



DONALD L. WOLFE, Director

# COUNTY OF LOS ANGELES

## DEPARTMENT OF PUBLIC WORKS

*"To Enrich Lives Through Effective and Caring Service"*

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ALHAMBRA, CALIFORNIA 91803-1331  
Telephone: (626) 458-5100  
www.ladpw.org

8/1 and 8/15 Meetings  
ASBS Special Protections  
Deadline: 8/15/06 5pm

ADDRESS ALL CORRESPONDENCE TO:  
P.O. BOX 1460  
ALHAMBRA, CALIFORNIA 91802-1460

VIA FACSIMILE

August 15, 2006

IN REPLY PLEASE  
REFER TO FILE: WM-7

Ms. Celeste Cantú  
Executive Director  
California State Water Resources Control Board  
P.O. Box 100  
Sacramento, CA 90013-2343

Attention Ms. Song Her

Dear Ms. Cantú:

### **CALIFORNIA OCEAN PLAN AREAS OF SPECIAL BIOLOGICAL SIGNIFICANCE COMMENTS ON THE PROPOSED SPECIAL PROTECTIONS**

These comments are submitted on behalf of the County of Los Angeles and the Los Angeles County Flood Control District (collectively, County). The County welcomes the opportunity to provide comments on the Special Protections, as one of the agencies leading the efforts to assure that water quality standards for bacteria and other pollutants are met on Santa Monica Bay beaches and other locations throughout the County including the areas designated in the Ocean Plan as Areas of Special Biological Significance (ASBS).

The County owns and maintains approximately 23 storm drain outfalls to ASBS No. 24, which stretches from Mugu Lagoon in the County of Ventura to Latigo Point in the County of Los Angeles. The watersheds tributary to this ASBS within the County of Los Angeles include some of the most pristine areas in the State. The County owns one of the most extensive storm drain networks in the world, yet the drainage area served by County storm drains in these watersheds account for less than 400 acres of the total 14,000 acres.

The attached comments provide a detailed analysis of issues raised by the proposed Special Protections document, on both substantive and California Environmental Quality Act (CEQA) grounds. We wish to note in this letter some of the major issues posed by the proposed Special Protections.



First, the requirement in the Special Protections document that only natural precipitation runoff be allowed to discharge into the ASBS, the so-called one molecule rule, appears at first look to go beyond the requirements of the Ocean Plan and may misinterpret the definition of waste in the State law. In any event, the dramatic effects of such a prohibition require a thorough CEQA review and not the automatic preparation of a mitigated negative declaration, which has been proposed by State Board staff.

Second, the Ocean Plan allows persons who propose to discharge waste into an ASBS to file for an exception to the discharge prohibition. The Special Protections do not allow new discharges, in contradiction of the Ocean Plan. New discharges should not be unequivocally banned without receiving the consideration explicitly granted by the Ocean Plan.

Third, the proposed Special Protections for stormwater point source discharges appear to require the County to mitigate all storm flows (including even record storms), resulting in a tremendous impact both financially and environmentally. Exceptions to these provisions must be examined to balance mitigation costs and benefits received by the ASBS. Full treatment or deep ocean outlets for all storm drains are the only viable methods of compliance, since even reference watersheds frequently fail to meet the water quality objectives in the Ocean Plan.

The County estimates that monitoring and treating flows as proposed in the Special Protections document will cost over a billion dollars, assuming a feasible method of treatment can be found. This includes \$51 million to mitigate nonstorm flows, \$1.1 billion to mitigate all storm flows, and \$1.2 million for water quality monitoring efforts each permit cycle. In addition, meeting the treatment goals will require essential technological advances in stormwater treatment, and decades to design, fund, permit, and construct treatment facilities. The five-year implementation time frame proposed in the Special Protections document is plainly not feasible.

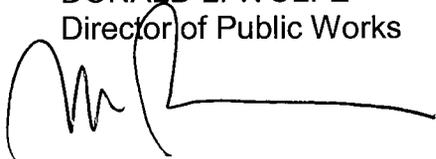
Finally, the State Board has made no real effort to assess the overall biological health of ASBS No. 24 since its designation in 1974. There has been no analysis of the impacts of storm drain discharges on the health of this ASBS, and it is premature to assume that such discharges are degrading the ASBS. The County therefore recommends that the State Board issue an unconditional exception to all County discharges regulated by the Special Protections. After a thorough evaluation of the ASBS and these discharges, the State can utilize its authority to revoke or re-issue this exception as provided in Section III.10.1.2 of the Ocean Plan. This would provide the scientific basis for appropriate Special Protections for County discharges.

Ms. Celeste Cantú  
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Thank you for consideration of these comments. If you have any questions, please contact Mr. Daniel Lafferty at (626) 458-4325 or [dlaff@ladpw.org](mailto:dlaff@ladpw.org).

Very truly yours,

DONALD L. WOLFE  
Director of Public Works

A handwritten signature in black ink, appearing to read 'MARK PESTRELLA', with a long horizontal flourish extending to the right.

MARK PESTRELLA  
Assistant Deputy Director  
Watershed Management Division

Enc.

NTS:kk

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cc: Tam Doduc  
Arthur Baggett  
Charles Hoppin  
Gerald Secundy  
Gary Wolff  
Department of Beaches and Harbors (Paul Wong)  
Chief Administrative Office (JanTakata)  
County Counsel (Judith Fries)  
Los Angeles Regional Water Quality Control Board (Jonathan Bishop)

**County of Los Angeles and Los Angeles County Flood Control District  
Additional Comments on the Proposed “Special Protections” for California  
Ocean Plan Areas of Special Biological Significance (ASBS)**

These additional comments of the County of Los Angeles and Los Angeles County Flood Control District (collectively, “County”) supplement the attached letter to Celeste Cantú, Executive Director of the State Water Resources Control Board (“State Board”). These comments include preliminary thoughts and questions on the substantive provisions of the “Special Protections” proposal, as well as comments on the environmental impacts that should be considered in the CEQA review of the Special Protections. The County anticipates making additional comments and suggestions as the Special Protections document is refined and revised.

Attachments A and B provide preliminary estimates of the capital and maintenance costs associated with diversions required to address non-storm and storm flows through the County’s storm drain system, as well as costs associated with the Special Protections monitoring program. These estimates are preliminary, and are based on the County’s limited understanding to date of the Special Protections document.

**1. General Comments**

- 1.1. State Board staff should provide the scientific basis for these Special Protections justifying the requirement.
- 1.2. The Special Protections should be amended to include: 1) a Definition of Terms section for important terms not defined in the Ocean Plan and 2) provisions that are more clear and complete.
- 1.3. The Special Protections should be drafted as a guidance document.

In various conversations and at the Public Scoping Meetings, State Board staff has asserted that the Special Protections are meant to be a general guidance document for ASBS discharges. However, the language in the current draft suggests that the Special Protections instead are a very prescriptive set of regulations that lack the interpretive flexibility of guidelines. We believe that guidance, so long as that guidance follows the requirements of the Ocean Plan, is a better format for the Special Protections.

## 2. Comments on Special Protections for Non-Storm Point Source Flows (Dry-Weather)

- 2.1. The cessation of all Non-Storm Point Source Flows is not necessary to protect the ASBS.

Staff has made no real effort to quantify the impact of non-storm flows on the ASBS. Non-storm flows typically are very low and episodic. For example, the County estimates the total discharge from the 23 storm drains discharging into ASBS No. 24 to be only 20 gallons per minute (gpm) during peak non-storm discharge. All of these non-storm discharges infiltrate into the sand prior to reaching the high tide mark. Staff needs to assess whether such minimal discharges have any impact (positive or negative) on the ASBS.

- 2.2. The cost and environmental impacts of cessation are substantial.

The County estimates that it will cost more than \$50 million over a twenty-year period to mitigate non-storm flows discharging from County drains to ASBS No. 24. See Attachment A for a preliminary estimate of one potential strategy for non-storm cessation. Note that this strategy is a preliminary concept not fully studied for implementation. The minimal impact of non-storm flows, as noted above, does not warrant such efforts. The environmental impact includes construction activities as well as the daily operation of numerous pump trucks that would be needed to transport stored dry-weather runoff up to 30 miles to a treatment facility.

- 2.3. The Special Protections do not allow a reasonable timeframe for cessation.

Although the County believes the cessation of non-storm flows is unnecessary, it is certainly not feasible to accomplish this task within the proposed two-year timeframe. Based upon recent efforts to meet the Santa Monica Bay Beaches Dry Weather Bacteria Total Maximum Daily Load regulations, a typical fully-funded dry weather mitigation project requires four to six years to complete from concept development through end of construction. There are a number of potential delays for projects that could stop all non-storm flows at County discharge points:

First, the existing right-of-way for County storm drains is insufficient for the placement of a structural BMP capable of mitigating non-storm flows. Property acquisition would require a minimum of one year if the property owner is a willing seller. Otherwise, it could require many years. We note that the coastline along ASBS No. 24 is some of the most expensive real estate in California, with oceanfront real estate selling in the multiple millions of dollar per lot.

Next, all such projects would fall under the jurisdiction of the California Coastal Commission. The Coastal Commission permitting process requires at least one year or more, and possibly more time if residents are not supportive of County efforts. Further, CEQA compliance for these projects is expected to require at least another year.

Finally, none of these projects are currently funded. The estimated capital cost for these projects is over \$6 million. Although capital costs could be offset by State or local grants, annual maintenance requirements are beyond the current capabilities of County programs designated for storm drain maintenance. Further, the County maintains any potential cessation projects are unnecessary at this time.

### **3. Comments on Special Protections for Storm Flows (Wet-Weather)**

3.1. State Board staff should characterize the impacts of storm flows on the ASBS during storm events and evaluate existing storm water treatment technologies prior to adopting water quality objectives for storm flows.

3.2. A Peak Flow Exception should be added to the Special Protections since it is not feasible to capture and treat all storm flows (including record flows).

The 14,000 acres representing the watersheds in Los Angeles County adjacent to ASBS No. 24 generate approximately three billion gallons of stormwater runoff during a peak storm event. County storm drains only serve a portion of this area. The Special Protections, if applicable to County storm drains during peak discharge, require the mitigation of up to 650 million gallons of stormwater. This would be an unprecedented effort.

3.3. The Special Protections should explicitly recognize that the technologies to treat all storm flows for every potential constituent either 1) do not exist or 2) have never been implemented to the extent required for compliance.

3.4. The Special Protections do not allow a reasonable timeframe for mitigating storm flows.

Although the County considers the treatment of all storm flows unwarranted and unachievable, it is certainly not feasible to accomplish within the proposed five-year timeframe. As noted above, a typical fully-funded dry-weather mitigation project requires four to six years to complete from concept development through end of construction.

A great many more years will be required to complete the construction of even a single treatment facility for storm flows in ASBS No. 24. The Santa Monica Bay Beaches Wet-Weather Bacteria Total Maximum Daily Load, which is less restrictive than the Special Provisions, allows the County and

other responsible parties up to 18 years to comply with only bacteria objectives. Other factors that could require an extended compliance timeframe are right-of-way acquisition, environmental permit approvals, and funding, as was noted in our comments on dry weather mitigation.

The existing right-of-way for County storm drains is insufficient for the placement of a structural BMP capable of mitigating over 600 million gallons of storm flow. We anticipate that the property acquisition required to obtain the needed land area would include the purchase and subsequent condemnation of numerous beachfront developments. It is unlikely that these properties could be acquired without condemnation, a process which is clearly not preferred by the County.

Mitigation projects would also fall under the jurisdiction of the California Coastal Commission. As we noted in our discussion of dry weather mitigation, this process would require several years at a minimum considering the scope of the necessary efforts, and even longer if local residents are not supportive of the efforts.

Finally, these projects are not currently funded. The estimated capital cost for these projects is nearly \$700 million, as shown on Attachment A. This surpasses some of the most ambitious public works projects in the history of the County. Although capital costs could be offset, to an extent, by Federal, State, or local grants, annual maintenance requirements are beyond the current capabilities of County programs designated for storm drain maintenance.

- 3.5. The replacement of existing storm drains should be explicitly allowed by the Special Protections since storm drains must be maintained and occasionally replaced to sustain flood protection.
- 3.6. The Special Protections should not unequivocally disallow the construction of new storm drains (see comment 11). Such a prohibition goes beyond the requirements of the Ocean Plan.

#### **4. Comments on Special Protections for Nonpoint Sources**

- 4.1. The prohibitions suggested would essentially bar any public agency from adding or remodeling a facility along beaches adjoining the ASBS, thus diminishing the ability of the people of the state to enjoy those beaches.
- 4.2. Specific measures should be identified, that if implemented, would allow new public nonpoint sources to be constructed in ASBS drainages.

## **5. Comments on Exceptions to Special Protections for Non-Storm Water**

- 5.1. County water purveyors should be exempt when discharge of drinking water is required to test and operate facilities (i.e. fire hydrant testing).

## **6. Comments on Discharges via Seeps or Springs**

- 6.1. Seeps should be clearly defined within the Special Protections document (See comment 1.1).

At the Public Scoping Meetings, State Board staff defined a seep or spring as an underground flow that surfaced and subsequently discharged directly into an ASBS. This definition, in concept, is acceptable by the County.

- 6.2. The Staff should provide additional support for this section. Currently, these regulations are unclear.

## **7. ASBS Natural Water Quality**

- 7.1. The Special Protections do not account for the fact that natural water quality can (and often does) exceed Ocean Plan objectives.

The Special Protections should not be adopted by the State Board until their staff can adequately define, based on scientific evidence, natural water quality. At the Public Scoping Meetings, staff announced that this effort was expected to be complete within five years.

- 7.2. The Special Protections are more stringent than previously developed Total Maximum Daily Loads (TMDL) in the Santa Monica Bay.

The Dry- and Wet-Weather Santa Monica Bay Beaches Bacteria TMDLs are based on a “reference” watershed strategy. The Special Conditions appear to be based on a “zero-molecule” rule (see comment 11).

## **8. Comments on Monitoring Program for Special Protections**

- 8.1. The County’s preliminary estimate for the monitoring program outlined in the Special Protections document is estimated to cost \$1.2 million over a 5-year permit cycle for the County of Los Angeles. See Attachment B.

- 8.2. It is not practical to measure or calculate runoff flows for all storm drains for each storm event.

The County depends on an existing network of rain and stream gages to accurately calculate and predict storm flows. These gages are located throughout the County. Currently, there is only one rain gage within the

watersheds tributary to the ASBS. A method for determining storm flows could be developed, if necessary, but this data would rely largely on estimates.

- 8.3. Staff should clearly justify the need for visual trash observations.

The coastline adjacent to ASBS No. 24 is very inaccessible in most locations, especially during storm events, making visual observations difficult. There are also very few trash generating land uses in the ASBS, making this exercise of little practical value. The Special Protections should provide that this exercise may be terminated after a period of time.

## **9. Storm Water Management Plans**

- 9.1. Overall, it is inappropriate to apply the Stormwater Management Plan (SWMP) requirements previously issued to a small centralized institution, such as SCRIPPS, to a large public agency without any justification.
- 9.2. The development of a map of surface drainages for the 14,000 acres draining to ASBS No. 24 along the County of Los Angeles shoreline would be an intensive effort with minimal practical value.
- 9.3. The increased frequency of inspections should be justified.

Public agencies should provide a justified maintenance schedule within the SWMP to the Regional Board for approval. The frequencies developed by State Board staff in the Special Protections are arbitrary, and do not take into account the local differences within each ASBS.

## **10. Small Storm Water Discharges**

- 10.1. Private discharges should not be included in the Special Protections for public agencies.

The Special Protections, as defined on page 3 in the document, apply specifically to publicly owned discharges. This section appears to require agencies to regulate private dischargers. This is beyond the scope of the Porter-Cologne Act. Private dischargers are responsible for their own discharges, and the County, or any other municipality, cannot be required to accept responsibility for private discharges. Unlike the Regional and State Board, the County does not have the authority to regulate privately owned discharges. Similarly, the Special Protections document will need to account for how private dischargers will be held responsible for violations of “natural water quality” in the ASBS, as such discharges are not the responsibility of the County or other municipalities.

## 11. Compliance with California Environmental Quality Act

This section of our comments concerns the requirements of the California Environmental Quality Act (“CEQA”) as they relate to the proposed Special Protections document for the Areas of Biological Significance (“ASBS”). These comments respond to the Notice of Public Scoping Meetings dated June 30, 2006.

### A. Under CEQA, a Lead Agency May Not “Pre-judge” the Type of Environmental Document It Will Prepare

The June 30 Notice states that the public scoping meetings would be held “to seek input on the scope and content of the environmental information which should be included in the draft mitigated negative declaration that will be prepared for the proposed ASBS Special Protections to address storm water and nonpoint source discharges.” With respect, the Notice appears to indicate that State Board staff has determined, even before the initiation of the CEQA review process, that it will prepare a mitigated negative declaration (“MND”). Such a pre-judgment of the type of environmental document to be prepared violates the requirements of CEQA.

Public Resources Code § 21080.3 provides that “[p]rior to determining whether a negative declaration or environmental impact report is required for a project, the lead agency shall consult with all responsible agencies and trustee agencies.” The CEQA guidelines contained in the California Code of Regulations provides that the decision to prepare an EIR or other environmental document shall be made only after the completion of the Initial Study. See 14 Cal. Code Reg. § 15063. The purpose of the Initial Study is to “determine if the project may have a significant effect on the environment.” *Id.*

Certainly, with respect to ASBS No. 24, the County of Los Angeles is a “responsible agency;” the County is the governing jurisdiction adjacent to large portions of that ASBS and is the operator of large portions of the flood control system discharging into the ASBS. The County, along with other municipalities, will be required to make significant changes in discharges if the Special Protections document is ultimately approved and implemented, as outlined in our comments above. The County, however, has not heretofore been consulted concerning the Special Protections document nor to its knowledge have other municipalities been consulted. Moreover, we are not aware that any trustee agencies, such as the California Department of Fish and Game or the State Lands Commission, have been consulted regarding the proposed Special Protections document.

Moreover, State Board staff commented at the August 8 scoping meeting in Los Angeles that the Initial Study for the Special Protections is *not yet completed*. In light of that fact, as a matter of California law, staff cannot at this point make a final determination that a MND, and not an EIR, will be prepared.

Also, a MND affords an appropriate level of environmental review under CEQA only where the lead agency, having conducted an initial study, has identified potentially significant effects on the environment, but can determine that such effects can be mitigated “to a point where clearly no significant effect on the environment would occur.” Pub. Res. Code § 21080(c)(2). Staff, having not completed the Initial Study, has identified neither any such effects nor any mitigation measures that would reduce them to a level that would eliminate any significant effect on the environment.

The pre-judgment by staff that only a MND need be prepared is particularly problematic in that it was made before staff is able to benefit from the public input provided at the scoping meetings outlined in the June 30 notice, which indicated that staff would be soliciting information on “the range of actions, alternatives, mitigation measures, and potential significant effects to be analyzed in depth in the environmental document . . . .” If that input demonstrates that, as the County believes, an environmental impact report (“EIR”) is required, completion of a MND would violate both the procedural and substantive requirements of CEQA.

**B. Additional Information On the Special Protections is Required for Adequate CEQA Review**

As outlined above in the County’s substantive comments on the proposed Special Protections document, the document does not provide sufficient clarity as to its scope or particulars to allow members of the public to comment on the potential environmental impacts of implementation of the Special Protections. In particular, the Special Protections document does not indicate the nature of the measures required to implement the prohibitions on storm water and nonpoint source discharges. For example, the Special Protections document does not explain staff’s rationale for determining that a five-year period is sufficient to mitigate wet-weather discharges, especially given the technological difficulties inherent in this process as well as funding and permitting requirements (as discussed above). Moreover, the document indicates that, based on public comment at stakeholder workshops, it may be modified further.

Given this uncertainty, stakeholders should be given additional opportunities, beyond the final scoping meeting to be held on August 15, for additional input into the CEQA aspects of the Special Protections document.

**C. An EIR Is the Appropriate Level of CEQA Review for the Special Protections**

The County has outlined above its statutory and procedural objection to the apparent determination by State Board staff that a MND is the appropriate level of environmental review for adoption of the Special Protections. This section outlines some of the substantive potential impacts apparently posed by implementation of the Special Protections (as the County is able to understand the Special Protections document, given the uncertainties noted above), impacts which provide additional support for the County’s position that an EIR should be prepared.

Under CEQA, an EIR must be prepared if the proposed project “*may have a significant effect on the environment.*” *Quail Botanical Gardens Foundation, Inc. v. City of Encinitas* (1994) 29 Cal. App. 4<sup>th</sup> 1597, 1601 (quoting Pub. Res. Code § 21100) (emphasis original). Moreover, if it may be “fairly argued” that significant impacts may occur, an EIR is required. *Id.* at 1601-02. The County believes that there are significant potential environmental impacts and effects of implementation of the Special Protections. These include:

- Air quality impacts resulting from the construction and maintenance of water diversion, detention or treatment structures;
- Biological resource impacts, resulting from, among other things, changes in long-standing discharges into the ASBS as the result of the requirements of the Special Protections document;
- Geology and soil impacts relating to the construction of treatment or diversion systems. We note that the topography of the coastal area adjoining ASBS No. 24 is fairly rugged, with steep slopes;
- Housing impacts, resulting from the possible need to condemn and demolish properties to construct detention facilities;
- Hydrology and water quality impacts, relating to the diversion of stormwater flows, changing the quality of discharges that have, for many years, been flowing into the ASBS, constructing water detention basins that might increase the potential for flooding and changes in sedimentation rates, among other impacts;
- Noise impacts, resulting from the pumping of detention facilities for transportation to offsite treatment systems;
- Public services impacts, resulting from the possible requirement to divert County resources from needed and essential public services such as sheriffs and public health, to constructing the diversion, detention and treatment facilities apparently required by the Special Protections document;
- Recreation impacts, resulting from, among other things, the construction activities required to eliminate discharges from the numerous miles of public beaches adjoining the ASBS, as well as the apparent prohibition on new construction, which would prevent beach improvement, development or repairs;
- Transportation and traffic impacts, resulting from the construction and maintenance of diversion, detention and treatment facilities, as well as the

cumulative impacts resulting from similar activities undertaken by Caltrans on state highways;

- Utilities impacts, resulting from the need to reconstruct storm water draining facilities to address the requirements of the “one molecule” rule proposed in the Special Protections.

This list of potential impacts is preliminary, and represents the County’s understanding of the Special Protections document as it is currently drafted. As noted above, the lack of specificity in the Special Protections document makes it difficult for the County to offer more directed comments on environmental impacts. Once draft versions of the formal environmental documents are prepared and circulated for comment, the County and other stakeholders plan to make additional and hopefully more focused comments.

Nonetheless, the County believes that these impacts outlined above, and as outlined in the comments of other stakeholders (for example, see the comment letter of the California Chamber of Commerce and other organizations, which contains a fairly detailed summary of potential impacts in these and other areas), provide enough evidence of potential significant environmental impacts for State Board staff to prepare an EIR in conjunction with adoption of the Special Protections document.

*Attachment A*

**County of Los Angeles and Los Angeles County Flood Control District**

**Preliminary Cost Estimate for Compliance with Special Provisions  
for Storm Flows and Non-Storm Point Source Discharges**

## Compliance for Storm Flows (Wet Weather)

**Strategy:** It is likely that storm water discharges will exceed natural water quality or ocean plan objectives at most if not all storm drains. This is based on the fact that “reference” watersheds exceed Ocean Plan objectives during most storms. One compliance strategy could be to construct large-scale treatment systems. The table below provides general guidance on the cost of these systems. It is very likely that a solution is physically impossible even if funding was not of concern. It is also possible that these cost estimates are low.

**Alternative:** There is only one alternative to this option. Discharge points could be extended outside of the ASBS. The ASBS is defined as the area from the beach to 1,000 feet offshore or where the ocean is 100 feet deep, whichever is further. Large publicly owned sewage treatment plants are the only facilities known to utilize offshore discharges. At this time, there is not enough known about this type of discharge to create a cost estimate. However, the cost is likely to rival the cost of full treatment.

### Los Angeles County Flood Control District Potential Wet-Weather Treatment Projects

Drain	Peak Flow Rate (cfs)	Peak Flow Volume (Acre-ft)	Private Property Purchase (in millions)	Construction Cost*	Maintenance Cost**
PD 363 Line A <sup>1</sup>	15	4.0	\$15	\$2,000,000	\$200,000
PD 363 Line B <sup>2</sup>	6	1.6	\$20	\$2,000,000	\$200,000
PD 2053 <sup>3</sup>	726	193.6	\$48	\$63,000,000	\$600,000
PD 291	12	3.2	\$0	\$2,000,000	\$200,000
PD 306 & PD 2324 <sup>4</sup>	6005 84	1600.0 22.0	\$115	FCD \$521,400,000 City \$7,200,000	\$10,000,000 \$700,000
PD 1174	418	111.0	\$0	\$36,200,000	\$3,600,000
PD 1184 Line A	41	11.0	\$0	\$3,600,000	\$400,000
PD 1184 Line B <sup>5</sup>	206	54.5	\$5	\$17,800,000	\$1,800,000
MTD 622 Lines 1-3	2	1.4	\$0	\$2,000,000	\$200,000
MTD 622 Lines 4-6	14	3.6	\$0	\$2,000,000	\$200,000
<b>Total</b>	<b>7529</b>	<b>2006.0</b>	<b>\$205</b>	<b>\$659,200,000</b>	<b>\$18,100,000</b>
<b>20-Year Total Project Cost***</b>				<b>\$1,100,000,000</b>	

\*Based on a unit cost of one dollar per gallon with a minimum cost of \$2 million

\*\*Based on estimate of 10% of capital investment per year

\*\*\*Assumes 2% inflation rate

#### Private Property Acquisition Notes:

1. One oceanfront property estimated at \$15 million.
2. Two oceanfront properties each estimated at \$10 million.
3. Four oceanfront properties each estimated at \$12 million.
4. Thirty residential properties along the channel each estimated at \$3 million and one commercial at the end of the channel estimated at \$25 million.
5. One undeveloped oceanfront residential parcel estimated at \$5 million.

## Compliance for Non-Storm Flows (Dry Weather)

**Strategy:** In concept, small dry-weather flows could be diverted from the storm drain, retained in appropriately sized underground storage, and then pumped and trucked to a wastewater treatment facility. The Hyperion Treatment Plant, 30 miles away, is the closest viable facility to treat the stored runoff. To ensure compliance with the Special Protections, storm drains with no observed dry-weather flow will require minimal storage and monitoring every three days. These are preliminary concept projects only and are viewed as unnecessary due to the limited impact of Non-Storm Flows on the ASBS.

### Flood Control District

Drain	Flow Rate (gpm)	Number of Trucks Every 3 Days	Construction Cost	Maintenance Cost
PD 363 Line A*	1	1	\$150,000	\$75,000
PD 363 Line B*	1	1	\$150,000	\$75,000
PD 2053*	1	1	\$150,000	\$75,000
PD 291*	1	1	\$150,000	\$75,000
PD 306 & PD 2324	10	7	FCD (50%) \$700,000 City (50%) \$700,000	\$200,000 \$200,000
PD 1174*	1	1	\$150,000	\$75,000
PD 1184 Line A*	1	1	\$150,000	\$75,000
PD 1184 Line B	1	1	\$150,000	\$75,000
MTD 622 Lines 1-3	16	10	\$2,000,000	\$450,000
MTD 622 Lines 4-6	15	9	\$1,750,000	\$450,000
<b>Total</b>	<b>48</b>	<b>33</b>	<b>\$5,500,000</b>	<b>\$1,625,000</b>
<b>20-Year Total Project Cost**</b>				<b>\$45,000,000</b>

\*These storm drains do not currently have dry weather flow

\*\*Assumes 2% inflation rate

### County of Los Angeles Department of Beaches and Harbors

Drain	Flow Rate (gpm)	Number of Trucks Every 3 Days	Construction Cost	Maintenance Cost
Zuma Beach #1*	1	1	\$100,000	\$25,000
Zuma Beach #2*	1	1	\$100,000	\$25,000
Zuma Beach #3*	1	1	\$100,000	\$25,000
Zuma Beach #4*	1	1	\$100,000	\$25,000
Zuma Beach #5*	1	1	\$100,000	\$25,000
Zuma Beach #6*	1	1	\$100,000	\$25,000
Zuma Beach #7*	1	1	\$100,000	\$25,000
Zuma Beach #8*	1	1	\$100,000	\$25,000
<b>Total</b>	<b>48</b>	<b>33</b>	<b>\$800,000</b>	<b>\$200,000</b>
<b>20-Year Total Project Cost**</b>				<b>\$5,900,000</b>

\*These storm drains do not currently have dry weather flow

\*\*Assumes 2% inflation rate

***Attachment B***

**County of Los Angeles and Los Angeles County Flood Control District**

**Preliminary Cost Estimate for Compliance with  
Monitoring Requirements of Special Protections**

**FLOOD CONTROL DISTRICT & BEACHES & HARBORS ESTIMATED ASBS MONITORING COSTS**

Task No.	Task Description	No. of Sample Locations (a)	Sample Type	Task Frequency			Lab Analysis Costs (per sample) (b)	Labor/Equipment Costs (per event) (c)	Single Event Cost (d=a*b+c)	Total Cost (5 year Permit) (f=e*d)	Average Annual Cost (=f / 5)	Max. Annual Cost
				Events/Year	Years/Permit	Events/Permit (e)						
2	Flow Measurements of drains >19.685" (or 0.5 meter)	19	N/A	4	5	20	\$0	\$2,885	\$2,885	\$57,692	\$11,538	\$11,538
3	Visual Observations of Trash	ASBS Coastline	N/A	4	5	20	\$0	\$2,885	\$2,885	\$57,692	\$11,538	\$11,538
4a	Benthic Survey @ Discharge Points & Reference Site	20	Grab	1	1	1	\$1,000	\$12,000	\$32,000	\$32,000	\$6,400	\$32,000
4b*	Bioaccumulation Study @ Discharge Points & Reference Site	20	Composite	1	1	1	\$7,990	\$284,500	\$444,300	\$444,300	\$88,860	\$444,300
5a	Reference Stream Storm Sampling (Tables A & B Constituents and others + Bact)	1	Grab	3	2	6	\$3,700	\$1,200	\$4,900	\$29,400	\$5,880	\$14,700
5b	Reference Stream - Receiving Waters Storm Sampling (Tables A & B Constituents and others + Bact)	1	Grab by boat	3	2	6	\$3,700	\$1,275	\$4,975	\$29,850	\$5,970	\$14,925
5c	Reference Stream/Subtidal Sediment Toxicity (Acute Only) (Table B Constituents and others)	1	Grab by boat	3	1	3	\$5,600	\$1,275	\$6,875	\$20,625	\$4,125	\$20,625
6a	Outfalls (>19.685in) Storm Sampling (Table A Constituents + Bact)	19	Grab	1	5	5	\$300	\$9,500	\$15,200	\$76,000	\$15,200	\$15,200
6b	Outfall Storm Sampling Toxicity (Acute Only in Table B) (1 for every 5 outfalls; rotate annually)	4	Grab	1	5	5	\$800	\$1,200	\$4,400	\$22,000	\$4,400	\$4,400
6c	Outfalls (>39.37 in or one meter) Storm Sampling (Table B Constituents and others)	5	Grab	1	5	5	\$3,400	\$1,200	\$18,200	\$91,000	\$18,200	\$18,200
6d	Outfall (largest) Storm Sampling (Table A & B Constituents and others+ Bact)	1	Grab	3	5	15	\$3,700	\$1,200	\$4,900	\$73,500	\$14,700	\$14,700
6e	Outfalls (largest) - Receiving Waters Storm Sampling (Tables A & B Constituents and others + Bact)	1	Grab by boat	3	5	15	\$3,700	\$1,275	\$4,975	\$74,625	\$14,925	\$14,925
6f	Outfalls (largest)/Subtidal Sediment Toxicity (Acute Only) (Table B Constituents and others)	1	Grab by boat	3	1	3	\$5,600	\$1,275	\$6,875	\$20,625	\$4,125	\$20,625

\* Optional Growth Study would double Event cost (2.75M); TOTAL 5 year cost would increase by 75% (~\$3.4M)

<b>TOTAL</b>	<b>\$1,029,310</b>	<b>\$205,862</b>	<b>\$637,677</b>
<b>+ 15% Contingency</b>	<b>\$1,183,706</b>	<b>\$236,741</b>	<b>\$733,328</b>