



GRADE C-

California's New Rigs-to-Reefs Law

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In the Pacific Ocean off the coast of Southern California sit 27 oil and gas drilling platforms. These steel platforms extend from their foundations on the ocean floor, where they are firmly affixed through massive infrastructure, up above the sea surface where people can see them from many miles away. Some of the platforms reside in water that is over a thousand feet deep, forming an imposing silhouette on the landscape and seascape. Current laws require the platform operators to remove the structures entirely and to restore the seabed to its pre-drilling condition. But a new and controversial State law may dramatically change the future of these structures. Under current law, platform operators have to remove them completely after they have reached the end of their useful lives. The new law, Assembly Bill 2503, authorizes the State for the first time to consider allowing platform operators to leave them at least partially in place instead,—so-called “rigs-to-reefs” conversions.

The law’s proponents believe partial removal will improve the marine environment and provide revenue to the State. Opponents, on the other hand, are skeptical of the alleged environmental benefits, and concerned about the long-term impacts of leaving the massive structures in place. The legal, scientific, and policy issues relating to the possibility of allowing rigs-to-reefs conversions are complex. The politics are even more so.

THE POLICY DEBATE OVER RIGS-TO-REEFS

The legal, scientific, and policy issues relating to the possibility of allowing rigs-to-reefs conversions are complex. The politics are even more so.

Stakeholders carry strong beliefs both for and against rigs-to-reefs conversions. The “pro” side consists of three main constituents. Recreational anglers see enhanced fishing opportunities. Certain environmental advocates believe removing the platforms will be environmentally disruptive, that the status quo fosters marine life, and that avoiding complete removal will generate revenue to fund marine conservation efforts. Finally, for the companies that operate the drilling platforms, rigs-to-reefs conversion will be substantially less expensive than removal.

On the “con” side are two main groups. Some environmental advocates are deeply skeptical of the environmental benefits of partial removal, concerned about ongoing liability and contamination issues, and frustrated that platform operators will not have to pay the costs of full removal they originally agreed to pay. Moreover, commercial fishermen are concerned about restrictions and safety issues resulting from leaving obstructions in the water.

Proponents of rigs-to-reefs argue that offshore oil platforms foster more robust and abundant marine life populations than even natural reefs. They contend the ocean will fare better if the platforms stay in place, because existing marine life populations rely on the platforms. They believe removal of massive infrastructure and return of the seafloor to its pre-disturbance state will likely destroy huge populations of marine life. Finally, they note, the State would receive a share of the considerable cost savings from not requiring complete removal. A rigs-to-reefs program could thus provide potential funding for marine conservation and other activities in difficult budget times.

Opponents, on the other hand, believe any benefits from converting California’s drilling rigs to artificial reefs are unproven. They believe the increased marine populations near the reefs are likely populations drawn from other areas, rather than new marine life. They note the State may retain significant legal liability for the rigs. And they argue that oil companies, who agreed to restore the seabed to its natural state as a condition of approval to drill in the first place, should not be let out of their commitments. They characterize rigs-to-reefs as providing a windfall to the platform operators who do not have to remove the huge steel structures that have earned them profits over the decades.

OFFSHORE OIL DRILLING AND PLATFORM DECOMMISSIONING

California has a long history of offshore oil and gas production, dating back to the 1890s. Initially, offshore production was simply an extension of onshore oil exploration. Oil prospectors constructed piers or other mechanisms to reach oil under the seabed close to shore. But starting in the 1950s, oil producers have drilled wells from independent structures such as human-created islands or platforms off the California coast. Similar offshore wells exist in the North Sea and in the Gulf of Mexico. Some deep-water wells, including all those off the California coast, use platforms firmly affixed to the ocean floor by a structure. Floating platforms are used to drill other wells, including the infamous Deepwater Horizon platform, which exploded in the Gulf of Mexico in early 2010.

In the 1960s, both the California state government— which owns the seabed up to three miles offshore pursuant to the federal Submerged Lands Act of 1953 – and the federal government encouraged offshore oil drilling. In 1969, an enormous quantity of oil leaked from an offshore drilling site and blanketed over 30 miles of coastline in the Santa Barbara area. After that, California stopped permitting development of new drilling platforms in State waters. The federal government continued to make new oil leases available until 1984, when Congress enacted a moratorium on using federal funds for new oil lease development off the California coast.

California's offshore oil and gas drilling rigs are located in both state and federal waters, with 23 of the 27 active platforms in federal waters. These drilling platforms consist of an above-water deck supported by a large steel



Oil drilling platform in the Santa Barbara Channel

structure, or “jacket,” affixed to the ocean floor, as well as the drilling equipment and infrastructure. Over time, drilling debris falls from the jacket and becomes covered with compacted shells. These materials form a mound (called a “shell mound” or “debris mound”) at the bottom of each platform. The depth of the water around the rigs varies widely; eight of California's platforms reside in water over 400 feet deep, and some sit in over 1,000 feet of water. By contrast, no fixed platform at a depth of more than 400 feet has ever been decommissioned

in the Gulf of Mexico or North Sea. The U.S. Bureau of Ocean Energy Management, Regulation and Enforcement – one of three agencies created this year as successors to the former Minerals Management Service – regulates most aspects of leasing and decommissioning of platforms.

The U.S. government has estimated that within five to twenty years, all the oil and gas platforms off the California coast will stop producing oil and gas in quantities sufficient to be economically viable. State and federal leases require the platform operator to decommission the rig, by sealing the wells, completely removing the drilling rig and all associated infrastructure, and restoring the seabed to its pre-disturbance condition at the end of the rig's useful life. The depth and mass of most of California's platform jackets make their future removal more complex and costly than for the shallow-water platforms removed so far from the Gulf of Mexico and the North Sea. Removal of the deepest jackets would be a much larger and more complex project than any other removal performed anywhere in the world to date. The shell mounds on the ocean floor typically contain drilling byproducts such as hydrocarbons and metals, so they will likely require remediation, mitigation, or removal, in order to protect marine resources from contamination. Any of these strategies will cost a lot of money.

The expense of platform removal is considerable, particularly given the depth and mass of the platforms. Experts have estimated the cost of complete removal of all 27 existing platforms off California's coast at over one billion dollars. The precise costs depend on a multitude of factors, including the method used to take down the structure, the method and location of disposal or recycling of the pieces, and whether and to what extent the operator removes or remediates contamination from the shell mounds. At the same time, these deep-water wells in California have been very productive and profitable for their operators.

All the federal leases that authorized the existing platforms require their eventual complete removal. Nonetheless, in 1985, the federal Minerals Management Service adopted a national policy, authorized by the National Fishing Enhancement Act, that encourages partial removal and conversion to artificial reefs under some circumstances. Several states in the Gulf of Mexico region have passed laws authorizing drilling rigs' partial removal, a precondition to allowing partial removal under federal law. Of about 3,000 platforms in the Gulf that have been decommissioned, 260 have become artificial reefs.

Partial removal can dramatically reduce decommissioning costs, since it leaves in place at least the lower part of the jacket and the shell mound. States with rigs-to-reefs programs have

been able to generate revenue by charging platform operators a portion of these avoided removal costs. In Louisiana and Texas, the State has generally received half of the avoided cost. Under federal law, the state's wildlife management agency must assume ownership of the decommissioned infrastructure. And with ownership comes potential legal liability for a host of future potential risks, including injury to watercraft and people, and future environmental contamination. In the existing rigs-to-reefs programs in Texas and Louisiana, the states have assumed liability related to ongoing maintenance of the structures.

IMPACTS OF PARTIAL DECOMMISSIONING

Important questions remain about the relative impacts of complete removal and partial removal of drilling platforms. For example, in the short term, complete removal of the infrastructure will unquestionably harm the animals and plants currently living on and near the jacket. But the environmental costs and benefits of each option in the long term are not as clear. Moreover, oil rigs plainly attract and nurture a host of marine life, including some fish whose stocks are declining. Nonetheless, there is dispute over whether the rigs contribute regionally to habitat, rather than just attracting marine life locally. And there is debate about whether the increases in local fish numbers will endure over time.



Marine life at the base of a California oil drilling rig

Recent scientific studies led by Dr. Milton Love of U.C. Santa Barbara have concluded that at least some platforms have increased the abundance of marine species significantly. On the other hand, a 2000 study co-authored by The Select Scientific Advisory Committee on Decommissioning, a team of scientists from several campuses of the University of California, concluded that "in light of the lack of strong evidence of benefit and the relatively small contribution of platforms to reef habitat in the region, evaluation of decommissioning alternatives in our opinion should not be based on the assumption that platforms currently enhance marine resources."

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Over the past year and a half, the state's Ocean Protection Commission funded a report by the nonprofit California Ocean Science Trust (OST) that studied some of the benefits and costs of partial removal, as part of an effort to inform State decisionmaking on this issue. The OST report concluded, based on studies showing enhanced productivity of certain marine species near oil platforms, that partial removal could provide significant benefits to marine life. By its own terms, however, the study did not evaluate thoroughly all the costs and benefits of partial removal, nor did it study the ecological benefits or harms from partial removal of any particular platform. Rather, it performed a review and synthesis of existing scientific and economic information as a tool to inform decisionmaking.

A sharp dispute exists over whether current research sufficiently demonstrates partial removal will be better for the environment than complete removal, though stakeholders appear to agree this may vary widely on a case-by-case basis. Stakeholders also believe the benefits may vary widely depending on how much of the structure is left remaining after partial removal is complete. The OST study considered only one option: removing the structure down to 85 feet below sea level. Finally, the calculated costs and benefits will surely vary depending on the time horizon of the analysis: removal of virtually any structure left in the ocean will destroy marine life in the short term, while the cost/benefit picture may look different over a long timeframe.

Pro-rigs-to-reefs stakeholders hailed the report, while anti-rigs-to-reefs stakeholders criticized the OST report's findings and methodology. Some advocates who supported the report noted the report did not necessarily support the conclusion that oil-rig reefs are "good" for the environment. Oceana, an advocacy organization that supported California's new rigs-to-reefs law, recently noted that "while oil platforms may appear to benefit certain species and recreational stakeholders, decisions on decommissioning must also take into account there is no evidence platforms provide net ecological benefits to the marine ecosystem as a whole relative to areas left in their natural state."

The Ocean Science Trust had intended for its study to begin a lengthy process to inform decision makers about some of the scientific and economic consequences of a rigs-to-reefs program in California. The California Natural Resources Agency's plan was for the State to use the report "to develop the policy options that may lead to new federal regulations, state legislation, and/or other mechanisms to address all potential alternatives for decommissioning platforms." Unfortunately, the State Legislature apparently put A.B. 2503 on a faster track than the Natural Resources Agency had anticipated. Legislators proposed A.B. 2503 before the

OST report was even released, though the Legislature made some changes before passing it. As a result, the report – and stakeholders’ responses to it – could not meaningfully inform the lawmaking process. Nonetheless, advocates of A.B. 2503 seized on the OST report’s findings as support for the bill.

CALIFORNIA’S NEW RIGS-TO-REEFS LAW, A.B. 2503

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Two earlier, unsuccessful bills had proposed allowing partial removal of platforms in California. The first, S.B. 2173 in 1998, died in committee. The second, S.B. 1 in 2001, passed the Senate and the Assembly over vocal opposition from environmental and commercial fishing stakeholders. Governor Gray Davis vetoed the bill, stating “[t]here is no conclusive evidence that converted platforms enhance marine species or produce net benefits to the environment.”

A.B. 2503, like the earlier legislation, will allow the State to decide whether to approve partial removal of oil platforms on a case-by-case basis. The law allows a platform owner or operator to design a “partial removal” plan for a platform and to apply for permission to implement it. The new law charges three state agencies within the California Natural Resources Agency with reviewing the application: the Department of Fish and Game (DFG), the California Ocean Protection Council (OPC), and the California State Lands Commission.

Each of these three agencies plays a different role in the application review process. DFG ultimately must approve or deny the application. The precise nature of this approval is unclear, as DFG’s primary decision would be whether to agree to assume ownership of the structure, a precondition to federal approval of partial removal. OPC appears to have the most important role: determining whether the plan for partial removal, “as proposed in the application,” would on balance benefit the marine environment as compared to complete removal. In order for DFG to approve an application, OPC must determine that the proposal would yield these net benefits. The legislation also provides that between 55% and 80% of the avoided removal cost (calculated by the State Lands Commission, based on information provided by the platform operator) would go to the state, depending on what year the state authorizes the partial removal plan. Most of this money will accrue to a new fund called the California Endowment for Marine

Preservation, dedicated to conservation of marine resources.

In addition, under the new law:

- All partial removal projects must comply with the California Environmental Quality Act (CEQA), which requires agencies to evaluate all potentially significant environmental impacts of a proposed project, consider alternatives to the project, and mitigate all significant impacts to the extent feasible.
- The SLC must determine “cost savings resulting from the partial removal of an offshore oil structure compared to full removal of the structure,” and the owner or operator must pay all this money to the State before approval of partial removal.
- The DFG must a prepare management plan for post-partial removal.
- The DFG must hold a public hearing and take public comment.
- The owner or operator must to provide funds for all the State’s activities relating to the decommissioning procedure, as well as “sufficient funds for overall management of the structure by the department.”
- The owner or operator must agree to indemnify the State against all liability claims, including “active negligence,” including costs of defending against those claims, and the indemnification may take the form of “an insurance policy, cash settlement, or other mechanism as determined by [DFG].”
- The owner or operator retains continuing liability under any law associated with seepage or release of oil
- The State must take ownership of any platform in federal waters before it may be partially removed.

ANALYSIS OF A.B. 2503

A.B. 2503 suffers from three apparent major flaws that cast doubt on its ability to evaluate potential rigs-to-reefs conversions based on sound legal, scientific, and policy principles.

First, the law appears to constrain the State’s discretion to make the best decision in each case. It provides that DFG “shall grant conditional approval to an application for partial removal of an offshore oil structure,” if the applicant follows the proper procedures and if the OPC has found that the applicant’s proposal benefits the “marine environment.” Consequently, it is unclear whether DFG has the power under A.B. 2503 to meaningfully consider alternatives to the proposed project or to require changes in a partial removal proposal before approving it. The law may force DFG to approve proposals it believes to be unwise, or worse than other feasible alternatives.

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DFG's apparent lack of discretion may conflict with its obligation under CEQA and other laws to evaluate legal, environmental, and regulatory impacts case by case. CEQA requires that State agencies evaluate and consider meaningfully a reasonable range of alternatives before making a decision. It also requires agencies to consider, evaluate, and require mitigation for a range of environmental impacts that stretch far beyond whether a project would benefit the "marine environment." Under CEQA, DFG, as the agency making the ultimate determination, cannot make that determination without considering the environmental impact analysis and ensuring it is adequate. As a result, courts may have to sort out a mess: how to harmonize this law with other laws that give agencies discretion to make sound policy decisions.

Second, platform operators' needs and wants, rather than sound policy, will drive the process. OPC must compare the marine environmental impacts of "partial removal *as proposed in the application*" with the impacts of complete removal. But the law's definition of "partial removal" – "an alternative to full removal of an offshore oil structure," as long as it complies otherwise with the new law – is vague and meaningless. As a result, platform operators will likely get to define every "partial removal" project the State will consider. As noted above, DFG may have to grant approval to the applicant's proposal if OPC finds it will yield net benefits to the marine environment, even if there may be other reasons for the agency to believe the applicant's partial removal proposal may be inappropriate for a particular platform. And it is not clear whether even OPC will be empowered to reject or modify a proposal that has net benefits to the marine environment, even if the environmental impact review finds the project would have other negative consequences. Thus, platform operators may argue the new law would impose a "take-it-or-leave-it" evaluation process, in which the State might be limited to either approving or disapproving the operator's partial removal plan.

Finally, the law may create liability problems that could cost the State both significant time and money. The State will retain obligations both to manage the structure on an ongoing basis forever, and to bear the liability associated with ownership and management. An injured party (for example, a ship owner, diver, or anyone else who incurs injury relating to the structure, or a fisherman whose net gets entangled in the structure) would have to make any future claims against the State. The State would still have to actually provide the defense and pay the claims. The law requires an "indemnification agreement" to make sure the platform operator's money ultimately pays for these costs. It allows DFG to agree to accept these indemnity funds ahead of time in the form of cash or insurance. Unfortunately, the indemnity arrangements may fail to provide enough money. That would force DFG to bear all the risk, if it later turns out that there is not enough funding to pay for the liability costs.

Moreover, based on a state Legislative Counsel opinion discussing similar issues in the context of the failed S.B. 1 legislation, it is possible that indemnity arrangements would fail to reimburse the state for liability from active negligence or from failure to comply with federal law. And despite the law's provision that the platform's owner or operator will retain liability for contamination from seepage or release of oil, the state may well end up embroiled in litigation about what chemicals and what types of discharges that provision covers.

Overall, the law is flawed. It puts oil platform operators in the drivers' seat, constrains the discretion of our State agencies to protect the environment, and may subject the State to uncertain future liability. These flaws will make it difficult for the State to develop a rigs-to-reefs program based on sound policy.

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C- for the California Legislature and the Governor, for approving A.B. 2503. Though many of the legislators and advocacy groups that supported it had good intentions, the Legislature enacted A.B. 2503 hastily, prematurely, and without sufficient care for the details. It may be possible, through "clean-up" legislation, to develop a more carefully-considered process that ensures our State agencies can consider all the relevant factors and exercise discretion to protect the environment. It is also possible this legislation is simply premature.

FURTHER INFORMATION

California Ocean Science Trust: Study to Provide Information Related to Oil and Gas Platform Decommissioning Alternatives in California

Bernstein, B. B., et al. (2010). Evaluating Alternatives for Decommissioning California's Offshore Oil and Gas Platforms: A Technical Analysis to Inform State Policy. Oakland, CA: California Ocean Science Trust. 263 pp.

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Text of AB 2503

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Sean B. Hecht is the Executive Director of the UCLA Environmental Law Center at UCLA School of Law. He directs the activities of the Evan Frankel Environmental Law and Policy Program, which include research and education on governance, regulation, and environmental policy. He teaches Public Natural Resources Law and Policy, Environmental Law, and a Climate Change Seminar, and co-directs the law school's Frank G. Wells Environmental Law Clinic. His research projects include evaluating the way courts review environmental impact analysis of governmental decisions, analyzing the insurance and finance sectors' roles in addressing climate change, and studying the adaptation of decisionmaking in the governmental and private sectors to changing climatic conditions.

Sean's work includes building collaborations on environmental issues involving academia, practicing environmental lawyers, advocacy organizations, policymakers, and the business community. He recently served on the California Ocean Science Trust's expert advisory board on offshore oil and gas platform decommissioning. He has served as a convener and facilitator for various governmental and multi-stakeholder settings and conferences. He is an advisor to, and a past chair of, State Bar of California's environmental law section, and serves on the Executive Committee of the Los Angeles County Bar environmental law section. Sean began law practice at the firm Strumwasser & Woocher, litigating cases involving election law, employment law, environmental and land-use law, and insurance regulation. Before coming to UCLA in 2003, he served as a Deputy Attorney General for the California Department of Justice, representing the Attorney General and state agencies on environmental and public health matters. He received a B.A. from Yale University and a J.D. from the University of Michigan. He blogs about environmental law and policy topics, along with other UCLA and UC Berkeley law faculty, at <http://legalplanet.wordpress.com>.

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