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FEATURE ARTICLE

CALIFORNIA SUPREME COURT ISSUES HIGHLY-ANTICIPATED CEQA DECISION ADDRESSING THE STANDARD OF REVIEW FOR EIRS AND REQUIREMENTS FOR AIR QUALITY ANALYSES

By Chris Stiles

On December 24, 2018, the Californian Supreme Court issued its highly-anticipated decision in *Sierra Club v. County of Fresno*. Finding that portions of the air quality analysis in an Environmental Impact Report (EIR) violated the California Environmental Quality Act (CEQA), the High Court made four important holdings: 1) when reviewing whether an EIR's discussion of environmental effects "is sufficient to satisfy CEQA," courts must be satisfied that the EIR "includes sufficient detail to enable those who did not participate in its preparation to understand and consider meaningfully the issues the proposed project raises"; 2) an EIR must show a "reasonable effort to substantively connect a project's air quality impacts to likely health consequences"; 3) a lead agency "may leave open the possibility of employing better mitigation efforts consistent with improvements in technology without being deemed to have impermissibly deferred mitigation measures"; and 4) a lead agency "may adopt mitigation measures that do not reduce the project's adverse impacts to less than significant levels, so long as the agency can demonstrate in good faith that the measures will at least be partially effective at mitigating the project's impacts."

Factual Background and Procedural History

The controversy arose over an EIR prepared by the County of Fresno (County) for the Friant Ranch project, a proposal for a master-planned community near the unincorporated community of Friant in north-central Fresno County. The project included a Specific Plan and Community Plan Update. The Specific Plan provided the framework for the development of approximately 2,500 single and multi-family residential units that are age restricted to "active adults" age 55 and older, other residential units that are not age restricted, a commercial village center, a recreation center, trails, open space, a neighborhood electric vehicle network, and parks and parkways. The project also included 250,000 square feet of commercial space on 482 acres and the dedication of 460 acres to open space. The Community Plan Update expanded a pre-existing Community Plan's boundaries to include the Specific Plan area and added new policies that were consistent with the Specific Plan and the County's General Plan.

The County certified the EIR and approved the project on February 1, 2011. In its analysis of air quality impacts, the EIR generally discussed the health effects of air pollutants such as Reactive Organic Gases (ROG), oxides of nitrogen (NOx), and particulate matter (PM), but without predicting specific health-related impacts resulting from the project's emissions. The EIR found that the project's long-term operational air quality effects were significant and unavoidable, even with implementation of all feasible mitigation measures. The EIR recommended a mitigation measure that included a "substitution clause," allowing the County, over the course of project build-out, to allow the use of new control technologies equally or more effective than those listed in the adopted measure. The County chose to approve an alternative that was identified as the "environmentally superior alternative" in the EIR, rather than the initial proposal.

Shortly after the County approved the project, the Sierra Club filed a lawsuit alleging that the EIR violated CEQA in various ways. The trail court denied the petition in full. The Sierra Club appealed.

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The Fifth District Court of Appeal reversed the trial court's judgment on three grounds. First, the court held that the EIR was inadequate because it failed to include an analysis that correlated the project's emission of air pollutants to its impact on human health. Second, it found that the mitigation measures for the project's long-term air quality impacts violated CEQA because they were vague, unenforceable, and lacked specific performance criteria. Third, the court held that the EIR's statement that the air quality mitigation provisions would *substantially* reduce air quality impacts was unexplained and unsupported.

The real party in interest, Friant Ranch, L.P., petitioned the California Supreme Court to review four issues:

> (1) Does the substantial evidence standard of review apply to a court's review of whether an EIR provides sufficient information on a topic required by CEQA, or is this a question of law subject to independent judicial review?
>
> (2) Is an EIR adequate when it identifies the health impacts of air pollution and quantifies a project's expected emissions, or does CEQA further require the EIR to correlate a project's air quality emissions to specific health impacts?
>
> (3) Does a lead agency impermissibly defer formulation of mitigation measures when it retains discretion to substitute the adopted measures with equally or more effective measures in the future as better technology becomes available, or does CEQA prohibit the agency from retaining this discretion unless the mitigation measure specifies objective criteria of effectiveness?
>
> (4) Do mitigation measures adopted by a lead agency to reduce a project's significant and unavoidable impacts comply with CEQA when substantial evidence demonstrates that, on the whole, the measures will be at least partially effective at mitigating the impact, or must such measures meet the same (or even heightened) standards of adequacy as those adopted to reduce an impact to a less than significant level?

The Supreme Court granted review on October 1, 2014. Given the nature of these issues, the case garnered widespread attention. Numerous entities, including air districts, environmental groups, governmental organizations, and building associations, participated in the case as *amici curiae*.

The Supreme Court issued a unanimous decision on December 24, 2018, affirming in part, and reversing in part, the Court of Appeal's decision.

The Supreme Court's Decision

The Standard of Review

First addressing the standard of review, the Supreme Court set out to answer the following question: What standard of review must a court apply when adjudicating a challenge to the adequacy of an EIR's discussion of adverse environmental impacts? The court held that, in certain circumstances at least, claims alleging that the discussion of environmental impacts in an EIR is inadequate may be reviewed *de novo* under the "procedural" prong of CEQA's standard of review.

The Court started its analysis with the key CEQA statute, which provides that:

> . . .abuse of discretion is established if the agency has not proceeded in a manner required by law or if the determination or decision is not supported by substantial evidence. (Pub. Resources Code, § 21168.5.)

The Court explained that, based on this language, its prior decisions have articulated "a procedural issues/factual issues dichotomy," with a substantially different standard of review applied to each type of error. While courts determine *de novo* whether an agency has employed the correct procedures, the agency's substantive factual conclusions are accorded greater deference and will be upheld if they are supported by substantial evidence. In other words, when reviewing an agency's compliance with CEQA, procedural issues are reviewed de novo and factual issued are reviewed under the "substantial evidence" standard.

After observing that the distinction between *de novo* review and substantial evidence review has worked well in judicial review of agency determinations, the Court explained that the issue of whether an EIR's discussion of environmental impacts is

adequate, such that it facilitates "informed agency decision-making and informed public participation," does not "fit neatly within the procedural/factual paradigm." The Court then examined some of its previous decisions, as well as those of the courts of appeal, that addressed the standard of review for a variety of claims.

Relying heavily on its previous decision in *Laurel Heights Improvement Assn. v. Regents of University of California,* 47 Cal.3d 376 (1988), the Court held that, although there are instances where the agency's discussion of significant project impacts may implicate a factual question that makes substantial evidence review appropriate:

> . . .whether a description of an environmental impact is insufficient because it lacks analysis or omits the magnitude of the impact is not a substantial evidence question.

The Court explained, for example, that:

> . . .a conclusory discussion of an environmental impact that an EIR deems significant can be determined by a court to be inadequate as an informational document without reference to substantial evidence.

The Court held that in these instances, claims that an EIR's discussion of environmental impacts is inadequate or insufficient may be reviewed *de novo*. Although agencies have considerable discretion to decide the manner of the discussion of potentially significant effects in an EIR, the Court concluded that a reviewing court must determine whether the EIR includes enough detail:

> . . .to enable those who did not participate in its preparation to understand and to consider meaningfully the issues raised by the proposed project.

The Court determined that this inquiry presents a mixed question of law and fact, and as such, "it is generally subject to independent review."

The EIR's Air Quality Discussion

Having established the applicable standard of review, the Court next considered whether the EIR's air quality analysis complied with CEQA. The challenged EIR quantified the amount of air pollutants the project was expected to produce and also provided a general description of each pollutant and how it affects human health. The EIR also explained that a more detailed analysis of health impacts was not possible at the early planning phase and that a "Health Risk Assessment" is typically prepared later in the planning process. Nevertheless, the Court of Appeal found that the EIR was inadequate under CEQA because its analysis failed to correlate the increase in emissions that the project would generate to the adverse impacts on human health. The Supreme Court agreed, with qualifications.

According to the Supreme Court, an EIR must reflect "a reasonable effort to substantively connect a project's air quality impacts to likely health consequences." Stated differently, the Court held that an EIR must show "a reasonable effort to discuss relevant specifics regarding the connection between" 1) the "general health effects associated with a particular pollutant" and 2) the "estimated amount of that pollutant the project will likely produce." The Court further explained that an EIR must:

> . . .provide an adequate analysis to inform the public how its bare [emissions] numbers translate to create potential adverse [health] impacts or it must adequately explain what the agency does know and why, given existing scientific constraints, it cannot translate potential health impacts further.

Here, the EIR quantified how many tons per year the project would generate of ROG and NOx (both of which are ozone precursors), but did not quantify how much ozone these emissions would create. Although the EIR explained that ozone can cause health impacts at exposures for 0.10 to 0.40 parts per million, the Court found this information to be meaningless because the EIR did not estimate how much ozone the project would generate. Nor did the EIR disclose at what specific levels of exposure to PM, carbon monoxide, and sulfur dioxide would trigger adverse health impacts. In short, the Court found that the EIR made:

> . . .it impossible for the public to translate the bare numbers provided into adverse health

> impacts or to understand why such translation is not possible at this time (and what limited translation is, in fact, possible).

Outlining the unhealthy symptoms associated with exposure to various pollutants, as the EIR at issue had done, was insufficient to fulfill the requirements of CEQA.

Notably, the Court was not persuaded by the real party in interest's explanation, which was supported by *amici curiae* briefs submitted by air districts, as to why the connection between emissions and human health that the plaintiffs sought could not be provided in the EIR given the state of environmental science modeling in use at the time. Even if that was true, the Court explained, the EIR itself must explain why it is *not* scientifically possible to do more than was already done in the EIR to connect air quality effects with potential human health impacts.

The Court noted that, on remand, one possible topic to address would be the impact the project would have on the number of days of nonattainment of air quality standards per year, but the Court stopped short of stating such a discussion is required. Instead, the Court noted that the County, as lead agency, has discretion in choosing the type of analysis to provide.

Mitigation Measures

The Court next turned to the EIR's discussion of mitigation measures that were identified to reduce air quality impacts. The specific mitigation measure at issue (Mitigation Measure 3.3.2) included a suite of measures that were designed to reduce the project's significant air quality impacts by providing shade trees, utilizing efficient "PremAir" or similar model heating, ventilation, and air conditioning systems, building bike lockers and racks, creating bicycle storage spaces in units, and developing transportation related mitigation that will include trail maps and commute alternatives. The measure included a substitution clause that allowed the lead agency to:

> . . .substitute different air pollution control measures for individual projects, that are equally effective or superior to those propose[d] [in the EIR], as new technology and/or other feasible measures become available [during] build-out within the [project].

The EIR stated that the measures would "substantially reduce" air quality impacts related to human activity within the entire project area, but not to a level that is less than significant. Accordingly, the EIR concluded that even with mitigation, the project's operational air quality impacts were significant and unavoidable.

The Fifth District Court of Appeal concluded that the EIR's use of the term "substantial" to describe the impact the proposed mitigation measures would have on reducing the project's significant health effects, without further explanation or factual support, amounted to a "bare conclusion" that did not satisfy CEQA's disclosure requirements. The Supreme Court agreed. According to the Court, the EIR "must accurately reflect the net health effect of proposed air quality mitigation measures." Here, however, the EIR included no facts or analysis to support the inference that the mitigation measures will have a quantifiable "substantial" impact on reducing the adverse effects.

The Court then examined whether the air quality measure impermissibly deferred formulation of mitigation because it allowed the County to substitute equally or more effective measures in the future as the project builds out. The Court held that this substitution clause did not constitute impermissible deferral of mitigation because it allows for "additional and presumably better mitigation measures when they become available," consistent with CEQA's goal of promoting environmental protection. The Court noted that mitigation measures need not include precise quantitative performance standards, but they must be at least partially effective, even if they cannot mitigate significant impacts to less than significant levels. The Court also held that the mitigation was adequately enforceable even though the County had some discretion to determine what specific measures would be implemented.

Finally, the Court decided:

> . . .whether a lead agency violates CEQA when its proposed mitigation measures will not reduce a significant environmental impact to less than significant levels.

The Court held that "the inclusion of mitigation measures that partially reduce significant impacts does not violate CEQA." The Court noted that, in enacting CEQA to protect the environment, the Legis-

lature did not seek to prevent all development, and that if, after feasible mitigation measures have been implemented, significant effects still exist, a project may still be approved if it is found that the unmitigated significant effects are outweighed by the project's benefits. Thus, mitigation measures will not be found inadequate simply because they do not reduce impacts to a less than significant level.

Conclusion and Implications

Although the California Supreme Court endeavored to settle the standard of review, its opinion leaves the door open for further debate. In summarizing its main holding, for example, the Court explained that the question of whether an EIR's discussion of a potentially significant impact is sufficient or insufficient (*i.e.*, whether it includes enough detail "to enable those who did not participate in its preparation to understand and to consider meaningfully the issues raised by the proposed project") is "generally" subject to independent review because it presents a mixed question of law and fact, implying that a different standard of review might apply in some circumstances. Indeed, the Supreme Court concluded the same paragraph by stating that:

> . . .to the extent a mixed question requires a determination whether statutory criteria were satisfied, de novo review is appropriate; but to the extent factual questions predominate, a more deferential standard is warranted.

Elsewhere, the Court emphasized that "agencies have considerable discretion to decide the manner of the discussion of potentially significant effects in an EIR" and also noted that "there are instances where the agency's discussion of significant project impacts may implicate a factual question that makes substantial evidence review appropriate," providing the decision to use a particular methodology as an example. Thus, it seems litigants in CEQA cases will *continue* to argue over which standard of review should apply for claims that present mixed questions of law and fact, and whether a particular dispute concerns the "sufficiency" of the discussion or instead the "manner" in which it is presented. Agencies and applicants are likely to emphasize the need for courts to defer to agencies on methodological issues and factual conclusions, and to assert that EIR discussions should be upheld as long as they are not too conclusory. Project opponents, on the other hand, are likely to claim that, regardless of how detailed an analysis might be, it might still be insufficient to allow members of the public "to understand and consider meaningfully the issues the proposed project raises." In any event, the new rule that courts must determine whether an EIR includes "sufficient detail" for the discussion of any topic, without any deference to the lead agency, will likely create more uncertainly in the CEQA domain.

The Supreme Court was somewhat clearer in articulating CEQA's requirements for the analysis of air quality impacts in EIRs, but *considerable uncertainty* remains there as well. The Court's basic holding was that an EIR must reflect "a reasonable effort to substantively connect a project's air quality impacts to likely health consequences." To satisfy this very general requirement, the Court explained, an EIR must:

> . . .provide an adequate analysis to inform the public how its bare [emissions] numbers translate to create potential adverse [health] impacts or it must adequately explain what the agency does know and why, given existing scientific constraints, it cannot translate potential health impacts further.

Whether this is viewed as a "new" requirement or a clarification of existing law, EIRs have not typically included the type of air quality analysis that the Court held CEQA requires. Agencies and practitioners are working to figure out what will pass muster under this new decision, particularly the requirement that EIRs discuss hypothetical analysis that is not scientifically possible to do. The greatest technical challenges will likely arise in connection with efforts to ascertain the ultimate health effects of ozone precursors, which must rise into the atmosphere before being converted to ozone in the presence of sunlight. Ascertaining the ultimate fate of these specific ozone molecules may prove to be exceedingly difficult, particularly for relatively small projects.

The Court's discussion regarding the adequacy of mitigation measures is helpful, but not as groundbreaking as the other issues. Including a substitution clause that allows for additional and presumably better mitigation measures when they become available does not constitute impermissible deferral of

mitigation, and is consistent with CEQA's goal of promoting environmental protection. The Supreme Court seemed not to want a rigid application of CEQA to impede technological innovation. Similarly, an agency may adopt mitigation measures that reduce environmental impacts, even if they do not reduce impacts to a less than significant level, because CEQA was not enacted to prevent all development and some reduction in environmental impacts is better than none.

The Supreme Court's opinion is available at: http://www.courts.ca.gov/opinions/documents/S219783A.PDF

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CLIMATE CHANGE NEWS

CALIFORNIA GRANTS NEARLY $25 MILLION FOR CLIMATE CHANGE RESEARCH PROJECTS

In 2017, then Governor Jerry Brown signed Assembly Bill (AB) 109, creating a research program within California's Strategic Growth Council (SGC). AB 109 also allocated $11 million to the SGC in Greenhouse Gas Reduction Fund revenues received from California's Cap-and-Trade program. The funds were allocated to "fund research on reducing carbon emissions, including clean energy, adaptation, and resiliency, with an emphasis on California." The research program is known as the Climate Change Research Program.

In 2018, Governor Brown signed Senate Bill (SB) 856 which appropriated $18 million for "Round 2" of the Climate Change Research Program. In December 2018, the SGC awarded grants from this Round 2 funding. Below is a summary of the Climate Change Research Program and the four grants awarded in December 2018.

The Climate Change Research Program

The Climate Change Research Program's goals are to:

- Invest in research that has a clear and demonstrated connection to the State's climate change goals. Investments should demonstrate potential to significantly reduce greenhouse gas (GHG) emissions, should show potential to be easily replicated and scaled, and should support climate adaptation and resilience.

- Advance research to support low-income and disadvantaged communities, and advance equitable outcomes in the implementation of the State's climate change policies and investments. Research Institutions should ensure that innovative technologies have direct and indirect benefits to low-income and disadvantaged communities.

- Build a program that augments, builds connections, and fills gaps across existing research programs. Research Institutions' project portfolios should provide holistic approaches towards addressing one of the identified research innovation fields.

- Prioritize outcome-based research linked to practical climate action.

- Model meaningful engagement with the research community, private sector, community-based organizations, public agencies, and other stakeholders at all stages of the program to ensure relevance and utility of R&D process, projects, and results.

- Continue to advance and develop a common research platform to support climate change planning, policy development, and implementation across all sectors at the state, regional, and community scale.

- Leverage and complement existing research funding and policy innovations to accelerate climate change research, innovation, and policy and technology deployment.

December 2018 Climate Change Research Program Grants

In July 2018, the Climate Change Research Program awarded grants totaling close to $7 million addressing four out of five priorities outlined in the Climate Change Research Program's Research Investment Plan. Four additional grants were awarded in December 2018 focusing on the fifth priority - Low-GHG Transformative Technology Development and Deployment, covering three research innovation fields: carbon dioxide removal, methane reduction and heating, cooling, and thermal storage.

The four grants are summarized below.

- The California Collaborative on Climate Change Solutions: Working Lands Innovation Center—Catalyzing Negative Carbon Emissions [to the University of California-$4,711,267.24]
The Working Lands Innovation Center's objective is to scale and sustain CO_2 capture and GHG

emissions reductions by deploying a suite of cutting-edge soil amendment technologies, driving substantial co-benefits for California growers, ranchers, Tribes, communities, the economy, and environment. This project will increase understanding of the mechanisms and potential for carbon sequestration in soil.

• The Innovative Low-GHG Residential Space Conditioning Technologies [to Electric Power Research Institute, Inc.- $4,744,353.28]
This proposal aims to advance innovative space cooling technologies to benefit low-income and disadvantaged communities in California, by working to demonstrate and commercialize cooling technologies as well as by evaluating user behavior to better understand needs and technology use in homes. To accelerate adoption of these energy-saving household technologies, the project will also establish innovative payment and financing solutions.

• Mobile Biochar Production for Methane Emission Reduction and Soil Amendment [to the University of California, Merced-$3,040,239.47
The overall goal of this proposal is to determine how biochar can be produced and used in a closed cycle agricultural application to reduce GHG emissions, ameliorate agricultural waste disposal problems, improve the quality of life in low-income and disadvantaged farming and adjacent communities, and identify means to gain acceptance among farmers of small-scale biochar production and use as a sustainable best practice for California agriculture.

• Innovation Center for Advancing Ecosystem Climate Solutions [to the University of California, Irvine-$4,604,140.02]
This Innovation Center will develop the science and technology solutions needed to manage California's natural lands for climate change, as there remain critical research gaps in understanding how to implement adaptive management and maintain carbon sequestration under climate change. The proposal will help the state implement its policy goals, including objectives under the Scoping and Forest Carbon Plans.

Conclusion and Implications

Close to $25 million has been awarded from California's Climate Change Research Program since its inception in 2017. It is hoped that the information gained from these research projects will advance California's overall GHG emissions reduction goals.
(Kathryn Casey)

PG&E ANNOUNCES LIKELY BANKRUPTCY FILING AMID MOUNTING WILDFIRE COSTS AND LEGAL CLAIMS

On January 14 Pacific Gas & Electric (PG&E) announced its plan to file for Chapter 11 bankruptcy in light of its mounting wildfire claims, totaling nearly $30 billion in liabilities. PG&E will likely initiate its reorganization process on or around January 29. After the announcement, PG&E's CEO Geisha Williams stepped down and the company's current General Counsel, John Simon, will serve in the role of Chief Executive Officer until a replacement is selected.

Background

PG&E has faced increased scrutiny for its role in the 2018 Camp Fire, which killed 86 people and destroyed approximately 150,000 acres in addition to nearly 20,000 structures, and the cluster of 2017 Napa area fires (including Tubbs, Nuns, Mendocino Complex) that resulted in the death of more than 30 people and destroyed nearly 10,000 structures.

However, PG&E has faced heightened regulatory scrutiny and public scorn since the 2010 explosion of its natural gas pipeline in San Bruno, which killed eight people and resulted from significant safety and policy lapses within PG&E. A federal Judge overseeing PG&E's probation for the San Bruno explosion has also recently made findings linking PG&E's distribution lines to the 2017 and 2018 northern California fires. PG&E paid $1.6 billion in penalties in connection with the San Bruno explosion, in addition to approximately $558 million third-party claims. On January 9, 2019, Judge Alsup, who is han-

dling the case in the U.S. District Court for Northern California, issued an Order to Show Cause as to why PG&E's probation terms from the San Bruno explosion should not be modified to include additional terms setting increased inspection and documentation parameters for the utility in light of the recent wildfire allegations. A hearing is scheduled for January 30, 2019 and comments are due by January 25, 2019.

The Issue of Liabilities

PG&E is facing approximately 700 complaints on behalf of at least 3,600 plaintiffs in connection with the 2017 Northern California wildfires alone. The claims for property damage, business interruption, evacuation costs, personal injury, punitive damages, among others, allege that PG&E's failure to maintain and repair its transmission and distribution lines and to properly maintain the vegetation surrounding such lines caused the wildfires. In addition to these civil complaints, PG&E could also face insurance subrogation claims and significant fines and penalties from regulatory agencies and law enforcement, including criminal proceedings against the company.

Overall, PG&E's wildfire liabilities approximate $30 billion, whereas its insurance coverage for liabilities approximates $1.4 billion. In its current liquidity outlook, as reported in PG&E's recently filed 8-K, PG&E has approximately $1.5 billion in cash and cash equivalents on hand, and has drawn an approximate $3 billion from revolving credit facilities.

In addition to the wildfire liabilities, PG&E is facing a growing number of regulatory investigations into PG&E's culture and safety procedures. On December 14, 2018, the California Public Utilities Commission's (Commission or CPUC) Safety and Enforcement Division launched investigation into whether PG&E falsified records associated with its locate and mark procedures (a safety practice to demarcate underground utility infrastructure in case of any third-party excavation). The investigation claims that between 2012-2017 PG&E repeatedly altered its safety records to fake compliance. On December 21, 2018, the Commission instituted an investigation into PG&E's "safety culture" to determine whether the "organizational culture and governance of PG&E prioritizes safety and adequately directs resources to promote accountability and achieve safety goals and standards." The Scoping Memo for this proceeding outlines a number of initiatives to address PG&E's safety culture, including replacing PG&E management, separating PG&E's gas and electric distribution networks into two separate companies, reorganizing PG&E as a publicly rather than privately owned utility, separating PG&E's generation services from its transmission and distribution services, and finally conditioning PG&E's return on equity on safety performance.

In addition, the CPUC has launched a rulemaking in connection with the recent wildfires and Senate Bill 901, enacted on September 21, 2018, to establish a "customer harm threshold" for cost recovery in connection with the wildfires. This threshold would effectively set a maximum amount that PG&E can pay in fines or liabilities before harming ratepayers or materially impacting its ability to provide safe and reliable service.

Bankruptcy?

The stock market's reaction to PG&E's troubles has resulted in a downgrade of PG&E's credit rating from a B to a CC, and a significant drop of its stock market value by more than half its value since November 2018.

PG&E filed an 8-K with the SEC giving two weeks' notice of a possible Chapter 11 bankruptcy filing to:

> . . .allow it to work with [its] many constituencies in one court-supervised forum to comprehensively address its potential liabilities and to implement necessary changes.

Filing for bankruptcy could allow PG&E to renegotiate the terms of its contracts, including legacy and long-term power purchase agreements, in addition to facilitating a profitable asset sale. (The SF-PUC, which is currently providing sewer and electric service to select areas within San Francisco under CleanPowerSF, the City's Community Choice Aggregation provider, has indicated an interest in purchasing certain of PG&E's distribution infrastructure.)

On January 18, however, NextEra Energy filed a petition at the Federal Energy Regulatory Commission (FERC) seeking an order from the FERC establishing its ultimate jurisdiction over wholesale electric rates and preventing PG&E from cancelling or breaching any of its wholesale energy contracts. If PG&E is permitted to renegotiate its existing power

purchase contracts, it would have important implications for many electric suppliers, particularly in the renewable energy markets, and developers. NextEra sought expedited review by the FERC but PG&E has yet to file a response to the petition.

Conclusion and Implications

PG&E is not the only California utility impacted by these issues, as other California utilities confront similar wildfire liabilities, and are impacted by the negative stock market outlook brought about by PG&E. For example, Southern California Edison is currently facing at least sixty lawsuits pending against it in connection with the Woolsey Fire, which burned more than 97,000 acres and destroyed 1,500 structures last fall, in addition to taking three lives. In addition to the liability implications, PG&E's looming bankruptcy is lowering utility stock prices and may impact credit ratings, as investors are losing confidence in California's electric market.

Overall, PG&E's looming bankruptcy filing has grave implications for California ratepayers, which already pay among the country's highest electric rates, the California electric market, including the state's ambitious renewable energy goals, and developers and existing contract holders of PG&E's long-term electric supply. Even though existing electric and gas services to PG&E customers are unlikely to be impacted by PG&E's bankruptcy, the future of California's energy market—particularly with the increasing popularity of Community Choice Aggregation networks—is likely to undergo a significant transformation.

Editor's Note: As this article was to go to print, we learned that from *Axios* that:

"California investigators ruled on [January 24] that PG&E was not responsible for the 2017 Tubbs fire near Santa Rosa that destroyed thousands of acres and killed more than 20 people." *See*, https://www.axios.com/pge-still-plans-file-bankruptcy-california-wildfires-19e7cea2-62f6-47f7-8186-281ee4ae68a5.html.

On January 29 PG&E filed Chapter 11 bankruptcy. (Lilly McKenna)

THE POTENTIAL RETURN OF COMMERCIAL SUPERSONIC JET TRAVEL AND ITS IMPACT ON THE ENVIRONMENT

According to the U.S. Environmental Protection Agency (EPA), the primary sources of greenhouse gas (GHG) emissions in the United States, in descending order, are transportation, electricity production, industry, commercial and residential, agriculture and land use and forestry.

Transportation emissions, at nearly 28.5 percent of total 2016 greenhouse gas emissions, include emissions primarily from burning fossil fuel for cars, trucks, ships, trains, and airplanes. Airplane emissions account for 12 percent of all transportation emissions and some fear that number will increase with the potential return of commercial supersonic travel.

Airplane Emissions

In December 2015, the Center for Biological Diversity (CBD) published a report entitled "Up in the Air: How Airplane Carbon Pollution Jeopardizes Global Climate Goals". The report contains 11 key findings, including the following:

•If global aircraft CO_2 emissions were compared to emissions of individual countries, they would rank seventh just behind Germany, outranking Belgium, the Czech Republic, Ireland, Sweden and some 150 other countries.

•Global aviation's contribution to manmade climate change is forecast to triple by 2050.

•For the last 18 years, the International Civil Aviation Organization (ICAO) has failed to implement any greenhouse gas regulations or other control measure.

•Emissions standards currently under discussion would barely bend the climbing emissions curve.

•The United States is by far the largest aviation carbon polluter. The U.S. EPA estimates that emissions from U.S. aircraft "are about 7 times higher than aircraft greenhouse gas emissions from China," which itself is ranked second in the world for its aircraft emissions.

- U.S. aviation alone is estimated to release 9 gigatonnes of CO_2 from 2016 through 2050 under business as usual scenarios.

- The U.S. EPA has proposed to determine that U.S. aviation greenhouse gas emissions endanger human health and welfare.

- Once the "endangerment finding" becomes final, U.S. law mandates that standards be set.

EPA made the endangerment finding in 2016 and began a process to establish airplane emissions standards. That process, however, stopped when President Donald Trump's administration took over the EPA. In late 2017, the CBD submitted a Freedom of Information Act request to the EPA "seeking records related to the EPA's decision to stop work on an aircraft carbon dioxide emissions standard." According to the CBD, the EPA had "quietly deactivated an initiative to implement a carbon emissions reduction requirement for jet engines in new plane models."

In late 2018, the CBD sued the EPA:

> . . .for refusing to release public records related to the government's failure to develop greenhouse gas emission standards for airplanes as required by the Clean Air Act.

The Return of Commercial Supersonic Travel?

A supersonic jet travels at speeds faster than the speed of sound. Commercial supersonic travel over the United States has never approved due to the noise created when a supersonic airplane's speed exceeds the speed of sound, resulting in a "sonic boom." International commercial supersonic travel from Washington Dulles International Airport and New York's John F. Kennedy International Airport began in the late 1970s with the end of the era coming in October 2003.

In recent months, however, the return of commercial supersonic travel appears to be on the table, including supersonic travel over the United States. In October 2018, the United States Congress passed and President Trump signed into law HR 302, the Federal Aviation Administration (FAA) Reauthorization Act of 2018. HR 302 includes a Congressional mandate to the FAA to:

> . . .exercise leadership in the creation of Federal and international policies, regulations, and standards relating to the certification and safe and efficient operation of civil supersonic aircraft.

Then, in November 2018, NASA conducted a "quiet boom" test over Galveston, Texas, that according to Peter Coen, NASA's commercial supersonic technology project manager, was needed in order to "understand what is required for acceptable supersonic overland flight."

On the climate change side, one potential problem associated with the reintroduction of commercial supersonic travel is the increased emissions from supersonic flights. In July 2018, the International Council on Clean Transportation (ICCT), published a working paper entitled "Environmental Performance of Emerging Supersonic Transport Aircraft." The ICCT working paper includes a number of statistics on the potential environmental impact from the operation of new commercial supersonic airplanes that are in various stages of production.

According to the ICCT, these new supersonic airplanes are unlikely to comply with the existing standards for subsonic flight, and, under probable passenger configurations, a typical supersonic airplane is estimated to exceed emission limits for nitrogen oxides and carbon dioxide by 40 percent and 70 percent, respectively. In addition, a typical supersonic airplane is estimated to burn, on average, "5 to 7 times as much fuel per passenger as subsonic aircraft on representative routes," with results varying by seating class, configuration and route. Under a best-case scenario, the estimated burn rate goes down to 3 times as much, but increases to nine times as much in a worse-case scenario.

Conclusion and Implications

Transportation is the largest source of greenhouse gas emissions in the United States, with airplane emissions accounting for 12 percent of all transportation emissions. The return of commercial supersonic travel may exacerbate the problem, but a working paper from the ICCT contains recommendations to minimize the impact. The ICCT recommends that manufacturers develop new commercial supersonic airplanes based upon advanced, clean sheet engines and also recommends that policymakers establish new environmental standards specifically for commercial supersonic airplanes.
(Kathryn Casey)

CLIMATE CHANGE SCIENCE

RECENT SCIENTIFIC STUDIES ON CLIMATE CHANGE

The Role of Agricultural Greenhouse Gas Emissions in Achieving the 1.5 °C Target

In order for the global climate to stay within the target 1.5 °C of warming, there will have to be substantial action in every economic sector across the world. While the energy sector is the largest source of greenhouse gas emissions globally, the agricultural sector is the largest source of non-CO_2 greenhouse gas emissions. 40 percent of anthropogenic methane (CH_4) and 60 percent of anthropogenic nitrous oxide (N_2O) are emitted by the agricultural sector from sources such as fertilizers, livestock, and deforestation. Over the past thirty years, emissions from agriculture have increased by approximately 30 percent, while the global food production has increased by approximately 70 percent.

A research team led out of the International Institute for Applied Systems Analysis in Laxenburg, Austria, ran a series of models to determine the potential for greenhouse gas emissions reductions in the agricultural sector. Without any mitigation in the agricultural sector, the team found that non-CO_2 emissions would double from 2010 to 2070. They then applied four mitigation options to the various models: a tax on non-CO_2 emissions; technical options, such as animal feed supplements; structural options, such as crop management techniques; and demand responses, such as consumer-led protests against specific carbon-intensive crops. When these mitigation measures were applied, they found that the agricultural sector could provide a reduction in non-CO_2 greenhouse gases equivalent to 3.9 gigatonnes of carbon dioxide equivalents ($GtCO_2e$) per year in 2050. This amounts to about 6.5 percent of the total annual CO_2 mitigation required across all sectors to stay within the 1.5°C target.

One of the most powerful mitigation strategies is a strong carbon price. However, carbon pricing is not representative of agricultural regulation. Because the primary objective of agriculture is food security, agriculture is often subsidized by a government to ensure that there is ample food produced. A carbon tax on agriculture would do the opposite and it may disincentivize food production. Still, there are other promising mitigation strategies that unlock significant reductions. A shift in diet away from livestock, for example, can reduce non-CO_2 greenhouse gas emissions substantially without limiting food availability. The authors estimate that a shift away from livestock-based diets can provide up to 0.6 $GtCO_2e$ per year. Ultimately, a combination of various mitigation strategies should be implemented to ensure that the maximum non-CO_2 greenhouse gas reduction is achieved without sacrificing food security.

See, Frank, Stefan, et al. Agricultural non-CO_2 emission reduction potential in the context of the 1.5 °C target. Nature Climate Change, 2019; DOI: 10.1038/s41558-018-0358-8

Road Pavement Preservation Reduces Greenhouse Gas Emissions

Transportation is a large worldwide greenhouse gas (GHG) emissions source. In addition to the vehicle tailpipe emissions themselves, lifecycle emissions include material extraction from raw materials, asphalt manufacture, road construction and maintenance, and end-of-life disposal. Studies have been performed to evaluate lifecycle GHG emissions including most of these parameters, but even small changes to any of these parameters can lead to significant changes in results.

Vehicle emissions depend in part on rolling resistance, which varies based on roadway surface condition. Researchers from Rutgers University have evaluated the lifecycle GHG impact of several asphalt preservation techniques compared to no preservation. Techniques include thin overlay, in which hot-mix asphalt overlay is applied at a thickness of 0.5 to 2 inches over pavement; chip seal, in which pavement surfaces are sprayed with asphalt emulsions and covered by aggregate and compacted by roller; and crack seal, in which cracks in the road are filled with rubberized asphalt sealant. Manufacturing emissions vary by orders of magnitude among these preservation

techniques. The Motor Vehicle Emission Simulator (MOVES) and pavement roughness models were used to evaluate the reduction in vehicle emissions from driving on road surfaces treated with each of these techniques or untreated roads, at varying traffic conditions. Despite the manufacture and construction emissions, all treatment techniques reduced lifecycle GHG emissions compared to no treatment.

The researchers found that thin overlay treatment produces the highest reduction in GHG emissions at 2 percent, followed by chip seal, with crack seal as the lowest benefit at 0.5 percent lifecycle reductions. These benefits included a gradual deterioration in roadway conditions over years and therefore may be increased with reapplication of preservation techniques depending on traffic and weather conditions. Even relatively small percentage reductions would result in large mass emissions benefits if these techniques were widely applied. Further studies could evaluate the economic or political factors that determine the frequency and type of asphalt preservation techniques used.

See, Wang, H., et al. 2019. Quantifying greenhouse gas emissions of asphalt pavement preservation at construction and use stages using life-cycle assessment. *International Journal of Sustainable Transportation*. DOI: 10.1080/15563813.2018.1519086

Ecological Memory of the Great Barrier Reef in Response to Recurrent Climate Extremes

Ecological memory, the ability of the past to influence the present trajectory of ecosystems, is valuable to understand how ecosystems respond to a changing climate. Climate change modifies the frequency, intensity, and spatial scale of extreme weather events such as heatwaves, droughts, floods, and fires. As time between recurring climate shocks decreases, ecosystem responses develop based on the effects of prior shocks.

A study from the Australian Research Council Centre of Excellence for Coral Reef Studies explores emerging ecological memory in the Great Barrier Reef. The study authors found that the response of the Great Barrier Reef to extreme heat during two unprecedented back-to-back bleaching events in 2016 and 2017 was remarkably different. Notably, the impact and geographic footprint of the second heat event depended on the first.

Satellite measurements of heat stress and aerial surveys of bleaching showed that the spatial extent of bleaching shifted between 2016 and 2017 from the northern portion of the Great Barrier Reef to the central region. Contrary to model predictions based on exposure to high sea surface temperatures alone, the surviving corals from affected regions of the northern portion in 2016 were more resistant to bleaching in 2017.

For the Great Barrier Reef, the increasingly frequent climate stressors (both heat stress and tropical cyclones) pose a dire threat to ecosystem health. Since 1998, 61 percent of the Great Barrier Reef has been severely bleached at least once and only 7 percent has escaped bleaching entirely. Following the latest back-to-back bleaching events, the observed loss of adult coral brood stock and the unsuitability of dead coral skeletons as substrate for new growth portend slow recovery.

For many vulnerable ecosystems including the Great Barrier Reef, climate change introduces new disturbance patterns to ecological histories. The ecological impacts of these climate-driven disturbances cannot be well understood without consideration of the shocks that have occurred before and after. The study authors conclude that it is crucial to study sequential climate disturbances to understand cumulative interactions and impacts.

See, Terry P. Hughes, James T. Kerry, Sean R. Connolly, Andrew H. Baird, C. Mark Eakin, Scott F. Heron, Andrew S. Hoey, Mia O. Hoogenboom, Mizue Jacobson, Gang Liu, Morgan S. Pratchett, William Skirving, Gergely Torda. Ecological memory modifies the cumulative impact of recurrent climate extremes. *Nature Climate Change*, 2018; DOI: 10.1038/s41558-018-0351-2

Observational Records Show that Ocean Warming Is Accelerating

Oceans absorb 93 percent of heat trapped by greenhouse gases (GHGs). By serving as a heat sink, oceans prevent the land from heating up much faster than it does. However, ocean warming is problematic in itself. Increased temperatures in oceans leads to sea level rise as water expands volumetrically at higher temperatures. (The other main contributor to sea level rise being the melting of ice caps.) Additionally, warmer oceans lead to more intense hurricane activ-

ity due to increased energy. Also, higher temperatures in oceans lead to the killing off of marine ecosystems, resulting in in food insecurity as food sources diminish. Tracing the temperature of oceans is an important area of research because it is a consistent way to track GHG emissions since, unlike surface temperatures, ocean temperature is not strongly influenced by short-term weather patterns.

A new analysis published recently in Science found that oceans are heating up 40 percent faster, on average, compared to what was modelled in 2014 Intergovernmental Panel on Climate Change (IPCC) Fifth Assessment Report (AR5). Furthermore, the team of researchers from the Chinese Academy of Sciences, the University of St. Thomas, the University of California at Berkeley, and the National Center for Atmospheric Research have shown that ocean temperatures have broken records for several straight years. Historically, ocean temperature readings have been conducted using bathythermographs which were lowered into the ocean with copper wire and transmitted data until the wire broke. This method was subject to many uncertainties. The researchers assessed four recent studies that correct for calibration errors and measurement biases in historical data from bathythermograph data. One study used satellite altimeter observations to compliment the historical data. A second study used simulations to fill in data gaps in the bathythermographic data. Third study made corrections to historical underestimation and extended its analysis to 2,000 meters. A fourth study analyzed the oxygen released by oceans to calculate ocean warming. The four studies converged on an estimate of ocean warming that was higher than described in the AR4 report. More recent measurements of ocean temperature by a network of more modern equipment (called "Argo") confirms the higher modelled rate of ocean warming.

The authors then simulated future ocean warming under two scenarios, represented as Representative Concentration Pathways (RCP) 2.6 (representing an increase in surface temperatures to well below 2°C) and RCP 8.5 (a business-as-usual scenario). Under RCP 2.6, the models predict an ocean warming of 0.40 Kelvin by 2100. Under RCP 8.5, a warming of 0.78 Kelvin is expected, which would result in a sea level risk of 30 centimeters. The research shows a need to continue to improve ocean observations to provide better estimates of ocean warming so that more refined regional projections of the future can be made.

See, L. Cheng, J. Abraham, Z. Hausfather, and K.E. Trenberth. How fast are the oceans warming? *Science*, 2019. DOI: 10.1126/science.aav7619
(David Kim, Libby Koolik, Malini Nambiar, Shaena Berlin Ulissi)

PENALTIES & SANCTIONS

RECENT INVESTIGATIONS, SETTLEMENTS, PENALTIES AND SANCTIONS

Editor's Note: Complaints and indictments discussed below are merely allegations unless or until they are proven in a court of law of competent jurisdiction. All accused are presumed innocent until convicted or judged liable. Most settlements are subject to a public comment period.

•On January 10, 2019, the U.S. Environmental Protection Agency (EPA) and the U.S. Department of Justice (DOJ) announced a settlement with Fiat Chrysler Automobiles N.V., FCA US, and their affiliates for alleged violations of the Clean Air Act (CAA) and California law. Fiat Chrysler allegedly installed illegal and undisclosed software in certain vehicle models that activate full emissions controls during emission tests, while reducing or deactivating emission controls during normal on-road driving conditions, reducing the effectiveness of the vehicles' emission control systems to control nitrogen oxide emissions. These defeat devices were installed in model year 2014 through 2016 Ram 1500 and Jeep Grand Cherokee vehicles equipped with EcoDiesel 3.0 liter engines. Fiat Chrysler has agreed to pay a civil penalty of $305 million for the alleged violations. Fiat Chrysler will implement a recall program to repair more than 100,000 noncompliant diesel vehicles sold or leased in the United States to remove the defeat devices. Fiat Chrysler must repair at least 85 percent of the vehicles within two years or face stiff penalties. Fiat Chrysler will also offer an extended warranty on the repaired vehicles and must test repaired vehicles for five years to ensure they continue to meet emission standards. Fiat Chrysler will also implement a program to mitigate excess pollution from these vehicles, including working with vendors of aftermarket catalytic converters to improve the efficiency of 200,000 converters that will be sold in the 47 states that do not already require the use of high efficiency gasoline vehicle catalysts. The company will also implement corporate governance, organizational, and technical process reforms to minimize the likelihood of future CAA violations, and hire a compliance auditor for three years to oversee and assess the effectiveness of these reforms. The recall and federal mitigation programs are estimated to cost up to approximately $185 million. In a separate settlement with the State of California, Fiat Chrysler will pay an additional $19 million to mitigate excess emissions from more than 13,000 of the noncompliant vehicles in California. Fiat Chrysler has also entered into a separate settlement with California to resolve alleged violations of California consumer protection laws. In addition, in a separate administrative agreement with the U.S. Customs and Border Protection, Fiat Chrysler will pay a $6 million civil penalty to resolve allegations of illegally importing 1,700 noncompliant vehicles.

•On December 18, 2018, GmbH (IAV), a German company that engineers and designs automotive systems, has agreed to plead guilty to one criminal felony count and pay a $35 million criminal fine as a result of the company's role in a long-running scheme for Volkswagen AG (VW) to sell diesel vehicles in the United States by using a defeat device to cheat on U.S. vehicle emissions tests required by federal law. IAV is charged with and has agreed to plead guilty to one count of conspiracy to defraud the United States and VW's U.S. customers and to violate the Clean Air Act by misleading the EPA and U.S. customers about whether certain VW- and Audi-branded diesel vehicles complied with U.S. vehicle emissions standards. IAV and its co-conspirators knew the vehicles did not meet U.S. emissions standards, worked collaboratively to design, test, and implement cheating software to cheat the U.S. testing process, and IAV was aware the VW concealed material facts about its cheating from federal and state regulators and U.S. customers. Under the terms of the plea agreement, which must be accepted by the court, IAV will plead guilty to this crime, will serve probation for two years, will be under an independent corporate compliance monitor who will oversee the company for two years, and will fully cooperate in the Justice Department's

ongoing investigation and prosecution of individuals responsible for these crimes. Pursuant to the U.S. Sentencing Guidelines, IAV's $35 million fine was set according to the company's inability to pay a higher fine amount without jeopardizing its continued viability. The guilty plea of IAV represents the most recent charges in an ongoing investigation by U.S. criminal authorities into unprecedented emissions cheating by VW. In March 2017, VW pleaded guilty to criminal charges that it deceived U.S. regulatory agencies, including the EPA and the California Air Resources Board, by installing defeat devices in diesel vehicles emissions control systems that were designed to cheat emissions tests. As part of its plea agreement with the Department, VW paid a criminal fine of $2.8 billion and agreed to an independent corporate compliance monitor for three years. Eight individuals were previously indicted in connection with this matter, two of whom have pleaded guilty and been sentenced. The other six charged defendants are believed to reside in Germany. According to the statement of facts that will be filed with the court in IAV's case, in 2006, VW engineers began to design a new diesel engine to meet stricter U.S. emissions standards that would take effect by model year 2007. This new engine would be the cornerstone of a new project to sell diesel vehicles in the United States that would be marketed to buyers as "clean diesel." When the co-conspirators realized that they could not design a diesel engine that would both meet the stricter standards for nitrogen oxides (Nox) and attract sufficient customer demand in the U.S. market, they decided they would use a software function to cheat the U.S. emissions tests. VW delegated certain tasks associated with designing its new "Gen 1" diesel engine to IAV, including parts of software development, diesel development and exhaust after-treatment. In November 2006, a VW employee requested that an IAV employee assist in the design of defeat device software for use in the diesel engine. The IAV employee agreed to do so and prepared documentation for a software design change to recognize whether a vehicle was undergoing standard U.S. emissions testing on a dynamometer or it was being driven on the road under normal driving conditions. If the software detected that the vehicle was not being tested, the vehicle's emissions control systems were reduced substantially, causing the vehicle to emit substantially higher NOx, sometimes 35 times higher than U.S. standards. By at least 2008, an IAV manager knew the purpose of the defeat device software, instructed IAV employees to continue working on the project and directed IAV employees to route VW's requests regarding the defeat device software through him; the manager was involved in coordinating IAV's continued work on it. Starting with the first model year (2009) of VW's new "clean diesel" Gen 1 engine, through model year 2014, IAV and its co-conspirators caused defeat device software to be installed on all of the approximately 335,000 Gen 1 vehicles that VW sold in the United States.

•On December 18, 2018, EPA announced that Tasman Leather Group, LLC has agreed to settle claims of state and federal hazardous waste laws violations. Tasman re-tans and finishes leather for the military, footwear, and fashion industries at its facility in Hartland, Maine, generating hazardous wastes such as flammable solvents. Under the settlement, Tasman will pay a $48,000 penalty and agreed to correct its violations and certify compliance with the federal Resource Conservation and Recovery Act (RCRA) and Maine Hazardous Waste Management Rules. The case stems from a June 2016 inspection by EPA that found Tasman had failed to obtain a site-specific identification number, maintain a compliant hazardous waste contingency plan, conduct an annual review of hazardous waste training, and conduct an adequate hazardous waste determination, among other alleged violations. Without a site-specific identification number, the company avoided regulatory oversight and without a contingency plan and proper training, facility employees and emergency responders may not know how to respond in an emergency.

•On December 18, 2018, EPA announced that it has reached a settlement with GVS North America for alleged violations of state and federal hazardous waste laws. GVS North America will pay a penalty of $63,036 to settle claims that it failed to properly manage its hazardous waste. According to EPA, GVS North America, a Delaware-based subsidiary of an Italian company, was found to be out of compliance with RCRA and the Maine Hazardous Waste Management Rules because it failed to provide employee hazardous waste management training, failed to have adequate space between containers of hazardous waste, and failed to do weekly inspections of hazardous waste containers, among other violations at

the company's Sanford, Maine facility. GVS North America is now conducting the training and inspections necessary to comply with federal and state hazardous waste laws. The Sanford facility makes filters for life sciences applications, as well as throttle plates for cars, generating hazardous wastes containing sodium hydroxide, sulfuric acid, methanol NMP, flammable solids, universal wastes, and chromium.

•On December 18, 2018, EPA announced a settlement with Stericycle to resolve hazardous waste liability. Stericycle treats and stores hazardous wastes at facilities in Kent and Tacoma, Washington. Stericycle has agreed to pay a $150,000 penalty after EPA found that the company violated the terms of its waste handling and storage permit by failing to maintain a liability insurance policy that would provide adequate coverage to third parties whose health and properties could be harmed by a release of hazardous wastes from the facilities. EPA found that Stericycle's policy could have been consumed by legal fees rather than payment to those harmed by a release.
(Allison Smith)

LAWSUITS FILED OR PENDING

AUTOMAKERS FILE *AMICUS* BRIEF IN THE NINTH CIRCUIT IN THE VOLKSWAGEN 'CLEAN DIESEL' SUIT ARGUING FOR FEDERAL PREEMPTION

On December 13, 2018, the Alliance of Automobile Manufacturers Inc., the Association of Global Automakers, and the U.S. Chamber of Commerce filed its *amicus* brief to support Volkswagen in its opposition against an appeal filed by the Environmental Protection Commission of Hillsborough County, Florida and Salt Lake City Utah (Counties). The Counties sued Volkswagen for violating state and local laws for tampering with emission control devices on vehicles they manufactured that ultimately allowed a car's emissions to exceed the legal limits. The Counties seek to reverse an order dismissing their claims based on both implicit and explicit federal preemption by the Clean Air Act (CAA). [*The Environmental Protection Commission, et al v. Volkswagen Group of America, et al.*, Case No. 18-15937 (9th Cir. 2018).]

Factual Background

In 2016, the U.S. government, on behalf of the U.S. Environmental Protection Agency (EPA), filed a federal Clean Air Act suit against Volkswagen and its subsidiaries for installing defective devices in their vehicles and selling approximately 585,000 of the defective, new models to the U.S. The defective device contains software that tampers with the vehicle's emission controls and effectively allows cars to pass government emissions test but also enables the vehicle to pollute by as much as 35 times the permissible emissions while the vehicle was being driven.

Volkswagen entered into a settlement with the federal government for $4.3 billion in criminal penalties, $2.0 billion to invest in Zero Emission Vehicles, and $2.925 billion in a mitigation fund to be used to remedy the environmental harm the company caused. Furthermore, Volkswagen also agreed to pay $10.033 billion to buy back certain defective vehicles and pay the owners and lessees of said vehicles restitution. Soon after the EPA's suit, multiple class actions filed by consumers, dealerships, investors, and municipalities followed.

Disposition of the Counties' Suit

The Counties filed suit in the U.S. District Court for the Northern District of California (District Court), against Volkswagen for violating state and local laws regarding the tampering of emissions controls in vehicles. These laws generally prohibit anyone from removing or rendering inoperable a vehicle's emission control system. 42 U.S.C. §7522(a)(3)(A) specifically makes it unlawful for:

> . . .any person to remove or render inoperative any device or element of design installed on or in a motor vehicle…or for any person knowingly to remove or render inoperative any such device or element of design after such sale and delivery to the ultimate purchaser.

In addition to the tampering claims, the Counties also alleged that Volkswagen updated its defeat device to increase the device's efficiency and added new defeat devices during vehicle maintenance and post-sale recalls.

On April 16, 2018, the U.S. District Court granted Volkswagen's motion to dismiss with prejudice, on the grounds that the Counties' tampering claims were expressly preempted by § 209(a) of the CAA. It also concluded that the Counties' claims based on subsequent tampering were impliedly preempted.

The District Court heavily relied on Wyoming's disposition of a similar suit against Volkswagen. The District Court reviewed the relevant sections of the CAA. Section 209(a) provides:

> No state or any political subdivision thereof shall *adopt or attempt to enforce any standard relating to the control of emissions from new motor vehicles* or new motor engines subject to this part. No State shall require certification, inspection, or any other approval relating to the control of emissions from any new motor vehicle as condi-

> tion precedent to the initial retail sale, titling (if any), or registration of such motor vehicle, motor vehicle engine, or equipment." (42 U.S.C. § 7543(a)) (emphasis added)

Section 209(d) states:

> Nothing in this part shall preclude or deny to any State or political subdivision thereof the right to otherwise *control, regulate, or restrict the use, operation,* or movement of registered or licensed motor vehicles." (42 U.S.C. § 7543(d)) (emphasis added)

Through § 209(a), Congress tasked the EPA to regulate emission-control devices on new vehicles and enforce these standards by its certification process. In effect, Congress created a uniform regulatory regime for governing emissions from new vehicles to avoid the possibility of 50 different regulatory standards in every state. The District Court ultimately held that the Counties claims are expressly preempted by 209(a) because the Counties, to an extent, sought to regulate Volkswagen's conduct of manufacturing the device and installing it into new vehicles which equates to an "attempt to enforce [a] standard relating to the control of emissions from new motor vehicles," which states are expressly preempted from under Section 209(a).

On the claims regarding subsequent tampering, the CAA requires vehicles to meet EPA emissions standards not just as a new vehicle but also throughout its "useful life." (42 U.S.C. § 7521(a)(1)) This means that Volkswagen's subsequent modifications to the defective devices will still continue to be federally regulated and state and local government regulation are subject to limitations imposed by federal law. The District Court also reviewed the legislative history regarding § 209(d). The District Court concluded that it was Congress' intent to authorize state and local governments to adopt transportation planning regulations and not to regulate vehicle manufacturers.

The Counties' Appellate Brief

On October 04, 2018, the Counties filed an appeal to the Ninth Circuit on the issue of whether the District Court erred in holding that all of their claims were preempted, even where Congress expressly authorized:

> . . .any State of political subdivision thereof. . .[to]. . .control, regulate, or restrict the use, operation or movement of registered or licensed motor vehicles. (Section 209(d))

The Counties arguments can be placed into three categories: 1) that it was Congress's intent for state and local governments to act as partners for air pollution control; 2) that the Counties' claims are not expressly preempted because only conflicting emissions standards for new vehicles should be preempted and that the Counties are not attempting to enforce any standard relating to the control of emissions of air pollutants; and 3) the their claims are not impliedly preempted because they do not conflict with the Congressional purpose and objectives in the CAA.

Expanding on their arguments above, first, the Counties contend that Congress granted EPA the power to set emissions standards but preserved the power to assist with enforcing these standards to state and local governments. The Counties argue that this delineation is explicit in § 209(d) of the CAA and further argues that subsection (d) "preserves the field of regulation of old motor vehicles to state control."

Second, the Counties argue that their claims are not expressly preempted by the CAA because the language of § 209 is inapplicable to their regulations. The Counties' anti-tampering regulations do not "adopt or attempt to enforce any "standards relating to the control of emissions" but instead, only prohibit anyone from tampering or disabling emissions control systems. Additionally, the Counties argue that § 209 only preempts claims relating to the manufacture, sale, or purchase of "new motor vehicle" and that the Counties' regulations prohibit anyone from altering or disabling the emissions control of vehicles that already have been certified and placed "in-use."

Lastly, the Counties contend that the regulations are also not impliedly preempted. They argue that Congress does not occupy the entire field because § 209 only encompasses "new motor vehicles" and that the claims are not barred by conflict preemption because it is not impossible to comply with both federal and state law—that Volkswagen designs a federal law-compliant emissions control system that is also subject to anti-tampering state laws.

The *Amicus* Brief

On December 13, 2018, the Alliance of Automobile Manufacturers Inc., the Association of Global Automakers, and the U.S. Chamber of Commerce (Amici) filed its *amicus* brief in support of affirming the District Court's decision—that the Counties claims are preempted by the CAA in their entirety. The Amici provides perspective on the existing federally-regulated process for implementing post-sale software updates and the negative impacts of allowing individual states the authority to inject themselves into the process.

The *amici* emphasize that the EPA comprehensively regulates configurations of motor vehicles from their initial certification phase to the end of their useful lives. For example, the EPA heavily regulates "running changes" and requires a manufacturer to notify the EPA of these changes. 40 C.F.R. § 86.1842-01 (b)(1). Manufacturers often make "running changes" which is the regular modifying of vehicles already in-use to update or implement changes to improve their performance, reliability, and safety. In fact, the EPA monitors these changes for the duration of the vehicle's useful life and may order a recall, or require additional testing to ensure that the vehicles remain compliant with emissions standards. 40 C.F.R. § 86.1842-01 (b)(2).

The *amici* end their brief by reminding the Court of Appeals of the impracticalities of allowing every state and local government the authority to regulate model-wide, post production changes. The Amici argues that such allowance would:

> . . .destabilize EPA's careful regulatory scheme and would inject unwarranted complication and confusion into the process.

Conclusion and Implications

Given the commonality of post-sale recalls and updates to software for in-use vehicles, it is unlikely for the Appellate Court to out-right define routine maintenance acts as acts of "tampering" under the regulations of individual states and local governments. The District Court's ruling is a strong indication of a court's propensity to defer to the EPA and its rules, given Congress' intent to set a uniform regime regarding vehicular emissions control, as it did when it conferred to the EPA exclusive authority in setting the standards.
(Rachel S. Cheong, David Boyer)

STATE OF WYOMING FILES APPEAL TO THE NINTH CIRCUIT SEEKING TO OVERTURN THE DISTRICT COURT'S DECISION REGARDING THE ESA LISTING OF THE GREATER YELLOWSTONE GRIZZLY BEAR

On December 5, 2018, the State of Wyoming, shortly followed by several co-defendants, filed an appeal to the Ninth Circuit Court of Appeals of the U.S. District Court for the District of Montana's (District Court) decision to vacate the delisting of the Greater Yellowstone Ecosystem grizzly bear (Yellowstone Grizzly) from the federal Endangered Species Act (ESA). Wyoming's appeal of the District Court's ruling continues the ongoing battle between conservationists and the hunting community regarding a well-beloved species. [*Crow Indian Tribe v. United States*, ___ F.Supp.3d ___ (D. Mt. 2018).]

Grizzly Bear Population in the United States

Before European settlement began, upwards of 50,000 grizzlies roamed the lands of the United States. As settlement moved westward in the 19th Century, the government began "bounty programs aimed at eradication, [and] grizzly bears were shot, poisoned, and trapped wherever they were found.": (Final Rule: Endangered and Threatened Wildlife & Plants; Removing the Greater Yellowstone Ecosystem Population of Grizzly Bears from the Federal List of Endangered & Threatened Wildlife, 82 Fed. Reg. 30,502, 30,508 (June 30, 2017)) (2017 Final Rule). Most recently, only six ecosystems of grizzly bears remain in the United States: 1) the Greater Yellowstone Ecosystem (GYE), covering portions of Wyoming, Montana, and Idaho; 2) the Northern Continental Divide Ecosystem (NCDE) of north-central Montana; 3) the Cabinet-Yaak area extending from northwest Montana to northern Idaho; 4) the Selkirk Mountains in northern Idaho, northeast Washington, and southeast British Columbia; 5) north-central

Washington's North Cascasdes area; and 6) the Bitterroot Mountains of western Montana and central Idaho. 82 Fed. Reg. 30,508-09. The GYE and NCDE maintain the largest grizzly bear populations with an estimated 700 to 900 bears. *Id.* Fewer than 100 bears occupy each of the remaining four ecosystems. *Id.*

First Attempts to Delist the Yellowstone Grizzly

In 2007, the Fish and Wildlife Service (Service) published its final rule (2007 Final Rule), which identified the Yellowstone Grizzly as a "distinct population segment" and delisted the Yellowstone Grizzly from the endangered and threatened species list. A "distinct population segment" of a larger species may be listed once the Service finds that, in addition to being endangered or threatened, the population segment is discrete—that is, "markedly separated from other populations of the same taxon"—and significant. Policy Regarding the Recognition of Distinct Vertebrate Population Segments Under the Endangered Species Act, 61 Fed. Reg. 4,722, 4725 (Feb. 7, 1996).

As litigation ensued challenging the 2007 Final Rule, the Ninth Circuit Court of Appeals affirmed the lower court's ruling to vacate and remand the 2007 Rule to the Service to determine the listing status of the Yellowstone Grizzly. The Ninth Circuit affirmed the District Court's ruling because the Service failed to rationally take into account the emerging threat of whitebark pine tree (a prominent food source to the Yellowstone Grizzlies) loss when delisting the Yellowstone Grizzly from the ESA.

The *Humane Society v. Zinke* Decision

In August 2017, as the Service continued to analyze the listing status of the Yellowstone Grizzly, the United States District Court for the District of Columbia (D.D.C.) decided *Humane Society of the United States v. Zinke*, 865 F.3d 585 (D.C. Cir. 2017) (*Humane Society*). The court in *Humane Society* invalidated a similar final rule published by the Service relating to the designation of the Western Great Lakes population of the gray wolf as a distinct population segment and the Service's decision to delist the Western Great Lakes gray wolves.

Importantly, the D.C. Circuit provided that the Service must review the status of the entire listed species from which the distinct population segment was carved, which had been ignored entirely in its delisting determination of the Western Great Lakes population. Thus, the Service was compelled to analyze the effects of delisting the Western Great Lakes gray wolves on the larger gray wolf species as a whole.

2017 Final Rule Delisting Yellowstone Grizzly

Approximately ten years after the Ninth Circuit remanded the 2007 Final Rule, the Service again published a final rule delisting the Yellowstone Grizzly on June 30, 2017 (2017 Final Rule). *See,* Final Rule, 82 Fed. Reg. at 30,505. Recognizing that the holding in *Humane Society* may have some relevance in its analysis, the Service reopened public comments on the impacts of the *Humane Society* decision on its determination to delist the Yellowstone Grizzly.See, Request for Comments: Endangered and Threatened Wildlife & Pants; Removing the Greater Yellowstone Ecosystem Population of Grizzly Bears from the Federal List of Endangered & Threatened Wildlife, 82 Fed. Reg. 57,698 (Dec. 7, 2017) (Request for Comments). Ultimately, after the Request for Comments period, the Service determined that the 2017 Final Rule did not require modification. The Service found that despite the D.C. Circuit's decision in *Humane Society*, the "consideration and analyses of grizzly bear populations elsewhere in the lower 48 States is outside the scope of [the 2017 Final Rule]. *See,* 2017 Final Rule, 82 Fed. Reg. at 30,546.

Shortly after the publication of the 2017 Final Rule, the Crow Tribe (Tribe), along with several co-plaintiffs (plaintiffs), commenced a lawsuit objecting to the Service's actions relating to the Yellowstone Grizzly as arbitrary and capricious under the ESA and Administrative Procedure Act (APA).

The District Court's Decision

Arbitrary and Capricious Standard of Review under the APA

Pursuant to § 706(2)(A) of the APA, a court is required to:

> . . .hold unlawful and set aside agency action, findings, and conclusions found … to be arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with the law.

Of the four factors to be considered under the

arbitrary and capricious standard, Plaintiffs alleged that the Service "entirely failed to consider an important aspect of the problem.": *See, Motor Vehicle Mfrs. Ass'n v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983). Specifically, the District Court analyzed if the Service acted arbitrarily and capriciously when: 1) delisting the Yellowstone Grizzly and analyzing its impacts of such action on the remaining endangered and threatened grizzly bear population not located in the GYE; 2) failing to include a recalibration methodology utilizing the best available science in its 2017 Final Rule; and 3) analyzing the need for translocation or natural connectivity of other grizzly bear populations in other regions.

The Services' Piecemeal Approach to Grizzly Bear Protections

The thrust of the plaintiffs' argument rests with the fact that the Service blatantly excluded any analysis or consideration of the effect of delisting the Yellowstone Grizzly on other members within the grizzly bear species, which remain protected under the ESA. Specifically, plaintiffs relied heavily upon the similar fact pattern and analysis by the D.C. Circuit in *Human Society* to argue that the Service acted in violation of the APA and ESA. The Service maintained that *Humane Society* was wrongly decided, and that the facts in *Humane Society* were distinguishable because the remaining grizzly bear populations outside of the GYE remained protected, unlike the remaining population of the gray wolves in *Humane Society*. The District Court was unconvinced by the Service's arguments:

> The Service does not have unbridled discretion to draw boundaries around every potential healthy population of a listed species without considering how that boundary will affect the members of the species on either side of it.

The District Court further held that the Services' "piecemeal approach" in segmenting off a healthy portion of an endangered species population contravenes the ESA's "policy of institutionalized caution.":See, *Ariz. Cattle Growers' Ass'n v. Salazar*, 606 F.3d 1160, 1167 (9th Cir. 2011).

Removal of Recalibration Methodology

A recalibration method is used to calculate new estimates for a species population in any given year and then utilized in making listing and delisting determinations. Additionally, the ESA requires that the Service make listing and delisting determinations "solely on the basis of the best mandates and commercial data.": 16 U.S.C. § 1533(b)(1)(A). The Service conceded that the current recalibration model may not remain the best available science but that the methodology will remain in place until another population estimator was approved. The Service ignored concerns about the existing recalibration methodology and removed the requirement to utilize the "best available science" for changing the estimator in the 2017 Final Rule mostly due to political pressures from the states. The District Court ruled that there was clear evidence that the Service made its decision on recalibration in the 2017 Final Rule not based on the best available science or law, but rather, a concession to the states' hardline position in utilizing old recalibration methods.

Lack of Natural Connectivity Provisions

The ESA provides that the Service consider the "natural or manmade factors affecting [the Yellowstone Grizzly's] continued existence," including the population's genetic health while under the threat of endangerment. 16 U.S.C. § 1533(b)(1)(A). In its 2017 Final Rule, the Service recognized that "[t]he isolated nature of the [Yellowstone Grizzly] was identified as a potential threat when listing occurred in 1975.": 82 Fed. Reg. at 30,535. Without an adequate gene pool, the Yellowstone Grizzly will be at an increased risk of endangerment than currently exists. 82 Fed. Reg. at 30,535-36.

The District Court held that the Service failed to logically support its conclusion that the Yellowstone Grizzly population was not threatened by its isolation. Specifically, in the 2007 Final Rule, the Service:

> . . .recommended that if no movement or successful genetic interchange was detected by 2020, grizzly bears from the [NCDE] would be translocated into the [GYE] grizzly bear population to achieve the goal of two effective migrants every 10 years (i.e., one generation) to maintain current levels of genetic diversity. 82 Fed. Reg. at 30,536.

The 2017 Final Rule did not maintain the same commitment to translocation in order to create a genetically diverse grizzly bear population. The lack of commitment to translocation was based on the Services' reliance on two distinct studies that were "illogically cobbled together" to conclude the Yellowstone Grizzly population is currently sufficiently diverse.

Conclusion and Implications

The holding in *Crow Indian Tribe v. United States* stayed the first grizzly hunt in 44 years in Wyoming. As Wyoming and its co-defendants appeal the District Court's decision to the Ninth Circuit, the current conservation strategy to protect the Yellowstone Grizzly and remaining grizzly bear population remains in place. As the public sentiment shifts toward environmental concerns and conservation efforts, Wyoming faces an uphill battle in its appeal to argue that the 2017 Final Rule should not be vacated but reaffirmed. The District Court's decision is available online at: https://www.mtd.uscourts.gov/sites/mtd/files/Order%20in%20Crow%20Indian%20Tribe%2C%20et%20al%20vs.%20U.S.A.%2C%20et%20al%20and%20State%20of%20Wyoming%2C%20el%20al.pdf

Wyoming's December 2018 appeal to the Ninth Circuit is available online at: https://www.courtlistener.com/recap/gov.uscourts.mtd.55114/gov.uscourts.mtd.55114.280.0.pdf
(Nicolle Falcis, David Boyer)

JUDICIAL DEVELOPMENTS

FOURTH CIRCUIT GRANTS PETITION FOR REVIEW OF SPECIAL USE PERMIT AND ROD ISSUED BY FOREST SERVICE FOR NATURAL GAS PIPELINE

Cowpasture River Preservation Association v. U.S. Forest Service, 911 F.3d 150 (4th Cir. 2018).

The U.S. Court of Appeals for the Fourth Circuit granted a petition to review the U.S. Forest Service's (Forest Service) amendment of the forest plans for George Washington National Forest (GWNF) and Monongahela National Forests (MNF), issuance of a Record of Decision (ROD) and Special Use Permit (SUP) authorizing the construction of a natural gas pipeline through parts of the GWNF and MNF, and grant of a right of way through the Appalachian National Scenic Trail (ANST). The court held that the Forest Service's decisions "arbitrarily and capriciously" violated the National Forest Management Act (NFMA) and the National Environmental Policy Act (NEPA). The court also determined the Forest Service violated the Mineral Leasing Act (MLA) because it lacked the statutory authority to issue a pipeline right of way across the ANST.

Factual and Procedural Background

Atlantic Coast Pipeline, LLC (Atlantic), proposed a 604.5-mile natural gas pipeline called Atlantic Coast Pipeline from West Virginia to North Carolina. The proposed route crossed parts of the GWNF and MNF and required a right of way across the ANST. Construction of the pipeline would require clearing trees and other vegetation in the national forest and digging, blasting, and flattening ridgelines.

NEPA requires an Environmental Impact Statement (EIS) any time a federal agency takes major action which significantly affects the quality of the human environment. An EIS must include a description of likely environmental effects, adverse environmental effects, and potential alternatives for the project being considered.

The Federal Energy Regulatory Commission (FERC) was the lead agency for preparing the EIS and approved the route for the pipeline. As FERC prepared the EIS, the Forest Service reviewed and provided comments on drafts. The Forest Service requested ten site-specific stabilization designs in areas with challenging terrain and identified several concerns about potential adverse environmental impacts, including landslide risk, erosion impact, and degradation of water quality.

In May 2017, however, the Forest Service "suddenly and mysteriously" withdrew its requests for the site-specific stabilization designs. In late 2017, the Forest Service issued a final ROD to adopt the EIS and project-specific amendments to 13 standards in the GWNF and MNF forest plans. In early 2018, the Forest Service granted a SUP for a pipeline right of way across the ANST.

Cowpasture River Preservation Association and other groups (petitioners) filled a petition to review the Forest Service's decision on February 5, 2018. Petitioners claimed the Forest Service violated NFMA, NEPA and MLA when issuing the SUP, ROD, and the right of way across the ANST.

The Fourth Circuit's Decision

The National Forest Management Act

The NFMA requires the Forest Service to develop a forest plan consistent with promulgated regulations (2012 Planning Rule). A forest plan provides a framework for "where and how certain activities can occur in a national forests." The Forest Service is then required to ensure that all activities on national forest land comply with the forest plans. Substantive requirements in the 2012 Planning Rule apply to forest plan amendment if the requirement is "directly related to the plan direction being added, modified, or removed by the amendment."

The Court of Appeals determined that the Forest Service acted "arbitrarily and capaciously" when it concluded the forest plan amendments for the

pipeline project were not directly related to the 2012 Planning Rule and that the amendments would not have a "substantial adverse effect" on national forest land. As a result, the court remanded the matter to the Forest Service to conduct a proper analysis of the amendments in light of the 2012 Planning Rule.

In addition, the court determined the Forest Service violated NFMA and its own forest plans by failing to analyze whether the project's needs could have reasonably been met on non-national forest land. The court remanded this issue to the Forest Service for consideration.

The National Environment Policy Act

Under NEPA, the Forest Service can only adopt FERC's EIS if the Forest Service undertakes an independent review of the EIS and determines that all of its comments and suggestions are satisfied. Petitioners argued the Forest Service violated the NEPA because it failed to study alternative routes and failed to look at landslide risk, erosion, and degradation of water quality based on the Forest Service's own comments on the EIS. The court held that the Forest Service was required to resolve all of its comments and concerns before adopting the FERC's EIS. The Forest Service acted "arbitrarily and capriciously" in not taking a "a hard look at the environmental consequences" of the pipeline project.

The Mineral Leasing Act

The Forest Service argued that it had the proper authority to grant a right of way across the ANST under the MLA. The Court of Appeals disagreed and held that the MLA specifically excludes lands in the National Park System from the authority to grant pipeline rights of way. Additionally, the Forest Service would not be the appropriate agency head because it handles trail management and not trail administration. Therefore, the court vacated the Forest Service's ROD and SUP, which granted the right of way to the project proponent.

Conclusion and Implications

This case presents a relatively rare instance where a federal agency's actions are determined to be arbitrary and capricious under several environmental laws.
(Daniella V. Hernandez, Rebecca Andrews)

NINTH CIRCUIT FINDS FISH AND WILDLIFE SERVICE COULD NOT WITHHOLD SOME DRAFT JEOPARDY OPINIONS FROM DISCLOSURE UNDER FOIA EXEMPTION

Sierra Club, Inc. v. U.S. Fish and Wildlife Service, 911 F.3d 967 (9th Cir. 2018).

This action deals with materials generated during the U.S. Environmental Protection Agency's (EPA) proposed new regulations under § 316(b) of the federal Clean Water Act (CWA) for cooling water intake structures and its consultation with the U.S. Fish and Wildlife Service (FWS) and National Marine Fisheries Service (NMFS; and together the Services) about potential impacts under the federal Endangered Species Act (ESA). The consultation was to ensure that the agency's action would not be likely to jeopardize the continued existence or result in the destruction or adverse modification of habitat of any endangered or threatened species. Plaintiff Sierra Club made a request under the Freedom of Information Act (FOIA) to the Services for records generated during EPA's rulemaking process in connection with the cooling water intake structure regulations. The Services withheld many of the documents under "Exemption 5" of FOIA, which shields documents subject to the "deliberative process privilege" and this appeal from the U.S. District Court's ruling followed.

FOIA Exemption 5: Must Be Pre-Decisional and Deliberative

Because FOIA mandates a policy of broad disclosure of government documents, agencies may only withhold documents under the act's exemptions. Under Exemption 5, FOIA's general requirement to make information available to the public does not

apply to interagency or intra-agency memorandums or letters that would not be available by law to a party other than another agency in litigation with the agency. The deliberative process privilege, claimed by the Services in this case, permits agencies to withhold documents:

> . . .to prevent injury to the quality of agency decisions by ensuring that the frank discussion of legal or policy matters in writing, within the agency.

Thus, to qualify under this exemption, a document must be both "pre-decisional and deliberative." A document is pre-decisional if it is:

> . . .prepared in order to assist an agency decision-maker in arriving at his [or her] decision, and may include recommendations, draft documents, proposals, suggestions, and other subjective documents which reflect the personal opinions of the writer rather than the policy of the agency.

Similarly, deliberative materials include subjective documents which reflect the personal opinions of the writer rather than the policy of the agency or that inaccurately reflect or prematurely disclose the views of the agency. Under the "functional approach," the Ninth Circuit considered whether the contents of the documents reveal the mental processes of the decision-makers and would expose the Services' decision-making process:

> . . .in such a way as to discourage candid discussion within the agency and thereby undermine [their] ability to perform [their] functions.

The Ninth Circuit's Decision

The court noted that although some of the Biological Opinions in this action were not *publicly* issued, they nonetheless represented the Services' final views and recommendations regarding the EPA's then-proposed regulation:

> Both the Supreme Court and this court have held that the issuance of a biological opinion is a final agency action. *Bennet v. Spear*, 520 U.S. 154, 178 (1997); *Ctr. for Biological Diversity v. U.S. Fish & Wildlife Serv.*, 450 F.3d 930, 940 (9th Cir. 2006). So our focus is on whether each document at issue is pre-decisional as to a biological opinion, not whether it is pre-decisional as to the EPA's rulemaking.

Where a document is created by a final decision-maker and represents the final view of an entire agency as to a matter which, once concluded, is a final agency action independent of another agency's use of that document, it is not pre-decisional. Here, the record reflected the finality of the conclusions in many of the draft opinions, which had been approved by final decision-makers at each agency and were simply awaiting signature. Therefore, these opinions were not within the scope of FOIA's Exemption 5.

Only some of the draft jeopardy opinions could reveal inter- or intra- agency deliberations and were thus exempt from disclosure. Those documents were successive drafts of the Services' recommendations for the proposed rules, and comparing the drafts would shed light on the internal vetting process.

But many of the documents did not contain line edits, marginal comments, or other written material that exposed any internal agency discussion about the jeopardy findings. Nor did they contain any insertions or writings reflecting input from lower level employees. Since they did not reveal any internal discussions about how recommendations were vetted, those materials were not deliberative.

Conclusion and Implications

This opinion highlights the fact that FOIA's exemptions must be interpreted narrowly because the act is meant to promote public disclosure. For purposes of withholding documents under Exemption 5, an agency has the burden to prove that the documents are both pre-decisional and deliberative, and therefore are not subject to disclosure. The opinion may be accessed online at the following link: http://cdn.ca9.uscourts.gov/datastore/opinions/2018/12/21/17-16560.pdf
(Nedda Mahrou)

SUPREME COURT OF ALABAMA DISMISSES STATE CLAIMS AGAINST VOLKSWAGEN AG ON FEDERAL PREEMPTION GROUNDS

Alabama v. Volkswagen AG, ___S.3d___, Case No. 1170528 (Al. Dec. 14, 2018).

The Alabama Supreme Court recently affirmed the dismissal of claims filed by the State of Alabama (State) against automobile manufacturer Volkswagen AG pursuant to the Alabama Environmental Management Act (AEMA) and the Alabama Air Pollution Control Act (AAPCA). The State alleged that Volkswagen installed and maintained software in its vehicles that was designed to cheat state emissions standards. The High Court held that the federal Clean Air Act (CAA) preempted the State's claims.

Factual and Procedural Background

The Alabama Department of Environmental Management (ADEM) administers and enforces the AAPCA and establishes rules and regulations governing emission-control systems for vehicles. Regulation 335-3-9-.06 of the Alabama Administrative Code, provides, in pertinent part:

> No person shall cause, suffer, allow, or permit the removal, disconnection, and/or disabling of a positive crankcase ventilator, exhaust emission control system, or evaporative loss control system which has been installed on a motor vehicle; nor shall any person defeat the design purpose of any such motor vehicle pollution control device by installing therein or thereto any part or component which is not a comparable replacement part or component of the device.

On September 15, 2016, the State filed a complaint in an Alabama trial court alleging that Volkswagen intentionally installed and maintained in new and certain used motor vehicles sophisticated software, called a "defeat device," designed to cheat emissions standards in certain Audi, Porsche, and Volkswagen diesel engine vehicles by disabling the exhaust emissions control system each time a vehicle was driven on a road or highway. In its complaint, the State alleged that Volkswagen, and third parties acting on behalf of Volkswagen, violated Regulation 335-3-9-.06 by installing defeat devices in its vehicles.

On October 14, 2016, Volkswagen removed this action to the U.S. District Court for the Northern District of Alabama. This action, among others, was ultimately assigned to the U.S. District Court for the Northern District of California, which was handling various actions as part of multidistrict litigation related to Volkswagen's defeat device software. On May 23, 2017, the District Court entered an order granting motions to remand filed by various states, including Alabama.

On August 31, 2017, the District Court released its decision in *In re Volkswagen "Clean Diesel" Marketing, Sales Practices, and Products Liability Litigation*, 264 F.Supp.3d 1040 (N.D. Cal. 2017). That case involved a complaint filed by the State of Wyoming against Volkswagen in the U.S. District Court in Wyoming, which was subsequently transferred to the MDL court. In its complaint, Wyoming asserted that every time one of the vehicles with defeat device software was driven in that state, Volkswagen violated two provisions of Wyoming's Clean Air Act state-implementation plan. Volkswagen filed a motion to dismiss on the ground that the claims were preempted by the federal CAA. The MDL court ultimately held that Wyoming's claims were preempted by the federal CAA.

On October 26, 2017, Volkswagen filed a motion to dismiss the State of Alabama's complaint on the ground that the State's claims were preempted by the federal CAA, as in Wyoming. On December 19, 2017, the trial court granted Volkswagen's motion to dismiss. The State subsequently appealed that decision to the Alabama Supreme Court. In its appeal, the State only challenged the dismissal of its allegation that Volkswagen violated Alabama law by installing defeat device software on *used* vehicles; it did not appeal the dismissal of its allegation with respect to *new* vehicles.

The Alabama Supreme Court's Decision

The Court reviewed Volkswagen's motion to dismiss without a presumption of correctness, accepting the allegations of the State's complaint as true

and considering whether the State could possibly prevail. The threshold issue was whether the State's allegation that Volkswagen violated Alabama's emissions tampering law, as applied to used vehicles, was preempted by the federal CAA.

The Court began its analysis by reviewing federal preemption law, noting that the United States Constitution provides Congress with the power to preempt state law. Courts generally recognize three categories of preemption: 1) express preemption, which arises when the text of a federal statute explicitly manifests Congress's intent to displace state law; 2) field preemption, which occurs when a congressional legislative scheme is so pervasive that it is reasonable to infer that Congress left no room for states to supplement it; and 3) conflict preemption, which may arise when it is impossible to comply with both the federal and state laws or when the state law stands as an obstacle to the objective of the federal law. The Court concluded that express and field preemption did not apply and focused its analysis on conflict preemption.

Conflict Preemption

The Court restated and followed the conflict preemption analysis from the factually similar Wyoming case. In the conflict preemption analysis, the Court noted that Congress adopted a federal emissions' tampering provision as part of the CAA, which prohibits any person from removing or rendering inoperative emission control devices either before or after the vehicles in which the devices are installed are sold to ultimate purchasers. This gives EPA authority to regulate individual vehicle owners' compliance with federal emission standards. The Court next noted that when tampering involves thousands of vehicles, and the changes are made through software updates instituted on a nationwide basis, EPA is in a better position to regulate conduct than states. Citing to the Wyoming court's conflict preemption analysis, the Alabama Supreme Court concluded that Alabama's emissions tampering claim was preempted by the federal CAA on the basis of conflict.

The Court concluded that the trial court properly granted Volkswagen's motion to dismiss and affirmed the trial court's judgment.

Conclusion and Implications

This case, and the other cases associated with Volkswagen's defeat device, together clarify that state emissions tampering laws, as applied to new and used vehicles, are preempted by the federal Clean Air Act. (Sophie Wenzlau, Rebecca Andrews)

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