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SUBJECT: "Evaluating Alternatives for Decommissioning California's Offshore Oil and Gas Platforms: A Technical Analysis to Inform State Policy."

After reviewing the CalOST technical report cited above I have concluded that the best course now would be to turn most of these constructed 'artificial reefs' into relatively permanent pinnacles of marine productivity.

All of the money saved by not decommissioning the structures must be placed in a trust to insure and maintain them in perpetuity. The annual interest-earnings of this fund must be used to support related marine research to enhance rig functionality and ocean productivity for a variety of human usage. This could include scientific, educational, and public and private ventures - sport fishing and diving, and supplementing depleted sport and commercial fish populations by implementing larval/juvenile mariculture ventures at suitable sites.

I believe the current AB 2503 should be modified to allow some rigs to remain intact, including their platform which could be a focal point for future, newly permitted activities. The idea that all rigs, regardless of future use, should be decapitated at a depth of 85-feet is ridiculous, and shows a lack of understanding California coastal waters. Here, we see a seasonal thermocline in shelf waters at a depth of ~50 plus or minus 50 feet, developing anew each Spring and deepening progressively through Summer and Fall to a complete breakdown in Winter. Much of the great productivity of these waters takes place in Spring, above this seasonal thermocline which marks the boundary between warming surface waters and cold subthermocline waters. Nutrients stored in the deeper waters are periodically upwelled along the coast, especially at distinct promontories, and the nutrient-rich waters promote phytoplankton (and subsequent zooplankton) growth in the warm, upper waters where sufficient light penetrates for photosynthesis. This growth of biomass is subsequently harvested by the abundant filter feeding invertebrate fauna of so characteristic of the upper reaches of the rigs. To decapitate the rigs at 65-85 feet depths would preclude capture of this rich river of plankton and terminate the subsequent rain of particles which form a major source of food for benthic and pelagic fishes

There is a tremendous cost-saving-benefit in not removing the above-water platform. The downside is some liability, but these hazards have long been present, and all are clearly marked on existing navigational charts. The Coast Guard should approve continued use; all Federal Agencies should be required to work collaboratively to make these structures useful public/private facilities, just like conversion of coastal lighthouses to unique destination spots.

A committee of seven persons should be appointed jointly by the California State Land and California Coastal Commission's to act as the governing body for Rigs-to-Reef decisions. Their decisions are then approved or disapproved, but not modified (without concurrence), by the legislature. All plans and decisions should support ecosystem-based and adaptively managed 'experiments', developed in a collaborative manner by all involved user-groups, and documented and vetted on a public website.

Please forgive my late comments on this issue; I was attending the CalOST South Coast MPA Monitoring Program Planning Workshop in Carlsbad on Monday following my attendance at the "Rigs to Reefs" Conference here in Huntington Beach last Friday (and the previous Coastkeeper sponsored Rigs to Reefs Conference in 2007). These two conferences, along with the materials handed out and posted to the website have given me an excellent view of the problems and opportunities involved in decommissioning these massive structures, a diverse number of which have been at sea for decades. The deadline for comments was mentioned at Friday's Conference, but I was unable to find confirmation of this on-line at your website.

However, this above background has provided ample opportunity to document the good, the bad, and the ugly of these structures, and some of the consequences of California oil drilling policy on our marine environment.. Like many others, I have followed the ocean oil controversy since the 1969 oil spill in Santa Barbara. I was personally

involved in monitoring the 1991 Ocean Trader spill in Huntington Beach, when I was the Manager of Compliance for Orange County Sanitation District and had my ocean program disrupted for weeks during the clean-up. And now we have the Gulf of Mexico oil spill of last April, now known to far exceed the 1989 Exxon Valdez disaster.

Where do we go from here? I believe there can be a payback from decommissioning and leaving many of these structures in place here in California. This includes maintaining a variety of artificial and highly productive habitats at known locations rising from the sea bed. My experience is that any above-bottom structure, from an old tin can to a 1000-foot tall steel structure can provide valuable habitat enhancing productivity greatly over that of the bottom surface alone. The rig surveys done over past decades adequately demonstrate this fact, with the three-dimensional structure supporting a rich diversity of invertebrate and vertebrate creatures at many depths of the water column which would not otherwise be present. And these structures are not just 'attractive nuisances' attracting fish, they are islands of biomass productivity and diversity, My personal example was building the first racks for oyster culture in 1961 for cadge in Drakes Bay-Estero, just north of San Francisco. By moving oysters off the bottom by hanging shells covered with young spat from the tops of a three-dimensional frame a greater productivity and faster growth was achieved. Two primary reasons were more direct access to plankton drifting by rather than over and past successive ranks of oysters.

My qualifications for these comments include a lifetime study of Marine Science, including CalPoly, SLO, Stanford' Hopkins Marine Station, UOP Pacific Marine Station, and UC Davis, all covering the period 1956-1968. Since that time I have worked in Southern California for CDFG at the Fishery-Oceanography Center in La Jolla, for SCCWRP, and for Two Sanitation Districts in Los Angeles and Orange Counties, retiring in 1996 as Chief Scientist and Manager of Ocean Research and Monitoring Programs. This background has included detailed work in the coastal marine environment of the Northern, Central and Southern California areas from intertidal to shelf to slope waters. I would be happy to answer any questions CalOST may have.

Sincerely,

(Original Signed)

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