COLAB SAN LUIS OBISPO COUNTY

WEEK OF DECEMBER 27, 2015 - JANUARY 2, 2016

ALERT

PROPOSED CHUMASH MARINE "SANCTUARY"

FEDERALIZING YOUR FISH, YOUR FARM, AND YOUR FUTURE

National Oceanic Atmospheric Administration (NOAA) Hearing Wednesday January 6, 2016 - Morro Bay Vets Memorial Building, 209 Surf Street 6:00 PM

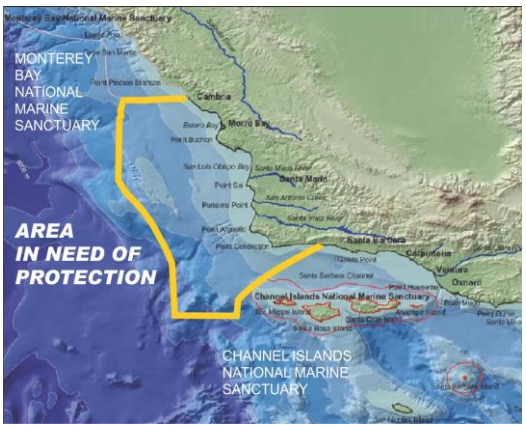
Purpose: The purpose of the proposed Chumash Marine Sanctuary is to restrict and/or foreclose the public use of ocean resources within a vast area off shore running from Cambria to Santa Barbara. As the analogous existing Monterey Sanctuary's web site says:

Resource Protection Overview

There are a variety of resource protection issues within the Sanctuary region due to the sensitivity of habitats and species in the region, the long stretch of adjacent populated coastline, and the multiple uses of the marine environment. The Sanctuary addresses these issues through a variety of means to reduce or prevent detrimental human impacts.

Note: It's those problem humans again. Note the emphasis on "detrimental human impacts."

Should we just deport them east of the Sierra?



PROPOSED CHUMASH SANCTUARY

Approaches include collaborative multi-stakeholder management efforts to identify and reduce impacts, reviewing and commenting on projects which may impact the Sanctuary, regulations on

prohibited activities, issuing of permits with conditions to minimize impacts, and where necessary, enforcement.

Note: You can be in a Delphi group and plead for your business, property rights, and fish while the leftist apparatchiks demand and threaten you.

Resource protection issues are also addressed through response to emergency events such as spills, through educational outreach to assist the public and businesses in minimizing impacts, and by monitoring to more closely target management efforts.

Additional Regulation: The establishment of the proposed marine sanctuary would impose a new and formidable layer of regulation on the people of San Luis Obispo County in addition to other water and land use regulatory quagmires currently in place. Thus the sanctuary would be in addition to the State of California Deparment of Fish and Wildlife, the State Water Resources Control Board, the Central Coast Regional Water Quality Control Board, the California Coastal Commission, the US Army Corps of Engineers, the US Bureau of Fisheries, the US Coast Guard, the US Nuclear Regulatory Commission, the California State Lands Commission, the California State Department of Boating and Waterways , the San Luis Obispo County Department of Planning and Building, the San Luis Obispo County Sheriff's Office Marine Unit, the San Luis Obispo County Air Pollution Control District, and numerous others.

Proponents: A key backer of the sanctuary proposal is the Sierra Club and its local Santa Lucia Chapter, which promotes its key benefit as being that oil, gas, and other kinds of mineral extraction activities are prohibited in Federal Marine sanctuaries. How stupid! If there were oil and gas offshore, you would think the County and others would support its recovery. Why would they slit their proverbial wrists over this kind of quackery? The royalties and taxes would help fix the horrible road and infrastructure deficit in the County (hundreds of millions). Another backer appears to be a somewhat amorphous group called the Northern Chumash, who suggest that the sanctuary is needed to protect Native American cultural and spiritual resources. A more cynical view is that their interest is simply a ploy to create a public shakedown mechanism by which jobs, contracts, and other forms of patronage are distributed to members. In other words, if you want to expand the designated fishing area, you have to get a permit from the sanctuary. Part of the permit process would require you hire a cultural resources expert to provide expert advice on whether the permit should be granted. A website supporting the Chumash Marine Sanctuary states in part:

The Sanctuary will protect now submerged Chumash Sacred sites ranging from villages to solstice alignments 6 to 13 miles offshore. Chumash records suggest occupation of the central coast area for 20,000 years with two recorded dates of:
** 18,000 years at Point Conception, an extremely important Chumash Sacred Place*
** 14,500 years on the Channel Islands*
North of Point Conception, Jalama is a Sacred Chumash village site. Other significant Chumash sites associated with the ocean ecology are found along the adjacent coastal terrain north to Point Sal including two 10,000 year-old sites within Vandenberg AFB.
Onshore San Luis Bay are four major Chumash Sacred sites – three known to have been occupied for 9,000 years:
** The site for which the City of Pismo Beach is named*

** The site where the Chumash people return to renew the Traditional Ritual Ceremony Cycle*
** The old Chumash Capital in the area of Avila Beach, now partially covered by sea level rise*
** The Chumash Sacred site at Diablo Cove along the coastline of the Pecho Coast*
Continuing north are the Chumash Village Sacred site in Los Osos, hundreds of Chumash Sacred sites ringing Morro Bay, the Chumash village Sacred site of Cayucos (continuously occupied for 8,000 years), other large sites found in the area to a mile north of Pt. Estero, and two Chumash village Sacred sites in Cambria (continuously occupied for 10,000 years).

Perhaps, by way of creating a cultural resources mitigation, the existing timeshare former hotel in Avila can be expanded into the new casino. It's situated well above any potential sea level rise.

Philosophical Orientation and Elitist Power: The Feds operate a number of marine sanctuaries around the country, including the Monterey Bay Sanctuary to the north and the Channel Islands Sanctuary to the south. Remember that the sanctuary, if established, will be a regulatory program of a Federal Department with the full force and might of Federal law enforcement behind it, including the FBI and Federal Prosecutors and backed by trillions of your tax dollars. Intellectually and programmatically this new agency will have its roots in the elitist enviro-aristocracy of Boston, Georgetown, and the upper eastside of Manhattan. We would point out that there are no Federal marine sanctuaries around Cape Cod/Martha's Vineyard, the Hamptons, or Boca Raton, where these people enjoy their carbon based coal, oil, steel and other robber baron industrial inheritances to finance their yachting, sport fishing, lobster dinners, and vacation "cottages."

Collaborative Approach? Don't throw any fish guts over the side, pee, or smoke a medicinal joint when a Monterey Sanctuary patrol plane is around or you may be doing Federal time like Martha Stewart. Note the high set rearward wing configuration and camera pods to maximize crew observation potential. This thing can fly at high enough altitude where you can't hear it. The crew can sneak up on you, orbit, and zoom in with powerful telephoto lenses. It betrays the real underlying doctrine and purpose of the sanctuary.

Wonder if they use it to check out the surf or travel to conferences too?

Monterey Sanctuary Provides a Window into Potential Chumash Sanctuary Activities and Impacts: Most busy citizens who have even faintly heard of the proposed sanctuary may believe that the regulatory focus is on fishing. In part, this is because local fisherman and other marine related interests have been quick to try to inform the public of the problems faced by their counterparts in the Monterrey Sanctuary. Everyone needs to know that the program is much more pervasive and impacts on many aspects of life. Some, but not, all of the regulatory functions include the representative samples below:

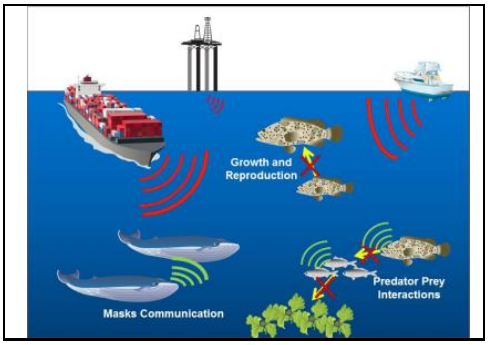
1. Agriculture: The Sanctuary will impact farming and ranching because it has the power to regulate water runoff from streams and other sources on the land. As the Monterey Sanctuary website states in its carte blanch approach to regulatory expansion: *In addition, over 7000 square*

miles of watersheds immediately adjacent to the Sanctuary drain to its wetlands and marine waters. The website ominously also states:

The aspects of agriculture that potentially impact water quality include erosion and sedimentation, offsite transport of chemical fertilizers and pesticides, and microbial contamination. Stormwater, flooding, irrigation, and leaching can all mobilize substances that are beneficial while on-site, but become pollutants as they concentrate in neighboring streams, rivers, wetlands, and nearshore waters. Though each individual farm or ranch may contribute a relatively small amount of pollutants, the cumulative effects through the length of a watershed can be damaging.

a. The Monterey Sanctuary has set up a whole process and sub-organization to regulate agricultural water (the Agriculture and Rural Lands Action Plan). It also has a dedicated staff to manage this program. This is in addition to the State's infamous Agricultural Water Runoff Order.

b. Will a Central Coast Chumash Sanctuary double down as well?



2. Acoustic Impacts: *Noise generated by human activities can have a detrimental effect on marine life. Studies have documented behavioral responses, lost listening opportunities, and physical injuries in wildlife due to exposure to anthropogenic (human-induced) noise. Sources of underwater noise include large commercial shipping traffic such as container ships, freighters, barges and tankers; smaller recreational and commercial vessels; sonars used in military training; pile drivers and dredging used in marine construction; air guns and other seismic sources used in energy exploration; sonars and other active acoustic sources used in research activities; and aerial sources such as over-flights.*

3. Climate Change: *Climate change's effects on the marine environment, including warming seawater temperatures, ocean acidification, sea level rise, and changes in currents, upwelling and weather patterns, have the potential to cause fundamental changes in the nature and character of marine and coastal ecosystems.*

The waters of Monterey Bay National Marine Sanctuary, as well as surrounding coastal areas and communities, are experiencing the effects of climate change (e.g., sea level change, increasing sea surface temperature, and ocean acidification).

4. Fishing and Harvesting: *Monterey Bay National Marine Sanctuary does not directly manage any aspect of commercial or recreational fisheries. Fishing in state waters (usually 0-3 nautical miles from shore) is generally managed by the California Department of Fish and Wildlife The responsibility for managing fishing in federal waters (beyond 3 miles) rests with NOAA's National Marine Fisheries Service (NMFS) and the Pacific Fishery Management Council (PFMC). In 2008, NOAA issued a report that provided an overview of NOAA's process for regulating fisheries in sanctuary waters as mandated by the Magnuson-Stevens Act and the*

National Marine Sanctuaries Act. Current involvement of the Monterey Bay National Marine Sanctuary in issues related to fishing includes conducting fisheries-related research, sponsoring educational events and programs (Voices of the Bay, Fishermen in the Classroom and Local Catch Monterey Bay), commenting to other agencies on fishery and ecosystem management issues, and the development of ecosystem protection plans related to fishing such as the Effects of Trawling on Benthic Habitats Action Plan and the Fishing Related Education and Research Action Plan.

a. Although they claim not to be interfering, they are feeding the other regulatory agencies. Fishermen who are struggling to survive are facing the powerful staff, financing, and advocacy of a Federal agency.

b. Who is representing the fisherman with public money? Where is the equity?

5. **Oil and Gas Development:** *Development of a permanent prohibition on oil and gas activity was one of the major reasons for designation of the Monterey Bay Sanctuary. However, there is some level of remaining threat due to potential oil development to the south of the Sanctuary. In the past 10 years the State of California has adopted legal restrictions to prohibit new oil and gas leasing and development. Temporary moratoria have been in place for federal waters since 1982. The most current directive (June 1998, Clinton administration) under the OCS Lands Act prevents any leasing of new areas for oil and gas exploration and development through June 30, 2012. The OCS presidential deferrals do not restrict development of already leased Federal areas. There are 36 remaining undeveloped active OCS leases south of the MBNMS off the coast in San Luis Obispo and Santa Barbara counties. Should these sites eventually be developed, any potential spills could potentially cross Sanctuary boundaries and impact sanctuary resources. Oil spills could have a major impact on foraging birds, marine mammals and fishes, as well as important habitat like kelp beds, wetlands and rocky shores, and on tourism and the coastal economy.*

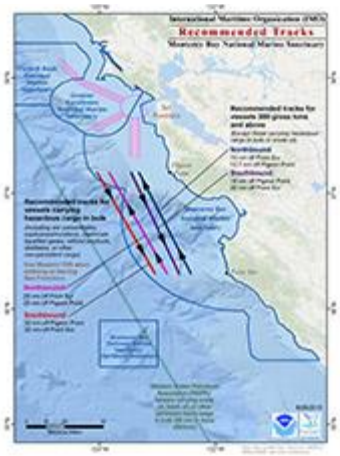
a. Note that the Sanctuary staff writer sees oil and gas development as a "threat." So much for fair and impartial government administration. Wonder how they power the patrol plane? Or get to work for that matter.

6. Cruise Ships: *Large cruise ships began visiting Monterey in 2002. These ships can provide local businesses with economic benefits, particularly if they introduce the region to tourists who may return for later visits. However, both the public and businesses have raised concerns about environmental issues associated with these ships.*

Due to cruise ship visitation to Monterey Bay, and concern over potential impacts to marine resources from these vessels, this issue has drawn significant attention from the public. At the February 7, 2003 meeting, the MBNMS Advisory Council passed a resolution

recommending that MBNMS staff pursue a regulatory prohibition on harmful discharges from cruise ships.

a. Note that anonymous "concern" spurs the agency into developing a regulatory prohibition.



7. Shipping Lanes: *There are approximately 4000 transits of the Sanctuary each year by large shipping vessels (greater than 300 gross tons), including container ships, bulk freighters, hazardous materials carries, and tankers. Vessel traffic within the Sanctuary was a major issue of concern raised during the designation process due to potential impacts from a large spill should one of these vessels ground along the coastline. For example, an oil spill could severely impact the sea otter population. The Sanctuary also hosts an abundance of whales and the National Marine Fisheries Service has identified vessel strikes as one of the threats that could impede the recovery of endangered whales so it is vital to understand vessel traffic in the Sanctuary, for more information on ship strikes see whale strikes.*

8. Desalination - Sanctuary Regulations and Desalination: *Without careful planning and mitigation measures, desalination plants have the potential to negatively impact the sensitive marine environment of the sanctuary. For example, marine organisms can be killed by impingement against seawater intake screens or by being pulled through the intake system (referred to as entrainment); marine life can be significantly impacted by discharge of the saline brine and other by-products produced by desalination, and; local seafloor habitat may be significantly altered by construction of intake and outfall structures.*
Three of the sanctuary's regulations relate directly to desalination. The first involves a prohibition on discharging or depositing any material within Sanctuary boundaries. Since the brine effluent, and in some cases other materials, are usually disposed of in ocean waters, this activity requires Sanctuary authorization of Regional Water Quality Control Board (RWQCB) permits. The second sanctuary regulation pertains to discharging materials outside of the boundaries, which subsequently enter sanctuary waters and negatively impact MBNMS resources. As with the previous regulation, MBNMS approval via authorization of the RWQCB permit is required. The third relevant regulation involves a prohibition on activities that cause alteration of the seabed. Thus installation of certain desalination facility structures such as an intake/outfall pipeline on or beneath the ocean floor will also require sanctuary authorization.

Note: Each of the substantive functional areas discussed above is backed up with some more detail examples about what they actually mean in terms of regulations and permitting. Our reading of the desalination component suggests that it will be almost, if not totally, impossible to obtain the permits from all the cognizant agencies for a central coast (say combined Santa Barbara County/SLO County large scale desal plant) even without the opposition advocacy of a new marine sanctuary. While proponents are citing prohibitions on oil and gas development as the main justification, we think that this may be a ploy to drive a final nail into the coffin of any

major future desal proposal. We have included some of the detail from the Monterey Bay Sanctuary website about its position on desalination in the Addendum starting on the bottom of this page as an illustration of this potential.

As a separate concern not specific to desal, we have also included that material as an illustration of the approach which the Monterey Sanctuary takes toward each of the substantive regulatory areas such as agriculture, fishing, recreation, etc. We have done this to inform the public and our members of what is likely to be the type of regulatory language that they would face in their respective business and lives if a Chumash Marine Sanctuary is established.

Lack of Basic Information: As noted in the **COLAB ALERT** at the top of this article, there is a hearing on Wednesday January 6th, 2016 during which the National Oceanic and Atmospheric Administration (NOAA) will take public testimony on what locals think about the proposed sanctuary. There is the usual rhetoric about its benefits and functions but little detail about its structure and cost. This information is essential for the public to make an informed opinion concerning the creation of a new government agency. For example:

1. What is the expected annual operating budget for the new sanctuary? Does experience in the Channel Islands and Monterey Bay sanctuaries provide any data on this question?

2. Similarly, how many staffers will be employed by the new sanctuary?

3. What does the typical table of organization look like?

4. What types of professions and job titles will be involved?

5. Will any of the staff be Federal officers with police powers? Will any such officers be assigned collaterally?

6. What has been the regulatory violation and enforcement experience in the Monterey Bay and Channel Islands sanctuaries to date – year over year?

7. How much in fines is collected each year?

8. Would the Federal Government consider letting the citizens of San Luis County vote on the issue rather than simply having some Federal imperial praefect make the decision?

9. Proponents claim that there is an economic development net benefit to communities which host a Federal marine sanctuary. Where is the independent economic analysis to support this assertion?

ADDENDUM
MONTEREY BAY MARINE SANCTUARY GUIDELINES ON DESALINATION

Desalination: The italicized text is contained in the Monterey Bay Sanctuary's web pages on desalination:

While the MBNMS does have regulatory authority over all new desalination plants within its boundaries, these guidelines are non-regulatory in nature, and were designed to address a comprehensive set of issues, reflecting the mandates of numerous agencies involved in review of desalination proposals.

COLAB NOTE: What a strange statement: We have regulatory authority over all new desalination plants, but these guidelines are non-regulatory in nature. What will they really do if a plant is proposed? **(See COLAB note below)**

They were developed in partnership with several resource protection agencies using a collaborative and comprehensive process based on objective scientific information, and reflect the input of numerous people. Most of the information submittal requirements detailed in the above guidelines will be routinely required as part of the environmental review process for an Environmental Impact Report under the California Environmental Quality Act, or an Environmental Impact Statement under the National Environmental Policy Act.

COLAB NOTE: In this case it appears that the Sanctuary will function as a watchdog and advocate against desalination. Thus your Federal tax dollars would be used to fight an application before other regulatory agencies such as the Coastal Commission. The Sanctuary would be in the enviable (but unethical position from our standpoint) to function in a biased manner since it does not have to maintain the appearance, let alone the substance, of being a fair and unbiased regulator. This alone and in itself should be sufficient reason for San Luis Obispo county businesses of all types to oppose this out of hand. Moreover it should be a compelling reason for the County government, each of the cities, and other local agencies to strenuously oppose it.

3. Environmental Impacts of Desalination

Without careful planning and mitigation measures, desalination plants have the potential to harm the marine environment. One of the major concerns associated with desalination facilities are the impacts that result from the introduction to the ocean of concentrated saline brine that may kill or harm sensitive marine organisms. A second concern is that the intake of ocean water *directly through desalination plant pipelines can result in the death of marine life through impingement (where marine organisms collide with and become trapped on screens at the intake pipe) or entrainment (where animals and plants are taken into the plant through the pipe and are killed during plant processes). A third contentious environmental issue associated with desalination is the potential for the additional water supply to induce additional coastal development, which could lead to significant indirect impacts such as degradation of water quality from increased urban runoff, and other pressures to the sensitive coastal environment resulting from increased population.*

COLAB NOTE: See the blatant anti-growth doctrine here – REMEMBER THIS IS A FEDERAL AGENCY SAYING THIS!

A fourth concern is that desalination plants are also energy intensive facilities whose electricity use could result in significant volumes of greenhouse gas emissions, thereby contributing to climate change impacts of concern to NOAA such as ocean acidification and habitat loss due to sea level rise. A fifth concern is that new pipeline construction associated with desalination plants can disturb the seafloor, surf zone and dunes, and has the potential to change coastal hydrology. Finally, operations and maintenance activities for desalination plants can cause negative impacts to the marine environment. Permits for desalination related to discharges into the sanctuary, and certain construction activities must be authorized by the MBNMS.
NOAA recommends taking a precautionary approach since little is known about the site specific and cumulative impacts of desalination plants and we have no experience with large-scale seawater desalination facilities in California.

General Guidelines:

• Desalination plant proponents should provide a thorough analysis of the potential impacts to the coastal ecosystem for the proposed desalination plant and all project alternatives. Specific requirements are listed below by category.

Guidelines Regarding Cumulative Impacts:

• Desalination plants in the MBNMS should be designed, sited, and operated to avoid or minimize cumulative impacts. The project proponent should provide a detailed analysis on the potential cumulative effects of the proposed desalination plant discharges in combination with other existing and future point sources of pollution (i.e., wastewater discharges, power plant cooling water, and other desalination plants) as well as non-point sources of pollution (i.e., large rivers and outfalls) and other seawater intakes. Where it is feasible to combine the desalination discharge with another discharge, the project proponent should compare the likely effects of the combined discharges with the two separate discharges.

Guidelines for Entrainment and Impingement:

• All desalination plants in the MBNMS should be designed and sited to avoid and minimize impingement and entrainment to the extent feasible. Desalination project proponents should investigate the feasibility of using subsurface intakes as an alternative to traditional intake methods. Other options for consideration should include, but may not be limited to: vertical and radial beach wells, horizontal directionally drilled (HDD) and slant-drilled wells, seabed filtration systems and other sub-seafloor structures. Where feasible and beneficial, subsurface intakes should be used. It must be ensured however, that they will not cause saltwater intrusion to aquifers, negatively impact coastal wetlands that may be connected to the same aquifer being used by the intake, and they must address the likelihood of

increased coastal erosion in the future. Subsurface intakes have the potential to minimize or eliminate impingement and entrainment impacts and improve the performance and efficiency of a desalination project by providing a certain level of pretreatment.

• In cases where it has clearly been determined that sub-surface intakes are not feasible and that an open ocean intake is necessary, the use of appropriately sited existing pipelines of acceptable structural integrity should be investigated and if feasible, pursued, to minimize impacts to the seafloor. If a new pipeline is necessary, subseafloor placement should be evaluated to minimize disturbances to biological resources and to recreational and commercial activities.

• When it is necessary to use an open ocean intake, other methods to minimize impingement and entrainment should be evaluated and pursued. These should include design alternatives such as placement of the intake structure to avoid sensitive habitat or highly productive areas, screening the intake ports, if feasible, increasing the number of intake ports, or decreasing the intake velocity. The project proponent should determine expected entrainment and impingement impacts associated with various intake velocities and screen mesh sizes, based upon long-term monitoring data from the area, including diurnal and seasonal variations in planktonic abundance and location.

• Any impacts to EFH and the biota it supports that cannot be avoided through project design or operations will require mitigation, as per NMFS' regulatory requirements. The necessary level of mitigation is to be determined through the use of a biologically based model, such as the habitat production foregone method, in order to account for all "non-use" impacts to affected biota. Mitigation projects should attempt to directly offset the impacted species or habitat (in-place, in-kind mitigation) although NOAA will work with the project proponent to identify appropriate mitigation if this is not possible.

Guidelines for Brine Discharge:

• All desalination plants should be designed to minimize impacts from the discharge. Desalination project proponents should investigate the feasibility of diluting brine effluent by blending it with other existing discharges. The proponent should evaluate the use of measures to minimize the impacts from desalination plant discharges including discharging to an area with greater circulation or at a greater depth, increasing in the number of diffusers, increasing the velocity while minimizing the volume at each outlet, diluting the brine with seawater or another discharge, or use of a subsurface discharge structure.

• The project proponent should provide a detailed evaluation of the projected short-term and long-term impacts of the brine plume on marine organisms based on a variety of operational scenarios and oceanographic conditions. Modeling should address different types of seasonal ocean circulation patterns, including consideration

of "worst case scenarios".

• Results of accepted plume models should be included, to illustrate how the plume will behave during variable oceanographic conditions. The plume model should estimate salinity concentrations at the discharge point, as well as where and when it would reach ambient ocean concentrations. The extent, location, and duration of the plume where the salinity is 10% above ambient salinity should also be provided.
• The project proponent should provide information on the physical and chemical parameters of the brine plume including salinity, temperature, metal concentrations, pH, and oxygen levels. These water quality characteristics of the discharge should conform to California Ocean Plan requirements and should be as close to ambient conditions of the receiving water as feasible.

• A continuous monitoring program should be implemented to verify the actual extent of the brine plume, when deemed necessary (see Monitoring on page 13) and to determine if the plume is impacting EFH, critical habitat, or sanctuary resources. If it is, then mitigation for the EFH impact will be required.

Guidelines for Energy Use and Greenhouse Gas Emissions:

• The project proponent should provide estimates of a facility's projected annual electricity use and the greenhouse gas emissions resulting from that use. Applicants should also identify measures available to reduce electricity use and related emissions (e.g., energy efficient pumps, low resistance pipes, use of sustainable electricity sources, etc.) and to mitigate for all remaining emissions (e.g., purchase of offsets and/or credits that are consistent with the policies and guidelines of the California Global Warming Solutions Act of 2006 (AB 32), etc.).

Guidelines for Co-location with Power Plant:

• Desalination plants proposing to co-locate with power plant once-through cooling systems should include an assessment, during the environmental documentation phase, of the impacts that would occur when the power plant cooling system does not operate, along with an analysis of alternative intake and outfall structures that would avoid or minimize these impacts.

Guidelines for Co-location with Sewage Treatment Facilities:

• In consideration of recent interest by many municipalities regarding water recycling projects, the project proponent should evaluate the continued availability and reliability of that discharge in the future due to the potential for additional wastewater recycling projects. Additionally, where treated wastewater is available for recycling, proponents should determine the feasibility of using it as the source water to be desalinated for use in groundwater recharge – i.e., indirect potable reuse
.
• The project proponent should provide a thorough analysis of the potential impacts to

marine organisms resulting from the combined properties of the discharge, as well as how the addition of brine effluent would affect the dispersal/dilution of the wastewater effluent.

• Sewage treatment plants do not discharge at a constant rate throughout the day, typically discharging a much higher volume during daytime hours versus nighttime. Desalination plants tend to operate during the night when power is cheaper. The project proponent should evaluate these diurnal fluctuations in operation. When modeling for dilution of the brine plume, it is crucial to include a "worst case scenario" analysis of the dilution properties of the combined wastewater effluent and brine plume, during lowest expected flow rates for the treated wastewater effluent.

• The project proponent should include an assessment, during the environmental documentation phase, of the impacts that would occur from brine discharge if the wastewater discharge were to cease

Guidelines for Use of Chemicals for Treatment and Cleaning:

• The project proponent should provide a complete list of all chemicals that may be used for the desalination plant as well as how these will be stored and disposed. They should also include an evaluation of the potential for these chemicals to cause impacts to local marine organisms.

• The project proponent should identify and quantify all procedures and chemicals to be used for cleaning and maintaining the outfall and intake structures, filter membranes, and all other aspects of the plant. This should also include a detailed spill prevention and response plan for chemicals stored at project site.

• The project proponent should evaluate the feasibility of using alternative pretreatment techniques such as ozone pretreatment, subsurface intakes, and membrane filtration, aimed at reducing the use of chemicals.

Guidelines for other Environmental and Socioeconomic Impacts:

• Desalination plants should be designed and operated to minimize impacts to recreational and commercial activities that occur within the MBNMS. The project proponent should provide a thorough evaluation of the potential impacts of the proposed project and alternatives to recreation, public access and safety that result from the construction, operation, and maintenance of the facility. These should include but not be limited to potential impacts to SCUBA divers, kayakers, recreational boaters, and commercial and recreational fishermen.

• Desalination plants should not interfere with vertical or lateral public access to the shoreline or to coastal waters. The project proponent should provide an evaluation of how the construction and operation of the plant would affect coastal access at the sites.

• Desalination plants in the MBNMS should not contribute to coastal retreat and should not be designed to anticipate the possibility of installing coastal armoring at any time in the future to protect the plant or its infrastructure from the effects of coastal erosion, wave action, or sea level rise. The project proponent should provide a detailed evaluation of the potential for coastal erosion to affect the construction and operation of the plant, as well as the potential for the proposed project to require new coastal armoring structures in the future to protect related infrastructure including intake and outfall pipelines. The anticipated need for planned retreat of infrastructure due to coastal erosion should be considered.

• Desalination plants should be designed to minimize visual impacts to coastal resources.

• The project proponent should provide an analysis of the potential for co-location of desalination plants to make use of existing infrastructure should be required.

Guidelines for Desalination Plant Construction Phase:

• The project proponent should identify and provide a complete explanation of potential impacts from the construction process to the marine and coastal environment. They should also provide an evaluation of marine historical or archaeological resources that could be disturbed, and plans to mitigate any potential impacts, or recover any resources that may be disturbed during construction.

• All proposed projects should provide a stormwater pollution prevention plan (SWPPP). Stormwater runoff from the site should be managed to prevent any discharge of silt or chemical contaminants to the ocean or any other surface water body. The SWRCB General Construction Storm Water Permit for Construction Activities (General Permit) is required by the Central Coast Water Board for all construction activities that disturb at least one acre of soil, including grading and stockpiling. Local jurisdictions may require additional construction permits and SWPPPs at lower disturbance thresholds.

• Best Management Practices should be developed and adhered to in order to avoid or minimize impacts to the marine environment during the construction phase of a desalination project. This should include the use of materials and practices that minimize disturbances to the environment to the maximum extent practical

• In the case of any accidental spills or construction-related impacts to marine resources, MBNMS and NMFS management should be notified immediately and mitigation plans developed.

• The plant construction phase should include techniques and plans to avoid impacts to maritime heritage resources of the MBNMS. This includes submerged cultural and archeological resources including shipwrecks.

• Project proponents should adhere to the following conditions for all construction activities occurring on the beach:

o No construction work or equipment operations may be conducted below the mean high water line unless tidal waters have receded from the authorized work area. Grading of intertidal areas is prohibited.

o Construction materials and equipment are to be delivered to the beach area via an existing access point. When transiting to the worksite, vehicles shall remain as high on the upper beach as possible and avoid contact with ocean waters and intertidal areas.

o Only natural rock material of the type and amount specified in the authorization may be discharged into the boundaries of the Sanctuary. No other material (e.g., sediment, concrete, asphalt) may be discharged into the Sanctuary at any time.

o All forms and construction materials must be stored beyond the reach of tidal waters during the construction period and must be removed from the beach when no longer needed for construction purposes.

o Equipment and construction methods that minimize noise in the marine environment should be used.

o Discharge of pH balanced water from the construction site into the adjacent marine environment shall only be done in accordance with pH level standards specified by the California Ocean Plan.

o The selected concrete grouting compound shall include accelerators that will catalyze the compound rapidly after pumping, producing a cure sufficient to avoid altering the pH level of ocean waters upon first contact. As described in the construction plan, biodegradable sand bags stuffed with straw or sand shall be positioned during grouting activities to prevent uncured concrete from migrating to adjacent waters. The sand bags shall be removed prior to contact with waters of the following flood tide.

o Barriers or cofferdams may not extend seaward of the mean high water line.

o Disturbance of marine mammals or seabirds is not allowed. Authorization for incidental or direct harassment of species protected by these acts must be secured from the U.S. Fish and Wildlife Service and/or NMFS, depending upon the species affected.

• Mitigation should be provided for the loss of EFH from the placement of the intake structure, delivery pipeline, and outfall structure.

4. Monitoring:

For all desalination projects, the project proponent should develop an ongoing monitoring program to evaluate the extent of impacts from the plant's intake and discharge operations to marine resources. The monitoring program should focus on: a) developing a statistically acceptable baseline for the project area, b) monitoring source water for potential contaminants that may require additional treatment, c) monitoring the effluent prior to discharge to ensure it is in compliance with the California Ocean Plan d) monitoring the effects of the effluent on marine organisms within the plume, after the discharge begins, e) monitoring the impingement and entrainment effects on marine organisms, if applicable, and f) monitoring any required mitigation for unavoidable impacts to make sure the mitigation is performing as intended.

NOAA GUIDELINE:

The proposed monitoring system should be carried out for at least three years, with an evaluation report and cumulative impact evaluation generated each year. After the third year, the RWQCB and the MBNMS should determine the extent of additional water quality monitoring for the final two years of the NPDES permit, and National Marine Fisheries Service (NMFS) and MBNMS should determine the extent of additional biological monitoring that may be needed.

Minimum submittal information required for project application should include:

1. Initial evaluation of recreational, public use, and commercial impacts in vicinity of desalination facility.

2. Initial monitoring to determine currents, tides, water depth and similar parameters of receiving waters.

3. Pre-construction biological analysis with consideration of seasonal variability, of marine organisms in the affected area and control site to include ecological indices (e.g. species richness and abundance), along with evaluation of entrainment and impingement impacts.

4. Pre-construction estimation of expected brine composition, volumes, and dilution rates of the brine in the zone of initial dilution.

5. Plan for whole effluent toxicity (WET) testing as an ongoing monitoring requirement.

6. Studies to determine properties of combined discharges (cooling water or wastewater), and their effects and toxicity on local species

7. Post-operational monitoring of salinity in zone of initial dilution and control site, as indicator for plume spreading and dispersal, to be compared with expected

results from plume and circulation modeling. If not in compliance then identify and implement corrective actions.

8. Operational monitoring of quantities (biomass and species) of marine organisms entrained and impinged, if applicable.

9. Post-construction biological analysis to compare to baseline.

10. Mitigation plan including monitoring methodologies and success criteria.

THIS WEEK

BOARD OF SUPERVISORS AND OTHER BOARDS DORMANT FOR 2 WEEK WINTER RECESS

LAST WEEK

NO BOARD MEETING DUE TO WINTER RECESS

THIS WEEK'S HIGHLIGHTS

No Board of Supervisors Meeting on Tuesday December 27, 2015 (Not Scheduled). There will be no Board meeting as there will be a two week winter recess. Other bodies are also dormant. The next Board meeting will be on Tuesday January 5, 2016.

LAST WEEK'S HIGHLIGHTS

There was no Board meeting due to the winter recess.