

CALIFORNIA COASTAL COMMISSION

South Coast Area Office
2000 Ocean Gate, Suite 1000
Newport Beach, CA 90802-4302
(949) 590-5071

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Filed: 1/31/01
49th Day: NA
Staff: TH-LB
Staff Report: February 27, 2001
Hearing Date: March 12, 2001
Commission Action:

STAFF REPORT: PERMIT AMENDMENT

APPLICATION NUMBER: A5-IRC-99-301-A1

APPLICANT: Irvine Community Development Company

AGENT: M. Andriette Culbertson, Culbertson and Adams

PROJECT LOCATION: Southern Coastal Orange County, North of PCH, West of Crystal Cove State Park and East of the City of Newport Beach, Irvine Coast (Newport Coast), Orange County

DESCRIPTION OF PROJECT PREVIOUSLY APPROVED:

Seventh Amendment to the Master Coastal Development Permit for the Newport Coast Planned Community (NCPC). Approved development includes mass grading, backbone infrastructure for future residential and recreational development in Planning Areas (PA) 4A, 4B, 5 (and the northeastern portion of PA 2C), 6, 12C, offer to dedicate open space areas PA 12E (Muddy Canyon) and 12G (Moro Sliver) and approval of a proposed revised Vesting Tentative Tract Map 15447. Also approve was 1.6 acres Needlegrass restoration to mitigate the loss of 0.4 acres of Needlegrass and wetlands and riparian mitigation totaling approximately 3 acres to mitigate impacts to 0.0529 acres of wetlands impacts and approx. seven miles of "non-wetlands waters of the U.S."

The approved water quality enhancement program and drainage facilities affect PA 3A, 3B, 4A, 4B, 5, 6, 12C, 14, and portions of 1C, 2B, 2C, 10B, 11B, 13A and 13F, as more fully described in the Master Drainage and Water Quality Enhancement Plan, dated 7/24 /00 and those measures proposed and attested to by the applicant at the August 10, 2000 hearing. The approved development discharges runoff into Los Trancos and Muddy Canyon Creeks. Existing storm drain pipes and culverts installed by Caltrans during construction of Pacific Coast Highway will not be utilized for either low flows or storm flows from the appeal area portion of the project, with the exception of the Caltrans storm drain pipes and culverts at Los Trancos, Muddy Creek, and the 30 inch RCP that drains into Los Trancos Creek. No drainage from the project will be discharged directly to the Area of Special Biological Significance (ASBS), and/or over the bluffs, and onto the beach through the PCH pipes or culverts.

The Commission's regulations provide for referral of permit amendment requests to the Commission if:

- 1) The Executive Director determines that the proposed amendment is a material change,
- 2) Objection is made to the Executive Director's determination of immateriality, or
- 3) The proposed amendment affects conditions required for the purpose of protecting a coastal resource or coastal access.

If the applicant or objector so requests, the Commission shall make an independent determination as to whether the proposed amendment is material. 14 Cal. Admin. Code 13166.

The subject application is being forwarded to the Commission because the Executive Director has determined that the proposed amendment is a material change and affects conditions required for the purposes of protecting coastal resources or coastal access.

I. STAFF RECOMMENDATION, MOTION AND RESOLUTION OF APPROVAL

Staff recommends that the Commission make the following motion and adopt the following resolution to APPROVE the amendment application with special conditions.

MOTION

I move that the Commission approve CDP Amendment A5-IRC-99-301-A1 pursuant to the staff recommendation.

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

RESOLUTION OF APPROVAL WITH CONDITIONS

The Commission hereby APPROVES the amendment to Coastal Development Permit A5-IRC-99-301, subject to the conditions below, for the proposed development on the grounds that the development would be in conformity with the certified Local Coastal Program and is in conformance with the public access and public recreation policies of Chapter 3 of the Coastal Act, and would not have any significant adverse impacts on the environment within the meaning of the California Environmental Quality Act.

14. PERMANENT WATER QUALITY CONTROL PLAN REQUIRED FOR PROPOSED DEVELOPMENT IN PLANNING AREAS 3A, 3B, 4A, 4B, 5, 6, 12B AND 12C, AND 14

PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall submit final Water Quality Control Plans for Planning Areas 3A, 3B, 4A, 4B, 5, 6, 12B, and 12C, and 14 for the review and approval of the Executive Director.

A. The final Water Quality Control Plan shall be designed in accordance with all applicable State, County and Regional regulations to ensure compliance with all applicable State, County and Regional water quality objectives or standards, including but not limited to the following:

- 1) Pollutants in stormwater shall be reduced to the maximum extent practicable through the use of BMPs.
- 2) Implementation of the project shall not create a nuisance or pollution as defined in the California Water Code.
- 3) The project shall not cause a violation of any applicable water quality standard for receiving waters adopted by the RWQCB or the SWRCB, as required by the Clean Water Act, or the Porter-Cologne Water Quality Control Act, including but not limited to any applicable standards in the California Toxics Rule and the California Ocean Plan.
- 4) The discharge of any substance in concentrations toxic to animal or plant life is prohibited.

B. The Final Water Quality Control Plans shall incorporate: (1) the source and treatment control Best Management Practices (BMPs) and other water quality measures in the amount, type and physical location proposed and specified in the *Newport Coast Planned Community, Crystal Cove Stormwater Quality Evaluation Report*, dated 6/14/00, and letter amendment thereto dated January 18, 2001, and graphically depicted in the *Master Drainage and Water Quality Enhancement Program (MDWQEP) for the Newport Coast Planned Community* (6 sheets), dated 7/24/00 January 18, 2001 (as modified by Special Condition 18) and (2) those measures with specification described below. Such measures include, but are not limited to the following types, which shall be implemented consistent with the above requirements:

- 1) Non-structural Best Management Practices (BMPs) including but not limited to:
 - a) Fertilizer and Organic Soils Management,
 - b) Advanced street sweeping and litter pick-up,
 - c) Homeowner education regarding Nonpoint Source pollution and proper use of pesticides.
- 2) Routine structural BMPs:
 - a) Inlet trash racks,
 - b) Energy dissipaters on stormwater outfalls,

basins (Basins 6 and 7) basin (basin No. 6) or shall receive the benefit of filtration through Drainpac Drainpak filter insert devices installed in catch basins or water quality inlets receiving drainage from PAs 3A, 3B, and 14, all as shown in the MDWQEP dated January 18, 2001.

- (i) Regional Drainpacs ~~Drainpaks~~ shall be sized using a rating of 25% of hydraulic conductivity.

d) A clarifier at the service station if the station is built.

- C. Concurrent with the first phase of construction as indicated on the August 9, 2000 Phasing Plan, the applicant is required to construct and fully implement a dry-weather diversion system designed to accommodate dry weather nuisance flows from Planning Areas 3A, 3B, 4A, 4B, 5, 6, 12C, 14 and the portions of 1C, 2B, 2C, 10B, 11B, 13A and 13F which drain into Los Trancos or Muddy Canyon during the period of April 15 through October 31st of each year for the life of the project, as proposed and specified in and the Stormwater Quality Evaluation Report, dated 6/14/00 and letter amendment thereto dated January 18, 2001, and graphically depicted in the Master Drainage and Water Quality Enhancement Program (MDWQEP) for the Newport Coast Planned Community (6 sheets) dated January 18, 2001 7/24/00 (as modified by Special Condition 18), and described below:
 - (i) The diversion system shall be designed to intercept and divert dry weather nuisance flows from Planning Areas 3A, 3B, 4A, 4B, 5, 6, 12B, 12C, 14 and the portions of 1C, 2B, 2C, 10B, 11B, 13A and 13F which drain into Los Trancos or Muddy Canyon, as proposed, during the period of April 15 through October 31st of each year for the life of the project, and convey these nuisance flows to the publicly owned treatment works operated by the Orange County Sanitation District (OCSD).
 - (ii) The applicant or successor in interest will be responsible for the long-term operation and maintenance of the diversion system. This includes any necessary improvements, physical or otherwise, to the diversion system, and ongoing maintenance and repair, in order to ensure compliance with the requirements and provisions of this condition. The applicant shall provide evidence of a sufficient funding mechanism or allocation, to uphold requirements of this condition.
- D. **PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT**, the applicant shall obtain, and submit to the satisfaction of the Executive Director, a binding agreement with the Orange County Sanitation District (OCSD) and the Irvine Ranch Water District (IRWD), verifying the District's capacity and commitment to accept dry-weather nuisance flow runoff from Planning Areas 3A, 3B, 4A, 4B, 5, 6, 12C, 14 and the portions of 1C, 2B, 2C, 10B, 11B, 13A and 13F which drain into Los Trancos or Muddy Canyon during the period of April 15 through October 31st of each year for the life of the project, for treatment in the wastewater collection system at the Treatment Plant. Diversion, as specified above, shall commence concurrent with the first phase of construction as indicated on the August 9, 2000 Phasing Plan.

be inspected, cleaned and replaced when necessary in accordance with the specific recommendations of Section 5.2.2 of the SWQER cited above, and at a minimum, prior to the start of the winter storm season, no later than October 15th each year.

- (a) Annual reports documenting inspection and maintenance activities shall be submitted to the Coastal Commission no later than June 30th of each year. The reports shall include date, time and location of all inspections, and any textual or graphic documentation necessary to support maintenance activity undertaken or lack thereof where unnecessary.

C. The applicant shall submit final plans for conducting post-development monitoring as proposed by the applicant pursuant to an agreement with the RWQCB. The plan shall be based on the scope recommended in Section 5.2.3 of the SWQER cited above, specifically:

1. A flow-weighted composite sampling approach shall be utilized to sample runoff water quality in Muddy Canyon downstream of Basin #6 the extended detention pond and Basin 2, from three storms per year. In the event that storm or site conditions prevent the safe collection of flow-weighted samples downstream of Basin 2, then composited grab samples may be taken downstream of Basin 2 for three storms per year.
2. The post-development monitoring as specified above, and required by this in this special condition, shall be conducted for a minimum period of 2 years, following completion of development. If water quality is found to be acceptable by the Executive Director in consultation with the RWQCB staff based on a comparison with in-stream aquatic life water quality standards, and any other applicable receiving water quality standards as determined by the SWRCB or RWQCB, monitoring shall be terminated at the end of the 2 year period. If a particular pollutant is found in concentrations considered unacceptable by the RWQCB due to applicable water quality standards including, but not limited to, any applicable standards in the California Toxics Rule and the California Ocean Plan, the applicant shall conduct an assessment of the potential sources of the pollutant and potential remedies. If it is determined based on this assessment that applicable water quality standards have not been met as a result of inadequate or failed BMPs, corrective actions or remedies shall be required.
3. If potential remedies or corrective action constitute development, as defined by Section 30106 of the Coastal Act, an amendment to this permit shall be required, unless the Executive Director determines no such amendment is required.
4. Results of this monitoring effort shall be submitted to the Coastal Commission upon availability.

D. The permittee shall undertake development in accordance with the approved final plans. Any proposed changes to the approved final plans shall be reported to the Executive Director. No changes to the approved final plans shall occur without a

water is 20 feet deep at Mean Lower Low Water. ~~Exclusive to the Los Trancos watershed, an additional monitoring location recognized and identified herein as a fifth station shall be established as follows: 5) on the seaward side of Pacific Coast Highway, at the mouth of the watershed, directly downstream of the auto bridge in the Crystal Cove Historic District, at a point which will allow sampling of discharge from the 48" RCP and the 30" CMP above the surf zone.~~

- 3) ~~If~~ Should monitoring results indicate that incidents are occurring in which applicable water quality standards are not being met and/or that recurring ~~reoccurring~~ incidents are threatening to establish a condition in which applicable water quality standards are not being met, the applicant shall investigate the cause or source of the incidents and/or condition and provide information to the Executive Director demonstrating any incidents and/or resulting condition in which applicable water quality standards have not been met is not the result of applicant's failure to comply with the terms and conditions of this Permit. ~~If~~ Should the Executive Director determine, otherwise, based on the information generated from the applicant's investigation and all other information available to the Executive Director, corrective actions or remedies shall be required. If remedies or corrective actions constitute development under Coastal Act Section 30106 of the Coastal Act, an amendment to this Permit shall be required, unless the Executive Director determines no such amendment is required.

C. *The Water Quality and Marine Ecological Monitoring Plan for the Crystal Cove Development Project* shall utilize the following parameters:

1. SAMPLING AND ANALYSIS FOR PATHOGEN INDICATOR BACTERIA:
Sampling for total and fecal coliforms and enterococci at all stations during storm and dry-weather runoff. Analysis of additional Orange County data for same study locations and adjacent sites.
2. SAMPLING AND ANALYSIS FOR PHYSICAL CONSTITUENTS OF RUNOFF:
Total suspended solids (TSS), Total dissolved solids (TDS), Freshwater hardness, Salinity, Standard observations of water clarity, color, degree of turbidity, and debris.
3. SAMPLING AND ANALYSIS FOR TRACE (HEAVY) METALS:
Full sampling at all stations for the 7 trace metals cadmium, chromium, copper, lead, nickel, silver, and zinc in both their total and dissolved forms.
4. SAMPLING AND ANALYSIS FOR PESTICIDES:
Full sampling at all stations for 26 organophosphorus pesticide compounds, including chlorpyrifos, diazinon, malathion, and parathion.
5. SAMPLING AND ANALYSIS FOR NUTRIENT CHEMICALS:
Full sampling at all stations for Nitrate + nitrite, Total Kjeldahl nitrogen, Total phosphorus, Dissolved phosphorus.

- E. The monitoring plan shall be approved based on consistency with the specifications herein. The monitoring plan conditionally required and approved by this coastal development permit shall be conducted for a period of 5 years. The date of December 15, 1999 shall be considered the commencement date for monitoring for the proposed development, for purposes of calculating the duration required for conducting monitoring in accordance with the plan specified above, and approved under this coastal development permit.
- F. The permittee shall undertake development in accordance with the approved final plans. Any proposed changes to the approved final plans shall be reported to the Executive Director. No changes to the approved final plans shall occur without a Commission-approved amendment to this coastal development permit unless the Executive Director determines that no amendment is required.

18. **REVISED MASTER DRAINAGE AND WATER QUALITY ENHANCEMENT PROGRAM**

- A. **PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT**, the applicant shall submit a revised version of the proposed *Master Drainage and Water Quality Enhancement Program (MDWQEP) for the Newport Coast Planned Community* (6 sheets) Volume I and II, dated January 18, 2001. ~~7/24/00~~. The plan shall be revised based on the following and shall demonstrate conformance with the following requirements, both narratively and through graphic illustration:
 - 1. All inconsistencies between the proposed *Master Drainage and Water Quality Enhancement Program (MDWQEP) for the Newport Coast Planned Community* (6 sheets) Volumes I and II, dated January 18, 2001 ~~7/24/00~~ and the program described and evaluated in the *Newport Coast Planned Community, Crystal Cove Stormwater Quality Evaluation Report* dated 6/14/00 and letter amendment thereto dated January 18, 2001 shall be resolved in a manner which is in substantial conformance with the water quality program described and evaluated in the *Stormwater Quality Evaluation Report* dated 6/14/00 ~~6/14/00~~, and letter amendment thereto dated January 18, 2001 including those measures which are proposed and described in the report, but which were not modeled.
 - 2. The final *Master Drainage and Water Quality Enhancement Program* plans shall be consistent with all final conditions of approval contained herein, pertaining to proposed and required water quality management measures.
 - 3. The final *Master Drainage and Water Quality Enhancement Program* plans shall clearly illustrate where all runoff from the project is being discharged and what level of treatment, if any, it is receiving prior to drainage.

19(B), the applicant shall proceed with actions outlined in 19(C)(4)(1). Site visits shall be recorded in a logbook and include the information noted in 19(C)(2).

- 4) Upon receipt of a flow detection signal, the applicant is responsible for notifying the Executive Director of the incident, and conducting an investigation of the cause and/or source of the incident. Pursuant to the investigation, corrective actions shall be taken to: 1) remedy any incident that is attributable to the fault, malfunction or other inadequacy of the diversion system and associated plumbing required by Special Condition 15(C), and which is not attributable to a rainfall event; and 2) prevent future discharge of flow which is required for diversion pursuant to Special Condition 15(C), ~~to the beach and/or to Los Trancos Creek and/or Muddy Creek~~ during the dry season (April 15th through October 31st). If potential remedies or corrective action constitute development, as defined by Section 30106 of the Coastal Act, an amendment to this permit shall be required, unless the Executive Director determines no such amendment is required.
 - 5) In the event flow detection response activity is triggered pursuant to 19(C)(3) or (4), the applicant or successor in interest shall submit a summary report to the Executive Director within 30 days of the dry-weather season (October 31st). The summary report shall include the following information:
 - a) Date and time of any flow detection incidents;
 - b) Location of incident;
 - c) Duration of incident;
 - d) Estimates of flow rates; and
 - e) Detailed description of flow detection response activity, e.g. investigation discoveries, corrective action taken.
 - 6) The applicant or successor in interest will remain responsible for: a) maintaining the flow meter detection devices and associated system in a functional condition for the life of the project; and (b) monitoring/recording information and flow detection response activity as specified above for the life of the project. Information logs shall be made available to the public upon request.
- D. **PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT**, the applicant, Irvine Community Development Company, shall execute and record a deed restriction, in a form and content acceptable to the Executive Director, incorporating all of the above terms of this condition. The deed restriction shall include a legal description of the applicant's entire parcel. The deed restriction shall run with the land, binding all successors and assigns, and shall be recorded free of prior liens that the Executive Director determines may affect the enforceability of the restriction. This deed restriction shall not be removed or changed without a Commission-approved amendment to this coastal development permit.

IV. Findings and Declarations

The Commission hereby finds and declares:

Although the applicant modified the project with the addition of the water quality enhancement program and the wetlands/riparian mitigation program, the detention basin in Muddy Canyon creek, within a designated Category "B" ESHA was still being proposed. The detention basin was inconsistent with the ESHA policies of the certified LCP which dictates that all development be setback 50 feet from "blue line streams" that are designated ESHA Category "A" and "B", unless specifically excepted. The Muddy Canyon detention basin would have resulted in the loss of 0.12 acres of riparian wetlands. The detention basin location was further inconsistent with the Backbone Drainage Plan of the LCP which locates all detention basins out of the major streams and locates them either within the development areas or on tributary drainages. The applicant had also not demonstrated that the proposed detention basin was sited in the least environmentally damaging location and that there were no other feasible locations outside of the major drainage course, through possible redesign of the subdivision. Therefore, the project as previously proposed, even with the water quality and wetlands/riparian mitigation, was inconsistent with the ESHA policies of the LCP.

The project's drainage and runoff management plan as previously designed also significantly increased the rate of stormwater runoff over pre-development conditions. The peak rate of increase was kept at 8.5% over the existing peak runoff rate only by placing the proposed detention basin within Muddy Canyon creek, inconsistent with the LCP. The significant increase in the peak runoff rate and the detention basin in the creek had the potential of adversely impacting the natural erosion/beach sand replenishment process, inconsistent with the LCP Runoff Policies.

The project as previously proposed also reduced the amount of sediment that is normally discharged to the ocean through Los Trancos and Muddy Canyons and the culverts along the frontal slopes of Pacific Coast Highway by as much as a 97% reduction along one segment of the beach. The applicant asserted that this loss of sediment is not significant in terms of beach nourishment but provided inadequate evidence, very late in the staff project review period, supporting the assertion that the proposed project was consistent with the Erosion and Beach Nourishment Policies of the LCP, despite the loss of sediment.

Finally, the project as proposed had potential destabilizing impacts to Muddy Canyon and its creek downstream of the proposed Muddy Canyon detention basin including within Crystal Cove State park. There were also unanswered questions as to whether the change in the movement of sediment through the canyons had a destabilizing effect on the streams.

At the January 2000 meeting the applicant expressed a desire to redesign the project to eliminate the detention basin within Muddy Canyon creek and requested a postponement of the hearing. In the six months following the postponement the applicant further modified the project and provided numerous technical studies to support their contention that the project as modified to eliminate the Muddy Canyon detention basin and replace it with four additional detention basins within the proposed

water quality Special Conditions 14 through 19 due to the proposed runoff management plan changes and newly discovered information concerning difficulty in complying with Special Condition 16.

B. PREVIOUSLY APPROVED PROJECT AND PROPOSED AMENDMENT

1. Approved Project

The project is located in the unincorporated southern coastal Orange County area in the Newport Coast (formerly Irvine Coast) segment of the LCP planning area. Specifically, the project site is located North of PCH, West of Crystal Cove State Park and East of the City of Newport Beach (Exhibit 1).. The project site is characterized by undeveloped natural hillside slopes and canyons. Although no development exists on the property, it was previously farmed and grazed by cattle in the past. The western project boundary is Los Trancos Canyon. The western side of Los Trancos Canyon is built out with residential, golf course and tourist commercial hotel development and the Los Trancos Beach Public Parking Lot adjacent to PCH (PA 2B, 2C, 10B, 13B, and 17, respectively). To the east of the project boundary is Crystal Cove State Park (PA 17) and beyond the state park is approximately 2,000 acres of wilderness open space area that has been/will be dedicated to the County of Orange as the Irvine Coast Wilderness Regional Park (Exhibit 2).

On August 10, 2000 the Commission approved coastal development permit A5-IRC-99-301. The project involves approximately 980 acres of undeveloped moderate to steeply sloping hillsides, canyons, and ridges (referred to as Planning Areas (PA) 4A, 4B, 5 (and the northeastern portion of PA 2C) and includes a large lot subdivision and approval of Vesting Tentative Tract Map 15447, for future residential development (up to 635 homes) and private recreation development (32 acres), 298.5 acres of dedicated open space lands (PA 12E and 12G) and the construction of backbone infrastructure (drainage facilities, utilities, roads, etc. Also approved were minor boundary adjustments between the planning areas and technical revisions to the previously proposed VTTM 15447 to reflect the changes in grading that was necessitated by the redesigned detention basin plans.

Mass grading, including remedial work, totaling 48,191,680 cubic yards (cy) was approved. Grading in Crystal Cove State Park within The Irvine Company's retained easement was also approved. The approved project also results in impacts to 0.4 acres of Needlegrass due to the required widening of the existing 3,800 ft. long fire access road in one location and due to approved residential development in PA 4A and PA 5 (Exhibit 4). The project will mitigate the loss of Purple Needlegrass through the creation of a 1.6 acre Southern Coastal Needlegrass grassland (4:1 ratio) adjacent to an existing healthier stand of Needlegrass located away from the existing fire access road.

The approved project also involves the fill of 0.05 acres of seasonal wetlands in PA 4A in conjunction with residential development and mitigation of the fill of the wetlands by constructing three seasonal wetlands totaling 0.40 acres at the top of a knoll in the

runoff control plan to eliminate all storm flows and non-storm runoff discharge from any portion of the Newport Coast Planned Community (the original Appeal Areas and Non-Appeal Areas) to the existing 30-inch storm drain pipe, the 3 foot by 4 foot box culvert and the 24-inch storm drain pipe (Exhibit 5). These changes are being proposed in order to comply with Cease and Desist Order No. 00-87 of the California Regional Water Quality Control Board.

Specifically, the applicant proposes to reroute the approved storm drain system located in the original Non-Appeal Areas (PA) 3A and 14 to redirect all flows to Los Trancos Canyon and Muddy Canyon creeks instead of discharging to the existing 30-inch storm drain, the 3 foot by 4 foot box culvert and the 24-inch storm drain. Also proposed is the enlargement of Detention Basin 6 located in the PA 14 from 29 acre-feet to 49 acre-feet capacity and the addition of a new detention basin (#7) also in PA 14 in order to slow down and filter the rerouted flows before they are discharged into Muddy Creek. These changes are graphically depicted on Exhibit 6, "Proposed engineering solution to eliminate storm flow discharge to all minor culverts under PCH and detain and filter the water quality flows". Full scale engineering plans were also submitted supporting the changes graphically depicted on Exhibit 6.

As depicted on Exhibit 6, the applicant will be rerouting partial flows from PA 4A that previously discharged to the 30-inch storm drain to Detention Basin 4. "First flush" flows from a portion of PA 4A that flow to Basin 4 in the approved plan will be redirected to the new water quality Detention Basin 7 to be detained for 40 hours for water quality filtering purposes. A portion of the storm flows (5.5 cfs) from Basin 4 will also be redirected to Basin 7 for flow attenuation purposes. Storm flows from PA 4A that were previously flowing through Basins 5 and then discharging into the 30-inch pipe through Line "A" will now be redirected to the existing 48-inch pipe that discharges into Los Trancos Creek. The portion of Line "A" that lies below the connection to the 48-inch Los Trancos storm drain pipe will be abandoned in place and plugged so that no Appeal Area or Non-Appeal Area flows from the Newport Coast project site will discharge through the 30-inch pipe. The applicant's engineering consultant, Hunsaker and Associates, further explains how project flows will be separated and redirected from the existing 30-inch, 3' by 4' and 24-inch culverts (Exhibit 7):

"When the reconstruction is complete, there will be a physical separation between the existing culverts and the proposed storm drain that will intercept existing flows and direct them to Muddy Canyon or Los Trancos Canyon. The ends of the existing culverts will be bulk-headed. There will be a physical separation between the new storm drain and the existing culverts of 2-10 feet. There will be no flows from the proposed storm drain lines to the existing culverts in Pacific Coast Highway."

The new Detention Basin 7 is actually a series of two basins that are connected to Detention Basin 6 that was approved under the original project. Basin 7 is located in commercial planning area PA 14 in the location of previously approved vegetated swales. Basin 7, like Basin 6, is a water quality drawdown basin that will detain and filter first flush nuisance flows. The water quality benefits of Basins 6 and 7 are further discussed in the following section of this report.

Added water quality benefits to the proposed master drainage and runoff management plan modifications are that the first flush flows from Drainage Area L-1 located tributary to Los

Therefore the amendment application also includes new hydrologic analysis to assure that the post development peak runoff rate does not exceed the existing peak storm runoff rate by more than 10%. The new information is in the form of several addenda to the original April 2000 Hydrologic Analysis by Tettemer and Associates (Exhibit 8). The applicant also submitted addenda to the coastal processes analysis prepared by Scott A. Jenkins and Joseph Wasyl, dated 12/20/00 and 1/7/01 (Exhibit 9). Finally, a sediment yield analysis of the revised project was prepared by Howard H. Chang dated 1/7/01 (Exhibit 10). The third party independent reviewer of the originally approved project, Ron Noble of Noble Consultants, Inc. also reviewed the report addenda as well as the revised master drainage and grading plans and additional hydraulic calculations for the new detention basins (Exhibit 11).

C. LCP CONSISTENCY

1. MARINE RESOURCES PROTECTION

Water Quality and related Resource Protection LCP Policies

The LCP Resource Conservation and Management Policy E designates the off-shore coastal waters as ESHA Category "C" due to its diverse marine life and kelp beds and recognizes its designation as a Marine Life Refuge by the Department of Fish and Game (DFG) and an Area of Special Biological Significance (ASBS) by the Water Resources Control Board. LCP. ESHA Policy E. states:

E. CATEGORY "C" ENVIRONMENTALLY SENSITIVE HABITAT AREA POLICIES

The protection of water quality in marine resource areas is subject to the authority of the State Water Resources Control Board". Protection of water quality is provided by the LCP Runoff Policies and will be reviewed by the Regional Water Quality Control Board in conjunction with subsequent coastal development permits and related environmental impact reports (EIRs).

A water quality monitoring program shall be submitted to the Regional Water Quality Control Board prior to initial implementing approvals for the golf course, for the purpose of monitoring runoff entering the ocean as well as the riparian corridors. Copies of the results of the monitoring program shall be forwarded to the Regional Water Quality Control Board and the County of Orange on a regular basis for their review to determine whether corrective action is required pursuant to the authority of said agencies.

Use and application of chemicals on the golf course and other landscape areas shall be limited to those approved by State, County, and Federal agencies. The landowner shall be responsible for notifying tenants and/or prospective initial purchasers of this requirement.

The State Board informed the RWQCB, that the direct discharge prohibition pertaining to ASBS, was not applicable to the proposed project, because the drainage plans (described above) for the proposed project did not constitute any direct discharge to the ASBS. Based in part on this guidance, the RWQCB found the project met the criteria for a Waiver of WDR pursuant to 401 Permit Certification requirements. In addition the RWQCB clarified for the Commission, the water board regulations to which the project would be subject, which included the Construction General permit and the Municipal Stormwater permit, mentioned above.

Therefore, based on the applicant's proposed project and drainage plans, and the RWQCB's determination on the 401 Water Quality Certification and associated direct discharge issue, at the time of the Commission's action on August 10, 2000, condition compliance (which involved project compliance with applicable State and Regional Water Board regulations) would not have necessarily mandated a significant change to the final drainage plans.

However, in September of 2000, the RWQCB staff re-reviewed the project approved under CDP A5-IRC-99-301, in light of concerns about whether the project would comply with the State Ocean Plan prohibition of direct discharges of waste to the Irvine Coast ASBS. Based on this review the RWQCB found that existing drainage facilities utilized by the Irvine Company, and planned (proposed) drainage facilities would result in the discharge of stormwater and non-storm flows directly to the ASBS via several discharge points. Therefore the Santa Ana RWQCB prepared CDO # 00-87. The RWQCB's action in November of 2000, approving the CDO in consideration of relevant water board regulations, thus affects the validity of previous Board action, particularly the WDR 401 Waiver.

Specifically, in order for the Waiver to remain in effect, The Irvine Company must comply with the CDO. In order to comply with the CDO, significant revisions to the previously approved master drainage plans are necessary. TIC's master drainage plans for the proposed development have to be revised, to eliminate all planned direct discharges to the ASBS, which according to the RWQCB included waste (nonpoint source runoff) proposed to discharge through the 30 inch RCP, per post-development drainage plans approved by the Commission on August 10, 2000, and existing direct discharges of waste associated with drainage plans approved by the County CDP PA 97-0152 (Exhibit 12).

In order to comply with the CDO, the Irvine Company is proposing to eliminate planned and existing discharge through all of these points (the 30 inch RCP, 3 X 4 foot box culvert, and a 24 inch RCP) in the post-development condition, by rerouting flows to alternate discharge points located in Los Trancos and Muddy Canyon, and to utilize facilities approved under CDP A5-IRC-99-301 to accommodate flow from development approved by the Commission in August of 2000, as well as from development approved by the County.

In order to ensure the rerouting of additional flow to Los Trancos and Muddy Canyon would not result in post-development peak discharge from points upstream of PCH exceeding pre-development levels by more than 10%, consistent with LCP requirements, detention basin 6 which provides a dual function of water quality treatment and peak flow attenuation, had to be expanded, and an additional basin (# 7) has been added. Thorough analysis and discussion of proposed hydrology and related channel transport and sediment yield issues associated with the amended drainage plans are provided below.

With regard to the effect of the amended plans on water quality, the applicant's engineering and water quality consultants, Dick Hunsaker and Eric Strecker respectively, have provided information documenting the capacity of the new and expanded basins. The basins will handle stormwater runoff for water quality treatment purposes as proposed in the amended plan, by providing a 40-hour drawdown time for the capture goal volume identified as the "first flush" (quantified as the first $\frac{3}{4}$ of an inch of runoff). (Exhibits 14 and 15).

The adjustment in drainage facilities and drainage routing plans proposed, will increase the amount of project area from which the "first flush" of stormwater runoff will receive the benefit of extended detention. The percentage of tributary area directed to extended detention basins designed to provide water quality treatment (Basin # 6 or 6 and 7) has increased roughly from 64.8% in the plans approved in August 2000, to 95.0% per the amended project plans.

Basins 6 and 7 will provide dual functions; peak flood flow attenuation, and water quality treatment through settling and biofiltration. Basin 7 will operate in conjunction with Basin 6, and provides an additional 4.6 acre feet of capacity. The detention volume of Basin 6 itself has been slightly reduced from 12.6 to 12 acre feet, in order to provide peak flood attenuation for runoff from the larger tributary area. Therefore, the combined storage capacity of these two basins provides an increased 4 acre-feet over the storage capacity of Basin 6 alone as approved in the original project.

While the revised water quality management system was not re-evaluated with the modeling approach utilized previously by the applicant's consultants (Mangarella, Strecker and Gentzler), in a letter addressed to Roberta Marshall dated 1/18/01[revised version of 1/12/01], Eric Strecker explained that re-modeling the system did not appear necessary because:

- 1) the resulting system is expected to result in enhanced water quality over the system analyzed at that time; and
- 2) the previous report found that the water quality would be acceptable.

Further, it is believed that "the enhancements to the system are very positive and will result in improved water quality of stormwater and dry-weather flows over what was originally analyzed in our report" (Exhibit 15).

to correctly reference the report dated 6/14/00, and letter amendment thereto dated 1/18/01[the 1/18/01 letter is a revised version of an original 1/12/01 letter].

In Special Condition 17B (2) the language shall be amended to correctly reference the four (4) subsections which identify monitoring station locations as specified within the Condition, as opposed to three (3).

The more substantive changes to aspects of SCs 14 & 16 and to 17 and 19 are described and discussed below.

Special Condition 14

Specific to SC 14, the proposed change is associated with the detention basin(s). At the Commission hearing on August 10, 2000, the Commission incorporated a requirement on detention basin design into the CDP, based on a recommendation from Dr. Stenstrom, consultant to the Department of Parks and Recreation (DPR) (for background refer to IRC staff report with revised findings). The requirement in substance was that detention basins be designed to prevent resuspension of sediment and solids (which had previously settled) from occurring during large storm events. The Irvine Company asserts that this requirement is appropriate as applied only to detention basin(s) which were designed to provide water quality treatment function which involves the settling of sediment and solids; specifically Basin # 6, and not 1,2,and 3 as the condition requires. In addition however, based on the revised plans as proposed per this amendment, the new Basin (#7) will be providing a water quality treatment function, and therefore this requirement is applicable to this basin in addition to 6, but not to Basins 1,2 or 3.

The Commission finds that the application of this design requirement to all of the detention basins proposed at the August hearing was done based on a literal interpretation of Dr. Stenstrom's recommendations (adopted by State Parks) contained in a letter from DPR to Sara Wan dated August 4, 2000(Exhibit 46 of the Revised Findings staff report for the August 2000 action on the coastal permit)).

The Commission finds that critical to maintaining the efficacy of an extended detention basin, in settling and containing material, is the provision for a design which prevents resuspension and flush out of settled material during large storm events. Further, the Commission finds that the project as proposed per the amendment includes 2 detention basins which are designed to provide a water quality treatment function primarily through settling and containing material, secondarily through biofiltration. The other detention basins were (in August) and continue to be proposed to provide peak flood attenuation; they are flow through basins not drawdown basins, and as such should not retain significant amounts of sediment or other particulate matter which might then be susceptible to resuspension during large storm events.

Therefore, the Commission finds that upon critical consideration of the recommendation on which the requirement was based, the requirement remains applicable to Basin 6, and is applicable to Basin 7 per the project as amended, but not to other Basins (1, 2 or

Special Condition 17 addresses the Water Quality and Marine Ecological Monitoring Program for the Crystal Cove Development Project. TIC is requesting the Commission amend SC 17 to eliminate the reference to, and requirement associated with, a sampling location identified as a point "on the seaward side of Pacific Coast Highway, at the mouth of the watershed [Los Trancos], directly downstream of the auto bridge in the Crystal Cove Historic District, at a point which will allow sampling of discharge from the 48" RCP and the 30 " RCP above the surf zone".

TIC requests this change because, as a result of the amended plan, there will be no discharge from the project area exiting the 30-inch RCP seaward of PCH, in the post-development condition. In addition the applicant proposes to add language to the description of the location of a sampling station which is to be located near the mouth of the watershed, but above (east) of PCH, in order to require that this station be situated such that the sample will include discharge from the 48 inch RCP. Based on the revised drainage plans, the Commission finds that with the proposed language added to ensure sampling of project discharge from the 48 inch RCP above the surf zone, this and the other sampling stations will be located appropriately, so as to ensure the collection of useful and necessary data for fulfilling the intent of the Monitoring Program, in a manner consistent with applicable LCP and Coastal Act Policies.

Special Condition 19

The Irvine Company is requesting the Commission amend Special Condition 19, based on the revised drainage plans proposed. Special Condition 19 addresses the flow-meter detection devices. At the August 10, 2000 hearing, the Commission found that due to the importance of the diversion system in eliminating existing sources and preventing new sources of dry-weather nuisance runoff from development flowing to the beach directly or through Los Trancos or Muddy Canyon Creeks, it was necessary to have in place a monitoring system for detecting dry-weather flows in the event the diversion system failed or other system inadequacies occurred.

Concerns prompting this condition stemmed in part from public testimony regarding the occurrence of large volumes of nuisance flow discharging through Los Trancos Creek and through a 3 X 4 box culvert which discharges directly to the beach just south of Los Trancos Creek. In order to address these issues, Special Condition 19 requires flow - meter detection devices to be installed at points where they will be capable of detecting and estimating dry-weather runoff (runoff which is required to be diverted) in the event such runoff is being discharged directly to the beach, or to Los Trancos or Muddy Canyon Creeks, and then on to the beach.

The Irvine Company is requesting the Commission amend SC 19 to limit the flow-meter detection devices to the wet wells located near the mouth of Los Trancos and Muddy Canyon Creeks. The applicant makes this request based on the modifications proposed to the storm drain system, which will in effect re-direct both low flows and storm flows to the Creeks. In the dry weather season, the wet wells are the mechanical means for conveying nuisance flow to the Orange County Sanitation District. Therefore should the pumps fail, having flow meter detection devices situated in a location capable of

1. Peak flood discharge rates of storm water flows in the major streams shall not exceed the peak rate of storm water runoff from the area in its natural or undeveloped state, unless it can be demonstrated that an increase in the discharge of no more than 10% of the natural peak rate will not significantly affect the natural erosion/beach replenishment process.

b. Project Setting

The proposed project is within an area identified as the Crystal Cove Littoral Sub-Cell. The east jetty of Newport Harbor and Abalone Point, near Laguna Beach bound the longshore extent of this sub-cell. The inland boundary follows the upland watershed divide and both Los Trancos Canyon and Muddy Canyon are sediment sources for this littoral sub-cell.

There have been many modifications to this sub-cell both to the supplies of sediment to the sub-cell and to the transport through the sub-cell. The biggest impact was the construction of the Newport Harbor jetty system that began in 1918. By 1936, the jetties were built out to water depths of about -50' Mean Sea Level. These jetties block most sediment from being transported from the Balboa Peninsula to any of the beaches south of the jetties (Jenkins and Wasyl, 2000, pg. 52).

The Crystal Cove Sub-Cell now consists of a number of pocket beaches that are stabilized by shore normal rock outcrops that have formed a natural groin system. The beaches that form between these outcrops are thin veneers of sand over wave cut platforms. Since completion of the Newport Harbor jetties, these pocket beaches have become relatively stable, with the sand losses balanced by the influx of new material from the terraces, streams and dredge disposal. (Noble, 2000, pg. 2)

c. Peak flood discharge rates

The project as approved by the Commission in August 2000 will substantially alter the drainage, erosion and sediment deposition of the project site as approved, 86 acres that were naturally in the Los Trancos watershed would be graded to drain to Muddy Canyon. Under the proposed project amendment, the project site will be graded to drain slightly differently in some locations in order to keep the peak discharge rates to no more than 10% over the existing peak runoff rate. Development in both watersheds will not change as a result of the project amendment and will include 224.2 acres of impervious surfaces (130.8 for Los Trancos and 93.4 acres for Muddy Canyon); 180.4 acres of common irrigated area (116 acres for Los Trancos and 64.4 acres for Muddy Canyon); 92 acres of residential irrigated areas (56.2 acres for Los Trancos and 35.8 acres for Muddy

For Los Trancos, peak 100-year flows were modeled to be 1,637 cubic feet per second (cfs) for pre-project conditions under the approved project and it was proposed to be reduced to 1,563 cfs for post project conditions. Under the amended project for Los Trancos Canyon, the post-development peak runoff will be slightly increased over the approved peak runoff rate for all but the 5-year storm event. However, when comparing the amended project peak runoff rates for Los Trancos to the existing peak rates, as required by the LCP, the modeled results indicate no change for the 100-year storm event (Tettermer 2000). The amended project post-development peak runoff rate for the 5-, 10- and 25-year storm event all decrease from the existing peak runoff condition. Only the amended project post-development peak runoff rate for the 2-year storm event will increase over the existing rate and will do so by 7.4%. The 100-year peak flows will remain at 1, 637 cfs for both the existing and amended post project condition for Los Trancos Canyon.

Similarly, the post development peak runoff rates of the 25-, 10-, 5- and 2-year storm events were modeled for the proposed amended project for both Los Trancos and Muddy canyons. The hydrologic analysis indicates that the post development peak runoff rate for the 2-year storm event for Los Trancos will increase by 7.4% after development. The 25-year storm event will show an increase of 2.2% after development while the 10-year and 5-year peak runoff rate will decrease by 0.4 and 11.2%, respectively, over the existing peak runoff rate. For Muddy Canyon, the 2-year storm event is modeled to show a small increase (1.4%) in the peak runoff rate after development while the peak runoff rates of the 25-, 10- and 5-year storm events will decrease below the existing peak rate with the greatest decrease (18.1%) occurring during the 10-year storm event (Tettermer and Associates, December 2000).

While LCP Runoff Policy K.1. requires that the post-development peak runoff rate not exceed the existing peak rate by more than 10% the policy also requires that any increase in the peak storm runoff rate not significantly affect the natural erosion/beach replenishment process. With implementation of the beach sand replenishment program outlined in Special Condition 6 and discussed further below, the above stated increases in peak flood discharge of storm water flows will not significantly affect the natural erosion/beach sand replenishment process. Therefore, the Commission finds the project as conditioned consistent with Policy K1 of the certified LCP.

Post-project peak flow durations in the amended project will continue to be far longer than pre-project peak flow durations to accommodate the increased runoff volume. At some locations in both watersheds, the peak flows for smaller events (5-year, 10-year and 25-year events) are projected to be larger for post-project conditions than for pre-project conditions. These increases will occur within the limits defined in Policy K1 of the certified LCP.

d. Channel stability

LCP Policy D1 states, in part, that:

of sediment in the wash load. Accordingly, increased erosion is not expected as a result of the reduction of fine sediments that will occur as a result of development.

The Commission also found that under the approved project there also will be modest reductions in the sediment yield in the coarser size fractions—sand and gravel. Most of this material is carried in the bed load of a stream; that is, it is rolled along or bounced along the bed of the stream. A stream has a certain capacity to carry materials as bed load. Thus, the amount of bed load is driven not only by sediment supply, but also by the shear stress of the water (a function of velocity) and by the percentage of its capacity that is occupied. Thus, if a stream is carrying its maximum bed load capacity for a given flow velocity, then a reduction in sediment supply may be compensated for by increased erosion of the stream's bed. There are two reasons why, in the case of Los Trancos and Muddy canyons, such increased erosion is not likely to occur to any significant amount. First, it appears that the coarse sediment supply is currently not high enough to ensure that the streams presently are carrying their bed load capacity. Thus, the bed load may, like the wash load, be limited by the supply of sediment in pre-development conditions. In fact, the relatively low sand and gravel yields estimated for Muddy Canyon (Chang, 2000) suggests that the stream is not near its bed load capacity in its current state. Second, there is evidence that much of the bed of Muddy Canyon is armored (Tettamer, 2000; David Pryor, personal communication)—that is, the bed consists either of bedrock or of boulders so large that they cannot be moved by all but the largest floods. Armored streambeds are not subject to scour. Los Trancos canyon appears to be less well-armored, and may be subject to somewhat more scouring. The approved development will have far less impact on Los Trancos canyon than on Muddy Canyon, however, and significant increases in scour are not anticipated.

Finally, although post-development peak discharge rates will, in most cases, be kept at pre-development levels or even reduced also under the proposed amended project, the duration of flood events will be greatly increased as a result of the detention of some of the runoff and the greater volume of runoff resulting from the development. Longer flood events could lead to greater scouring, even if peak discharges are not appreciably increased. Because of the armoring of Muddy Canyon mentioned above, however, increased scouring was found by the Commission not likely to be significant in the approved project. The same finding can be made for the amended project. For Muddy Canyon, the changes in the runoff management system will raise the water surface and therefore slow down the flow on the upstream side of PCH during high flow events. Under the amended project, for discharges greater than the 5-year flood the backwater will be slightly higher than that under the approved plan. For 2-year flood discharges, the flood backwater flows will be lower under the amended plan than the approved plan (Exhibit 10). With this change in the backwater condition there is a small reduction of sediment transport and a slight increase in sediment deposition in the area just upstream of the Muddy Canyon 6 ft. by 8 ft. arch culvert (Chang 2001).

However these small changes will not affect the amount of sediment delivered to the beach under the amended project due to the fact that Muddy Canyon creek is in an approximate state of equilibrium. Any sediment that is built up above the equilibrium

Certified LCP Sediment Policy J4 requires that sediment movement in the natural channels shall not be significantly changed in order to "maintain the present level of beach sand replenishment." This policy is a recognition of the fact that LCP approved development will cause some changes to the conditions of the natural channels or Blueline streams. Accordingly, the proposed project must be reviewed to ensure that it "maintains the present level of beach sand replenishment."

The Commission found in the August 2000 approval of the original project that changes in peak discharge events will change the sediment transport characteristics of both Los Trancos Creek and Muddy Canyon. In predicting the total sediment yield from watersheds and fine-grained material (wash load) and coarser material (bedload) were treated differently. Yield of the fine-grained material (such as silts and clays) correlates well with supply and can be estimated from the characteristics of the drainage area. Yield of the coarser material (sand, gravel, and cobble) is limited by either the availability of sediment or the flows that have enough energy to carry sediment. Once on the beach, the fine material tends to remain in suspension and will be quickly carried from the beach. The coarser material will remain on the beach and contribute to the littoral sediment supply. Due to the different transport mechanisms and fates of these materials, they are regularly modeled differently.

The changes to the watersheds under the approved project were found to reduce the available supplies of fine-grained sediment. The computed annual average yield of fine material are 694 tons for pre-project conditions and 164 tons for the approved post-project conditions (Chang, 2000, pg. 5). No error analysis or sensitivity analysis was provided with this study; however, an overall summary report provided by the applicant noted that "the accuracy of individual estimates are on the order of $\pm 50\%$ (Inman, Jenkins and Masters, 2000A, pg. 23.) This reduction in fine sediment yield of 530 tons per year under the approved project will reduce the volume of fines in the nearshore area. Since fine material can be a detriment to water quality and visibility, a reduction in fines can benefit overall nearshore water quality. For the proposed amended project, the delivery of fine-grained sediment is not affected by the proposed drainage modifications that will occur in the lower reaches of the canyons just above the PCH culverts (Chang, 2001).

For coarse sediment yields, both Los Trancos and Muddy Canyon, in general, have more sediment available than there is stream flow available to erode or carry the material and are called capacity limited (as opposed to supply limited). Therefore changes to flow characteristics will change the sediment transport and the amount of inland material that will reach the beach. For the approved project, a 100-year flood series was created and used to predict pre-project and post-project average annual sediment transport rates. The flood series was made up of various peak storm events that can be expected to occur during a 100-year period. The approved development will result in a 23.8 ton/yr. reduction in sand-sized coarse sediment from the two watersheds combined (Chang, 2000, pg. 7), a 12.1 ton/yr. reduction of fine sand and a 172.1 ton/yr. reduction in coarse sand, gravel, cobble and boulders. The overall reduction in all coarse sediment will be 208 tons/year under the approved project

calculated previously by the consultant in the approved project) (Jenkins and Wasyl, 2001, pg.5). The applicant's consultant concludes that the incremental shoreline changes under the proposed amended project relative to impacts already reviewed in the August 2000 approved project are smaller than the modeling error limits and are therefore not significant.

Along with the proposed amended plans to the runoff management plan the addendum to the original April 2000 hydrologic analysis prepared by Tettemer and Associates (revised December 2000, and a second addendum to the December 2000 revisions dated January 8, 2001), the addendum to the original May 2000 sediment yield analysis prepared by Howard H. Chang (dated January 7, 2001) and the addendum to the original May 2000 coastal processes analysis prepared by Scott A. Jenkins and Joseph A. Wasyl (Jan. 7, 2001) were all reviewed the original independent third party reviewer, Ron Noble of Noble Consultants, Inc. After the receipt of additional information concerning the information contained in the addenda to the previous studies and the project plans, the third party reviewer agrees with the findings and conclusions of the above reports (Exhibit 11).

The projected changes in sand-sized beach material are small, but quantifiable reductions in beach sand. These reductions may result in impacts that are small in comparison to current changes in the littoral system; however they constitute new changes that can be directly attributable to the proposed project. The reduction in fine sediment can be viewed as a positive water quality impact from the proposed project, but this does not offset the anticipated impacts to sand supply.

The project as amended will also result in an annual reduction in coarse beach material, other than the material that compares in size with the average composition of sand now found on the beach. The amended project will reduce the total coarse sediment yield by 208 tons per year, or 160 cubic yards per year (122.3 cubic meters per year). According to the original coastal processes analysis, these coarser fractions are in the streambeds and were later found in gravel and cobble beds underlying the present beach sand deposits in the neighborhood of the bluff toe. These coarser sediments remain close to the toe of the bluff, and affect the slope of the backbeach. These coarser sediments were not included in the littoral sediment budget or the analysis of how the proposed project will alter the sand replenishment from the watersheds. Nevertheless, the reduction of these coarser sediments to the coast will alter the overall beach profile and beach condition. In particular, this reduction of coarse sediment volume will deflate the dry beach profile.

The Commission found that the approved project-related changes will result in an estimated reduction in total coarse sediment of 208 tons per year, or 160 cubic yards per year (122.3 cubic meters per year) $\pm 50\%$. (Inman, Jenkins and Masters, 2000A, pg. 23) The estimated error for this volume of material, $\pm 50\%$ would provide a range from 80 cubic yards per year to 240 cubic yards per year. The provided estimate of 160 cubic yards per year is the median value within this range. This 160 cubic yards per year is a small amount of material when compared to the overall volumes of sand

material has been studied for the Crystal Cove Sub-Cell and is reasonably well understood. Replenishment by sand-sized material is an appropriate mitigation for the project-related losses of all the coarse material.

In the August 2000 approval of the project the Commission required that a beach replenishment program be established to place approximately 160 cubic yards per year of beach size sand onto beaches in the Crystal Cove Sub-Cell. The applicant has not proposed any changes to the beach sand replenishment requirement (special condition 6). Although the amended project will result in a slight increase in the annual yield of sediment over that of the approved project, the project will still result in the loss of beach grade sand. Additionally, the coastal processes analysis also concludes that the changes in sediment supply are smaller than the modeling error limits and are therefore not significant. Therefore the Commission finds that the beach sand replenishment requirement is still necessary for the amended project in order to find the project consistent with the applicable LCP policies and the public access provisions of the Coastal Act. The details of the beach sand replenishment program are contained in the Revised Findings staff report dated 2/22/01 which is Item 9a on March 12, 2001 Commission hearing agenda.

3. GEOLOGIC HAZARDS

Policy L1 of the certified Local Coastal Program requires that the applicant submit soils engineering and geologic studies that assess potential soil-related constraints and hazards such as slope instability, settlement, liquefaction, or related secondary seismic impacts. Portions of the project are also located in a high fire hazard area (Transcript, p.16, line 5) Policy L1 also requires that approved development incorporate the mitigation measures recommended in the reports generated by these studies. This section describes staff's findings related to geologic hazard issues. Geologic issues involving grading, erosion and sedimentation are discussed in separate sections of this report.

The proposed project lies on a moderately steep hillside adjacent to the coast. The proposed development is on a ridge oriented approximately north-south, perpendicular to the coast, lying between two north-south-trending canyon systems—Los Trancos Canyon to the west and Muddy Canyon to the east. The overall slope of the hillside is moderate (5-10%), but side slopes in the two canyons and its tributaries may be steep to very steep (up to 1:1, or 100%). The geologic conditions are conducive to slope instability, in that many slopes expose bedding planes or other planes of weakness that dip outwards from the slope. Further, the southern half of the area is underlain by the Monterey Formation, a geologic unit known to be susceptible to landsliding. In fact, the area itself is known to be subject to landsliding, and the applicant's geotechnical consultants have mapped numerous active and inactive landslides. Detention basins

APPENDIX A

SUBSTANTIVE FILE DOCUMENTS

1. Irvine Coast (Newport Coast) Certified Local Coastal Program.
2. Local Coastal Development Permit Record No. PA 97-0152).
3. Master Drainage and Water Quality Enhancement Program, NCPC, revised December 10, 1999
4. Southern Coastal Needlegrass Grassland Restoration Plan, Crystal Cove/Newport Coast Phases IV-3 and IV-4, revised December 14, 1999.
5. Wetland/Riparian Mitigation Plan, Crystal Cove/Newport Coast Phases IV-3 and IV-4, revised May 16, 2000.
6. Substantial Issue staff report and Commission findings, A5-IRC-99-301(Irvine Community Development Company), 9/2/99
7. California Department of Fish and Game, 1603 Agreement No. 5-212-99, Irvine Community Development Company, as amended July 17, 2000.
8. California Water Resources Control Board, Waiver of Waste Discharge Requirements and Water Quality Certification for the proposed Crystal Cove/Newport Coast Phases IV-3 & IV-4 Project, (ACOE Reference No. 980071600-YJC), September 30, 1999.
9. Third Party Independent review of Hydrologic, Sediment Yield and Coastal Processes Results and Conclusions for Newport Coast Phases IV-3 and IV-4 Appeal, Ronald M. Noble, Noble Consultants, Inc. and Professor Robert L. Wiegel, June 28, 2000.
10. Newport Coast Phases IV-3 and IV-4 Appeal, Technical Reports, Community Development Company, August 2000.
11. Revised Findings staff report, A5-IRC-99-301(Irvine Community Development Company), 2/22/01.
12. Addendum to the "Newport Coast Planned Community, Revised Runoff Management Plan, Hydrologic Analysis Report, dated April 2000, December 6, 2000, January 8, 2001.
13. Third Party Independent Review Newport Coast Planned Community, Ronald M. Noble, Noble Consultants, Inc., 2/21/01.

APPENDIX B

from Planning Areas 2C, 5 or 6 shall be discharged into Muddy Creek below the existing agricultural pond berm located in Upper Muddy Canyon.

B. The permittee shall undertake development in accordance with the approved final plans. Any proposed changes to the approved final plans shall be reported to the Executive Director. No changes to the approved final plans shall occur without a Commission amendment to this coastal development permit unless the Executive Director determines that no amendment is required.

3. LOS TRANCOS TUNNEL MAINTENANCE

A. The applicants shall maintain the Los Trancos Tunnel free of silt and mud and in a dry, passable state from April 15th to October 31st of each year, for the life of the development.

B. PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant, Irvine Community Development Company, shall execute and record a deed restriction, in a form and content acceptable to the Executive Director, incorporating all of the above terms of this condition. The deed restriction shall include a legal description of the applicant's entire parcel(s). The deed restriction shall run with the land, binding all successors and assigns, and shall be recorded free of prior liens that the Executive Director determines may affect the enforceability of the restriction. This deed restriction shall not be removed or changed without a Commission amendment to this coastal development permit.

4. ASSUMPTION OF RISK

A. By acceptance of this permit, the applicant acknowledges and agrees (i) that the site may be subject to hazards from fire, landslides and soil erosion; (ii) to assume the risks to the applicant and the property that is the subject of this permit of injury and damage from such hazards in connection with this permitted development; (iii) to unconditionally waive any claim of damage or liability against the Commission, its officers, agents, and employees for injury or damage from such hazards; and (iv) to indemnify and hold harmless the Commission, its officers, agents, and employees with respect to the Commission's approval of the project against any and all liability, claims, demands, damages, costs (including costs and fees incurred in defense of such claims), expenses, and amounts paid in settlement arising from any injury or damage due to such hazards.

B. PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant, Irvine Community Development Company, shall execute and record a deed restriction, in a form and content acceptable to the Executive Director incorporating all of the above terms of this condition. The deed restriction shall include a legal description of the applicant's entire parcel. The deed restriction shall run with the land, binding all successors and assigns, and shall be recorded free of prior liens that the Executive Director determines may affect the enforceability of the restriction. This deed

Quality Control Plan and/or the applicable RWQCB's Basin Plan, including but not limited to, any applicable standards in the California Toxics Rule and the California Ocean Plan.

- (ii) Should it be determined by the discharger, SWRCB, RWQCB, or CCC that stormwater discharges and/or authorized non-stormwater discharges are causing or contributing to an exceedance of an applicable water quality standard, the applicant shall implement corrective measures consistent with 5A(2)c (iii) and (iv) below.
- (iii) Where corrective measures would not constitute development under Section 30106 of the Coastal Act, the applicant shall cease grading and/or construction and implement corrective measures immediately following discovery that water quality standards were exceeded, followed by notification to the RWQCB and the CCC by telephone as soon as possible but no later than 48 hours after the discharge has been discovered. This notification shall be followed by a report within 14-calendar days to the appropriate RWQCB and the CCC, unless otherwise directed by the RWQCB or the CCC, describing (1) the nature and cause of the water quality standard exceedance; (2) the BMPs currently being implemented; (3) any additional BMPs which will be implemented to prevent or reduce pollutants that are causing or contributing to the exceedance of water quality standards; and (4) any maintenance or repair of BMPs. This report shall include an implementation schedule for corrective actions and shall describe the actions taken to reduce the pollutants causing or contributing to the exceedance. The applicant shall revise its SWPPP and monitoring program immediately, after the telephone report to the CCC, to incorporate the additional BMPs that have been and will be implemented, the implementation schedule, and any additional monitoring needed. Grading and/or construction shall recommence upon the corrective actions being completed to the satisfaction of the Executive Director.
- (iv) Where corrective measures would constitute development under Section 30106 of the Coastal Act, the proposed corrective measures shall require an amendment to the coastal development permit, unless the Executive Director determines no such amendment is required.

B. Other Erosion Control Measures

1) The following temporary erosion control measures shall be used during construction activity: a combination of temporary measures (e.g., geo-fabric blankets, spray tackifiers, silt fences, fiber rolls, straw mulch, hay bales, gravel bags, earth berms or other mechanical or vegetative techniques), as appropriate, during each phase of site preparation, grading and project construction. Native and/or appropriate non-native plant material selected for vegetation shall be consistent with LCP subsection I-3-L-6. Temporary structural BMPs, including debris basins, desilting basins, and/or silt traps shall be incorporated into the erosion control plan. Said plan shall specify that the above noted temporary structural BMPs shall be installed prior to the onset of the wet season (October 15

vegetation of species consistent with native and/or appropriate non-native plant material selected for vegetation shall be consistent with LCP subsection I-3-L-6 and surrounding native vegetation, subject to Executive Director approval.

8) A third-party contractor designated by the applicant shall continually evaluate the implementation of SWPPP measures for compliance with this coastal development permit. Monthly reports shall be submitted to the Executive Director for review. In addition any periodic reports produced by government officials conducting inspection of the site for SWPPP compliance shall be submitted to the Executive Director, at the time such reports are provided to the applicant or the RWQCB. The requirement for submittal of such reports shall terminate with completion of construction activity and termination of applicant coverage under the General Construction NPDES permit as determined by the SWRCB or RWQCB.

9) Concurrent with the first phase of construction, as indicated on the August 9, 2000 Phasing Plan, the applicant shall construct and implement a dry weather diversion system consistent with the terms of special condition 15c.

C. The permittee shall undertake development in accordance with the approved grading and erosion and sediment runoff control plans and the SWPPP. No changes to these plan(s) shall occur without a Coastal Commission approved amendment to this coastal development permit unless the Executive Director determines that no amendment is required.

6. IRVINE BEACH SAND REPLENISHMENT FUND

PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicants shall provide evidence, in a form and content acceptable to the Executive Director of consent to participate in a fair share program for beach sand replenishment in the Crystal Cove littoral subcell as described below. The applicant shall also provide evidence that \$163,800 has been deposited in an interest bearing account designated by the Executive Director in-lieu of providing sand to replace the sand and beach area that will be lost due to the impact of the proposed project. The California Coastal Commission or other entity designated by the Executive Director shall be named as trustee of this account, with all interest earned payable to the account for the purposes stated below. In no event shall the fair share portion of the applicant's responsibility fall below \$163,800.

The purpose of the account shall be to aid in the restoration of beaches within the Crystal Cove littoral sub cell (between the east jetty of Newport Harbor and Abalone Point) through the establishment of a beach sand replenishment program. The funds shall solely be used to establish longterm monitoring of beach sand quantities, to prepare a program for beach sand replenishment, and to implement projects which provide sand to the beaches within the Crystal Cove littoral sub cell (between the east jetty of Newport Harbor and Abalone Point), not to fund operations, maintenance, or

- 7) If anisotropic conditions are assumed for any geologic unit, strike and dip of weakness planes shall be provided, and geotechnical parameters for each orientation shall be supported by reference to pertinent direct shear tests, triaxial shear test, or literature.
- 8) When planes of weakness are oriented normal to the slope, or dip into the slope, or when the strength of materials is considered homogenous, rotational failure surfaces shall be sought by Spencer's method through a critical failure search routine to analyze the factor of safety along postulated critical failure surfaces.
- 9) If anisotropic conditions are assumed for units containing critical failure surfaces determined above, and when planes of weakness dip in the same direction as the slope, factors of safety for translational failure surfaces also shall be calculated. Geotechnical parameters for such weak surfaces shall be supported through direct shear tests, triaxial shear test, or literature references.

B. The permittee shall undertake development in accordance with the approved final plans. Any proposed changes to the approved final plans shall be reported to the Executive Director. No changes to the approved final plans shall occur without a Commission amendment to this coastal development permit unless the Executive Director determines that no amendment is required.

8. REVISED GRADING PLANS

A. PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall submit revised grading plans to the Executive Director for review and approval. The scale of the plans shall be at one inch equals forty feet for the fire access road and PA 12C. All other plans shall be at the scale of one inch equals one hundred feet. The revised grading plans shall show the following:

- 1) provide a schedule showing when each stage and element of the project will be completed, including estimated starting and completion dates, hours of operation, days of week operation, and the total area of soil surface to be disturbed during each stage of grading;
- 2) Show the location of all on-site stockpiling which shall be approved by the County of Orange. Top soil for later use in revegetation shall be stockpiled on-site in previously designated and approved areas. Other earthen material shall be disposed at locations approved by the County of Orange provided that a coastal development permit has been finally issued for locations in the coastal zone to receive this quantity of earthen material;
- 3) Removal of natural vegetation will be limited to graded areas, access/haul roads, and areas required for fuel modification. Construction material shall be limited to the approved area to be disturbed except for approved haul roads; and

existing Purple Needlegrass vegetation shall be flagged and fenced prior to grading activities and shall be protected from impacts during road construction.

If any Purple Needlegrass is destroyed or significantly impacted other than that indicated on Exhibit 2 of this report and Exhibit 2 of the Southern Coastal Needlegrass Grassland Restoration Plan, by LSA Associates, Inc., dated December 14, 1999, the applicant shall mitigate the loss of the additional Purple Needlegrass at a ratio of 4:1 in the same location as the proposed mitigation site. If the mitigation site is too small to accommodate the required additional restoration, the biological consultant shall identify another suitable site within the project vicinity, subject to the review and written approval of the Executive Director.

- B. The permittee shall undertake development in accordance with the approved final plans. Any proposed changes to the approved final plans shall be reported to the Executive Director. No changes to the approved final plans shall occur without a Commission amendment to this coastal development permit unless the Executive Director determines that no amendment is required.

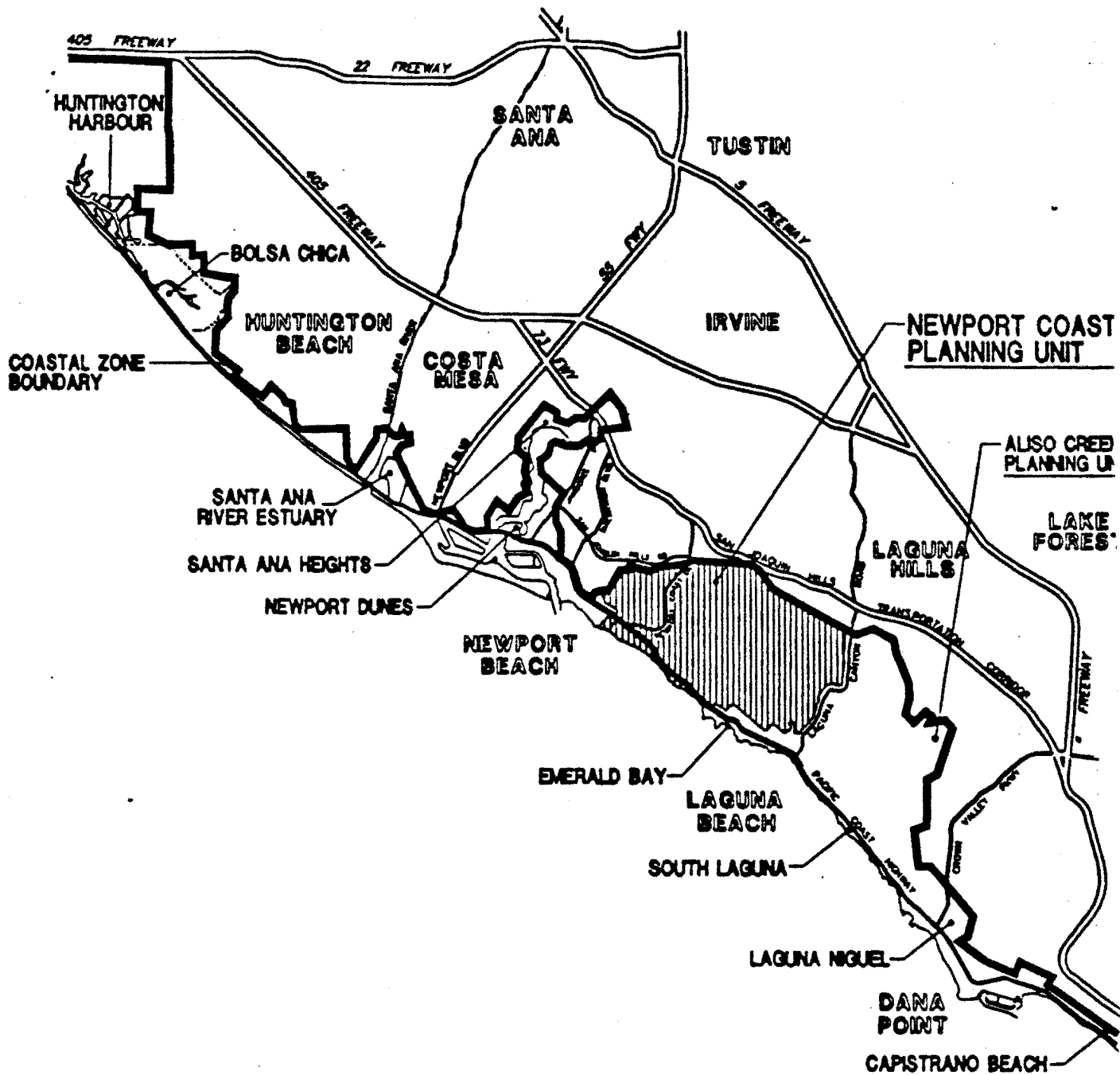
11. CONFORMANCE WITH FINAL GEOLOGIC RECOMMENDATIONS

A. All final design and construction plans, including foundations, grading and drainage plans, shall be consistent with all recommendations contained in the June 6, 2000 report by NMG Geotechnical, the August 6, 1999 and August 30, 1999 reports by Goffman, McCormick and Urban, and the Leighton and Associates letter of 16 June, 2000 and subsequent supplemental reports. **PRIOR TO THE ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT**, the applicant shall submit, for the Executive Director's review and approval, evidence that an appropriate licensed professional has reviewed and approved all final design and construction plans and certified that each of those final plans is consistent with all of the recommendations specified in the above-referenced geologic evaluation approved by the California Coastal Commission for the project site.

B. The permittee shall undertake development in accordance with the approved final plans. Any proposed changes to the approved final plans shall be reported to the Executive Director. No changes to the approved final plans shall occur without a Commission amendment to this coastal development permit unless the Executive Director determines that no amendment is required.

12. BRIDGE PLANS

A. **PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT**, the applicant shall submit revised plans, subject to the review and written approval of the Executive Director, for the proposed Muddy Canyon bridge located in PA 17. Plans shall be to scale and include a site plan on a topographic base map (or grading plan), plan views, elevations and cross-sections. All bridge supports and abutments must be shown in



LOCATION MAP - Second Amendment

The Newport Coast Local Coastal Program

Exhibit

NOT TO SCALE

A5-1RC-99-301-A1

JULY 18, 1999

EXHIBIT 1

California Regional Water Quality Control Board
Santa Ana Region

November 16, 2000

ITEM: 4

SUBJECT: Cease and Desist Order No. 00-87, Requiring The Irvine Company, the California Department of Transportation, the California Department of Parks and Recreation, and the Laguna Beach Unified School District to Comply with the Ocean Plan Prohibition of Discharges of Waste to the Irvine Coast Area of Special Biological Significance (ASBS) (Crystal Cove).

EXECUTIVE SUMMARY

In 1974, the State Water Resources Control Board designated the ocean waters between Cameo Shores Drive and Abalone Point, in the unincorporated area of Newport Coast, Orange County, as the Irvine Coast ASBS (SB Resolution No. 74-32). The 1997 Ocean Plan, Chapter V, states, "Wastes shall not be discharged to areas designated as being of special biological significance." Further, the Ocean Plan Introduction states, "This plan is applicable, in its entirety, to point source discharges to the ocean. Nonpoint sources of waste discharges to the ocean are subject to ... Chapter V - Discharge Prohibitions." Thus, the explicit language of the Ocean Plan applies the ASBS discharge prohibition in Chapter V to both point and nonpoint source discharges.

Therefore, based on the Ocean Plan prohibition, staff have prepared this cease and desist order to prohibit new discharges of waste, including storm water and non-storm water runoff from developed areas, to the portion of the Irvine Coast ASBS that lies between Los Trancos Creek and Muddy Canyon Creek and require that existing discharges of wastes to this area be eliminated over the next 2 years.

DISCUSSION

The Ocean Plan was originally adopted by the State Water Resources Control Board in 1972 and was amended in 1978, 1983, 1988, 1990, and 1997. The purpose of the Ocean Plan is to protect the beneficial uses of the State's ocean waters by identifying water quality objectives; setting general waste discharge requirements; and listing discharge prohibitions. The Ocean Plan also established the concept of Areas of Special Biological Significance (ASBS). The definition of an ASBS is stated in the Administrative Procedures as "... those areas containing biological communities of such extraordinary value that no risk of change in their environment as the result of man's activities can be entertained." Finally, the 1997 Ocean Plan, within Chapter V, "Discharge Prohibitions" states that "Wastes shall not be discharged to areas designated as being of special biological significance."

EXHIBIT 3
P1

Cease and Desist Order No. 00-87
Crystal Cove - Staff Report

Page 3 of 3

Drainage from the El Morro Elementary School that currently enters a storm water catchbasin inlet on Pacific Coast Highway and discharges to the bluffs above Crystal Cove and subsequently to the beach below; and,

An unknown number of discharge points from facilities at Crystal Cove State Park that drain to Crystal Cove, including parking lots, public showers and maintenance facilities, as well as runoff and septic tank/subsurface disposal system discharges from bungalows in the 'historic district' of Crystal Cove State Park.

Order No. 00-87 provides a schedule for elimination of existing waste discharges and prohibits all new discharges to the Irvine Coast ASBS. This order implements the waste discharge prohibition contained in Chapter V of the Ocean Plan.

RECOMMENDATION

Staff recommends that the Regional Board adopt Order No. 00-87 as presented.

Ex. 3
p. 3

Irvine Coast ASBS
CDO No. 00-87

-2-

November 16, 2000
DRAFT

6. The Water Quality Control Plan for Ocean Waters of California (Ocean Plan), State Board Resolution No. 97-26, last amended in 1997, establishes beneficial uses and water quality objectives for waters of the Pacific Ocean along the California Coast. Chapter 5 of the Ocean Plan identifies discharge prohibitions and states "Waste shall not be discharged to areas designated as being of special biological significance."
7. The Regional Board finds that the aforementioned discharges are waste discharges to the Irvine Coast ASBS, and as such are strictly prohibited by the Ocean Plan. This order, therefore, requires the dischargers to cease violating the Ocean Plan.
8. The Regional Board has notified the dischargers and interested agencies and persons of its intent to issue this order and has provided them with the opportunity for a public hearing and to submit their written views and recommendations.
9. The Regional Board, in a public hearing, heard and considered all comments pertaining to this matter.
10. This order is an action for the protection of the environment and is categorically exempt from the California Environmental Quality Act, pursuant to Section 15321, Chapter 3, Title 14 of the California Code of Regulations.

IT IS HEREBY ORDERED, pursuant to Section 13301, of Division 7 of the California Water Code, that the The Irvine Company, the California Department of Transportation, the California Department of Parks and Recreation, and the Laguna Beach School District shall cease and desist from violating the waste discharge prohibition specified in the Ocean Plan as follows:

- a) Direct discharges of waste to the Irvine Coast ASBS from areas where construction has not been initiated as of November 16, 2000 are prohibited;
- b) Direct discharges of waste to the Irvine Coast ASBS that result from areas where construction began after November 16, 1996 shall cease by November 16, 2001; and,
- c) Direct discharges of waste to the Irvine Coast ASBS from areas (including roadways) where construction began on or before November 16, 1996, shall cease by November 16, 2002. Affected dischargers shall submit plans by May 16, 2001 for eliminating these discharges of waste. The plans shall include detailed proposals and time schedules for eliminating the discharges and shall be implemented as approved by the Executive Officer.

If, in the opinion of the Executive Officer, any of the dischargers listed in this order fail to comply with this order, the Executive Officer is directed to file a complaint assessing administrative civil liability or to request that the Attorney General pursue judicial enforcement action against that discharger, including an injunction and civil monetary penalties, if appropriate, pursuant to Section 13331 or 13350 of the California Water Code.

I, Gerard J. Thibeault, Executive Officer, do hereby certify that the foregoing is a full, true, correct copy of an order adopted by the California Regional Water Quality Control Board, Santa Ana Region, on November 16, 2000.

GERARD J. THIBEAULT
Executive Officer

EX. 3
P. 5

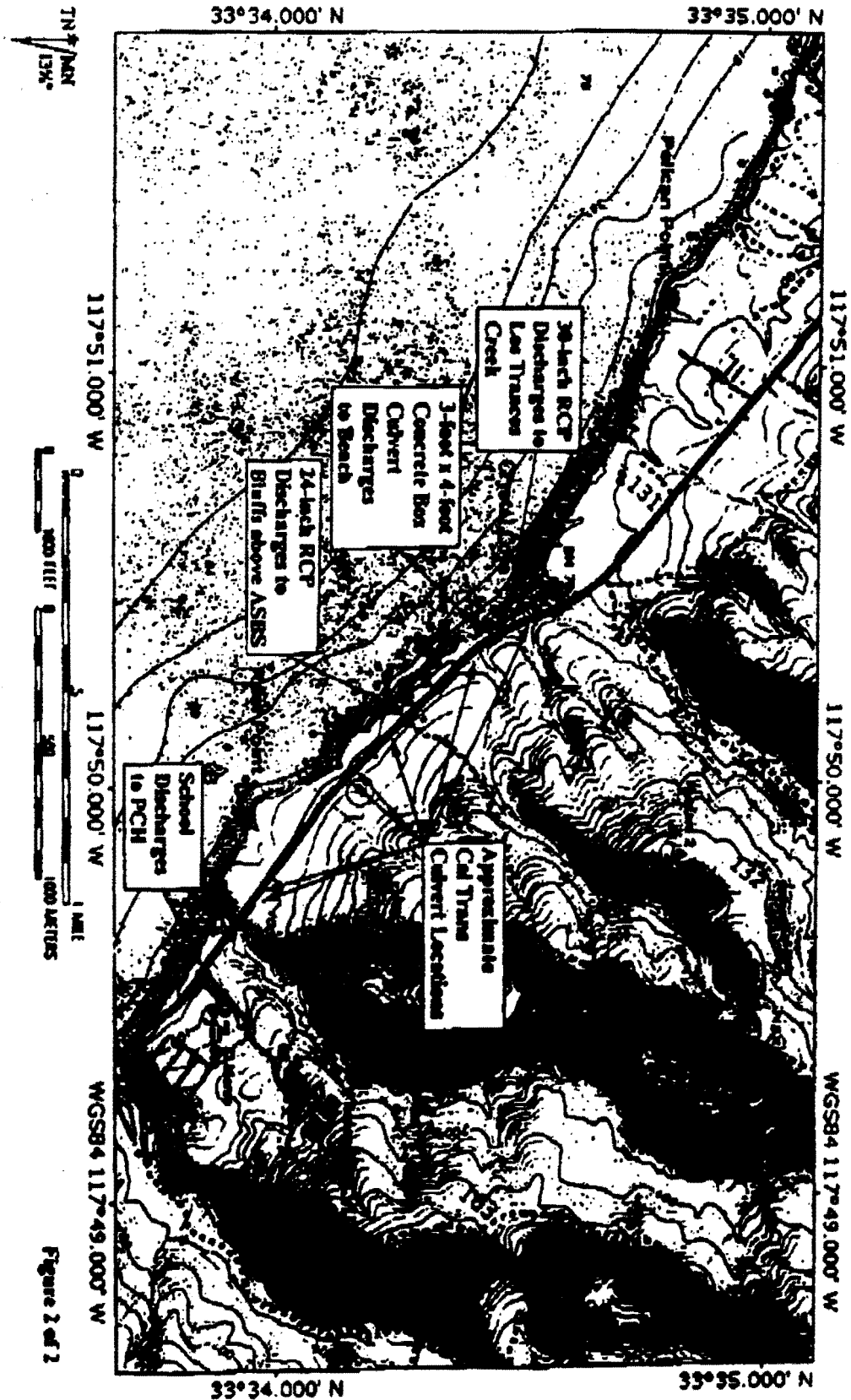


Figure 2 of 2

EX. 3
P. 7

CULBERTSON, ADAMS & ASSOCIATES
PLANNING CONSULTANTSRECEIVED
DEC 18 2000CALIFORNIA
COASTAL COMMISSION

December 18, 2000

Ms. Teresa Henry
District Manager
California Coastal Commission
200 Oceangate, Suite 1000
Long Beach, CA 90805-4302

SUBJECT: Application for Amendment to Coastal Development Permit A5-IRC-99-301; Newport Coast Planned Community

Dear Ms. Henry:

As we have discussed over several conference calls, our office makes this application for amendment on behalf of The Irvine Company to the recently granted Coastal Development Permit A5-IRC-99-301 to incorporate changes to the project required to comply with recent actions of the California Regional Water Quality Control Board, Santa Ana Region.

As you know, some time after the California Coastal Commission ("CCC") action to approve this permit, the Regional Water Quality Control Board adopted a Cease and Desist Order ("CDO") to eliminate any storm flows through three existing storm drain facilities outside the Appeal Area (CDP A5-IRC-99-301), specifically the 30" pipe, 24" pipe and a 3' x 4' box culvert. To comply with that order, TIC has revised the storm drain system to eliminate all flows from any part of the Newport Coast Planned Community through these facilities. Since a portion of the approved Appeal Area drainage plan utilizes the 30" pipe addressed by the CDO, this change modifies the drainage plan for the CDP (No portion of the approved Appeal Area drainage plan drains through the 24" pipe or the 3' x 4' box culvert, either at the time the appeal was heard on August 10, 2000 or now.). Exhibit A to this letter details this proposal in depth.

The rerouting of these specific storm drains located outside of the Appeal Area (in the area commonly known as "Beach Town") will result in modified discharges to both Los Trancos and Muddy Creek. Exhibit A identifies the specific changes to the storm drain plan which will accommodate the desired objective of allowing no storm flows to pass through the 30" pipe, 24" pipe, or 3' by 4' box culvert. Additional information is provided with this amendment request to document conformity of the modified discharges with the Runoff, Erosion, and Sediment Policies of the Local Coastal Program.

EXHIBIT 5
P.1

Ms. Teresa Henry
December 18, 2000
Page 3

Project. Sampling locations were identified for this program with the prior drainage plan in mind and we propose to eliminate certain sampling locations because flow from The Irvine Company project under this condition will no longer be directed to the areas identified for sampling.

Condition 19 is also proposed for modification. Condition 19 addresses flow meter detection devices, and was not a condition previously presented in staff reports, nor was the wording specifically discussed at the Coastal Commission hearing of August 10, 2000. Exhibit D presents wording proposed by The Irvine Company for this condition. Specifically, The Irvine Company proposes to limit flow meter detection devices to the two wet wells in Los Trancos and Muddy Creeks. The expressed concern of the Commissioner proposing this condition at the August 10th hearing was to detect nuisance flow coming through the 30" pipe or the 3' by 4' box culvert from the development. With the modification of the storm drain system, both low flows and storm flows will be re-directed to Los Trancos and Muddy Canyons, eliminating the need to install these devices. Accordingly, The Irvine Company requests that the condition be revised to eliminate the requirement for flow detection devices in the 30" pipe and 3' x 4' box culvert. The wet wells are the mechanical means by which the nuisance flow is conveyed to the necessary facilities for transport to the Orange County Sanitation District plant.

Conclusion

We ask that this amendment be considered as soon as possible by the California Coastal Commission. An expedited review ensures the earliest possible installation of the water quality and drainage diversion measures. We stand ready to answer questions concerning this amendment application. As previously discussed, we will be providing technical support the week of December 18th in order to document the hydrologic, channel stability, and beach nourishment consequences of this action, in conformity with the policies of the Certified Local Coastal Program.

Please do not hesitate to call me if you have questions concerning this matter.

Sincerely,


M. Andriette Culbertson
President

MAC/ld

EX. 5
p. 3

AMENDMENT REQUEST FORM

RECEIVED
DEC 18 2000

1. Permit Number A5-IRC-99-301-41

2. Applicant's Name

The Irvine Company

CALIFORNIA
COASTAL COMMISSION

(area code and phone no.)

Name, mailing address and telephone number of applicant's representative, if any. Please include all representatives who will communicate on behalf of the applicant or the applicant's business partners, for compensation, with the Commission or staff. (It is the applicant's responsibility to update this list, as appropriate, including after the application is accepted for filing. Failure to provide this information prior to communication with the Commission or staff may result in denial of the permit or criminal penalties.

On file

Describe Proposed Amendment

Please see attached letter

Applicant's / Agent Signature

Date

EX. 5
P5



Please note that the recent opportunity of routing first flush volumes from Area L-1 in PA 4A is within the Appeal Area, and therefore the statement in my letter of December 18, 2000 is no longer accurate. The feasibility of this improvement was recently discovered in connection with the generation of improvement plans, and all statistics and data presented in the revised Master Drainage and Water Quality Program have been revised to reflect this advantage. Please note that Attachment C is a letter from Eric Strecker in support of the change to Condition 16.C.1, as requested.

Public Hearing Notice Material

We had explained in previous communications that two lists were generated for your consideration, and this accounts for the different names. The first aim was to provide a list associated with the Appeal Area boundary. Then, we wished to provide a list of those owners and occupants within 100 feet of the area wherein the drainage changes were taking place. Since the original Appeal Area list was generated, approximately 12 homes in the Beach Town have been occupied. However, there is no equalized assessment roll from which to take the names. Therefore, we have used addresses and the words "Resident" to describe these addressees.

As to some names being on one list and not on another, this is also the result of separate lists for the Appeal Area and the non-Appeal area. We endeavored to construct the list in such a way that you could choose whom to notify, since it was not possible to receive clarification from your office before the list was due.

The interested parties envelopes were generated from the list you gave me on January 12, 2001. I did not believe that you wanted the list itself back when I gave you the envelopes. Your list was not on a C-1 form, and therefore I assumed you did not need it on a C-1 form now.

Attachment D includes the above addressees, a list of persons who sent letters attached to the staff report, the addresses on the list you provided, and the name and address of the one person who gave their address at the hearing. Envelopes are included as Attachment E.

The horizontal list you refer to is just your proof of ownership from our Assessor's office. Many of the names on that list are farther than 100 feet from the property. However, the list was color-coded to reflect those names which are on the C-1 list as required by your regulations.

EX. 5,
P. 7



reiterated to the Board that they found our proposed engineering solution to be in compliance with the Ocean Plan.

We believe that the submittals to which you refer have already been made and approval indicated.

- Fire Prevention Task Force Report

We were under the impression that you wanted the Task Force Report that was in effect when the LCP Second Amendment was certified. Enclosed, as Attachment H, is the 1988 version of this report. We are not sure that is what was intended when the amendment to the LCP was processed, but now you have both.

Please be advised that the Orange County Fire Authority looks at this report as a "living" document, and adds or modifies it from time to time in order to incorporate the most up to date technologies.

- Additional Information

You have asked that we memorialize e-mail questions and answers in a letter. This letter will arrive at your office under separate cover today.

Conclusion

We believe that the above and its attachments respond fully to your letter of January 18, 2001. Please let us know if you have further questions or information needs.

Sincerely,


M. Andriette Culbertson
President

cc: Roberta Marshall, The Irvine Company

List of Attachments

- | | |
|---|---|
| A | Master Drainage and Water Quality Report – <u>Revised</u> |
| B | Condition Changes |
| C | Letter from Eric Strecker dated 1/18/01 |
| D | Public Notification List |

EX. 5
P. 9

Proposed Condition Amendments

Conditions From NOI Dated 12/15/00	Revised Conditions
<p>14. <u>PERMANENT WATER QUALITY CONTROL PLAN REQUIRED FOR PROPOSED DEVELOPMENT IN PLANNING AREAS 4A, 4B, 5, 6 AND 12C</u></p> <p>PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall submit final Water Quality Control Plans for Planning Areas 4A, 4B, 5, 6, and 12C for the review and approval of the Executive Director.</p> <p>A. The final Water Quality Control Plan shall be designed in accordance with all applicable State, County and Regional regulations to ensure compliance with all applicable State, County and Regional water quality objectives or standards, including but not limited to the following:</p> <ol style="list-style-type: none"> 1) Pollutants in stormwater shall be reduced to the maximum extent practicable through the use of BMPs. 2) Implementation of the project shall not create a nuisance or pollution as defined in the California Water Code. 3) The project shall not cause a violation of any applicable water quality standard for receiving waters adopted by the RWQCB or the SWRCB, as required by the Clean Water Act, or the Porter-Cologne Water Quality Control Act, including but not limited to any applicable standards in the California Toxics Rule and the California Ocean Plan. 4) The discharge of any substance in concentrations toxic to animal or plant life is prohibited. 	<p>14. <u>PERMANENT WATER QUALITY CONTROL PLAN REQUIRED FOR PROPOSED DEVELOPMENT IN PLANNING AREAS 3A, 3B, 4A, 4B, 5, 6, 12B AND 12C, AND 14</u></p> <p>PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall submit final Water Quality Control Plans for Planning Areas <u>3A, 3B, 4A, 4B, 5, 6, 12B, and 12C, and 14</u> for the review and approval of the Executive Director.</p> <p>A. The final Water Quality Control Plan shall be designed in accordance with all applicable State, County and Regional regulations to ensure compliance with all applicable State, County and Regional water quality objectives or standards, including but not limited to the following:</p> <ol style="list-style-type: none"> 1) Pollutants in stormwater shall be reduced to the maximum extent practicable through the use of BMPs. 2) Implementation of the project shall not create a nuisance or pollution as defined in the California Water Code. 3) The project shall not cause a violation of any applicable water quality standard for receiving waters adopted by the RWQCB or the SWRCB, as required by the Clean Water Act, or the Porter-Cologne Water Quality Control Act, including but not limited to any applicable standards in the California Toxics Rule and the California Ocean Plan. 4) The discharge of any substance in concentrations toxic to animal or plant life is prohibited.
<p>B. The Final Water Quality Control Plans shall incorporate: (1) the source and treatment control Best Management Practices (BMPs) and other water quality measures in the amount, type and physical location proposed and specified in the <i>Newport Coast Planned Community, Crystal Cove Stormwater Quality Evaluation Report</i>, dated 6/14/00, and graphically depicted in the <i>Master Drainage and Water Quality</i></p>	<p>B. The Final Water Quality Control Plans shall incorporate: (1) the source and treatment control Best Management Practices (BMPs) and other water quality measures in the amount, type and physical location proposed and specified in the <i>Newport Coast Planned Community, Crystal Cove Stormwater Quality Evaluation Report</i>, dated 6/14/00, and letter amendment thereto dated January 12, 2001, and graphically</p>

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p.11

Conditions From NOI Dated 12/15/00	Revised Conditions
<p>15. <u>ADDITIONAL WATER QUALITY MITIGATION MEASURES PROPOSED FOR PLANNING AREAS 3A, 3B, 4A, 4B, 5, 6, 12C, 14 AND PORTIONS OF 1C, 2B, 2C, 10B, 11B, 13A AND 13F</u></p> <p>A. CONSISTENT WITH THE TERMS OF THE PROPOSED PROJECT AND PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant is required to submit final water quality control plans for the review and approval of the Executive Director, demonstrating compliance with all of the requirements specified below:</p>	<p>15. <u>ADDITIONAL WATER QUALITY MITIGATION MEASURES PROPOSED FOR PLANNING AREAS 3A, 3B, 4A, 4B, 5, 6, 12C, 14 AND PORTIONS OF 1C, 2B, 2C, 10B, 11B, 13A AND 13F</u></p> <p>A. CONSISTENT WITH THE TERMS OF THE PROPOSED PROJECT AND PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant is required to submit final water quality control plans for the review and approval of the Executive Director, demonstrating compliance with all of the requirements specified below:</p>
<p>B. The applicant is required to implement: (1) the water quality measures proposed for Planning Areas 2C, 3A, 3B and 14, in the amount, type and location proposed and specified and the <i>Newport Coast Planned Community Stormwater Quality Evaluation Report</i>, dated 6/14/00, and graphically depicted in the <i>Master Drainage and Water Quality Enhancement Program (MDWQEP) for the Newport Coast Planned Community</i> (6 sheets) dated 7/24/00 (as modified by Special Condition 18), and described here and (2) those measures with specifications described below:</p> <p>1) Non-structural Best Management Practices (BMPs) including but not limited to:</p> <ul style="list-style-type: none"> a) Fertilizer and Organic Soils Management, b) Advanced street sweeping and litter pick-up, c) Homeowner education regarding Nonpoint Source pollution and proper use of pesticides. <p>2) Routine structural BMPs:</p> <ul style="list-style-type: none"> a) Vegetated swales b) Extended detention ponds, c) Storm water flow from PAs 3A, 3B, and 14 shall either be routed to the proposed extended detention basin (basin No. 6) or shall receive the benefit of filtration through Drainpak filter insert devices installed in catch basins or water quality inlets receiving drainage from PAs 3A, 3B, and 14, 	<p>B. The applicant is required to implement: (1) the water quality measures proposed for Planning Areas 2C, 3A, 3B and 14, in the amount, type and location proposed and specified in and the <i>Newport Coast Planned Community Stormwater Quality Evaluation Report</i>, dated 6/14/00, and letter amendment thereto dated January 12, 2001, and graphically depicted in the <i>Master Drainage and Water Quality Enhancement Program (MDWQEP) for the Newport Coast Planned Community</i> (6 sheets) dated <u>January 18, 2001</u> 7/24/00 (as modified by Special Condition 18), and described here and (2) those measures with specifications described below:</p> <p>1) Non-structural Best Management Practices (BMPs) including but not limited to:</p> <ul style="list-style-type: none"> a) Fertilizer and Organic Soils Management, b) Advanced street sweeping and litter pick-up, c) Homeowner education regarding Nonpoint Source pollution and proper use of pesticides. <p>2) Routine structural BMPs:</p> <ul style="list-style-type: none"> a) Vegetated swales b) Extended detention ponds, c) Storm water flow from <u>PA 3A, PA 3B, PA 4A, PA 4B, and PA 14</u> PAs 3A, 3B, and 14 shall either be routed to the proposed extended detention <u>basins (Basins 6 and 7)</u> basin (basin No. 6) or shall receive the benefit of filtration through <u>Drainpak</u> Drainpak filter insert devices installed in catch

Conditions From NOI Dated 12/15/00	Revised Conditions
requirements of this condition.	requirements of this condition.
<p>D. PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall obtain, and submit to the satisfaction of the Executive Director, a binding agreement with the Orange County Sanitation District (OCSD) and the Irvine Ranch Water District (IRWD), verifying the District's capacity and commitment to accept dry-weather nuisance flow runoff from Planning Areas 3A, 3B, 4A, 4B, 5, 6, 12C, 14 and the portions of 1C, 2B, 2C, 10B, 11B, 13A and 13F which drain into Los Trancos or Muddy Canyon during the period of April 15 through October 31st of each year for the life of the project, for treatment in the wastewater collection system at the Treatment Plant. Diversion, as specified above, shall commence concurrent with the first phase of construction as indicated on the August 9, 2000 Phasing Plan.</p>	<p>D. PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall obtain, and submit to the satisfaction of the Executive Director, a binding agreement with the Orange County Sanitation District (OCSD) and the Irvine Ranch Water District (IRWD), verifying the District's capacity and commitment to accept dry-weather nuisance flow runoff from Planning Areas 3A, 3B, 4A, 4B, 5, 6, 12C, 14 and the portions of 1C, 2B, 2C, 10B, 11B, 13A and 13F which drain into Los Trancos or Muddy Canyon during the period of April 15 through October 31st of each year for the life of the project, for treatment in the wastewater collection system at the Treatment Plant. Diversion, as specified above, shall commence concurrent with the first phase of construction as indicated on the August 9, 2000 Phasing Plan.</p>
<p>E. PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall execute and record a deed restriction, in a form and content acceptable to the Executive Director incorporating all of the above terms of Special Condition 15C. The deed restriction shall include a legal description of Planning Areas 3A, 3B, 4A, 4B, 5, 6, 12C, 14, and the portions of 1C, 2B, 2C, 10B, 11B, 13A, and 13F which drain into Los Trancos or Muddy Canyon. The deed restriction shall run with the land binding all successors and assigns, and shall be recorded free of prior liens that the Executive Director determines may affect the enforceability of the restriction. The deed restriction shall not be removed or changed without a Commission-approved amendment to this coastal development permit.</p>	<p>E. PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall execute and record a deed restriction, in a form and content acceptable to the Executive Director incorporating all of the above terms of Special Condition 15C. The deed restriction shall include a legal description of Planning Areas 3A, 3B, 4A, 4B, 5, 6, 12C, 14, and the portions of 1C, 2B, 2C, 10B, 11B, 13A, and 13F which drain into Los Trancos or Muddy Canyon. The deed restriction shall run with the land binding all successors and assigns, and shall be recorded free of prior liens that the Executive Director determines may affect the enforceability of the restriction. The deed restriction shall not be removed or changed without a Commission-approved amendment to this coastal development permit.</p>
<p>F. The permittee shall undertake development in accordance with the approved final plans. Any proposed changes to the approved final plans shall be reported to the Executive Director. No changes to the approved final plans shall occur without a commission amendment to this coastal development permit unless the Executive Director determines that no amendment is required.</p>	<p>F. The permittee shall undertake development in accordance with the approved final plans. Any proposed changes to the approved final plans shall be reported to the Executive Director. No changes to the approved final plans shall occur without a Commission <u>approved</u> amendment to this coastal development permit unless the Executive Director determines that no amendment is required.</p>

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1

Conditions From NOI Dated 12/15/00	Revised Conditions
<p>(a) Annual reports documenting inspection and maintenance activities shall be submitted to the Coastal Commission no later than June 30th of each year. The reports shall include date, time and location of all inspections, and any textual or graphic documentation necessary to support maintenance activity undertaken or lack thereof where unnecessary.</p>	<p>a) Annual reports documenting inspection and maintenance activities shall be submitted to the Coastal Commission no later than June 30th of each year. The reports shall include date, time and location of all inspections, and any textual or graphic documentation necessary to support maintenance activity undertaken or lack thereof where unnecessary.</p>
<p>C. The applicant shall submit final plans for conducting post-development monitoring as proposed by the applicant pursuant to an agreement with the RWQCB. The plan shall be based on the scope recommended in Section 5.2.3 of the SWQER cited above, specifically:</p> <ol style="list-style-type: none"> 1. A flow-weighted composite sampling approach shall be utilized to sample runoff water quality in Muddy Canyon downstream of the extended detention pond and the wetland located at the agricultural reservoir, from 3 storms per year. 2. The post-development monitoring as specified above, and required by this in this special condition, shall be conducted for a minimum period of 2 years, following completion of development. If water quality is found to be acceptable by the Executive Director in consultation with the RWQCB staff based on a comparison with in-stream aquatic life water quality standards, and any other applicable receiving water quality standards as determined by the SWRCB or RWQCB, monitoring shall be terminated at the end of the 2 year period. If a particular pollutant is found in concentrations considered unacceptable by the RWQCB due to applicable water quality standards including, but not limited to any applicable standards in the California Toxics Rule and the California Ocean Plan, the applicant shall conduct an assessment of the potential sources of the pollutant and potential remedies. If it is determined based on this assessment that applicable water quality standards have not been met as a result of inadequate or failed BMPs, corrective actions or remedies shall be required. 3. If potential remedies or corrective action constitute development, 	<p>C. The applicant shall submit final plans for conducting post-development monitoring as proposed by the applicant pursuant to an agreement with the RWQCB. The plan shall be based on the scope recommended in Section 5.2.3 of the SWQER cited above, specifically:</p> <ol style="list-style-type: none"> 1) A flow-weighted composite sampling approach shall be utilized to sample runoff water quality in Muddy Canyon downstream of <u>Basin #6 the extended detention pond and Basin 2</u>, from three storms per year. <u>In the event that storm or site conditions prevent the safe collection of flow-weighted samples downstream of Basin 2, then composited grab samples may be taken downstream of Basin 2 for three storms per year.</u> 2) The post-development monitoring as specified above, and required by this in this special condition, shall be conducted for a minimum period of 2 years, following completion of development. If water quality is found to be acceptable by the Executive Director in consultation with the RWQCB staff based on a comparison with in-stream aquatic life water quality standards, and any other applicable receiving water quality standards as determined by the SWRCB or RWQCB, monitoring shall be terminated at the end of the 2 year period. If a particular pollutant is found in concentrations considered unacceptable by the RWQCB due to applicable water quality standards including, but not limited to, any applicable standards in the California Toxics Rule and the California Ocean Plan, the applicant shall conduct an assessment of the potential sources of the pollutant and potential remedies. If it is determined based on this assessment that applicable water quality standards have not been

P.17

Conditions From NOI Dated 12/15/00	Revised Conditions
effects of stormwater and non-stormwater runoff from the proposed development on receiving waters and ecological resources associated with the inland streams in Muddy Canyon and Los Trancos Canyon, and ocean waters in Crystal Cove.	effects of stormwater and non-stormwater runoff from the proposed development on receiving waters and ecological resources associated with the inland streams in Muddy Canyon and Los Trancos Canyon, and ocean waters in Crystal Cove.
<p>B. The <i>Water Quality and Marine Ecological Monitoring Plan for the Crystal Cove Development Project</i> shall include the following components:</p> <p>1) A Quality Assurance/Quality Control Plan that includes reporting limits for the constituents shown in the following section C1-7 that are below the Water Quality Objectives (WQOs) that have been identified by the RWQCB, where detection of such limits is reasonably attainable through standard practice and methods. If no WQOs are available then the reporting limits should be below acute and chronic toxicity levels for the test species indicated in Section C8-9 below where reasonably feasible.</p>	<p>B. The <i>Water Quality and Marine Ecological Monitoring Plan for the Crystal Cove Development Project</i> shall include the following components:</p> <p>1) A Quality Assurance/Quality Control Plan that includes reporting limits for the constituents shown in the following section C1-7 that are below the Water Quality Objectives (WQOs) that have been identified by the RWQCB, where detection of such limits is reasonably attainable through standard practice and methods. If no WQOs are available, then the reporting limits should be below acute and chronic toxicity levels for the test species indicated in Section C8-9 below where reasonably feasible.</p>
<p>2) An accurate and legible map of the proposed sampling locations as follows: identify four monitoring stations each in Muddy Canyon, Los Trancos Canyon and Emerald Canyon based on criteria established in subsections 17.B.(2)(1-4) below and; an additional monitoring station shall be established at the mouth of Los Trancos Canyon, as more fully described in subsection 17.B.(2)(5) below, resulting in a total of 5 monitoring stations required for the Los Trancos watershed exclusively. The following four sampling stations are intended to represent four locations within each respective watershed: 1) upstream from significant development or future development, 2) near the mouth of the watershed, but above Pacific Coast Highway, 3) in the surf zone adjacent to the mouth of the watershed, and 4) beyond the surf zone where the water is 20 feet deep at Mean Lower Low Water. Exclusive to the Los Trancos watershed, an additional monitoring location recognized and identified herein as a fifth station shall be established as follows: 5) on the seaward side of Pacific Coast Highway, at the mouth of the watershed, directly downstream of the auto bridge in the Crystal Cove Historic District, at a point which will allow sampling of discharge from</p>	<p>2) An accurate and legible map of the proposed sampling locations as follows: identify four monitoring stations each in Muddy Canyon, Los Trancos Canyon and Emerald Canyon based on criteria established in subsections <u>17.B.(2)(1-3)</u> 17.B.(2)(1-4) below. and; an additional monitoring station shall be established at the mouth of Los Trancos Canyon, as more fully described in subsection 17.B.(2)(5) below, resulting in a total of 4-5 monitoring stations required for the Los Trancos watershed exclusively. The following four sampling stations are intended to represent four locations within each respective watershed: 1) upstream from significant development or future development, 2) near the mouth of the watershed, but above Pacific Coast Highway <u>(in Los Trancos Canyon, at a point which will allow sampling of discharge from the 48" pipe)</u>, 3) in the surf zone adjacent to the mouth of the watershed, and 4) beyond the surf zone where the water is 20 feet deep at Mean Lower Low Water. Exclusive to the Los Trancos watershed, an additional monitoring location recognized and identified herein as a fifth station shall be established as follows: 5) on the seaward side of Pacific Coast Highway, at the mouth of the watershed, directly downstream of</p>

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Conditions From NOI Dated 12/15/00	Revised Conditions
<p>Freshwater hardness, Salinity, Standard observations of water clarity, color, degree of turbidity, and debris.</p> <p>3. SAMPLING AND ANALYSIS FOR TRACE (HEAVY) METALS: Full sampling at all stations for the 7 trace metals cadmium, chromium, copper, lead, nickel, silver, and zinc in both their total and dissolved forms.</p> <p>4. SAMPLING AND ANALYSIS FOR PESTICIDES: Full sampling at all stations for 26 organophosphorus pesticide compounds, including chlorpyrifos, diazinon, malathion, and parathion.</p> <p>5. SAMPLING AND ANALYSIS FOR NUTRIENT CHEMICALS: Full sampling at all stations for Nitrate + nitrite, Total Kjeldahl nitrogen, Total phosphorus, Dissolved phosphorus.</p> <p>6. SAMPLING AND ANALYSIS FOR PETROCHEMICALS: Total recoverable oil and grease at all stations.</p> <p>7. SAMPLING AND ANALYSIS FOR DRY-WEATHER RUNOFF: Sampling once per month in each watershed exhibiting such runoff. All of the above described microbiological, physical and chemical constituents analyzed.</p> <p>8. TOXICITY BIOASSAYS FOR STORM RUNOFF: Acute (48 – 96 hr) toxicity testing using initial runoff water to assess its effects on a freshwater daphniid crustacean indicator species and a marine mysid crustacean indicator species. Testing conducted with water sampled during three representative storm events.</p> <p>9. TOXICITY BIOASSAYS FOR DRY-WEATHER RUNOFF:</p>	<p>Freshwater hardness, Salinity, Standard observations of water clarity, color, degree of turbidity, and debris.</p> <p>3. SAMPLING AND ANALYSIS FOR TRACE (HEAVY) METALS: Full sampling at all stations for the 7 trace metals cadmium, chromium, copper, lead, nickel, silver, and zinc in both their total and dissolved forms.</p> <p>4. SAMPLING AND ANALYSIS FOR PESTICIDES: Full sampling at all stations for 26 organophosphorus pesticide compounds, including chlorpyrifos, diazinon, malathion, and parathion.</p> <p>5. SAMPLING AND ANALYSIS FOR NUTRIENT CHEMICALS: Full sampling at all stations for Nitrate + nitrite, Total Kjeldahl nitrogen, Total phosphorus, Dissolved phosphorus.</p> <p>6. SAMPLING AND ANALYSIS FOR PETROCHEMICALS: Total recoverable oil and grease at all stations.</p> <p>7. SAMPLING AND ANALYSIS FOR DRY-WEATHER RUNOFF: Sampling once per month in each watershed exhibiting such runoff. All of the above described microbiological, physical and chemical constituents analyzed.</p> <p>8. TOXICITY BIOASSAYS FOR STORM RUNOFF: Acute (48 – 96 hr) toxicity testing using initial runoff water to assess its effects on a freshwater daphniid crustacean indicator species and a marine mysid crustacean indicator species. Testing conducted with water sampled during three representative storm events.</p> <p>9. TOXICITY BIOASSAYS FOR DRY-WEATHER RUNOFF:</p>

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Conditions From NOI Dated 12/15/00	Revised Conditions
D. Quarterly reports containing data, and analytical assessment of data in comparison to any applicable water quality objectives and other criterion as specified herein, shall be submitted to the Coastal Commission, upon completion of each report.	D. Quarterly reports containing data, and analytical assessment of data in comparison to any applicable water quality objectives and other criterion as specified herein, shall be submitted to the Coastal Commission, upon completion of each report.
E. The monitoring plan shall be approved based on consistency with the specifications herein. The monitoring plan conditionally required and approved by this coastal development permit shall be conducted for a period of 5 years. The date of December 15, 1999 shall be considered the commencement date for monitoring for the proposed development, for purposes of calculating the duration required for conducting monitoring in accordance with the plan specified above, and approved under this coastal development permit.	E. The monitoring plan shall be approved based on consistency with the specifications herein. The monitoring plan conditionally required and approved by this coastal development permit shall be conducted for a period of 5 years. The date of December 15, 1999 shall be considered the commencement date for monitoring for the proposed development, for purposes of calculating the duration required for conducting monitoring in accordance with the plan specified above, and approved under this coastal development permit.
F. The permittee shall undertake development in accordance with the approved final plans. Any proposed changes to the approved final plans shall be reported to the Executive Director. No changes to the approved final plans shall occur without a Commission amendment to this coastal development permit unless the Executive Director determines that no amendment is required.	F. The permittee shall undertake development in accordance with the approved final plans. Any proposed changes to the approved final plans shall be reported to the Executive Director. No changes to the approved final plans shall occur without a Commission-approved amendment to this coastal development permit unless the Executive Director determines that no amendment is required.
<p>18. <u>REVISED MASTER DRAINAGE AND WATER QUALITY ENHANCEMENT PROGRAM</u></p> <p>A. PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall submit a revised version of the proposed <i>Master Drainage and Water Quality Enhancement Program (MDWQEP) for the Newport Coast Planned Community</i> (6 sheets) Volume I and II, dated 7/24/00. The plan shall be revised based on the following and shall demonstrate conformance with the following requirements, both narratively and through graphic illustration:</p> <ol style="list-style-type: none"> 1. All inconsistencies between the proposed <i>Master Drainage and Water Quality Enhancement Program (MDWQEP) for the Newport Coast Planned Community</i> (6 sheets) Volume I and II, dated 7/24/00 and the program described and evaluated in the <i>Newport Coast Planned Community, Crystal Cove Stormwater Quality Evaluation Report</i> dated 6/14/00 shall be resolved in a 	<p>18. <u>REVISED MASTER DRAINAGE AND WATER QUALITY ENHANCEMENT PROGRAM</u></p> <p>A. PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall submit a revised version of the proposed <i>Master Drainage and Water Quality Enhancement Program (MDWQEP) for the Newport Coast Planned Community</i> (6 sheets) Volume I and II, dated January 18, 2001. 7/24/00. The plan shall be revised based on the following and shall demonstrate conformance with the following requirements, both narratively and through graphic illustration:</p> <ol style="list-style-type: none"> 1) All inconsistencies between the proposed <i>Master Drainage and Water Quality Enhancement Program (MDWQEP) for the Newport Coast Planned Community</i> (6 sheets) Volumes I and II, dated January 18, 2001 7/24/00 and the program described and evaluated in the <i>Newport Coast Planned Community, Crystal</i>

Conditions From NOI Dated 12/15/00	Revised Conditions
<p>of the pump wells, situated at a point capable of detecting and metering dry-weather flow discharging onto the beach and in Los Trancos and Muddy Creek as a result of the failure or otherwise inadequate operation of the low-flow diversion system. Upon installation, these devices shall be capable of detecting discharge of flow during the dry-weather season (April 15th through October 31st) onto the beach and into the Creeks (Muddy and Los Trancos), at a rate of no less than 15 gallons per minute (gpm) and shall provide estimates of flow rates that exceed 15 gpm. The devices must be installed and functional prior to the first dry-season (April 15th through October 31st) in which the dry-weather diversion system required by Special Condition 15 is in operation.</p>	<p>downstream of the pump wells, situated at a point capable of detecting and metering dry-weather flow discharging onto the beach and in Los Trancos and Muddy Creek as a result of the failure or otherwise inadequate operation of the low-flow diversion system. Upon installation, these devices shall be capable of detecting discharge of flow during the dry-weather season (April 15th through October 31st) onto the beach and into the creeks (Muddy and Los Trancos), at a rate of no less than 15 gallons per minute (gpm) and shall provide estimates of flow rates that exceed 15 gpm. The devices must be installed and functional prior to the first dry-season (April 15 through October 31st) in which the dry-weather diversion system required by Special Condition 15 is in operation.</p>
<p>C. Monitoring & Reporting Requirements</p> <ol style="list-style-type: none"> 1. The flow meters shall be engineered to transmit a flow detection signal to the applicant/or successor in interest when flow above 15 gpm is detected. 2. The applicant or successor in interest must have in place a system for monitoring or receiving transmission on a daily basis. The applicant or successor in interest shall be responsible for recording any incidents of flow detection above 15 gpm in a log book with the date, time, location, estimate of flow rate in gallons per minute and duration of incident. 3. The applicant or successor in interest is responsible for conducting a site visit during the dry weather season (April 15th – October 31st), for the purposes of investigating flow (if any) which may be discharging on to the beach directly, or by way of the Creeks, at a rate less than 15 gpm. If flow is visually or otherwise observed, an investigation shall be undertaken to identify the source of the flow. If the investigation reveals the source of the flow to be nuisance runoff not attributable to a rainfall event from any of the Planning Areas cited in 19(B), the applicant shall proceed with actions outlined in 19(C)(4)(1). Site visits shall be recorded in a logbook and include the information noted in 19(C)(2). 	<p>C. Monitoring and Reporting Requirements</p> <ol style="list-style-type: none"> 1) The flow meters shall be engineered to transmit a flow detection signal to the applicant/or successor in interest when flow above 15 gpm is detected. 2) The applicant or successor in interest must have in place a system for monitoring or receiving transmission on a daily basis. The applicant or successor in interest shall be responsible for recording any incidents of flow detection above 15 gpm in a log book with the date, time, location, estimate of flow rate in gallons per minute and duration of incident. 3) The applicant or successor in interest is responsible for conducting a site visit during the dry weather season (April 15th – October 31st), for the purposes of investigating flow (if any) which may be discharging to on to the beach directly, or by way of the Creeks, at a rate less than 15 gpm. If flow is visually or otherwise observed, an investigation shall be undertaken to identify the source of the flow. If the investigation reveals the source of the flow to be nuisance runoff not attributable to a rainfall event from any of the Planning Areas cited in 19(B), the applicant shall proceed with actions outlined in 19(C)(4)(1). Site visits shall be recorded in a logbook and include the information noted in 19(C)(2).

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Conditions From NOI Dated 12/15/00	Revised Conditions
<p>D. PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant, Irvine Community Development Company, shall execute and record a deed restriction, in a form and content acceptable to the Executive Director, incorporating all of the above terms of this condition. The deed restriction shall include a legal description of the applicant's entire parcel. The deed restriction shall run with the land, binding all successors and assigns, and shall be recorded free of prior liens that the Executive Director determines may affect the enforceability of the restriction. This deed restriction shall not be removed or changed without a Commission amendment to this coastal development permit.</p>	<p>D. PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant, Irvine Community Development Company, shall execute and record a deed restriction, in a form and content acceptable to the Executive Director, incorporating all of the above terms of this condition. The deed restriction shall include a legal description of the applicant's entire parcel. The deed restriction shall run with the land, binding all successors and assigns, and shall be recorded free of prior liens that the Executive Director determines may affect the enforceability of the restriction. This deed restriction shall not be removed or changed without a Commission <u>approved</u> amendment to this coastal development permit.</p>

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ANDI CULBERTSON

PAGE 03/03

Ma. Teresa Henry
February 20, 2001
Page 2



Condition 16B - This change updates the document reference as previously explained.

Condition 16C(1) - Originally proposed by the applicant's consultant, flow weighted sampling downstream of the agricultural basin has now been determined to present a great safety risk due to the precipitous terrain, particularly in storm conditions when a person has to physically collect the sample. To address this danger, the consultant has suggested composited grab samples downstream of Basin #2. Immediately after the storm the samples are collected. This is more easily accomplished below Basin #2 than downstream of the agricultural reservoir, but this will depend on the type of storm.

Condition 17B(2) - These changes memorialize discussions we have had regarding the location of sampling for Condition 17 in light of the change in the project and the non-Appeal Area eliminating discharges through the 30" pipe (Appeal Area and non-Appeal Area), the 3' x 4' box culvert (Non-Appeal Area) and the 24" pipe (Non-Appeal Area). If there is no Irvine Company development flow through these facilities, there is no need to sample at certain locations.

Condition 17B(3) - Grammatical.

Condition 18 - Updated to current dates.

Condition 19 - These changes eliminate the flow metering and detection through the 3' x 4' culvert and the 30" pipe in view of the fact that a physical barrier will now exist between development flows and the upstream ends of the culverts. Not only will the storm drains themselves intercept these flows, but also the upstream ends will be bulk-headed to block the pipes/culvert. Therefore, it is a physical impossibility for flows to escape through the culverts (see letter dated February 7, 2001 from Richard Hunsaker to Teresa Henry).

This completes the explanation of the condition changes we propose at this time. If you have any further questions, please do not hesitate to contact Roberta Marshall of Irvine Community Development Company or myself.

Sincerely,

M. Andriette Culbertson
M. Andriette Culbertson
President

MAC/ld

Xc: Carrie Bluth
Roberta Marshall

Ex. 5 p. 29

Construction of Basin 7 and additional water quality features.

The rerouting of storm flows necessitated by the CDO caused the need to evaluate, in certain circumstances, flood control facilities serving the project. In this case, Basin 6, originally approved by the Commission on August 10, 2000, has been enlarged in capacity from 29 acre-feet to 49 acre-feet. A new basin, Basin 7, has replaced the vegetated swales along Coast Highway bordering Planning Area 14. The combination of these two basins has as one of its objectives the control of peak runoff rates in the post-development condition within the parameters set by Policy K.1 of the certified LCP.

However, the presence of Basin 7, and the enlargement of Basin 6, offered additional opportunities to augment water quality measures. While the water quality measures are not a part of this amendment application, The Irvine Company intends to incorporate the water quality advantages of these facilities in the revised Master Drainage and Water Quality Enhancement Program contemplated in Condition 18 of the Notice of Intent to Issue Permit for Coastal Development Permit No. A5-IRC-99-301. The principal water quality advantage of the new and enlarged basins and the rerouting is to allow first flush/40-hour detention treatment for approximately 95% of the developed portions of Planning Areas 4A, 4B, 12B, 3A, 3B & 14. In other words, the majority of the non-Appeal Area will also be a part of the first flush detention treatment initially proposed only for the Appeal Area.

Condition Changes

In connection with this amendment request, The Irvine Company is requesting changes in certain special conditions of approval attached to the granted CDP. Condition changes requested are either (1) necessitated by the revised plan (this applies to Exhibits C and D hereto) or (2) based on new information on the difficulty of access and maintenance of flow-weighted equipment (such as the changes reflected in Exhibit B).

Exhibit B reflects the original changes we requested in Condition 16, and Exhibit F reflects the new changes brought about by our discussions. In studying the means by which we conduct the testing during storms of the outflow of the existing agricultural reservoir, it has been determined that it may be too dangerous for personnel to hike down to the agricultural reservoir outflow point in storms. In addition, flow-weighted equipment must be maintained both before and immediately after a storm measurement, and the precipitous nature of the access to the agricultural reservoir will impede the ability to do this. As you recall, this agricultural reservoir has no access road, and the construction of such a road would result in significant effects to sensitive coastal resources. Therefore, we propose sampling downstream of Basin #2 and not the agricultural reservoir. We are aware that in making this change we will be unable to benefit from the effect of the wetland upstream of the agricultural berm. We also propose

Ex. 5 p. 31

Ms. Teresa Henry
December 18, 2000
Page 4

quality and drainage diversion measures. We stand ready to answer questions concerning this amendment application. As previously discussed, we will be providing technical support the week of December 18th in order to document the hydrologic, channel stability, and beach nourishment consequences of this action, in conformity with the policies of the Certified Local Coastal Program.

Please do not hesitate to call me if you have questions concerning this matter.

Sincerely,

Roberta Rand Marshall
Vice President, Land Development
Irvine Community Development Company

MAC/lld

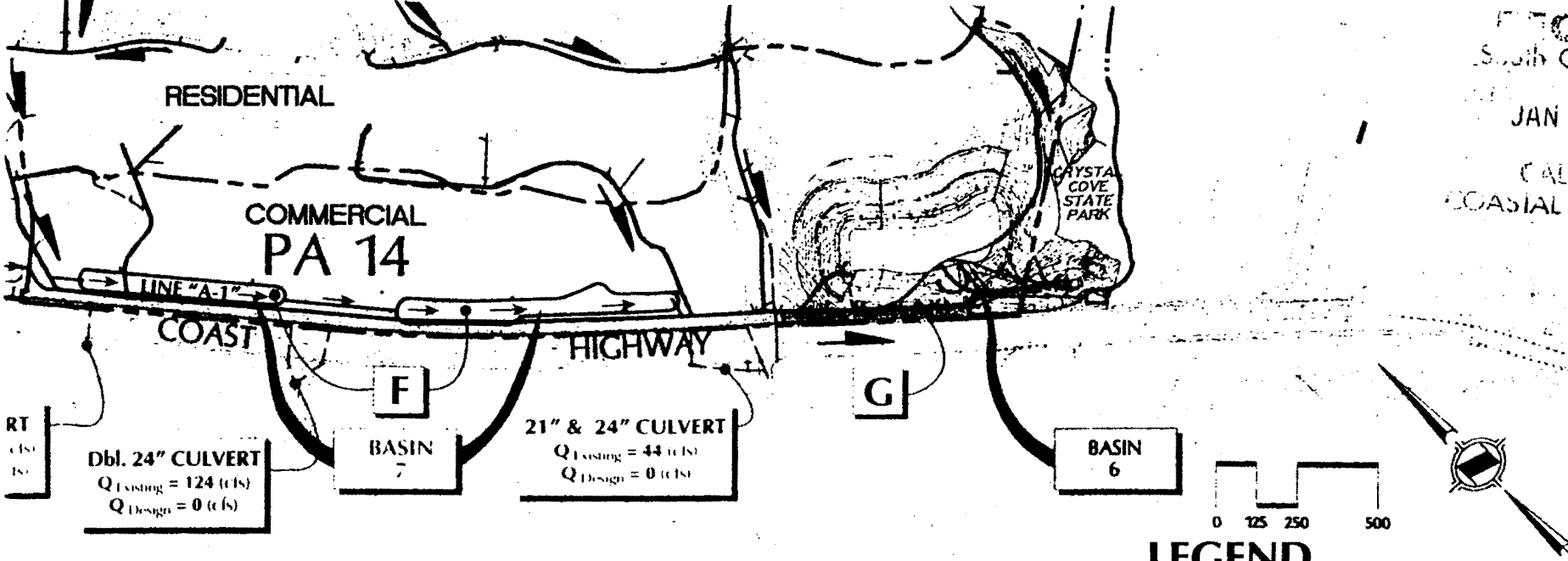
Enclosures:

- Exhibit A: Proposed engineering solution to eliminate storm flow discharge to all minor culverts under PCH and detain and filter the water quality flows. **Previously submitted**
- Exhibit B: Proposed amendment to Condition 16. **Previously submitted**
- Exhibit C: Proposed amendment to Condition 17. **Previously submitted**
- Exhibit D: Proposed amendment to Condition 19. **Previously submitted**
- Exhibit E: Hydrology Addendum. **Previously submitted**
- Exhibit F: Revised Comparison Table of Conditions

Ex-5 p. 33 ~~34~~ ~~35~~

JAN 24 2001

CALIFORNIA
COASTAL COMMISSION



LEGEND

- Drainage Area Tributary to Basins 6 or (3, 7 & 6) or (7 & 6)
- Water Quality Flows Tributary to Basin 6
- Storm Flows Tributary to Basin 4 & 5
- Drainage Area Tributary to Basin 5
- Water Quality Flows Tributary to Basin 6
- Storm Flows Tributary to Los Trancos Canyon
- Proposed Changes to Storm Drain System
- Storm Drain System as Submitted to California Coastal Commission 8-2000
- Appeal Boundary
- Planning Area Boundary
- Storm Drain Abandoned in Place
- Low Flow Diversion Pumps
- Area Drain

ST LANDSCAPE AREA FOR 1st FLUSH DETENTION & 100-yr PARALLEL CHANNEL
us will add 1st flush storage for all of the redirected drainage areas & add additional
ow capacity to convey these flows to Muddy Canyon.

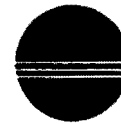
STARGE BASIN 6 TO DETAIN 1st FLUSH & REDUCE PEAK FLOWS IN MUDDY CANYON.
us will add 1st flush 40 hr detention for all flows tributary to Muddy Canyon. & retard peak flows tributary
Muddy Canyon.

IRECT FIRST FLUSH FLOWS FROM LINES "R" & "S" INTO LINE "T" FOR CONVEYANCE TO BASIN 6.
us will allow that portion of Planning Area 4A known as Tributary Area I-1 to be directed to Basin 6
r 40 hour detention.

MINATE STORM FLOW DISCHARGE TO ALL & FILTER THE WATER QUALITY FLOWS

<p>MISSION</p>	<p>PREPARED BY: HUNSAKER & ASSOCIATES IRVINE, INC. PLANNING • ENGINEERING • SURVEYING Three Hughes • Irvine, CA 92618 • P.O. Box 581100 • IR 92695-8100/09</p>	<p>PREPARED FOR: IRVINE COMMUNITY DEVELOPMENT COMPANY A Division of The Irvine Company 550 Newport Center Drive Newport Beach, CA 92660 Telephone: (949) 720-2000</p>	<p>CRYSTAL COVE</p>
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EXHIBIT 6
P2



Tettermer & Associates
consulting engineers

January 8, 2001

RECEIVED
South Coast Region

JAN 9 2001

CALIFORNIA
COASTAL COMMISSION

Ms. Roberta Marshall
The Irvine Company
550 Newport Center Drive
Newport Beach, CA 92660

SUBJECT: Additions to the Addendum to the "Newport Coast Planned Community, Revised Run-off Management Plan, Hydrologic Analysis Report," dated April 2000. Refer to Coastal Development Permit No. A5-IRC-99-301

Dear Ms. Marshall:

This letter presents additional information and clarifying statements that should be considered a part of the subject addendum transmitted to you by letter dated December 6, 2000. The items and clarifications are described individually below.

Statement Concerning Validity of Comparing Pre- and Post-Development Discharges into Los Trancos and Muddy Creeks at Side Drainage Outlets

In the opinion of the Run-off Management Plan authors, the comparison of pre- and post-developed peak discharges at the outlet of the 48-inch RCP into Los Trancos Creek and at the outlet from the energy dissipater into Muddy Creek offers no meaningful information in assessing streambed stability (degradation or aggradation). The reason for this opinion is that the two outlet locations are very close to the culvert headwalls (approximately 10-feet in Los Trancos Creek and approximately 50-feet in Muddy Creek measured from their respective intersection points with the main creeks) and as such, are totally within the ponding areas which will develop behind the culverts for most flood events. These points are also within the areas of the two main creeks that have been stabilized with either concrete or rip rap materials. Consequently, riverine streamflow characteristics cannot occur for most floods at their peak rates because of the ponding, and for the smaller flood events for which significant ponding will not occur, the streambed stability between the discharge points and the culvert headwalls has been assured by the stabilization measures already implemented. The authors believe the most meaningful locations at which comparisons should be made to assess streambed stability in the main creeks are downstream of the two culverts, and upstream of the influence of ponding or backwater behind the culverts, (i.e., Point E and the other upstream nodal points in Muddy Creek, and at Point 17), and the other upstream nodal points in Los Trancos Creek.

*A Division of
The Keith Companies*

EXHIBIT 8

2955 Redhill Avenue
Costa Mesa
California 92626-5923

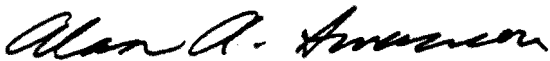
T: 714.434.9080
F: 714.434.6120
www.keithco.com

Ms. Roberta Marshall
January 8, 2001
Page 3

- Pre-developed and post-developed, stage-storage-discharge characteristics for the existing detention basin L3. This data supplements that included in the Amended Appendix J.
- Los Trancos Watershed AES computations for the 2-, 5-, 10-, and 25-year Expected Value storm return periods. These computations replace those included in the Amended Appendix K.

Should you have any questions concerning this addendum to the RMP, please feel free to contact me.

Sincerely,

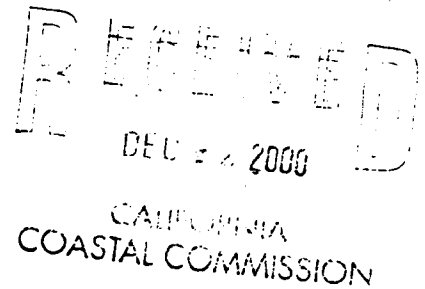


Alan A. Swanson
Senior Vice President

Attachments



Tettermer & Associates
consulting engineers



DATE: December 6, 2000
TO: Mr. Dan Hedigan
FROM: Alan A. Swanson
SUBJECT: Addendum to the "Newport Coast Planned Community,
Revised Run-off Management Plan, Hydrologic Analysis Report,"
dated April 2000

Enclosed are three copies of the subject addendum, one copy for your files, and one copy each for Roberta Marshall and Andi Culbertson of Culbertson, Adam & Associates. Three additional copies of the addendum are being mailed directly to Dr. Doug Inman, Dr. Scott Jenkins, and Dr. Howard Chang.

Please be advised that the attached addendum supercedes the partial addendum forwarded to you under my cover memorandum of November 15, 2000.

AAS/jtd

A Division of
The Keith Companies

2955 Redhill Avenue
Costa Mesa
California 92626-5923

T: 714.434.9080
F: 714.434.6120
www.keithco.com

EXHIBIT 8
P. 5

criteria is required by the County for design of flood control facilities. The flood discharges used to size the facilities in the RMP were computed using the High Confidence criteria for only the 100-year flood event. To prepare the sedimentation analyses, Expected Value Exceedance Criteria hydrographs were computed for pre- and post-developed conditions and provided to Dr. Chang for sediment routing purposes. These hydrographs were subsequently used to compare pre- and post-developed discharges downstream of Los Trancos and Muddy Canyons for the 2-, 5-, 10-, and 25-year peak flows to determine if the LCP storm discharge policy had been met.

To facilitate the review of the RMP revisions, please refer to the attached revised Figure 2 and Exhibit B for the location of drainage facility modifications.

1. Identification of Additional PCH Culverts That Will Not Receive Project Runoff

The three additional PCH culverts that will not receive project runoff are as follows:

- 30-inch Reinforced Concrete Pipe (RCP) located south of the Los Trancos 9-foot x 10-foot arch culvert within Drainage Area A.
- 5-foot x 4-foot Arch Culvert, which reduces to a 3-foot x 4-foot Reinforced Concrete Box (RCB), located within Drainage Area B(2)r and south of the 30 inch culvert mentioned above. This facility is referred to as the 3-foot x 4-foot RCB for the remainder of this addendum.
- 24-inch RCP located within Drainage Area C and south of the 3-foot x 4-foot RCB mentioned above.

With the deletion of flow through these three culverts, all project storm discharge will flow through the Los Trancos Canyon and Muddy Canyon PCH culverts.

Storm runoff from the PCH pavement that is tributary to these culverts will not be effected by the Crystal Cove project. Small amount of runoff from the PCH pavement drains to Los Trancos and Muddy Canyons upstream of the PCH culverts. This runoff is not project related and will not change as a result of project development. Consequently, this runoff has not been incorporated in the pre- and post-developed peak discharges in the two drainage courses upstream of PCH.

2. Description of Drainage Area Revisions

Drainage Area A

The revisions to Drainage Area A include the following:

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Drainage Area Dr and Er

Drainage Areas Dr and Er have been revised to include Basin 7, which has been added with one portion of the basin in each drainage area. The basin will act as a water quality basin that will store 6 acre-feet, with 4.6 acre-feet allocated to store first-flush storm runoff. The remaining volume in the basin, approximately 1.4 acre-feet, will provide additional storm peak reduction prior to discharging into Basin 6. Storm flows will discharge into Basin 7 only when the hydraulic capacity of the existing underground diversion pipeline is exceeded. Since the volume within Basin 7 allocated to flood peak reduction is quite small, the peak attenuation benefits will be minimal. No other revisions have been made to the two drainage areas.

No changes to pages 25 and 26 of the RMP are necessary.

Drainage Area M5r

Drainage Area M5r has been revised to reflect the increased size of Basin 6. The storage capacity of the basin was increased and the configuration of the outlets and spillway have been changed in order to reduce the peak 2-year flow to an amount that does not exceed the pre-developed peak 2-year flow by more than 10 percent.

Attached are pages 27 and 28 that have been revised to reflect revisions to Basin 6.

Muddy Canyon

The Muddy Canyon watershed had not been changed as a result of this addendum. The ponding conditions upstream of the PCH culvert have been changed slightly as a result of the diversion of flows from the 3-foot x 4-foot RCB and the 24- inch RCP PCH culverts to the north. Revisions to Basin 6 and the resulting outflows from the basin have created the change in the ponding condition upstream of the culvert.

Attached are pages 29 and 30 that have been revised to reflect the changes at Nodal Point F downstream of the PCH culvert.

flood events by more than 10 percent. The studies also show similar results for both watersheds downstream of PCH."

Revisions to "Introduction", page 5

Add bullets as follows to listing on page 5:

- "Drainage Area A has been increased in size slightly to reflect area tributary to the 30-inch RCP culvert. Flow to this culvert will be diverted to Los Trancos Canyon through the existing 48-inch RCP and a new parallel conduit, if needed.
- Approximately 5.5 cfs from the outflow from Basin 4 will be diverted to Basin 6 to assure that the 2-year peak discharge in Los Trancos Creek downstream of PCH will not exceed the pre-developed peak rate by more than 10 percent.
- Drainage Area B has been slightly decreased in size to reflect the slight increase in the size of the adjacent Drainage Area A.
- Basin 7 has been included within Drainage Areas Dr and Er adjacent to PCH to provide storage for the first-flush storm runoff and flood peak attenuation for flows diverted from Drainage Areas A, B(1)r, and B(2)r and C, which may exceed the capacity of the existing diversion pipeline. Basin 7 will serve the dual purpose of providing water quality benefits and additional, but limited, flood peak reduction benefits."

Revise paragraph 3, page 5, as follows:

"The primary objective of the RMP is to conform to the LCP. In accordance with the LCP, the result of the RMP is to assure that the post-developed peak discharges for the 2-, 5-, 10-, 25-, and 100-year storms will not exceed the pre-developed peak discharges downstream of PCH by more than 10 percent. It is also an objective of the revised plan that the post-developed peak discharges for the various storm frequencies along the entire reaches of both Los Trancos and Muddy Canyons will not exceed the pre-developed rates by more than 10 percent."

Revisions to "Discussion of Hydrologic Analysis" page 10

Paragraph 1b, Page 12. Add a fourth bullet as follows:

- "The flow tributary to the 30-inch RCP has been diverted northerly to Los Trancos Canyon upstream of the PCH culvert. This diversion will eliminate any project storm runoff from reaching the lower reaches of Los Trancos Creek to the ocean through this culvert."

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In the post-developed condition, Watershed Er is 23.5 acres. All runoff from Watershed Er will be directed to Basin 7 and on to Basin 6 in Watershed M5r by way of the existing diversion pipeline."

Paragraph 9b, page 18. Revise the last three sentences of this paragraph as follows:

Prior to entering Basin 6, the flow from M5r will combine with the diverted flows from watersheds A, B(1)r, B(2)r, C, Dr, and Er and discharge into Basin 6. The reduced outflow from the basin will discharge into the diversion pipeline and/or through the basin spillway into Muddy Creek just upstream of the Muddy Canyon PCH culvert. Refer to Figure 6b to review the details of Basin 6."

Revisions to "Summary of Hydrologic and Flood Routing Study Results", page 20

Paragraphs 2, 3, and 4 on Page 20 should be replaced with the following:

"For the purpose of preparing the Sedimentation Engineering study (prepared by Dr. Howard Chang), "expected value" hydrographs for the 2-, 5-, 10-, 25-, and 100-year return period storms have been computed using the Orange County Public Facilities and Resources Department methodology. The hydrographs were computed for the pre- and post-developed watershed conditions for all drainage areas within the project area. The expected value hydrographs produce runoff rates that represent the expected or average rates of runoff for a particular return period of interest. Statistically, 50 percent of the storm runoff rates that occur would exceed the predicted expected value rate, and 50 percent would be less than the predicted expected value rate. The computed runoff rates, represented by the expected value hydrographs, will be lower than the "high confidence" runoff rates since the high confidence rates will statistically be exceeded only 15 percent of the time rather than 50 percent of the time. As stated previously, the Runoff Management Plan for the Newport Coast Planned Community is based on the high confidence runoff rates, which is a requirement of the County of Orange for development submittals.

The computed expected value hydrographs have been provided to Dr. Chang for his use in preparing the sedimentation engineering study for Los Trancos and Muddy Canyons. The pre- and post-developed hydrographs for the 2-, 5-, 10-, and 25-year storms have also been used to determine the change in peak flow rates downstream of the Los Trancos and Muddy Canyon PCH culverts for these frequency storms. These pre- and post-development peak discharges have been compared for the purpose of assuring compliance with the LCP discharge Policy No. 1. Since the expected value exceedance criteria is not used for facility design, the detailed results have not been summarized in

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Revisions to Figures and Exhibits

The following figures and exhibits have been revised or added and are attached for replacement in the RMP.

Figure 2
Figure 5
Figure 6A
Figure 6B
Exhibit B

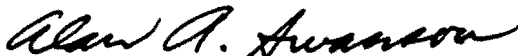
Revisions to Appendices

The following items incorporated within designated appendices have been revised. The specific items are attached for replacement in the RMP.

Appendix A: Exhibit B (Revised)
Appendix B: Los Trancos Canyon AES calculations
Appendix C: Drainage Area A AES calculations
Appendix D: Drainage Area B(2)r AES calculations
Appendix I: Muddy Canyon AES calculations
Appendix J: Physical Data for Detention Basins
Appendix K: Expected Value Pre- and Post-Developed AES Calculations

Should you have any questions concerning this addendum to the RMP, please feel free to contact me.

Sincerely,



Alan A. Swanson
Senior Vice President

AAS/jk

Enclosure

the existing and post-developed conditions, and also the natural condition. The natural condition no longer exists for those portions of the project currently under construction, but an analysis of the natural or pre-construction condition has been performed to address LCP concerns. The runoff parameters developed to compute the discharges have been updated to reflect the most current information (land uses and routing of storm runoff) within proposed development areas. The existing condition runoff parameters for the natural areas have also been recomputed to assure that comparison of the pre- and post-developed discharges will be consistent and can be reliably compared.

The purpose of this report is to present the methodology used in computing the runoff rates and to document the results of the hydrologic computations.

Summary of Study Results

A comparison of the pre- and post-developed discharges for the 100-year design storm is shown on Figure 2. Detailed information on the comparison of flow volumes and durations for the points of interest can be reviewed by turning to Section III B of this report.

The results of hydrologic studies indicate that, with the use of the six detention basins, the post-developed peak discharge rates within the Los Trancos and Muddy Canyons are less than the pre-developed rates. The studies also show that the discharge rates downstream of PCH at the individual culvert discharge locations are less than the pre-developed rates.

Downstream of the detention basins the flow volumes and durations have generally increased from the pre-developed conditions. This result is predictable. It has occurred because of the effect of increases in impervious area due to development, because of the adjustment in the areas of the existing watersheds, and because of detention basins which have been constructed and are proposed to reduce post-developed discharges to less than the pre-developed rates.

3. Watershed A

	Area and Discharge Data	
	Pre-developed	Post-developed*
Watershed Area	87 acres	129 acres
Peak Discharges at Specific Locations		
• U/S of Splitter JS at PCH	176 cfs	186 cfs
• At Outlet of 30" RCP in Crystal Cove State Park	92 cfs	Nil
• At Outlet of 48" RCP in Los Trancos Cyn U/S of PCH culvert	84 cfs	229 cfs
Storm Flow Volumes at Specific Locations		
• U/S of Splitter JS at PCH	24.4 ac-ft	29 ac-ft
• At Outlet of 30" RCP in Crystal Cove State Park	25.2 ac-ft	Nil
• At Outlet of 48" RCP in Los Trancos Cyn U/S of PCH culvert	2.7 ac-ft	34 ac-ft
Storm Flow Durations at Specific Locations		
• U/S of Splitter JS at PCH	21 hrs	24 hrs
• At Outlet of 30" RCP in Crystal Cove State Park	24 hrs	Nil
• At Outlet of 48" RCP in Los Trancos Cyn U/S of PCH culvert	16.8 hrs	30 hrs

* The increased flow volumes and durations result primarily from the increase in watershed area. Please refer to Section III.A.3.b of this report.

5. Watershed C

	Area and Discharge Data	
	Pre-developed	Post-developed*
Watershed Area	10.3 acres	4.9 acres
Peak Discharge Data at Specific Locations		
▪ At the 24" RCP U/S of PCH	25 cfs	21 cfs

Storm Flow Volumes at Specific Locations		
• At the 24" RCP U/S of PCH	3 ac-ft	0.9 ac-ft
Storm Flow Durations at Specific Locations		
• At the 24" RCP U/S of PCH	20+ hrs	18+ hrs

* The reduction in peak flow rate, volume and duration is primarily due to the reduction in watershed area. Please refer to Section III.A.5.b of this report.

7. Watershed E

	Area and Discharge Data	
	Pre-developed	Post-developed*
Watershed Area	19 acres	24 acres
Peak Discharges at Specific Locations		
• At Combined 21" and 24" RCPs U/S of PCH	44 cfs	Nil
Storm Flow Volumes at Specific Locations		
• At Combined 21" and 24" RCPs U/S of PCH	4 ac-ft	Nil
Storm Flow Durations at Specific Locations		
• At Combined 21" and 24" RCPs U/S of PCH	20+ hrs	Nil

* Please see the explanatory note for Watershed D, and refer to Section III.A.7.b of this report.

Storm Flow Volumes at Specific Locations		
<ul style="list-style-type: none"> Prior to Confluence of M5(1) with Muddy Creek at PCH Culvert 	10 ac-ft	
<ul style="list-style-type: none"> Prior to Confluence of M5(2) with Muddy Creek 	17 ac-ft	
<ul style="list-style-type: none"> D/S of Basin 6 Prior to Confluence of M5r and Muddy Creek and PCH Culvert [Flow volume includes the effect of diverting B(1)r, Dr and Er] 		152 ac-ft
Storm Flow Durations at Specific Locations		
<ul style="list-style-type: none"> Prior to Confluence of M5(1) with Muddy Creek at PCH Culvert 	21+ hrs	
<ul style="list-style-type: none"> Prior to Confluence of M5(2) with Muddy Creek 	20+ hrs	
<ul style="list-style-type: none"> D/S of Basin 6 Prior to Confluence of M5r and Muddy Creek at PCH Culvert [Flow duration includes the effect of diverting B(1)r, Dr and Er] 		27 hr

**Storm Flow Volume Data at
Specific Locations**

• Pt. A (Same as above)	22 ac-ft	59 ac-ft
• Pt. B (Same as above)	54 ac-ft	81 ac-ft
• Pt. C (Same as above)	262 ac-ft	246 ac-ft
• Pt. D (Same as above)	290 ac-ft	294 ac-ft
• Pt. E (Same as above)	399 ac-ft	357 ac-ft
• Pt. F (Same as above)	399 ac-ft	508 ac-ft

**Storm Flow Durations at Specific
Locations**

• Pt. A (Same as above)	19+ hrs	40 hrs
• Pt. B (Same as above)	24 hrs	40 hrs
• Pt. C (Same as above)	27 hrs	40 hrs
• Pt. D (Same as above)	27 hrs	40 hrs
• Pt. E (Same as above)	28 hrs	40 hrs
• Pt. F (Same as above)	28 hrs	73 hrs

* Does not include the area of Drainage Area M5r.

** The changes in the peak discharges and flow volumes at the various points along Muddy Creek reflect the effects of development in Phase IV-4, reduction of the area of Drainage Area M2, the development of the Recreation Center, the elimination of the side drainage from Drainage Areas M5(1) and M5(2), the diversion of flows from Drainage Areas B(1)r, Dr, Er and the introduction of the M5r peak reduced flow into Muddy Creek just upstream of the PCH culvert. Please refer to Section III.A.10.b of this report.

Ex. 8 p. 27

This is an addendum to the 31 May 2000 draft of the report Jenkins and Wasyl (2000) that was peer reviewed and submitted to the California Coastal Commission by The Irvine Company at the August 2000 hearing in Huntington Beach. This addendum has been prompted by minor changes to the Runoff Management Plan (RMP) of the Newport Coast Planned Community (Crystal Cove Development) that have occurred following the granting of permits at the August 2000 hearing. These changes to the RMP are detailed in submissions by Tettemer and Associates dated January 2001, and the resulting effects on coarse sediment yield from Muddy Canyon and Los Trancos Creeks are evaluated in a study by Howard H. Chang Consultants dated 7 January 2001. Small changes in the yield of coarse sediments have been found as a result of the January 2001 revision of the RMP. This addendum considers how those changes effect the beach stability analysis in Jenkins and Wasyl, 2000.

The revised estimates of coarse sediment yield due to RMP revisions will alter the volume estimates of coarse sediment delivery to the beach reported in Tables 1 and 2 of Jenkins and Wasyl (2000). These tables will now report average annual volume fluxes in m^3/yr to Crystal Cove Beach as follows:

EX. 9 p. 2

Inspection of the values in the revised Tables 1 and 2 indicate that the average annual post-project impact on the yield of beach grade sand (0.18-0.80 mm) in the presence of RMP revisions will be reduced by $0.1 \text{ m}^3/\text{yr}$. This is a reduction in the incremental loss of $14 \text{ m}^3/\text{yr}$ already accommodated by the permit conditions adopted at the August 2000 hearing. With the revised RMP an additional incremental loss of $0.2 \text{ m}^3/\text{yr}$ of beach sand occurs in the yield of Muddy Canyon Creek, but the post-project sand yield of Los Trancos Creek is increased by $0.3 \text{ m}^3/\text{yr}$ to offset this loss. The RMP revisions will increase the yield of beach grade sand and all grades of beach substrate (0.62 mm - 32.0 mm) from watershed sources by 0.8% relative to the plan approved at the August 2000 hearing.

The average annual changes due to RMP revisions in Tables 1 and 2 exert a proportionate effect on the littoral sediment budget during dry and wet climate periods. This leads to changes in the watershed inputs computed in Tables 5 and 6 of Jenkins and Wasyl (2000). RMP revisions will alter the sediment budget inputs from watershed sources during the dry period (1945-77) and the wet period (1978-98) to read as shown in Tables 5 and 6 below respectively

Inspection of Tables 5 and 6 indicate that RMP revisions will increase the post project yield of beach grade sand by 2 m^3 during the most recent 33-yr dry period (1945-77), and by 3 m^3 during the 21-yr wet period (1978-98). These values give annualized project impacts that are slightly improved from those already considered in the August 2000 ruling. The post project yield of beach substrate for all size fractions is increased by $61 \text{ m}^3/\text{yr}$ during a dry period and by $143 \text{ m}^3/\text{yr}$ during a wet period.

The beach evolution modeling in Jenkins and Wasyl (2000) was repeated for wet and dry climate periods using the revised sediment budget inputs appearing in Tables 5 and 6 above. This effort produced a revised version of Figure 30 from Jenkins and Wasyl (2000), shown below. Inspection of the revised Figure 30 reveals the 20 year cumulative effect of the RMP revisions will reduce the landward recession of the mean high tide line (MHT) by 2 mm during a wet period, (where the total cumulative post-project beach retreat is reduced from 24 cm to 23.8 cm). During a dry period (revised Figure 31 below) the 20 year cumulative effect of RMP revisions will reduce beach retreat by 1 mm, (12.9 cm of post project beach retreat vs the 13 cm that was calculated previously in Jenkins and Wasyl, 2000, before the RMP revisions). These incremental shoreline changes relative to the project impacts already considered in the August 2000 ruling are smaller than the modeling error limits and are therefore not significant.

References:

- Chang, H., 2000, Effects of Proposed Drainage Changes on Sediment Delivery in Muddy Canyon and Los Trancos Canyon, submitted to The Irvine Company, 12 December 2000, 11 pp.
- Jenkins, S. A. and J. Wasyl, 2000, Analysis of Nearshore Transport and Shoreline Change in the Presence of the Crystal Cove Development Project, submitted to Irvine Community Development Company, 550 Newport Center Drive, Newport Beach, CA 92658-6370, 99 pp. + 8 tbls. + 37 figs. + appen A-G.

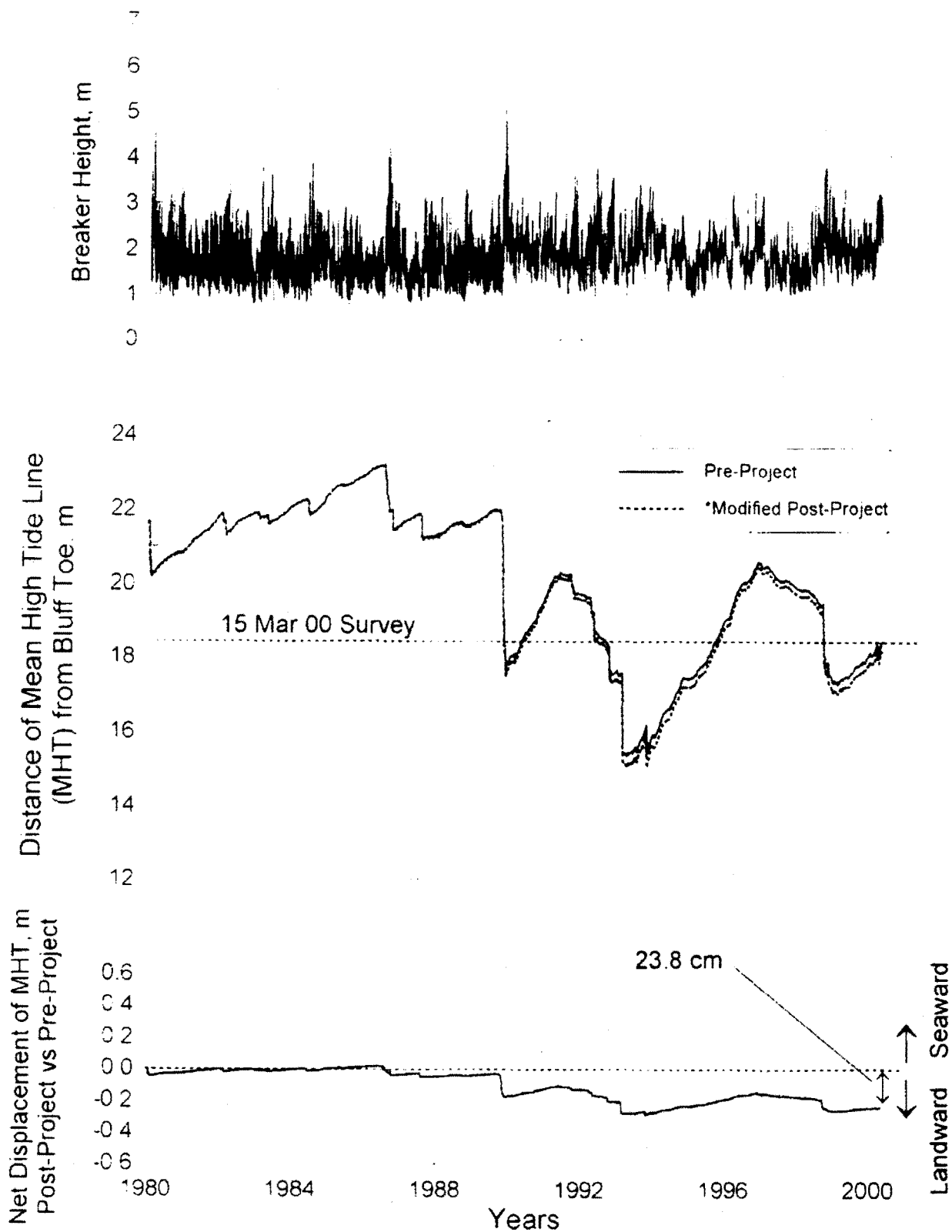


Figure 30. Mean high tide line simulation - Crystal Cove State Beach, wet period sediment flux, wave forcing, 1980-2000 (*per December 2000 RMP revisions).

Howard H. Chang Consultants
Hydraulic, Hydrologic and Sedimentation Engineering
P.O. Box 9492
6001 Avenida Alteras
Rancho Santa Fe, CA 92067-4492
(858)756-9050, FAX: (858)756-9460
E-mail: changh@mail.sdsu.edu Web Page: chang.sdsu.edu

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Effects of Proposed Drainage Changes on Sediment Delivery in Muddy Canyon and Los Trancos Canyon

Prepared by Howard H. Chang, Ph.D., P.E.

January 7, 2001

I prepared the report "Sediment Yield Study for Muddy Canyon and Los Canyons Canyon" dated May 2000 for the proposed development project by the Irvine Community Development Company above Crystal Cove. The proposed runoff management plan has been approved by the California Coastal Commission. A modification of the approved drainage plan has recently been made. This modification affects flood discharges on the immediate upstream side and downstream side of Pacific Coast Highway Culverts. The changes are summarized by Tettemer and Associates as shown in Tables 1 and 2. There are no changes in canyon flood pattern further upstream from the culverts. Peak flood discharges at the Pacific Coast Highway culvert for Muddy Canyon will be slightly reduced for minor floods such as the 2-yr flood but they will be slightly increased for greater floods. Peak flood discharges at the culvert for Los Trancos Canyon will be slightly increased for all events.

Table 1. Summary of discharges by Tettemer and Associates (2000) for Muddy Canyon

Frequency	Discharge in cfs for Pre-Developed Watershed	Discharge in cfs for Approved Runoff Management Plan	Discharge in cfs for Modified Runoff Management Plan	% Increase Modified vs. Pre-developed
100-yr	960	958	1021	6.4 %
25-yr	705	570	679	-3.7 %

culvert inlet are shown in Fig. 1. For discharges greater than the 5-yr flood, the flood stage will be slightly higher under the modified plan than under the approved plan. For 2-yr flood discharges, the flood stage will be lower under the modified plan than under the approved plan.

In connection with this change in backwater is a small reduction of sediment transport and a slight increase in sediment deposition in the area just upstream of the culvert. Such changes are very small because of the small changes in discharge; they will not affect the amount of sediment delivery through this reach as explained below.

Channel morphology in the upstream vicinity of the culvert shows that the stream channel is in an approximate state of equilibrium. Sediment deposition occurs during high flow due to backwater effects of the culvert. The backwater disappears during low flows; therefore, the deposited sediment is removed during low flows. The bed elevation of the culvert is the base level for the upstream channel. Any built up in sediment above the equilibrium bed level is removed gradually. This short reach just above the culvert is a reach of sediment transfer, but not a reach of sediment storage in the long term. For this reason, the proposed changes in drainage will not affect the sediment delivery to the downstream side of Pacific Coast Highway.

The short reach of Muddy Canyon on the downstream side of Pacific Coast Highway. This short channel reach has a very flat slope. The increased flood discharge will enhance its sediment transport capacity to result in less sediment storage in the reach and more sediment to be placed on the beach. Such changes are very small. Since the channel cuts across the beach, there is no concern for stream bed degradation along this reach because of its flat slope.

Los Trancos Canyon - The change in flow pattern along Los Trancos Canyon occurs in the immediate upstream vicinity of the Pacific Coast Highway culvert. Since there are no other changes along Los Trancos Canyon upstream of this point, sediment delivery in the canyon will remain unchanged except for a short stream reach near the culvert.

The drainage modification will result in discharge changes near Pacific Coast Highway. Such changes as listed in Table 2 are generally small. However any change in discharge may

events, do not cause scour damages to the channel. In evaluating channel stability, the criterion used by nearly all governmental agencies is the 100-yr storm. The peak 100-yr storm discharge under pre-development conditions for the reach is 1,637 cfs and it is also 1,637 cfs under the modified runoff management plan. There is no change in peak discharge due to the proposed development. The development project with the modified runoff management plan should have no significant effects on the stability of this stream reach.

Yields of Fine Sediment - In the original study, the total yield of fines from the development sites was computed to be 694 tons/per year under the pre-development conditions; it was 164 tons/year under the post-development conditions. There is a net reduction of fines of 530 tons/year from the development sites. In other words, the proposed development will result in a major reduction of soil loss from the development sites. The yield of the fines is controlled by the conditions of the watershed. The fines are delivered to the beach as washload which does not settle in the canyons in appreciable quantities. The delivery of fine sediment is independent of the modified drainage in the development because it is not affected by the drainage in the canyon above the culverts. In other words, the change in drainage will not affect the yield of fine sediment at the beach.

Modeled Results on Sediment Delivery to the Beach - Modeled values of mean annual delivery of coarse sediment for Muddy Canyon for the proposed plan and those for the modified plan are summarized in Tables 3 and 4, respectively. It must be understood that the delivery of sediment may vary significantly from year to year. The mean annual delivery represents the long-term average. When results from these two tables are compared, it can be seen that sediment deliveries for different sediment size fractions for the modified plan are closely similar to the corresponding values for the approved plan. Table 5 shows a comparison of mean annual deliveries of coarse sediment at outlet of Muddy Canyon between the approved plan and the modified plan

Table 3. Simulated mean annual deliveries of coarse sediment at outlet of Muddy Canyon for Approved Plan

Modified Plan	21.1	41.3	38.9	73.5	216	391
Change	+1.0	-0.4	+1.2	+5.8	-15	-7

Modeled values of mean annual delivery of coarse sediment for Los Trancos Canyon for the proposed plan and those for the modified plan are summarized in Tables 6 and 7, respectively. When results from these two tables are compared, it can be seen that sediment deliveries for different sediment size fractions for the modified plan are similar to the corresponding values for the approved plan. Table 8 shows a comparison of mean annual deliveries of coarse sediment at outlet of Los Trancos Canyon between the approved plan and the modified plan.

Table 6. Simulated mean annual deliveries of coarse sediment at outlet of Los Trancos Canyon for Approved Plan

	Yield for the size ranges, tons/year					
	0.062- 0.18 mm	0.18 - 0.80 mm	0.80 - 4.0 mm	4.0 - 10.0 mm	10 - 32 mm	Total
Pre-project	46.7	82.2	89.4	109	203	530.3
Post-project	43.5	76.4	82.7	98.4	186	487
Change	-3.2	-5.8	-6.7	-10.6	-17	-43.3

approved plan, the reduction in beach sand supply from Muddy Canyon is 18.2 tons/year; it is 5.8 tons/year from Los Trancos Canyon. The total reduction in beach sand supply by both streams is 24 tons/year. Impacts of this change in beach sand supply have been analyzed by Jenkins (2000) and Inman and Masters (2000). Under the modified plan, the reduction in beach sand supply from Muddy Canyon is 18.6 tons/year; it is 5.2 tons/year from Los Trancos Canyon. The total reduction in beach sand supply from both streams is 23.8 tons/year. Impacts of this change in beach sand supply will be analyzed by Jenkins and Inman.

Table 9. Results on beach sand supply for Approved Plan

Stream name	Delivery, tons/yr.		
	Pre-project	Post-project	Change
Muddy Canyon	59.9	41.7	-18.2
Los Trancos Canyon	82.2	76.4	-5.8
Total	142.1	118.1	-24.0

Table 10. Results on beach sand supply for Modified Plan

Stream name	Delivery, tons/yr.		
	Pre-project	Post-project	Change
Muddy Canyon	59.9	41.3	-18.6
Los Trancos Canyon	82.2	77.0	-5.2
Total	142.1	118.3	-23.8

Summary - The modeled results show the trend of variation for sediment delivery to the beach due to the modified runoff management plan. The small changes in backwater at the culverts under Pacific Highway are associated with small changes in sediment delivery. The comparison of modeled results should be interpreted as trends as they are within the confidence limits of modeling. In summary, I have concluded that the proposed drainage modification will result only in minor changes in beach sand supply by Muddy Canyon and Los Trancos Canyon.

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Los Trancos Canyon Rating Curve at PCH

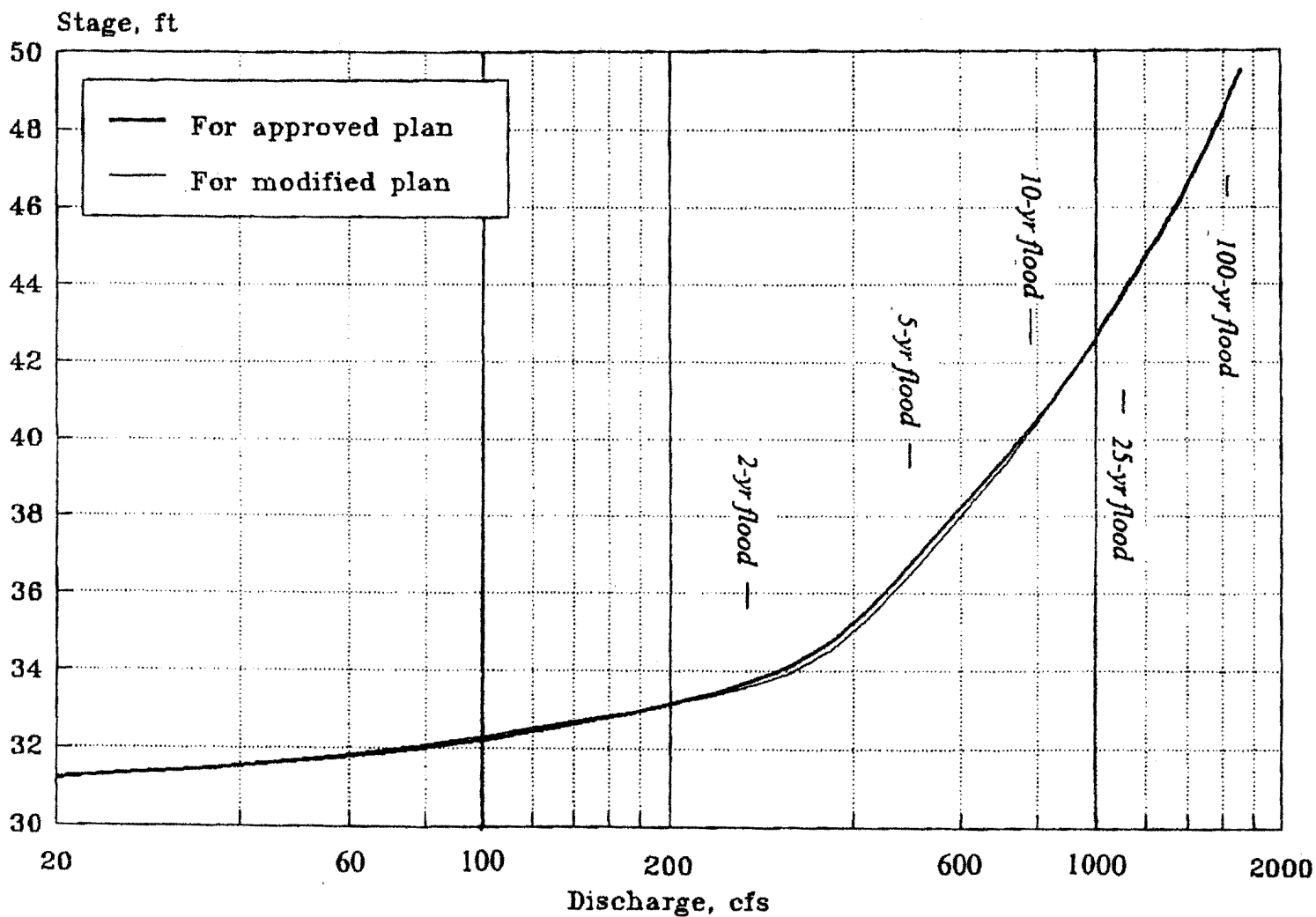


Fig. 2. Flood stage versus discharge curves for Los Trancos Canyon at culvert inlet

NOBLE CONSULTANTS

Ms. Teresa Hurry
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Page 2 of 2

- ◆ Sheet 8 – Crystal Cove Storm Drain Plans, Tract 15446, prepared by Hunsaker & Associates. (This plan has been revised to correct the note that mistakenly identified that a portion of the storm drain pipe that parallels PCH will be abandoned)
- ◆ "Proposed Engineering Solution to Eliminate Storm Flow Discharge to all Minor Culverts Under PCH & Detain & Filter the Water Quality Flows Submittal to the California Coastal Commission," dated January 22, 2001, prepared by Hunsaker & Associates. This plan has been modified to clarify that a portion of PA 4A, commonly known as L-1, will send Water Quality Flows to Basin 6 and Storm Flows to Los Trancos Canyon.
- ◆ Revised sheet "6" (of 24) for Basin 6. "Preliminary Grading Plan, Tract 15446, Crystal Cove," prepared by Hunsaker & Associates, dated January 30, 2001

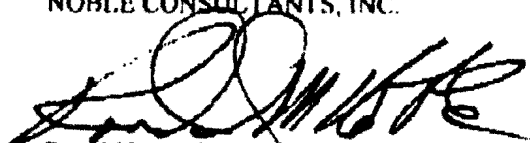
In addition to my review of the above listed documents, I met with Leslie Ewing and Mark Johnsson, both with the California Coastal Commission, on January 18, 2001 in the Commission's San Francisco office. As a result of that meeting, Leslie Ewing sent out an email dated January 18, 2001 referred to as: "Comments on latest TIC submittals" which requested some additional information of The Irvine Company, and which is included within the above reviewed documents.

My conclusion after review and discussions concerning the above documents and proposed Revised RMP is that these revisions will not alter my original conclusions documented in the report: "Third Party Independent Review of Hydrologic, Sediment Yield & Coastal Processes Results & Conclusions for Newport Coast Phases IV-3 and IV-4 Appeal" prepared for California Coastal Commission, South Coast Area Office, 200 Oceangate, Suite 1000, Long Beach, CA 90802-4302, prepared by Ronald M. Noble, Noble Consultants, Inc. & Professor Robert L. Wiegel, dated June 28, 2000, since the revised analysis for the Revised RMP is within the modeling analysis error tolerance of The Irvine Company's original analysis documented in my original review.

Please call me if you have any questions concerning this letter.

Sincerely,

NOBLE CONSULTANTS, INC.



Ronald M. Noble, P.E.
President

RMN/ahf

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PAGE 02

Mr. Sam Tamarbuch

- 2 -

September 18, 2000

Regional Board staff recognizes that differences exist between TIC's and our interpretations of the relevant governing documents. Therefore, we will seek guidance from staff of the State Water Resource Control Board regarding the applicability of the Ocean Plan to the 30-inch RCP and the applicability of the ASOS discharge prohibition to storm drains. If that guidance supports Regional Board staff's position on these issues (or if that guidance cannot be obtained in a timely manner), we will present a Genes and Desal Order to the Regional Board for its consideration. The draft order would propose to require that TIC and other appropriate parties eliminate all existing discharges of waste to the 30-inch RCP and the box culvert. This order could be presented to the Board at its November 17, 2000, meeting.

Thank you for meeting with us and for the information you provided. If you have any questions, please call me at (909) 752-3254.

Sincerely,



Gerald J. Thibault
Executive Officer

CC: Regional Board
Paul Singarella, Latham & Watkins
Anne Thomas, Best, Best & Krueger
Ted Cobb, Office of the Chief Counsel - SWRCB
Kimberly Loward, Lawyers for Clean Water
Gerry Brown, Orange County CoastKeeper
Laura Davick, Alliance to Rescue Crystal Cove
Susan Jordan, League for Coastal Protection
Joe Chung, U.S. Army Corps of Engineers
Alex Strauss, U.S. EPA - Region 9
Ed Anton, SWRCB
Stan Matheson, SWRCB
Bill Vance, Cal/EPA

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California Environmental Protection Agency

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EX.12 P.2

the Cease and Desist Order is adopted by the Board, but we believe that ICDC's commitment, as stated in their October 17th and 19th letters, when implemented, will result in compliance with the Cease and Desist Order. Therefore, our September 30, 1999, 401 waiver of waste discharge requirements remains appropriate, and we have no objection to the issuance of a 404 permit on the project.

If you have any questions, please contact me at 909-782-3284, Joanne Schneider or Hope Smythe of my staff at 909-782-3287 and 909-782-4493, respectively.

Sincerely,



Gerard J. Thibeault
Executive Officer

GJT/bjl

Attachments

c. w/attachments: Regional Board
 Roberta Marshall, Irvine Community Development Company
 Ted Cobb, Office of Chief Counsel, SWRCB
 Tim Stevens, Division of Water Quality, SWRCB
 Catherine Kuhlman, U.S. EPA Region IX
 Teresa Henry, California Coastal Commission, Long Beach
 Jack Gregg, California Coastal Commission, Long Beach
 Ann Thomas, Best, Best and Krieger
 Garry Brown, Orange County CoastKeeper
 Kimberly Lewand, Attorneys for Clean Water
 Susan Jordan, League for Coastal Protection



California Regional Water Quality Control Board

Santa Ana Region

Winston H. Hickox
Secretary for
Environmental
Protection

Internet Address: <http://www.swrcb.ca.gov/~rwqcb8>
3737 Main Street, Suite 500, Riverside, California 92501-3339
Phone (909) 782-4130 FAX (909) 781-6288



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Governor

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JAN 24 2001

CALIFORNIA
COASTAL COMMISSION

January 19, 2001

Ms. Roberta Marshall
Irvine Community Development Company
550 Newport Center Drive
Newport Beach, CA 92658

COMPLIANCE WITH CEASE AND DESIST ORDER (CDO) NO. 00-87

Dear Ms. Marshall:

This is in response to your January 18, 2001 submittal in response to the above referenced CDO. The Irvine Company is proposing to eliminate the following existing discharges:

1. All discharges from the thirty-inch diameter, reinforced concrete pipe that discharges runoff from the Crystal Cove development to Los Trancos Creek just above the mean high tide line;
2. All discharges from a three-foot by four-foot box culvert that discharges runoff from the Irvine Company's Crystal Cove development to the beach at Crystal Cove just south of Los Trancos; and
3. All discharges from a twenty-four inch diameter, reinforced concrete pipe that discharges runoff from The Irvine Company's Crystal Cove development to the bluffs above Crystal Cove and subsequently to the beach below.

We have reviewed the plans identified as "Submittal to the California Coastal Commission", dated January 17, 2001. Based on the information provided in that plan, it appears that the plan, if implemented, would result in compliance with the requirements of CDO No. 00-87, as applicable to The Irvine Company.

If you have any questions, please call me at (909) 782-3284.

Sincerely,

Gerard J. Thibeault
Executive Officer

CC: Attached mailing list

Exhibit 16
45-IRC-99-301

1 of 2

California Environmental Protection Agency