Response to Comments, Scripps Institution of Oceanography Request for an Exception to the Ocean Plan's ASBS Discharge Prohibition, Item 10, July 22, 2004 Board Meeting

Comments from Hopkins Marine Station, Monterey Bay Aquarium Research Institute, and the University of Southern California.

Comment:
These three comment letters were all in support of the exception being granted to the Scripps Institution of Oceanography. They were concerned that if marine laboratories are prevented from using open seawater systems, it will negatively impact their role in performing research and in their education functions.

Response:
Comment noted. Staff is aware that the marine laboratories located adjacent to ASBS rely on their open seawater systems to fulfill their research and education functions. Staff is recommending that Scripps be allowed to continue the use of its open seawater system so long as it complies with mitigation measures to insure the protection of beneficial uses in the ASBS.

Comment from the University of California Davis' Bodega Marine laboratory.

Comment:
The Bodega Marine Laboratory is supportive of the exception being granted to the Scripps Institution of Oceanography. A stated concern was that the monitoring requirements may exceed what is actually necessary to protect water quality. At the July 7 public hearing, Peter Connors representing the Bodega Marine Laboratory elaborated on this point. He expressed caution against not placing such "severe requirements" on Scripps that they might not be able to meet them or be unable to perform the extensive monitoring due to the costs. He also went on to say that that the ASBS surrounding marine laboratories remain among the healthiest of our coastal ecosystems.

Response:
Staff disagrees with the statement that these requirements are severe. The monitoring requirements are necessary in order for staff to make a determination regarding the status of beneficial uses within the ASBS. It is true that some ASBS are among the healthiest of our coastal ecosystems. Unfortunately not all of the ASBS fall into that category. For example the San Diego Marine Life Refuge ASBS, the location of Scripps, is an impaired water body.

Comments from the Department of Fish and Game

Comment:
The Department of Fish and Game (DFG) generally supports the Negative Declaration. However the DFG finds that current practices to prevent the release of exotic species and pathogens are "wholly inadequate." DFG therefore recommended the inclusion of the following language in condition (mitigation measure) #19:

> "UCSD must develop and implement a solution that results in a negligible risk of the release of exotic species including foreign pathogens (parasites, protozoa, bacteria, and viruses). The solution will be implemented as a requirement in the NPDES permit renewal to be issued to UCSD by the San Diego Regional Water Quality Control Board."

Furthermore DFG suggested that a technical advisory committee be convened to assist in the development of such solutions.

Response:
Staff appreciates the suggestion of language for condition 19 and has incorporated this suggestion, along with compatible language provided by Scripps Institution, into the draft resolution.

Regarding a technical advisory committee for control of exotic species, staff is in agreement with such an approach, but would rather see this included as a condition in the permit upon renewal by the Regional Board.

Comment:
DFG suggests that the Initial Study finding of "no impact" is inappropriate for certain aspects of the project, including the potential risk of the release of invasive, non-native plants and wildlife." DFG further suggests that this and other appropriate findings be revised accordingly.

Response:
Staff agrees and has made the requested changes to the Initial Study.

Comments from UCSD Scripps Institution of Oceanography

Comment:
Beneficial uses will be protected and the public interest will be served if the State Board grants the exception.

Response:
Staff agrees that beneficial uses will be protected and the public interest will be served if the State Board grants the exception with the proposed mitigation measures included.

Comment:
There is no evidence that Scripps' discharge has or will compromise protection of ocean waters. Scripps will undertake extensive monitoring to determine the effects on the environment. Scripps will be able to immediately address any excursion that might impact beneficial uses.

Response:
While there is no evidence that the discharge has compromised the ASBS, staff is not aware of any data that assures us that the discharge has not compromised ocean waters. Past monitoring data does not allow us to make that conclusion. In fact, that is a major reason why staff is recommending the monitoring program, so that in the future we can be able to determine with certainty the status of beneficial uses.

Comment:
Scripps does not agree with the proposed use of Table C (by other commentors) as a standard for receiving water quality.

Response:
Staff agrees, and is therefore proposing the use of the term "natural water quality" as a standard for the receiving waters in this regard.

Comment:
Granting the exception will be in the public interest, since the research and education functions of Scripps rely on the use of their open seawater system. Without the use of the open seawater system much of those functions would cease.

Response:
Staff agrees that granting the exception will be in the public interest.

Comment:
UCSD Scripps Institution of Oceanography is taking a pro-active approach to storm water pollution prevention. Scripps is a non-traditional MS4 under the NPDES Phase II storm water regulations, and while the Regional Board is not currently accepting non-traditional MS4 Phase II permits, Scripps has nevertheless developed and implemented a Storm Water Management Plan (SWMP). Scripps is committed to identifying potential pollutant sources and developing BMPs to eliminate, minimize and/or treat the discharge of pollutants into storm drains. Scripps will work to identify and eliminate illicit connections and other non-storm water discharges by or before the required mitigation date. Because of Scripps' proximity to the San Diego Marine Life Refuge Scripps will accelerate development, implementation and measurement of success for its storm water program.

Response:
We commend and appreciate pro-active approaches to solving storm water pollution problems. The Regional Board staff may make an exception in this case, because of the

presence of Scripps in the ASBS, and may enroll Scripps in the Phase II permit coverage if the exception is granted.

Comment:
In 2003 the UCSD campus conducted a hydrology study to map campus-wide drainage patterns and surface watersheds including Scripps. See Exhibit 1. Detailed mapping of the storm drain system is underway and Scripps will soon issue a RFP and hire a consultant to develop a more detailed storm water program.

Response:
This rapid attention to the need for a map of the storm drain system will be of value in complying with the conditions in the exception.

Comment:
The Scripps watershed, in part, incorporates off campus locations including private residential developments to the north, and City of San Diego streets and properties. Scripps has met with the City of San Diego and intends to partner with the City's MS4 program to address their contributions of storm water discharges into the Refuge. The revised SWMP will include educational components for campus personnel and the off campus residential neighborhood. Scripps has commenced discussions with the City of San Diego Metropolitan Wastewater Department (MWD) to divert dry weather flow and to examine other feasible industrial discharge diversion options. Scripps will assess and implement pollution reduction options for all storm water discharges.

Response:
Staff appreciates these efforts which will prove valuable in Scripps' efforts to solve urban runoff pollution problems and to comply with the conditions in the exception.

Comment:
Scripps is committed to accelerating its BMP schedule. However, it is anticipated that treatment control BMPs (e.g., diversion structures, treatment systems, etc) that require design, CEQA work, other agency permits, and construction may not be completed within one year of the permit issuance date. Any impact to the receiving water should be related to Scripps discharge. We suggest deleting the last sentence and replacing it with: 'Scripps must implement BMPs in accordance with the approved SWMP implementation schedule."

Response:
Staff agrees that structural BMPs may require additional time to install due to circumstances out of Scripps' control, and is proposing to include a statement in the exception which would allow Scripps more time to implement such BMPs. However, the implementation of such BMPs must be in a time frame that is as soon as practicable, as determined by the Regional Board.

Comment:
The first sentence of mitigation measure #16 implies that any exceedance in the

receiving waters are a result of Scripps discharge. However, if Scripps effluent monitoring data does not show such exceedances, then the actions specified in this measure should not be mandated. Any impact to the receiving water should be related to Scripps' discharge.

Response:
To accomplish this we will rely on the best professional judgement of the Regional Board staff, and on a proposed advisory committee to report to the Regional Board on the status of water quality in the ASBS.

Comment:
While Scripps believes that a bioaccumulation study should be reasonably related to the influence of Scripps discharge, it is willing to cooperate with State and Regional Boards in the development of a study protocol to examine metal concentrations in the sand crabs and mussels within the Refuge. Bioaccumulation study requirements, if any, in subsequent permits should not be established until the initial bioaccumulation results are available and reviewed.

Response:
Staff is pleased that Scripps will work cooperatively to fulfill the requirement for a bioaccumulation study. The draft exception does already state, regarding subsequent permits, that: "Based on the study results, the Regional Board, in consultation with the Division of Water Quality, may limit the bioaccumulation test organisms, required in subsequent permits, to only sand crabs or mussels."

Comment:
Scripps is committed to work in collaboration with the State Board, the Regional Board, environmental and concerned citizen groups to develop an ecosystem based monitoring program that can be used as a model to support statewide efforts in managing ocean discharges. Scripps will need assistance in finding funding for such a model program.

Response:
Compliance with conditions of the exception and the re-issued NPDES permit are the responsibility of the discharger. However, this does not preclude Scripps from applying to the State Boards Division of Financial Assistance for grant funding (consistent with RFP requirements) to address urban runoff controls in the watershed and the monitoring to determine the impacts of runoff in the ASBS.

Comment:
As part of a "model" monitoring program receiving water quality assessments may be appropriate. Scripps supports the Clean Water Act iterative approach used for MS4s that must control pollutants "to the maximum extent practicable." CWA § 402(p)(3)(B)(iii).

Response:
Staff agrees that the iterative approach is appropriate. Since the discharge is into an ASBS, the iterative approach is accelerated in the exception. Also, because of the

location of the discharges, MEP is not applicable. Instead, the alteration of natural water quality in the ASBS will be prohibited, and the SWMP will need to reflect that higher standard.

Comment:
By requiring that Scripps "must pursue and implement" the results of a consultant feasibility study, mitigation measure #19 limits Scripps' ability to evaluate and implement available options from more than one source (e.g., other agency input, multiple consultants, etc.). Scripps is currently working with the MWD and the Department of Fish & Game to evaluate options for controlling exotic species. Recommend revising first sentence to read: "Scripps must pursue and implement administrative and engineering controls to prevent exotic species from entering the ASBS."

Response:
Staff is proposing to change condition #19 regarding exotic species to accommodate Scripps' comment and a comment from the Department of Fish and Game.

Comment:
Lighting from Scripps Pier onto the beach will be turned off during the nights when the California Department of Fish and Game have determined that grunion are expected to spawn.

Response:
While this mitigation measure will be an improvement in the habitat conditions in the refuge, staff is not planning to incorporate it into the exception. Still, we applaud Scripps' commitment to improving the habitat in the refuge.

Comment:
Based on wave data from the Coastal Data Information Program, Dr. Bill O' Reilly, Scripps Integrative Oceanography Division, indicates that during the winter months the storm conditions are as follows: during the first 10-12 hours preceding the large storm events, the wind is from the south & west, creating mostly southerly and westerly seas (high frequency waves). As the storm develops, the longer period waves develop. These longer period waves predominantly come from the west and northwest.

Response: The information in the Initial Study regarding storm wave conditions was taken from the Reconnaissance Survey submitted to the State Board by Bert Kobayashi from the UC San Diego Scripps Institution in April 1980. We acknowledge and appreciate the updated information provided in the comments.

Comment:
The background samples for copper were collected on one day, therefore reliable conclusions regarding background or ambient copper concentration cannot be drawn in light of the variable nature of the coastal environment. Recommend deleting the last two sentences starting with "…Based on these results ambient sea water in the vicinity of

Scripps has a copper concentration of approximately 2 ug/L…" Additional monitoring is required to better establish the appropriate background or reference point.

Response:
The data cited in the report is the only site specific data available for use in determining background. The only other information currently available is Table C of the Ocean Plan, which was derived from data from the 1960s and 1970s. Based on available information, and considering improvements in analytical techniques, background copper concentrations in the coastal ocean during non-storm periods are most likely approximately 2 ppb, and may possibly even be lower at times. We agree that additional monitoring is necessary to get more site specific and seasonal information on background levels.

Comment:

Recommend revising Page 9 Par 3 first sentence of the Initial Study to read: "As a result of the environmental review and mitigation measures associated with this request for an exception from …"

Response:
The mitigation measures (i.e. the conditions in the Mitigated Negative Declaration) were a result of the environmental review described in the Initial Study. Staff does not believe the requested change is necessary.

Comment:
Re: Page 9 Par 6 of the Initial Study, is the data set referred to in the first sentence "1994 - 2003"? If so, change: "1994 -1998" to read "1994 -2003". If not, what data set is the reference?

Response:
Scripps is correct that staff inadvertently stated that the data set based on a lower quality analytical technique was from 1994-1998. In fact data from 1994-2002 and even some data from 2003 was based on that same analytical quality. However, the point being made was that there was a difference in analytical quality between previous data and that data from 2003 shown in Table 4, with the Table 4 data having a lower detection limit and therefore being of better quality. While the statement in the Initial Study may have been incomplete, it is not incorrect to state that using the previous analytical methods employed from 1994-1998, the Table 4 data would have been non-detects.

Comment:
Re: Page 9/10, last paragraph of the Initial Study, Scripps will further manage copper and other additives by improving life support systems used to protect the health of exhibit specimens and by isolating and reducing the volume of water used for treatment. Scripps is also exploring diversion of treated water to the sewer.

Response:
Comment noted.

Comment:
Re: Page 10 Par 1 of the Initial Study, suggest moving sentences on formalin (second and third sentences) to last paragraph on page 10, after the first sentence and delete the word 'furthermore."

Response:
Staff fails to see the importance of moving the statement regarding formalin. The important thing is that formalin will no longer be discharged to the ASBS.

Comment:
Re: Page 10 Par 2 of the Initial Study, last sentence, delete: 'it seems feasible that" in reference to Scripps meeting effluent limits.

Response:
The term 'it seems feasible that" was expressing the opinion of staff based on the review of information submitted by Scripps and discussions with UCSD staff. We believe the statement should stand.

Comment:
To address coliform bacteria in the discharge from Outfall #3, Scripps is looking at mitigation options such as: treating the water to eliminate coliform bacteria, discharging water to sewer, and possibly terminating research on the seals (with concomitant loss of valued research and public benefit). For example, Scripps research on elephant seals is being undertaken to understand the unique physiological adaptation that allows the seals to survive with very low saturation of oxygen in their bloodstream. Implications beyond the pure knowledge of seal physiology is extrapolated to the understanding physiology critical to anesthesiology, and organ transplantation.

Response:
Staff appreciates Scripps' attempts to prevent the discharge of coliform bacteria to the ASBS. Staff also realizes the important research performed on marine mammals is in the public interest.

Comment:
Re: Page 14 Second bullet and Par 1 of the Initial Study, co-mingling of seawater with lower salinity water in the storm drain as a biological pollutant control does not correspond with Scripps' approach to biological pollutant management and will not be considered as the treatment option for non-indigenous species. In cooperation with the Department of Fish & Game, the MWD and with additional technical assessment, Scripps will continue to work to address biological pollutants.

Response:
Staff is happy to hear that that the lower salinity water in the storm drain no longer will be used as a biological control. However, the statement in the Initial Study was based on information provided by UCSD/SIO. Attachment D, "Assessment of biological pollution controls," in the October 30, 2003 letter sent to the Regional Board by Larry Oberti of UCSD, states: "In the unlikely event that the warm water non-indigenous eggs, fry, or adults somehow are discharged, they most likely would not survive the salinity difference due to fresh water in the storm drain."

Comment:
Re: Page 15- 16 of the Initial Study, the 2003 survey represents a snapshot in time whereas the 1980 survey was conducted over a period of time (multiple surveys); therefore, the results are not directly comparable. While agreeing that the numbers of species noted in the AMEC 2003 report are fewer than in the 1980 report, to indicate 'there is an apparent drop in species" implies cause and effect. As noted in the staff report and quoted from the AMEC 2003 survey 'This survey could not and was not designed to determine any causal effect, but to characterize the respective areas within a specific period of time…" Scripps agrees that existing data could be enhanced to obtain additional background information. Scripps is in the process of developing a model monitoring program. As a component of this program, Scripps intends to accelerate the schedule for conducting benthic marine surveys to supplement the existing information.

Response:
Staff stands by its analysis in the Initial Study.

Comments from The Ocean Conservancy

Comment:
Illicit discharges into ASBS must be eliminated throughout the San Diego Region and the State.

Response:
Staff agrees that discharges of waste into ASBS are prohibited and we are working toward eliminating such discharges throughout the state.

Comment:
An exception to the Ocean Plan is acceptable for addressing discharges to ASBS only under limited circumstances. If the proposed exception were amended to meet certain criteria, The Ocean Conservancy would be supportive.

Response:
Staff is pleased to hear that the Ocean Conservancy would be supportive if the criteria are amended. Staff has proposed several changes to the exception based on comments received from the Ocean Conservancy and others.

Comment:
The copper discharge provisions would not ensure maintenance of natural water quality. Copper concentrations in the effluent should be limited to background seawater concentrations, or 2 ppb as set forth in Table C.

Response:
Staff agrees that receiving water quality in the ASBS should be held to a higher standard than simply what is represented by Table B. However, staff disagrees that Table C should be used as a stand alone standard for receiving water quality. Table C was never intended for that purpose. Instead, staff is revising the proposed conditions to require that "natural water quality must not be altered." This is consistent with language in the 1984 exception for the Carmel Sanitary District's discharge, which requires "the prevention of alteration of natural water quality conditions in Carmel Bay." Table B and Table C will still be used in the equations, required by the Ocean Plan, to determine effluent limitations.

Comment:
The storm water discharge provisions will not ensure maintenance of natural water quality.

Response:
Staff agrees that natural water quality should be maintained. The iterative approach to controlling storm water discharges in Condition 10 does not preclude maintenance of natural water quality. In condition 10 staff is attempting to reduce the mass loading of constituents over time based on improvements in storm water controls, realizing that such controls will need to be accomplished in a stepwise manner. Condition 1, which applies to all discharges, including storm water, is being changed to state that natural water quality in the receiving water must not be altered.

Comment:
The non-storm water discharge provisions should be implemented immediately.

Response:
Staff disagrees. While the immediate elimination of dry weather flows would be ideal, it is not possible for Scripps to implement that prohibition so soon. Scripps has not yet completed a map of its complex drainage systems. Until that map is completed it is unlikely that BMPs would be effective in eliminating all dry weather flows. In addition Scripps will likely contract out for services and possibly the installation of control structures, which will take some time. Finally, Scripps' watershed includes streets and private properties. Scripps will need time to work with the City of San Diego to address these sources.

Comment:
The monitoring provisions are strong but should be improved to include sediment and ambient water quality monitoring.

Response:
Ambient (receiving) water quality monitoring was already included in the original terms and conditions in the Initial Study. However, staff has revised the conditions to require, among other things, sediment monitoring and more frequent receiving water monitoring.

Comment:
Objection was made to the reference in the Initial Study the "change in terminology from ASBS to State Water Quality Protection Area."

Response:
Section 36750 of the Public Resources Code specifically states: "Any MMA in existence on January 1, 2002, that has not been reclassified in accordance with the Marine Life Protection Act (Chapter 10.5 (commencing with Section 2850) of Division 3 of the Fish and Game Code), shall be reclassified under the classification system described in Section 36700 by January 1, 2003, based upon the management purpose and level of resource protection at each site on January 1, 2002. Upon the reclassification of existing sites, but no later than January 1, 2003, the use of all other classifications shall cease for the marine and estuarine environments of the state, though the classifications may continue to be used for the terrestrial and freshwater environments where applicable."

Section 36700 (f) of the Public Resources Code specifically states: "A "state water quality protection area" is a nonterrestrial marine or estuarine area designated to protect marine species or biological communities from an undesirable alteration in natural water quality, including, but not limited to, areas of special biological significance that have been designated by the State Water Resources Control Board through its water quality control planning process."

Comment:
Objection was made to the use of a Negative Declaration rather that a Mitigated Negative Declaration.

Response:
Staff has changed the draft Negative Declaration to a draft Mitigated Negative Declaration.

Comments from The Coastal Law Group, representing the San Diego BayKeeper and the San Diego Chapter of the Surfrider Foundation

Comment:
The San Diego BayKeeper and the San Diego Chapter of the Surfrider Foundation support the proposed exception. The regional board should take enforcement action against nonpoint source and storm water dischargers into ASBS that are not covered by exceptions. It will be difficult to accurately allocate responsibility for degradation of natural water quality.

Response:
Staff agrees and is working on addressing the other ASBS discharges.

Comment:
Objection was made to the use of a Negative Declaration. The terms and conditions should be considered mitigation measures. They request the document instead be styled as a Mitigated Negative Declaration.

Response:
The terms and conditions are mitigation measures. Staff has changed the CEQA document to a draft Mitigated Negative Declaration.

Comment:
The Report of Waste Discharge for Scripps, submitted to the Regional Board on May 14, 2004, should be considered simultaneously or before the exception.

Response:
Staff disagrees. Scripps must have an exception from the Ocean Plan for its ASBS discharges before the Regional Board may issue the permit. The permit conditions will then incorporate the requirements of the exception.

Comment:
Objection was made to the January 1, 2007 deadline for non-storm water discharge in Condition #6. The dry weather flows should instead be eliminated by the end of the year.

Response:
Staff disagrees. While the elimination of dry weather flows by the end of the year would be ideal, it is not possible for Scripps to implement that prohibition so soon. Scripps has not yet completed a map of its complex drainage systems. Until that map is completed it is unlikely that BMPs would be effective in eliminating all dry weather flows. In addition Scripps will likely contract out for services and possibly the installation of control structures, which will take some time. Finally, Scripps' watershed includes streets and private properties. Scripps will need time to work with the City of San Diego to address these sources.

Comment:
The monitoring provisions are adequate, but a recommendation was made to increase the frequency and intensity of the sampling. The current state of the ASBS is not natural, and the monitoring program must take into account the degradation of the ASBS. Efforts should be made to provide qualitative standards for measuring historic background conditions.

Response:
Staff has revised the conditions to require, among other things, sediment monitoring and more frequent receiving water monitoring. It will be difficult if not impossible to determine exact historical concentrations of chemical constituents. Instead staff proposes

the prospective approach to monitoring as described in the proposed conditions. Staff proposes the creation of a committee of experts to help us determine natural conditions. While some historic data will be available and possibly used by this committee, it is also likely that reference conditions from some other location will also be utilized.

Comment:
Objection was made to the statement that "all reasonable and appropriate measures" to minimize concentrations of chemical additives, including copper be made. There is no reasonable and appropriate standard applicable in this case.

Response:
Staff agrees and has changed the draft resolution accordingly.

Comment:
Objection was made to the use of Table B as a standard for the ASBS receiving water. The standard should be "natural water quality."

Response:
Staff agrees with regard to receiving water quality within the ASBS. Table B however will still be used to determine the effluent limits, but will not be used as an absolute standard for receiving water quality.

Comment:
Regarding storm water controls, the Clean Water Act standard Maximum Extent Practicable (MEP) is not appropriate in an ASBS. Condition 10 is unclear regarding the time afforded to achieve compliance. Objection was made to the requirement that the implementation schedule result in "an improvement in receiving water quality each year." Water quality standards must be met now.

Response:
Staff agrees that MEP is not appropriate or applicable in protecting ASBS waters. MEP was not mentioned in the Initial Study and was not intended to apply in this case. Scripps must meet its effluent limits and the standard of maintaining natural water quality upon issuance of the NPDES permit. However, assuming compliance with the permit, staff also expects that improvements in storm water controls will result in improvements over time within the context of the iterative approach.

Comment:
Unnatural fluctuations in water quality should result in a revision of waste discharge requirements to result in "tighter" regulation of the discharges.

Response:
Staff envisions that the WDR/NPDES permit would be sufficiently restrictive since it will be based on the restrictive conditions in the exception. If it is determined that Scripps is degrading water quality in the ASBS then it is expected that the Regional Board will take enforcement action to ensure that Scripps comes into compliance.

Verbal Comment by Steve Leiker, City of Pacific Grove

Comment:
The City of Pacific Grove along with other Monterey area storm water agencies has been working on a storm water management plan for the last three years. The Regional Board staff has been very helpful in assisting them but recently the City has been informed that discharges are prohibited into ASBS. Pacific Grove has two miles of ASBS coastline. The City is now concerned with the ASBS issue and is attending the public hearing to learn more about it. Pacific Grove has no specific stand on the Scripps exception, but rather wants to initiate discussions with staff about the Pacific Grove ASBS discharges.

Response:
Staff appreciates Pacific Grove's effort to understand the ASBS issue and its initiative in making contact with the State Board. Staff will be contacting Pacific Grove.