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FEATURE ARTICLE

COASTAL PROPERTY ‘MANAGED RETREAT’—A SENSIBLE
AND TEMPERED CLIMATE MITIGATION STRATEGY
OR A SACRIFICIAL ABANDONMENT?

By David C. Smith

It is your California dream home—beach-front access and 180-degree ocean views. However, due to being included in a “hazards” overlay zone, you are unable to secure homeowners’ insurance at any reasonable cost and no title company will extend full coverage title insurance. And the “hazard” at issue is universally recognized to be decades away, and some question if it will ever materialize. Nonetheless, enactments of local elected officials and regulators are tanking the value and insurability of your single greatest asset. And when you propose to build structures that engineers certify will protect your home decades into the future, regulators refuse to allow it.

This hypothetical scenario is proving not quite so “hypothetical” as “managed retreat” becomes an increasing focus of attention for both the public at large and regulatory officials. Climate change modeling and hazard projections increasingly fuel debates over appropriate mitigation and adaptation measures to combat the future threat of rising seas. And the threat is not just for the wealthy in exclusive enclaves like Malibu or distant third-world countries. The threat may be most dire for the already vulnerable among us, such as disadvantaged communities living in mobile home units in the very shadow of Silicon Valley tech giants. Advocates fear redlining practices from banks and others due to projected vulnerabilities will destine such communities to the fate of New Orleans’ Ninth Ward in the wake of Hurricane Katrina.

Background

So, what is “managed retreat”? A reporter for *National Public Radio* (NPR) covered a conference on managed retreat in New York in June 2019. He

described it this way:

So it’s a technical term, a political term. And it is essentially like a formal acknowledgement that there are places in the U.S. and around the world—not just the East Coast, I should say - that are going to be, if they aren’t already, at such huge levels of risk from climate change that it just won’t make sense for those places to remain.

And that can be, you know, communities at risk of increased wildfire heat. But primarily, what we’re talking about at this conference—it’s focused on the impacts on coastal zones—cities by the sea, oceanside towns that are going to be inundated or see more flooding as sea levels rise.

It just won’t make sense for those places to remain. What does that mean? And who gets to decide that an existing home or community should no longer “remain”? And what are the consequences for those potentially displaced? All of these critical considerations remain open and unresolved as the promotion of, opposition to, and debate over managed retreat escalates.

Managed Retreat Is Not a New Concept

Managed retreat is not a new concept. In 2011, the Bay Conservation and Development Commission (BCDC), the San Francisco Bay equivalent of and state predecessor to the California Coastal Commission, adopted climate-change-related amendments to its governing document, the Bay Plan. The approval

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came only after months of highly contentious debate, including whether lowlying areas, communities, infrastructure, and even tech campus were potentially subject to abandonment to rising seas. For many, this was their first exposure to the term “managed retreat” and the potential for government-sanctioned abandonment of private property as an actual regulatory concept.

In March 2017, the scientific journal *Nature Climate Change* (NCC) published an analysis and proposed model evaluating approaches to and consequences of managed retreat. It noted that the United Nation’s International Panel on Climate Change (IPCC) included managed retreat “as an alternative to coastal protection” in its First Assessment Report in 1990. According to the NCC piece:

Retreat’ is used to capture the philosophy of moving away from the coast rather than fortifying it in place. ‘Managed retreat,’ on the other hand, derives from coastal engineering and has been defined as ‘the application of coastal zone management and mitigation tools designed to move existing and planned development out of the path of eroding coastlines and coastal hazards. . . .’ We identify two defining features of managed retreat in coastal and other settings. First, it is a deliberate intervention intended to manage natural hazard risk, requiring an implementing or enabling party. Second, it involves the abandonment of land or relocation of assets. We use those characteristics to define managed retreat as the strategic relocation of structures or abandonment of land to manage natural hazard risk.

As managed retreat becomes more broadly recognized and understood, as well as advocated for inclusion in broad regulatory policies addressing the future of California’s precious coastline, the owners of potentially vulnerable properties are beginning to realize that others, not themselves, have already begun debating “strategic relocation of structures or abandonment” of that individual’s privately owned property (including, frequently, their home) “to manage natural hazard risk.” And many of them are not at all happy about it.

Del Mar, California Rejects Managed Retreat

At the present time in California, there is no greater battleground debate over managed retreat than in San Diego County’s smallest city: Del Mar, and its ongoing conflict with the Coastal Commission. At issue is the Coastal Commission’s refusal to certify Del Mar’s Local Coastal Program (LCP) for the City’s own regulation of development and other activities in the Coastal Zone. Under the California Coastal Act (Pub. Resources Code §. 30000 *et seq.*), the Coastal Commission has ultimate authority over regulation of the Coastal Zone. However, cities within the Coastal Zone may adopt programs for local implementation of the Coastal Act’s requirements through an LCP, though the LCP must be periodically certified by the Coastal Commission itself. Specified approvals by a city pursuant to an LCP may be appealed up to the Coastal Commission itself.

According to the *San Diego Union Tribune*, the consistent approach of the Coastal Commission in reviewing LCP certifications throughout the state includes:

. . . [a] slow and calculated retreat The strategy includes warning property owners and prospective buyers of the possibility they could be flooded, prohibiting new or additional development in threatened areas and in some cases providing financial assistance to people who need to relocate out of harm’s way.

Del Mar has long opposed the concept of managed retreat. With beach-front properties regularly valued at over \$10 million, Del Mar has argued that codifying managed retreat today could have a devastating impact on property values and insurability of these properties. Further, the City points out that residential neighborhoods behind the beach-front properties are even more low-lying than the beach properties themselves, so allowing the front line of homes along the beach to be abandoned ensures loss of the next neighborhoods as well. Instead, the City has adopted a long-term adaptation strategy whereby regular replenishment of sand on the beach and seawalls are the primary defense mechanisms against rising seas.

Del Mar is in the midst of seeking certification of its LCP and has resisted what it characterizes as

the Coastal Commission's insistence that the LCP include managed retreat as a mitigation measure for future Coastal Development Permits (CDP) issued under the LCP. And the dispute has been pending for nearly four and a half years.

Most recently, as outlined in a staff report dated September 27, 2019, the Coastal Commission staff recommended denial of certification of Del Mar's proposed LCP unless the City agreed to 25 proposed changes. These included provisions relating to bluff setbacks, waiver of any future right to build structure protections against sea level rise, and addressing potential implications of regulations posing the risk of liability for an unconstitutional "taking" of property. Coastal Commission staff stated that it viewed the proposed amendments as standard for LCPs in an era addressing future sea level rise; fully consistent with the City's proposed adaptation plan that accompanied, though does not have the regulatory authority of, the LCP itself; and never expressly required managed retreat.

At its City Council meeting on October 7, 2019, Del Mar unanimously rejected in summary fashion all proposed 25 amendments by the Coastal Commission. The City stated that the proposed amendments were the Coastal Commission's attempt to "back door" managed retreat into the LCP.

The Coastal Commission hearing on the LCP and staff's recommendation regarding the 25 proposed amendments was just over a week later on October 16, 2019. While staff expressed great surprise and frustration with the City's summary dismissal of the proposed amendments after four years of discussion and negotiation, Coastal Commission staff ultimately agreed to postpone the hearing so that additional negotiation could take place.

The Lindstroms, Encinitas, California, and the Coastal Commission

Unfortunately for Del Mar, Coastal Commission staff was likely bolstered in their confidence in the negotiations in light of a sweeping victory they received from the California Court of Appeal's Fourth District Court on September 19, 2019, just over a week before Coastal Commission staff issued their staff report recommending denial of Del Mar's proposed LCP without the 25 amendments. In *Lindstrom v. Coastal Commission*, 40 Cal.App.5th 73 (Sept. 19,

2019), four conditions imposed by the Coastal Commission on an individual CDP for a single-family residence on an ocean-front bluff in the City of Encinitas were nearly universally upheld. And these four permit conditions strikingly mirror the types of policies the Coastal Commission is looking to integrate into LCPs statewide in order to confront sea level rise.

The Lindstrom's saga is a testament not only to the substantive requirements individual permit applicants and jurisdictions seeking LCP certification should expect, but the complex, time-consuming, and expensive process entailed in challenging such requirements. The Lindstrom's first applied for their CDP in 2012, and the court of appeal ruling was not issued until seven years later.

Background

The Lindstroms owned a 6,776 square foot lot on bluffs 70 feet above the ocean in the city of Encinitas, California. In 2012, they applied to Encinitas for entitlements, including a CDP under Encinitas' LCP, to construct a two-story 3,553 square foot home. "The seaward side of the structure would be set back 40 feet from the edge of the bluff."

One of the common requirements for CDP applications, whether under a certified LCP or from the Coastal Commission itself, is for thorough geotechnical analysis demonstrating that the approved structure will remain secure from erosion or other hazards for at least, typically, 75 years and that the new structure will not require additional structural protection such as a sea wall in the future. Encinitas' code was no exception:

The City's LCP requires that permit applications for development in the Coastal Bluff Overlay Zone, where the Lot is located, be accompanied by a geotechnical report prepared by "a certified engineering geologist." (Encinitas Mun. Code, Ch. 30.34, § 30.34.020D.)

The review/report shall certify that the development proposed will have no adverse [e]ffect on the stability of the bluff, will not endanger life or property, and that any proposed structure or facility is expected to be reasonably safe from failure and erosion over its lifetime without having to propose any shore or bluff stabilization to protect the structure in the future. (Encinitas Mun. Code, § 30.34.020D.)

The City's LCP lists certain aspects of bluff stability that the geotechnical report shall consider.[] It further states that:

...[t]he report shall also express a professional opinion as to whether the project can be designed or located so that it will neither be subject to nor contribute to significant geologic instability throughout the life span of the project. (Encinitas Mun. Code, § 30.34.020D.11, 1st par.)

The geotechnical analysis under this requirement became a major point of contention between the Lindstroms and the Coastal Commission as to a condition relating to the required setback of the new structure from the bluff's ocean-ward edge.

Encinitas, through its Planning Commission, certified the project as consistent with its LCP and approved the new residence.

As one of the conditions for the permit, the City required the Lindstroms to provide a letter stating that 'the building as designed could be removed in the event of endangerment, and the property owner agreed to participate in any comprehensive plan adopted by the City to address coastal bluff recessions and shoreline erosion problems in the City.'

The Court of Appeal further explained:

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

Two sitting members of the Coastal Commission appealed Encinitas' approval of the Lindstrom's new home. (The Coastal Act makes express provision for two Coastal Commission members to appeal decisions under local LCPs to the full Coastal Commission for review.)

As relevant here, one ground of the commissioners' appeals was that the City's approval 'appears inconsistent with the policies of the LCP relating to the requirement that new development be sited in a safe location that will not require shoreline protection in the future.'

The appeal came before the Coastal Commission on July 13, 2016. The Coastal Commission approved the construction of the Lindstrom's home, but added four additional conditions to Encinitas' approval, "including that the structure be set back 60 to 62 feet from the edge of the bluff," as opposed to the 40 feet required by Encinitas. The four exact conditions required by the Coastal Commission were:

- A setback from the bluff 20 feet further than that required by Encinitas:

[1.a] The foundation of the proposed home and the proposed basement and shoring beams shall be located no less than 60 to 62 ft. feet [sic] landward of the existing upper bluff edge on the northern and southern portions of the site, respectively.

- Waiver of any right to construct protective structures in the future:

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

- Confirmation they will remove the residence and foundation if ordered to do so:

[3.b] By acceptance of this Permit, the applicants further agree, on behalf of themselves and all successors and assigns, that the landowner shall remove the development authorized by this Permit, including the residence and foundation, if any

government agency has ordered that the structures are not to be occupied due to any of the hazards identified above. In the event that portions of the development fall to the beach before they are removed, the landowner shall remove all recoverable debris associated with the development from the beach and ocean and lawfully dispose of the material in an approved disposal site. Such removal shall require a coastal development permit.

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

There are at least two immediately noteworthy aspects of the additional conditions imposed by the Coastal Commission. First, as to the length of the setback from the bluff, a veritable battle-of-the-experts broke out before the Coastal Commission. Over the course of processing the entitlements, the Lindstroms retained two different geotechnical firms that had different methodologies but both placed the setback at less than the City's codified mandatory minimum of 40 feet. When the question came before the Coastal Commission, the staff geologist—not an engineer—took the two methodologies and, rather than embracing the merits of one over the other, he added the two distances together for a single sum dis-

tance. There was expert testimony that this approach was baseless and nonsensical. The two methodologies were distinct approaches to coming up with a single distance, not a single compound analysis. There was no professional justification for adding one on top of the other for, effectively, a double distance. But that is exactly how the Coastal Commission got to 60 to 62 feet of setback.

The other notable attribute is the Coastal Commission's reference to and forced waiver of Public Resources Code §30235 in condition 3.a. That statute provides an express right in the Coastal Act to defend imperiled properties with structural protections. However, it is now the position of the Coastal Commission that the section's protections apply, if at all, only to existing structures and that proposed new structures may be conditioned on waiver of that statutory right. The Lindstroms argued both that this violated the Coastal Act and that it was an unconstitutional taking of property without compensation.

At the Trial Court

The Lindstroms filed suit challenging all four conditions.

The trial court ruled that the Coastal Commission abused its discretion as to conditions 1.a (60- to 62-foot setback) and 3.a (waiver of any future right to build structural protection) as contrary to the language of Encinitas' LCP and the Coastal Act. The trial court upheld conditions 3.b (removal of residence upon order of a government agency) and 3.c (obtain and adhere to a new geotechnical report).

Both the Lindstroms and the Coastal Commission appealed their respective losses.

The Court of Appeal's Decision

As to condition 1.a—quite incredibly, frankly, given the record—the Fourth District Court of Appeal found the Coastal Commission's methodology of requiring both distances summed together to a total of 60 to 62 feet as reasonable.

As to condition 3.a, the court held that the Coastal Commission has full authority to require waiver of future structure protections to new construction.

As to condition 3.b, the court disallowed it, but only on a minor and easily fixable drafting error to clarify that the only hazards that could implicate vacating and removing the structures had to be hazards

within the purview of Coastal Commission authority.

And finally, as to condition 3.c, the court held that the Coastal Commission with within its authority to require preparation of and adherence to a new geo-technical study upon specified future circumstances.

The most important point as to this sweeping victory for the Coastal Commission, of which the court may or may not have been aware, was that the precedential implications of this ruling go far beyond the conditions to this or any other future permit. Indeed, the four substantive provisions at the heart of the respective conditions actually track some of they foundational strategies the Coastal Commission is seeking to integrate system wide through the LCP programs. Namely, those four strategies are:

Mandatory minimum setbacks; Waiver of any right to future structural shoreline protections; Future removal and disposal of the structures and foundations under specified circumstances; and Automatic mandates under specified circumstances for the preparation of technical studies that could themselves require removal of structures.

Conclusion and Implications

Harkening back to NPR's coverage of the managed

retreat conference in New York in 2019, the reporter was asked if there was any semblance of good news emerging from the apparent chaos surrounding the politics of managed retreat. As with many dynamics in the world today, one thing seemed clear—things are changing:

I mean, there's a lot of excitement that the conversation is happening. I've heard more than one person say that it's about time we start tackling this. But I also wanted to steal a quote that one of the presenters stole from Oliver Smith, a Marine Corps general who served in World War II and the Korean War, where, in a battle, he said—he famously said, *you know, we're not retreating; we're just advancing in a different direction.*

And, look; climate change is going to make us have to change direction. And there's a lot of hope at this conference that as we rebuild communities, as we rethink them, there's an opportunity to do that in a way that doesn't have some of the inequalities and segregation that our current systems have. (*Emphasis added.*)

I don't think the residents of Del Mar would agree.

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CLIMATE CHANGE NEWS

CALIFORNIA EXPERIENCES ITS DRIEST FEBRUARY ON RECORD—
HOW MUCH WILL MARCH RAIN HELP?

California experienced a record dry spell in February. No rain at all fell in downtown San Francisco, in Big Sur Park, or in Paso Robles. The month of February was so dry that it is raising concerns that the state, which according to the National Drought Mitigation Center, only fully emerged from drought last March, may be headed for another one. March has produced some frequent rain and snow but until the next tally, it may prove too little, too late.

Background

February 2020 is the driest February on record, according to the Institute of the Environment and Sustainability at the University of California, Los Angeles. Normally, 90 percent of California's rain falls during the seven-month period between October 1 and April 30, with half of the state's total precipitation falling during December, January and February. The rains that traditionally come in February are part of a seasonal pattern that nourishes plants, replenishes reservoirs, and restores snowpack in the Sierra Nevada mountains, which by itself provides up to 30 percent of the state's drinking water.

This February was not just drier than usual, but was, in many places, completely dry. The lack of snow and rain in February follows a January that was also drier than average, and a record dry autumn for much of northern California. While a series of storms dumped a considerable amount of snow in December, that progress towards normalcy has been greatly diminished so far in 2020.

In the past, an extremely wet March has on rare occasion been enough to erase the water deficit. Yet this year has been so dry that California would need record breaking rain and snow across March and April to make up for the shortfall.

Determining the Deficit

The United States Drought Monitor, a joint project by federal agencies, including the National Oceanic and Atmospheric Administration and the

Department of Agriculture, releases drought maps weekly. At present, they show much of California as either abnormally dry or in moderate drought.

Growing Concerns

As of March 1, according to the California Department of Water Resources, the state's snowpack was 44 percent of normal. In the Southern Sierras, the percentage was only 40 percent. This follows a very dry winter and autumn, as well. The lack of moisture arrives at a time when the state needs more water, not less. January and February were not just unusually dry, but also unusually warm. On February 27, for example, the temperature at the Los Angeles International Airport hit 85 degrees Fahrenheit, breaking a record of 83 degrees Fahrenheit that was set in 1992.

The hotter temperatures, which are associated with climate change, dry out soil, rendering moisture less available to plants and increasing wildfire risks. The state has already seen an uptick in reported fires, according to the California Department of Forestry and Fire Protection, which responds to reports of wildfires. Between January 1 and March 1, the agency has responded to 381 calls. Last year, over the same period, it responded to only 105 reports, and over the past five years, the average number of wildfire reports during the same period was 279 calls. This means 2020 is tracking at roughly 35 percent above average.

Conclusion and Implications

While it is too soon to tell what this will mean once summer arrives, the Department of Forestry and Fire Protection is educating residents on fire risks, including maintaining space around their properties that firefighters can use to defend against fire, and sending out firefighters to reduce dead brush or overgrown plants that could easily ignite, as well as preparing firefighting equipment.

Yet increasingly, such preparations may need to take a longer view. There is growing evidence that, in a warming world, the state's overall levels of precipi-

tation may not decline but the distribution of that precipitation will change. That means the drier years will be drier, with elevated fire risks, and the wetter years will be wetter, with greater risks of mudslides resulting from dry soil suddenly becoming deluged. And

California is far from alone here, with the United States Drought Monitor also showing that much of Oregon, Washington, and Nevada are also experiencing abnormally dry conditions. (Jordan Ferguson)

INSURANCE COMPANIES SHIFT CLIMATE CHANGE RISKS TO THE TAXPAYER

Earlier this year, Ohio Senator Sherrod Brown and five other Democratic senators asked Fannie Mae and Freddie Mac to report on how they were preparing for climate change. This request comes as the financial world, and financial regulators, have begun to recognize the threat posed by global warming, and questions are arising about how major portions of the United States' economy will adjust to the challenges posed by climate change. It also comes as the head of BlackRock, the world's largest investment firm, argues that climate change is already causing a fundamental reshaping of finance.

Background

Fannie Mae and Freddie Mac back roughly half of the country's \$10 trillion mortgage market, meaning their proposed response to climate change will prove crucial to homeowners and to the economy as a whole. The senators' letter argued that if the United States is underprepared, climate change could have "particularly devastating impacts on the individuals and communities who can least afford it." (<https://www.banking.senate.gov/imo/media/doc/Fanine%20Freddie%20Letters%20Climate%20Risks.pdf>)

As investors, bankers, and regulators accept that they must rethink how to operate for a changing world, some insurance companies and lenders are responding by reducing their risks to flooding, wildfires, and other natural disasters. This shift is likely to place a larger burden on state and federal governments, and ultimately to shift that burden to taxpayers when disaster strikes.

As losses from hurricanes, wildfires, floods and tornadoes balloon, insurance companies have started a retreat from risky areas, leaving homeowners in large swaths of California, Florida and Texas to rely on

subsidized state programs, which struggle to remain financially viable. Simultaneously, mortgage lenders making loans to homebuyers in high-risk areas are increasingly selling those riskier loans to Fannie Mae and Freddie Mac, which pool the country's mortgages into salable financial assets. If government-backed insurance programs and mortgages fail, it could result in demand for billions of dollars of taxpayer money for bailouts.

Shifting the Risk

The sale of loans to Fannie Mae and Freddie Mac in no way mitigates the risk those loans pose. Instead, the result is to shift the risk away from private insurers and towards the public sector. Experts suggest that leaving these risks unaddressed could create an economic ripple resembling the subprime mortgage crisis of 2007—but this time, fueled by a changing climate that may be much harder to get under control.

This may be much closer than we expect if drastic action is not taken. A working paper published by the National Bureau of Economic Research found that homes at risk of flooding in the United States are currently overvalued by an estimated \$34 billion, pointing to a potential real estate bubble caused by climate threats. (<https://www.nber.org/papers/w26807>) A research paper by McKinsey suggests that coastal homes in Florida could lose 15 to 35 percent of value by 2050. (<https://www.mckinsey.com/industries/electric-power-and-natural-gas/our-insights/why-and-how-utilities-should-start-to-manage-climate-change-risk>)

In Miami-Dade County, an analysis by Jupiter Intelligence, a firm that models climate risks, found that the loss of mortgage value could increase by 25 percent by 2050. (<https://jupiterintel.com/wp-content/uploads/2020/01/Jupiter-SpecialReport-Jan2020-DelugeofRisk.pdf>)

A Wake-Up Call

None of these concerns are newly emergent. Insurance companies have been studying the potential effects of climate change-related risks since the 1970s. But only in the last fifteen years have these risks begun to develop into actual losses. In 2005, insurers suffered record losses from hurricanes Rita, Katrina, and Wilton, paying out nearly \$60 billion in claims as a result of the three hurricanes. It was a wake-up call for the insurance industry.

Insurance payouts have reached new heights since then, with each year bringing an onslaught of hurricanes, floods, and wildfires. In the last decade, payouts tied to natural disasters have averaged \$31 billion a year, compared to an average of \$19 billion the previous decade. Insurers paid \$105 billion in disaster-related claims in 2017, when hurricanes Harvey, Maria and Irma battered Texas, Puerto Rico, and Florida. These costs have already pushed some insurance companies to financial ruin. After Hurricane Katrina, Poe Financial, the fourth-largest insurer in Florida, declared bankruptcy, and after the Camp Fire devastated northern California, Merced Property and Casualty Company was liquidated to pay out insurance claims.

These increased risks have led insurance companies to rethink their policies, both in terms of where they offer coverage and how much they are willing to offer. In many coastal and wildfire-prone regions, insurers are retreating, finding that the potential losses outweigh the gains too dramatically to continue business in those areas. In cases where the industry is willing to offer policies, premiums are rising. California homeowners living in areas at high risk for wildfires, for example, have seen their premiums rise by as much as 500 percent.

Turning to the State for Solutions

When premiums skyrocket, homeowners who need insurance are increasingly turning to subsidized, state-backed programs. Typically called FAIR—or Fair Access to Insurance Requirement plans—about 30 states have an insurance program of last resort for homeowners unable to find insurance on the private market. These programs have ballooned in recent

years. In 1990, FAIR programs held roughly 780,000 insurance policies. By 2014, that figure had grown to over 2.1 million. Demand for these programs is also driven by the fact that most of them offer cheaper, subsidized rates, with private reinsurance money and government funding covering the growing gap between revenue from premiums and losses from payouts.

The Texas Windstorm Insurance Association, for example, is the insurer of last resort for 14 coastal Texas counties, providing windstorm insurance to people who cannot find it on the private market. The program has grown from about 50,000 policies in the 1970s and 1980s to about 250,000 in the last decade. A 2018 report from a state auditing agency in the wake of Hurricane Harvey found that the program is “broke, in debt, and facing a shrinking revenue pool.” (<https://www.texasobserver.org/audit-says-state-wind-storm-insurance-program-is-failing-again/>)

Things are similar in California. In the ten counties with the highest risk of wildfires, the number of FAIR policies jumped 177 percent between 2015 and 2018. In an attempt to provide more stability for homeowners in the wake of wildfire (and to stem the growth of publicly subsidized insurance at the same time), the state insurance commissioner recently banned insurance companies from refusing to renew policies in wildfire-prone areas for a year.

Conclusion and Implications

Shifting risks related to climate change onto FAIR programs does not bode well for taxpayers. For an insurance program to work, a diverse mix of policies is necessary. Premium payments from low-risk policies are used to support the claims arising from higher-risk policies. Too many high-risks in a pool raises the odds that the program is unable to pay out claims when the next disaster hits. When that happens, taxpayers are left holding the bill.

When insurance companies are permitted to retreat from high-risk areas, that means increased profits for privately held corporations, and increased risk for taxpayers, especially in the areas most likely to be devastated by climate disasters as the effects of global warming worsen in years to come. (Jordan Ferguson)

BRITISH PETROLEUM PLEDGES PROFILE RESOLUTION TO ADDRESS COMPANY'S GREENHOUSE GAS EMISSIONS

One of the world's top oil producers has pledged to draft a corporate resolution at reducing the greenhouse gas emissions the company generates, with a goal of zero emissions by 2050. The announcement is one of the first of its kind in the industry. (<https://www.ecowatch.com/oil-and-gas-emissions-bp-2050-2645140229.html?rebelltitem=2#rebelltitem2>)

Background

British Petroleum LLC (BP) announced in February 2020 its intentions to draft for shareholder approval, a resolution seeking zero carbon emissions by 2050. The resolution came after Follow This—investors in energy companies such as BP—had put forth a resolution seeking to have BP fall in line with goals of the Paris Agreement, which looks to 2050 for zero carbon emissions. BP will now look to Follow This to help draft the new resolution and Follow This will withdraw its resolution seeking to force BP's hands on the issue.

The Announcement

Only overview-level details have emerged from BP's announcement. But BP has in its sights, the goal coming into compliance with the Paris Agreement's goals for 2050. BP has stated that the resolution for vote will be finalized for 2021. BP Chief Executive, Bernard Looney was quoted as stating that "Listening and engaging with stakeholders has been an essential part of defining our net-zero ambition and aims." (<https://www.wsj.com/articles/bp-agrees-to-draft-climate-change-shareholder-resolution-11585339089>)

BP has announced "Five aims to get BP to net zero." They are:

1. Net zero across BP's operations on an absolute basis by 2050 or sooner.
2. Net zero on carbon in BP's oil and gas production on an absolute basis by 2050 or sooner.
3. 50 percent cut in the carbon intensity of products BP sells by 2050 or sooner.

4. Install methane measurement at all BP's major oil and gas processing sites by 2023 and reduce methane intensity of operations by 50 percent.

5. Increase the proportion of investment into non-oil and gas businesses over time. (<https://www.bp.com/en/global/corporate/news-and-insights/press-releases/bernard-looney-announces-new-ambition-for-bp.html>)

BP has also announced "Five aims to help the world get to net zero." They are as follows:

1. More active advocacy for policies that support net zero, including carbon pricing.
2. Further incentivise BP's workforce to deliver aims and mobilise them to advocate for net zero.
3. Set new expectations for relationships with trade associations.
4. Aim to be recognised as a leader for transparency of reporting, including supporting the recommendations of the TCFD.
5. Launch a new team to help countries, cities and large companies decarbonise. (*Ibid*)

Mr. Looney as stated that:

The world's carbon budget is finite and running out fast; we need a rapid transition to net zero. We all want energy that is reliable and affordable, but that is no longer enough. It must also be cleaner. To deliver that, trillions of dollars will need to be invested in replumbing and re-wiring the world's energy system. It will require nothing short of reimagining energy as we know it. This will certainly be a challenge, but also a tremendous opportunity. It is clear to me, and to our stakeholders, that for BP to play our part and serve our purpose, we have to change. And we want to change—this is the right thing for the world and for BP. (*Ibid*)

Conclusion and Implications

BP's announcement in February represents one of the first of its kind amongst the large oil producers of the world. The announcement has, so far, seemed to satisfy Follow This as evidenced by the withdrawal of its resolution to force BP's hand. And, Follow This has been enlisted to help draft the new resolution.

Perhaps it's too bold a statement to make, that the proverbial "handwriting is on the wall" for fossil fuel producers but making the leap to renewable energy may indeed be the norm by 2050. The industry is surely faced with a difficult transition but even in renewable energy production, profit remains a viable goal.
(Robert Schuster)

CLIMATE CHANGE SCIENCE

RECENT SCIENTIFIC STUDIES ON CLIMATE CHANGE

Climate Change Puts Shorelines at Risk

Around the world, coastlines are important hubs of culture, industry, development, and ecology. Many major cities and ecosystems are along coastlines, and population density tends to be higher along or near the coast. “Sandy” shorelines, a subset of coastlines, are the most highly trafficked and the most variable, with complex geomorphological changes happening daily through natural tidal patterns as well as through wear from tourism and development. As the global mean sea level rises as a result of climate change, shoreline retreat, the phenomenon by which the shoreline gets reduced due to erosion, is anticipated to increase.

A group led out of the European Commission Joint Research Centre (JRC) in Italy performed a study of sandy shorelines to project what they may look like under anticipated sea level rise. To do this, they began by studying 32 years of shoreline dynamic data to understand the historic influences associated with shoreline retreat. From these data, they show a direct relationship between greenhouse gas (GHG) emissions and shoreline retreat. They then run statistical models forward in time to predict what shorelines will look like under various GHG emissions scenarios. Here, they find two critical results. First, sea level rise is responsible for over 70 percent of projected shoreline change in 2050. Second, moderate GHG mitigation strategies could prevent approximately 40 percent of sandy shoreline retreat. It is critical to consider, however, that different regions will undergo different levels of shoreline retreat. For example, the study shows that Australia will potentially be the most affected country in the world, with approximately half of their sandy shorelines eroded by 2100.

As shown in this study, sea level rise could contribute to huge losses in sandy shorelines, which could lead to ecological, economic, industrial and cultural losses. Given that moderate GHG mitigation strategies are so effective at protecting sandy shorelines, this study further highlights the critical importance of implementing GHG mitigation strategies.

See: Vousdoukas, M. I., *et al.* Sandy coastlines un-

der threat of erosion. *Nature Climate Change*, 2020; DOI:10.1038/s41558-020-0697-0

Relationship between Anthropogenic Climate Change and the Australian Bushfires of 2019-2020

While southern Australia typically experiences bushfire season in the summer months of December through February, this past 2019-2020 season was so devastating that it attracted global attention. According to the BBC, an estimated 13 million hectares of land were burnt (an area similar to that of the UK), with most of the damage in the territories of New South Wales (NSW) and Victoria. In addition to human fatalities, it was estimated that between 500 million and 1.5 billion wild animals were lost. Millions of people have been exposed to hazardous air quality conditions, which will have long term effects. Many have been trying to understand why this bushfire season was so devastating.

In a recent study by van Oldenborgh *et al.* of Royal Netherlands Meteorological Institute and a team of international researchers, they analyzed the relationship between the severity of Australia’s 2019-2020 bushfire season and anthropogenic climate change, specifically focusing on the hardest hit areas of NSW and Victoria. Using a range of data sets and climate models, they conducted attribution studies to determine the effects of climate change on the following parameters: heat extremes, drought, and the Fire Weather Index. The Fire Weather Index (FWI) is a parameter that takes into account temperature, humidity, wind speed, and wind direction. It is used to indicate the severity of weather conditions that can lead to bushfires and as a proxy for burnt area.

2019 was Australia’s warmest and driest year on record since continuous observations for these parameters began in 1910 and 1900, respectively. The researchers concluded that anthropogenic climate change specifically has led to extreme heat events of the magnitude seen in December 2019 becoming twice as likely. On the other hand, while 2019 was the driest year on record, the researchers were

unable to attribute any significant trend in drought to climate change. The drought conditions of 2019 could be mostly attributed to the naturally occurring phenomena known as Indian Ocean Dipole and Southern Annual Mode. Finally, the researchers analyzed the trends in the FWI. It was determined that at present, climate change has increased the probability of having an FWI as high as the 2019 season FWI by at least 30 percent since 1900. Most of the increase can be attributed to increasing temperatures. Models estimate that once the climate reaches 2°C warming above pre-industrial temperatures, severe bushfire events will become four to eight times more likely.

While this study was able to link increased Fire Weather Index (and bushfire activity) to temperature extremes driven by anthropogenic climate change, it also acknowledged the complexity of wildfires and the inability to fully capture all involved factors. For example, the availability of fuel to burn is a function of numerous factors that can take shape over years but was out of scope for the study. Furthermore, the researchers stated that the climate models used in this study were unable to capture the full extent of heat trends, and thus called for a better understanding of these models in order to avoid underestimation of heat events and bushfire activity going forward.

See: van Oldenborgh, G. J., Krikken, F., Lewis, S., Leach, N. J., Lehner, F., Saunders, K. R., van Weele, M., Haustein, K., Li, S., Wallom, D., Sparrow, S., Arrighi, J., Singh, R. P., van Aalst, M. K., Philip, S. Y., Vautard, R., and Otto, F. E. L.: Attribution of the Australian bushfire risk to anthropogenic climate change, *Nat. Hazards Earth Syst. Sci. Discuss.*, <https://doi.org/10.5194/nhess-2020-69>, in review, 2020.

See: Australia fires: A visual guide to the bushfire crisis, BBC News, <https://www.bbc.com/news/world-australia-50951043>, 2020

Estimating the Environmental Footprints of Renewable Energy-Fueled Vehicles

As climate change continues to pose greater risks to human health and the environment, a variety of sectors around the globe are working to identify strategies to reduce greenhouse gas emissions. When looking at global greenhouse gas emissions produced by sector, the transportation sector alone generates roughly 8 gigatons of CO₂ emissions each year. These emissions comprise nearly one quarter of the global total. Of the 8 gigatons of CO₂ produced by

the transportation sector, on-road transportation emissions alone make up roughly 74 percent of the sector's emissions. Addressing greenhouse gas emissions within the on-road transportation sector will be imperative for developing mitigation strategies, and transitions to cleaner energy sources will be necessary.

In today's market, buyers have access to a wide range of choices when it comes to buying a vehicle that is fueled by renewable energy. Understanding the greenhouse gas emissions and, more broadly, the overall environmental footprint associated with each vehicle type is essential to make an informed decision. In a study prepared for the American Geophysical Union, Holmatov et al. aim to quantify the environmental footprint per kilometer driven in six different vehicles fueled by a variety of energy sources. The energy sources analyzed in this study are conventional gasoline, 20 percent biodiesel blend (B20), 85 percent bioethanol blend (E85), electricity generated from burning sugarcane, electricity generated from photovoltaic (PV) solar panels, and solar-based hydrogen. The environmental footprint analyzed in this study is comprised of three components: carbon footprint, land footprint, and water footprint.

Of the six energy sources analyzed, the solar powered battery-electric vehicles had the smallest environmental footprint per kilometer. Since solar powered electricity has zero greenhouse gas emissions associated with its operation, the environmental footprint is a result of the land and water footprints. The energy source responsible for the largest environmental footprint per kilometer is biofuel-driven vehicles, specifically the B20 biodiesel blend, which exceeded the environmental footprint of gasoline-fueled vehicles. The B20 biodiesel blend is composed of 20 percent biodiesel from rapeseed and 80 percent conventional diesel, and assumes a circular production in which bioenergy is used to produce bioenergy. While conventional gasoline has the second-largest carbon footprint, its land and water footprint are minimal compared to other energy sources. Primarily due to its carbon footprint, gasoline ranks as the third largest environmental footprint (behind B20 biodiesel blend and E85 bioethanol blend).

Based on this analysis of environmental footprint, Holmatov *et al.* found that per kilometer, solar powered battery electric vehicles are the most resource efficient, followed by solar based hydrogen vehicles, electricity generated from burning sugarcane, gaso-

line, 85 percent bioethanol blend (E85), and lastly 20 percent biodiesel blend (B20). This finding helps to inform future buyers who are motivated by the environmental impacts of the transportation sector.

See: Holmatov, B., & Hoekstra, A. Y. (2020). The environmental footprint of transport by car using renewable energy. *Earth's Future*, 8e2019EF001428. <https://doi.org/10.1029/2019EF001428>

Experimental Evidence of the Climate Benefits of Ethanol from Grasses

Cellulosic ethanol is known for its climate change advantages over corn ethanol due to higher yields and increased carbon storage potential. There are also social benefits associated with using non-food sources to produce biofuels.

Researchers at the U.S. Department of Energy's Great Lakes Bioenergy Research Center (GLBRC) created an experiment to measure the greenhouse gas (GHG) emissions from producing ethanol fuel and electricity from cellulosic biomass. Specifically, corn stover, switchgrass, miscanthus, poplar trees, native grasses, early vegetation, and restored prairie were studied at low and high fertility sites. The researchers measured GHG emissions from above-ground biomass production, soil nitrous oxide (N₂O), methane (CH₄) fluxes, soil carbon, farming inputs, and end use scenarios. End use scenarios included GHG emissions from the biorefinery, and electricity production from biorefinery residues.

The goal of the study was to provide experimental evidence that energy generated from cellulosic

biomass is environmentally preferable to producing energy from fossil fuels. The researchers found GHG emissions reductions from ethanol fuel were 80 percent to 290 percent greater than petroleum fuels with restored prairie having the most potential benefits and corn stover having the least benefits. They also noted that most of the cropping systems were carbon neutral by year two due to an increase in soil organic carbon storage. The cellulosic biomass was best for restored prairie, then early vegetation, poplar trees, native grasses, switchgrass, miscanthus, and finally corn stover.

The study notes several limitations including assuming future crops will be established on abandoned crop land and would not displace food production elsewhere and would not displace forests, which would result in a much slower carbon payback. In addition, the study assumed the technology will not have future advances and the energy mix will not change, which could decrease the benefits of electricity and fuel production from biomass.

See: Ilya Gelfand, Stephen K. Hamilton, Alexandra N. Kravchenko, Randall D. Jackson, Kurt D. Thelen, G. Philip Robertson. Empirical Evidence for the Potential Climate Benefits of Decarbonizing Light Vehicle Transport in the U.S. with Bioenergy from Purpose-Grown Biomass with and without BECCS. *Environmental Science & Technology*, 2020; 54 (5): 2961 DOI: 10.1021/acs.est.9b07019 (Abby Kirchofer, Libby Koolik, Shaena Berlin Ulissi, Ashley Krueder)

REGULATORY DEVELOPMENTS

**OREGON DEPARTMENT OF LAND CONSERVATION
DETERMINES ENERGY PROJECT AND CONNECTOR GAS PIPELINE
ARE INCONSISTENT WITH THE STATE'S
COASTAL MANAGEMENT PROGRAM**

On February 19, 2020, the Oregon Department of Land Conservation and Development (DLCDD) issued a negative determination regarding the proposed Jordan Cove Energy Project and Pacific Connector Gas Pipeline's (Project) consistency with the Oregon Coastal Management Program, which implements the Coastal Zone Management Act.

DLCDD's decision represents the latest in a series of permit challenges the Project has faced. For example, in late 2018 we covered *Coos Waterkeeper v. Port of Coos Bay Oregon*, 363 Or. 354 (2018), in which the Oregon Supreme Court upheld the Oregon Department of State Lands' issuance of a removal fill permit to the Port of Coos Bay for the construction of the marine terminal associated with the Project. In July 2019, we covered the Oregon Department of Environmental Quality's (DEQ) denial of water quality certification for the Project.

Project Overview

The Project proponent is Pembina Pipeline Corp., a Canadian energy company. The proposed export terminal would be located on the North Spit of Coos Bay in Coos County, Oregon. Facilities would include a slip and access channel, modifications to the federal navigational channel, a marine terminal, a natural gas conditioning and liquefaction facility, operations buildings, and wetland mitigation sites. The terminal would be served by the proposed 229-mile Pacific Connector pipeline that would connect to existing interconnections in Klamath County, Oregon. The pipeline could transport up to 1.2 billion cubic feet of natural gas per day. The Project is expected to cost \$10 billion and could enter service as early as 2025.

Coastal Zone Management Act

Under the federal Coastal Zone Management Act of 1972 (CZMA), 16 U.S.C. § 1451 *et seq.*, states de-

velop Coastal Management Programs to manage their coastal zones. The CZMA requires that:

... [e]ach Federal agency activity within or outside the coastal zone that affects any land or water use or natural resource of the coastal zone... be carried out in a manner which is consistent to the maximum extent practicable with the enforceable policies of approved State management programs. 16 U.S.C. § 1456(c)(1)(A).

The process by which states review federal agency activities within the coastal zone is referred to as "consistency review."

Oregon's Coastal Management Plan

Oregon's Coastal Management Plan (OCMP) was federally approved in 1977. DLCDD is Oregon's designated coastal management agency and is responsible for implementing the OCMP and conducting consistency reviews.

To be consistent with the OCMP, a proposed project must comply with enforceable policies contained in: 1) the statewide land use planning goals; 2) the applicable acknowledged city or county comprehensive plans and land use regulations; and 3) selected state authorities, such as those governing removal-fill, water quality, and fish and wildlife protections.

DLCDD's Coastal Effects Analysis

DLCDD's decision begins with the agency's coastal effects analysis. Coastal effects are any reasonably foreseeable direct or indirect effects on any coastal use or resource resulting from a federal agency activity or federal license or permit activity. DLCDD's coastal effects analysis covers five categories: natural resources, recreation and access, cultural resources, aesthetic resources, and economic resources. DLCDD

surveyed numerous adverse effects of the Project on these resources, including:

- Dredging approximately 18 million cubic yards of material from the estuary would increase turbidity and expose contaminated sediments;
- Disturbance to marine mammals such as sea lions and seals;
- Habitat impacts on threatened species like the western snowy plover, marbled murrelet, and northern spotted owl;
- Air pollution caused by transport, storage, and liquification of natural gas
Impacts to public water recreation;
- Impacts to tribal food sources and culturally significant landscapes;
- Light and noise pollution.

After analyzing these effects and considering public comments, DLCD concluded “that the coastal adverse effects from the project will be significant and undermine the vision set forth by the OCMP.”

DLCD’s Enforceable Policies Analysis

DLCD then explained why the proposed Project and its coastal effects are inconsistent with specific enforceable policies listed the OCMP. A key reason

for DLCD’s decision was that Pembina has not obtained, and in some cases, has not applied for, required state permits and authorizations. For example, DEQ denied Pembina’s application for state water quality certification that is required by the federal Clean Water Act. DLCD administrative rules provide that issued state permits or authorizations are the only acceptable evidence demonstrating consistency with the enforceable policies that the permit or authorization covers. Without a final permit or authorization, the Project cannot be shown to be consistent with the OCMP.

Pembina may yet prevail. The U.S. Secretary of Commerce has authority to overturn a state’s denial of coastal zone permit, and Pembina is awaiting a decision on its request to the Secretary.

Conclusion and Implications

The fate of the Project remains unclear. Despite Pembina’s failure to secure multiple required state permits and authorizations, the Federal Energy Regulatory Commission (FERC) on March 19 conditionally approved the Project by a vote of 2-1. FERC’s decision authorizes Pembina to initiate the process of eminent domain for roughly 90 private landowners in southern Oregon who have declined to sell Pembina easements for the Pacific Connector pipeline to cross their property. Oregon Governor Kate Brown vowed to “use every available tool to prevent” Pembina from proceeding with eminent domain until it secures “every single required permit from state and local agencies.”

(Alexa Shasteen)

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 30, 2020, the U.S. Environmental Protection Agency (EPA) and the State of California announced a settlement with Kohler Co. to resolve alleged violations of the Clean Air Act (CAA) and California law, related to Kohler's manufacture and sale of millions of small, non-road, non-handheld spark-ignition (SI) engines that did not conform to the certification applications Kohler submitted to EPA and the California Air Resources Board (CARB). More than 144,000 of the engines were also equipped with a fueling strategy designed to cheat emissions testing standards, commonly referred to as a defeat device. In December 2015, Kohler self-disclosed to EPA and CARB that it had been using the wrong test cycle to test many of its small SI engines. EPA and CARB's subsequent investigation revealed that millions of additional small SI engines were non-compliant. Examples of additional noncompliance included Kohler not fully complying with the test procedures it had certified to, failing to comply with applicable emission limits, failing to age emission-related components for deterioration factor testing, failing to disclose auxiliary emission control devices and adjustable parameters equipped on the engines, making changes to production engines without amending the certification application covering those engines, and failing to comply with the applicable production line testing requirements. The defeat device Kohler developed and deployed on at least 144,000 electronic fuel-injected small SI engines significantly reduced NOx emissions during certification testing when compared to real-world operation. The fueling strategy in the calibration was not disclosed in Kohler's certification applications and Kohler was aware that the fueling strategy was designed to reduce

nitrogen oxide (NOx) emissions during certification testing even though the certification results were not representative of real-world operation. In addition to paying a \$20 million penalty and retiring hydrocarbon and NOx emission credits, Kohler has already taken steps to prevent future violations, including establishing an independent environmental regulatory compliance team, conducting annual compliance training for engine division employees, and maintaining an employee code of conduct and an ethics helpline for employees to report noncompliance. Kohler will convene semiannual meetings with all engine division managers and regulatory personnel to discuss compliance with applicable regulatory requirements and will conduct annual audits and implement an emissions testing validation plan that includes third-party observation and emissions verification testing. Kohler estimates the compliance measures will cost approximately \$3.7 million. In a separate settlement resolving California-only claims, Kohler will pay an additional \$200,000 civil penalty and will fund a program that will supply \$1.8 million worth of solar-battery generators to low-income residents of California that live in areas subject to public safety power shutoffs.

- On February 10, 2020, EPA announced a settlement with the Guam Power Authority and the Marianas Energy Company, L.L.C. for violations of the CAA. The two utilities operated residual oil-fired electric generating units without emissions controls at the Piti and Cabras Power Plants. Marianas Energy Company is the former owner and current operator of the Piti Power Plant and is responsible for the violations at that facility. Guam Power Authority, the current owner of both the Piti and Cabras Power Plants, is responsible for the violations at both facilities. The settlement requires a retrofit of the two Piti Power Plant engine units to switch to ultra-low sulfur diesel and the installation of emissions controls. Under the settlement, the Guam Power Authority will retire and replace the Cabras Power Plant steam units and con-

struct 100 megawatts of solar power generation and a 40 megawatt energy storage system. Guam Power Authority will pay a civil penalty of \$400,000.

- On February 19, 2020, EPA announced a settlement with Regal Beloit America to resolve alleged violations of CAA recordkeeping requirements. The company agreed to pay a \$103,000 civil penalty and upgrade equipment at its motor and generator manufacturing operation in Wausau, Wisconsin. Following an inspection, EPA alleges that Regal Beloit America violated the National Emissions Standards for Hazardous Air Pollutants by failing to document its compliance with emission limits for mercury and carbon monoxide. As part of the supplemental project, the company will purchase new welding torches costing about \$14,000.

- On February 20, 2020, EPA announced that it had entered into a consent agreement and final order with OXARC, Inc. to resolve violations of the CAA's risk management program requirements at the company's storage facility in Pasco, Washington. EPA alleged that OXARC stored more than the 2,500 pounds of chlorine and 5,000 pounds of sulfur dioxide, requiring the development and implementation of a risk management plan to detect, prevent, and minimize accidental releases of chemicals. EPA alleged that OXARC's plan failed to include required contact information for local emergency response agencies, medical/rescue, HAZMAT, and personnel qualified to respond to a release. EPA also alleged that the company failed to comply with CAA requirements that it systematically ensure the safe handling, storage, maintenance, and functional integrity of the cylinders of chlorine and sulphur dioxide stored at the facility. OXARC has paid a penalty of \$100,000.

- On January 24, 2020, the U.S. Department of Justice announced that Hector Garza Jr., Tammy Garza, and their companies HTG Trucking LLC and Freedom Fuel Inc. were sentenced in federal court in Richland, Washington for fraud and false statement charges in connection with a renewable energy fraud scheme. The defendants had previously pled guilty.

Hector Garza Jr. was sentenced to two years in prison and a three-year term of supervised release. Tammy Garza was sentenced to four years in prison and one year of supervised release. HTG Trucking and Freedom Fuel were placed on probation for three years. All of the defendants were ordered to pay restitution to the U.S. Treasury of \$284,546 and a \$100,000 fine. Hector and Tammy Garza and their companies were participants in a conspiracy involving Gen-X Energy Group Inc., a renewable energy company formerly located in Pasco and Moses Lake, Washington. Between January 2013 and April 2013, Hector Garza and his co-conspirators falsely claimed the production of hundreds and thousands of marketable renewable energy credits, which they then sold for more than \$296,000, and filed false claims with the IRS for \$284,546 in excise credit refunds. Throughout this period, much of the renewable fuel claimed to be produced at the Gen-X facilities was either not produced or it was re-processed multiple times. Hector Garza, HTG Trucking, and Freedom Fuel pled guilty to conspiring to defraud the United States with respect to the false claims made to the IRS, through the use of the Garzas' companies, which were used to "round" supposed renewable fuel by driving the same material back and forth between Gen-X's Moses Lake facility and the Garza's businesses in Othello, Washington. This activity enabled the conspirators to generate fraudulent renewable energy credits and tax credits each time the material was "rounded." Tammy Garza pled guilty to a separate offense of aiding and abetting the use of false statements in connection with the renewable energy credits that were claimed and sold as part of the scheme. Several other conspirators have previously pled guilty and been sentenced in connection with their roles in the scheme. In June 2017, Scott Johnson, the former CEO of Gen-X, was sentenced to 97 months in prison. In December 2017, Donald Holmes, the former vice president of Gen-X, was sentenced to 78 months imprisonment. In June 2018, Jin Chul "Jacob" Cha was sentenced to 51 months in prison in connection with his role in the fraud.

(Allison Smith)

JUDICIAL DEVELOPMENTS

DISTRICT COURT FINDS, IN THE FACE OF OIL POLLUTION ACT CLAIM, THAT THE U.S. COAST GUARD'S PLANS FOR 'WORST CASE DISCHARGES' IN THE GREAT LAKES, ADEQUATE

Environmental Law & Policy Center, et al., v. U.S. Coast Guard,
___F.Supp.3d___, Case No. 18-12626 (E.D. MI Mar. 16, 2020).

On August 22, 2018, plaintiffs, Environmental Law & Policy Center (ELPC) and National Wildlife Federation (NWF), filed a complaint against defendants, United States Coast Guard and Rear Admiral Joanna M. Nunan in her official capacity as Coast Guard District Commander. Plaintiffs alleged that the Coast Guard's Northern Michigan Area Contingency Plan (NMACP), certified by the Ninth Coast Guard District Commander, Rear Admiral June E. Ryan, on June 6, 2017, is inadequate to respond to a worst-case discharge and that defendants wrongfully approved the NMACP in violation of the Administrative Procedure Act (APA) and the Oil Pollution Act of 1990 (OPA). The U.S. District Court for the Eastern District of Michigan denied ELPC's and NWF's motion for summary judgment and granted defendants' motion for summary judgment.

Background

The Straits of Mackinac connecting Lakes Superior, Huron and Michigan are among the most treacherous navigable waters plied by large vessels. Two prominent environmental groups brought a complaint in 2018 against the U.S. Coast Guard alleging that the "worst case scenario" planning of the Coast Guard was legally deficient under the federal Oil Pollution Act amendments to the Clean Water Act in 1990.

The Environmental Law & Policy Center and National Wildlife Federation asserted that the Coast Guard approved a plan that failed to respond to the worst-case discharge scenario to the extent required by law. The OPA requires the area contingency planning "be adequate to remove a worst-case discharge [of oil] from a vessel, offshore facility or onshore facility operating in or near the area." 33 USC § 1321(i)

(4)(C). They alleged the failures involved lack of consideration of the need for ice-breaking vessels to reach an oil spill in the Straits of Mackinac, and the plan allegedly also failed to consider wave heights.

The "Worst-Case Discharge" is a defined term: "The largest foreseeable discharge in adverse weather conditions." The plan in question, known as the Northern Michigan Area Contingency Plan (NMACP) is fairly complex, including response activity arising in at least two states and internationally. According to the NMACP, the Worst-Case Discharge would be a large Canadian tanker vessel with over three-million-gallon capacity spilling its load from the Canadian side of Lake Superior. Another potential WCD would be a break in an Enbridge Energy oil pipeline just five miles west of the famous Mackinac Bridge, with discharge direct to the Straits.

The NMACP challenged was adopted in 2017. It is a 217-page document. It provides details that should occur in a coordinated response from state, federal and 20 local county governments. Actual exercises were staged and held to assist in making judgments on what should be done under several scenarios. In addition to reviews of exercises held, the plan record included interviews with experienced responders, some of whom discussed problems that exist if wave heights are higher than three or four feet. The Coast Guard's own review of the NMACP indicated some degree of deficiency in planning and logistics

The District Court's Decision

The complaint was filed in the Eastern District of Michigan federal court, Northern Division and heard by US District Judge Tomas Ludington. The court's decision includes a careful recital of the criteria for the courts in reviewing the record of an agency. The

arguments of the plaintiffs are reviewed, including assertions that the record laced investigation of the availability of ice-breaking vessels, and that the record itself sowed that wave height could defeat clean-up efforts.

The Coast Guard in turn urged the court to consider the record as a whole. They had done a serious and thoughtful job of identifying and evaluating response techniques. They admitted there could be delays in achieving the desired success level in conditions where ice was thick or waves were high, but they also noted that the law does not require immediacy, but only that it: “be adequate to remove a worst-case discharge, and to mitigate or prevent a substantial threat of a discharge.”

Plaintiffs insisted that they had caselaw support, but in his analysis, Judge Ludington found that the Coast Guard’s analysis and adoption of a plan complied with the APA and the OPA. The Coast Guard

indicated that the plaintiffs overstated facts, in that the presence of thick ice was one of the elements of “severe adverse weather” as a matter of standard practice. They had thus considered ice and ice breakers. And the record expressly cited difficulties that exist from high waves.

Conclusion and Implications

The ruling came down March 16, 2020 upholding the Coast Guard’s decision and consideration as being consistent with the law and not arbitrary or capricious. In a nutshell, the District Court found plaintiffs were focused on arguing the law requires a perfect plan with complete immediate success. Since the law itself requires only “adequacy to remove” a spill, the Coast Guard’s record showed it had made its decisions reasonably and consistently with the law. The District Court’s decision is available online at: <https://www.leagle.com/decision/infdco20200316f67>. (Harvey M. Sheldon)

CALIFORNIA COURT OF APPEAL FINDS CERTIFIED LOCAL COASTAL PLAN, NOT THE COASTAL ACT REGULATION, GOVERNS CITY’S COASTAL DEVELOPMENT OF HOUSING FACILITY

Citizens for South Bay Coastal Access v. City of San Diego,
___ Cal.App.5th ___, Case No. D075387 (4th Dist. Feb. 18, 2020).

A local interest group brought suit challenging the City of San Diego’s (City) issuance of a Conditional Use Permit (CUP) allowing the City to convert a motel that it had purchased into a transitional housing facility for homeless misdemeanor offenders. The group alleged that the City was required to obtain a Coastal Development Permit (CDP) for the project. After the Superior Court granted a writ of mandate, the City appealed. The California Court of Appeal for the Fourth Judicial District reversed, finding that the City’s certified local coastal plan governed the City’s coastal development, under which the project was exempt.

Factual and Procedural Background

The City acquired a property, which was operated as a motel, for the purpose of converting the motel into a transitional housing facility for homeless mis-

demeanor offenders. The City planned to rehabilitate the existing building on the property with interior and exterior improvements. The City’s plan also reduced the existing 53 parking spaces in the parking lot to a total of 25 parking spaces and added passive open green spaces.

The property is located within the Coastal Overlay Zone as defined by the City. Generally, the City’s Municipal Code provides that a Coastal Development Permit is required for all coastal development of properties within the Coastal Overlay Zone unless an exemption applies. When the City passed a resolution approving a Conditional Use Permit (CUP) for the project in late 2017, the staff presentation stated that the facility was exempt under the City’s municipal code.

Plaintiff Citizens for South Bay Coastal Access brought suit, claiming, among other things, that the

project required issuance of a CDP. In particular, it asserted that the California Coastal Act and the regulations promulgated thereunder had the effect of preempting the City's municipal code and required the City to obtain a CDP. Plaintiff claimed two sections of the regulations triggered the CDP requirement: 1) a section requiring a CDP for any improvement to structures that change the intensity of use of the structure; and 2) a section requiring a CDP for any improvement made pursuant to a conversion of an existing structure from a visitor-serving commercial use to a use involving a fee ownership. (Cal. Code Regs., tit. 14, § 13253.)

Plaintiff did not dispute that the portion of the City's municipal code governing the requirement to obtain a CDP for development in the Coastal Overlay Zone contained an exemption for improvements to existing structures. It also did not dispute that none of the municipal code's exceptions to the existing-structure exemption for certain types of improvements were applicable. In particular, a section of the code set forth an exception for improvements that result in an intensification of use, which it defines as:

... a change in the use of a lot or premises which, based upon the provisions of the applicable zone, requires more off-street parking than the most recent legal use on the property.

The City apparently had determined that this exception did not apply because its planned use of the property would require less parking, and the City planned to significantly reduce the number of parking spaces.

At the Superior Court

While the Superior Court rejected plaintiff's other arguments (*e.g.*, California Environmental Quality Act (CEQA) and Planning and Zoning Law claims), it agreed with the argument that state law preempted portions of the existing-structure exemption. Among other things, the court found that the City municipal code exemption was applied in such a way that a CDP was not required because the project resulted in a lowered intensification of use (as evidenced by less required parking). This, the court found, was forbidden under state law, which requires a CDP for any change in intensity, not just a higher intensity. In addition, the Superior Court also found that the project

would convert the motel from multiple unit commercial use to a use involving a fee ownership. This, the court found, also would be forbidden under state law without a CDP. After the Superior Court entered judgment in favor of plaintiff, the City appealed.

The Court of Appeal's Decision

The Court of Appeal began with a discussion of the legal principles applicable to a preemption analysis. Generally, a county or city may make and enforce within its limits local, police, sanitary, and other ordinance and regulations not in conflict with state law. Local legislation in conflict with general law is void. Conflicts exist if the ordinance duplicates, contradicts, or enters an area fully occupied by general law, either expressly or by legislative implication. A local ordinance contradicts state law when it is inimical to or cannot be reconciled with state law.

The California Coastal Act

The Court of Appeal next addressed the California Coastal Act, the intent of which is to provide a comprehensive scheme to govern land use planning for the coastal zone of California. Given this broad geographic scope, the Coastal Act recognizes the need to "rely heavily" on local governments. To that end, it requires local governments to develop local coastal programs, which are comprised of a land use plan and a set of implementing ordinances. Local coastal programs must be submitted to the California Coastal Commission (Commission) for a certification of consistency, and, once certified, the Commission delegates authority over CDPs to the local government.

Notably, once the Commission certifies a local government's local coastal program, the Commission no longer exercises original jurisdiction over the issuance of a CDP. However, because the Commission still retains jurisdiction over the issuance of CDPs in certain circumstances (*e.g.*, when no local coastal program has been certified), the Coastal Act contains provisions governing the Commission's exercise of its original jurisdiction to issue CDPs. Consistent with these provisions, the Commission has promulgated regulations that apply to instances in which it is operating under its original jurisdiction to issue CDPs. Those regulations include, among other things, the regulations referenced by plaintiff and relied on by

the Superior Court to conclude that state law contradicted the City's municipal code provisions governing whether a CDP was required for development of the property.

Preemption Analysis

Applying the above principles, the Court of Appeal found that the Superior Court's reasoning contained a fundamental flaw. As a basic premise, the Superior Court assumed that the Commission's regulations pertaining to its original jurisdiction were intended to apply to the City's decision whether a CDP is required for a proposed coastal development. Finding a contradiction between the Commission's regulations and the City's LCP, both of which the Superior Court assumed were applicable, it concluded that the Commission's regulations should prevail.

However, because the Commission had certified the City's LCP, the Commission's regulations did not apply to the City's CDP decision. As such, there was no contradiction with state law, and preemption was not applicable. On that basis, the Court of Appeal reversed the Superior Court's decision and remanded with direction to deny the petition.

Conclusion and Implications

The case is significant because it provides a substantive discussion of the relationship between the California Coastal Act and accompanying regulations, on the one hand, and local coastal programs, on the other. The decision is available online at: <https://www.courts.ca.gov/opinions/documents/D075387.PDF>.

(James Purvis)

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