



Senate Committee on Appropriations  
State Capitol, Room 2206  
Sacramento, CA

May 12, 2017

Re: Opposition to SB 588

Dear Senate Committee on Appropriations,

Thank you for the opportunity to comment on the fiscal impacts of SB 588, which would revise the California Marine Resources Legacy Act to create a program allowing California Department of Fish and Wildlife to accept title to an artificial reef converted from a decommissioned oil and gas platform and designate State Lands Commission as lead agency for CEQA for platform conversion.<sup>1</sup> These comments are submitted by Turtle Island Restoration Network and Mill Valley Community Action Network.

We oppose SB 588 because it would facilitate misuse of the Pacific Ocean, which belongs to the public. Artificial reef programs, such as the one being proposed, allow oceans to be used as a trash dump for private companies. Our oceans should not be used as a trash dump. Instead, oil and gas companies should be required to properly dispose of the materials used in oil and gas production. This misuse of our ocean resources leads to a variety of fiscal concerns, as well as environmental concerns.

### **Artificial Reefs Are Inappropriate Subsidy for Oil and Gas Industry**

Oil and gas companies should remove platforms from the ocean when they are no longer useful. Allowing companies to dump oil and gas platforms in U.S. oceans is subsidizing the oil and gas industry and pushing environmental costs onto citizens. Oil and gas companies, not citizens nor marine life, should be responsible for the entire life cycle of oil and gas production, including disposal.

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<sup>1</sup> California Senate Bill 588, Marine resources and preservation (2017-2018). Available at: [http://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill\\_id=201720180SB588](http://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=201720180SB588)

Federal legislation requires that all oil and gas platforms in U.S. waters must be removed within five years after they are considered to be no longer useful for operations.<sup>2</sup> Similarly, existing state offshore oil leases generally require the removal of decommissioned oil platforms after the lease ends. These requirements were put into place to protect the ocean environment and make sure companies clean up after themselves instead of leaving the clean-up task to taxpayers. Changing the terms of these agreements and the law is not fiscally advantageous for the public.

Oil companies are potentially interested in the creation of artificial reefs because it saves them money. A portion of the cost savings would be shared with the state, but the state would also take on responsibility, including fiscal responsibility, for problems associated with artificial reefs.

### **California Should Not Pay Start-Up Costs for Program to Subsidize Oil and Gas Industry**

Cost savings to the platform owners from partial decommissioning compared to full decommissioning are estimated to be on the order of tens to hundreds of millions of dollars.<sup>3</sup> Although some of that money would eventually be routed to the state, California is being asked right now to pay to create the system under which this program would operate. The department is required to develop application materials, determine when an application is complete, develop a reef management plan, hold a public hearing in the county nearest to the proposed reef, review and provide conditional and final approval to an application, and manage and operate an approved artificial reef, among other things.<sup>4</sup> Additional costs could include litigation surrounding artificial reef creation and remediating environmental damages from the artificial reefs.

The oil and gas industry should be responsible for paying for a program that benefits them to the order of tens to hundreds of millions of dollars. The state should not be spending its limited dollars to administer a program that so clearly subsidizes the oil and gas industry, when the majority of Californians support the transition to renewable energy.<sup>5</sup> Although the original program's legislative findings included that program costs should be borne by the applicants, that is not what is being proposed here.<sup>6</sup>

Arguments for the bill in the Committee analysis suggest that no oil companies have no operator has applied for a partial decommissioning permit, despite interest because "no funding has been appropriated to [the department] for the program."<sup>7</sup> This argument squarely places fiscal responsibility for beginning the program on the state, despite clear legislative intent that California should not be responsible for bearing the initial costs of this program.

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<sup>2</sup> National Oceanic and Atmospheric Administration, Office of National Marine Sanctuaries, Science Review of Artificial Reefs, <http://1.usa.gov/1PEGSn1>

<sup>3</sup> Senate Committee on Natural Resources and Water, Bill Analysis for Senate Bill 588. Available at: [file:///Users/Cassie/Downloads/201720180SB588\\_Senate%20Natural%20Resources%20And%20Water-.pdf](file:///Users/Cassie/Downloads/201720180SB588_Senate%20Natural%20Resources%20And%20Water-.pdf)

<sup>4</sup> *Id.*

<sup>5</sup> Public Policy Institute of California, Special Survey on the Environment. Available at: [http://www.ppic.org/content/pubs/survey/S\\_706MBS.pdf](http://www.ppic.org/content/pubs/survey/S_706MBS.pdf)

<sup>6</sup> *Id.*

<sup>7</sup> *Id.*

## **California Should Continue to Lead the Country in Moving Away From Fossil Fuels**

The dilemma of what to do with oil and gas companies' old equipment is not limited to this proposal. Currently, there are 27 oil and gas platforms offshore California, and throughout the United States, the oil and gas industries are faced with hundreds of aging platforms that are approaching the end of their production capability. An 8-pile platform can weigh 800 tons.<sup>8</sup> Decisions on dumping individual platforms should not be considered in isolation; decisions should include consideration of the impacts from the many platforms that are approaching the end of their production capability.

President Trump has taken various actions to dismantle efforts to combat climate change and move towards renewable energy. California has indicated its strong leadership on climate change despite the Trump administration's movement away from combatting climate change. This leadership, in part, is based on fiscal concerns stemming from climate change. Climate change's potential fiscal impact to California includes nearly 100 billion dollars just to replace property at risk of coastal flooding.<sup>9</sup> The California legislature should not turn its back on being a leader in combatting climate change. California's work to fight climate change should include avoiding inappropriate subsidies to the oil and gas industry such as the ones at issue in SB 588.

### **Negative Fiscal Impacts from Artificial Reefs: Overfishing & Introducing Invasive Species**

Our oceans are majestic places that provide a home to approximately 2,215 endangered and threatened species.<sup>10</sup> Among the many areas of concern created by artificial reefs, we are especially worried because artificial reefs can contribute to overfishing and facilitate the expansion of invasive species. Both of these issues have fiscal, as well as environmental, ramifications.

#### Overfishing

Artificial reefs can lead to detrimental effects such as loss of more valuable habitat, overfishing and destruction of property.<sup>11</sup> Study results suggest that by aggregating existing scattered individuals, artificial reefs can have deleterious effects on exploited populations by making remaining fish too easy to catch, especially if overfishing is a problem.<sup>12</sup> The National Oceanic and Atmospheric Administration has said that concentrated fishing effort and catch at artificial reefs can increase the potential for over exploitation.<sup>13</sup> Increasing the potential for over

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<sup>8</sup> Manson Gulf LLC, <http://www.mansongulf.com/removal-8-pile-4-pile>

<sup>9</sup> California Climate Change Center, The Impacts of Sea-Level Rise on the California Coast. Available at <http://pacinst.org/app/uploads/2014/04/sea-level-rise.pdf>

<sup>10</sup> National Oceanic and Atmospheric Administration, Endangered and Threatened Marine Species, <http://www.nmfs.noaa.gov/pr/species/esa/>

<sup>11</sup> Texas Parks and Wildlife Department, Texas Artificial Reef Fishery Management Plan, <http://bit.ly/1PQesok>

<sup>12</sup> Bohnsack, J.A. 1989. Are high densities of fishes at artificial reefs the result of habitat limitation or behavioral preference? Bull. Mar. Sci. 44:631-645; Grossman, G.D., G.P. Jones, W.J. Seaman. 1997. Do artificial reefs increase regional fish production? A review of existing data. Fisheries 22:17-23.

<sup>13</sup> National Oceanic and Atmospheric Administration, Office of National Marine Sanctuaries, Science Review of Artificial Reefs, <http://1.usa.gov/1PEGSn1>

exploitation by allowing the creation of artificial reefs is a risk that can easily be avoided by requiring removal of oil and gas industry infrastructure.

### Invasive Species

In addition to ecological reasons for protecting ocean ecosystems from invasive species, there is a strong economic incentive as well. A study cited by the U.S. Fish and Wildlife Service estimates that invasive species cost the United States more than \$120 billion in damages every year.<sup>14</sup> California spends at least 82 million dollars each year to deal with invasive plants.<sup>15</sup> Multiple studies show that artificial structures may facilitate invasive species introductions and establishment by providing new unoccupied habitat for establishment, and creating corridors for further dispersal and expansion.<sup>16</sup> Approval of this artificial reef, which could lead to the spread of invasive species and potentially add to the billions of dollars the United States loses due to invasive species each year, is clearly a course of action that should be avoided.

Proponents of artificial reefs tout the creation of new communities of marine life that can grow on the discarded structures. However, these new communities are a threat to the ocean ecosystem. Communities on oil and gas platforms and the placement of human-made structures that provide new habitat are probable vectors for the spread of invasive species.<sup>17</sup> New, artificial communities should not be created unless it is shown that the new communities do not damage the existing ecosystem. The evidence that artificial structures facilitate the expansion of invasive species is significant and warrants extreme caution with the creation of artificial reefs.

The spread of invasive species on artificial reefs has been documented in various ocean environments, such as the Gulf of Mexico. In the Gulf of Mexico, invasive invertebrate species, including coral, mussels and jellyfish have been reported on artificial reefs and oil and gas platforms.<sup>18</sup> Observations in the Caribbean and the Gulf of Mexico show that the invasive coral can cause tissue necrosis and partial mortality of native corals.<sup>19</sup> The invasive coral primarily appears on artificial substrates such as submerged steel wrecks and oil and gas platforms.<sup>20</sup> These artificial structures play a major role in the spread of the invasive coral.

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<sup>14</sup> U.S. Fish and Wildlife Service, The Cost of Invasive Species, <http://1.usa.gov/1TaW2Pk>

<sup>15</sup> California Invasive Plant Council, Economic Impacts of Invasive Plants in California. Available at: <http://www.cal-ipc.org/ip/research/cost.php>

<sup>16</sup> Glasby, T.M., S.D. Connell, M.G. Holloway, C.L. Hewitt. 2007. Nonindigenous biota on artificial structures: could habitat creation facilitate biological invasions? *Mar. Biol.* 151:887-895; Sheehy, D. and S.F. Vik. 2010. The role of constructed reefs in non-indigenous species introductions and range expansions. *Ecological Engineering* 36:1-11.

<sup>17</sup> Wasson, K., K. Fenn, J.S. Pearse. 2005. Habitat differences in marine invasions of central California. *Biol. Invasions* 7(6):935-948; Glasby, T.M., S.D. Connell, M.G. Holloway, C.L. Hewitt. 2007. Nonindigenous biota on artificial structures: could habitat creation facilitate biological invasions? *Mar. Biol.* 151:887-895, Tyrrell, M.C. and J.E. Byers. 2007. Do artificial substrates favor nonindigenous fouling species over native species? *Journal of Experimental Marine Biology and Ecology* 342:54-60.

<sup>18</sup> Sammarco, P.W., A.D. Atchison, G.S. Boland. 2004. Expansion of coral communities within the northern Gulf of Mexico via offshore oil and gas platforms. *Mar. Ecol. Prog. Ser.* 260:129-143.

<sup>19</sup> Creed, J.C. 2006. Two invasive alien azooxanthellate corals, *Tubastraea coccinea* and *Tubastraea tagusensis*, dominate the native zooxanthellate *Mussismilia hispida* in Brazil. *Coral Reefs* 25:350.

<sup>20</sup> Fenner, D. and K. Banks. 2004. Orange cup coral *Tubastraea coccinea* invades Florida and the Flower Garden Banks, Northwestern Gulf of Mexico. *Coral Reefs* 23:505-507.

Another harmful invasive species is Lionfish. Lionfish are ambush predators, and can threaten local ecosystems by altering the structure of native reef fish communities by out-competing local species and reducing forage fish biomass.<sup>21</sup>

With the proliferation of invasive coral, lionfish and other harmful species, it seems obvious that measures should be taken to avoid the spread of these species. Not creating artificial reefs reduces the opportunities invasive species have to establish themselves and spread. Many studies have arrived at this same conclusion. These studies say that, in order to avoid and/or slow the introduction, establishment, and proliferation of invasive species, resource managers should consider removing or minimizing the addition of submerged artificial structures in coastal and estuarine habitats since they will likely increase the biomass and perhaps the diversity of invasive species in these systems.<sup>22</sup>

### **Conclusion: The Appropriations Committee Should Oppose SB 588**

In conclusion, the California Marine Resources Legacy Act should not be revised to make it easier for oil and gas companies to create artificial reefs instead of properly disposing of oil and gas equipment. Oil companies have been aware of the requirement to remove their equipment after its use or after the term of their lease. To change this requirement and allow companies to leave equipment in the ocean is an inappropriate subsidy to the oil and gas industry. In the age of climate change, California has demonstrated its commitment to renewable resources. If the California Legislature passes SB 588, the Legislature would be propping up the oil and gas industry to the detriment of its citizens and the environment. These artificial reefs may look like a good deal for the state, but they bring a significant amount of fiscal risk because of the threat of invasive species and the continued proliferation of the oil and gas industry.

Respectfully submitted,

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<sup>21</sup> Morris, J.A., Jr. and P.E. Whitfield. 2009. Biology, ecology, control and management of the invasive Indo-Pacific lionfish: an updated integrated assessment. NOAA Technical Memorandum NOS NCCOS 99. 57pp.

<sup>22</sup> Wasson, K., K. Fenn, J.S. Pearse. 2005. Habitat differences in marine invasions of central California. *Biol. Invasions* 7(6):935–948; Smith, N.S. 2006. Lionfish invasion in nearshore waters of the Bahamas: an examination of the effects of artificial structures and invader versus native species colonization rates. Thesis. University of British Columbia, Vancouver. 93pp; Glasby, T.M., S.D Connell, M.G. Holloway, C.L. Hewitt. 2007. Nonindigenous biota on artificial structures: could habitat creation facilitate biological invasions? *Mar. Biol.* 151:887-895.