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**April 20, 2011**

Michelle Mata  
San Diego Regional Water Quality Control Board  
9174 Sky Park Court, Suite 100  
San Diego, CA 92123

**Via Electronic Mail**  
[mmata@waterboards.ca.gov](mailto:mmata@waterboards.ca.gov)

**Re: Tentative Order No.R9-2011-0022, NPDES Permit No. CAG999002**  
*General Waste Discharge Requirements For Discharges Associated With Public Displays of Fireworks To Surface Waters In The San Diego Region*

Dear Ms. Mata and Regional Board members:

Please accept these comments on behalf of the Coastal Environmental Rights Foundation (CERF) in opposition to Tentative Order No. R9-2011-0022 (Fireworks Permit) by the Regional Water Quality Control Board (Regional Board). CERF is a nonprofit environmental organization founded by surfers in North San Diego County and active throughout California's coastal communities. CERF was established to aggressively advocate, including through litigation, for the protection and enhancement of coastal natural resources and the quality of life for coastal residents.

Unfortunately, as written, the Fireworks Permit is unsupportable. The revisions to the Permit since its first release have largely undermined the goals of the Clean Water Act and California Water Code, in some instances in direct violation of these laws. While, CERF appreciates the tremendous pressure the Regional Board faces as the first agency to regulate these discharges, a permit that is not truly protective of water quality, nor focused on closing information gaps, falls short of its purpose.

Admittedly, the information available to date has largely come from Sea World, and has been of limited usefulness in drafting a general permit for so varied firework events discharging into numerous water bodies. Though this reality has been candidly expressed by the Regional Board, it has not been reflected in the Fireworks Permit itself. In highlighting the shortcomings of the current draft, CERF hopes to provide suggestions that will enable the Regional Board to modify and adopt a scientifically sound Fireworks Permit which meets the two goals of gathering information currently lacking and ensuring water quality protection in the interim.

**I. The Permit Categorical Thresholds Are Arbitrary**

The current Fireworks Permit divides dischargers into two categories. Category 1 dischargers are distinguished from Category 2 dischargers by (1) receiving water body and (2) a threshold net explosive weight of 1000 lbs. However, the Board's reasoning for the "net explosive weight" distinction is not explained in any level of detail. Indeed, it is undermined by staff's analysis of the available monitoring data.

Furthermore, the diving logs for sample collection under Order No. R9-2005-0091 provided additional documentation of fireworks debris on the benthos of the discharge zone. **It is likely that firework duds, the incomplete combustion of fireworks, and post-fragmentation debris (wires, cardboard, etc...) contributes equal, if not greater, loads of pollutants to the benthos of receiving waters**

**than particulate fallout.** However, the proportion of pollutants from particulate fallout in relation to duds, debris or incomplete combustion has not been tested or quantified. (Permit, Fact Sheet, p. F-18, emphasis added).

The net explosive weight, as defined in Appendix A, includes the “weight of all pyrotechnic compositions, explosives material, and fuse only.” (Permit, Definitions, p. A-5). Excluded from this definition, and thereby made irrelevant to the categorical threshold issue, is paper and paste. Such an approach cannot be reconciled with the above-quoted language, which clearly indicates duds, and post and incomplete combustion debris, including paper and paste, likely contribute equal *if not greater* pollutant loads to receiving waters.

As highlighted in the Fireworks Permit, diving logs at Sea World clearly evidence the deposition of duds and other firework debris in the fallout area, eventually on the bay floor. (Permit, Fact Sheet, p. F-18). Sea World has reported an average of 11 lbs nightly and 8 lbs the next morning are picked up along the surface of the water and at Fiesta Island. (*Id.*). However, this debris is unaccounted for in the Regional Board’s threshold, which only considers “net explosive weight”.<sup>1</sup> In light of the Board’s “discharge description”, which clearly reflects all firework components reach surface waters, such an approach is unsupportable.

The chemical constituents within the fireworks are scattered by the burst charge, which separates them from the fireworks casing and internal shell components. A firework **combustion residue** is produced in the form of smoke, airborne particulates, chemical pollutants, and **debris including paper, cardboard, wires and fuses.** This combustion residue can fall into surface waters. In addition, **un-ignited pyrotechnic material** including duds and misfires can also fall into surface waters. (Permit, pp. 10-11).

Although it is unclear how dischargers would estimate their “net explosive weight”, available figures show it is not a simple calculation. A cursory review of 2010 fireworks events in the City of San Diego has shown the following *shell numbers* for events:

Event	Waterbody	Total # of Shells
Big Bay Boom	San Diego Bay	18,040
Paradise Point	Mission Bay (Paradise Point)	986
La Jolla Cove	Pacific Ocean (La Jolla Cove)	804
Sea World	Mission Bay (Fiesta Island)	520
Mira Mesa Community 4th of July	n/a	463
Ocean Beach Main Street	Pacific Ocean (OB Pier)	416
Rancho Bernardo Spirit of the 4th	n/a/	382
Lake Murray	Lake Murray	364
La Jolla Country Club	n/a	328
Mission Bay Yacht Club	Mission Bay (Sail Bay)	143

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<sup>1</sup> One FBMP requires dischargers to remove and manage particulate matter and debris from the firing range and affected surface waters, but this is only to be done to the “extent practical” and can be delayed a full 24 hours after the public display – at which point much of the pollutants will have settled or been carried away by prevailing winds and currents. (Permit, p. 19).

The event with by far the largest number of fireworks shells is the Big Bay Boom<sup>2</sup>. The second largest is Paradise Point, adjacent to the Sea World show, and within the same 303(d) listed waterbody, Mission Bay. The third largest show is La Jolla Cove, adjacent to the La Jolla ASBS. As currently written, the Fireworks Permit does not account for shell number.<sup>3</sup> Indeed, as explained below, the La Jolla Cove fireworks show adjacent to the ASBS enjoys an exemption in the current draft of the permit without any mention of the number of shells used.

Sea World's January 2007 Report, prepared by Dr. Conkling, estimated firework weights and composition based on firework vendor representations and Department of Transportation applications. (An Analysis of the Fireworks Used at Sea World/San Diego, John A. Conkling, January 2007 ("Conkling Report")). These number have not been independently verified, and the analysis below is merely illustrative of the oversimplification used in determining categorical thresholds.

Based on these figures, it appears the relationship between chemical composition and number of shells is not linear. This is actually evident in the Regional Board's own analysis, as 6 minute shows, consisting of up to 250 shells are estimated to weigh 216 pounds of the total 284 pounds. (Fireworks Permit, Fact Sheet p. F-36; Conkling Report, Appendix C). Major shows (such as 4<sup>th</sup> of July shows) last 20 minutes, consist of up to 1750 shells, and reportedly weigh 961 pounds of the total 1313 pounds. (*Id.*; Conkling Report, Appendix D). Dr. Conkling's report states 4<sup>th</sup> of July shows comprise of 1,418 shells (not 1,750). However, even assuming the 1,750 figure is accurate, it is clear the relationship between number of shells and net explosive weight is not linear. For the 6 minute shows, net explosive weight is 75 percent of the total weight, and each shell is assumed to weigh .864 lbs. For 20 minute shows, net explosive weight is only 73 percent of the total weight. Using the 1750 figure, shells are assumed to weight .55 lbs each, and .68 lbs using the 1418 shell figure.

Also evident in Dr. Conkling's analysis is the fact that total shell number is not as important as shell size. As shell size goes up, the chemical constituents, as a percentage of the total firework composition, goes up (ie. explosive weight increases). Mr. Conkling's figures have been used to create the table below.

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<sup>2</sup> Sea World data shows 1,418 shells are used during 4<sup>th</sup> of July events. Its application to the City of San Diego states only 520 shells are used. It may be the case that the figures for 4<sup>th</sup> of July in Dr. Conkling's study are now out of date and inaccurate. CERF suggests the Regional Board obtain clarification as to this discrepancy. Another discrepancy exists regarding the total weight of 4<sup>th</sup> of July fireworks (previously cited in the Permit as 2185lbs). This figure is also cited in Sea World monitoring reports.

<sup>3</sup> Event organizers, including those of the Big Bay Boom, always speak of bigger and better shows. In all likelihood, these numbers will only increase in future years.

### Firework Composition by Shell Size

		Weight (g)	% Weight
3 INCH	Break/lift	65	25
	stars	100	38
	paper/paste	96	37
	Total	261	
4 INCH	Break/lift	120	25
	stars	255	54
	paper/paste	96	20
	Total	471	
5 INCH	Break/lift	265	29
	stars	510	56
	paper/paste	141	15
	Total	916	
6 INCH	Break/lift	390	26
	stars	850	56
	paper/paste	279	18
	Total	1519	

Simply counting the number of shells used does not give an accurate “net explosive weight”. It is also evident that it does not capture the full extent of pollutants actually reaching the receiving waters, which would be more accurately captured by total weight for each show. More importantly this exercise still does not accurately characterize those discharges which are likely to adversely impact water quality. This is because the Regional Board does not have sufficient data – nor do firework event sponsors – to determine the threshold at which firework events are unlikely to cause impacts to water quality.

It appears staff relied upon the only data available (which as explained below is highly suspect) to set the threshold between Category 1 and 2 dischargers. Though staff acknowledge the limited usefulness of the monitoring data, the Fireworks Permit nonetheless sets an arbitrary threshold based entirely on this data. After looking at *six sampling events*, this conclusion is reached regarding the potential of certain categories of fireworks events to negatively impact water quality.

The water column monitoring documented an increased level of total metal concentrations in the SeaWorld fireworks fallback area relative to the reference site(s) for aluminum, cadmium, chromium, copper, lead, nickel, selenium, thallium, vanadium and zinc. The dominance of pollutants in the particulate form after major events provides evidence that single fireworks event greater than 1000 pounds has the reasonable potential to contribute pollutants to sediment in an enclosed bay or estuary. While sampling in the SeaWorld fireworks fallback area **clearly**

documented an accumulation of metals within the fallback area sediment, the data on cumulative effects is too limited to discern differences in accumulation between and among events, nor determine rates of accumulation or attenuation (see Figure 3). (Permit, Fact Sheet, p. F-17 (emphasis added)).

Thus, based entirely on an increased percentage of impacted sediment samples after two major fireworks shows at Sea World (4<sup>th</sup> of July and Labor Day), the Regional Board has determined shows that are not major are not likely to impact water quality. However, this syllogism does not hold true.

What can be said is that after the two major events, more sediments were impacted and water quality likely impacted as well. What cannot be said is that absent major events the sediment is not impacted. Indeed, two other sampling events were conducted outside of the fireworks season, one of which showed a higher percentage of impacted sediments, another which showed a low percentage of impact. As for the remaining two sampling events, they were also conducted during fireworks season, and they both showed elevated impacts to sediment. However, one of these sampling events was not related to a major event. Thus, the only thing that can actually be gleaned from this data is that fireworks cause impacts.

Further, *even if* major fireworks shows were the *only ones* associated with water quality or sediment impacts, the threshold would properly be set to capture the major shows, **not above them.**<sup>4</sup> The estimated net weight associated with major shows is 961 lbs. Thus, at the threshold level of 1000 lbs, even these shows would not be captured in Category 1.

Therefore, the threshold – set entirely based on a net explosive weight associated with major events – is not supported by the Sea World data, or logic. Major fireworks shows cause impacts, and smaller ones cause impacts as well.

A more rational approach to distinguishing between fireworks shows would take into account a number of factors, including: the number and size of shells used in the event; proximity to other events in the same waterbody or upstream/downstream waterbodies; whether the receiving water is 303(d) listed; special protections and designations for the receiving water; and frequency of events.

CERF urges the Regional Board to return to the approach taken in the first draft of the Fireworks Permit, which did not distinguish between categories of dischargers. Rather, monitoring should be required in at least one location for each water body where fireworks are discharged, and all 303(d) listed waterbodies. In addition, all discharges into or near an ASBS should be prohibited.

## II. Sea World Monitoring Is of Limited Value

In the 2005 four-year monitoring report, SAIC chose three reference sites in Mission Bay Channel, Mariner's Basin, and Quivira Basin, "generally upwind" from the Sea World fireworks barge, and "therefore, expected to be unaffected by the fireworks displays." (SAIC, Impacts From SeaWorld San Diego Fireworks Displays to Mission Bay Sediment and Water Quality, Year 4 Monitoring Final Report). This did not, however, take into account the other fireworks shows also conducted within Mission Bay.

In reviewing fireworks permits issued by the City of San Diego, CERF became aware of two

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<sup>4</sup> Indeed, one would also expect a reasonable margin of safety.

4<sup>th</sup> of July fireworks shows conducted in Mission Bay, in addition to the Sea World show: Paradise Point and Mission Bay Yacht Club. As shown in the table provided in section I, *infra*, Paradise Point actually has the second largest show (in terms of the number of shells). Although it is unclear how long these events have been held, an internet search reveals the history of the events dates at least as far back as 2001.<sup>5</sup>

Unfortunately, either Sea World representatives did not feel this was relevant or were unaware of this in designating sampling locations for monitoring background areas and reference sites, which were largely directly within the deposition or fallout zone for these two shows. Depending on circulation within Mission Bay and prevailing winds, it is also possible firework residue and debris from these two locations impacted other parts of Mission Bay not within their respective anticipated fallback areas. (See Enclosed Figure)

Monitoring conducted later, under the 2005 Addendum to Sea World's NPDES Permit also failed to account for these other shows, taking background samples and reference samples directly within the fallout zone for the Paradise Point and Mission Bay Yacht Club fireworks. This may explain the general toxicity of all sediment samples taken with Mission Bay.

Based on SeaWorld's sediment toxicity and benthic community analysis, it was difficult to draw any conclusions regarding the benthic effects of fireworks displays to the differences found between the reference stations and the fireworks fallout area. Additional monitoring may be necessary to separate possible effects associated with fireworks displays and effects from other pollutant sources to Mission Bay, such as storm water discharges. The results for the short-term survival sediment toxicity sampling were highly variable spatially and temporally within the fireworks deposition zone and temporally within the reference sites. **Sampling in Sediment toxicity test results for both reference sites and the deposition zone fireworks fallout area ranged from non-toxic to highly toxic.** Thus, it was difficult to detect any difference in short term toxicity between and among the sites. All sites did appear to exhibit decreased survival rates when compared to laboratory control samples. (Permit, Fact Sheet, pp. F-13-14 (emphasis added)).

Though the Regional Board seems to have relied on Sea World monitoring for little more than establishing that larger shows (or the accumulation of many small shows) has the potential to cause impacts, the failure to consider other nearby firework shows within the same water body evidences the shortcomings of the current monitoring.

Therefore, CERF urges the Regional Board not to rely heavily on the monitoring results, either as an indication that certain firework shows are less problematic (ie. smaller daily shows) or to establish a threshold. Indeed, the only conclusion staff could reach from Sea World monitoring data is that an increase in the level of total metals concentration was observed in the water column, and that pollutants in particulate form were documented, after fireworks events. (Permit, Fact Sheet, p. 17 and Figure 3). Reliance on the Sea World monitoring data to actually set a specific threshold between Category 1 and 2 dischargers is therefore unwise. The highly suspect nature of the monitoring data, coupled with the arbitrary nature of the threshold, requires elimination of the threshold altogether and further underscores the need for more robust and accurate monitoring data.

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<sup>5</sup> <http://www.laprensa-sandiego.org/archieve/june29/firework.htm>

### III. The ASBS Temporary Event Exceptions Are in Violation of the Ocean Plan

The current version of the Fireworks Permit allows direct discharge into the Laguna Beach ASBS and discharge directly adjacent to the La Jolla ASBS. (Permit, p. 25). The fact sheet explains:

Public firework display events have been occurring over or adjacent to near the La Jolla ASBS since 1984. The annual Fourth of July event conducted at Scripps Park by the La Jolla Community Fireworks Foundation is located approximately one-quarter mile from the La Jolla ASBS. The fireworks fallout area may extend into portions of the ASBS. The event typically runs 20-25 minutes. The number and size of shells launched are unknown at this time. It is estimated that, in 2010, less than 500 pounds net weight of pyrotechnics material is discharged into the air over or adjacent to the La Jolla ASBS during this single event. (Permit, Fact Sheet, pp. F-42-43 (emphasis added)).

In previous iterations of the Fireworks Permit, the Regional Board wrote in the exception for the La Jolla and Laguna ASBS events, without supporting figures for the La Jolla Cove show.

Public firework display events have been occurring over or adjacent to the La Jolla ASBS since 19\_\_\_. The annual Fourth of July event conducted by the La Jolla Community Fireworks Foundation typically runs approximately \_\_\_\_\_ minutes and during that time approximately \_\_\_\_\_ aerial shells are ignited and launched. The aerial shells range in size from \_\_\_\_\_ to \_\_\_\_\_ inches. It is estimated that \_\_\_\_\_ pounds of pyrotechnic material is discharged into the air over or adjacent to the La Jolla ASBS during this single event. (Draft Fireworks Permit Strikeout/Underline, version 2/8/2011, Fact Sheet, pp. 40-41 (highlight added)).

Clearly, the Board made a decision to allow the discharge without supporting rationale. Though the Fireworks Permit now contains some (but not all) of the missing figures, the result was seemingly predetermined: the fireworks discharges qualify for the “limited-term activity” exception.

Still unknown, according to the Permit, is the number and size of shells. This data is actually readily available – in fact it was provided to the Regional Board by CERF representatives at the workshop on March 11<sup>th</sup>: 804 shells for 2009 and 2010 shows, consisting of 10-3inch, 100-2.5inch, 200-3inch, 218-4inch, 176-5inch shells, and 100 salutes.<sup>6</sup> La Jolla Community Fireworks Foundation, on the other hand, after providing the information now found in the current permit fact sheet, flippantly responded to Regional Board inquiry stating “[t]he rest of the requested information [the number and size of shells] calls for such a level of detail...that it cannot be confirmed at this juncture and is not necessary to the findings in the Tentative Order.” (Latham & Watkins Comment Letter, March 7, 2011, p. 4).

The Regional Board nonetheless carved out an exception to this strict ASBS discharge prohibition in the Ocean Plan: “Waste **shall not be discharged** to areas designated as being of

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<sup>6</sup> La Jolla Community Fireworks Foundation and previous sponsors routinely provide this information to the City of San Diego in their applications for Single Event Permits from the City’s Fire-Rescue Department. Using Dr. Conkling’s figures, the La Jolla Cove event fireworks weigh 411lbs in “net explosive weight” and 819 lbs total. Though this is below the arbitrary 1000 lb threshold, no other discharger would simply be allowed to discharge 411-819 lbs of pollutants directly adjacent to or above the ASBS.

special biological significance. Discharges shall be located a sufficient distance from such designated areas to assure maintenance of natural water quality conditions in these areas.” (Ocean Plan, p. 20 (emphasis added)).

The Regional Board allows for these discharges by inappropriately invoking a limited term activity exception to the prohibition.

Regional Boards may approve waste discharge requirements or recommend certification for limited-term (i.e. weeks or months) activities in ASBS. Limited-term activities include, but are not limited to, **activities such as maintenance/repair of existing boat facilities, restoration of sea walls, repair of existing storm water pipes, and replacement/repair of existing bridges**. Limited-term activities may result in temporary and short-term changes in existing water quality. Water quality degradation shall be limited to the shortest possible time. The activities must not permanently degrade water quality or result in water quality lower than that necessary to protect existing uses, and all practical means of minimizing such degradation shall be implemented. (Ocean Plan, pp. 20-21(emphasis added)).

CERF representatives have previously commented on the limited purpose of this exception; it is for repair or maintenance type activities. This exception has, in the past, been used to allow repair for bridges or storm drains, but is not meant to be a general catch-all exception for discharges that simply are of short duration. State Board representatives have confirmed, this exception is only to be applied to true maintenance and repair activities.<sup>7</sup> Surely no other discharger attempting to “temporarily” discharge 819 lbs of pollutant adjacent to the ASBS would be given such leeway.

Not only does the Regional Board’s new (unsupported) reading of the Ocean Plan exception set a terrible precedent, it allows a continued, long-term discharge into ASBS under the auspices of a limited term activity. The fireworks shows are annual, by their very nature they repeatedly occur. The La Jolla Cove fireworks show has been ongoing for 26 years. (Permit, Fact Sheet, p. F-42). As a matter of public policy, it is truly illogical to create a carve-out for pollution simply because it is tradition.

Underscoring the truly arbitrary nature of the ASBS exceptions, one of the Fireworks Best Management Practices (FBMP) is to locate firework discharges “a sufficient distance from areas designated ASBS to assure maintenance of natural water quality conditions in these areas”. (Permit, p. 19). Another FBMP requires the discharger to design the firing range, or consider alternative firing ranges, to eliminate or reduce residual firework pollutant waste discharges to waters of the US. (*Id.*). There is no attempt to ascertain the feasibility of application of the FBMPs to the ASBS shows. It is difficult to reconcile these FBMP, the Ocean Plan’s clear directive that “all practical means of minimizing such degradation shall be implemented”, and the Regional Board’s silence on the issue of location of the fireworks. (Ocean Plan, p. 21).

Clearly, firework events can be held at a variety of locations, whether over water or land. To simply allow an inherently mobile discharger to locate discharges either directly over or adjacent to an ASBS, without any mention of alternative locations, surely does not meet the mandatory Ocean Plan dictate to implement “all practical means of minimizing such degradation”. (*Id.*).

The State Water Resources Control Board is currently undertaking a long, comprehensive

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<sup>7</sup> Personal communication with Dominic Gregorio.

review of requested exceptions to the Ocean Plan for permanent exemptions to the ASBS discharge prohibition. The State Board's six-year-long process has culminated with the pending California Environmental Quality Act (CEQA) review. The EIR for the State Board's exemption process details the statewide attempt at defining "natural water quality" for ASBS. (ASBS Program Draft Environmental Report, January 18, 2011, pp. 43-44). The State Board's Natural Water Quality Committee (NWQC) had a three-year mission to define natural water quality at the La Jolla ASBS. (*Id.*). The Committee's September 2010 final report<sup>8</sup> defined natural water quality as:

That water quality (based on selected physical chemical and biological characteristics) that is required to sustain marine ecosystems, and which is without apparent human influence, i.e., an absence of significant amounts of:

- a) man-made constituents (e.g., DDT);
- b) other chemical (e.g., trace metals), physical (temperature/thermal pollution, sediment burial) and biological (e.g., bacteria) constituents at levels that have been elevated due to man's activities above those resulting from the naturally occurring processes that affect the area in question; and
- c) non-indigenous biota (e.g., invasive algal bloom species) that have been introduced either deliberately or accidentally by man.

(*Id.*; see NWQC Summation of Findings). Thus, in order to protect or prevent degradation of natural water quality, we should strive to reduce the introduction of man-made constituents and other chemicals into the ASBS. There is no indication the Regional Board has even considered the ramifications of the fireworks shows on natural water quality by introducing a plethora of man-made constituents and chemicals into the ASBS.

Also highlighted in the NWQC Summation of Findings is Scripps Institute of Oceanography biological monitoring results (NWQC Summation of Findings, pp. 6-7). Two of the four stated results indicate that: (1) certain pollutants were elevated in transplanted mussels near SIO Pier (Chromium, Nickel, Iron, and Manganese) and at the south end of the adjoining La Jolla ASBS relative to other sites within the study area; and (2) certain pollutants were elevated in transplanted mussels near the SIO pier (Chromium and Nickel) relative to historical statewide Mussel Watch results. Manganese is used as a catalyst in fireworks.<sup>9</sup> Iron is used to produce sparks<sup>10</sup> and chromium is also used in fireworks.<sup>11</sup> (Permit, p. 5). Nickel is used in fireworks as nichromium as well.<sup>12</sup> All four of these metals were found in solid waste samples, in water and in sediment samples, collected after Sea World fireworks shows, as reported in Sea World's 2006 Report of Waste Discharge. (Sea World 2006 RWD, pp. 3-8-9, 3-11).

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[http://www.waterboards.ca.gov/water\\_issues/programs/ocean/docs/asbs/asbspeir\\_apx08\\_2011jan.pdf](http://www.waterboards.ca.gov/water_issues/programs/ocean/docs/asbs/asbspeir_apx08_2011jan.pdf)

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[http://portal.acs.org/portal/acs/corg/content?\\_nfpb=true&\\_pageLabel=PP\\_ARTICLEMAIN&node\\_id=841&content\\_id=WPCP\\_010292&use\\_sec=true&sec\\_url\\_var=region1&\\_\\_uuid=1e6435fc-c42f-4c9d-8576-84019102b849](http://portal.acs.org/portal/acs/corg/content?_nfpb=true&_pageLabel=PP_ARTICLEMAIN&node_id=841&content_id=WPCP_010292&use_sec=true&sec_url_var=region1&__uuid=1e6435fc-c42f-4c9d-8576-84019102b849)

<sup>10</sup> <http://chemistry.about.com/od/fireworkspyrotechnics/a/fireworkelement.htm>

<sup>11</sup> [http://toxtown.nlm.nih.gov/text\\_version/chemicals.php?id=10](http://toxtown.nlm.nih.gov/text_version/chemicals.php?id=10)

<sup>12</sup> Nickel and Chromium were found in elevated levels in the fallback area in Sea World 2008-2010 monitoring. (Permit, Fact Sheet, p. F-12, 17); <http://www.buzzle.com/articles/nickel-the-element.html>

Interestingly, the Fireworks Permit now calls for natural water quality to be defined, as outlined in the NWQC final report, by monitoring reference sites. However, the ASBS is likely the best indicator of natural water quality itself. Not surprisingly, the NWQC report acknowledges that today's natural water quality is unlikely the same as it was 35 years ago when the Ocean Plan was adopted. In other words, "[t]ruly natural water quality probably does not now exist in California's coastal ocean, and may be rare throughout the world." (NWQC Summation of Findings, preface). The NWQC ultimately found it "should be possible to define a reference area or areas for each ASBS that currently approximate natural water quality and that are expected to exhibit the likely natural variability that would be found in that ASBS." (*Id.*). This bleak outlook is also reflected in the NWQC's recommendation that regulatory agencies now consider how to deal with a shifting baseline as human activities will continue to impact ASBS and potential reference sites. (*Id.* at 19).

Thus, the beneficial use of the ASBS of "preservation and enhancement of designated" ASBS is already an impaired use. (Ocean Plan, p. 3). Our inability to define truly natural water quality, and the reality that water quality at ASBS and reference sites will only deteriorate with population growth, is a truly compelling reason to strictly enforce the Ocean Plan discharge prohibition. It is at the very least a reason to prohibit unnecessary pollutant discharge directly adjacent to or within an ASBS. The Ocean Plan's narrow exception for limited-term maintenance and repair activities for facilities essential to public service should not and cannot be abused to allow for fireworks displays where they should clearly be prohibited.

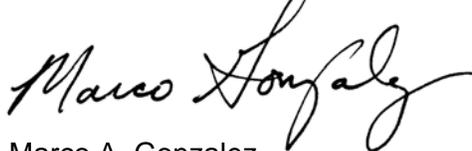
#### IV. Conclusion

CERF representatives have been active participants in the Regional Board's firework permitting process, particularly through this general Fireworks Permit, and since its inception when Sea World's NPDES permit was first amended to account for fireworks discharges. This Regional Board has more experience with permitting of fireworks discharges than arguably any other agency nationwide. CERF applauds the Regional Board for paving the way for future agencies, and its efforts to regulate these widespread and frequent discharges. However, we cannot support a permit that is not scientifically defensible and protective of water quality and beneficial uses, and which fails to incorporate monitoring requirements that will inform the Regional Board in future decisions and iterations of this permit. We strongly urge the Board to: (i) eliminate the threshold for category 1 and 2 dischargers; (ii) prohibit discharges into and adjacent to the ASBS; and (iii) require at least one representative monitoring location within every receiving water to which firework pollutants are discharged.

Thank you for your consideration of these comments, and for addressing this important water quality issue.

Sincerely,

**COAST LAW GROUP LLP**



Marco A. Gonzalez  
Legal Director

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# Paradise Point Resort 7/3/05 & Mission Bay Yacht Club 7/4/05 Barge Locations

