CALIFORNIA COASTAL COMMISSION
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Staff: PE-LB
Staff Report: 8/23/01
Hearing Date: 9/11/01
Commission Action:

STAFF REPORT: CONSENT CALENDAR

APPLICATION NUMBER: 5-00-413

APPLICANT: City of Los Angeles, Dept. of Public Works

AGENT: William Jones, James Doty

PROJECT LOCATION: Santa Monica Canyon Flood Control Channel: southwest of Short Street from the Santa Monica Canyon Flood Control Channel along approximately 300 feet of West Channel Road, south of PCH and east of Chatauqua Blvd, Pacific Palisades, Los Angeles County.

PROJECT DESCRIPTION: Low flow diversion structure and pumping plant in concrete lined flood control channel to divert low, dry-weather flow from channel to sanitary sewer system. Project includes construction of a shaped concrete berm in the channel. A 10-inch force main, 4' by 10' trash collection area, a holding tank with pump, and an ambient gas detector, will be constructed below grade; and, in addition, a 6' high 4' wide 2' deep control box adjacent to channel, will be extend above ground. The project includes resurfacing West Channel road southwest of Short Street.

LOCAL APPROVALS RECEIVED:

1. Los Angeles County Department of Public Works, Los Angeles County Flood Control District, Permit 2000-51 entitled in part: "Modify the Santa Monica Canyon Channel for diversion of up to 5cfs of low flow from the flood control channel during dry weather season, (etc.).
2. City of Los Angeles CDP-99-06
3. City of Los Angeles City Council Motion C. F. No 00-0092, Transfer of Funds to Facilitate the Construction of the Santa Monica Canyon Low Flow Diversion and the Venice Pavilion Low Flow Diversion Projects, February 14, 2001.

SUMMARY OF STAFF RECOMMENDATION:

Staff recommends approval of the project with conditions requiring 1) compliance with the terms and conditions of the 1601 permit, 2) preparation of reports identifying upstream sources and transmittal of the reports to the Commission and the Regional Water Quality

Control Board 3) limitations on use of beach parking for staging and storage areas during summer months, 4) siltation and erosion control. Motion is found on page 2.

SUBSTANTIVE FILE DOCUMENTS:

1. California Department of Fish and Game: Streambed Alteration Agreement dated June 20, 2001 (1601 permit).
2. City of Los Angeles, Department of Public Works, Bureau of Engineering: "Draft Santa Monica Bay Storm Drain Low-Flow Diversion Master Plan—Feasibility and Preliminary Engineering Report, July 31, 1996.
3. City of Los Angeles, Department of Public Works, Bureau of Engineering: "Biological Assessment with respect to Streambed Alteration Agreement Application to California Department of Fish and Game." November 1, 2000.
4. Crawford, David, Impact Sciences inc., "Results of Focussed Survey for Tidewater Goby, City of Los Angeles, Los Angeles County", May 7, 2001.
5. Beringer, David, California State Water Resources Board; Division of Water Rights Letter: Santa Monica Canyon Low Flow Diversion from Santa Monica Canyon Flood Control Channel in Los Angeles County, September 20, 2000
6. Joseph E Mundine, Manager, Hyperion Treatment Plant, City of Los Angeles, Department of Public Works, Bureau of Sanitation: Letter to Dennis Dickerson, RWQCB "Hyperion treatment Plant Capacity Coastal Development Permit Application No. 5-00-413, for Low Flow Diversion Project, Pacific Palisades, (Los Angeles County), November 30, 2000. (Identifies authorizations for dry weather treatment.)
7. US EPA and Regional Water Quality Control Board, Los Angeles Region IV, NPDES Permit CA0109991 for City of Los Angeles.
8. US EPA and Regional Water Quality Control Board, Los Angeles Region IV, Approval of Request for Deviation from 40 CFR 35.927-4 and 4- FR 35.2130.
9. Wilson, Judith, City of Los Angeles Board of Public Works, Bureau of Sanitation: Response to Council file No. 00-0092 Regarding Low Flow Diversion of Dry Weather Urban Runoff, transmittal letter, January 12 2001.
10. City of Los Angeles Board of Public Works, Bureau of Sanitation: Report from Bureau of Sanitation to City of Los Angeles Environmental Quality and Waste Management Committee on Council File Number 00-0092, January 11, 2001.
11. Anderson, J.W., D.J. Reish, R.B. Spies, M.E. Brady, and E. W. Segelhorst. 1993. Human Impacts. Pages 682-766 in M.D. Dailey, D.J. Reish, and J.W. Anderson, eds. Ecology of the Southern California Bight. A Synthesis and Interpretation. Los Angeles, U. C. Press.

STAFF RECOMMENDATION:

The staff recommends that the Commission adopt the following resolution:

MOTION: ***I move that the Commission approve Coastal Development Permit No. 5-00-413 pursuant to the staff recommendation.***

STAFF RECOMMENDATION OF APPROVAL:

Staff recommends a **YES** vote. Passage of this motion will result in approval of the permit as conditioned and adoption of the following resolution and findings. The motion passes only by affirmative vote of a majority of the Commissioners present.

RESOLUTION TO APPROVE THE PERMIT:

The Commission hereby approves a coastal development permit for the proposed development and adopts the findings set forth below on grounds that the development as conditioned will be in conformity with the policies of Chapter 3 of the Coastal Act and will not prejudice the ability of the local government having jurisdiction over the area to prepare a Local Coastal Program conforming to the provisions of Chapter 3. Approval of the permit complies with the California Environmental Quality Act because either 1) feasible mitigation measures and/or alternatives have been incorporated to substantially lessen any significant adverse effects of the development on the environment, or 2) there are no further feasible mitigation measures or alternatives that would substantially lessen any significant adverse impacts of the development on the environment.

II. STANDARD CONDITIONS:

1. Notice of Receipt and Acknowledgment. The permit is not valid and development shall not commence until a copy of the permit, signed by the permittee or authorized agent, acknowledging receipt of the permit and acceptance of the terms and conditions, is returned to the Commission office.

2. Expiration. If development has not commenced, the permit will expire two years from the date this permit is reported to the Commission. Development shall be pursued in a diligent manner and completed in a reasonable period of time. Application for extension of the permit must be made prior to the expiration date.

3. Interpretation. Any questions of intent or interpretation of any condition will be resolved by the Executive Director or the Commission.

4. Assignment. The permit may be assigned to any qualified person, provided assignee files with the Commission an affidavit accepting all terms and conditions of the permit.

5. Terms and Conditions Run with the Land. These terms and conditions shall be perpetual, and it is the intention of the Commission and the permittee to bind all future owners and possessors of the subject property to the terms and conditions.

III. SPECIAL CONDITIONS

1. COMPLIANCE WITH THE TERMS AND CONDITIONS OF THE 1601 PERMIT.

Prior to issuance of the coastal development permit the applicant shall agree in writing to conduct its operations in strict compliance with streambed alteration permit issued by the Department of Fish and Game on July 20, 2001. Pursuant to this agreement, the applicant shall identify the specific measures that it will take to assure compliance by its contractors.

2. LIMITATIONS ON USE OF BEACH PARKING FOR STAGING AND STORAGE AREAS

A. Prior to issuance of the coastal development permit the applicant shall agree that the beach parking lot shall not be used for construction staging and storage during the summer months (between Memorial Day Weekend and Labor Day) and that such operations shall be limited to non-holiday weekdays during September and October. All construction contracts shall include this requirement.

B. The applicant shall carry out the construction consistent with the agreement identified in A above.

3. STOCKPILING, STAGING AVOIDANCE OF SILTATION, AND EROSION CONTROL.

A. Prior to issuance of a coastal development permit the applicant shall agree in writing to require that the final plans shall minimize construction impacts of the project and that all contracts and other written materials shall include the requirements listed below. The applicant shall further agree that the final plans shall identify acceptable locations for stockpiling and staging of materials; plans for control of erosion, stockpiled earth from trenches, and cement; as well as plans for the disposal of construction materials. The plans shall contain the following:

1) A delineation of the areas to be disturbed by grading or construction activities including any temporary access roads, trenches, staging and stockpile areas. Any undisturbed natural areas on the site shall be clearly delineated on the project site with fencing or survey flags. Pursuant to the applicant's written proposal, no vehicles or machinery shall be parked or stored in any sand area.

2) The plan shall include a list of Best Management Practices within a written plan to control dust, cement waste, cement or construction materials. The plan shall

also include standards for interim control and for clean up. No cement shall be disposed of in the watercourse. No hardened cement except as shown on the plans shall be left in the watercourse. All sediment should be retained on-site unless removed to an appropriate approved dumping location either outside the coastal zone or to a site within the coastal zone permitted to receive fill. Contractors and City Inspectors shall monitor and contain oil or fuel leaks from vehicles and equipment.

3) Consistent with the approval of the County Flood Control District, no grading shall take place during the rainy season (November 1 – March 31). However, should any work extend past November 1 or occur before April 30, the applicant shall install or construct temporary sediment basins (including debris basins, desilting basins or silt traps), temporary drains and swales, sand bag barriers, silt fencing, stabilize any stockpiled fill with geofabric covers or other appropriate cover, and install geotextiles or mats on all disturbed areas.

4) The plans shall also include temporary erosion control measures should grading or site preparation cease for a period of more than 30 days, including but not limited to: stabilization of all stockpiled fill, access roads, disturbed soils and cut and fill slopes with geotextiles and/or mats, sand bag barriers, silt fencing; temporary drains and swales and sediment basins. These temporary erosion control measures shall be monitored and maintained at least on a weekly basis until grading or construction operations resume.

B. Prior to commencement of construction the applicant and its contractor(s) shall provide for the review and approval of the Executive Director final plans and plan notes that conform with the requirements of item A above. No work shall take place until the Executive Director approves the plans in writing.

C. Conformance with plans. All work shall take place consistent with the plans submitted in compliance with A above.

D. Monitoring. The applicant shall provide the executive director a written report at the close of construction indicating the degree to which that all stripped slopes have been replanted and debris removed for the waterway. If any revegetation is required, the applicant shall re-inspect the site within one month of the completion of construction and again within one year of the completion of construction to verify that revegetated areas have established. If such area has not re-established the applicant shall re-seed to area.

4. MAINTENANCE

Prior to issuance of the permit the applicant shall prepare for the review and approval of the executive director, a program for annual inspection and frequent maintenance of the diversion device, the pumps and the trash separator. The plan

shall establish the frequency that debris shall be removed from the trash separator, and shall identify the maintenance needs of the pump and other mechanical devices that the applicant proposes to employ. The applicant shall provide the reasoning, the maintenance manuals, and statistics upon which such a schedule is based. The applicant shall inspect and maintain the approved facility consistent with the approved plan.

5. SURVEY AND ENFORCEMENT.

The applicant shall in cooperation with the RWQCB develop a detailed plan to identify the stable areas and septic systems that continue to discharge into the creek. The property owners responsible for such discharges shall be notified in writing of the rules pertaining to discharge of fecal material, and the health reasons for such rules. Such notices and other information gathered shall be provided to the Regional Water Quality Control Board and to the Executive Director.

IV. FINDINGS AND DECLARATIONS:

The Commission hereby finds and declares:

A. PROJECT DESCRIPTION AND LOCATION

This project is a top priority project of 26 potential low flow diversion projects that were ranked according to health effects and identified for low flow treatment. In 1996, the City of Los Angeles identified 26 major storm drain discharge points in a 1996 study of major storm drain discharges into Santa Monica Bay. (Exhibit) According to City engineers:

> According to the City Bureau of Sanitation, Santa Monica Canyon ranked first with the highest relative health risk from bacterial contamination. The Temescal Canyon and Imperial Highway drains rank 3rd and 4th respectively. The health index used to set priority ranking was based upon drain flow, fecal coliform concentration levels and beach usage, (William Jones, Environmental Management, Bureau of Engineering Department of Public Works, email, Tuesday, August 14, 2001 2:21 PM)

The project involves construction of a thirty foot wide one to one-and-a-half foot high shaped concrete berm across the channel. The berm will block low flow runoff diverting it into a 24-inch pipe, which will be located beneath a nearby commercial parking lot. The 24-inch pipe will flow into a pumping plant that contains a 4' by 10' below grade trash collection area. The plant will separate out the solids and discharge the liquids through a 10-inch force main to the Coastal Interceptor Sewer at Pacific Coast Highway. The Coastal Interceptor Sewer flows into Hyperion Treatment Plant. The project will also include an aboveground control box approximately 6' high, 4 feet wide and 2' deep. The box will be located adjacent to the flood control channel wall above the inlet pipe. The

pumping plant and discharge pipe will be constructed using open cut construction. The project includes resurfacing West Channel road southwest of Short Street.

Santa Monica Channel collects water from both Santa Monica Canyon and Rustic Canyon. The two streams join over 900 feet inland of Pacific Coast Highway. The channel is lined with concrete through the commercial area and, according to the City, well upstream of the confluence with the Rustic Canyon Channel. Its vertical walls do not support vegetation. There is some ivy and other vines and trees on sidewalks adjacent the channel, but no significant native vegetation in the area. No native vegetation will be disturbed by the project. The adjacent area is paved and urbanized. Seaward of the Pacific Coast Highway Bridge, the channel discharges onto the beach, forming a pool that persists during the summer months. The pool attracts mallards and seagulls. The pool is heavily polluted with coliform bacteria and other pathogens. The berm will be placed about 433 feet northeast of the centerline of Pacific Coast Highway and 533 feet southwest of the channel's confluence with Rustic Canyon Flood Control Channel.

The purpose of the project is to protect public health. High levels of bacterial contamination have been found in ocean waters seaward of the Santa Monica Canyon discharge. The City representatives state:

> Bacterial contamination was [identified] ... in a Bureau of Sanitation report titled "Low Flow Diversion of Dry Weather Urban Runoff" December 2000. In Santa Monica Channel, potential sources of bacterial contamination were found to be leaking septic tanks, landscape waste and improperly disposed horse manure, all non-point sources. As a result, the City conducted a public outreach campaign targeting landscapers, gardeners, as well as owners of horses and septic tanks. The education program advocated the use of Best Management Practices (BMP's) that would reduce the amount of contamination in Santa Monica Bay. The Santa Monica Channel remains as the most polluted drain and greatest threat to public health with the highest coliform bacteria levels and the highest beach usage along Santa Monica beach. The low flow diversion project serves as a way to immediately eliminate a serious contamination and public health problem. (William Jones, Bureau of Engineering, email, May 31, 2001.)

B. WATER QUALITY

The Coastal Act requires that the Commission protect recreational use of coastal waters and marine habitat.

Section 30220

> Coastal areas suited for water-oriented recreational activities that cannot readily be provided at inland water areas shall be protected for such uses.

Section 30230

Marine resources shall be maintained, enhanced, and where feasible, restored. Special protection shall be given to areas and species of special biological or economic significance. Uses of the marine environment shall be carried out in a manner that will sustain the biological productivity of coastal waters and that will maintain healthy populations of all species of marine organisms adequate for long-term commercial, recreational, scientific, and educational purposes.

Section 30231

The biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes appropriate to maintain optimum populations of marine organisms and for the protection of human health shall be maintained and, where feasible, restored through, among other means, minimizing adverse effects of waste water discharges and entrainment, controlling runoff, preventing depletion of ground water supplies and substantial interference with surface water flow, encouraging waste water reclamation, maintaining natural vegetation buffer areas that protect riparian habitats, and minimizing alteration of natural streams.

To carry out these provisions that Commission has required control of siltation generated by development and has encouraged measures to reduce the pollution of streams that reach the ocean. Polluted waters have impacts on marine life, and also on the safety and attractiveness of swimming in marine waters.

In this case the project is proposed to reduce the amount of pollutants that reach the beach and then either stay trapped in a lagoon or flows out and contaminates near shore waters. The purpose of the project is to reduce contamination of coastal waters, consistent with these Coastal Act policies. However, the Commission notes that as with all construction projects, measures must be required so that siltation does not occur during construction and to protect nearshore areas from oil and gas leaking from heavy equipment. Therefore the Commission requires the project to contain construction areas, and, during construction, to properly protect staging areas, to clean up sand, contain concrete, excavated soils and other wastes, not letting them escape into the channel or the ocean. The Commission requires that the applicant and its contractors shall properly monitor and contain oil or fuel leaks from vehicles and equipment and to avoid storing heavy equipment on the beach. Finally the Commission requires that the city periodically inspect and maintain the facility after its installation. As proposed and as conditioned the project is consistent with sections 30220, 30230 and 30231 of the Coastal Act

C. PUBLIC SHORELINE ACCESS.

Will Rodgers State Beach, the beach seaward of the Santa Monica Channel is a heavily used state beach, operated by Los Angeles County. There is a large parking lot on the

beach. Public access is also available through two tunnels under Pacific Coast Highway. The high levels of pollution detected in these waters have negatively affected beach use. County Department of Beaches and Harbors has indicated that the beach cannot be used as a staging area for construction. However all possible locations for construction staging—the beach parking lot and Channel Road will also have impacts on beach use because of impacts on beach parking

Because of the benefits of this project, on public health and the usability of the beaches, the project will have a long-term positive effect on beach access. To avoid negative impacts during construction, the Commission requires that use of the beach parking lot for stockpiling and equipment storage shall take place only during late spring or early fall months, and not during weekends or holidays. This leaves a narrow window for construction because the flood control district will not allow the work to take place during the rainy season. The most heavily used months are from May 30 to September 5, Memorial Day to Labor Day. During the fall months there is also heavy attendance during weekends and holidays. As conditioned, to limit staging, construction and storage of materials to fall and spring week-days the project will have limited effects on public beach access, and on the balance will increase public access to and use of the public beach. As such is consistent with sections 30210, 30211 and 0212 of hte Coastal Act.

Because reducing levels of contamination will improve safe access to the beach as proposed and conditioned the Commission finds the prject is consistent with sections 30210, 20211 and 30212 of the Coastal Act.

D. ENVIRONMENTALLY SENSITIVE HABITAT AREAS.

It has been demonstrated in numerous studies that polluted discharges have damaged kelp, shellfish and other off shore resources. The ability of the nearshore waters to support abundant and varied species of plants and animals is dependent in part on water quality. Improving the water quality will reduce impacts of urbanization on near shore resources. A second potential impact to natural resources from the project could result from the construction within the canyon and placement of the concrete berm on the canyon bottom, which is fill under the Coastal Act. Fill is allowable under 30233 if the fill is for restoration purposes.

The actual creek bottom is concrete and does not support habitat. Fill will not impact existing bottom habitat. The Department of Fish and Game, in granting its streambed alteration permit expressed concern that the activities in the creek and reduction of creek flow could impact habitat of the Tidewater Goby, an endangered small fish that lives in shallow tidal creeks. The Tidewater Goby may be found in beach lagoons such as the one that is now found on the beach at the end of this creek. The City commissioned a survey of the creek and the lagoon to determine whether this area supported the Tidewater Goby or other fishes that might be impacted either by the fill or by the reduction the amount of water flowing in the creek during the summer months. A survey was conducted by Impact Sciences in the spring of 2001. No Tidewater Goby or other

protected fish was identified. Reducing the low flow of this creek to the ocean and rerouting the water to the sewer plant will not adversely impact the Tidewater Goby.

Another potential impact of work carried out near streambeds can be the removal of riparian vegetation. The project will not impact riparian vegetation. The City surveyed the vegetation near and adjacent to the stream. The City environmental specialist found no native species, or riparian trees or plants. Instead the city investigator identified a number of invasive weeds. The channelization that had been carried out in the past had removed all opportunities to support or to re-install native riparian plants. Adjacent owners had also planted introduced vines of various species. These were not sensitive and many are considered invasive.

The remaining possible negative effect of the work on habitat could be siltation due to erosion of material from the stockpiles or trenches, or spill of cement dust, gasoline or oil during construction. The project is conditioned to prevent discharge of sand, silt, cement, gasoline or lubricating oils into the stream or onto the sand during construction. As proposed and as conditioned the project will not impact any riparian or upland habitat.

E. VISUAL QUALITY

This project is small and located in a developed area. The part of it that is visible; a small box to house the pump structure, is proposed to be attached to the side of the concrete lined channel. The box will be below the line of sight from PCH, and will not interrupt views of the beach because it is inland of the bridge. The project will have no significant impact on visual quality or on views to and along the ocean.

F. LOCAL COASTAL PROGRAM

Section 30604 (a) of the Coastal Act states:

> Prior to certification of the Local Coastal Program, a Coastal Development Permit shall be issued if the issuing agency, or the Commission on appeal, finds that the proposed development is in conformity with the provisions of Chapter 3 (commencing with Section 30200) of this division and that the permitted development will not prejudice the ability of the local government to prepare a local coastal program that is in conformity with the provisions of Chapter 3 (commencing with Section 30200).

In 1978, the Commission approved a work program for the preparation of Local Coastal Programs in a number of distinct neighborhoods (segments) in the City of Los Angeles. In the Pacific Palisades, issues identified included public recreation, preservation of mountain and hillside lands, and grading and geologic stability.

The City has submitted five Land Use Plans for Commission review and the Commission has certified three (Playa Vista, San Pedro, and Venice). However, the City has not

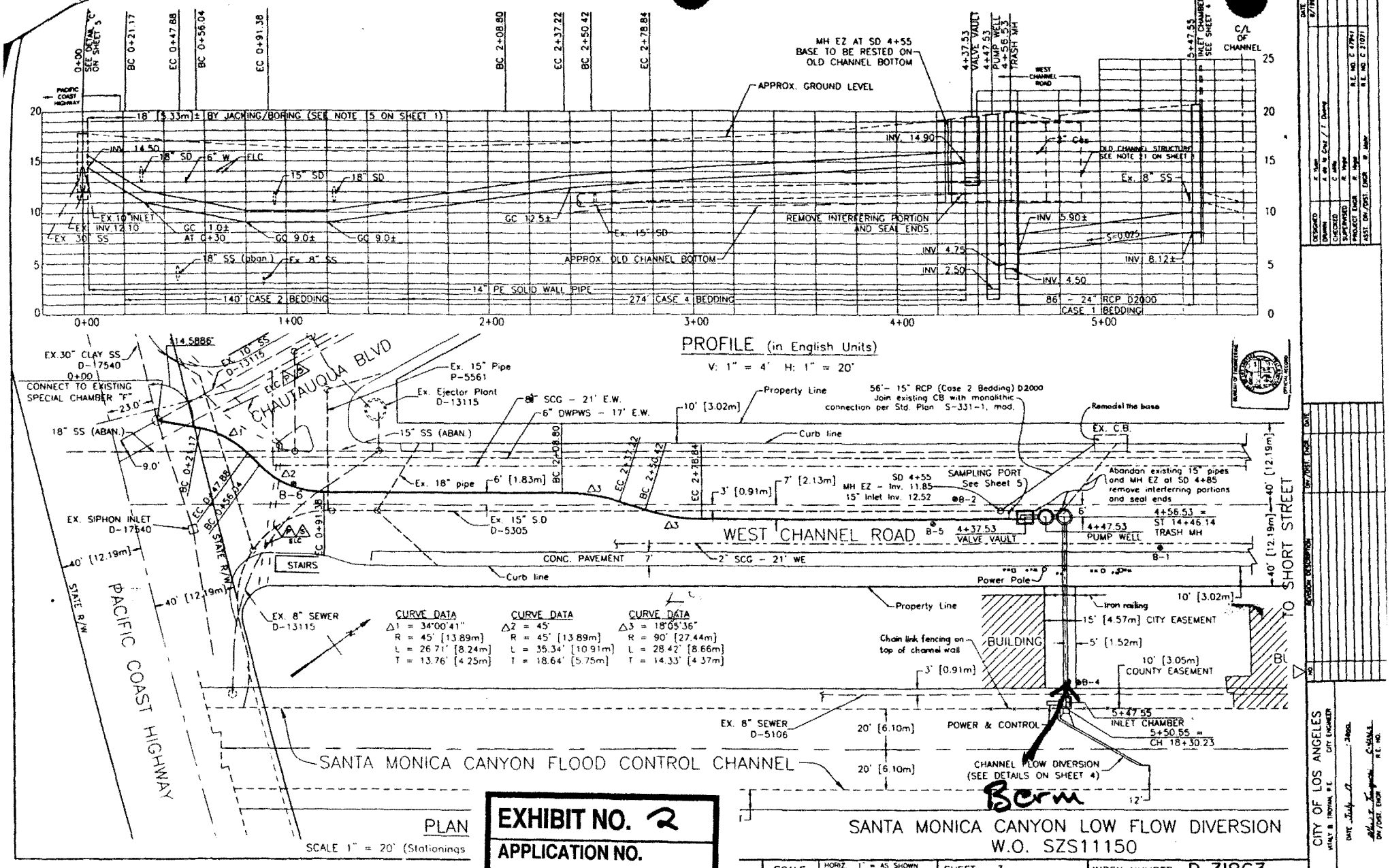
prepared a Land Use Plan for Pacific Palisades. In the early seventies, a general plan update for the Pacific Palisades had just been completed. When the City began the LUP process in 1978, with the exception of two tracts (a 1200-acre and 300-acre tract of land) which were then undergoing subdivision approval, all private lands in the community were subdivided and built out. The tracts were A-381-78 (Headlands) and A-390-78 (AMH). The Commission's approval of those tracts in 1980 meant that no major planning decision remained in the Pacific Palisades. Consequently, the City concentrated its efforts on communities that were rapidly changing and subject to development pressure and controversy, such as Venice, Airport Dunes, Playa Vista, San Pedro, and Playa del Rey. In recent months the city has established an advisory committee to discuss a local coastal program for Pacific Palisades. The committee is discussing issues such as the scale of new development, geologic safety, preservation of public views, water quality and access to and protection of recreational resources.

As conditioned, to address water quality issues related to the project, approval of the proposed development will not prejudice the City's ability to prepare a Local Coastal Program in conformity with Chapter 3 of the Coastal Act. The Commission, therefore, finds that the proposed project is consistent with the provisions of Section 30604 (a) of the Coastal Act.

G. CALIFORNIA ENVIRONMENTAL QUALITY ACT

Section 13096 of the Commission's regulations requires Commission approval of Coastal Development Permit applications to be supported by a finding showing the application, as conditioned by any conditions of approval, to be consistent with any applicable requirements of the California Environmental Quality Act (CEQA). Section 21080.5(d)(2)(A) of CEQA prohibits a proposed development from being approved if there are feasible alternatives or feasible mitigation measures available, which would substantially lessen any significant adverse effect which the activity may have on the environment.

The Commission has examined a no project alternative, which would result in the continuing discharge or pollutants into nearshore waters. It has examined an alternative to carry out the work without limitations on the hours and season during which the work may be carried out, but has determined that it is feasible to lit parking and staging such a way as to minimize impacts on public access to the beach. There are no other feasible alternatives or mitigation measures available which will lessen any significant adverse impact that the activity would have on the environment. Therefore, the Commission finds that the proposed project is consistent with CEQA and the policies of the Coastal Act.


PROFILE (in English Units)
V: 1" = 4' H: 1" = 20'
PLAN
SCALE 1" = 20' (Stationings
SANTA MONICA CANYON LOW FLOW DIVERSION
W.O. SZS11150
CITY OF LOS ANGELES
SCALE HORIZ 1" = AS SHOWN VERT 1" = AS SHOWN
SHEET 3
INDEX NUMBER D-31863
EXHIBIT NO. 2
APPLICATION NO.
5-00-43
Project Detail
Berm

TOPO! map printed on 11/13/00 from "smc.tpo" and "Untitled.tpg"

WGS84 118°31'00" W

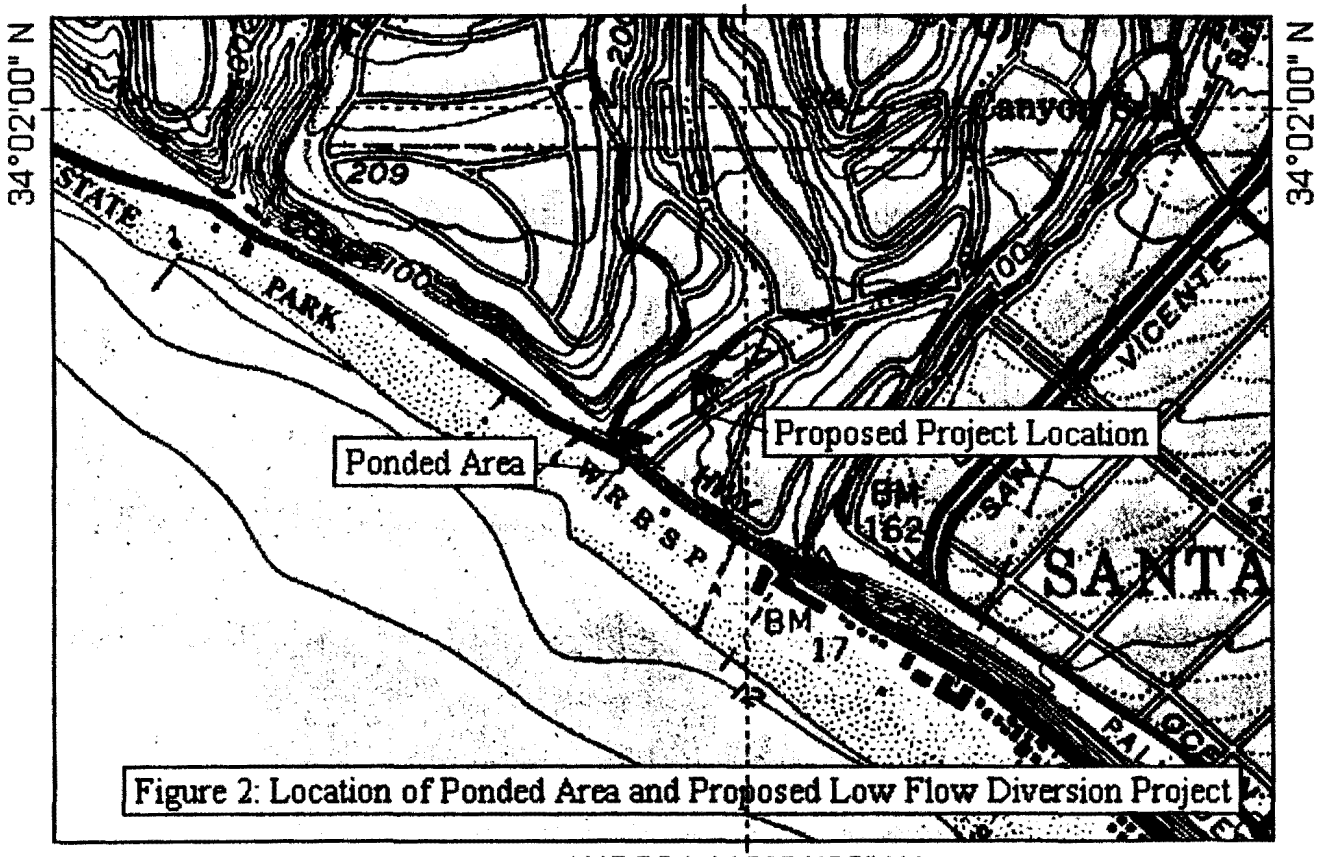


Figure 2: Location of Ponded Area and Proposed Low Flow Diversion Project

WGS84 118°31'00" W

EXHIBIT NO. 3
APPLICATION NO.
5-00 413
Detail Location

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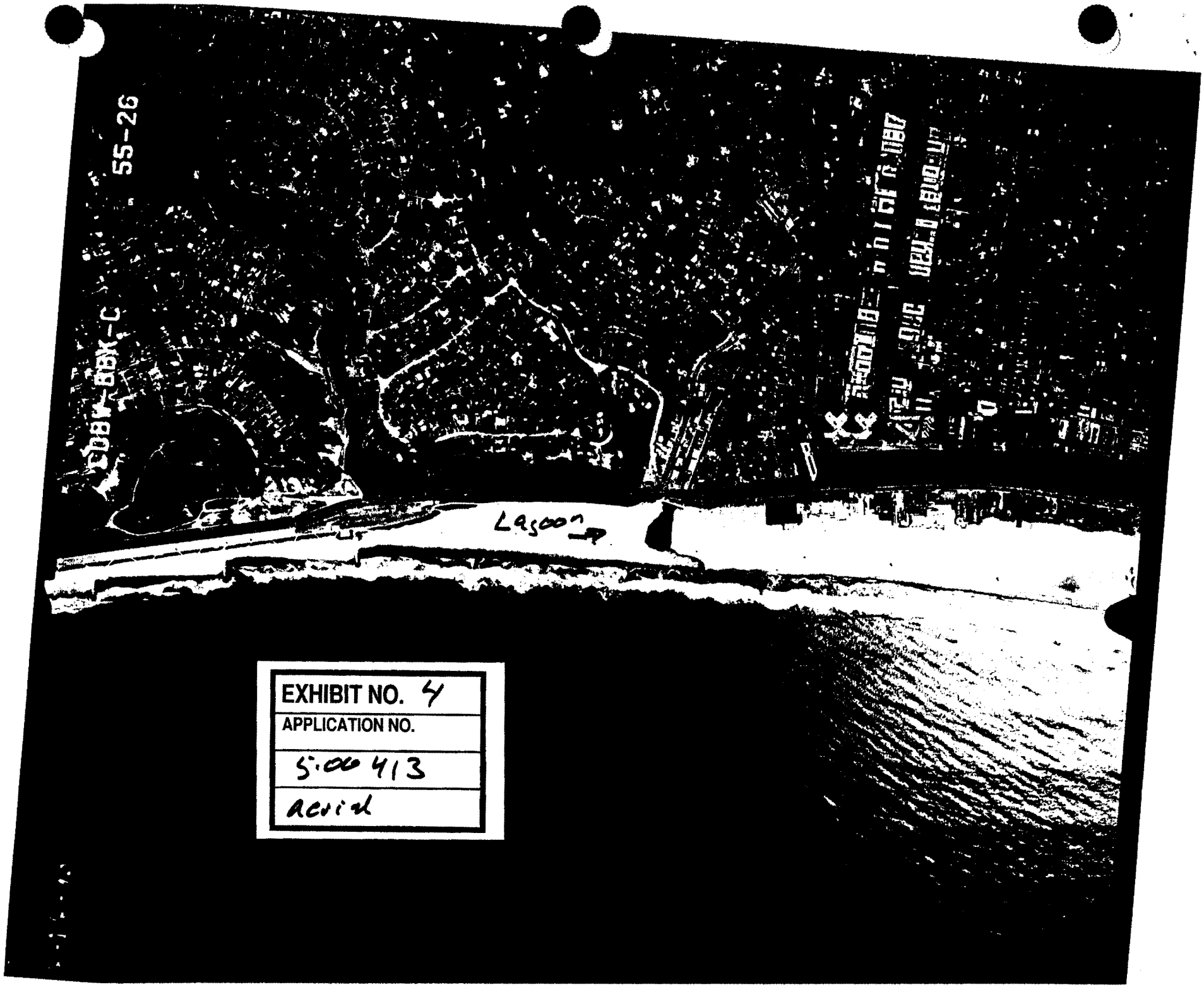

EXHIBIT NO. 4
APPLICATION NO.
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Relative Health Risk Ranking

Additional analysis was done to determine which drains produced the highest health risk to swimmers. Relative health risk (contamination index) was calculated as the product of the following factors: drain flow, bacterial concentration of *E. coli*, fecal to total coliform ratio, and beach usage. Each of these factors affect the number of swimmers that could become ill. The resulting numbers were ranked in order to determine the drains with the worst contamination. This ranking was developed to ensure that low-flow diversion resources were spent at the storm drains that had a combination of high flow, high bacterial contamination, and high number of beach visitors. In other words, the strategy was to divert the worst drains first.

Table 4. Relative Health Risk Ranking of Storm Drains for 2000.

Ranking	Storm Drain	Contamination index
1	Santa Monica Canyon	8936
2	Santa Ynez Canyon	459
3	Temescal Canyon	104
4	Imperial Highway	94
5	Pulga Canyon	40
6	Castlerock	34
7	Marquez Avenue	0.2
A	Venice Pavilion	A
B	North Westchester	B

Note: A. The Venice Pavilion storm drain cannot easily be compared to the other storm drains because it is connected to the Windward Avenue Pumping Plant which intermittently pumps out large volumes of dry-weather urban runoff. The other drains flow unencumbered to the shore.

B. Unable to easily measure drain flow due shallow sheet flow and confined space issues.

Prioritization Discussion

The more samples from the storm drain, mixing zone, 50-yards North, or 50-yards South that exceeded the AB-411 bathing standards, the worse the water quality. No objective standard exists at this time to determine what percent exceedence of AB-411 bathing standards is acceptable. Based on the percent of samples that exceed the AB-411 bathing standards (Figure 1), no one should be in contact with the storm drain effluent. This can occur at Santa Monica Canyon where urban runoff forms a pond across the beach before flowing to the shoreline as a meandering stream. Percent exceedence of samples from the mixing zone samples are a high for Castlerock, Santa Monica Canyon, Santa Ynez Canyon, Temescal Canyon, and to a lesser extent, Imperial Highway and Pulga Canyon. Samples from 50-yards away are a concern to

Exhibit 5
5-00-413
Priorities

LOW-FLOW DIVERSION PRIORITIZATION

The major storm drains that flow into Santa Monica Bay were evaluated to determine if the storm drain runoff and adjacent beach water quality continue to justify the need for dry-weather low-flow diversions. There are 19 major storm drains flowing from the City of Los Angeles to Santa Monica Bay (Table 1). Eight of these drains are either currently diverted or scheduled for LFD construction over the next two years. Two other drains, Marina Del Rey and Ballona Creek, are located next to each other and have offshore outlets with large-scale tidal mixing that dilutes the coliform counts and, therefore, reduces the risk of illness to swimmers. Discharges from Marina Del Rey enter the Pacific Ocean 1000-feet from shore. Discharges from Ballona Creek enter the Pacific Ocean 500-feet from shore. Shoreline station S-10 located 50-yards downcoast of Ballona Creek consistently show low bacterial counts from daily monitoring.

The remaining 9 drains (Table 3) were evaluated as potential candidates for low-flow diversion. These drains were tested for coliform bacteria from April to October 2000 in the undiluted drain effluent, in the mixing zone, at 50-yards North, and at 50-yards South of the storm drain outlet. Two types of analyses were conducted on the water quality data from storm drain and beach samples. First, beach water quality data was evaluated for exceedences of the existing health standards for water contact, the AB-411 bathing standards (Figures 1, 2, 3, and 4, Appendix 4). AB-411 was adopted by the California Legislature in September of 1997. Los Angeles County Department of Health Services (LACDHS) incorporated AB-411 bathing water standards into their Ocean Water Regulatory and Monitoring Protocol in July 1999. LACDHS is responsible for enforcing laws and regulations regarding beach sanitation and State water quality standards. This includes posting of warning signs on beaches when State standards are not met.

AB-411 bathing standards require that a single sample shall not exceed:

> 10,000 total coliform bacteria/100-mL or
> 400 fecal coliform bacteria/100-mL or
> 104 enterococcus bacteria/100-mL or
> 1,000 total coliform bacteria/100-mL, if the ratio of fecal/total bacteria exceeds 0.1.

LACDHS has monitoring locations at most of the major storm drains entering Santa Monica Bay. Routine samples are collected 50 yards away from the storm drains either upcoast or downcoast. Discussions are currently underway between environmental and regulatory groups to determine if the samples collected 50-yards away from the drain are representative and if the sampling locations should be moved closer to the drain to be more protective of swimmers. Another issue is the location of the station with respect to the lateral transport of urban runoff along the shore. If the waves and currents transport is moving away from the sampling location, then the resulting data will underestimate the contribution of urban runoff to the beach water quality. In Santa Monica Bay, only one of the storm drains monitored by LACDHS is monitored both to

Exhibit 6 pl
5.00.413
Background

the north and the south. The rest of the storm drain stations are either 50 yards to the north or south of the drain but not both. There are regional differences to how the sampling distance issue is being handled. For example, in San Diego, the local health agency applies AB-411 standards to samples that are collected at 0-yards from the drain. The Bureau of Sanitation from April to October of 2000 collected samples from the drain, the mixing zone in front of the drain, 50-yards North, and 50-yards South to better understand the relationship between urban runoff at the beach and the resulting beach water quality.

Second, the storm drains were ranked according to relative health risk which considers drain flow, bacterial concentration, bacterial ratios, and beach usage. The results from this analysis are shown in Table 4 and Appendix 5.

Table 3. Storm Drains Evaluated for Coliform Contamination During 2000. Drains are Listed from North to South.

Castlerock
Santa Ynez Canyon
Marquez Avenue
Pulga Canyon
Temescal Canyon
Santa Monica Canyon
Venice Pavilion
North Westchester
Imperial Highway

Percent of Samples that Exceeded AB-411 Bathing Standards

Over 90% of the samples collected from the storm drain exceeded the AB-411 bathing water standards (Figure 1). A notable exception to these high numbers is Pulga Canyon, which exceeded AB-411 standards about half as often as the other drains due to a $5.4 million dollar sewer repair done in early 2000. Mixing zone samples were composited from 5 individual grab samples taken at ankle depth where the incoming waves meet the storm drain effluent. Mixing zone measurements from the following storm drains: Castlerock, Santa Monica Canyon, Temescal Canyon, and Santa Ynez Canyon exceeded the AB-411 standards between 65% and 100% of the time (Figure 2). Mixing zone samples from Imperial Highway and Pulga Canyon form a second group with exceedences at 31% and 28%, respectively. At 50-yards North of the storm drain, Santa Monica Canyon samples showed the 35% exceedence of AB-411 standards, about 3 times higher than any of the other drain measurements at 50-yards North (Figure 3). At 50-yards South, samples from Castlerock, Santa Ynez Canyon, and Santa Monica Canyon exceeded the AB-411 standards between 40% to 60% of the time (Figure 4).

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Exhibit 6
p.2
Background

Figure 1. Percent of Samples that Exceed AB-411 Bathing Water Standards at Various Storm Drains from 2000.

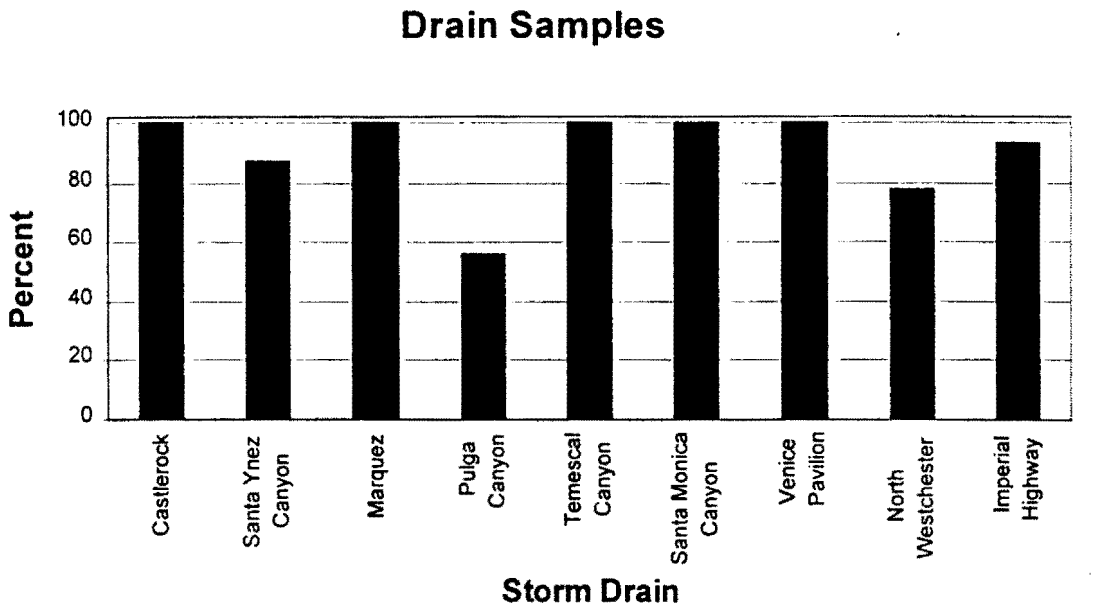
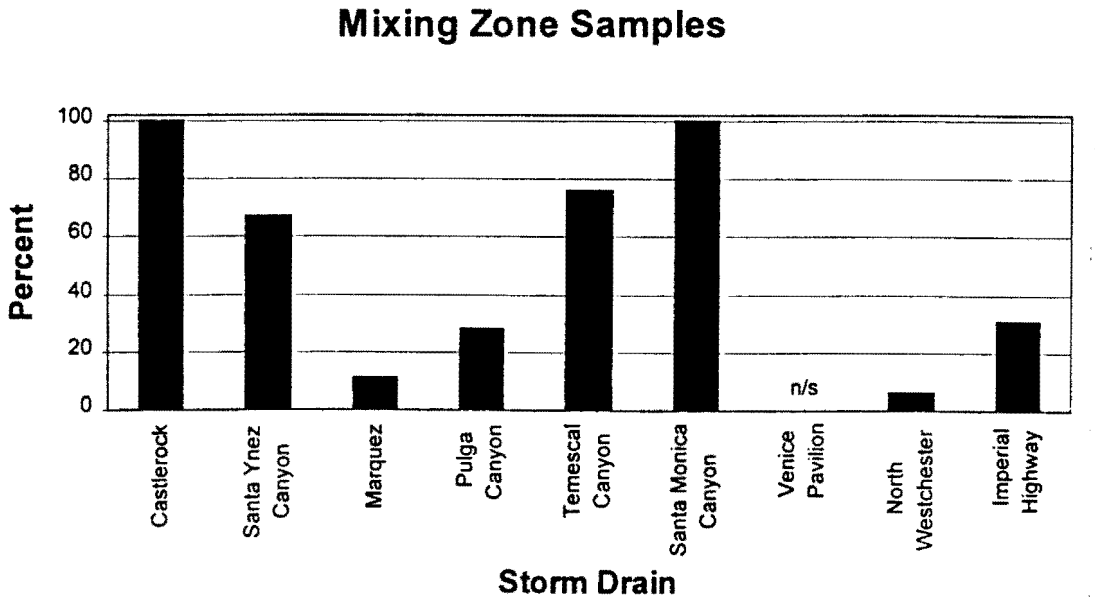


Figure 2. Percent of Samples that Exceed AB-411 Bathing Water Standards in the Mixing Zone from 2000.



n/s = no samples

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Exhibit 6 p3
Background

Table 1. Low-Flow Diversion Program Summary Table

Storm Drain (listed North to South)	Status of Low-flow Diversions			
	Divert	Year	Monitor in 2001	Notes
Castlerock	No		Yes	Rocky downcoast area eliminates recreational access, which reduces public exposure to urban runoff along the shoreline.
Santa Ynez Canyon	No		Yes	Rocky downcoast area eliminates recreational access, which reduces public exposure to urban runoff along the shoreline.
Marquez Avenue	No		Yes	Small flow infiltrates into sand and rarely reaches shoreline, which reduces public exposure to urban runoff along the shoreline.
Bay Club Drive	Yes	2001		Divert to Hyperion Treatment Plant
Pulga Canyon	No		Yes	Lower bacterial counts due to $5.4 million sewer repair.
Temescal Canyon	Yes	2002		Divert to Hyperion Treatment Plant
Palisades Park	Yes	2001		Divert to Hyperion Treatment Plant
Santa Monica Canyon	Yes	2002		Divert to Hyperion Treatment Plant
Pico-Kenter	Yes	2001		Diverted to SMURRF[1]
Ashland Avenue[2]	Yes	2001		Divert to Hyperion Treatment Plant
Rose Avenue[2]	Yes	1977		Diverted to Ashland
Thornton Avenue	Yes	2000		Diverted to Hyperion Treatment Plant
Brooks Avenue[2]	Yes	2001		Divert to Hyperion Treatment Plant
Venice Pavilion	Yes	2002		Divert to Hyperion Treatment Plant
Marina Del Rey	No		No	Offshore discharge and tidal mixing dilutes bacterial contamination and lowers public exposure.
Ballona Creek	No		No	Offshore discharge and tidal mixing dilutes bacterial contamination and lowers public exposure.
Playa Del Rey[2]	Yes	2001		Divert to Hyperion Treatment Plant
North Westchester	No		Yes	Offshore discharge and tidal mixing dilutes bacterial contamination and lowers public exposure.
Imperial Highway	Yes	2002		Divert to Hyperion Treatment Plant

Note: 1. SMURRF stands for Santa Monica Urban Runoff Recycling Facility.
2. Los Angeles County Department of Public Works is responsible for the construction and operation of these low-flow diversion structures. The City of Los Angeles is responsible for construction and operation of all other low-flow diversion structures proposed above.

5.00 413
Exhibit 7
Program Sum marg

Montana Avenue - Discharge 16

This drainage area is 825 acres (344 hectares) in size and is shown in Appendix F. The municipality contributing and responsible to runoff is the City of Santa Monica (100%). The basin falls under the municipal jurisdiction of the City of Santa Monica and the LACDPW.

The drain enters Santa Monica Bay at Wilshire Boulevard. The line outlets on the beach.

This drain is not addressed for CIP development in this report as 100% of the drainage area is outside the City of Los Angeles and the LACDPW is developing a project to address this drainage area.

Santa Monica Canyon - Discharge 17

This drainage area is 10,147 acres (4,106 hectares) in size and is shown in Appendix F. The municipalities contributing to runoff (by acreage) are the City of Los Angeles (98.6%) and the City of Santa Monica (1.4%). The basin falls under the municipal jurisdiction of the City of Los Angeles, the City of Santa Monica, and the LACDPW.

The drain discharges into Santa Monica Bay across Will Rogers State Beach in open concrete lined channel between West Channel Road and Entrada Drive, Los Angeles. The line outlets in the surf. The drain is maintained by LACDPW.

This drain is not addressed in this report for CIP development as LACDPW is addressing this flow as a chronic problem. LACDPW is in the planning stages of a CIP diversion project for this drain.

During the writing of this Master Plan the Stormwater Management Division realized the capital, municipal, and annual fees for this project might price a diversion alternative and the City and/or County Stormwater Program into financial difficulties. The annual costs estimated at $2.4 million, connection fees of $11 million, and capital costs over an estimated $1,000,000 would likely make a stormwater reclamation/treatment plant or some other alternative more cost effective.

The County estimates that a diversion project could be scheduled for completion in June 1999. The low-flow volume of this site (about 5 cfs) will likely cause this layout to be one of the most expensive diversion projects pursued by the Los Angeles County Department of Public Works.

Palisades Park - Discharge 18

This drainage area is 405 acres (164 hectares) in size and is shown in Appendix F. The municipality contributing and responsible for runoff is the City of Los Angeles (100%). The drain discharges into Santa Monica Bay across PCH and Will Rogers State Beach at Palisades Park, Los Angeles (just north of the Lifeguard Station) in a five-foot-diameter RCP. The line outlets onto the beach and into the sand forming a stagnant pond at the outlet. The drain is maintained by the City of Los Angeles.

S. BO. 413
Exhibit 8
Watershed

Photo 1: Santa Monica Canyon Flood Control Channel. Proposed Project Site (Foreground) and PCH Overcrossing (Background).

5-00 413
Exhibit 9
photo 1

Photo 3: Santa Monica Canyon Channel and Will Rogers State Beach from the PCH Over-Crossing (October 2000).

5.00 413
Exhibit 10

Beach

Photo 5: Ponded Area from Will Rogers State Beach (April 2000).

5.00 413
Exhibit 11
Beach photos

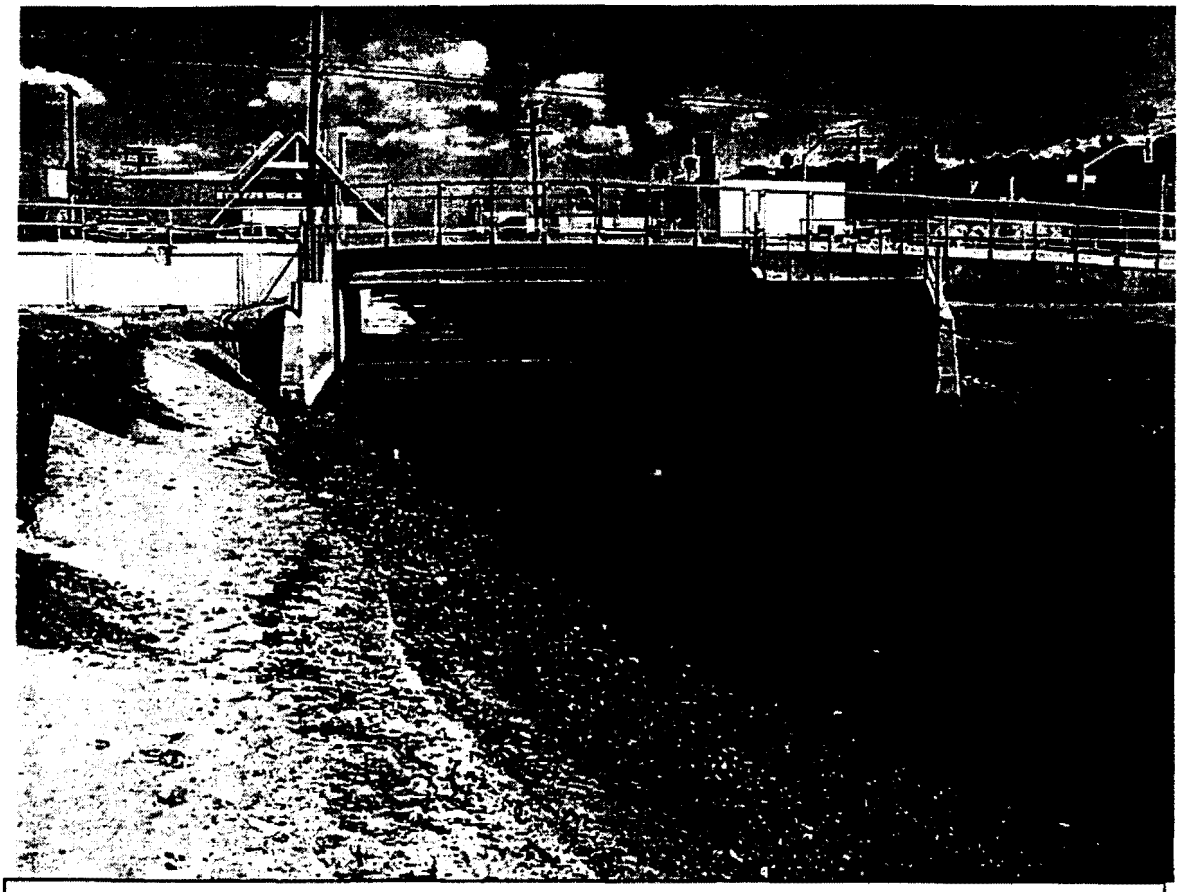

Photo 6: Ponded Area (October, 2000).

5.00 413
Beam photo 2
Exhibit 12

Office of the City Engineer
Los Angeles, California 90014
November 22, 2000

ADDENDUM NO. 4

SANTA MONICA CANYON LOW FLOW DIVERSION W.O. SZS11150
VENICE PAVILLION LOW FLOW DIVERSION W.O. SZC11206

Bidders are required to acknowledge receipt of this addendum in the space provided on Page 1-4 of the Proposal. Bidders are hereby notified:

PLAN REVISIONS - SANTA MONICA CANYON LOW FLOW DIVERSION

The NOTICE TO CONTRACTORS on Sheet 1 is modified as follows:

1. Add the following to Note 13, as modified by the "Modification to Plans":

   No construction equipment shall occupy parking spaces on West Channel Road during non-working hours.

2. Add a Note 24 as follows:

   It is the Contractor's responsibility to secure a field office and a lay down area. Neither the flood control channel nor the parking lot for the Golden Bull Restaurant can be used for these purposes.

The GTE California Specifications for Telephone Service Connection Facilities Modified on Sheet 2 is modified as follows:

1. Delete Note 3 under the "GENERAL CONSTRUCTION NOTES".

VITALY B. TROYAN, P.E.
City Engineer

By

James Zabala, Manager
Quality and Standards Group
A/E Consulting Services Program