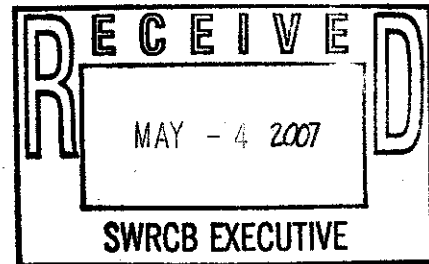


RANCHO MISSION VIEJO

May 3, 2007

Ms. Song Her
Clerk to the Board
State Water Resources Control Board
1001 I Street, 24th Floor
Sacramento, CA 95814



Reference: SWRCB Order No. 2007-XX-WQ National Pollutant Discharge Elimination System General Permit No. CAR000002
Waste Discharge Requirements for Discharges of Storm Water Runoff Associated with Construction Activity (March 2, 2007)

Subject: Rancho Mission Viejo Comments

Dear Ms. Her:

Thank you for providing Rancho Mission Viejo (RMV) with the opportunity to comment on the preliminary draft of SWRCB Order No. 2007-XX-WQ National Pollutant Discharge Elimination System General Permit No. CAR000002 - Waste Discharge Requirements for Discharges of Storm Water Runoff Associated with Construction Activity (March 2, 2007) (the "Preliminary Permit"). We appreciate the opportunity to participate in the overall process of developing the final Construction General Permit for discharges associated with construction activity (the "Final Permit").

RMV is located in Southern Orange County, California. The Ranch is bound by the existing communities of Rancho Santa Margarita, Mission Viejo, San Juan Capistrano and the undeveloped Cleveland National Forest and MCB Camp Pendleton. Various habitat types including but not limited to coastal sage scrub, chaparral, grassland, oak woodland and riparian are present on the Ranch.

DRUG USE
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LIFE ABUSE

Since 1882, the O'Neill family has been a responsible steward of the Ranch. We have, and continue to actively manage the Ranch to protect the resources on it. We intend to continue this tradition of stewardship into the future. To protect our land's resources, and address the needs of Orange County's growing population, RMV, in conjunction with the County of Orange, has undertaken a coordinated approach to the Endangered Species Act, Clean Water Act and Orange County's General Plan on approximately 22,815 acres of our approximately 27,000 acres.

In 2004 RMV and the County of Orange completed a General Plan Amendment/Zone Change (GPA/ZC) process to determine future land uses on RMV land. In January of this year, the County of Orange, RMV and U.S. Fish and Wildlife Service (USFWS) successfully concluded the decades long planning process for the Southern Subregion Habitat Conservation Plan (HCP). In March, the U.S. Army Corps of Engineers (USACE) and RMV also concluded the planning effort for the San Juan Creek Watershed/western San Mateo Creek Watershed Special Area Management Plan (SAMP). Both the HCP and the SAMP will result in the implementation of a watershed-wide management plan for the preservation, enhancement and restoration of aquatic resources on RMV lands while providing for reasonable economic development.

Under the approved HCP and SAMP, RMV is afforded the opportunity to develop 5,873 acres of its lands for much needed housing and employment uses (roughly a quarter of RMV lands). Under the approved GPA/ZC, 14,000 dwelling units, 5 million square feet of commercial uses and all necessary supporting infrastructure can be built on these acres. The selection of the location for the development Planning Areas was a long process that involved the U.S. Fish and Wildlife Service, U.S. Army Corps of Engineers, California Department of Fish and Game, County of Orange, the environmental community and RMV. This process was heavily informed by baseline data developed by RMV on the San Juan and western portion of the San Mateo Watershed and the individual sub-basins within these watersheds. Specific Planning Principles and Tenets were developed for each sub-basin based on the baseline data.

Regarding the concept of hydromodification and in particular Finding 9 and Section K in the Preliminary Permit, the HCP and SAMP applied geomorphologic terrains principles (particularly the differing infiltration and runoff characteristics of different soils types, e.g., sandy soils, clay soils) at both a sub-watershed and watershed scale to help determine areas where development should be avoided (e.g., sandy soils characterized by high infiltration rates) and areas where development could be concentrated (e.g., areas that presently are characterized by relatively rapid stormwater rates, soils generating fine sediments and limited infiltration). These principles are set forth in Attachment A under the headings "SAMP Tenets" and "Baseline Conditions Watershed Planning Principles. Also, see SAMP Figure 4.1.1-3 and SAMP Figure 6-1 (attached) illustrating some of these concepts. The RMV development Planning Areas are concentrated in areas where the pre and post project runoff characteristics will change the least.

Section IX. K – New Development and Re-development Storm Water Performance Standards

Standard K.1 requires that post-project runoff volume approximates pre-project runoff. To address potential pollutants of concern and conditions of concern as required by the current Orange County Drainage Area Management Plan (DAMP), consistent with the County MS4 permit, RMV prepared a Conceptual Water Quality Management Plan for the developed Planning Areas. To address hydromodification and reduce the potential for channel changing events to occur, RMV used the technique of flow duration control, whereby the flow duration of the pre and post project runoff were equalized. Total volume was not controlled as it is not the total volume of runoff that affects channel stability but rather the time that runoff spends in the channel. Figure 3-4 (attached) of the Concept WQMP is illustrative of this modeling. Pre-development discharges, post-development discharges and post-development with control BMP's are graphed on a cumulative frequency distribution.

Standard K.2. requires the retention of drainage divides for all drainage areas serving a first order stream or larger. Standard K.3 requires the preservation of pre-construction drainage patterns. We believe that the watershed planning principles applied to land use and water quality determinations in the SAMP and HCP are consistent with the emphasis on fluvial geomorphology described in the Fact Sheet for the Proposed Permit. According to the SWRCB Fact Sheet:

“In order to address hydromodification from urbanization, a basic understanding of fluvial geomorphic concepts is necessary.” (Fact Sheet, p. 26)

In describing the geomorphic sequence that characterizes stream channel behavior over time, the SWRCB report notes that:

“The magnitude of the geomorphic sequence discussed above varies along a stream network as well as with the age of development, slope, geology, sediment characteristics, type of urbanization, and land use history.” (Fact Sheet, p. 29, emphasis added)

The SAMP and HCP were developed employing: (a) a detailed set of tenets of fluvial geomorphologic planning principles; (b) sub-basin watershed planning principles addressing specific soils and hydrologic characteristics of sub-watersheds within the planning area. (see Southern Orange County HCP, Chapter 5). Use of the Planning Principles as site design BMP's and hydromodification modeling in the WQMP has resulted in the preservation of major riparian areas and terrains generating coarse sediments and has minimized the overall effect of development on individual sub-basins and the larger watersheds. For example;

- 20,868 acres of RMV lands will be preserved as open space and dedicated to a Habitat Reserve over time. Only 5,873 acres will be developed.
- All mainstem creeks on RMV are preserved, 8,198 acres of riparian habitats will be protected in the SAMP Study Area including RMV lands.

- Development acres are focused in clay soils. Very importantly, this approach to focusing development in areas with high runoff rates under natural conditions has allowed for the protection of large areas containing sandy soils which will be preserved in open space. The preservation of sandy soils is extremely important to maintaining streamcourse functions and beach sand supply.

However within the development Planning Areas hydrologic characteristics will necessarily change to facilitate development of the site. The entirety of any development Planning Area will be graded. The Proposed Permit, and in particular, Section K does not recognize the benefits of planning at the watershed scale; and instead favors equalizing pre and post project runoff, preservation of drainage divides and drainage patterns within a development site even where impacts to these areas have been subjected to and based on specific fluvial geomorphic planning principles (see HCP Chapter 5, Baseline Conditions Watershed Planning Principles) and otherwise permitted through subwatershed and watershed scale comprehensive planning programs. Hydromodification control can best be achieved at a sub-watershed scale through properly sited and operated “combined control systems.” Section K prescriptions would inhibit the use of such systems. The hydromodification provisions are very prescriptive and are event-based. These detailed prescriptions are contrary to the continuous flow and water balance methodologies used in the Southern Orange County SAMP and HCP Water Quality Management Plan. Section K should allow for an equivalent, or better, hydromodification control standard to be used for large projects. The “one-size fits all” approach must be re-examined and should be modified to allow for the use of alternative measures and programs for achieving hydromodification goals based on larger scale planning programs.

RMV recommends adding a 5th Standard as follows:

Where a Hydromodification Control Plan or a sub-watershed or watershed plan that provides for comprehensive hydromodification measures addressing the geomorphic/hydrologic characteristics of the sub-watershed or watershed has been adopted, Standards 1 through 4 shall not apply and the Hydromodification Control Plan or a sub-watershed or watershed plan measures shall govern the hydromodification requirements for projects undertaken within the planning area.

Section IX. G - Active Treatment System

The report by the State Water Resource Control Board’s Stormwater Panel on Numeric Limits (SWRCB, 2006;) included the following “reservations and concerns” on Active Treatment Systems:

In considering widespread use of active treatment systems, full consideration must be given to whether issues related to toxicity or other environmental effects of the use of chemicals has been fully answered. Consideration should be given to longer-term effects

of chemical use, including operational and equipment failures or other accidental excess releases.

We at RMV share the same concerns with the Panel. The approved HCP addresses the needs for 32 Covered Species, including seven threatened or endangered species, among which are aquatic/riparian habitat dependent species such as the arroyo toad, least Bell's vireo and southwestern willow flycatcher. Through implementation of the Habitat Reserve Management and Monitoring Program we will be managing our aquatic/riparian habitat for the benefit of these and other species. It seems contrary to us that the State should mandate the widespread use of active treatment systems adjacent to Waters of the U.S./State that support designated beneficial uses of RARE and HABITAT when low risk, proven performance erosion control alternatives are available. Existing research has shown many types of erosion controls (e.g., compost blankets, straw mulch, hydraulic matrices, bonded fiber matrices, and many types of erosion control blankets) to be up to 95-99% effective. Given the unknowns related to toxicity or other environmental effects of the use of chemicals, the State Board should reconsider the requirement for ATS and instead focus on the proper implementation and monitoring of proven BMPs that do not have unknown risks to sensitive species.

Recommendation:

Reconsider the requirement for ATS and instead focus on the proper implementation and monitoring of proven BMPs that do not have unknown risks to sensitive species.

Section IX. H - Source Control Option

As an alternative to ATS, the Proposed Permit offers a Source Control Option. However, this option is not a feasible option given the limitation for active construction specified in sub-part b "Limit the areas of active construction to five acres at any one time." All grading projects proceed in a logical fashion that involves initiating and completing remedial grading prior to completion of design grading. Remedial grading often involves specific corrective grading to stabilize or remove landslides or other geologically unstable areas. Based on RMV's extensive experience working in the geologically unstable soils of southern Orange County, for example, the Ladera Ranch Planned Community involved 45 million cubic yards of design grade and an equal amount (45 million cubic yards) of corrective grading, we can state that it is not possible to remediate a large landslide or stabilize proposed cut slopes with an acreage limitation of 5 acres of active construction area. Deep removals and large keyway/buttress excavations will often significantly exceed 5 acres at a time. Simultaneous with corrective grading, the soils removed by corrective grading will need to be hauled to separate fill areas which would also likely be larger than 5 acres. The corrective grading needs to be accomplished as one integrated operation in order to maximize the safety of the equipment operators and properly remediate the landslides and unstable areas, and as such cannot be divided into 5 acre pieces.

Once remedial grading has been completed and all necessary corrective measures have been taken to stabilize landslides or other geotechnical challenges, *mass excavation* can proceed. We emphasize the term *mass excavation* because that is what is necessary to develop a site to design grade meeting public safety standards and facilitating long-term erosion control. Depending on the site, mass excavation can involve millions of cubic yards of cut or fill, or as is usually the case, a combination of the two. To use a specific example, RMV's first development Planning Area permitted under the HCP and SAMP (and also through a 401/WDR), Planning Area 1 will involve the cut of 14,083,100 and fill of 14,844,400 cubic yards. In order to grade Planning Area 1 to design grade, material will necessarily be moved from cut areas of the site to fill areas of the site. A portion of Planning Area 1 will need 2.4 million cubic yards of fill material alone to raise the site to design grade. This cannot be done in 5-acre increments. We anticipate that it will take 1.5 years to grade Planning Area 1 to design grade. If it even were possible to grade a site in five acre increments it would add 4 years to the projected schedule. Thus as opposed to taking 1.5 years and one or at the most two rain seasons to complete grading, it would take 5.5 and exposure to 6 rainy seasons to complete grading. This seems contrary to the goal of the State Board to minimize exposed surfaces and stabilize disturbed areas as soon as possible.

The 5-acre limitation is also not feasible when constructing linear infrastructure improvements. For example, under normal construction practices the trench for a storm drain pipe is excavated as a single piece of work to the design grade for the pipe, the pipe is then laid in sections and then the trench is backed filled. In Planning Area 1 we will be installing a major storm drain pipe to carry offsite water from Narrow Canyon to San Juan Creek. The excavation for the trench is anticipated to be 9 acres in size. It is not practical, efficient or safe to excavate a portion of a trench, lay the pipe, backfill and then move onto another portion of the trench.

In addition to the logistics of remedial grading, mass excavation and infrastructure construction, the Preliminary Permit fails to consider that construction sites also require areas for activities *other than* actual construction, such as pre-staging vehicles, equipment and materials, stockpiling bulk and construction materials, the provision of power and water supplies, de-vegetated buffers for required construction site fire protection, and the like. As a result of these necessary, but ancillary, uses of land areas temporarily without soil cover, the five-acre grading limits could effectively limit the truly active construction site to a meaningless sliver of land.

Given the infeasibility of limiting grading to 5-acre increments, we recommend that sub-part b be deleted from Section H.

Recommendation:

Delete sub-part H.1.b from the Proposed Permit.

Section K

In summary, the Final Permit should not: 1) emphasize technologies, such as ATS, that have unknown risks to sensitive species and; 2) propose limitations on active construction areas that render construction of much needed Orange County housing virtually impossible. RMV

Ms. Song Her
May 3, 2007

Page 7 of 9

recommends that the Final CGP emphasize construction phase water quality control planning, implementation, inspection, and maintenance of a comprehensive set of complementary Best Management Practices (“BMPs”) that have been proven effective for controlling construction site pollutant discharges. In addition, the Final CGP should also consider how to address hydromodification in the context of watershed scale planning efforts such as the Southern Subregion HCP and San Juan Creek/Western San Mateo Creek Watershed SAMP.

Finally, in addition to providing the above comments, we wish to express our support for the comments offered by CBIA and CICWQ on the Preliminary Permit.

If you have any questions regarding these comments, please contact Laura Coley Eisenberg of my staff at (949) 240-3363.

Sincerely,

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

Richard Broming
Senior Vice President – Planning & Entitlement

ATTACHMENT A

SAMP Tenets

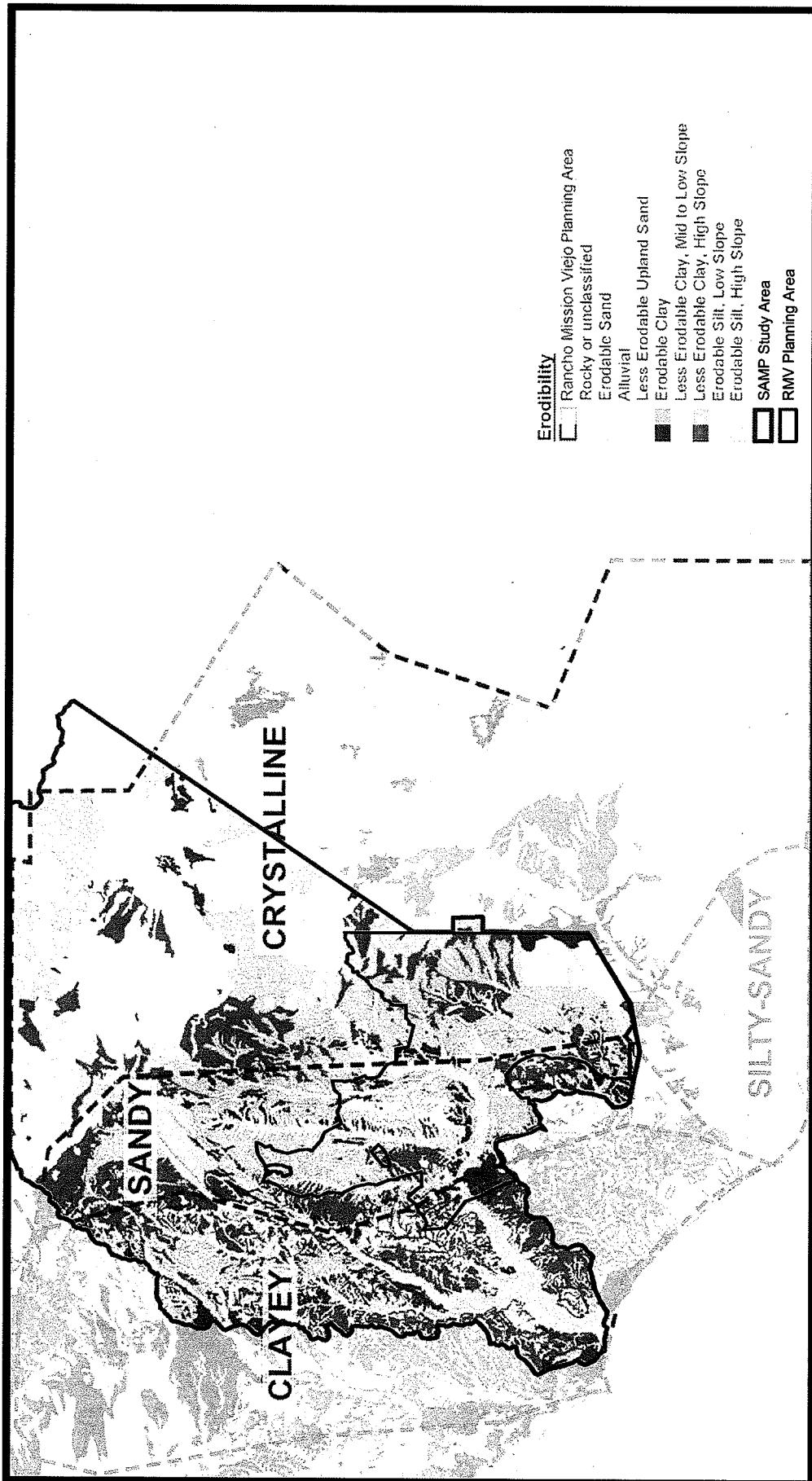
- Tenet 1. No net loss of acreage and functions of waters of the United States
- Tenet 2. Maintain/restore hydrologic, water quality, and habitat integrity of waters of the United States
- Tenet 3. Protect headwater areas
- Tenet 4. Maintain/protect/restore diverse and contiguous riparian corridors
- Tenet 5. Maintain or restore floodplain connection
- Tenet 6. Maintain and/or restore sediment sources and transport equilibrium
- Tenet 7. Maintain adequate buffer for the protected riparian corridors
- Tenet 8. Protect riparian areas and associated habitats supporting state and federally listed and sensitive species and their critical habitat

Baseline Conditions Watershed Planning Principles

- Principle 1. Recognize and account for the hydrologic response of different terrains at the sub-basin and watershed scale.
- Principle 2. Emulate, to the extent feasible, the existing runoff and infiltration patterns in consideration of specific terrains, soil types and ground cover.
- Principle 3. Address potential effects of future land use changes on hydrology.
- Principle 4. Minimize alterations of the timing of peak flows of each sub-basin relative to the mainstem creeks.
- Principle 5. Maintain and/or restore the inherent geomorphic structure of major tributaries and their floodplains.
- Principle 6. Maintain coarse sediment yields, storage and transport processes.

- Principle 7 Utilize infiltration properties of sandy terrains for groundwater recharge and to offset potential increases in surface runoff and adverse effects to water quality.
- Principle 8 Protect existing groundwater recharge areas supporting slope wetlands and riparian zones; and maximize groundwater recharge of alluvial aquifers to the extent consistent with aquifer capacity and habitat management goals .
- Principle 9 Protect water quality using a variety of strategies, with particular emphasis on natural treatment systems such as water quality wetlands, swales and infiltration areas.

References: Southern Subregion HCP (USFWS, January 2007)
San Juan Creek Watershed/western San Mateo Watershed SAMP (USACE,
March 2007



Not to Scale

Landscape-scale Terrains and Shallow Substrate Erodibility

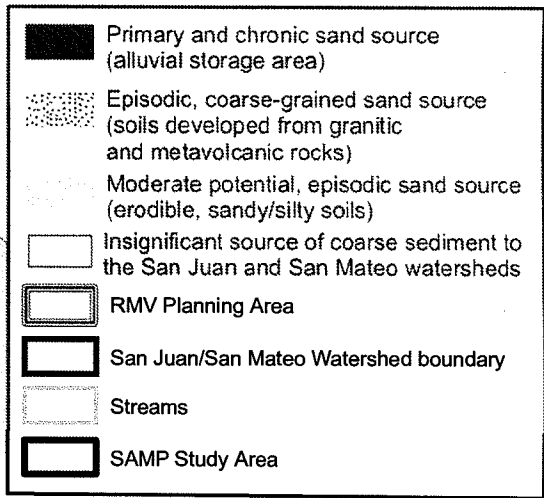
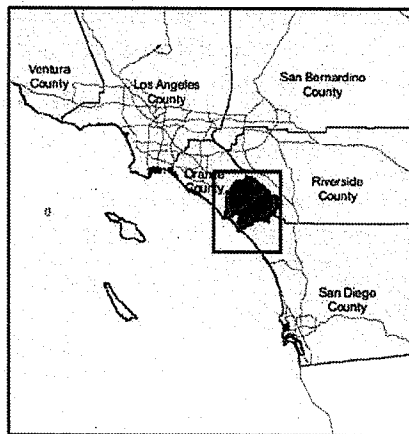
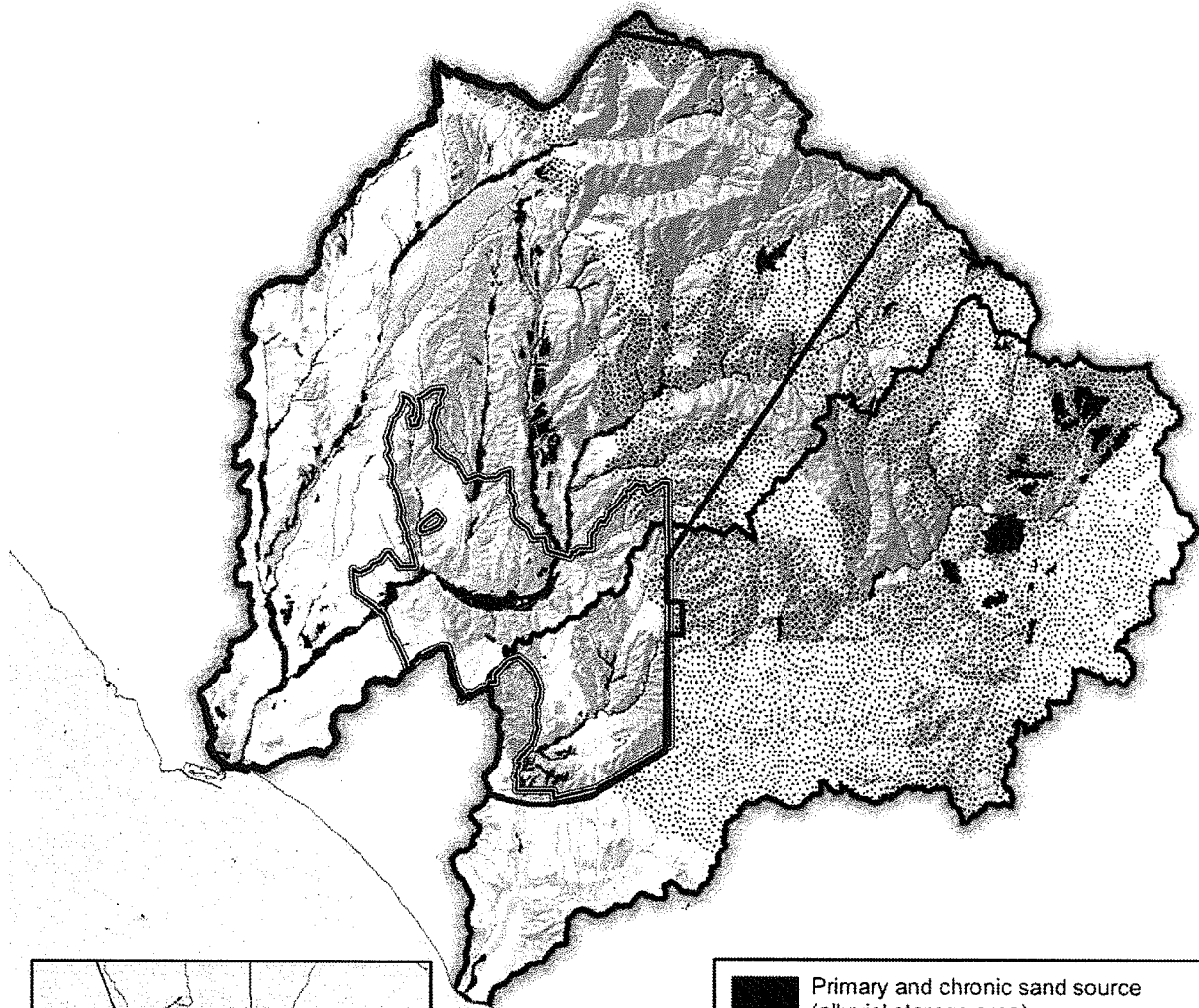
San Juan Creek and Western San Mateo Creek Watersheds SAMP EIS

Figure: 4.1.1-3

Source: Balance Hydrologics, 2000

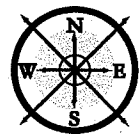


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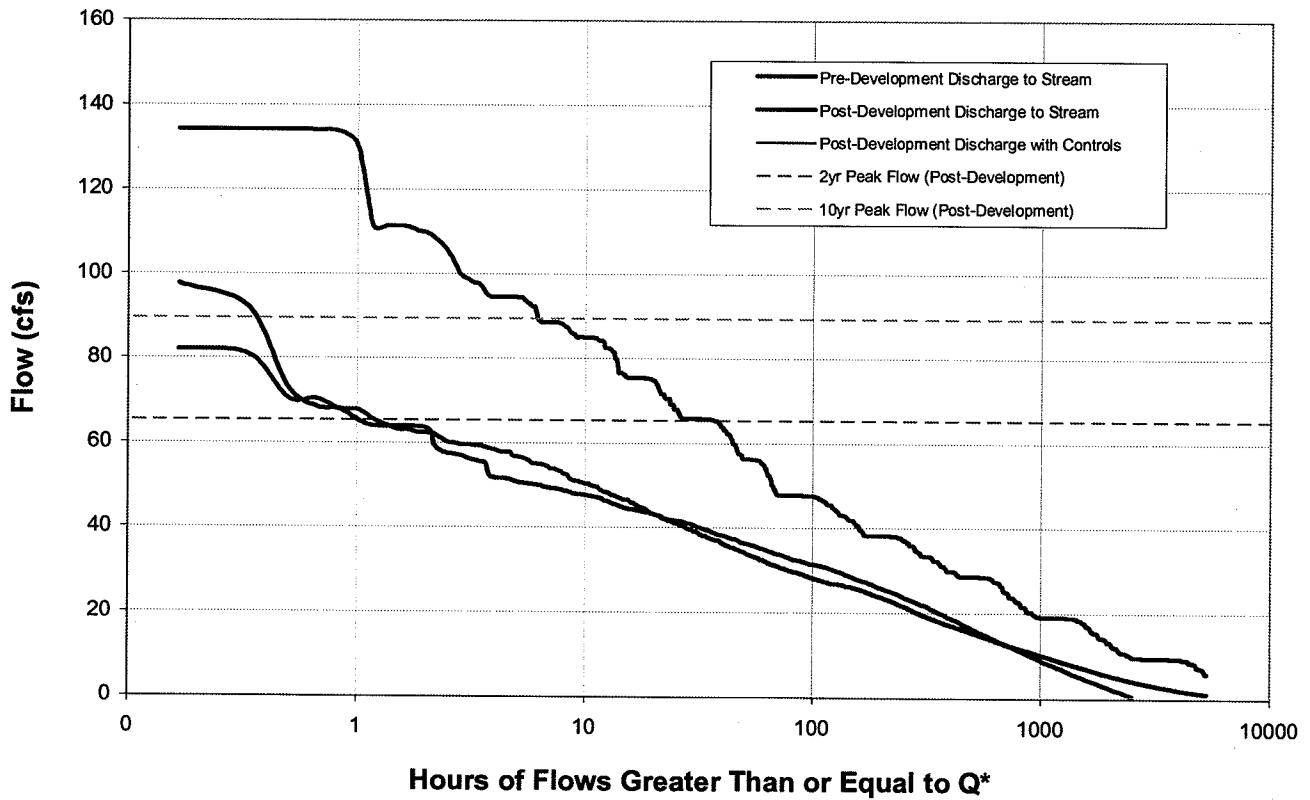


Geomorphology Terrains

Not to Scale



Cumulative Frequency Distribution



* for 53 years of rainfall record; Water Years 1949-2001

Figure 3-4
Example Flow Duration Curves for Cañada Gobernadora- Catchment 3

March 2004

Water Quality Management Plan
 Rancho Mission Viejo



GeoSyntec
 Consultants