would be an approximate [four percent] reduction of VGS's projected 2030 greenhouse gas emissions that would otherwise occur in the absence of the [c]ontract."

¶ 25. As for whether the contract's potential reduction in greenhouse gas emissions furthered the GWSA's requirements, the Commission acknowledged that the contract, "by itself, will not enable VGS to meet its GWSA obligations." But it reiterated that "RNG is only one component of VGS's broader approach to mitigating its climate impact." The contract represented one of VGS's three strategies to reduce emissions pursuant to the GWSA, namely, adding new sources of low-carbon alternative energy such as RNG to displace traditional natural gas for customers unable to immediately pivot to nongas energy sources.

¶ 26. Given that the Comprehensive Energy Plan was structured to implement the GWSA's reduction requirements, the Commission understandably focused on the contract's consistency with that Plan. The evidentiary record supports the Commission's conclusion that it was. According to the Department's witness, the contract would be consistent with the Comprehensive Energy Plan so long as the contract was managed to keep the cost paid for emissions reductions below the social cost of carbon. Notably, the Comprehensive Energy Plan itself endorses the use of RNG as a vehicle to contribute towards the GWSA's reduction

requirements.[5] In it, RNG is cited along with electricity, advanced wood heat, and biofuels as a renewable energy source to meet the reduction requirements of the GWSA. Comprehensive Energy Plan, at 186. Since the "lifecycle [greenhouse gas emissions] from RNG can be far lower than conventional natural gas," the Plan promotes the use of RNG as a low-carbon fuel. Id. at 22, 134. It further provides that RNG can be used to "displace traditional natural gas in carbon-intensive sectors such as space heating, process heating, and transportation." Id. at 209.

¶ 27. In sum, the Commission did not uncritically accept the evidence supporting the use of RNG as a means to reduce greenhouse gas emissions consistent with the broad policy aims contained in the GWSA. The Commission recognized Grubert's concerns with the carbon-intensity calculations that VGS used to assess RNG's environmental benefits, and it also highlighted VGS's concession that the contract "is not a panacea for mitigating the climate impacts of its core business practices." The Commission exercised its expert judgment by weighing the evidence adduced by the parties. The record evidence adequately supports the Commission's findings that (1) the contract is one of three strategies that VGS has implemented to contribute towards greenhouse gas emissions reductions under the GWSA by substituting RNG with geologic gas, (2) RNG is twenty-six percent to forty-three percent less carbon-intensive than geologic gas, (3) the contract has the potential to reduce VGS's overall greenhouse gas emissions by approximately four percent, and (4) the contract is consistent with the Comprehensive Energy Plan and the broader policy objectives of the GWSA. Because these findings are supported by the

[5] As the Commission recognized, the Vermont Climate Action Plan also briefly discusses RNG as a means towards meeting the GWSA reduction requirements. Indeed, it acknowledges that energy transition to weatherization and heat-pump systems "cannot happen overnight" since many Vermonters "are tied to investments they made in fossil vehicles or heating systems" that they will need to use in the near term. Vt. Climate Council, Initial Vt. Climate Action Plan, 36 (Dec. 2021) [https://perma.cc/87AE-GFTT]. As an example of a multi-faceted approach, the Climate Action Plan cites to VGS's expansion of weatherization services "and increasing the amount of [RNG] in their system." Id. at 36-37. Although RNG is not viewed as a source for energy cost savings, it "can provide [greenhouse gas emissions] reductions when replacing fossil fuels." Id. at 35.

evidentiary record, they are not clearly erroneous.[6] In re Adelphia Bus. Sols. of Vt., Inc., 2004 VT 82, ¶ 11, 177 Vt. 136, 861 A.2d 1078.

B. Least-Cost Planning and Comparative Analysis of Alternatives

¶ 28. Intervenor next claims that the Commission clearly erred in finding that the contract complied with traditional least-cost planning principles. Intervenor argues that replacing geologic gas with RNG is a costly means to reduce greenhouse gas emissions when compared to other alternative energy sources. According to intervenor, VGS failed to provide a comparative analysis of RNG with those other sources, rendering the Commission's finding on this topic clearly erroneous.

¶ 29. Intervenor correctly notes that pursuant to 30 V.S.A. § 218c, every regulated gas utility must prepare and implement a "least-cost integrated plan" setting forth how the utility will meet energy services in an effective and cost-efficient manner. 30 V.S.A. § 218c(a)(1). The plan must account for the associated economic costs by factoring in "the State's progress in meeting its greenhouse gas reduction goals" and "the value of the financial risks associated with greenhouse gas emissions from various power sources." Id. § 218c(a)(1)(A)-(D). The Commission has labeled the components of § 218c(a)(1) as "least-cost planning principles." Petition of Vt. Gas Sys., Inc., for a certificate of public good, pursuant to 30 V.S.A. § 248, No. 7929, 2013 WL 2456016, at *15 (Vt. Pub. Serv. Bd. May 31, 2013) (observing that "least-cost planning principles

[6] Intervenor also appears to argue, in cursory fashion, that the Commission failed to articulate how it reached its conclusion that the contract would reduce greenhouse gas emissions. See In re MVP Health Ins. Co., 2016 VT 111, ¶ 20, 203 Vt. 274, 155 A.3d 1207 (reaffirming requirement that agency must provide adequate findings of fact for reaching decision). As can be surmised by our recitation of the Commission's reasoning and the factual findings it relied upon to reach its conclusion, intervenor's claim is without merit. See In re Cont'l Tel. Co. of Vt., 150 Vt. 76, 77, 549 A.2d 639, 640 (1988) (rejecting claim of inadequate findings where Commission's findings and conclusions were "replete with analyses of the parts of the expert testimony which was accepted and rejected" before rendering decision).

generally[] are described in 30 V.S.A. § 218c(a)(1)"). Once a regulated gas utility formulates a plan, it must submit its plan to, and receive approval from, the Commission. 30 V.S.A. § 218c(b).

¶ 30. VGS has an approved integrated resource plan pursuant to § 218c. See Petition of Vt. Gas Sys., Inc. for approval of its 2020 Integrated Resource Plan, No. 21-0167-PET, 2021 WL 4877582, at *5 (Vt. Pub. Util. Comm'n Oct. 13, 2021). VGS's plan expressly contemplated adding RNG to its portfolio as an energy source to assist meeting its customers' demand for natural gas, notwithstanding a potential increase of overall rates by 2.6 percent per year. Id. at *2. But the plan also acknowledged that RNG has a "variety of benefits" and that VGS would procure RNG from nonlocal sources. Id. Although VGS "considered a variety of innovative supply and design options to meet customer demand for process fuels and heating with renewable and low-carbon sources," those technologies "are in a nascent state of development." Id. at *3. The Commission conditionally approved the plan pursuant to a memorandum of understanding between VGS and the Department. That memorandum of understanding required VGS's next integrated resource plan to analyze "steps taken to develop and apply a valuation of greenhouse gas emissions framework to inform resource procurement decisions . . . and apply to any investment decisions in the interim." Id. at *6.

¶ 31. In this proceeding, the Commission relied, in part, on VGS's approved integrated resource plan to determine whether the contract was consistent with least-cost planning principles. The Commission found VGS's integrated resource plan to be "[of] significant importance" because it "encapsulate[d] overarching planning principles." The Commission also noted that VGS's plan contemplates an increase of RNG to its supply portfolio "as part of a broader array of policies and programs that are intended to limit VGS's greenhouse gas emissions." Thus, "[t]he [c]ontract, on its face, is consistent with and promotes the high-level objectives set out in VGS's [integrated resource plan]."

¶ 32. We note that the Commission has previously looked to a utility's integrated resource plan to determine whether a proposal satisfies least-cost planning principles. See Joint Petition of Vt. Transco LLC, Vt. Elec. Power Co. Inc., and Cent. Vt. Pub. Serv. Corp. for a certificate of public good, pursuant to 30 V.S.A.§ 248, No. 7751-PET, 2012 WL 1244417, at *15 (Vt. Pub. Serv. Bd. Apr. 6, 2012) (finding project consistent with principles of least-cost planning for purposes of 30 V.S.A. § 248(b)(6) because project conformed with integrated resource plan); In re Vt. Gas Sys., Inc., No. 6940-PET, 2004 WL 2727676, at *14 (Vt. Pub. Serv. Bd. Aug. 9, 2004) (finding project consistent with least-cost planning principles because it furthers objectives of petitioner's most recently approved integrated resource plan). Even intervenor concedes that integrated resource plans "are one means" of evaluating whether a project satisfies least-cost planning principles.

¶ 33. The Commission, however, did not merely rely on the contract's facial consistency with VGS's integrated resource plan. Its prior approval of the plan was conditioned on a requirement that VGS consider the costs of RNG relative to its environmental benefits for making investment decisions. This obligation "tether[ed] VGS's acquisition of new RNG resources to traditional least cost-planning principles" and the Commission's approval of the plan "establishes that VGS's new investments into RNG remain firmly fixed to traditional least-cost utility planning principles." To effectuate that obligation here, the Commission imposed the condition proposed by the Department—requiring VGS to manage its resale options so that the total price paid for emission reductions from RNG delivered to its customers does not exceed the social cost of carbon. The attachment of this condition was to ensure that the contract satisfies traditional least-cost planning principles. Based on the testimony and exhibits proffered by the parties, the Commission found that "[c]omparing the premium paid for RNG under the [c]ontract against the cost of greenhouse gas reductions is a reasonable means" for assessing whether the contract is financially and environmentally cost-effective.

¶ 34. According to intervenor, this method of evaluating least-cost planning principles is insufficient and the Commission's finding is unsupported in the absence of an analysis of alternatives to RNG such as weatherization, fuel-switching, and efficiency.[7] Assuming that such a comparative analysis is required—an issue we need not reach—the argument fails because the cited alternatives are not relevant in this context.

¶ 35. The Commission found that VGS does have a strategy for reducing greenhouse gas emissions by alternative means, such as implementing weatherization and efficiency. That strategy is one of three adopted by VGS. Critically, however, the contract was not a component of that strategy; instead, it fell under VGS's strategy to provide supply of low- and zero-carbon alternative energy sources such as RNG.

¶ 36. Given this understanding, the Commission construed the contract's purpose as providing lower-carbon energy sources to customers "who are unable to fuel switch away from natural gas in the near-term future, whether for financial or logistical reasons." It explained that although "other mitigation strategies, such as efficiency and weatherization may be more cost-effective than RNG at reducing net greenhouse gases, VGS provides a necessary utility service that is relied upon by thousands of Vermonters." Accordingly, the contract implemented a policy of "reducing the emissions profile of the natural gas that those customers will continue to use in a cost-effective manner." And with the Department's condition, the contract "can be a cost-effective means for VGS to reduce its overall greenhouse gas emissions." These findings are well supported by the evidence in the underlying record.

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[7] In raising this argument, intervenor cites to other instances where the Commission required an entity seeking a certificate of public good pursuant to 30 V.S.A. § 248(a), (b), to provide a comparative analysis of supply-side and demand-side alternatives. But this matter concerns the Commission's approval of a contract under § 248(i), not its evaluation of an application for a certificate of public good under § 248(b). Therefore, the decisions cited by intervenor are inapposite. Cf. Stowe Cady Hill Solar, 2018 VT 3, ¶ 21 ("A fundamental norm of administrative procedure requires an agency to treat like cases alike.").

¶ 37. It is clear from the record that, for a subset of VGS's customers, the short-term choice was between using geologic gas or the lower-carbon alternative of RNG. Consequentially, the relevant comparative analysis was between RNG and geologic gas, not between RNG and other options inappropriate for those customers' needs. We therefore decline to upend the decision below based on intervenor's argument that the Commission failed to adequately consider alternatives to RNG.

C. Least-Cost Planning and Condition for Approval of Contract

¶ 38. Finally, intervenor argues there is no evidence to support the Commission's finding that its adoption of the Department's social-cost-of-carbon condition renders the contract cost-effective for purpose of least-cost planning. Intervenor claims that there was no evidence that the condition would ensure that the contract is cost-effective. Intervenor also notes that the Commission found that the cost of RNG under the contract will likely exceed the market rate for natural gas for the life of the contract.

¶ 39. This argument fails because the record contains evidence directly supporting the Commission's determination. The Department's witness testified that comparing the cost paid for RNG under the contract with the social cost of carbon was a well-established and flexible method for assessing the cost-effectiveness of the contract. That expert further testified that the contract could be cost-effective in the context of least-cost planning principles if the Commission imposed the Department's proposed condition requiring VGS to manage prices using this method. VGS's witness also testified that in order for the contract to be cost-effective, VGS would need to resell a portion of RNG into the renewable transportation fuel markets to keep the cost below the social cost of carbon. This evidence supports the Commission's conclusion that the resale option would ensure the contract's cost-effectiveness for least-cost planning purposes because the proceeds from

any sale would "serve to put downward pressure" on any potential increase in rates associated the contract.[8]

¶ 40. The Commission carefully considered whether the condition would make the contract a cost-effective means for reducing greenhouse gas emissions for a set of VGS's customers who are unable, "whether for financial or logistical reasons," to switch away from natural gas. This analysis was necessary in light of the evidence that the contract was an expensive vehicle for reducing emissions and could potentially result in increased rates. According to the Commission, weighing the environmental benefits arising from the contract against a potential increase in rates was "consistent with [its] general regulatory obligation to ensure that VGS adheres to traditional least-cost principles in providing service to its customers." In balancing these factors, the Commission was persuaded by the evidence and arguments presented by the Department concerning the condition's importance.

¶ 41. Thus, acting within the confines of its role, the Commission exercised its judgment, weighed that evidence, and utilized its expertise to determine that attaching the condition to its approval of the contract would render the contract cost-effective and consistent with least-cost planning principles. Stowe Cady Hill Solar, 2018 VT 3, ¶ 16; In re Acorn Energy Solar 2, LLC, 2021 VT 3, ¶ 125, 214 Vt. 73, 251 A.3d 899. Given that there is a sufficient evidentiary foundation for the Commission to have reached that conclusion, we can discern no clear error. Therefore, we will not disturb the decision below.

Affirmed.

FOR THE COURT:

_____

Associate Justice

[8] To the extent intervenor is arguing that the condition does not ensure that the contract is the cheapest option to reduce greenhouse gas emissions, intervenor offers no authority to show that such a finding is required.

STATE OF VERMONT
PUBLIC UTILITY COMMISSION

Case No. 22-2230-PET

| | |
|---|---|
| Petition of Vermont Gas Systems, Inc., pursuant to 30 V.S.A. § 248(i), for approval of an out-of-state renewable gas purchase contract with a term exceeding five years | Remote Hearing<br>September 20, 2022 |

Order entered:

**PROPOSAL FOR DECISION**

PRESENT: Daniel Burke, Esq., Hearing Officer
Andrea Poppiti, Utilities Analyst

APPEARANCES: Owen J. McClain, Esq.
Sheehy Furling & Behm P.C.
for Vermont Gas Systems, Inc.

Eric B. Guzman, Esq.
Michael Swain, Esq.
James Porter, Esq.
for the Vermont Department of Public Service

Catherine Bock
Pro Se
Intervenor

## Table of Contents

## I. INTRODUCTION

This case involves a petition filed by Vermont Gas Systems, Inc. ("VGS") with the Vermont Public Utility Commission ("Commission") seeking approval of an out-of-state renewable natural gas ("RNG") purchase contract with Archaea Energy Marketing LLC ("Archaea") under 30 V.S.A. § 248(i) (the "Contract"). Section 248(i) of Title 30 requires Commission approval for contracts involving the purchase of gas from outside the state for resale to customers when the contract term exceeds five years or the contract represents more than 10% of the company's peak demand for resale to customers.

The Contract requires VGS to purchase, at minimum, a volume of 300,000 dekatherm ("DTH")[1] of RNG annually from a landfill RNG plant owned by Archaea in Waterloo, New York. The Contract includes a 14.5-year term with an option for an additional five-year extension. The Contract also includes an option for VGS to increase the total RNG volume purchased under the Contract and allows for VGS to resell purchased volumes of RNG into renewable transportation fuel markets.

In this proposal for decision, I recommend that the Commission issue an order approving the contract.

## II. PROCEDURAL HISTORY

On June 13, 2022, VGS filed the Contract for review by the Commission under 30 V.S.A. § 248(i).

Also on June 13, 2022, VGS filed a motion for confidential treatment of portions of the Contract.

On June 16, 2022, VGS filed a motion for the approval of a proposed protective agreement between itself and the Vermont Department of Public Service ("Department").

[1] One DTH is the equivalent of 1 million British thermal units ("MMBtu").

On July 5, 2022, the Department filed a recommendation requesting that the Commission open an investigation into the Contract.

On July 7, 2022, the Commission issued orders approving the proposed protective agreement and granting confidential treatment to portions of the Contract.

On July 11, 2022, the Commission issued an order opening an investigation into the Contract and appointing me as a Hearing Officer for this case pursuant to 30 V.S.A. § 8.

On July 21, 2022, I held a scheduling conference for this case, which was attended by representatives of VGS and the Department.

On July 25, 2022, I issued a scheduling conference order.

On July 29, 2022, Catherine Bock filed a motion to intervene in this case.

On August 5, 2022, VGS and the Department responded to Ms. Bock's intervention motion. Neither VGS nor the Department objected to Ms. Bock's request for permissive intervention under Commission Rule 2.209(B).

On August 11, 2022, I conducted a workshop on the Contract. The workshop was attended by representatives of VGS, the Department, Ms. Bock, several members of the public, and Commission staff.

On August 15, 2022, I issued an order denying Ms. Bock's motion to intervene after concluding that Ms. Bock's stated interests in the outcome of this case are similar to those of VGS's ratepayers generally and also because those interests will be adequately represented by the Department, an existing party to this proceeding.

On August 17, 2022, Ms. Bock filed a motion to reconsider the denial of her motion to intervene.

On August 22, 2022, VGS and the Department filed responses to Ms. Bock's motion to reconsider. Neither the Department nor VGS opposed Ms. Bock's motion to reconsider, though VGS raised concerns about potential delays to the progress of this case.

On August 25, 2022, I issued an order granting Ms. Bock's motion to reconsider and approving her request for permissive intervention under Commission Rule 2.209(B).

On August 26, 2022, the Department filed the direct testimony of Adam Jacobs.

On August 30, 2022, I issued a procedural order amending the schedule for this case.

On September 2, 2022, Ms. Bock filed direct testimony and exhibits, including her own testimony and testimony of the witnesses Dr. Emily Grubert and Geoffrey Gardner.

On September 7, 2022, the Clerk of the Commission issued a notice for an evidentiary hearing to be held remotely on September 20, 2022.

On September 9, 2022, Ms. Bock filed a motion requesting a change to the scheduled date for the evidentiary hearing due to witness availability.

On September 12, 2022, the Department and VGS filed responses to Ms. Bock's motion to change the date for the evidentiary hearing.

On September 15, 2022, VGS filed a motion to strike the direct testimony of Geoffrey Gardner in its entirety.

On September 16, 2022, I issued an order resolving outstanding motions and discussing logistics for the remote evidentiary hearing.

Also on September 16, 2022, VGS filed the rebuttal testimony of Gregory Morse.

On September 19, 2022, the Intervenor filed a response to VGS's motion to strike the testimony Geoffrey Gardner.

On September 20, 2022, I conducted a remote evidentiary hearing in this case. The evidentiary hearing was attended by Commission staff, VGS, the Department, Ms. Bock, all of the witnesses who filed testimony in this case, and approximately 50 members of the public. During the evidentiary hearing, I issued an oral ruling denying VGS's motion to strike the testimony of Geoffrey Gardner. I also admitted into the evidentiary record all prefiled testimony and exhibits filed in this case, VGS's cross-exhibits 1, 7, 11, and 13, and Intervenor cross-exhibits 1 and 2.

On September 21, 2022, VGS filed a motion to modify the briefing schedule in this case.

On September 28, 2022, I issued an order amending the briefing schedule and setting a schedule for the remainder of this proceeding.

On October 14, 2022, the Department, Ms. Bock, and VGS filed written briefs and proposed findings of fact.

Over the course of this proceeding, the Commission received approximately 130 written comments from members of the public.

## III. PUBLIC COMMENTS

Approximately 130 members of the public filed comments with the Commission in response to the Contract, all of which either opposed the Contract or raised concerns with the Contract's potential impact on VGS's ratepayers or the environment. I have reviewed all public comments filed in this case to date, and I appreciate the members of the public who took time to review the parties' filings and provide feedback and context that has been beneficial for my review of the Contract and the evidence filed in this case. The comments that reflect a detailed understanding of the materials filed in this case and specific knowledge on relevant issues were particularly beneficial for my review of this case.

Although these public comments cannot form the basis of my proposal for decision because they are not sworn testimony that has been admitted into the evidentiary record, they have been of considerable help in identifying issues raised throughout this case, including some issues that were not raised by the parties directly. The public comments assisted me in reviewing the witnesses' testimony and preparing questions for witnesses at the evidentiary hearing. I also note that many members of the public who attended the workshop in this proceeding asked detailed questions and provided comments that aided in contextualizing many of the important policy considerations presented in this case.

The comments filed in this case largely focused on the Contract's environmental impacts. Many commenters challenge VGS's assertion that the Contract will result in environmental benefits for Vermonters or have a positive impact on mitigating the effects of climate change. Many commenters assert that the Contract will result in an increase to greenhouse gas emissions and limit Vermont's ability to satisfy the statutory mandates of Vermont's Global Warming Solutions Act ("GWSA"). Other commenters raise concerns that adding RNG to VGS's current natural gas supply will perpetuate the use of fossil fuels in Vermont. Several comments also raise concerns specific to the environmental impacts caused by the landfill in Waterloo, New York from which RNG supplied under the Contract will be produced. Finally, many commenters raised concerns about the Contract increasing the cost of natural gas without providing a meaningful environmental benefit. The subject matter of these comments is discussed throughout this proposal for decision.

## IV. FINDINGS

Based on the Petition and the accompanying evidentiary record in this proceeding, I have determined that this matter is ready for decision. Based on the evidence of record, I report the following findings to the Commission in accordance with 30 V.S.A. § 8(c).

### Contract Terms

1. The Contract requires VGS to purchase a minimum volume of 300,000 dekatherm of RNG (also called biogas) annually from Archea. Lawliss pf. at 5; exh. VGS-TL-2 (redacted).

2. The RNG delivered under the Contract will be produced at the Seneca Meadows Landfill that is located in Waterloo, New York. The RNG supplied under the Contract will be transported from Waterloo, New York, to a delivery point at Parkway, Ontario. From there, gas will be transported on VGS's existing contracted pipeline capacity to its point of connection with TC Energy at the Canadian border between Phillipsburg, Quebec, and Highgate, Vermont. Lawliss pf. at 5; exh. VGS-TL-2 (redacted).

3. The Contract includes a term of 14.5 years, with an option to extend the Contract for an additional five years upon the mutual agreement of VGS and Archea. Because the initial contract year will be for a period of less than half of a calendar year, VGS's purchase obligation for this initial period will be 130,000 dekatherm. Lawliss pf. at 5; exh. VGS-TL-2 (redacted).

4. The Contract includes an option that allows VGS to increase delivery volumes under the Contract by 100,000 dekatherm per year—an amount that equals approximately 1% of VGS's annual retail sales volumes. Murray pf. at 5; exh. VGS-TL-2 (redacted).

5. The Contract includes a price per dekatherm plus the cost of delivery. The Contract price, however, will fluctuate based on an escalation clause linked to the Annual Consumer Price index subject to an annual cap. Exh. VGS-TL-2 (redacted).

6. The Contract defines the RNG "biogas" to be delivered by Archea to VGS as "(i) Gas, meeting the definition of 'Biogas' in the then-current Renewable Fuel Standards Regulation in 40 C.F.R. 80.1401, produced at a biogas processing facility, along with the Environmental Attributes associated therewith or (ii) Gas, meeting the definition of 'Biogas' in the then-current Renewable Fuel Standards Regulation in 40 C.F.R. 80.1401, produced by [Archea] accompanied by the quantity of Environmental Attributes corresponding to the quantity of such Gas." Exh. VGS-TL-2 (redacted).

7. The Contract defines "Environmental Attribute" to mean "all environmental and other attributes, characteristics, benefits, reporting rights, credits, reductions, offsets, allowances, green tags, and all other benefits attributable to the production, delivery, or use of Gas sold pursuant to this Contract." Exh. VGS-TL-2 (redacted).

8. The Contract authorizes VGS to elect to either take all RNG volumes supplied under the Contract directly to VGS's own retail supply portfolio or take only a portion of the available volumes and sell the remainder into renewable transportation fuel markets. Murray pf. at 6; exh. VGS-TL-2 (redacted).

**VGS's Resale Options**

9. The Federal Renewable Fuel Standard is a program administered by the United States Environmental Protection Agency ("EPA") that requires transportation fuel refiners and producers to provide renewable fuels for a certain percentage of their annual volumes. These companies can either produce the renewable fuel directly, purchase Renewable Identification Numbers ("RINs") associated with other renewable fuel production, or pay an Alternative Compliance Payment. Murray pf. at 7.

10. Every year the EPA sets obligations (known as Renewable Volume Obligations) for large transportation fuel producers. This program has created a marketplace for the sale of RINs, which these companies can use to satisfy their annual Renewable Volume Obligations. Murray pf. at 7.

11. The states of California, Washington, and Oregon have established Low Carbon Fuel Standards ("LCFS") that create an additional marketplace for RNG in the transportation fuel space. California's program has been functional for several years, but Oregon's and Washington's programs are just beginning. Murray pf. at 8.

12. Under LCFS programs, RNG is assigned a carbon intensity value based on the lifecycle carbon benefits from the production and use of RNG as a transportation fuel. The carbon intensity value translates into a ton of carbon avoided, and this carbon value is then traded in the various states' cap and trade carbon markets. Entities from those states that need to purchase carbon credits can purchase RNG-associated credits, thereby generating the RNG value stream. The same molecule of RNG can generate both RINs to satisfy the federal RFS

obligations and state-level LCFS credits, so long as it is used to fuel compressed natural gas ("CNG") vehicles. Murray pf. at 8.

13. With the exception of the first contract year, the Contract authorizes VGS to nominate up to the full quantity of dekatherm of RNG that would otherwise be sold under the Contract to be retained by Archea and marketed into the vehicle transportation market on VGS's behalf to generate RINs, LCFS credits, or any other credits that may be available from environmental attributes associated with the RNG. Exh. VGS-TL-2 (redacted).

14. The Contract requires VGS to make a nomination as to any volumes of RNG that will be sold into transportation fuel markets no later than June 1 of each year. For any volumes of RNG that are nominated for resale, Archea will be required to use commercially reasonable efforts to market and sell the RNG into the vehicle transportation market on behalf of VGS to generate credits. Archea would then be entitled to a share of the net sale proceeds. Exh. VGS-TL-2 (redacted).

15. For any volumes of RNG sold into the transportation markets, VGS will apply the revenues received from the net proceeds against the overall cost of RNG within its supply portfolio. Murray pf. at 9; Lawliss pf. at 7-8.

16. VGS may use the Contract's resale options as a tool to generate offsetting revenues to effectively "buy down" the cost of the remaining RNG volumes they choose to deliver to their retail customers. Jacobs pf. at 6.

17. Any Contract volumes resold into transportation markets will not be counted toward VGS's in-state RNG portfolio, supporting its climate goals, or Vermont's greenhouse gas reduction commitments. Murray pf. at 11.

18. For volumes of RNG that are not nominated for resale into the transportation fuel markets on or before June 1 during each year of the Contract term, VGS will nominate the volumes that will be delivered to the delivery point for use in VGS's supply portfolio, to be sold as part of VGS's voluntary RNG program, or to be consumed through VGS's internal use. Lawliss pf. at 5-6.

19. Although forward prices for RNG attributes in the renewable transportation markets are limited, VGS's estimates for the value of the RNG's environmental attributes are verifiable and reasonable for the short-term future given historical trends in these markets. Jacobs pf. at 4.

**Consistency with Regulatory Requirements and Impact on VGS's Gas Supply and Rates**

20. VGS currently operates under an alternative regulation plan that authorizes the company to increase the amount of RNG under its Purchased Gas Adjustment by 2% of its overall retail gas sales. Murray pf. at 5.[2]

21. The initial 300,000 dekatherm commitment under the contract is the equivalent of approximately 4% of VGS' firm portfolio by volume. Lawliss pf. at 6-7.

22. Fully using 300,000 dekatherm of RNG purchased under the Contract in VGS's firm portfolio (i.e., not exercising the option to resell RNG in renewable transportation markets) would result in an approximate 3.6% increase to VGS's overall firm rates. Lawliss pf. at 7.

23. VGS projects that it will need to purchase and sell upwards of two billion cubic feet per year of non-fossil gas (such as RNG or Green Hydrogen) by 2030 to meet its expected requirements under the GWSA. Murray pf. at 4.

24. VGS calculates that fully exercising options to increase RNG under the Contract would allow the company to secure approximately 50% of the non-fossil gas needed to meet its 2030 supply requirements under the GWSA and supply more than 13% of retail sales with RNG. Murray pf. at 4-5.

25. The Contract's options, including the ability to increase or decrease supply volumes and to resell RNG into transportation markets, provide VGS with flexibility to ramp up its RNG supply consistently with its alternative regulation plan and manage unforeseen financial and regulatory risks associated with the Contract. Murray pf. at 6; tr. 9/20/22 at 65-66 (Murray).

**Environmental Benefits of the Contract**

26. The primary environmental benefit of the Contract will be to displace geologic natural gas with RNG produced at the Seneca Meadows facility to reduce greenhouse gas emissions generated by VGS's distribution and sale of natural gas in Vermont. This finding is supported by the additional findings below.

27. To verify RNG attributes, VGS will use the same process established in Case No. 8667 for all RNG supply contracts, which includes an annual review by an EPA RIN certified consulting group. This company will review the project, the production, the delivery pathway,

[2] VGS's current alternative regulation plan was approved by the Commission on February 22, 2022, in Case No. 19-3529-PET.

and title to the attributes to ensure VGS has received all the RNG consistent with its contracts. Lawliss pf. at 8.

28. VGS's broader approach for reducing carbon emissions and responding to regulatory and legal requirements, including the GWSA, includes three main strategies: (1) weatherization and efficiency; (2) in-home installations of devices such as heat pump water heaters, cold-climate heat pumps, hybrid heating systems, and geothermal systems; and (3) alternative supply, including new sources of low- and zero-carbon alternative energy such as RNG, hydrogen, and district energy systems to displace traditional natural gas. This Contract falls into the third category. Morse pf. reb. at 15.

29. The greenhouse gas impacts of RNG are variable based on production pathway and use case. Truly zero- or negative-greenhouse gas RNG is extremely rare. Grubert pf. at 6.

30. To estimate the emissions intensity of the RNG to be acquired under the Contract, VGS used the California Air Resource Board's ("CARB") GREET Model to conclude that Seneca Meadows Landfill has a carbon intensity score of approximately 45 g/MJ in comparison to an assumed a carbon intensity score of 79 g/MJ for geologic natural gas used in Vermont, resulting in a carbon intensity reduction of approximately 34 g/MJ, or a 43% reduction. Jacobs pf. at 9.

31. If VGS were to replace 10% of geologic natural gas from its projected supply portfolio by 2030 with RNG purchased under the Contract, there would be an approximate 4% reduction of VGS's projected 2030 greenhouse gas emissions that would otherwise occur in the absence of the Contract. Grubert pf. at 7.

32. The GREET model was developed by Argonne National Laboratory. Clean fuels programs in California, Oregon, and Washington each specify the use of modified versions of the GREET model to measure the difference in carbon emissions for various fuels. Morse pf. reb. at 13.

33. The Agency of Natural Resources' current emissions inventory practice would inaccurately assume a 100% reduction in emissions from any source of RNG, which conflicts with VGS's calculation of a 43% reduction using the GREET Model. The Vermont Climate Council is currently working to better quantify emissions impacts associated with RNG. Jacobs pf. at 9.

34. The GREET Model is adequate and likely required for evaluating potential LCFS credit quantity and value for RNG produced at the Seneca Meadows Landfill. However, the GREET Model could result in imprecise measurement of assessing greenhouse gas reductions in Vermont because the model develops a carbon intensity score for RNG from the Seneca Meadows Landfill by assuming variables that are specific to California, such as the physical distance for transporting the RNG from New York to California. Grubert pf. at 9-10.

35. The GREET model used in California is not a perfect representation of exact conditions for every resource; however, given the pace of change, the number of possible scenarios, and the challenges of direct measurement for many characteristics, it would be impractical to develop a precise model. Morse pf. reb. at 14.

36. It is reasonable to assume comparable emissions intensities to that of CARB's GREET model in magnitude and direction when evaluating the Contract. Jacobs pf. at 9.

37. In the absence of an approved Vermont-specific calculation, the GREET Model provides a transparent model that has been evaluated through a public process that includes many points of view. Morse pf. reb. at 14.[3]

38. The carbon intensity of geologic natural gas in Vermont, when factoring an estimated state-average methane emissions rate of 0.9% methane emitted per unit of methane withdrawn for consumption, may be as low as 61 g/MJ, which would result in a greenhouse gas emissions reduction of 26% per unit of geologic gas displaced by RNG provided under the Contract. Grubert pf. at 11.

39. The RNG purchased by VGS under the Contract and supplied for retail sales in Vermont will achieve greenhouse gas reductions between 26% and 43% per unit of geologic gas displaced. Findings 30 and 38, above.

**Consistency with the Comprehensive Energy Plan and the GWSA**

40. The Vermont 2022 Comprehensive Energy Plan ("CEP") is structured to meet requirements for reductions of greenhouse gas emissions required under the GWSA. Jacobs pf. at 6.

[3] The Vermont General Assembly identified the GREET model as a permissible "transparent and accurate emissions accounting" methodology to assess lifecycle emissions for clean heat measures under An Act Relating to the Clean Heat Standard (H.715 or the Clean Heat Standard), which did not ultimately become law in Vermont.

41. One method for assessing the cost-effectiveness of the environmental attributes associated with Contract, and the Contract's consistency with both the GWSA and the CEP, is to compare the cost paid for RNG under the Contract with the social cost of carbon. Jacobs pf. at 2-4, 6.

42. The Vermont Climate Council, through its Science & Data Subcommittee, has overseen the development and presentation of material for estimating the social cost of carbon in Vermont. Jacobs pf. at 6.

43. The Vermont Climate Council relied on a definition from the National Academy of Science for social cost of carbon as "an estimate, in dollars, of the present discounted value of the future damage caused by a metric ton increase in carbon dioxide [] emissions into the atmosphere in that year or, equivalently, the benefits of reducing [carbon dioxide] emissions by the same amount in that year." Jacobs pf. at 6.

44. The Vermont Climate Council, through its work relying on studies conducted by the New York Department of Environmental Conservation, has calculated the social cost of carbon at $128 per short ton of CO2 equivalent levelized over 15 years. Jacobs, pf. at 6-7; tr. 9/20/22 at 90 (Jacobs).

45. The calculated value for the social cost of carbon can change in the future as a result of updates to the calculation methodology, including changes to inputs or the decisions of policy makers regarding appropriate discount rates to apply to any future damages from carbon emissions. Jacobs pf. at 8.

46. The Contract will be consistent with the CEP so long as it is managed by VGS to keep the cost paid for emissions reductions below the social cost of carbon. Jacobs pf. at 10-11; tr. 9/20/22 at 94-95 (Jacobs).

47. To keep the cost paid for emission reductions below the social cost of carbon, VGS projects that it will need to exercise the option to resell at least a portion of the RNG volume from the Contract into the renewable transportation markets. Tr. 9/20/22 at 75-76 (Morse).

48. VGS does not intend for the Contract, on its own, to achieve all emissions reductions contemplated by the GWSA. Rather, the Contract is one part of a set of initiatives that will contribute to Vermont achieving its statewide reduction requirements over the term of the GWSA. Morse pf. reb. at 15.

49. VGS can exercise the Contract's options to keep RNG costs and the effective price paid for emissions reductions below the social cost of carbon. Jacobs pf. at 11.

**Issues Related to the Seneca Meadows Landfill**

50. The Seneca Meadows Landfill that will be used to source the RNG is subject to a permit that is set to expire in 2025. Grubert pf. at 9; Morse pf. reb. at 14.

51. If the Seneca Meadows landfill is unable to obtain a permit extension, the existing landfill will have adequate feedstock to ensure performance of the Contract. Morse pf. reb. at 17; tr. 9/20/22 at 73 (Morse).

52. If Archea is unable to supply required RNG from the Seneca Meadows Landfill, the Contract authorizes Archea to fulfill its delivery obligations with RNG from other landfills located in the northeastern United States, including landfills located in New York and Pennsylvania. Exh. VGS-TL-2 (redacted); tr. 9/20/22 at 74 (Morse).

53. A carbon capture and sequestration ("CCS") facility is planned to be installed at the Seneca Meadows Landfill by 2027. Grubert pf. at 13.

54. CCS captures and sequesters carbon dioxide, not methane, and RNG does not produce carbon dioxide until it is combusted. Grubert pf. at 13.

55. The sequestration of biogenic carbon dioxide like that generated at landfills can generate extremely valuable "negative emissions," as a form of carbon dioxide removal. Grubert pf. at 13.

56. The Contract does not expressly entitle VGS to receive environmental attributes of any carbon dioxide sequestered at the Seneca Meadows Landfill. Exh. VGS-TL-2 (redacted).

57. VGS asserts that it would be entitled all environmental attributes from the facility, including those associated with the possible CCS facility under the Contract's definition of "environmental attributes." Morse pf. reb. at 17-18.

## V. BACKGROUND AND LEGAL STANDARD

This case calls for the Commission to examine the merits of a proposed Contract that constitutes, by a significant margin, the largest increase to VGS's RNG supply that the company has proposed to date. It also requires the Commission to decide, for the first time, whether to approve an agreement that will result in RNG being added to VGS's overall firm retail portfolio.

Currently, VGS generally only offers RNG to customers through voluntary tariffs with rates that reflect the cost premium of acquiring RNG.

Under 30 V.S.A. § 248(i), Commission approval is required for the "purchase of gas from outside the State, for resale to firm-tariff customers" when the contract term exceeds five years or the contract represents more than 10% "of the company's peak demand for resale to firm-tariff customers."

Before addressing the substantive merits of the Contract, it would be helpful to briefly discuss aspects of VGS's recent regulatory history and address how the Contract would fit within the context of recent Commission orders, VGS's current alternative regulation plan, and other regulatory obligations.

The Commission first required VGS to implement a program directed at RNG as part of its approval of the Addison Natural Gas Pipeline ("ANGP") in Case No. 7970. Specifically, the Commission conditioned approval of the ANGP "on VGS developing a proposal to foster bio-methane projects in Addison County."[4] The Commission later approved a petition from Lincoln Renewable Natural Gas, LLC to install and operate an anaerobic digester to produce RNG from farm and food waste in Salisbury, Vermont.[5] VGS purchases RNG for retail distribution directly from the Salisbury digester.[6] Then, on September 6, 2017, the Commission approved a petition from VGS to establish a program that authorized VGS to sell RNG to customers on a voluntary basis through a tariffed rate.[7] Following implementation of the voluntary RNG program, VGS has received approval from the Commission for two separate contracts that provide RNG supply for its voluntary RNG tariff. The first contract authorizes VGS to receive a minimum delivery of

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[4] *Petition of Vermont Gas Systems, Inc. for a certificate of public good, pursuant to 30 V.S.A. Section 248, authorizing the construction of the "Addison Natural Gas Pipeline" consisting of approximately 43 miles of new natural gas transmission pipeline in Chittenden and Addison Counties, approximately 5 new distribution mainlines in Addison County, together with three new gate stations in Williston, New Haven, and Middlebury, Vermont*, Case No. 7970, Order of 12/23/11 at 78-79.

[5] *Petition of Lincoln Renewable Natural Gas, LLC ("Lincoln RNG"), pursuant to 30 V.S.A. Sections 231 and 248(j), seeking approval for the construction, ownership, and operation of a renewable natural gas facility in Salisbury, Vermont*, Case No. 8596, Order of 4/8/16.

[6] The Commission recently approved a separate petition from a third party for the acquisition of the Salisbury digester. *See Petition of GEPIF III Vanguard Renewables NewCo, L.P. for an order approving the acquisition by GEPIF III Vanguard Renewables NewCo, L.P. of an indirect controlling interest in Salisbury AD 1, LLC pursuant to 30 V.S.A. § 107, and for continuing de minimis regulation under 30 V.S.A. § 108*, Case No. 22-2992-PET, Order of 7/28/22.

[7] *Petition of Vermont Gas Systems, Inc. for a Renewable Natural Gas Program and Optional Tariff*, Case No. 8667, Order of 9/6/17.

70,000 MMBtu and a maximum delivery from 120,000 MMBtu of RNG per year from a supplier located in Ontario, Canada, for a term of approximately fifteen years.[8] The second contract authorizes VGS to acquire a minimum of 20,000 MMBtu and a maximum of 30,000 MMBtu per year for a term of approximately seven years with supplier located in Dubuque, Iowa.[9]

VGS's current alternative regulation plan, which was approved by the Commission on August 11, 2021, expressly authorizes VGS to increase its RNG supply equivalent to 2% of its retail sales on an annual basis.[10] This component of the alternative regulation plan is consistent with VGS's most recent integrated resource plan ("IRP"), which was approved by the Commission with findings that VGS would seek to increase its supply of RNG by approximately 2% per year and that "[i]t is unlikely that VGS will be able to meet its RNG targets exclusively with locally sourced RNG, so it plans to procure RNG from a variety of other sources including landfills, wastewater, and larger digesters that are not local."[11] However, with respect to the IRP, it is important to emphasize that its approval was conditioned on a memorandum of understanding with the Department that requires that VGS's 2024 IRP include an analysis of "steps taken to develop and apply a valuation of greenhouse gas emissions framework to inform resource procurement decisions in the next IRP *and apply to any investment decisions in the interim*. VGS's 2024 IRP will consider investments from the utility, customer, and societal perspectives."[12] Likewise, the alternative regulation plan requires that any proposal to increase RNG should factor "the overall impact on rates, VGS's competitive position, the extent to which VGS is increasing RNG under its Voluntary RNG Program, and the environmental benefits of adding RNG supply."[13]

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[8] *Petition of Vermont Gas Systems, Inc. for approval of a Natural Gas Supply Contract pursuant to 30 V.S.A. § 248(i)*, Case No. 18-2154-PET, Order of 7/26/18. The contract was initially approved for approximately seven years, but the Commission later approved an extension of the contract term to approximately 15 years. *Petition of Vermont Gas Systems, Inc. for approval of revisions to a natural gas supply contract pursuant to 30 V.S.A. § 248(i)*, Case No. 19-0808-PET, Order of 5/10/19.

[9] *Petition of Vermont Gas Systems, Inc. for approval of an out-of-state renewable gas purchase contract with a term exceeding five years pursuant to 30 V.S.A. § 248(i)*, Case No. 20-0384-PET, Order of 05/07/20.

[10] *Petition of Vermont Gas Systems, Inc. for approval of an Alternative Regulation Plan, pursuant to 30 V.S.A. § 218d*, Order of 8/11/21, at 4-5.

[11] *Petition of Vermont Gas Systems, Inc. for approval of its 2020 Integrated Resource Plan*, Case No. 21-0167-PET, Order of 10/13/21, at 3.

[12] *Id.* at 8 (emphasis added).

[13] Case No. 19-3539, Exhibit VGS-JMP-5 at 4-5.

Within the backdrop of VGS's efforts to increase RNG supply, the Vermont General Assembly enacted the GWSA. The GWSA calls for mandatory, state-wide greenhouse gas reductions of 26% from 2005 levels by 2025; 40% reduction from 1990 levels by 2030; and 80% reduction from 1990 levels by 2050.[14] The first phase of implementing the GWSA involved the issuance of a Climate Action Plan, which was required to "set forth the specific initiatives, programs, and strategies, including regulatory and legislative changes, necessary to achieve the State's greenhouse gas emissions reduction requirements pursuant to section 578 of this title."[15] The Climate Plan was issued in December 2021. The next step in the GWSA implementation tasks the Vermont Agency of Natural Resources with adopting and implementing rules on or before December 1, 2022, that are "consistent with the specific initiatives, programs, and strategies set forth in the [Climate Action Plan] and achieve the 2025 greenhouse gas emissions reduction requirement pursuant to section 578 of this title."

The Department also recently issued the most recent iteration of the Comprehensive Energy Plan ("CEP") in January 2022. As required by 30 V.S.A. § 202b, the CEP is intended, in part, "to implement the State energy policy set forth in section 202a of this title, including meeting the State's greenhouse gas emissions reductions requirements pursuant to 30 V.S.A. § 578, and shall be consistent with the relevant goals of 24 V.S.A. § 4302 and with the Vermont Climate Action Plan adopted and updated pursuant to 10 V.S.A. § 592." Importantly, the 2022 iteration of the CEP expressly addresses the GWSA's greenhouse gas reduction mandates in setting out the State's energy policy. Relevant to this case, the CEP encourages consideration of increased usage of RNG, but cautions that although "increases in the quantity of RNG and natural gas alternatives serving ratepayers is desirable, Vermont should be aware — just as it needs to be with unregulated fuels — of locking customers into existing combustion-based thermal energy infrastructure, particularly if it delays or dissuades electrification of thermal loads."[16] The CEP also concludes that "[a]ny RNG design should consider the benefits and burdens of RNG to all ratepayers."[17]

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[14] 10 V.S.A. § 578.
[15] 10 V.S.A. § 592(b).
[16] CEP at 210.
[17] *Id.* at 211.

## VI. POSITIONS OF PARTIES

VGS and Ms. Bock presented starkly different perspectives on the relative benefits of VGS's proposed Contract, with their principal disagreements centering on the purported environmental benefits of the Contract.

VGS, while acknowledging that the Contract is not a panacea for mitigating the climate impacts of its core business practices, argues that incorporating increasing amounts of RNG into its supply is consistent with its existing regulatory obligations and is a necessary component of its overall strategy for complying with GWSA mandates and reducing greenhouse gas emissions. Specifically, VGS argues that the Contract is consistent with its alternative regulation plan, its IRP, the CEP, and the GWSA. VGS further argues that the evidence and recommendations filed by Ms. Bock are contrary to VGS's existing legal and regulatory obligations. VGS asserts that it "does not contend this Contract solves the entire carbon emissions problem. Instead, this Contract makes meaningful progress toward GWSA mandates as part of a suite of efforts that VGS is undertaking to reduce carbon emissions."[18] VGS also asserts that "even as VGS moves more customers away from fossil gas through energy efficiency, electrification, geothermal, and other strategies, this Contract will continue to support hard-to-electrify larger commercial and industrial loads, which comprise a significant portion of VGS's annual volume, and will promote economic development by supporting a growing number of energy-intensive businesses that desire renewable and/or carbon-free operations."[19]

Ms. Bock, on the other hand, challenges whether any environmental benefits will be attained for Vermont by allowing VGS to proceed with the RNG acquisitions contemplated by the Contract. Ms. Bock argues that the Contract "provides no real greenhouse gas emissions reduction benefit, should not be the basis for rate increases for VGS customers, and does not promote the general good of the State of Vermont."[20] Ms. Bock contends that the Contract will be counterproductive toward achieving Vermont's climate objectives, including those incorporated into the GWSA. Ms. Bock challenges the asserted environmental benefits of RNG generally, criticizes VGS's calculation of the greenhouse gas reductions to be achieved by the Contract, and argues that incorporating more RNG into VGS's portfolio will perpetuate the use

[18] VGS Brief at 13-14.
[19] VGS Brief at 2.
[20] Intervenor Brief at 1.

of fossil fuels. She asserts that "[r]educing emissions *growth* is not the same as reducing emissions" and that "the Contract does not offer a pathway to net zero emissions."[21] Ms. Bock further argues that any financial benefits from the option to resell natural gas into transportation markets are speculative, and that VGS's reliance on the GREET Model overstates the expected greenhouse gas reductions that will be achieved through performance of the Contract. Ms. Bock also raises concerns about negative environmental impacts caused by the landfill from which VGS will source RNG under the Contract.

The Department presents a nuanced position on the Contract. It argues that the Contract "*may* be consistent with the [GWSA], 2022 [CEP], VGS's Alternative Regulation Plan [], and least-cost integrated planning provided that the Contract is managed to maintain the cost paid for emissions reductions below the social cost of carbon."[22] In other words, the Department argues that for the Contract to deliver positive environmental and ratepayer value consistent with VGS's existing and anticipated regulatory obligations, VGS will need to actively manage and exercise the options available under the Contract to ensure that the price paid by VGS for emissions reductions does not exceed the social cost of carbon. The Department's support for the Contract, therefore, is subject to the Commission adopting a proposed condition that would incorporate the social cost of carbon as a metric for measuring the Contract's cost-effectiveness. The Department's proposed condition, which is discussed in more detail below, would require that VGS "provide its annual nominations under the Contract and a detailed estimation of contract performance in compliance with its obligation to manage the price paid for emissions reductions from volumes of RNG delivered to VGS customers to not exceed the [social cost of carbon]."[23] In its briefing, VGS indicates that it does not oppose the Department's proposed condition.[24]

## VII. DISCUSSION AND CONCLUSIONS

### Introduction

I recommend that the Commission approve the Contract. This case presents policy issues that fall squarely within a crossroads of the Commission's role of regulating VGS within the rigid confines of traditional utility regulation and a necessary pivot of those standards toward

[21] *Id.* at 11 and 14 (emphasis in original).
[22] Department brief at 1 (emphasis added).
[23] *Id.*
[24] VGS Brief at 9-14.

allowing VGS a degree of flexibility to meaningfully confront how its core business practices contribute to greenhouse gas emissions. All parties in this case have presented credible testimony and exhibits highlighting the benefits, drawbacks, and risks of the RNG that will be delivered under the Contract, and importantly how this Contract will affect VGS's ratepayers. Having considered the parties' evidence and legal briefing, I recommend that the Commission conclude that, on balance, the Contract, if properly managed and subject to careful regulatory oversight, will serve to benefit VGS's ratepayers and Vermont's broader energy policy objectives by reducing greenhouse gas emissions in a manner that is consistent with traditional least-cost planning principles.

**Consistency with Existing Regulatory Obligations and Financial Considerations**

Of significant importance is the Contract's consistency with VGS's applicable legal and regulatory obligations, including VGS's current alternative regulation plan and IRP, both of which were subjected to detailed scrutiny by the Commission in separate proceedings that went through the Commission's contested case process. The IRP and alternative regulation plan encapsulate overarching planning principles and objectives that direct VGS's energy-acquisition policies, including VGS's approach toward mitigating the greenhouse gas impacts that inherently result from its traditional business practices. As discussed above, VGS's alternative regulation plan and IRP both contemplate that VGS will progressively increase the supply of RNG that is added to its general firm portfolio as part of a broader array of policies and programs that are intended to limit VGS's greenhouse gas emissions. In approving VGS's alternative regulation plan and IRP, the Commission gave approval for VGS to pursue opportunities for acquiring additional RNG to add to its retail supply portfolio. VGS's alternative regulation plan expressly authorizes VGS to increase the amount of RNG in its retail supply portfolio by 2% per year, and the Contract's deliverables fit within this limit. The Contract, on its face, is consistent with and promotes the high-level objectives set out in VGS's IRP and alternative regulation plan.

However, as correctly noted by the Department, the regulatory approval of VGS's IRP was conditioned on tethering VGS's acquisition of new RNG resources to traditional least cost-planning principles. Although the IRP encourages VGS to pursue RNG resources, the Commission's approval of the IRP makes clear that the financial impacts of VGS's acquisition of new RNG resources must be analyzed from the utility, customer, and societal perspective. Thus,

although the alternative regulation plan authorizes VGS's acquisition of progressively increasing amounts of RNG, the Commission's approval of the IRP establishes that VGS's new investments into RNG remain firmly fixed to traditional least-cost utility planning principles.

The Department persuasively argues that the Contract can satisfy these traditional least-cost planning principles only if VGS actively manages the Contract's resale options to ensure that any price premium paid for the RNG (i.e. cost in excess of the market rate) does not exceed the cost of carbon reductions effectuated by the RNG acquired under the Contract. I discuss the calculations used to assess the Contract's potential greenhouse gas reduction potential using the GREET Model below, but the Department's analysis of the contract price and the greenhouse gas emissions savings demonstrates that the Contract can be managed to result in a cost-effective, net-positive environmental benefit.[25] However, the evidence in this case indicates that VGS will need to exercise the Contract's resale options and receive revenues from transportation fuel markets to achieve this objective. Indeed, a VGS witness acknowledged at the evidentiary hearing that it likely will not be feasible for VGS to keep the premium price paid for RNG under the Contract below the cost of carbon reductions without obtaining revenues from resales of the RNG.[26]

To ensure the cost-effectiveness of the Contract, the Department proposes that the Commission subject approval of the Contract to the following condition, which VGS has consented to:

> To the greatest extent practicable, VGS shall manage its options under the Contract so that the price paid for emissions reductions from volumes of RNG delivered to VGS customers (net of any proceeds from VGS's sales into [the] renewable transportation fuel market) does not exceed the social cost of carbon. The management of options may consider the price paid per ton of carbon over multiple years and in connection with other parts of the alternative supply portfolio. Nothing in this condition removes the obligation to consider rate impacts of the individual contract within the alternative supply portfolio to balance societal and ratepayer interests. VGS shall submit its intention regarding annual Contract management decisions, including estimated and nominations ("Annual Nominations") 60 days prior to the Annual Nomination due date to the Commission and the Department, and describe how the Annual Nomination, and any potential changes thereto during the year, is in compliance with this

[25] The actual price to be paid per dekatherm under the contract is subject to the Commission's July 7, 2022, order granting confidential protection to portions of the Contract.

[26] Tr. 9/20/22 at 75-76 (Morse).

> condition. The Department or any party shall have 30 days to provide comments on the Annual Nominations described in VGS's filing.[27]

If the Commission determines to approve this Contract, I recommend that it adopt the Department's proposed condition. Although VGS should be encouraged to pursue all available options for mitigating the climate and environmental impacts of its business, any ratepayer investments into new programs, initiatives, or purchase contracts should be cost-effective and ensure that financial risk is appropriately balanced between the company and its ratepayers. Comparing the premium paid for RNG under the Contract against the cost of greenhouse gas reductions is a reasonable means for conducting such an assessment, and the social cost of carbon is an appropriate metric for making that comparison. Although the social cost of carbon is potentially subject to modification over time, it is a practical, easily accessible metric for evaluating the cost-effectiveness of the Contract. I note that it is a metric that the Commission has used in the context of setting screening values for energy efficiency utilities.[28] Imposing this condition on VGS will also add an additional layer of regulatory scrutiny of VGS's management of the Contract, which will help to ensure that potential ratepayer benefits are protected. Also of importance, I note the Department's conclusion that the Contract will be consistent with the CEP is based on ensuring that the price paid for emissions reductions does not exceed the social cost of carbon.

Ms. Bock argues that the social cost of carbon is an imprecise metric and that it would be unfair to use the social cost of carbon in setting VGS's rates. However, under the Department's proposed condition, the social cost of carbon would not be a metric used to set VGS's rates. Instead, it would be one of several metrics that could be used by the Commission to assess whether the Contract is managed cost-effectively, which in turn can affect decision-making about cost recovery using traditional ratemaking standards in a future rate case. Ms. Bock's point about the imprecision of the social cost of carbon metric, however, is not wholly without merit. Although the Department and VGS have demonstrated to my satisfaction that this an appropriate tool for assessing the cost-effectiveness of the Contract, if Vermont adopts a different mechanism for valuing carbon reductions during the term of the Contract, whether by

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[27] Department brief at 6.

[28] *See Petition of the Vermont Department of Public Service for a proceeding to update avoided costs and other screening values used by the Energy Efficiency Utilities*, Case No. 21-2436-PET, Order of 10/10/22.

rulemaking under the GWSA or future legislation, or if the social cost of carbon metric is changed significantly, it may be necessary to revisit this condition if it is adopted by the Commission.

Ms. Bock also challenges the Contract's reliance on environmental attributes associated with RNG to be cost-effective. Specifically, Ms. Bock highlights that the RNG delivered under the Contract will be produced out-of-state, and based on the nature and physics of natural gas transmission, there is no guarantee that any RNG molecules generated at the Seneca Meadows Landfill will actually be physically transported to VGS's distribution network in Vermont. However, as Ms. Bock also notes, this reliance on environmental attributes for RNG generated out of state is analogous to mechanics of the REC market in the electric industry. Although Vermont does not currently have a statutory analog to the Renewable Energy Standard ("RES") that applies to VGS, the Department and VGS have both credibly demonstrated that there are active markets within which VGS will be able to sell RNG attributes for the foreseeable future to generate revenues. In any event, the lack of a specific legal mandate analogous to the RES should not be an impediment to VGS pursuing cost-effective opportunities to reduce greenhouse gas emissions as the GWSA, at least indirectly, imposes greenhouse gas reduction obligations on VGS.

Ms. Bock does, however, raise a notable risk that Vermont could potentially adopt a clean heat standard or rules under the GWSA that would prohibit VGS from using attributes from RNG generated out-of-state toward Vermont-specific mandates.[29] In response to my questioning on this issue during the evidentiary hearing, a VGS witness testified that:

> If something were to change on the policy front, we know this RNG is valuable in these wholesale renewable transportation fuel markets. There's other markets developing. So I don't envision the scenario where Vermont Gas can't move this gas in a direction and probably actually generate ratepayer benefit, and as is contemplated in the clean heat standard legislation this pathway or deliverability was I think the term that was used as related to our renewable fuels. So this would have aligned with the clean heat standard, and frankly we were talking about this contract as the bill was being worked on and we're optimistic that bill could be revived this coming session. So I don't see it giving us a lot of risk. We're watching all that and actively engaged in that as we go forward, but, you know, Vermont's a small state and we have a lot of challenges with the energy

[29] Intervenor Brief at 31-32.

> goals within our boundaries given the limitations we have both on our system as well as on the electric system.[30]

Based on the VGS witness's testimony, I recommend that the Commission conclude that VGS has acknowledged and addressed this risk and is prepared and will be able to manage the Contract cost-effectively if Vermont imposes regulatory requirements that affect VGS's ability to claim environmental attributes associated with the Contract. Also, as discussed in the findings of fact above, the Department has verified VGS's estimates for the value of the RNG attributes in the renewable transportation markets for the near-term future, which supports VGS's assertion that there will be buyers for these attributes even if they ultimately cannot be used to satisfy state-level regulatory obligations in Vermont. Thus, the Contract does hedge the risk of regulatory change in Vermont. However as discussed elsewhere in this proposal for decision, approval of the Contract is not a guarantee of rate recovery. To the extent there are new regulatory mandates that affect the Contract's financial performance, the Commission may need to address VGS's management of the Contract in response to such mandates when evaluating cost recovery in future rate cases if the Contract is approved.

**Environmental Benefits**

The cost of the Contract must be considered in tandem with the environmental benefits it is intended to generate, and the parties dispute whether and to what extent such benefits will in fact materialize. VGS argues that the displacement of geologic natural gas with RNG purchased under the Contract will result in a 43% reduction of greenhouse gas emissions per unit of fossil gas displaced. VGS's conclusion relies on a carbon intensity score of 45 g/MJ for RNG produced at the Seneca Meadows Landfill under the GREET Model. Ms. Bock criticizes VGS's reliance on the GREET Model. She also disputes VGS's calculation of greenhouse gas emissions based on an assumed carbon intensity score of 79 g/MJ for geologic natural gas in Vermont. The expert witness presented by Ms. Bock, Dr. Grubert, concluded that displacing geologic natural gas with RNG from the Seneca Meadows Landfill would result in a reduction of greenhouse gas emissions of 26% per unit of fossil gas displaced. Dr. Grubert's assessment was based on a presumed carbon intensity score of geologic gas in Vermont of 61 g/MJ. I note that Dr. Grubert's testimony on this point was supported by documented calculations, and that her

[30] Tr. 9/20/22 at 65-65 (Murray).

testimony does raise some doubt on VGS's reliance on the 79 g/MJ carbon intensity score of geologic carbon in Vermont. However, as Dr. Grubert acknowledged during the evidentiary hearing, her calculation of the carbon intensity score was based on reviewing data from the U.S. Energy Information Administration ("EIA") and was not based on personal knowledge of Vermont's energy marketplace.[31]

At a threshold level, resolving the difference between Ms. Bock and VGS's calculations of the carbon intensity score of geologic natural gas is not material because it is clear that the parties agree that there will be some level greenhouse gas reductions. This conclusion demonstrates that the Contract will result in environmental benefits – a factor that favors approval of the Contract. However, setting the carbon intensity score of geologic natural gas could affect the financial performance of the Contract because it essentially sets the benchmark for assessing the greenhouse gas reductions achieved through the contract. The parties acknowledge this difference would be immaterial for the sale of RNG attributes in LCFS programs (since the value is based on the GREET Model score), but it would affect the social cost of carbon calculation discussed above. I recognize, however, that VGS's reliance on the 79 g/MJ value derives from assumptions for the carbon intensity of conventional natural gas as reported by CARB in summarizing average LCFS credit prices.[32] Because the 79 g/MJ is the value that has been used in active RNG credit trading markets, and because Dr. Grubert's testimony is not based on personal knowledge of the Vermont natural gas market, I conclude that it is reasonable for VGS to rely on the 79 g/MJ for assessing the greenhouse gas reductions achieved under the Contract.

Dr. Grubert's testimony, nonetheless, highlights a potential risk that warrants consideration. In assessing the projected environmental benefits of the Contract, VGS relies on the GREET Model, which is used in other jurisdictions (including California) and may generate results based on inputs and assumptions that do not accurately reflect conditions in Vermont. VGS likewise relies on a carbon intensity value for geologic natural gas that was developed for those other markets. Once the Agency of Natural Resources promulgates rules implementing the GWSA, or if the General Assembly enacts new legislation directed at the thermal heating sector,

[31] Tr. 9/20/22 at 13 (Grubert).
[32] Exhibit Intervenor Cross-1 at 8-9 (discovery response A.DPS.VGS.1-5).

it is possible that Vermont will apply a different method for calculating the carbon intensity of the RNG to be procured under the Contract or a carbon intensity score for geological natural gas in Vermont. These variables could have a significant impact on the overall performance of the Contract, even if it does yield a net-positive environmental benefit, because the financial performance of the Contract is tied to the overall emissions savings generated by the Project.

The flexibility built into the Contract, including the options to increase or decrease supply or resell RNG into the renewable transportation markets, will mitigate against this risk. Likewise, the Department's proposed condition, which would tie performance of the Contract to the social cost of carbon, establishing a clear performance benchmark, will also shield VGS's ratepayers from this and other financial risks tied to the Project. Therefore, I recommend that the Commission conclude that this potential risk is not so significant to outweigh the potential benefits of the Project. However, VGS should anticipate that a failure to account for this and other related risks through effective management of the Contract's options could result in cost-recovery issues in future rate setting proceedings.

I also emphasize that RNG is a relatively nascent development. Relying on an imprecise model that was developed for a similar regulatory purpose (i.e., measuring greenhouse gas emissions reductions), but for use in a different jurisdiction, may lack a degree of specificity that would otherwise be required in some contexts, such as in evaluating a utility's cost-of-service in a rate setting case. Because there are few state-level RNG mandates, the natural gas market has not coalesced around specific standards for measuring and trading environmental attributes associated with RNG to the same extent that the electric industry has with renewable energy certificates ("RECs"). Nor has a robust market for trading attributes associated with RNG developed outside of the renewable transportation markets discussed above, which are still relatively limited in scope and maturity in comparison to the REC trading marketplaces. This distinction between the electric and natural gas industries is to be expected, as states generally have not yet enacted natural gas analogues to the renewable portfolio standards for the electric industry. However, increased use of RNG, both in Vermont and in other jurisdictions, should result in access to improved data, analytical tools, and marketplace transparency in the near future—especially if other states enact legislation comparable to the GWSA or clean heat standards that set specific greenhouse gas reduction mandates directed at the thermal heating

sector. Nonetheless, for purposes of analyzing the Contract, I am persuaded by the evidence presented by the parties that the GREET Model provides sufficiently accurate results to develop a reasonable estimate of the Contract's potential greenhouse gas reductions.

Ms. Bock also argues against approval of the Contract on the basis that the Contract will not meaningfully contribute to VGS meeting its GWSA mandates. In support of this position, Dr. Grubert presented testimony that replacing 10% of geologic natural gas from VGS's projected supply portfolio in 2030 with RNG purchased under the Contract will result in an approximate 4% reduction in greenhouse gas reductions, which falls well below the mandated 2030 targets included in the GWSA. Ms. Bock is correct that this Contract, by itself, will not enable VGS to meet its GWSA obligations. Ms. Bock is also correct that VGS's acquisition of RNG under this Contract will result in greenhouse gas emissions because the RNG produced at the Seneca Meadows Landfill is not a zero-carbon resource.

Ms. Bock's argument with respect to the GWSA, however, overlooks much of VGS's testimony in this case, which emphasizes that adding RNG to its supply portfolio is only one aspect of a multi-faceted approach to reducing greenhouse gas emissions and meeting GWSA mandates. VGS's climate mitigation strategies also include efficiency and weatherization, in-home appliance and heat pump installations, and other alternative fuel supplies including geothermal, hydrogen, and district energy system. RNG is only one component of VGS's broader approach to mitigating its climate impact. In this case, VGS has demonstrated that the proposed RNG Contract, if managed effectively, can be a cost-effective means of reducing its overall greenhouse gas impact, which will contribute to the company's ability to meet its GWSA objectives. Although other mitigation strategies, such as efficiency and weatherization, may be more cost-effective than RNG at reducing net greenhouse gases, VGS provides a necessary utility service that is relied upon by thousands of Vermonters. For those customers who are unable to fuel switch away from natural gas in the near-term future, whether for financial or logistical reasons, regulatory policy should be directed at reducing the emissions profile of the natural gas that those customers will continue to use in a cost-effective manner.

Over the coming decades, as the GWSA's mandates ramp up, VGS will have to significantly adapt its business model and the delivery of its services to meet those mandates. As the Commission has highlighted in past orders, including orders approving VGS's IRP and

alternative regulation plan, and as the CEP stresses, VGS will need to take a multi-pronged approach to reducing its greenhouse gas impact. VGS should have adequate flexibility to pursue a wide array of options for achieving those mandates so long as VGS pursues approaches that are cost-effective for the ratepayers who depend on its service.

**Ancillary Issues Related to the Seneca Meadows Landfill**

The parties in this case also presented testimony and briefing on the issue of whether the Contract entitles VGS to environmental attributes that would be generated by a carbon capture and sequestration ("CCS") system that is proposed to be constructed at the Seneca Meadows Landfill. I have concluded that there is insufficient evidence in the record to determine whether the CCS system is likely to be completed or to support a conclusion that VGS is entitled to environmental attributes from the CCS system if it does become operational during the term of the Contract. The only relevant evidence in the record on the latter point is a VGS witness's hearsay testimony about contract negotiations, the Contract itself, and non-attorney witnesses' testimony about how to interpret the contract's definition of "Environmental Attribute." I conclude that the Contract, on its face, is ambiguous as to whether VGS is entitled to attributes generated by the possible CCS system at the Seneca Meadows Landfill. Accordingly, my recommendation that the Commission approve the Contract is not based on potential revenues that VGS would receive under the Contract from the potential CCS system. However, if the CCS system does come online, and VGS is entitled to environmental attributes from the system, it should be expected that any revenues generated from those attributes would be applied to offset the overall cost of the Contract.

Ms. Bock and numerous public commenters also raise concerns about the viability of the Seneca Meadows Landfill and its environmental impacts on water resources located adjacent to the landfill in New York. The evidence filed in this case shows that the landfill operates subject to a permit that is set to expire in 2025. VGS has demonstrated to my satisfaction that Archea will be able to perform its delivery obligations under the Contract even if the landfill's permit is not extended because the landfill currently has adequate feedstock to allow for continued production of RNG through the term of the Contract. The Contract also allows Archea to provide VGS with RNG from alternative landfills in New York or Pennsylvania. Thus, I

conclude that Archea's performance under the Contract is not at risk if the landfill permit that expires in 2025 in not extended.

With respect to the many public comments about the landfill's environmental impacts in central New York, the Commission's jurisdictional scope of review over the Contract is limited by 30 V.S.A. § 248(i). Although Ms. Bock and these commenters raise legitimate issues and concerns about environmental impacts caused by the landfill, the Commission does not have jurisdictional authority in this proceeding to review the environmental impacts of a landfill located outside of Vermont.[33] The evidence admitted into the evidentiary record on this point is also either too vague or dependent on hearsay (in the form of newspaper articles or opinion pieces) to support factual findings on any adverse environmental impacts attributable to the landfill's operations. Further, any such environmental impacts will presumably be reviewed by federal or State of New York regulatory agencies with appropriate jurisdictional authority over the landfill's operations. Accordingly, I do not recommend that the Commission consider the landfill's potential adverse impacts in evaluating whether to approve the Contract.

## Conclusion

In conclusion, I note that Ms. Bock has flagged legitimate criticisms and skepticism regarding the benefits of RNG, but it would be premature to foreclose VGS's participation in a nascent marketplace that has the potential for satisfying Vermont's broader energy policy objectives. The Contract, however, is not without risk to VGS's ratepayers. Therefore, if the Commission issues an order approving the Contract, it will be incumbent on the Commission and the Department to closely monitor VGS's performance under this Contract and within the RNG marketplace generally. It is also appropriate to establish guardrails around VGS's management of the Contract's various options and routinely assess VGS's management of the Contract in appropriate regulatory settings, including in future rate cases. The Department's proposed condition, which includes reporting requirements and a proposed financial performance metric tied to the social cost of carbon, will assist in achieving an appropriate degree of regulatory oversight and properly evaluating whether the Contract is implemented in a manner that is consistent with Vermont's energy policy objectives. Accordingly, I recommend that the

[33] *See Application of Twenty-Four Elec. Utilities for A Certificate of Pub. Good Authorizing Execution & Performance of A Firm Power & Energy Cont. with Hydro-Quebec & A Hydro-Quebec Participation Agreement.*, Case No. 5330, Order of 10/12/90.

Commission issue an Order approving the Contract subject to the Department's proposed condition.

## VIII. CONCLUSION

To the extent the findings of fact and conclusions of law in this proposal for decision are inconsistent with any proposed findings of fact or conclusions of law submitted by any party, such proposed findings or conclusions of law, having been considered, are rejected.

This Proposal for Decision has been served on all parties to this proceeding in accordance with 3 V.S.A. § 811.

Dated at Montpelier, Vermont this 19th day of October, 2022.

Daniel Burke, Esq.
Hearing Officer

## IX. ORDER

IT IS HEREBY ORDERED, ADJUDGED, AND DECREED by the Vermont Public Utility Commission ("Commission") that:

1. The findings, conclusions, and recommendations of the Hearing Officer are adopted.

2. Vermont Gas Systems, Inc.'s ("VGS") proposed contract with Archaea Energy Marketing LLC for the purchase of renewable natural gas and its associated attributes (the "Contract") is approved.

3. To the greatest extent practicable, VGS shall manage its options under the Contract so that the price paid for emissions reductions from volumes of RNG delivered to VGS customers (net of any proceeds from VGS's sales into the renewable transportation fuel market) does not exceed the social cost of carbon. The management of options may consider the price paid per ton of carbon over multiple years and in connection with other parts of the alternative supply portfolio. Nothing in this condition removes the obligation to consider rate impacts of the individual contract within the alternative supply portfolio to balance societal and ratepayer interests. VGS shall submit its intention regarding annual Contract management decisions, including estimated and nominations ("Annual Nominations") 60 days prior to the Annual Nomination due date to the Commission and the Department, and describe how the Annual Nomination, and any potential changes thereto during the year, is in compliance with this condition. The Department or any party shall have 30 days to provide comments on the Annual Nominations described in VGS's filing.

Dated at Montpelier, Vermont this _____.

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|---|---|---|
| _____ | ) | |
| Anthony Z. Roisman | ) | PUBLIC UTILITY |
| | ) | |
| | ) | |
| _____ | ) | COMMISSION |
| Margaret Cheney | ) | |
| | ) | |
| | ) | OF VERMONT |
| _____ | ) | |
| J. Riley Allen | ) | |

OFFICE OF THE CLERK

Filed:

Attest:_____
Clerk of the Commission

*Notice to Readers: This decision is subject to revision of technical errors. Readers are requested to notify the Clerk of the Commission (by e-mail, telephone, or in writing) of any apparent errors, in order that any necessary corrections may be made. (E-mail address: puc.clerk@vermont.gov)*

*Appeal of this decision to the Supreme Court of Vermont must be filed with the Clerk of the Commission within 30 days. Appeal will not stay the effect of this Order, absent further order by this Commission or appropriate action by the Supreme Court of Vermont. Motions for reconsideration or stay, if any, must be filed with the Clerk of the Commission within 28 days of the date of this decision and Order.*

PUC Case No. 22-2230-PET - SERVICE LIST

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COURT OF APPEAL, FOURTH APPELLATE DISTRICT

DIVISION ONE

STATE OF CALIFORNIA

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| JAMES LINDSTROM et al.,<br><br>Plaintiffs and Appellants,<br><br>v.<br><br>CALIFORNIA COASTAL COMMISSION,<br><br>Defendant and Appellant. | D074132<br><br>(Super. Ct. No. 37-2016-00026574-CU-WM-NC) |

APPEAL from a judgment of the Superior Court of San Diego County, Ronald F. Frazier, Judge. Reversed and remanded with directions.

Xavier Becerra, Attorney General, Daniel A. Olivas, Assistant Attorney General, Jamee Jordan Patterson and Hayley Peterson, Deputy Attorneys General, for Defendant and Appellant.

Environmental Law Clinic, Mills Legal Clinic at Stanford Law School, Molly Loughney Melius, Thomas Miller and Annelise Corriveau as Amicus Curiae on behalf of Defendant and Appellant.

The Jon Corn Law Firm, Jonathan C. Corn, Anders T. Aannestad, Arie L. Spangler and Lee M. Andelin, for Plaintiffs and Appellants.

This case concerns an appeal and cross appeal from the trial court's ruling on a petition for writ of administrative mandate that James and Karla Lindstrom (the Lindstroms) filed against the California Coastal Commission (the Commission) challenging certain special conditions that the Commission placed on its approval of the Lindstroms' plan to build a house on a vacant oceanfront lot on a bluff in Encinitas. The Commission's appeal challenges the trial court's disapproval of the special conditions requiring (1) the home to be set back 60 to 62 feet from the edge of the bluff, instead of the 40-foot setback approved by the City of Encinitas (the City); and (2) a waiver by the Lindstroms of any right to construct a shoreline protective device, such as a seawall, to protect the home from damage or destruction from natural hazards at any time in the future. The Lindstroms cross-appeal from the trial court's approval of the special conditions requiring (1) removal of the home from the parcel if any government agency orders that it not be occupied due to a natural hazard; and (2) performance of remediation or removal of any threatened portion of the home if a geotechnical report prepared in the event the edge of the bluff recedes to within 10 feet of the home concludes that the home is unsafe for occupancy.

On our de novo review of the trial court's decision, we conclude that with one exception the Commission's imposition of the special conditions identified by the parties was within its discretion. Specifically, the condition requiring removal of the home from the parcel if any government agency orders that it not be occupied due to a natural

hazard, including erosion or a landslide, as currently drafted, is overbroad, unreasonable and does not achieve the Commission's stated purpose in drafting it. Therefore, we will reverse the judgment and direct the trial court to enter a new judgment ordering the Commission to either delete the special condition or to revise it to more narrowly focus on its intended purpose.

## I.

## FACTUAL AND PROCEDURAL BACKGROUND

### A. *The Lindstroms' Application to the City for a Coastal Development Permit*

The Lindstroms own a vacant 6,776 square foot lot on an approximate 70 foot-high ocean-top bluff in Encinitas north of Moonlight State Beach (the Lot). In December 2012, the Lindstroms filed with the City an application for a coastal development permit to build a two-story 3,553 square foot home with a 1,855 square foot underground basement and a 950 square foot garage. The seaward side of the structure would be set back 40 feet from the edge of the bluff.

Coastal development in the City is governed by the City's Local Coastal Program (LCP), which was certified by the Commission in the mid-1990s.[1] The City's LCP requires that permit applications for development in the Coastal Bluff Overlay Zone, where the Lot is located, be accompanied by a geotechnical report prepared by "a certified engineering geologist." (Encinitas Mun. Code, ch. 30.34, § 30.34.020D.) "The

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[1] Although the record does not contain documents reflecting the Commission's certification of the City's LCP, the parties agree that it was certified by the Commission in 1994 or 1995.

review/report shall certify that the development proposed will have no adverse [e]ffect on the stability of the bluff, will not endanger life or property, and that any proposed structure or facility is expected to be reasonably safe from failure and erosion over its lifetime without having to propose any shore or bluff stabilization to protect the structure in the future." (Encinitas Mun. Code, § 30.34.020D.) The City's LCP lists certain aspects of bluff stability that the geotechnical report shall consider.[2] It further states that "[t]he report shall also express a professional opinion as to whether the project can be designed or located so that it will neither be subject to nor contribute to significant geologic instability throughout the life span of the project." (Encinitas Mun. Code, § 30.34.020D.11, 1st par.)

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2 The City's LCP specifically states, "Each review/report shall consider, describe and analyze the following: [¶] 1. Cliff geometry and site topography, extending the surveying work beyond the site as needed to depict unusual geomorphic conditions that might affect the site. [¶] 2. Historic, current and foreseeable cliffs erosion, including investigation or recorded land surveys and tax assessment records in addition to land use of historic maps and photographs where available and possible changes in shore configuration and sand transport. [¶] 3. Geologic conditions, including soil, sediment and rock types and characteristics in addition to structural features, such as bedding, joints and faults. [¶] 4. Evidence of past or potential landslide conditions, the implications of such conditions for the proposed development, and the potential effects of the development on landslide activity. [¶] 5. Impact of construction activity on the stability of the site and adjacent area. [¶] 6. Ground and surface water conditions and variations, including hydrologic changes caused by the development (e.g., introduction of irrigation water to the groundwater system; alterations in surface drainage). [¶] 7. Potential erodibility of site and mitigating measures to be used to ensure minimized erosion problems during and after construction (i.e., landscaping and drainage design). [¶] 8. Effects of marine erosion on sea cliffs and estimated rate of erosion at the base of the bluff fronting the subject site based on current and historical data. [¶] 9. Potential effects of seismic forces resulting from a maximum credible earthquake. [¶] 10. Any other factors that might affect slope stability. [¶] 11. Mitigation measures and alternative solutions for any potential impacts." (Encinitas Mun. Code, § 30.34.020D.1-11.)

As centrally relevant in this case, the City's LCP states, "In addition to the above, each geotechnical report shall include identification of the daylight line behind the top of the bluff established by a bluff slope failure plane analysis. This slope failure analysis shall be performed according to geotechnical engineering standards, and shall: [¶] a. Cover all types of slope failure. [¶] b. Demonstrate a safety factor against slope failure of 1.5. [¶] c. Address a time period of analysis of 75 years." (Encinitas Mun. Code, § 30.34.020D.11, 1st par. a-c.)

As required by the City's LCP, the Lindstroms submitted a geotechnical report by Geotechnical Exploration, Inc. (GEI) as part of their permit application to the City, which addressed, among other things, erosion and bluff stability over the next 75 years. Addressing the rate of expected erosion, the GEI report opined that the bluff would erode a total of approximately 10 feet in 75 years, based on an annual erosion rate of 0.125 feet.[3] Addressing the issue of bluff stability to arrive at a safety factor of 1.5 as required by the City's LCP, the GEI report concluded that "the coastal bluff at the site is considered grossly stable against deep-seated failures with a setback of 18.3 feet."[4] The

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3 The GEI report acknowledged that for other portions of the Encinitas coast, GEI had used a historical bluff recession rate of 0.49 feet per year. However, the report concluded that a recession rate of 0.49 was not warranted in this case because the bluff at issue was "much more stable than other areas to the north" and historical data from 1953 showed that the bluff at issue had not eroded significantly since that time. If applied here, an erosion rate of 0.49 feet per year would result in erosion of 36.75 feet over 75 years.

4 The Commission's decision in this case contains a clear explanation of what is involved in performing a slope stability analysis to arrive at a safety factor of 1.5. "Assessing the stability of slopes against landsliding is undertaken through a quantitative

GEI report then *combined* the 10 feet of erosion expected over 75 years with the 18.3 foot setback needed to achieve a bluff stability safety factor of 1.5 to arrive at a total setback distance of 28.3 feet (rounded to 29 feet) for the construction on the Lot.[5] As the City's LCP provides that construction on coastal bluffs shall be set back a *minimum* of 40 feet (Encinitas Mun. Code, § 30.34.020B.1),[6] the GEI report concluded that based on its analysis showing a recommended setback of approximately 29 feet, "a 40-foot foundation

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slope stability analysis. In such an analysis, the forces resisting a potential landslide are first determined. These are essentially the strength of the rocks or soils making up the bluff. Next, the forces driving a potential landslide are determined. These forces are the weight of the rocks as projected along a potential slide surface. The resisting forces are divided by the driving forces to determine the 'factor of safety.' A value below 1.0 is theoretically impossible, as the slope would have failed already. A value of 1.0 indicates that failure is imminent. Factors of safety at increasing values above 1.0 lend increasing confidence in the stability of the slope. The industry-standard for new development is a factor of safety of 1.5. A slope stability analysis is performed by testing hundreds of potential sliding surfaces. The surface with the minimum factor of safety will be the one on which failure is most likely to occur. Generally, as one moves back from the top edge of a slope, the factor of safety against landsliding increases. Therefore, to establish a safe setback for slope stability from the edge of a coastal bluff, one needs to find the distance from the bluff edge at which the factor of safety is at least equal to 1.5."

5 Specifically, the GEI report stated, "Bluff recession rates suggest a minimum setback of 10 feet from the bluff edge. We have assigned an additional 18.3 feet to accommodate surficial failure from bluff face deterioration. *When combined*, we would recommend a bluff setback of approximately 29 feet." (Italics added.) In later correspondence prior to the City's approval of the application, the authors of the GEI report made clear that they had combined the factors of erosion over 75 years *and* the required safety factor of 1.5 to arrive at their recommended setback: "We have confirmed the appropriate setback distance from the bluff edge with a 1.5 factor of safety plus 75 years of estimated erosion. . . . When combined we would recommend a bluff setback of 29 feet."

6 The City's LCP states that, with certain exceptions not applicable here, "no principal structure, accessory structure, facility or improvement shall be constructed, placed or installed within 40 feet of the top edge of the coastal bluff." (Encinitas Mun. Code, § 30.34.020.B.1.)

setback should allow for a project life of 75 years, without the need for toe-of-bluff protection."

The City's planning commission approved the application on May 2, 2013. As part of the approval, the planning commission made findings that the project is consistent with the City's LCP. As one of the conditions for the permit, the City required the Lindstroms to provide a letter stating that " 'the building as designed could be removed in the event of endangerment, and the property owner agreed to participate in any comprehensive plan adopted by the City to address coastal bluff recessions and shoreline erosion problems in the City.' "[7]

B. *The Commission's Consideration of the Appeal*

In June 2013, the City's approval of the Lindstroms' coastal development permit was appealed to the Commission by two of the Commission's members.[8] As relevant here, one ground of the commissioners' appeals was that the City's approval "appears inconsistent with the policies of the LCP relating to the requirement that new

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7 This condition was required pursuant to the portion of the City's LCP concerning the Coastal Bluff Overlay Zone, which states, "Any new construction shall be specifically designed and constructed such that it could be removed in the event of endangerment and the property owner shall agree to participate in any comprehensive plan adopted by the City to address coastal bluff recession and shoreline erosion problems in the City." (Encinitas Mun. Code, § 30.34.020B.1.a.)

8 The California Coastal Act of 1976 (Pub. Resources Code, § 30000, et seq.) (the Coastal Act) provides that for certain types of coastal development permits, the local government's decision may be appealed by, among others, any two members of the Commission. (*Id*., §§ 30603, subd. (a), 30625.)

development be sited in a safe location that will not require shoreline protection in the future."

On May 28, 2013, which was after the City's approval of the permit, but prior to the filing of the appeal by the two commissioners, the authors of the GEI report sent a letter to the Commission setting forth a revised geotechnical analysis, presumably for consideration during the commissioners' decision on whether to file an appeal.[9] The GEI letter stated that upon review of other materials, the authors concluded that the erosion rate of 0.125 per year was in error, and it set forth a revised erosion rate of 0.40 per year, for total erosion of 30 feet in 75 years. The GEI letter also revised the bluff stability analysis, concluding that a safety factor of 1.5 would be achieved at a setback of 42.25 feet from the edge (instead of 18.3 feet). GEI explained that if it combined the expected erosion of 30 feet over 75 years with the 42.25 foot setback required to achieve a safety factor of 1.5, the construction would have to be set back a total of 72.25 feet from the edge of the bluff. However, in the letter, GEI proposed an alternative to a bluff failure analysis that did not depend on achieving a safety factor of 1.5. Specifically, GEI proposed that a bluff stability analysis be based on the "natural angle of repose" of the materials making up the bluff. In that analysis, GEI concluded that a "9.7-foot angle of repose setback" was required in addition to the 30-foot setback required for the expected rate of erosion, for a total setback of 39.7 feet, which was less than the City's minimum 40-foot setback for bluff top construction.

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9 The letter states it is in response to a discussion with Commission staff members on May 9, 2013.

As the appeal proceeded in the Commission, the Lindstroms decided to obtain a different geotechnical report and requested that the Commission delay its decision on the appeal while the new report was being prepared. The new geotechnical report, dated October 23, 2015, was prepared by TerraCosta Consulting Group (TCG) and signed by two authors: a registered civil/geotechnical engineer and a certified engineering geologist.[10]

The TCG report concluded that the predicted bluff erosion rate was 0.40 per year, so that in 75 years the bluff could erode 30 feet. TCG explained that its erosion rate was based on "our review of documents and experience along this reach of the coastline," including "our in-house files, along with available published and unpublished documents." With respect to the bluff stability analysis, the TCG report concluded that the bluff was stable at a safety factor of 1.5 "between 23 and 25 feet from the top of [the] bluff."[11] However, TRG rejected the approach employed by GEI, in which the amount of erosion over 75 years *was added to* the setback required for a safety factor of 1.5 to arrive at the total required setback to ensure the continued stability, over 75 years, of the

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10 The Lindstroms base their current arguments on the content of the TCG report and no longer advocate the approach set forth in the GEI report or the GEI letter.

11 The setback required for a slope stability safety factor of 1.5 ranges between 23 feet to 25 feet because of slightly differing bluff configurations in the two cross-sections examined by TCG.

structure to be constructed on the bluff.[12] Instead, TCG concluded that construction on the bluff would be safe at the end of 75 years *even if* it did *not* have a safety factor of 1.5 throughout the entire period:

> "If we were to now assume 30 feet of erosion essentially translating the existing coastal bluff profile to 30 feet landward . . . this would mean that in 75 years, the actual computed factor of safety 1 foot westerly of the 40-foot setback would be 1.29, and slightly greater when calculated at the existing 40-foot set back.
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> "In our opinion, the proposed structure will be perfectly safe for at least 75 years, and will not require a seawall or other bluff stabilization structure during this time. Structures are stable as long as the factor of safety is 1.0 or greater. A 1.29 factor of safety implies a 29 percent safety margin against collapse. It is for this reason that the Coastal Commission does not typically approve seawalls unless the factor of safety at the structure is less than 1.2 and other instability factors are present. There is no engineering reason that a 75-year-old structure near the end of its useful life would be required to have a factor of safety in excess of 1.29 in order to be considered safe. For this reason, we certify without hesitation that the proposed structure will be reasonably safe from failure and erosion over its lifetime without having to propose any shore or bluff stabilization to protect the proposed structure in the future."

The Commission heard the appeal on July 13, 2016. The Commission's staff geologist Dr. Mark Johnsson made a presentation to the Commission at the hearing. Among other things, Johnsson did not take issue with TCG's analysis that a safety factor of 1.5 was achieved at a distance of 23 to 25 feet from the edge of the bluff. However, Johnsson disputed TCG's erosion rate of 0.40, as he believed "a more appropriate future erosion rate for this site is 0.49 feet per year, or 37 feet over 75 years" based on a 1999

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[12] Based on the erosion expected over 75 years and the setback required to achieve a safety factor of 1.5 as determined in the TCG report, if TCG had taken the approach of adding those two figures together, as GEI did, the required setback would be 53 to 55 feet from the edge of the bluff.

peer-reviewed FEMA funded study showing the highest long-term erosion rate in the area.[13] Johnsson further pointed out that "the city's certified LCP requires that not only must an adequate factor of safety of 1.5 be shown under present conditions, but it must also demonstrate an adequate factor of safety of 1.5 will be maintained over 75 years and cover all types of slope failure."[14] He explained that for "assuring an adequate factor of safety for the expected life of the development" it was necessary to calculate the total setback as "equal to the sum of the bluff retreat setback and the slope stability setbacks." Therefore, in Johnsson's opinion, the setback required in this instance was the 37 foot setback required to account for erosion over 75 years, plus the 23 to 25-foot setback required to achieve a safety factor of 1.5, for a total setback of 60 to 62 feet.

In the presentation made by the Lindstroms' counsel at the Commission hearing, counsel argued that the Commission should rely on the TCG report to approve the permit at a setback of 40 feet. According to counsel, the City's LCP did not state that a safety factor of 1.5 had to exist over the entire course of 75 years. Counsel argued that the City's LCP did not "require precise methodology" to determine that the structure would be stable over the course of 75 years, so that the TCG report provided a sufficient basis to determine, under the terms of the City's LCP, that a home constructed at a setback of 40

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13 Johnsson explained that because of expected sea-level rise the predicted future erosion rate of 0.49 is based on the *highest* historic erosion rate shown in the 1999 study. We note that consistent with Johnsson's 0.49 erosion rate, GEI's original report noted that it had used a 0.49 erosion rate for other locations in Encinitas.

14 As we have explained, the GEI report also took the approach of demonstrating a safety factor of 1.5 over the course of 75 years, taking into account the effect of expected erosion over that time period.

feet would be stable over its lifetime and not require a seawall or other bluff stabilization device.

In its decision, the Commission explained, "In order to find the appropriate geologic setback for the bluff top home, the Certified LCP requires not only that a long-term erosion rate be adequately identified but also that the geotechnical report demonstrate an adequate factor of safety against slope failure (i.e., landsliding) of 1.5 will be maintained over 75 years (See [Encinitas Mun. Code, §] 30.34.020(D) . . .). The applicant's geotechnical report of October 23, 2015 identified that a 1.5 factor of safety under present conditions is located at approximately 23 to 25 ft. from the bluff edge. Thus, applying the estimated 37 ft. of erosion over the next 75 years to the 23 to 25 ft. location of the current 1.5 factor of safety would establish a minimum setback for new development at approximately 60 to 62 ft. (37 ft.+ (23 to 25 ft.)) from the coastal bluff." The Commission explained that the building footprint resulting from a 60 to 62 foot setback from the bluff edge would still allow the Lindstroms to construct a 3500 square foot home, not including a basement, and that if the Lindstroms obtained a variance from the City reducing the frontyard setback, the building footprint would be even larger.[15]

Rejecting the approach proposed in the TCG report, the Commission stated, "The applicant also contends that the new home, as proposed to be located 40 ft. from the bluff edge, is expected to result in a Factor of Safety of 1.29 after 75 years of erosion

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15 Further, the City's LCP permits a structure to include a cantilevered portion that extends beyond the footprint of the structure, which the Commission noted would allow that portion of the structure to extend seaward an additional 12 feet.

(assuming an erosion rate of 0.40 ft./yr.). The applicants argue that with a 1.29 Factor of Safety the home will be safe throughout its 75 year economic life and will not require protection from shoreline armoring. However, the LCP requires a Factor of Safety of 1.5 at 75 years. Thus the applicants' argument is not consistent with the requirements of the LCP. In addition, if the erosion rate recommended by the Commission geologist were used in the applicants' stability analysis, the resulting factor of safety would be significantly lower than 1.29 and after 75 years the home would most likely require shoreline armoring. The industry standard for new development is a Factor of Safety of 1.5. Therefore, to establish a safe setback from slope stability from the edge of a coastal bluff, a new home must be sufficiently set back from the bluff edge to ensure that the 1.5 Factor of Safety is maintained throughout the economic life of the structure."

The Commission therefore approved the coastal development permit, but with several conditions, including that the structure be set back 60 to 62 feet from the edge of the bluff.[16] Specifically, the conditions required by the Commission that are relevant to the issues presented in the Commission's appeal and the Lindstroms' cross-appeal are as follows:

> "[1.a] The foundation of the proposed home and the proposed basement and shoring beams shall be located no less than 60 to 62 ft. feet landward of

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16 On the date of the hearing, the Commission also made the preliminary determination that the appeal presented a substantial issue meriting full consideration of the appeal. (See Pub. Resources Code, § 30625, subd. (b)(2) [the Commission shall hear an appeal unless it determines "[w]ith respect to appeals to the commission after certification of a local coastal program, that no substantial issue exists with respect to the grounds on which an appeal has been filed"].)

the existing upper bluff edge on the northern and southern portions of the site, respectively. [¶] . . .

"[3.a] By acceptance of this Permit, the applicants agree, on behalf of themselves and all successors and assigns, that no bluff or shoreline protective device(s) shall ever be constructed to protect the development approved pursuant to Coastal Development Permit No. A-6-ENC-13-0210 including, but not limited to, the residence and foundation in the event that the development is threatened with damage or destruction from waves, erosion, storm conditions, bluff retreat, landslides, or other natural hazards in the future. By acceptance of this Permit, the applicants hereby waive, on behalf of themselves and all successors and assigns, any rights to construct such devices that may exist under Public Resources Code Section 30235.

"[3.b] By acceptance of this Permit, the applicants further agree, on behalf of themselves and all successors and assigns, that the landowner shall remove the development authorized by this Permit, including the residence and foundation, if any government agency has ordered that the structures are not to be occupied due to any of the hazards identified above. In the event that portions of the development fall to the beach before they are removed, the landowner shall remove all recoverable debris associated with the development from the beach and ocean and lawfully dispose of the material in an approved disposal site. Such removal shall require a coastal development permit."

"[3.c] In the event the edge of the bluff recedes to within 10 feet of the principal residence but no government agency has ordered that the structures not be occupied, a geotechnical investigation shall be prepared by a licensed coastal engineer and geologist retained by the applicants, that addresses whether any portions of the residence are threatened by wave, erosion, storm conditions, or other natural hazards. The report shall identify all those immediate or potential future measures that could stabilize the principal residence without shore or bluff protection, including but not limited to removal or relocation of portions of the residence. The report shall be submitted to the Executive Director and the appropriate local government official. If the geotechnical report concludes that the residence or any portion of the residence is unsafe for occupancy, the permittee shall, within 90 days of submitting the report, apply for a coastal development permit amendment to remedy the hazard, which shall include removal of the threatened portion of the structure.

C. *The Trial Court's Decision on the Petition for Writ of Mandate*

In August 2016, the Lindstroms filed a petition for writ of mandate against the Commission in the trial court. The writ of mandate challenged several of the special conditions imposed by the Commission, including special conditions 1.a, 3.a, 3.b, and 3.c set forth above.[17]

After considering the administrative record and the parties' arguments, the trial court partially granted the relief sought by the Lindstroms.

First, the trial court ruled that the Commission abused its discretion in requiring a setback of 60 to 62 feet from the bluff edge in special condition 1.a. The trial court explained that a setback of that distance was not required by the City's LCP, and that the imposition of the condition was not supported by substantial evidence because it was not based on a report prepared by a certified engineering geologist, but by staff geologist Johnsson's presentation to the Commission.

In concluding that the City's LCP did not require a setback of 60 to 62 feet, the trial court relied primarily on a letter included by the Lindstroms in the administrative record that provided evidence of the City's interpretation of its LCP in 2006 when corresponding with the Commission about two other applications for coastal development permits. That letter, written by a city planner, stated that the City interpreted its LCP as follows: "The current practice for determining bluff setback accepted by the City of Encinitas requires that the geotechnical consultants perform two separate calculations to

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17 The petition for writ of mandate also challenged other special conditions that are not at issue in this appeal and which were not pursued in the Lindstroms' trial court briefing.

determine the appropriate bluff setback. First, the consultant is to determine the amount of erosion, based upon current published and accepted studies that will take place in 75 years. Secondly, the geotechnical consultant, based upon site specific testing, is to perform a slope stability analysis and determine a setback distance that defines a 1.5 safety factor for the slope. *The larger of the two setback determinations is then utilized as the minimum required bluff setback*; in no case can the bluff setback be less than 40 feet." (Italics added.) The trial court concluded that contrary to the Commission's interpretation, the City's LCP did not require that the total required setback be determined *by adding together* the amount the bluff was expected to recede over 75 years due to erosion to the setback required to achieve a safety factor of 1.5.

Second, the trial court concluded that the Commission abused its discretion in imposing special condition 3.a, which requires the Lindstroms to waive any right to build a bluff or shoreline protective device, such as a seawall, in the future. The trial court explained that the requirement was contrary to the language of the City's LCP and the Coastal Act because neither of them "contain such a waiver."

Finally, the trial court approved both special condition 3.b, which requires removal of the residence and foundation if a government agency orders the structures are not to be occupied due to a natural hazard; and special condition 3.c, which requires the Lindstroms to obtain and follow the recommendations in a geotechnical report if the bluff recedes to within 10 feet of the principal residence. The trial court concluded that the special conditions were permissible because they were not inconsistent with the LCP.

D. *The Instant Appeal and Cross-Appeal*

The Commission filed a notice of appeal from the trial court's judgment and the Lindstroms filed a cross-appeal. The Commission contends that the trial court erred with respect to special conditions 1.a and 3.a. The Lindstroms contend the trial court erred with respect to special conditions 3.b and 3.c.

## II.

## DISCUSSION

### A. *Statutory Background and Standard of Review*

"The Coastal Act 'was enacted by the Legislature as a comprehensive scheme to govern land use planning for the entire coastal zone of California. The Legislature found that "the California coastal zone is a distinct and valuable natural resource of vital and enduring interest to all the people"; that "the permanent protection of the state's natural and scenic resources is a paramount concern"; that "it is necessary to protect the ecological balance of the coastal zone" and that "existing developed uses, and future developments that are carefully planned and developed consistent with the policies of this division, are essential to the economic and social well-being of the people of this state. . . ." ([Pub. Resources Code,] § 30001, subds. (a) and (d).)' [Citation] The Coastal Act is to be 'liberally construed to accomplish its purposes and objectives.' (Pub. Resources Code, § 30009.)" (*Pacific Palisades Bowl Mobile Estates, LLC v. City of Los Angeles* (2012) 55 Cal.4th 783, 793-794 (*Pacific Palisades*).)

"The Coastal Act expressly recognizes the need to 'rely heavily' on local government '[t]o achieve maximum responsiveness to local conditions, accountability, and public accessibility. . . .' (Pub. Resources Code, § 30004, subd. (a).) As relevant

here, it requires local governments to develop [LCPs], comprised of a land use plan and a set of implementing ordinances designed to promote the act's objectives of protecting the coastline and its resources and of maximizing public access." (*Pacific Palisades*, *supra*, 55 Cal.4th at p. 794.) "The Coastal Act provides that a local government must submit its [land use plan] to the [Commission] for certification that the [land use plan] is consistent with the policies and requirements of the Coastal Act. ([Pub. Resources Code,] §§ 30512, 30512.2.) After the Commission certifies a local government's [land use plan], it delegates authority over coastal development permits to the local government. (*Pacific Palisades*, at p. 794, citing [Pub. Resources Code,] §§ 30519, subd. (a), 30600.5, subds. (a), (b), (c).)" (*Beach & Bluff Conservancy v. City of Solana Beach* (2018) 28 Cal.App.5th 244, 252 (*Beach & Bluff Conservancy*).)

After a local government grants a coastal development permit, certain types of permit decisions may be appealed to the Commission by the applicant, any aggrieved person, or two members of the Coastal Commission (Pub. Resources Code, §§ 30603, 30625, subd. (a)). As relevant here, an appeal to the Commission is authorized for "[d]evelopments approved by the local government between the sea and the first public road paralleling the sea or within 300 feet of the inland extent of any beach or of the mean high tideline of the sea where there is no beach, whichever is the greater distance." (*Id*., § 30603, subd. (a)(1).) " 'If the Commission determines that an appeal presents a substantial issue, the permit application is reviewed de novo; in effect, the Commission hears the application as if no local governmental unit was previously involved, deciding for itself whether the proposed project satisfies legal standards and requirements.' "

(*McAllister v. California Coastal Com.* (2008) 169 Cal.App.4th 912, 920, fn. 3; see also Pub. Resources Code, §§ 30621 [de novo hearing on appeal]; 30625, subd. (b)(2) [substantial issue required].) The Commission's jurisdiction on appeal, however, is limited. (*Schneider v. California Coastal Com.* (2006) 140 Cal.App.4th 1339, 1344 (*Schneider*).) Specifically, "[t]he grounds for an appeal . . . shall be limited to an allegation that the development does not conform to the standards set forth in the certified local coastal program or the public access policies set forth in [the Coastal Act]." (Pub. Resources Code, § 30603, subd. (b)(1).)[18] In addition, the Commission's jurisdiction on appeal includes imposing reasonable terms and conditions on the permit, as the Coastal Act provides "[a]ny permit that is . . . approved on appeal, . . . shall be subject to reasonable terms and conditions in order to ensure that such development or action will be in accordance with the provisions of this division." (Pub. Resources Code, § 30607.)

As our Supreme Court has observed, " '[u]nder the Coastal Act's legislative scheme, . . . the [LCPs] and the development permits issued by local agencies pursuant to the Coastal Act are not solely a matter of local law, but embody state policy.' [Citation] 'In fact, a fundamental purpose of the Coastal Act is to ensure that state policies prevail over the concerns of local government.' " (*Pacific Palisades*, *supra*, 55 Cal.4th at p. 794.)

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[18] The Coastal Act's right of public access is set forth, *inter alia*, in Public Resources Code, section 30211, which states that "[d]evelopment shall not interfere with the public's right of access to the sea where acquired through use or legislative authorization" and section 30212, subdivision (a), which states that with certain exceptions, "[p]ublic access from the nearest public roadway to the shoreline and along the coast shall be provided in new development projects." The public access policies of the Coastal Act are not at issue in this appeal.

To obtain judicial review of a decision or action of the Commission, any aggrieved person has the right to file a petition for writ of mandate pursuant to section 1094.5 of the Code of Civil Procedure. (Pub. Resources Code, § 30801.) " ' "The inquiry in such a case shall extend to the questions of whether the [Commission] has proceeded without, or in excess of jurisdiction; whether there was a fair trial; and whether there was any prejudicial abuse of discretion.' " [Citation] An abuse of discretion is established if the Commission failed to proceed in the manner required by law, its order or decision is not supported by the findings, or its findings are not supported by substantial evidence. [Citation] [¶] The trial court presumes that the agency's decision is supported by substantial evidence, and the party challenging that decision bears the burden of demonstrating the contrary. [Citation] In reviewing the agency's decision, the court examines the whole record and considers all relevant evidence, including that evidence which detracts from its decision. [Citation.] 'Although this task involves some weighing to fairly estimate the worth of the evidence, that limited weighing does not constitute independent review where the court substitutes its own findings and inferences for that of the Commission. Rather, it is for the Commission to weigh the preponderance of conflicting evidence, as [the court] may reverse its decision only if, based on the evidence before it, a reasonable person could not have reached the conclusion reached by it.' " (*Ocean Harbor House Homeowners Assn. v. California Coastal Com.* (2008) 163 Cal.App.4th 215, 226-227 (*Ocean Harbor*).)

"On appeal . . . our role is identical to that of the trial court." (*Ocean Harbor*, *supra*, 163 Cal.App.4th at p. 227.) " 'Thus, the conclusions of the superior court, and its

disposition of the issues in this case, are not conclusive on appeal.' " (*Eskeland v. City of Del Mar* (2014) 224 Cal.App.4th 936, 941.)

B. *The Commission Did Not Abuse Its Discretion By Imposing Special Condition 1.a, Which Requires the Structure to Be Set Back 60 to 62 Feet from the Bluff Edge*

We first consider the Commission's challenge to the trial court's conclusion that the Commission abused its discretion by imposing special condition 1.a, which requires a 60 to 62-foot setback from the edge of the bluff. As we have explained, the Commission concluded that to meet the requirement in the City's LCP that the proposed structure be safe from bluff failure and erosion over the course of 75 years using a safety factor of 1.5, the Lindstroms' house had to be set back 60 to 62 feet from the bluff edge.

As they did in the trial court, the Lindstroms contend that the Commission abused its discretion because the City's LCP does not require the method applied by the Commission in determining the required setback. Specifically, the Lindstroms contend that the City's LCP requires only that the structure will be reasonably safe over its lifetime, not that the structure be set back a total distance determined by combining the setback required by 75 years of predicted erosion with the setback required to achieve a safety factor of 1.5. The Lindstroms contend that "the Commission advances a strained interpretation of the LCP as requiring the two distances (i.e., the 75-year erosion line and the 1.5 factor of safety line) to be added together to reach the required setback."[19]

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19 The Lindstroms attempt to characterize their dispute with the Commission's interpretation of the City's LCP as a claim that "the Commission exceeded its jurisdiction by applying an incorrect legal interpretation of the City's certified LCP." We disagree

"The construction of an ordinance is a pure question of law for the court, and the rules applying to construction of statutes apply equally to ordinances." (*H.N. & Frances C. Berger Foundation v. City of Escondido* (2005) 127 Cal.App.4th 1, 12.) "Where, as here, the issue presented is one of statutory construction, our fundamental task is 'to ascertain the intent of the lawmakers so as to effectuate the purpose of the statute.' [Citations] We begin by examining the statutory language because it generally is the most reliable indicator of legislative intent. [Citation] We give the language its usual and ordinary meaning, and '[i]f there is no ambiguity, then we presume the lawmakers meant what they said, and the plain meaning of the language governs.' [Citation] . . . Ultimately we choose the construction that comports most closely with the apparent intent of the lawmakers, with a view to promoting rather than defeating the general purpose of the statute. [Citation] Any interpretation that would lead to absurd consequences is to be avoided." (*Allen v. Sully-Miller Contracting Co.* (2002) 28 Cal.4th 222, 227.)

Before turning to the interpretation of the City's LCP, we note that the parties disagree as to whether the Commission's interpretation of the City's LCP is entitled to deference. "An agency interpretation of the meaning and legal effect of a statute is entitled to consideration and respect by the courts," although the agency's "power to

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with the characterization. Even were the Commission's interpretation of the City's LCP ultimately determined to be erroneous, it is fully within the jurisdiction of the Commission on appeal to interpret and apply the requirements of a local government's LCP in carrying out its role of determining whether "the development does not conform to the standards set forth in the certified local coastal program." (Pub. Resources Code, § 30603, subd. (b)(1).

persuade is both circumstantial and dependent on the presence or absence of factors that support the merit of the interpretation." (*Yamaha Corp. of America v. State Bd. of Equalization* (1998) 19 Cal.4th 1, 7 (*Yamaha*).)[20]

Applying this rule, the Lindstroms contend that the City's planning commission is the applicable agency in this instance and that we should defer to it in interpreting the LCP because the City's planning commission applies the LCP when acting on coastal development permits. Specifically, the Lindstroms advocate that we look to the interpretation set forth in the 2006 letter that a city planner sent to the Commission, which purported to describe the City's approach, at the time, to determining required bluff-top setbacks under its LCP.[21]

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20 "Where the meaning and legal effect of a statute is the issue, an agency's interpretation is one among several tools available to the court. Depending on the context, it may be helpful, enlightening, even convincing. It may sometimes be of little worth." (*Yamaha*, *supra*, 19 Cal.4th at pp. 7-8.) "Whether judicial deference to an agency's interpretation is appropriate and, if so, its extent—the 'weight' it should be given—is . . . fundamentally *situational.* A court assessing the value of an interpretation must consider a complex of factors material to the substantive legal issue before it, the particular agency offering the interpretation, and the comparative weight the factors ought in reason to command." (*Id*. at p. 12.)

21 We note however, that the record does not contain any official statement of the City's current interpretation of its LCP regarding bluff-top setbacks, and it is possible that the City's view has changed since 2006. Significantly, the GEI report submitted to the City with the Lindstroms' application for a coastal development permit employed the *same* methodology that the Commission believes is required by the City's LCP, in that it *combined* the setback required by the expected bluff erosion over 75 years with the setback required to achieve a safety factor of 1.5. The City approved the application and made no comment either endorsing or disapproving the particular methodology used by GEI. Further, the City is not a participant in this appeal, and it has taken no position on whether it would approve a 40 foot setback based on TRG's new calculations for the 75-year erosion setback and the safety factor setback. The only indication in the record that

In contrast, the Commission argues that we should defer to its interpretation of the City's LCP, as it was involved in certifying it, and it applies the City's LCP in reviewing appeals from the City's approval of coastal development permits. Further, as the Commission points out, published case law states that a court should defer to the Commission's interpretation of a local government's LCP. (*Alberstone v. California Coastal Com.* (2008) 169 Cal.App.4th 859, 864 ["we grant broad deference to the Commission's interpretation of the [Malibu] LCP since it is well established that great weight must be given to the administrative construction of those charged with the enforcement and interpretation of a statute"]; *Hines v. California Coastal Com.* (2010) 186 Cal.App.4th 830, 849 ["we grant broad deference to the Commission's interpretation of the [Sonoma County LCP] since it is well established that great weight must be given to the administrative construction of those charged with the enforcement and interpretation of a statute."]; *Reddell v. California Coastal Com.* (2009) 180 Cal.App.4th 956, 968 [in disagreement with project applicant as to whether building height and setbacks should be calculated using the city's general laws or the city's LCP, "we must defer to the Commission's interpretation because it is reasonable and in keeping with the purposes of the LCP"].) We note, however, that those cases have limited persuasive value here because they did not involve a purported *disagreement* between the

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the City may possibly still adhere to the interpretation in the 2006 letter is an email from the City's outside geotechnical consultant in February 2013, to someone at GEI, restating the position that the city planner expressed in the 2006 letter. Thus, it is possible that, had the City been presented with the TCG report rather than the GEI report it would not have approved a 40 foot setback and would have required an analysis that combined the erosion setback and the safety factor setback.

Commission and the local government as to how the local government's LCP should be interpreted, and thus did not decide which, if any, interpretation should be given deference in the case of a conflict.[22]

Here, as we will explain, because the meaning of the relevant provisions of the City's LCP is plain, we need not resolve the issue of whether it is more appropriate to defer to the Commission or the City when interpreting the City's LCP, or what degree of deference, if any, would be appropriate. (*Sustainability, Parks, Recycling & Wildlife Defense Fund v. Department of Resources Recycling & Recovery* (2019) 34 Cal.App.5th 676, 701, citation omitted ["While in exercising our independent judgment regarding the construction of a statute we may give deference to an agency's interpretation . . . , no such deference is required here given the plain language of the statute.].)

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22 The Lindstroms contend that we also should not defer to the Commission's interpretation of the City's LCP because the Commission "interpreted and applied [the LCP] in the exact same manner as the City for many years." However, the record does not support the Lindstroms' contention. As the Commission points out, the record contains documents from as far back as 2002 showing that the Commission interpreted the City's LCP in the same manner as in this case. The Lindstroms have not identified any document in the record in which the Commission applied the interpretation of the LCP that the City advanced in the 2006 letter. Although the Lindstroms claim that "between 1995 and 2001, the Commission either expressly or tacitly approved [permits] for sixteen blufftop homes in Encinitas, all with a 40-foot setback," they do not cite to documents in the record to establish that assertion other than an unhelpful summary chart prepared by the Lindstroms for the Commission hearing that is not accompanied by any supporting record citations. Further, even if the Lindstroms were able to show that several homes with 40-foot setbacks were approved by the Commission between 1995 and 2001, they have not established that in evaluating the appropriate setbacks in those cases the Commission used a methodology different than it applied here. It is quite possible that in those cases the combination of the 75-year erosion setback and the safety factor setback did not exceed 40 feet.

With the rules of statutory interpretation in mind, we turn to the relevant language of the City's LCP. As we have explained, the LCP lists a number of issues that a geotechnical report in support of a coastal development permit in the Coastal Bluff Overlay Zone must address including the "potential landslide conditions," "estimated rate of erosion at the base of the bluff fronting the subject site," and "[a]ny other factors that might affect slope stability." (Encinitas Mun. Code, § 30.34.020D.4, 8 & 11.) The LCP also specifically requires the applicant to submit "a bluff slope failure plane analysis" which "shall be performed according to geotechnical engineering standards, and shall: [¶] a. Cover all types of slope failure. [¶] b. Demonstrate a safety factor against slope failure of 1.5. [¶] c. Address a time period of analysis of 75 years." (Encinitas Mun. Code, § 30.34.020D.11, 1st par. a-c.) However, the *general* standard that the applicant is required to meet is set forth as follows: "The review/report shall certify that the development proposed will have no adverse [e]ffect on the stability of the bluff, will not endanger life or property, and *that any proposed structure or facility is expected to be reasonably safe from failure and erosion over its lifetime without having to propose any shore or bluff stabilization to protect the structure in the future*." (Encinitas Mun. Code, § 30.34.020D, italics added.)

The foregoing provisions establish several principles. First, a structure must be reasonably safe from both "failure *and* erosion" over its lifetime. (Encinitas Mun. Code, § 30.34.020D, italics added.) Second, an analysis of bluff slope failure must demonstrate a "safety factor against slope failure of 1.5." (Encinitas Mun. Code, § 30.34.020D.11, 1st

par. b.)[23] Third, the designated lifetime of a structure, over which safety from failure *and* erosion must be demonstrated, is 75 years. (Encinitas Mun. Code, § 30.34.020D.11, 1st par. c [requiring "a time period of analysis of 75 years"].) Finally, the safety from failure and erosion must be obtained "without having to propose any shore or bluff stabilization to protect the structure in the future." (*Ibid.*)

The Lindstroms contend that the provisions of the LCP we have quoted above "require[] applicants to submit a geotechnical review or report that certifies simply that the structure be '*reasonably safe* from failure and erosion over its lifetime,' not that a 1.5 factor of safety will be absolutely *maintained* over a period of 75 years." According to the Lindstroms, "[t]he Commission's interpretation would require applicants to determine a bluff edge setback by adding the distance from bluff edge to the 1.5 factor of safety line to the distance from the bluff edge to the 75-year erosion line, resulting in a far greater setback distance than the LCP's requirement that the 'development proposed will have no adverse effect on the stability of the bluff, will not endanger life or property, and that any proposed structure . . . is expected to be reasonably safe from failure and erosion over its lifetime without having to propose any shore or bluff stabilization to protect the structure in the future.' [Citation] That is not a correct, or even reasonable, interpretation of the LCP." As the Lindstroms interpret the LCP, "the plain language" "does not require the engineer to certify a 1.5 factor of safety through the entire 75 years." As we will explain, we disagree.

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[23] The parties agree that a safety factor of 1.5 is the industry standard for new construction on slopes.

Importantly, the LCP requires a structure to "be reasonably safe from failure *and* erosion over its lifetime." (Encinitas Mun. Code, § 30.34.020D, italics added.) Further, the LCP specifically provides that the geotechnical report must "[d]emonstrate a safety factor against slope failure of 1.5" and must "[a]ddress a time period of analysis of 75 years." (Encinitas Mun. Code, § 30.34.020D.11, 1st par. b & c.) When read together, the plain meaning of these provisions is that, taking into account the erosion that will occur over 75 years, the geotechnical report must demonstrate a safety factor of 1.5 at the end of 75 years. The Lindstroms' proposed interpretation, in which a safety factor of 1.5 must be shown only *at the present time*, not taking into account predicted erosion over the lifetime of the structure, defies the plain language of the LCP as well as common sense. A layman does not need special geotechnical training to understand the self-evident concept that for a structure to "be reasonably safe from failure and erosion over its lifetime" (Encinitas Mun. Code, § 30.34.020D), the *combined effect* of expected erosion and bluff instability must be considered.[24] A structure that is reasonably safe *today*

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[24] The Lindstroms contend that Johnsson's approach of combining the 75-year erosion setback with the safety factor setback should not have been followed by the Commission because that methodology "has not been peer reviewed and is not generally accepted by the geotechnical engineering community." We reject the argument for two reasons. First, the Lindstroms support their argument with a statement by TCG's engineer, Walter Crampton, who spoke at the Commission hearing. Crampton stated, "With regards to Dr. Johnsson's approach, I frankly disagree with it. And an important thing, it's not generally accepted by the technical community. It's not been peer reviewed by the geotechnical community." However, Crampton was ambiguous as to what he was referencing in criticizing Johnsson's approach, and in context it appears he may have been criticizing Johnsson's approach to determining the predicted rate of erosion. Specifically, in Crampton's next sentence he describes a paper he wrote "to address the effects of sea level rise on coastal bluff erosion." Second, although Johnsson read the

because it is located 40 feet from the edge of the bluff will not be reasonably safe *at the end of its lifetime* when the bluff has eroded 37 feet, meaning that the structure is only three feet from the edge of the bluff.[25]

The TCG report contended that a structure that was set back 40 feet from the bluff edge would be reasonably safe after 75 years *with a safety factor of 1.29*.[26] However,

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City's LCP as requiring that the 75-year erosion setback be combined with the safety factor setback, that understanding does not depend on any special geotechnical conclusion that requires peer review but is, instead, a matter of statutory interpretation. As we have explained, the plain language of the LCP requires that a safety factor of 1.5 be demonstrated over the course of 75 years.

[25] The predicted erosion of 37 feet over 75 years is based on Johnsson's presentation to the Commission, which assumed an annual erosion rate of 0.49 feet premised on the greatest rate of historical erosion identified in a 1999 peer-reviewed study. Even were we to employ TCG's assumption that the bluff will erode only 30 feet over 75 years (at an annual rate of 0.40 feet), at the end of 75 years, a structure built with a 40-foot setback would be only 10 feet from the bluff edge, which is far less than the 23 to 25 feet of setback that TCG concluded was necessary to achieve a safety factor of 1.5. On appeal, although the Lindstroms do not directly challenge the 0.49-foot annual rate of erosion identified by Johnsson, they generally attempt to discredit Johnsson by pointing out that the City's LCP requires a report prepared by "a certified engineering geologist who has been pre-qualified as knowledgeable in City standards, coastal engineering and engineering geology." (Encinitas Mun. Code, § 30.34.020D.) In the trial court, the Lindstroms argued that Johnsson was a "staff geologist, who had no training as an engineer, neither civil nor geotechnical." In their appellate brief, the Lindstroms argue that Johnsson should not have been credited because he "is not a geotechnical engineer" and "did not perform *any* independent analysis of the project" and instead "simply reviewed the reports submitted by the Lindstroms' consultants." We are not persuaded that the Commission improperly relied on Johnsson's opinion. For one thing, a document in the record indicates that Johnsson identifies himself as a certified engineering geologist (i.e., "C.E.G,"), which is the exact qualification required by the City's LCP. Further, Johnsson amply supported his opinions, including explaining that his decision to use an annual erosion rate of 0.49-feet was based on a published peer-reviewed study regarding the Encinitas coast, which he specifically identified.

based on the plain language of the City's LCP, a safety factor of 1.29 does not meet bluff stability requirements. Rather than leaving open for debate the issue of what constitutes a structure that is reasonably safe from failure, the City's LCP *expressly states* that the geotechnical report must "[d]emonstrate a safety factor against slope failure of 1.5." (Encinitas Mun. Code, § 30.34.020D.11, 1st par. b.) In light of that language, the Commission reasonably concluded that, even accepting all of TCG's underlying assumptions, the TCG report simply did not meet the requirements set forth in the LCP because TCG acknowledged that the safety factor at the end of 75 years would be 1.29, not 1.5.[27]

We therefore conclude that the trial court erred in granting relief to the Lindstroms on special condition 1.a. The Commission did not abuse its discretion by requiring that the Lindstroms' house be set back 60 to 62 feet from the edge of the bluff.

C. *The Commission Did Not Abuse Its Discretion By Requiring in Special Condition 3.a That the Lindstroms Waive Any Right to Build a Seawall or Other Bluff Protection Device*

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26 We note that if, as Johnsson opined, the annual rate of erosion is assumed to be 0.49 rather than 0.40 as determined by TCG, the safety factor would be *less* than 1.29 at the end of 75 years.

27 The Lindstroms contend that the Commission is improperly attempting to amend the City's LCP by interpreting it as requiring a setback combining the 75-year erosion setback and the safety factor of 1.5 setback. As the Lindstroms correctly point out, after an LCP is certified, the Commission may not unilaterally amend a local government's LCP and is limited to *recommending* that the local government adopt certain amendments. (Pub. Resources Code, §§ 30514, 30519, 30519.5; *City of Malibu v. California Coastal Com.* (2012) 206 Cal.App.4th 549, 563; *Security National Guaranty, Inc. v. California Coastal Com.* (2008) 159 Cal.App.4th 402, 421-422.) However, because we conclude that the Commission's interpretation is supported by the plain language of the City's LCP, its interpretation does not effect an amendment to the LCP.

We next consider the Commission's challenge to the trial court's ruling that the Commission abused its discretion in imposing special condition 3.a, which requires the Lindstroms to agree that "no bluff or shoreline protective device(s) shall ever be constructed to protect the development approved pursuant to" the permit and to "waive, on behalf of themselves and all successors and assigns, any rights to construct such devices that may exist under Public Resources Code Section 30235."[28]

The Commission argues that it has the authority to impose reasonable special conditions when making a de novo decision on a coastal development permit. The Lindstroms, in contrast, argue (1) the City's LCP does not allow the imposition of a requirement that the Lindstroms waive any future right to build a seawall; and (2) the imposition of special condition 3.a is an unconstitutional taking without compensation.

1. *The Commission's Authority to Impose Special Conditions*

In considering the Lindstroms' contention that the City's LCP does not authorize the Commission to impose special condition 3.a, we begin with the provision in the Coastal Act that authorizes the Commission to impose reasonable terms and conditions on any permit that it approves on appeal to ensure that the development is in accordance with the Coastal Act's provisions. Specifically, the Coastal Act provides that "[a]ny permit that is issued or any development or action *approved on appeal*, pursuant to this chapter, shall be subject to reasonable terms and conditions in order to ensure that such

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[28] For the sake of convenience, we will use the shorthand term "seawall" to refer to all types of bluff or shoreline protective devices at issue in special condition 3.a.

development or action will be in accordance with the provisions of this division." (Pub. Resources Code, § 30607, italics added.)

Much of the case law discussing the Commission's broad authority to impose permit conditions has arisen in cases where the permit application was made directly to the Commission rather than where the Commission was considering an appeal from a local government's issuance of a permit. (*Ocean Harbor*, *supra*, 163 Cal.App.4th at p. 242 [in a case arising after the Commission approved an application for a permit to build a seawall made to the Commission, but imposing mitigation-related conditions, the court observed that the Commission has "broad discretion" to impose conditions in granting the permit]; *La Costa Beach Homeowners' Assn. v. California Coastal Com.* (2002) 101 Cal.App.4th 804, 817 [approving the Commission's imposition of offsite mitigation as a condition for a permit application made directly to the Commission]; *Whaler's Village Club v. California Coastal Com.* (1985) 173 Cal.App.3d 240, 261 [in a direct application to the Commission for a revetment permit, the imposition of a condition requiring dedication of an easement for public access was within the Commission's authority]; *Liberty v. California Coastal Com.* (1980) 113 Cal.App.3d 491, 498 [in a challenge to the Commission's imposition of parking condition to a development permit made directly to the Commission, the court observed that the Commission "can impose reasonable terms and conditions in order to ensure a development will be in accordance with the provisions of the law"].)

The central authority considering the Commission's authority to impose special conditions when deciding *an appeal* from a local government's approval of a coastal

development permit is *Schneider*, *supra*, 140 Cal.App.4th 1339. In *Schneider*, on the Commission's de novo review of a local government's approval of a permit to build a coastal residence, the Commission imposed 15 special conditions, several of which were targeted at preserving the character of the view that a boater would have of the coastline from offshore. (*Id*. at pp. 1342-1343.) Although *Schneider* did not question the Commission's authority to impose special conditions on appeal, it required that those conditions be consistent with the Coastal Act and the local government's LCP. (*Id*. at pp. 1345-1348.) Because neither of those bodies of law contained a basis for protecting a boater's right to a view of the coastline from offshore, *Schneider* held that the Commission exceeded its authority in imposing those special conditions. (*Id*. at p. 1348)

2. *Special Condition 3.a is Consistent With the City's LCP*

According to the Lindstroms, the Commission's requirement that they waive any future right they might have to build a seawall is impermissible because it "directly contradicts the express language of the LCP, which allows for bluff repair and erosion control measures when necessary to protect existing principal structures in danger from erosion." Specifically, the City's Resource Management Element of the General Plan, Policy 8.5 provides, "Construction of structures for bluff protection shall only be permitted *when an existing principal structure is endangered* and no other means of protection of that structure is possible." (Encinitas General Plan and Local Coastal Program Land Use Plan, Resource Management Element, Policy 8.5 (Policy 8.5), italics

added.)[29] The Coastal Act contains a similar provision. "Revetments, breakwaters, groins, harbor channels, seawalls, cliff retaining walls, and other such construction that alters natural shoreline processes shall be permitted when required to serve coastal-dependent uses or *to protect existing structures* or public beaches in danger from erosion and when designed to eliminate or mitigate adverse impacts on local shoreline sand supply." (Pub. Resources Code, § 30235, italics added.) In essence, the Lindstroms argue that after their home is built, it will become an "existing principal structure" covered by Policy 8.5, which permits a seawall if the structure becomes endangered. Therefore, according to the Lindstroms, the Commission's imposition of special condition 3.a conflicts with Policy 8.5 and with the Coastal Act's provision allowing seawalls "when required . . . to protect existing structures." (Pub. Resources Code, § 30235.)

However, as the Commission points out, special condition 3.a implements a *different* provision in the City's LCP, which is directly applicable here because it pertains to the construction of *new development on ocean bluffs.* Specifically, the City's LCP states that a geotechnical report in support of a coastal development permit in the Coastal Bluff Overlay Zone must demonstrate "that any *proposed* structure or facility is expected to be reasonably safe from failure and erosion over its lifetime *without having to propose any shore or bluff stabilization to protect the structure in the future.*" (Encinitas Mun.

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29 Similarly, the Public Safety Element of the City's General Plan states that bluff repair and erosion control measures "shall be permitted only when required to serve coastal-dependent uses or *to protect existing principal structures* or public beaches in danger from erosion." (Encinitas General Plan and Local Coastal Program Land Use Plan, Public Safety Element, Policy 1.6(e), italics added.)

Code, § 30.34.020D, italics added.)[30] This provision in the City's LCP is similar to the Coastal Act's requirement that "[*n*]*ew development* shall . . . [¶] (b) Assure stability and structural integrity, and neither create nor contribute significantly to erosion, geologic instability, or destruction of the site or surrounding area or *in any way require the construction of protective devices that would substantially alter natural landforms along bluffs and cliffs*." (Pub. Resources Code, § 30253, italics added.)

The Commission explains that it "imposed the condition in order to harmonize the sections of the LCP addressing new development, which must in no way require a shoreline protective device[], and existing development, which may be entitled to such a device." Specifically, the Commission states that "[i]n order to avoid 'new' construction from arguably being considered 'existing' and thereby circumventing the LCP's restriction on shoreline devices, the Commission included special condition 3(a)."

Focusing on the portion of the City's LCP identified by the Commission pertaining to new development, we conclude that special condition 3.a is fully consistent with the City's LCP. The City's LCP establishes that new development may be approved only if "*over its lifetime*" the new development is not expected to require a "*future*" proposal to build "*any shore or bluff stabilization to protect the structure.*" (Encinitas Mun. Code, § 30.34.020D, italics added.) By requiring the Lindstroms to agree that no seawall will

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30 The Public Safety Element of the City's General Plan similarly states that "[t]he City will rely on the Coastal Bluff . . . Overlay Zone[] to prevent future development or redevelopment . . . which may require structural measures to prevent destructive erosion or collapse." (Encinitas General Plan and Local Coastal Program Land Use Plan, Public Safety Element, Policy 1.3.)

ever be built to protect the home they propose to construct, special condition 3.a simply enforces the LCP's requirements for *new* development.[31]

3. *Special Condition 3.a Does Not Constitute an Unconstitutional Taking*

The Lindstroms also contend that special condition 3.a is impermissible because it constitutes an unconstitutional taking under the takings clause of the Fifth Amendment of the United States Constitution. "The Takings Clause of the Fifth Amendment, made applicable to the States through the Fourteenth, [citation], provides that private property

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31 The Lindstroms' appellate brief contains extensive discussion aimed at rebutting a statutory argument that they perceive the Commission to have made in its opening brief. As the Lindstroms characterize the Commission's position, it believes that Public Resources Code, section 30235 allows construction of sea walls or other protective devices *only for* structures that were " 'existing' " at the time the Coastal Act took effect in 1977. However, the Commission's reply brief clarifies that it is not taking such a position. Instead, the Commission states that regardless of the definition of "existing" in Public Resources Code, section 30235, "it is entitled to impose the condition requiring [the Lindstroms] to waive any rights to build a seawall in the future *as a condition of approving their new development.*" The Lindstroms have filed a respondents' appendix in support of their cross-appeal, which contains several documents that the Lindstroms contend are relevant to rebutting their perceived, but incorrect, understanding of the Commission's statutory interpretation argument. Specifically, the documents consist of (1) the original text of the Coastal Act; (2) the Commission's brief and the opinion in an unpublished 2006 appellate case; (3) the text of an unpassed 2017 Assembly bill. The Commission argues that all of the documents in the respondents' appendix are improperly included in the record, as they were not part of the administrative record (*Bunnett v. Regents of University of California* (1995) 35 Cal.App.4th 843, 853), and to the extent any of the documents may be subject to judicial notice to assist in statutory interpretation, the Lindstroms have not filed a request for judicial notice. The Commission contends that we should strike the respondents' appendix on procedural grounds or should at least decline to consider the documents. Because the Commission has not filed a formal motion to strike the respondents' appendix, we decline to issue such an order. However, because the documents were not accompanied by a request for judicial notice and because they pertain to an issue that is not relevant to our resolution of this appeal, we accordingly decline to consider them.

shall not 'be taken for public use, without just compensation.' " (*Lingle v. Chevron U.S.A. Inc.* (2005) 544 U.S. 528, 536-537.).)

One instance in which a violation of the takings clause may occur is "[u]nder the well-settled doctrine of 'unconstitutional conditions,' " under which "the government may not require a person to give up a constitutional right—here the right to receive just compensation when property is taken for a public use—in exchange for a discretionary benefit conferred by the government where the benefit sought has little or no relationship to the property." (*Dolan v. City of Tigard* (1994) 512 U.S. 374, 385.) Although the Lindstroms' takings clause argument is not well focused, they appear to rely mainly on the unconstitutional conditions doctrine for their attack on special condition 3.a. Specifically, the Lindstroms contend that special condition 3.a "unreasonably compels the complete and total forfeiture of the right to shoreline protection as a condition to using and developing property."

" 'The doctrine of unconstitutional conditions limits the government's power to require one to surrender a constitutional right in exchange for a discretionary benefit.' [Citations.] In the takings context, the United States Supreme Court has held 'the government may impose such a condition only when the government demonstrates that there is an "essential nexus" [citation] and "rough proportionality" [citation] between the required dedication and the projected impact of the proposed land use.' ([*California Building Industry Assn. v. City of San Jose* (2015) 61 Cal.4th 435,] 458 citing *Nollan v. Cal. Coastal Com.* (1987) 483 U.S. 825 . . . and *Dolan v. City of Tigard* (1994) 512 U.S. 374 . . . .) This test for determining whether a condition is unconstitutional is commonly

referred to as the '*Nollan/Dolan* test' [citations] and is viewed as a type of 'heightened scrutiny.' " (*Beach & Bluff Conservancy*, *supra*, 28 Cal.App.5th at p. 266.)

" ' "[A] predicate for any unconstitutional conditions claim is that the government could not have constitutionally ordered the person asserting the claim to do what it attempted to pressure that person into doing." [Citation.] Or, in other words, the condition is one that would have constituted a taking of property without just compensation if it were imposed by the government on a property owner outside of the permit process.' (*California Building*, *supra*, 61 Cal.4th at pp. 459-460.) The unconstitutional conditions doctrine applies only where the condition at issue constitutes an 'exaction' in the form of either the conveyance of a property interest or the payment of money; the doctrine does not apply where the government simply restricts the use of property without demanding an exaction. (*Id.* at pp. 457, 460.)" (*Beach & Bluff Conservancy*, *supra*, 28 Cal.App.5th at p. 266.)[32]

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32 We note that as a premise of their unconstitutional conditions argument, the Lindstroms appear to assume that they possess a *right* to build a seawall to protect structures on their property, and that the Commission is improperly requiring them to surrender that right as condition for obtaining a permit. Specifically, they argue that the special condition improperly compels "forfeiture *of the right* to shoreline protection." (Italics added.) However, that premise fails because "[i]n general, an individual has no 'vested right to protect property in a particular manner where the method chosen is one that is regulated by government . . . .' " (*Barrie v. California Coastal Com.* (1987) 196 Cal.App.3d 8, 15 [upholding Commission permit condition for seawall construction that required removal of a temporary seawall].) There is no question that the construction of a seawall is a highly regulated area covered, at a minimum, by the Coastal Act and the City's LCP. There is no guarantee that any future application to build a seawall would be approved to protect the Lindstroms' property, even if they did not agree to the waiver required by special condition 3.a. Moreover, as the Commission points out, the Lindstroms' real property does not even extend all the way down the face of the bluff to

The Lindstroms argue that the Commission's imposition of special condition 3.a violates the unconstitutional conditions doctrine because it "has no relationship or nexus to any impacts, identified or not, associated with the development of the property" and thus fails the essential nexus requirement of the *Nollan/Dolan* test. The Lindstroms' argument lacks merit because special condition 3.a is not the type of permit condition that is subject to unconstitutional conditions doctrine. As we have discussed, "[t]he unconstitutional conditions doctrine does not apply 'where the government simply *restricts* the use of property without demanding the conveyance of some identifiable protected property interest (a dedication of property or the payment of money) as a condition of approval.' (*California Building*, 61 Cal.4th at p. 460, italics added.)" (*Beach & Bluff Conservancy*, *supra*, 28 Cal.App.5th at p. 271.) In *Beach & Bluff Conservancy* this court specifically considered a requirement in Solana Beach's LCP that all permits for ocean front development on a bluff " 'shall require the property owner [to] record a deed restriction against the property that expressly waives any future right that may exist pursuant to Section 30235 of the Coastal Act to new or additional bluff retention devices.' " (*Id*. at p. 270.) We concluded that the unconstitutional conditions doctrine did not apply because no conveyance of a property interest or payment of money was involved. We explained, "[the provision in Solana Beach's LCP] does not require a conveyance of money or property; it requires the property owner to

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the public beach where a seawall would likely be constructed. Thus, a permit to build a seawall would likely involve obtaining permission to undertake construction on a public beach—a complicated matter that likely would require additional government involvement and approval.

record a deed *restriction* against the property that expressly waives any future right under [Public Resources Code,] section 30235 to new or additional bluff retention devices. Because [the provision] simply restricts the use of property without demanding an exaction of a property interest or money as a condition of approval, the unconstitutional conditions doctrine does not apply." (*Beach & Bluff Conservancy*, at p. 271.) The same reasoning applies here. Special condition 3.a does not require a conveyance of a property interest or the payment of money; it simply requires an agreement that no seawall will ever be constructed to protect the structure that the Lindstroms propose to build on the bluff.

Even without reliance on the unconstitutional conditions doctrine, an unconstitutional taking may occur in certain instances when the government imposes a land use regulation. As the Supreme Court has explained, " 'while property may be regulated to a certain extent, if regulation goes too far it will be recognized as a taking.' " (*Lucas v. South Carolina Coastal Council* (1992) 505 U.S. 1003, 1014 (*Lucas*).) Although " 'regulatory takings' jurisprudence [has] generally eschewed any ' "set formula" ' for determining how far is too far, preferring to 'engag[e] in . . . essentially ad hoc, factual inquiries' " there are "at least two discrete categories of regulatory action as compensable without case-specific inquiry into the public interest advanced in support of the restraint. The first encompasses regulations that compel the property owner to suffer a physical 'invasion' of his property." (*Id*. at p. 1015.) "The second situation . . . is where regulation denies all economically beneficial or productive use of land." (*Ibid*.)

Apparently referring to the foregoing takings clause jurisprudence, the Lindstroms argue that special condition 3.a constitutes a taking because "if it ultimately becomes necessary to protect the . . . home from danger of erosion" the special condition "would effectively take their property for public use, as dangerous conditions would prevent the Lindstroms (or their successors) from continuing to reside in their home, and they would be barred from any opportunity to stabilize the bluff." This possible scenario, the Lindstroms argue, "constitutes the imposition of an unconstitutional taking, without compensation, at some point in the unknown future."

However, neither situation that the Supreme Court has identified as categorically establishing an unconstitutional taking based on government regulation of land is present here. (*Lucas*, *supra*, 505 U.S. at p. 1015.)

First, special condition 3.a does not involve any physical invasion of the Lindstroms' property by the government. (*Lucas*, *supra*, 505 U.S. at p. 1015.) Although the bluff may eventually recede without the construction of a seawall, that condition would be caused by forces of nature, not by governmental intrusion.

Second, the Lindstroms cannot establish that special condition 3.a would deny them *all* economically beneficial or productive use of their land. (*Lucas*, *supra*, 505 U.S. at p. 1015.) As the Commission observed, the Lindstroms will be able to build a significant size home on the Lot. Although the structure on the bluff may eventually, as the years progress, become uninhabitable due to bluff failure, the Lindstroms or their successors will still own the real property. At an appropriate time in the distant future after the bluff recedes, it is possible that the structure the Lindstroms built could be

replaced and located on a more stable part of the Lot. At that time, the appropriate governmental authorities can make a decision about what use of the real property is safe and appropriate under existing conditions and in consideration of the property owners' rights under the takings clause to make economically beneficial use of their land. Therefore, the Lindstroms cannot establish that special condition 3.a deprives them of all economically beneficial use of their real property.[33]

In sum, we conclude that the Commission did not abuse its discretion or violate the takings clause in imposing special condition 3.a. The trial court accordingly erred in granting relief to the Lindstroms on special condition 3.a.

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33 We note that in addition to the two categorical types of regulatory takings resulting from land use restrictions, the Supreme Court has also described a multifactor approach. "Where a regulation places limitations on land that fall short of eliminating *all* economically beneficial use, a taking nonetheless may have occurred, depending on a complex of factors including the regulation's economic effect on the landowner, the extent to which the regulation interferes with reasonable investment-backed expectations, and the character of the government action." (*Palazzolo v. Rhode Island* (2001) 533 U.S. 606, 617, italics added, citing *Penn Central Transp. Co. v. City of New York,* 438 U.S. 104, 124.) The Lindstroms make no attempt to show that special condition 3.a constitutes a taking under this multifactor approach. Moreover, we do not attempt to undertake such an analysis here as it is not ripe in that it depends on many future variables and contingencies regarding the possible condition of the bluff after years of erosion and the extent of the economically beneficial use that could be made of the Lot at that time. " ' "It follows from the nature of a regulatory takings claim that an essential prerequisite to its assertion is a final and authoritative determination of the type and intensity of development legally permitted on the subject property. A court cannot determine whether a regulation has gone 'too far' unless it knows how far the regulation goes." ' " (*Dryden Oaks, LLC v. San Diego County Regional Airport Authority* (2017) 16 Cal.App.5th 383, 396.)

4. *Special Condition 3.b Is Overbroad and Therefore Unreasonable As Currently Drafted*

In their cross-appeal, the Lindstroms challenge the Commission's imposition of special condition 3.b, which states,

> "[3.b] By acceptance of this Permit, the applicants further agree, on behalf of themselves and all successors and assigns, that the landowner shall remove the development authorized by this Permit, including the residence and foundation, if any government agency has ordered that the structures are not to be occupied due to any of the hazards identified above. In the event that portions of the development fall to the beach before they are removed, the landowner shall remove all recoverable debris associated with the development from the beach and ocean and lawfully dispose of the material in an approved disposal site. Such removal shall require a coastal development permit."

The Lindstroms argue that this special condition is impermissible because the City's LCP does not give the Commission the authority to impose it. In advancing this argument, the Lindstroms acknowledge that the City's LCP touches upon the subject of the removal of unsafe structures built on a coastal bluff. Specifically, the LCP states that "[a]ny new construction shall be specifically designed and constructed such that it could be removed in the event of endangerment . . . ." (Encinitas Mun. Code, § 30.34.020B.1.a.)[34] However, the Lindstroms point out that this provision "has only to do with building design and construction" and "does *not* state or imply that the homeowners *must* remove their home" when certain conditions arise.

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34 Similarly, another provision in the City's LCP states with respect to coastal bluffs: "In all cases, all new construction shall be specifically designed and constructed such that it could be removed in the event of endangerment." (Encinitas General Plan and Local Coastal Program Land Use Plan, Public Safety Element, Policy 1.6(f).)

The unstated premise of the Lindstroms' argument is that the Commission is not entitled to impose special conditions unless those conditions are *expressly authorized* by the City's LCP. However, that premise fails, because, as we have explained, the Coastal Act gives the Commission authority to impose "reasonable terms and conditions" on "[a]ny permit that is . . . approved on appeal, . . . in order to ensure that such development or action will be in accordance with the provisions of this division." (Pub. Resources Code, § 30607.) Although the permit conditions imposed by the Commission on appeal must not be inconsistent with the local government's LCP and the Coastal Act (*Schneider*, *supra*, 140 Cal.App.4th at pp. 1345-1348), and must be reasonable, they need not be *expressly* authorized by the LCP.

Here, special condition 3.b is consistent with the City's LCP. As we have quoted above, the City's LCP requires that blufftop construction be designed so that can be removed in the event of endangerment. Special condition 3.c is consistent with this provision, as it furthers the apparent intent behind it. There would be little reason for a coastal development permit to require that a structure be designed so that it can be removed in the event of endangerment if the permit does not also contain a provision to *effectuate* the removal when endangerment arises.

A special condition imposed by the Commission must also be reasonable. (Pub. Resources Code, § 30607.) The Lindstroms argue that special condition 3.b is not reasonable for two reasons, although they frame the argument in terms of due process.

First, focusing on the breadth of the language in special condition 3.b, the Lindstroms argue that it violates their right to procedural due process because "(1) it

allows '*any* government agency' —regardless of what substantive standards and procedural rules do or do not apply to such unknown agency—to order the Lindstroms to vacate and remove their home; (2) it does not require such agency to provide any legal or factual basis for its order; (3) it does not require any prior notice to the Lindstroms; (4) it does not require any sort of individualized hearing; and (5) it does not provide for any means of reviewing or contesting the agency's order."[35]

Second, also focusing on the breadth of the language in special condition 3.b, the Lindstroms contend that the condition violates their right to substantive due process because "it does not require the government to assert any justification for the removal of the house." According to the Lindstroms,

> "Though the condition requires the presence of one or more 'hazards' as a prerequisite for removal, it does not require the government to provide proof that such hazards exist or to find that such hazards are an imminent threat to cause serious injury to the house, its occupants, neighboring properties, or the public. Thus, under Special Condition 3(b), '*any* government entity' could order the house 'not to be occupied' without any justification, or with unsupported claims about the impact of projected sea-level rise and future erosion of the bluff. Such an order would trigger the requirement that the Lindstroms remove their house and foundation, even if they were not likely to be affected for many decades into the future. Moreover, Special Condition 3(b) does not require the government to find that a purported hazard is permanent and unavoidable; the condition could theoretically be triggered by a temporary, or even minor, 'hazard.'

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35 "The federal and state Constitutions prohibit the government from depriving persons of property without due process of law. (U.S. Const., 5th Amend.; Cal. Const., art. I, § 7, subd. (a).) Adjudicative governmental actions that implicate significant or substantial property deprivation generally require the procedural due process protections of reasonable notice and an opportunity to be heard." (*Venice Coalition to Preserve Unique Community Character v. City of Los Angeles* (2019) 31 Cal.App.5th 42, 49.)

> "Indeed, the 'hazards' that would trigger Special Condition 3(b) are defined extremely vaguely and overbroadly. The condition references 'any of the hazards identified above' but does not specify which hazards they are. . . . The previous paragraph describes threats of 'damage or destruction from waves, erosion, storm conditions, bluff retreat, landslides, or other natural hazards in the future.' . . . Assuming these are the hazards that the Commission has in mind, such 'hazards' are *always* present in a coastal environment. Special Condition 3(b) thus is overbroad. As noted, it would allow any government entity to declare at any time that, due to projected sea-level rise, the Lindstroms' home should not be occupied because it is threatened with potential 'damage or destruction from waves, erosion, storm conditions, bluff retreat, landslides, or other natural hazards *in the future*.' . . . The Lindstroms would then be forced to remove their home and foundation—presumably at their own expense."[36]

In response to the Lindstroms' procedural due process and substantive due process arguments, the Commission argues that the Lindstroms have misapprehended the purpose of special condition 3.b. According to the Commission, "the condition addresses only what happens *after* the [C]ity condemns the home." The Commission contends that the procedures and standards that the City must follow in condemning a home and determining it to be uninhabitable are set forth in separate laws and ordinances, and that those laws provide the Lindstroms with the required procedural and substantive due process protections. Implicit in the Commission's argument is an assumption that special condition 3.b is intended to apply only when the appropriate governmental agency makes

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36 " 'Substantive due process protects against "arbitrary legislative action, even though the person whom it is sought to deprive of his right to life, liberty or property is afforded the fairest of procedural safeguards." [Citation.] ' ". . . Even where state officials have allegedly violated state law or administrative procedures, such violations do not ordinarily rise to the level of a constitutional deprivation." ' [Citation] Rather, '[a] substantive due process violation requires some form of outrageous or egregious conduct constituting a "true abuse of power." ' " (*Bottini v. City of San Diego* (2018) 27 Cal.App.5th 281, 315.)

a valid order under existing law, after all possible appeals or writ proceedings regarding the agency's decision are final, that the Lindstroms' home is *currently* and *permanently* uninhabitable due to *bluff instability* caused by natural forces. Indeed, the Commission's findings and declarations in its administrative decision suggests this more narrow focus: "Should the blufftop residence become unstable or structurally unsound, without construction of new shoreline armoring, or if any government agency orders that the structure is not to be occupied due to failure and erosion of the bluff, the applicants must agree to remove the subject structure, in part or entirely and remove and dispose of any debris that fall to the beach."

In response, the Lindstroms state that although they understand the Commission's position, "[i]f, as the Commission suggests, the purpose of the condition is simply to ensure that the structures do not become a nuisance *after* they have been condemned according to law, then the Commission should have drafted the language much more narrowly and precisely." We agree with the Lindstroms that in light of the Commission's intent in requiring special condition 3.b, the language of the special condition is not well drafted and does not reasonably achieve what the Commission intended. As we will explain, in two respects the language of special condition 3.b could be interpreted to require the Lindstroms to remove the home from the Lot under circumstances that are not reasonable and are not related to any concern for bluff stability.

First, although the Commission states that special condition 3.b is meant to apply if the home is made uninhabitable "due to failure and erosion of the bluff," the special condition, when read literally, could apply much more broadly. Specifically, special

condition 3.b requires the Lindstroms to agree that "the landowner shall remove the development authorized by this Permit, including the residence and foundation, if any government agency has ordered that the structures are not to be occupied *due to any of the hazards identified above*." (Italics added.) The "hazards identified above" appear in special condition 3.a, which refers to "damage or destruction from waves, erosion, storm conditions, bluff retreat, landslides, *or other natural hazards in the future*." (Italics added.) Because the hazards at issue are broadly and inclusively defined to include "other natural hazards," and are not limited to natural hazards relating to bluff instability, when read literally, special condition 3.b could require the Lindstroms to remove their home from the Lot even if it is determined to be uninhabitable due to natural hazards that have nothing at all to do with bluff instability or its blufftop location. For example, special condition 3.b might be interpreted to require removal of the home if it became uninhabitable from strong winds, fire, damage from a falling tree, toxic mold or rodent infestation, as each of those problems might be described as a "natural hazard."

Second, special condition 3.b, when read literally, would require the Lindstroms to remove their home from the Lot even if a government agency determines that the Lindstroms' home is only *temporarily* uninhabitable, and even if the dangerous condition can be *remedied* in some manner (not including any bluff or shoreline protective device that is prohibited by special condition 3.a.), without tearing down and removing the home. Specifically, the special condition states that "the landowner shall remove the development authorized by this Permit, including the residence and foundation, if any government agency has ordered that the structures are not to be occupied . . . ," but it

does not require that the government make a determination that the structures are permanently uninhabitable and must be condemned because they cannot be made habitable through any means short of constructing bluff or shoreline protective devices.[37]

We therefore conclude that based on the two considerations set forth above, as currently drafted special condition 3.b is not a reasonable special condition that the Commission is authorized to impose under Public Resources Code section 30607. Accordingly, a writ of mandate should issue requiring that special condition 3.b be deleted unless it is revised to clarify that the landowner is required to remove the development authorized by the permit if the City or any other government agency with legal jurisdiction has issued a final order, after any appeal or writ proceedings, determining that the structures are currently and permanently unsafe for occupancy due to bluff failure or erosion of the bluff, and that there are no measures that could make the structures suitable for habitation without the use of bluff or shoreline protective devices.

5. *The Commission Did Not Abuse Its Discretion in Imposing Special Condition 3.c*

Finally, the Lindstroms' cross-appeal also challenges special condition 3.c, which provides,

> "[3.c] In the event the edge of the bluff recedes to within 10 feet of the principal residence but no government agency has ordered that the structures not be occupied, a geotechnical investigation shall be prepared by a licensed coastal engineer and geologist retained by the applicants, that

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[37] In addition, the Commission acknowledges that the government agency decision referred to in special condition 3.b is intended to be a *final* agency decision after any possible writs or appeals are resolved. The language in special condition 3.b should therefore be revised to more expressly reflect that position.

> addresses whether any portions of the residence are threatened by wave, erosion, storm conditions, or other natural hazards. The report shall identify all those immediate or potential future measures that could stabilize the principal residence without shore or bluff protection, including but not limited to removal or relocation of portions of the residence. The report shall be submitted to the Executive Director and the appropriate local government official. If the geotechnical report concludes that the residence or any portion of the residence is unsafe for occupancy, the permittee shall, within 90 days of submitting the report, apply for a coastal development permit amendment to remedy the hazard, which shall include removal of the threatened portion of the structure.

In challenging this special condition, the Lindstroms incorporate arguments that we have already considered and rejected in connection with other special conditions. Specifically, we have determined that the Commission may require the Lindstroms to waive any future right to build a seawall to protect the structure they propose to build on the Lot, and we have determined that the Commission has the authority to impose special conditions even though they are not expressly required by the City's LCP, as long as they are not inconsistent with the LCP or the Coastal Act and are otherwise reasonable.[38]

In their reply brief to their cross-appeal, the Lindstroms also make a cursory argument that special condition 3.c is generally unreasonable and would force the Lindstroms to "sacrifice their constitutional rights to substantive and procedural due process." However, the argument is not developed, and we do not perceive any of the problems with the wording of special condition 3.c that are present in special condition 3.b. Indeed, unlike special condition 3.b, special condition 3.c acknowledges that

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[38] Special condition 3.c is not inconsistent with the City's LCP. Like special condition 3.b, special condition 3.c relates to the requirement in the City's LCP that bluff top construction "be specifically designed and constructed such that it could be removed in the event of endangerment . . . ." (Encinitas Mun. Code, § 30.34.020B.1.a.)

measures short of removal of the structure may be feasible to make it habitable if it is threatened by bluff failure.

## DISPOSITION

The judgment is reversed and the trial court's writ of administrative mandate is vacated. We remand with directions for the trial court to issue a new writ of administrative mandate ordering the Commission to either delete special condition 3.b or to revise it to provide that the landowner is required to remove the development authorized by the permit if the City or any other government agency with legal jurisdiction has issued a final order, after any appeal or writ proceedings, determining that the structures are currently and permanently unsafe for occupancy due to bluff failure or erosion of the bluff, and that there are no measures that could make the structures suitable for habitation without the use of bluff or shoreline protective devices. In all other respects, the special conditions set forth in the Commission's decision may remain in effect.

IRION, J.

WE CONCUR:

HALLER, Acting P. J.

GUERRERO, J.

Filed 6/23/21 Martin v. Cal. Coastal Commission CA4/1

**NOT TO BE PUBLISHED IN OFFICIAL REPORTS**



COURT OF APPEAL, FOURTH APPELLATE DISTRICT

DIVISION ONE

STATE OF CALIFORNIA

| | |
|---|---|
| GARY MARTIN et al.,<br><br>Plaintiffs and Appellants,<br><br>v.<br><br>CALIFORNIA COASTAL COMMISSION,<br><br>Defendant and Appellant. | D076956<br><br>(Super. Ct. No. 37-2018-00044048-CU-WM-NC) |

APPEAL from a judgment of the Superior Court of San Diego County, Jacqueline M. Stern, Judge. Affirmed in part and reversed in part.

FisherBroyles and Paul J. Beard II, for Plaintiffs and Appellants.

Xavier Becerra, Attorney General, Matthew Rodriguez, Acting Attorney General, Daniel A. Olivas, Assistant Attorney General, Jamee J. Patterson and Kimberly R. Gosling, Deputy Attorneys General for Defendant and Appellant.

Gary and Bella Martin appeal from a judgment entered after the trial court granted in part and denied in part their petition for writ of

administrative mandate challenging the imposition of certain special conditions placed on the development of their property—a vacant, oceanfront lot in Encinitas—by the California Coastal Commission (Commission). The Commission also appeals the judgment. The Martins' appeal challenges a condition requiring them to eliminate a basement from their proposed home, while the Commission challenges the trial court's reversal of its condition requiring the Martins to set back their home 79 feet from the bluff edge. Because we agree with this court's recent decision in *Lindstrom v. California Coastal Com.* (2019) 40 Cal.App.5th 73 (*Lindstrom*) interpreting the same provisions of the Encinitas Local Coastal Program (LCP) and Municipal Code at issue here, we reverse the trial court's invalidation of the Commission's setback requirement. We affirm the court's decision to uphold the basement prohibition.

## FACTUAL AND PROCEDURAL BACKGROUND

The Martins own an 11,394 square-foot, blufftop vacant lot in Encinitas. 5,400 square feet of the lot sits atop the bluff, with the rest extending west down the bluff's face. They applied to the City of Encinitas (the City) for a Coastal Development Permit (CDP) to build a two-story, 3,110 square-foot house with an additional 969 square-foot basement and 644 square-foot garage. The proposed design set the first story of the home back 40 feet from the 93-foot high bluff edge, and set back the second story cantilevered deck 32 feet. In support of the application, and as required by the LCP and Municipal Code, the Martins submitted geotechnical reports certifying the home satisfied the requirements of the LCP contained in Municipal Code section 30.34.020. The City's third-party geotechnical consultant reviewed those reports and agreed with the analysis.

On April 21, 2016, the City Planning Commission adopted a resolution consolidating two lots owned by the Martins into one and approving the CDP for their home. On May 25, 2016, two Commissioners appealed the City's approval to the Commission.[1] At its meeting on July 13, 2016, the Commission found the appeal raised a "substantial issue on the grounds on which the appeal was filed" and continued the matter to a future hearing. In the subsequent months, the Martins' geotechnical consultant GeoSoils, Inc. (GSI) and the Commission staff exchanged reports about the appropriate setback for the proposed development. The parties also met several times to discuss the project.

At the Commission's August 8, 2018 meeting, Commission staff presented a report recommending approval of the home but with additional conditions on the Martins' development of their property, including that the home be set back 79 feet from the bluff's edge and barring the design from including a basement. After a divided vote, the Commission adopted the staff's recommendation and approved the development with the recommended additional conditions.[2]

The Commission staff's report explained its position that the City's approval was inadequate because it failed to account for the LCP's requirement that new development be set back far enough to provide for a safety factor of 1.5 *at the end* of 75 years. The safety factor is a calculation

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1 The Coastal Act allows an appeal of the local determination by the Coastal Commission if two or more of the Commissioners agree. (Pub. Resources Code, §§ 30603, 30625, subd. (a).) Here, Vice-Chair of the Commission Bochco and Commissioner Shallenberger appealed the City's decision.

2 Three of the eleven commissioners sided with the Martins.

that addresses bluff stability, i.e. the risk of landslides or bluff failure, while the time period of 75 years addresses bluff erosion over time.[3]

The two "special conditions" imposed by the Commission at issue on appeal are special condition 1(a), requiring the 79-foot setback from the bluff edge, and special condition 1(c), the basement prohibition.[4] In determining the 79-foot setback, the Commission relied on the analyses of its staff geologist, Dr. Joseph Street, and its staff engineer, Dr. Lesley Ewing. Drs. Street and Ewing reached their conclusions after considering the reports of GSI, hired by the Martins to evaluate the bluff for purposes of permitting the development. GSI opined that a 40-foot setback complied with the LCP, and certified that the home would be "safe from coastal bluff retreat over its

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[3] A scientific paper in the administrative record supporting the Commission staff's report explains the safety factor analysis: "In such an analysis, the forces resisting a potential landslide are first determined. These are essentially the strength of the rocks or soils making up the bluff. Next, the forces driving a potential landslide are determined. These forces are the weight of the rocks as projected along a potential slide surface. The resisting forces are divided by the driving forces to determine the 'factor of safety.' A value below 1.0 is theoretically impossible, as the slope would have failed already. A value of 1.0 indicates that failure is imminent. Factors of safety at increasing values above 1.0 lend increasing confidence in the stability of the slope. The industry-standard for new development is a factor of safety of 1.5, and many local grading ordinances in California and elsewhere (including the County of Los Angeles, and the Cities of Irvine, Malibu, and Saratoga, among others) require that artificial slopes meet this factor of safety."

[4] In the trial court the Martins also successfully challenged special condition 3(a), which provides that, by accepting the permit, the Martins agree that no bluff or shoreline armoring device will ever be built to protect the new home. They have abandoned this challenge on appeal and thus we agree with the Commission that the trial court's invalidation of special condition 3(a) should be reversed.

75-year design life without the need for shoreline protection." Drs. Street and Ewing also reviewed reports by another consultant hired by the Martins, Dr. Ben Benumof, who likewise endorsed the development with a 40-foot setback.

The Commission's staff arrived at 79 feet by adding the setback required to achieve a 1.5 factor of safety (40 feet) and the anticipated erosion over 75 years (39 feet). As to the 1.5 factor of safety, the Commission agreed with GSI that it was presently located 40 feet back from the bluff edge. As to the erosion rate, the Commission staff also agreed with GSI's historic rate of 0.20 feet per year. The Commission staff, however, disagreed with GSI's estimate of a long-term future rate of erosion of 0.27 feet per year. Drs. Street and Ewing concluded that rate did not "adequately account for the likely acceleration of bluff retreat rates in the future due to sea level rise…."

The Commission staff calculated the future erosion rate to be 0.52 feet per year (39 feet over 75 years). It determined this rate using the SCAPE method, a scientifically supported methodology that incorporates site-specific information and sea level rise estimates.[5] GSI had also used a methodology similar to SCAPE at one point, and had calculated an erosion rate of 0.344 feet per year (which it later revised to 0.27 feet per year). Drs. Street and Ewing concluded GSI's rate was not adequate because GSI had relied on a lower projection of future sea level rise than was supported by the most recent scientific literature.

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[5] "SCAPE (Soft Cliff and Platform Erosion) is a detailed, process-based numerical model that was developed to simulate the sensitivity of shore profile response, including cliff retreat rates, to changes in sea level over timescales of decades to centuries."

Drs. Street and Ewing concluded that 0.52 feet per year was more accurate based on the State of California's most current sea level rise science and recommendations, as outlined in 2017 and 2018 reports by the State's Ocean Protection Council Science Advisory Team. Using data and suggested risk profiles from those reports, the Commission staff adopted a recommended "medium-high risk aversion scenario" resulting in the 0.52 feet per year rate. Commission staff also noted this rate was generally consistent with the 0.49 feet per year erosion rate used by the Commission for the prior five new blufftop home approvals in Encinitas. The rate also fell within the range of uncertainty projected in CoSMoS, a state-of-the-art modeling tool developed by the U.S. Geological Survey.[6]

The Commission staff report also addressed the impact of the proposed 40-foot setback on the project's compliance with the public access and recreation policies of the Coastal Act. The report explained that, in conjunction with sea level rise, if a shoreline protective device became necessary to protect the structure, the installation of such protection would lead to the loss of beach access. In the Commission staff's view, a 79-foot setback, among the other conditions, was necessary to avoid this impact.

As for the proposed basement, the Commission staff found that the Encinitas bluffs are hazardous and unpredictable, and bluff retreat may

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6 The Commission's staff report describes CoSMos: "Coastal Storm Modeling System 3.0 (CoSMoS)" is "a new, state-of-the art tool developed by the United States Geological Survey (USGS) to predict year 2100 cliff positions based on various sea level rise scenarios. CoSMoS integrates eight complex cliff retreat models which take into account not only changes in mean sea level (and the rate of [sea level rise]), the historical bluff retreat rate (which is assumed to capture site-specific factors, such as geology), a range of likely wave climates based on historical variability and global climate models, and the progressive evolution of the shore and cliff profiles over time."

eventually cause the basement to be exposed, even with a 79-foot setback. The Commission staff also found that removing or relocating the basement, if feasible, would significantly alter the bluff and could threaten its stability. The Martins submitted a plan for removing the basement, along with GSI's certification of the plan. The Commission, however, found the removal plan was insufficient because it failed to "provide any detail related to geologic stability risks of removing a basement on an eroding blufftop site, [did] not detail how removal of the basement would impact stability of neighboring structures, and [did] not detail how the basement void could be filled" upon removal. Thus, the Commission concluded the proposed basement was inconsistent with the LCP's requirement that all blufftop structures be removable.

After the Commission's conditional approval, the Martins filed a petition for writ of administrative mandate and complaint for declaratory and injunctive relief challenging special conditions 1(a) (the 79-foot setback), 1(c) (the basement prohibition) and 3(a) (the bluff and shoreline armoring device prohibition). In addition to seeking a writ of mandate reversing the Commission's conditional approval, the Martins also sought a declaration that "the Commission's bluff-edge setback methodology" is unlawful, an injunction to preclude the Commission's future use of the methodology, a declaration that "the Commission's policy of requiring the waiver of future shoreline protection as a condition" of approval is unlawful, and an injunction preventing "the Commission from enforcing or implementing such policy."

After briefing and a hearing, the trial court issued an order finding special condition 1(a) was inconsistent with the LCP and the Commission's imposition of the condition was an abuse of discretion. The court also agreed with the Martins that the imposition of special condition 3(a) was an abuse of

the Commission's discretion. The court rejected the Martins' challenge to special condition 1(c), and denied their requests for injunctive and declaratory relief. Thereafter, the court entered judgment against the Commission and issued a peremptory writ of administrative mandate directing the Commission to set aside and reconsider its conditional approval. Both parties timely appealed the judgment.

## DISCUSSION

### I

### *Legal Standards*

#### A

#### *Statutory Background*

" 'The Coastal Act "was enacted by the Legislature as a comprehensive scheme to govern land use planning for the entire coastal zone of California. The Legislature found that 'the California coastal zone is a distinct and valuable natural resource of vital and enduring interest to all the people'; that 'the permanent protection of the state's natural and scenic resources is a paramount concern'; that 'it is necessary to protect the ecological balance of the coastal zone' and that 'existing developed uses, and future developments that are carefully planned and developed consistent with the policies of this division, are essential to the economic and social well-being of the people of this state....' ([Pub. Resources Code,] § 30001, subds. (a) and (d).)" [Citation] The Coastal Act is to be "liberally construed to accomplish its purposes and objectives." (Pub. Resources Code, § 30009.)' " (*Lindstrom, supra*, 40 Cal.App.5th at p. 91, quoting *Pacific Palisades Bowl Mobile Estates, LLC v. City of Los Angeles* (2012) 55 Cal.4th 783, 793–794 (*Pacific Palisades*).)

" 'The Coastal Act expressly recognizes the need to "rely heavily" on local government "[t]o achieve maximum responsiveness to local conditions,

accountability, and public accessibility...." (Pub. Resources Code, § 30004, subd. (a).) As relevant here, it requires local governments to develop [LCPs], comprised of a land use plan and a set of implementing ordinances designed to promote the act's objectives of protecting the coastline and its resources and of maximizing public access.' (*Pacific Palisades, supra*, 55 Cal.4th at p. 794.) 'The Coastal Act provides that a local government must submit its [land use plan] to the [Commission] for certification that the [land use plan] is consistent with the policies and requirements of the Coastal Act. ([Pub. Resources Code,] §§ 30512, 30512.2.) After the Commission certifies a local government's [land use plan], it delegates authority over coastal development permits to the local government. (*Pacific Palisades*, at p. 794, citing [Pub. Resources Code,] §§ 30519, subd. (a), 30600.5, subds. (a), (b), (c).)' " (*Lindstrom, supra*, 40 Cal.App.5th at p. 91.)

"After a local government grants a coastal development permit, certain types of permit decisions may be appealed to the Commission by the applicant, any aggrieved person, or two members of the Coastal Commission (Pub. Resources Code, §§ 30603, 30625, subd. (a)). As relevant here, an appeal to the Commission is authorized for '[d]evelopments approved by the local government between the sea and the first public road paralleling the sea or within 300 feet of the inland extent of any beach or of the mean high tideline of the sea where there is no beach, whichever is the greater distance.' (*Id*., § 30603, subd. (a)(1).) ' "If the Commission determines that an appeal presents a substantial issue, the permit application is reviewed de novo; in effect, the Commission hears the application as if no local governmental unit was previously involved, deciding for itself whether the proposed project satisfies legal standards and requirements." ' (*McAllister v. California Coastal Com*. (2008) 169 Cal.App.4th 912, 920, fn. 3; see also Pub. Resources

Code, §§ 30621 [de novo hearing on appeal]; 30625, subd. (b)(2) [substantial issue required].)" (*Lindstrom, supra*, 40 Cal.App.5th at p. 92.)

"The Commission's jurisdiction on appeal, however, is limited. [Citation.] Specifically, '[t]he grounds for an appeal ... shall be limited to an allegation that the development does not conform to the standards set forth in the certified local coastal program or the public access policies set forth in [the Coastal Act].' (Pub. Resources Code, § 30603, subd. (b)(1).) In addition, the Commission's jurisdiction on appeal includes imposing reasonable terms and conditions on the permit, as the Coastal Act provides '[a]ny permit that is ... approved on appeal, ... shall be subject to reasonable terms and conditions in order to ensure that such development or action will be in accordance with the provisions of this division.' (Pub. Resources Code, § 30607.)" (*Lindstrom, supra*, 40 Cal.App.5th at p. 92.) Further, " ' "[u]nder the Coastal Act's legislative scheme, ... the [LCPs] and the development permits issued by local agencies pursuant to the Coastal Act are not solely a matter of local law, but embody state policy." [Citation] "In fact, a fundamental purpose of the Coastal Act is to ensure that state policies prevail over the concerns of local government." ' " (*Lindstrom,* at p. 92.)

B

*Standard of Review*

"To obtain judicial review of a decision or action of the Commission, any aggrieved person has the right to file a petition for writ of mandate pursuant to section 1094.5 of the Code of Civil Procedure. (Pub. Resources Code, § 30801.) ' " 'The inquiry in such a case shall extend to the questions of whether the [Commission] has proceeded without, or in excess of jurisdiction; whether there was a fair trial; and whether there was any prejudicial abuse of discretion.' " [Citation] An abuse of discretion is established if the

Commission failed to proceed in the manner required by law, its order or decision is not supported by the findings, or its findings are not supported by substantial evidence. [Citation.] [¶] The trial court presumes that the agency's decision is supported by substantial evidence, and the party challenging that decision bears the burden of demonstrating the contrary. [Citation] In reviewing the agency's decision, the court examines the whole record and considers all relevant evidence, including that evidence which detracts from its decision. [Citation.] "Although this task involves some weighing to fairly estimate the worth of the evidence, that limited weighing does not constitute independent review where the court substitutes its own findings and inferences for that of the Commission. Rather, it is for the Commission to weigh the preponderance of conflicting evidence, as [the court] may reverse its decision only if, based on the evidence before it, a reasonable person could not have reached the conclusion reached by it." ' " (*Lindstrom, supra*, 40 Cal.App.5th at p. 93.)

" 'On appeal ... our role is identical to that of the trial court.' [Citation] ' " 'Thus, the conclusions of the superior court, and its disposition of the issues in this case, are not conclusive on appeal.' " ' " (*Lindstrom, supra*, 40 Cal.App.5th at p. 93.)

C

*Lindstrom v. Commission*

In September 2019 this court issued its opinion in *Lindstrom*, a case presenting issues that overlap with those presented in this case, and which explicitly resolved the same setback question presented here in favor of the Commission. Like this case, *Lindstrom* involved the development of a home on a coastal bluff in Encinitas. (*Lindstrom, supra*, 40 Cal.App.5th at p. 82.) Like the Martins, the Lindstroms obtained a CDP from the City, which was

then challenged by the Commission. Unlike this case, the City's approval was based on a geotechnical report prepared by the applicants' consultant, Geotechnical Exploration, Inc. (GEI), which used the *same* methodology advocated for by the Commission (i.e. combining the expected erosion over 75 years with the setback needed to achieve a bluff stability safety factor of 1.5). (*Lindstrom,* at pp. 83–84.) The setback recommended by GEI and approved by the City, however, was based on an erosion rate of 0.125 feet per year, which was far lower than the rate of 0.49 used by GEI for other recent development projects it had been engaged for that were located on "other portions of the Encinitas coast." (*Id*. at p. 84, fn. 3.) As here, the Commission appealed the City's approval of a 40-foot setback. (*Id*. at pp. 84–85.)

Thereafter, GEI submitted a revised report to the Commission that "concluded that the erosion rate of 0.125 per year was in error" and "set forth a revised erosion rate of 0.40 per year, for total erosion of 30 feet in 75 years." (*Lindstrom, supra*, 40 Cal.App.5th at p. 85.) GEI also revised its bluff stability analysis, concluding a safety factor of 1.5 would be achieved at a setback of 42.25 feet, not the 18.3 feet it originally calculated. (*Ibid*.) "GEI explained that if it combined the expected erosion of 30 feet over 75 years with the 42.25 foot setback required to achieve a safety factor of 1.5, the construction would have to be set back a total of 72.25 feet from the edge of the bluff." (*Ibid*.) To avoid the large setback, GEI's new report advocated for an alternative approach that "did not depend on achieving a safety factor of 1.5" after 75 years and resulted in a lesser setback. (*Ibid*.)

Before the Commission hearing, the Lindstroms engaged a different consultant, TerraCosta Consulting Group (TCG) to prepare a new geotechnical report. (*Lindstrom, supra*, 40 Cal.App.5th at p. 85.) TCG also concluded that the predicted bluff erosion rate was 0.40 feet per year. TCG's

bluff stability setback calculation was lower, resulting in a factor of safety of 1.5 at 23–25 feet from the bluff edge. (*Id.* at p. 86.) Like GEI's revised report, TCG argued that adding the two setback calculations was unnecessary, opining that the factor of safety of 1.29 it expected at the end of 75 years if a 40-foot setback was approved would be sufficient to prevent the need for a seawall or other bluff stabilization structure. (*Ibid.*) In support of this position, TCG explained that " 'the Coastal Commission does not typically approve seawalls unless the factor of safety at the structure is less than 1.2 and other instability factors are present.' " (*Ibid.*) Thus, it argued, " '[t]here is no engineering reason that a 75-year-old structure near the end of its useful life would be required to have a factor of safety in excess of 1.29 in order to be considered safe.' " (*Ibid.*)

As in this case, the Commission concluded the 40-foot setback advocated for by TCG was insufficient under the LCP because it failed to consider both the factor of safety (i.e. the bluff's stability) and the predicted erosion rate of the coastline. In the proceedings before the Commission, staff geologist Dr. Mark Johnsson explained the LCP required the applicant to demonstrate that the factor of safety of 1.5 be maintained for the full 75 years, not just under present conditions. (*Lindstrom, supra*, 40 Cal.App.5th at p. 87.) Thus, to assure " 'an adequate factor of safety for the expected life of the development,' it was necessary to calculate the total setback as 'equal to the sum of the bluff retreat setback and the slope stability setbacks.' " (*Ibid.*)

Adopting this interpretation of the LCP, the Commission imposed a special condition requiring a 60–62 foot setback from the bluff edge (based on TCG's calculations), which it found would allow the owners to construct a 3,500 square foot home (or larger if a variance of the front setback

requirement was obtained). (*Lindstrom, supra*, 40 Cal.App.5th at pp. 87–88.) The Lindstroms challenged the decision and, as in this case, the trial court concluded the Commission's interpretation of the LCP was wrong. The court relied on correspondence, which the Martins also heavily rely on, written by a city planner in 2006 concerning coastal development. In the letter, the planner states that the City required applicants to provide a geotechnical report that calculated erosion over 75 years and the present 1.5. factor of safety, and to impose a setback requirement equal to the larger of the two calculations, but did not require the setbacks to be combined. (*Id*. at p. 90.)

The Commission appealed and this court rejected the trial court's interpretation of the LCP. We held the LCP, as implemented by Encinitas Municipal Code section 30.34.020, explicitly " 'requires a structure to 'be reasonably safe from failure *and* erosion over its lifetime.' (Encinitas Mun. Code, § 30.34.020D, italics added.) Further, [we held] the LCP specifically provides that the geotechnical report must '[d]emonstrate a safety factor against slope failure of 1.5' and must '[a]ddress a time period of analysis of 75 years.' (Encinitas Mun. Code, § 30.34.020D.11, 2d par. b & c.)" (*Lindstrom, supra*, 40 Cal.App.5th at p. 98.) We concluded that, "[w]hen read together, the plain meaning of these provisions is that, taking into account the erosion that will occur over 75 years, the geotechnical report must demonstrate a safety factor of 1.5 *at the end of 75 years*." (*Ibid.*, italics added.)

*Lindstrom* concluded the interpretation of the LCP advanced by the Martins, "in which a safety factor of 1.5 must be shown only *at the present time*, not taking into account predicted erosion over the lifetime of the structure, defies the plain language of the LCP as well as common sense. A layman does not need special geotechnical training to understand the self-evident concept that for a structure to 'be reasonably safe from failure and

erosion over its lifetime' (Encinitas Mun. Code, § 30.34.020D), the *combined effect* of expected erosion and bluff instability must be considered. [Footnote omitted.] A structure that is reasonably safe *today* because it is located 40 feet from the edge of the bluff will not be reasonably safe *at the end of its lifetime* when the bluff has eroded 37 feet, meaning that the structure is only three feet from the edge of the bluff." (*Lindstrom, supra*, 40 Cal.App.5th at p. 98.)

II

*The Commission Correctly Interpreted the LCP and Encinitas Municipal Code Section 30.34.020D*

As the Commission rightly points out in its briefing, *Lindstrom*, which was issued after the trial court's decision in this case, definitively rejected the argument advanced by the Martins that the Commission wrongly interpreted the LCP in its calculation of the required setback. The Commission asks this court to follow *Lindstrom* and again uphold its interpretation of the LCP. The Martins ask us to reconsider *Lindstrom* and argue "the methodology used to arrive at [the 79-foot] setback contravenes the LCP as interpreted by the City for a quarter century."

A

The Commission certified the City's LCP in 1995. The LCP is comprised of a Land Use Plan, which states the City's general goals and policies, as well as Zoning Regulations. The Land Use Plan comprises a number of specific "elements," including Land Use and Public Safety Elements. The City's Zoning Regulations, codified in Title 30 of the Encinitas Municipal Code, implement the goals of the Land Use Plan. (Pub. Resources Code, § 30513.)

The LCP imposes specific requirements on the development of blufftop property within the Coastal Bluff Overlay Zone as defined by the City's Land Use Plan. The LCP mandates that, with limited exceptions, no new principal or accessory structure can be constructed "within 40 feet of the top edge of the coastal bluff." (Encinitas Mun. Code, § 30.34.020B.1.) The provision of the LCP at issue here, Encinitas Municipal Code section 30.34.020D, requires applicants seeking a permit or development approval for new construction within the Coastal Bluff Overlay Zone, to submit "a soils report, and either a geotechnical review or geotechnical report" that is "prepared by a certified engineering geologist who has been prequalified as knowledgeable in City standards, coastal engineering and engineering geology." (Encinitas Mun. Code, § 30.34.020D.)

Further, the report must "certify that the development proposed will have no adverse affect [sic] on the stability of the bluff, will not endanger life or property, and that any proposed structure or facility is expected to be reasonably safe from failure and erosion over its lifetime without having to propose any shore or bluff stabilization to protect the structure in the future." (Encinitas Mun. Code, § 30.34.020D.) The ordinance then sets forth a list of specific items the report must address related to the geology of the property. (*Ibid*.) The geotechnical report must also "express a professional opinion as to whether the project can be designed or located so that it will neither be subject to nor contribute to significant geologic instability throughout the life span of the project." (*Ibid*.) Finally, the report must:

> "include identification of the daylight line behind the top of the bluff established by a bluff slope failure plane analysis. This slope failure analysis shall be performed according to geotechnical engineering standards, and shall:
>
> a. Cover all types of slope failure.

b. Demonstrate a safety factor against slope failure of 1.5.

c. Address a time period of analysis of 75 years."

(Encinitas Mun. Code, § 30.34.020D.)

B

The Martins make various arguments in support of their assertion that *Lindstrom* was wrongly decided. First, they contend the plain language of section 30.34.020D does not support the Commission's method of calculating the setback. They argue the ordinance only requires that the "slope failure analysis" prepared by an applicant's certified engineering geologist: (a) " '[c]over all types of slope failure;' " (b) " '[d]emonstrate a safety factor against slope failure of 1.5;' " and (c) " '[a]ddress a time period of analysis of 75 years,' " but that the provision does not require the calculations under (b) and (c) be combined.

Next, the Martins argue that additional language in the ordinance relied on by *Lindstrom* to support its determination that the LCP requires the two setback calculations be combined—"that any proposed structure or facility is expected to *be reasonably safe from failure and erosion over its lifetime*"—also does not require the use of the Commission's methodology. (*Lindstrom, supra*, 40 Cal.App.5th at p. 102.) They argue that because the phrase is not quantified, other methodology can also satisfy the standard. (Encinitas Mun. Code, § 30.34.020D.) Finally, the Martins argue the methodology used by the Commission is overly cautious and inconsistent with "State-established standards of practice…."

We are not persuaded by these arguments. As *Lindstrom* explained, the LCP explicitly requires the structure "be reasonably safe from failure *and* erosion *over its lifetime*." (*Lindstrom, supra*, 40 Cal.App.5th at p. 98, quoting Encinitas Mun. Code, § 30.34.020D, second italics added.) Further, the

ordinance requires the geotechnical report to "demonstrate a safety factor against slope failure of 1.5" ("the industry standard for new construction on slopes") and "[a]ddress a time period of analysis of 75 years." (*Ibid.*) "When read together, the plain meaning of these provisions is that, taking into account the erosion that will occur over 75 years, the geotechnical report must demonstrate a safety factor of 1.5 *at the end of 75 years*." (*Ibid.*, italics added.) The methodology proposed by the Martins, i.e. using only the greater of the two calculations, does not take "into account predicted erosion over the [full] lifetime of the structure, def[ying] the plain language of the LCP as well as common sense." (*Ibid.*)

With respect to the Martins' assertion that other methodology can satisfy the LCP's requirements, they propose no other method that accounts for both erosion and stability. Rather, they argue only that because "an owner wouldn't even 'qualify' for shoreline protection until a structure's factor of safety fell to 1.2 or below" the Martins' proposed home is reasonably safe over its 75-year lifetime. The standard employed for the construction of shoreline protection, however, is not the same standard the LCP applies to new construction. We agree with our *Lindstrom* colleagues that a "layman does not need special geotechnical training to understand the self-evident concept that for a structure to 'be reasonably safe from failure and erosion over its lifetime' (Encinitas Mun. Code, § 30.34.020D), the *combined effect* of expected erosion and bluff instability must be considered." (*Lindstrom, supra*, 40 Cal.App.5th at p. 98.) "A structure that is reasonably safe *today* because it is located 40 feet from the edge of the bluff will not be reasonably safe *at the end of its lifetime* when the bluff has eroded [39] feet, meaning that the structure is only [one foot] from the edge of the bluff." (*Ibid.*)

For this reason, we also reject the Martins' contention that the methodology employed by the Commission is an " 'unrealistically conservative' redundancy." The methodology the Commission employs is the one required by the LCP; thus, whether the "American Society of Civil Engineers, Los Angeles Section" outlines a different requirement, as the Martins contend, is not controlling.[7] As this court held previously, "the City's LCP *expressly states* that the geotechnical report must '[d]emonstrate a safety factor against slope failure of 1.5' " at the "end of 75 years." (*Lindstrom, supra*, 40 Cal.App.5th at p. 99.)

The Martins also argue that *Lindstrom* should not control because it wrongly assumed there was no "interpretive disagreement … between the City and the Commission concerning the LCP's setback provisions." The Martins base this assertion on the fact that the record in *Lindstrom* did not contain an explicit statement of the City's current interpretation of the ordinance (since the City approved the development based on the Lindstroms' first consultant's analysis which used the additive method), while here the City explicitly accepted the Martins' interpretation. This argument is a red herring. As we held in *Lindstrom*, the existence of an interpretive disagreement between the Commission and City is irrelevant because the plain language of the LCP requires the additive methodology to determine the appropriate setback.[8] (*Lindstrom, supra*, 40 Cal.App.5th at p. 96.)

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[7] The Martins' citation to this standard is a letter drafted by their geotechnical consultant that merely states this standard, but they do not provide the source material.

[8] For this same reason, we need not reach the parties' dispute over which governmental agency's interpretation of the LCP is entitled to greater deference.

The fact that various setbacks have been accepted by the Commission since the adoption of the LCP in 1995 also does not lead to the conclusion that the Commission's interpretation of the ordinance is incorrect. Citing the trial court's order in *Lindstrom* that this court reversed, the Martins assert the "Commission acknowledged it was moving away from the LCP to address the fact that '[w]e are in a new normal' and 'new world.' " The *Lindstrom* order goes on to state that the Commission's staff noted that "[t]here have been circumstances where the Commission has not required development to be set back the sum of the factor of safety and the erosion rate over 75 years." However, it next states that "[m]any of these analyses *did not correctly apply the 1.5 factor of safety* for the life of the new structure according to current Commission practice." (Italics added.) Like the *Lindstrom* panel, we do not agree that because the ordinance may have been applied incorrectly in the

past, the City's incorrect interpretation deserves deference.[9] (*Lindstrom, supra*, 40 Cal.App.5th at pp. 96–98.)

III

*Substantial Evidence Supported the Commission's Imposition of Special Condition 1(a)*

The Martins next contend that even if the methodology used by the Commission was in accord with the LCP, there was not substantial evidence to support a 79-foot setback. Specifically, they argue there was no evidence

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[9] The Commission staff's report for the final hearing in this case sheds additional light on historical setback approvals in the area of the Martins' home. The report acknowledges the Commission did not appeal bluff approvals from 1995-2000 but explains the reason for inaction was that the Commission did not have a sufficiently experienced staff to challenge the approvals. The Commission report states, "it is likely that the geotechnical claims made by these applicants were inconsistent with the requirements of the City's LCP and were not based on the cumulative setback needed to account for 75 years of expected erosion and the 1.5 Factor of Safety." In 2001, the Commission hired its first licensed geologist and since then has appealed 16 of 23 approvals by the City of new bluff top homes. Of those challenges, "[t]he interpretation of how to correctly determine the appropriate bluff edge setback was an appeal contention in … 10 appeals that the Commission took a final action on (either approval on De Novo or No Substantial Issue and not withdrawn or still pending). In 9 of the 10 appeals, the Commission found that the correct way to determine the [setback] is to find the distance from the bluff edge necessary to achieve a factor of safety of 1.5 today and add to that the expected bluff retreat over the next 75 years."

In contrast, the only evidence the Martins submitted in support of their claim that smaller setbacks were approved by the Commission are photographs of the homes adjacent to their lot with no information concerning when those homes were permitted and, as in *Lindstrom*, "an unhelpful summary chart prepared by the [Martins] for the Commission hearing that is not accompanied by any supporting record citations." (*Lindstrom, supra*, 40 Cal.App.5th at p. 96, fn. 22.)

to support the future erosion rate of 0.52 feet assumed by the Commission and that it is mere speculation. This argument is without merit.

Like the trial court, we presume " 'that the [Commission's] decision is supported by substantial evidence ….' " (*Lindstrom, supra*, 40 Cal.App.5th at p. 93.) The party challenging the Commission's decision " 'bears the burden of demonstrating the contrary.' " (*Ibid*.) Although our " ' "task involves some weighing to fairly estimate the worth of the evidence, that limited weighing does not constitute independent review where the court substitutes its own findings and inferences for that of the Commission. Rather, it is for the Commission to weigh the preponderance of conflicting evidence, as [the court] may reverse its decision only if, based on the evidence before it, a reasonable person could not have reached the conclusion reached by it." ' " (*Ibid*.)

The parties agree that the rate of erosion will increase from the historical level as a result of sea level rise. The disagreement lies in how much they think the rate may rise. The Martins also contend the Commission did not factor in the strength of the material at the base of the bluff, material known as Torrey sandstone, and instead incorrectly assumed it was made of softer material more susceptible to erosion. According to the Martins, these errors resulted in erosion projections that are too conservative, and thus show the imposition of the 79-foot setback is not supported by substantial evidence. The administrative record, however, establishes the Commission's staff used well-accepted scientific methodology to support its setback recommendation to the Commission, including with respect to projected erosion.

As discussed, Drs. Street and Ewing arrived at the erosion rate of 0.52 feet per year using the SCAPE methodology.[10] The Commission provided ample explanation for Drs. Street and Ewing's conclusion that a higher projected level of rise was more appropriate than that advocated for by the Martins' geotechnical consultant, GSI. Critically, the Commission staff used more recent sea level rise data and recommendations than those used by GSI.[11]

Specifically, the staff relied on two recent reports, which it asserts constitute the "best available science on which to base future planning and investing decisions in California" and which GSI acknowledged provided current sea level rise estimates. The more recent of the two reports used by the Commission staff, titled *State of California Sea-Level Rise Guidance 2018 Update*, expands on the other, earlier report by providing a framework for municipalities and other governance bodies to determine the appropriate sea level rise projections for various types of planning and policy decision making based on the level of risk aversion that applies to the decision. For types of development where the consequences of incorrect projections of sea level rise are greater, the report guides the decision maker to use more conservative projections.

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10 The Martins also attempt to discredit Drs. Street and Ewing because they are not "certified" engineering geologists. As the Commission points out, however, it is not required to have a certified engineering geologist on staff. The record shows both professionals are qualified to evaluate the submissions of the applicants and opine on the issues before this court. (See *Lindstrom, supra*, 40 Cal.App.5th at p. 99, fn. 25.)

11 Even GSI proposed using a similar methodology to SCAPE but assumed a lesser rate of sea level rise.

Applying the framework to this project, Drs. Street and Ewing concluded that 0.52 feet per year was an appropriate projection of future erosion. Drs. Street and Ewing then performed two checks on their conclusions, first using another scientifically accepted methodology, CoSMoS, and second by comparing the erosion rate to that used in the Commission's five most recent approvals of new homes on the Encinitas blufftop. Both confirmed the projection.

With respect to the relative strength of the material underlying the bluff, the Commission responded to GSI's criticisms, explaining that the strength was accounted for in multiple ways, including using the site-specific historical erosion rate as the starting point for its SCAPE calculations and cross-checking the SCAPE calculations against CoSMos, which uses cliff-retreat projections for two 100-meter stretches of coast near the Martins' site. In addition, the Commission staff explained that, contrary to the Martins' assertions, it *did* examine the geological specifics of the Martins' site, agreeing that "the material strength of a bluff is absolutely crucial in determining the erosion rate," but found it more appropriate to use a broader view of the surrounding coastline than GSI.

Given these facts, the record contains ample support for the Commission's use of the 0.52 feet per year rate of erosion. The Martins have not established that the Commission failed to adequately account for the strength of the material at the bottom of the bluff, or that this factor invalidates the Commission staff's approach. At most, the Martins have shown disagreement between experts about the potential erosion in the area. It was the Commission's role to evaluate this competing evidence, and it is not our role to reevaluate the Commission's reasoned decision. (See *Kirkorowicz v. California Coastal Com.* (2000) 83 Cal.App.4th 980, 986

(*Kirkorowicz*) ["it is for the Commission to weigh the preponderance of conflicting evidence, as we may reverse its decision only if, based on the evidence before it, a reasonable person could not have reached the conclusion reached by it"].) Accordingly, we reject the Martins' contention that insufficient evidence supports the Commission's imposition of special condition 1(a).

IV

*The LCP Requires All New Construction Be Designed and Constructed for Future Removal*

The Martins next contend that special condition 1(c), which prohibits the Martins from constructing a basement, was improperly imposed. They contend the LCP policy under which the condition was authorized applies only to construction that is within 40 feet of the bluff's edge and therefore does not apply to their proposed development at all. The Commission responds that the trial court's interpretation of the policy language to apply to all new construction was correct. We agree with the Commission.

Policy 1.6 of the City's LCP sets forth a list of specific actions the City must undertake to "provide for the reduction of unnatural causes of bluff erosion.…" Included within that list is subdivision (f), which states in full:

> "Requiring new structures and improvements to existing structures to be setback 25 feet from the inland blufftop edge, and 40 feet from coastal blufftop edge with exceptions to allow a minimum coastal blufftop setback of no less than 25 feet. For all development proposed on coastal blufftops, a site-specific geotechnical report shall be required. The report shall indicate that the coastal blufftop setback will not result in risk of foundation damage resulting from bluff erosion or retreat to the principal structure within its economic life and with other engineering evidence to justify the coastal blufftop setback.
>
> "On coastal bluffs, exceptions to allow a minimum setback of no less than 25 feet shall be limited to additions or expansions to

> existing principal structures which are already located seaward of the 40 foot coastal bluff top setback, provided the proposed addition or expansion is located no further seaward than the existing principal structure, is set back a minimum of 25 feet from the coastal blufftop edge, and the applicant agrees to remove the proposed addition or expansion, either in part or entirely, should it become threatened in the future.
>
> *"In all cases, all new construction shall be specifically designed and constructed such that it could be removed in the event of endangerment and the applicant shall agree to participate in any comprehensive plan adopted by the City to address coastal bluff recession and shoreline erosion problems in the City.*
>
> "This does not apply to minor structures that do not require a building permit, except that no structures, including walkways, patios, patio covers, cabanas, windscreens, sundecks, lighting standards, walls, temporary accessory buildings not exceeding 200 square feet in area, and similar structures shall be allowed within five feet from the bluff top edge …." (Italics added.)

The Martins argue that the italicized portion of the provision, the third paragraph, applies only to the immediately preceding paragraph and thus only to construction that is exempted from the 40 foot setback requirement. The Martins reason that this interpretation is "consistent with the overall policy of protecting only realistically vulnerable structures at or near the bluff edge."

" 'The construction of an ordinance is a pure question of law for the court, and the rules applying to construction of statutes apply equally to ordinances.' " (*Lindstrom, supra*, 40 Cal.App.5th at p. 94.) "We give the language its usual and ordinary meaning, and '[i]f there is no ambiguity, then we presume the lawmakers meant what they said, and the plain meaning of the language governs.' " (*Allen v. Sully-Miller Contracting Co.* (2002) 28 Cal.4th 222, 227.) We agree with the Commission that the Martins'

interpretation of Policy 1.6.(f) conflicts with the provision's plain language, which states explicitly it applies "in all cases."

As the Commission contends, the paragraph at issue stands alone, after one paragraph setting forth the general setback rules for new structures and improvements, and a second paragraph containing the exception for additions and expansions of existing structures. This structure, addressing distinct issues in each paragraph, in conjunction with the policy's use of the phrases "[i]n all cases" and "all new construction," makes clear that the third paragraph applies to both preceding paragraphs, not just the second and immediately preceding paragraph. (See *People v. Cole* (2006) 38 Cal.4th 964, 975 ["We must harmonize the various parts of the enactments by considering them in the context of the statutory framework as a whole."].) Accordingly, we reject the Martins' contention that special condition 1(c) was not authorized because the removability requirement it applied to the proposed basement is only applicable to construction *within* 40 feet of the bluff edge.

The Martins also cite Encinitas Municipal Code Section 30.34.020B.1, in support of their position. They state the provision mirrors Policy 1.6(f) and thus requires the same interpretation. We disagree. Subdivision B.1 of section 30.34.020 restates the prohibition on the construction of structures less than 40 feet from the top edge of the bluff. It then lists four exceptions to the prohibition. The first, found in subdivision B.1.a, on which the Martins rely, states:

> "Principal and accessory structures closer than 40 feet but not closer than 25 feet from the top edge of the coastal bluff, as reviewed and approved pursuant to subsection C, Development Processing and Approval, of this section. This exception to allow a minimum setback of no less than 25 feet shall be limited to additions or expansions to existing principal structures which are already located seaward of the 40-foot coastal blufftop setback, provided the proposed addition or expansion is located no further

> seaward than the existing principal structure, is setback a minimum of 25 feet from the coastal blufftop edge and the applicant agrees to remove the proposed addition or expansion, either in part or entirely, should it become threatened in the future. *Any new construction shall be specifically designed and constructed such that it could be removed in the event of endangerment and the property owner shall agree to participate in any comprehensive plan adopted by the City to address coastal bluff recession and shoreline erosion problems in the City*." (Italics added.)

As the trial court pointed out, this provision is not applicable to the Martins' proposed development of a new home. Although the italicized language mirrors that found in Policy 1.6(f), unlike 1.6(f) it is plainly addressed only to new construction that falls within the exception at issue, i.e. construction of additions or expansions of existing structures that are seaward of the 40-foot setback line. We fail to see how this ordinance supports the imposition of a limitation on Policy 1.6(f)'s broader requirement that all new construction be designed and constructed for removal.

V

*The Imposition of Special Condition 1(c) Is Supported by Substantial Evidence*

The Martins' final contention on appeal is that insufficient evidence supported the imposition of special condition 1(c) prohibiting them from constructing a basement. Specifically, they assert that there is no evidence in the record to support the Commission's findings that removal of the basement would require alteration of the bluff and that excavation of the basement, if necessary, would threaten the bluff's overall stability. The Martins further contend that the "Demolition and Removal Plan" they submitted establishes that the basement could be removed without disturbing the bluff's stability.

The Commission counters that substantial evidence in the administrative record supports this special condition. Specifically, they assert the evidence shows the bluff is both highly susceptible to landslides and "actively eroding." The Commission also asserts that in addition to this existing threat, the increasing sea level rise and the uncertainty of its impact intensifies the risk the basement could be exposed in the future. Additionally, the Commission asserts its staff provided significant evidence that removal of the basement would threaten the overall stability of the bluff and the neighboring structures.

We agree with the Commission that there is sufficient evidence to support the Commission's finding a basement cannot be safely removed, justifying the imposition of special condition 1(c). The Martins, in essence, contend that the only evidence relevant to the determination is the report of GSI who opined there are no "geologic stability risks" associated with the removal of the basement. Their report, however, does not negate the substantial evidence relied on by the Commission.

With respect to the fragility of the bluff, the geotechnical review report prepared by Drs. Street and Ewing explained that "the bluff at the project site is actively eroding, as evidenced by the bluff toe notching, occasional block fall talus, bluff face rilling, and minor upper bluff retreat that is visible in historical aerial photographs (California Coastal Records Project, http://www.californiacoastline.org)." The Commission staff report also cited a 2010 report prepared by GSI stating that "while there is no evidence of historic or ancient deep-seated landslides, the upper terrace materials have a potential for retreat through rotational landslides (GSI 2010)." Additionally, Commission staff reported that "the entire Encinitas coastline has been identified by the California Division of Mines and Geology as an area 'most

susceptible' to landslides (Tan and Giffen 1995)," and explained "several significant landslides have occurred in the project vicinity, including a 400-foot wide, deep-seated slide at Beacon's Beach (900 block of Neptune Ave.) that was initiated in 1982-83 (URS 2014), and a large bluff failure (100-ft wide, 10-ft thick) on the 400 block of Neptune Ave. that occurred in 1993 (USACE 1996)." Drs. Street and Ewing also opined that higher levels of erosion than those projected for their setback calculations were possible. This evidence sufficiently supported the Commission's finding that the proposed basement might become endangered.

Likewise, substantial evidence supported the Commission's finding that removal of the basement would threaten the stability of the bluff. In addition to the significant evidence concerning the risk of landslides in the area of the Martins' lot, Dr. Ewing testified that the basement would be "placed into terrace materials, which is mostly somewhat consolidated sand." Dr. Ewing explained that if bluff erosion or recession necessitates the removal of the basement, the nearby sand "is going to be lacking support and … is not going to stay on that vertical face, and so it's going to slump in. [¶] ... [T]hat collapse of the sand [will] come through to the bluff face itself." Dr. Ewing also stated that if the basement is removed, the home above would likely require removal as well, further threatening the bluff's stability.[12]

This testimony and documentation constitutes substantial evidence supporting the Commission's conclusion that removing or relocating the

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12 The Surfrider Foundation, a non-profit environmental advocacy group, similarly testified that "[r]emoval of the basement in the future could significantly alter the bluff's natural state, which is also inconsistent with the LCP." The Surfrider Foundation's letter submission advocated elimination of the proposed basement "to make the structure more moveable, if ever threatened by erosion."

basement would alter and potentially destabilize the bluff. The Martins' conflicting evidence, consisting of GSI's contrary opinion that the proposed removal of the basement would not be harmful, does not require reversal. As with special condition 1(a), it is not our role to reweigh the evidence in the manner the Martins advocate or to substitute our view for that of the commission. (See *Kirkorowicz, supra*, 83 Cal.App.4th at p. 986; *Pescosolido v. Smith* (1983) 142 Cal.App.3d 964, 970 ["The burden is upon the appellant to show there is no substantial evidence whatsoever to support the findings."].)

DISPOSITION

The judgment is reversed in part as to special conditions 1(a) and (3)(a) and affirmed in part as to special condition 1(c). The trial court's writ of administrative mandate requiring the Commission to set aside and reconsider its August 8, 2018 decision conditionally approving Coastal Development Permit No. A-6-ENC-16-0060 is vacated. The parties to bear their own costs of appeal.

McCONNELL, P. J.

WE CONCUR:

DATO, J.

DO, J.