CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

REVISED TENTATIVE ORDER
NPDES PERMIT NO. CAS029718

AMENDMENT REVISING ORDER NO. 01-119 FOR:

SANTA CLARA VALLEY WATER DISTRICT, COUNTY OF SANTA CLARA, CITY OF CAMPBELL, CITY OF CUPERTINO, CITY OF LOS ALTOS, TOWN OF LOS ALTOS HILLS, TOWN OF LOS GATOS, CITY OF MILPITAS, CITY OF MONTE SERENO, CITY OF MOUNTAIN VIEW, CITY OF PALO ALTO, CITY OF SAN JOSE, CITY OF SANTA CLARA, CITY OF SARATOGA, AND CITY OF SUNNYVALE, which have joined together to form the SANTA CLARA VALLEY URBAN RUNOFF POLLUTION PREVENTION PROGRAM

The California Regional Water Quality Control Board, San Francisco Bay Region, hereinafter referred to as the Board, finds that:

Findings

1. Incorporation of related documents: The Fact Sheet for this Order includes cited references and additional explanatory information in support of the requirements of this amendment. This information, including any supplements thereto, and any future response to comments on the Tentative Order, is hereby incorporated by reference.

Existing Orders

2. The Board adopted Order No. 01-024 on February 21, 2001, reissuing waste discharge requirements under the National Pollutant Discharge Elimination System (NPDES) permit for the Santa Clara Valley Urban Runoff Pollution Prevention Program (Program) for the discharge of stormwater to South San Francisco Bay and its tributaries. The Program's NPDES permit is jointly issued to the thirteen cities of Santa Clara County named above, Santa Clara County and the Santa Clara Valley Water District, all of which are Co-permittees. These Co-permittees are referred to as the Dischargers.

3. Order No. 01-024 recognizes the Santa Clara Valley Urban Runoff Management Plan (Management Plan) as the Dischargers' Comprehensive Control Program and requires implementation of the Management Plan, which describes a framework for management of stormwater discharges. The Management Plan describes the Program's goals and objectives and contains Performance Standards, which represent the baseline level of effort required of each of the Dischargers. The Management Plan contains Performance Standards for seven different stormwater management activities.

4. The Board adopted Order No. 01-119 on October 17, 2001, which amended Provision C.3. of Order No. 01-024 to enhance the Dischargers' existing Performance Standard for new development and significant redevelopment. Order No. 01-024 and Order No. 01-119 are hereinafter collectively referred to as the Permit. Order No. 01-119 specifically requires a level of implementation of best management practices (BMPs), including source control, site design, and structural stormwater treatment measures in new development and significant redevelopment, that removes pollutants from the discharge to the maximum extent practicable (MEP). This is done through additional requirements to incorporate source control measures, site design principles, and structural stormwater treatment controls in new development and redevelopment projects in order to reduce water quality impacts of stormwater runoff for the life of these projects. The consistent application of such measures is intended to greatly reduce the adverse impacts of new development and redevelopment on water quality and beneficial uses by reducing stormwater pollutant impacts, and impacts of increases in peak runoff rate.

~~5. *Provision C.3.of the Permit was adopted based on the assumption that the Dischargers are responsible for considering potential stormwater impacts at the time they make planning and land use decisions. The goal of Provision C.3. and its requirements is to address pollutant discharges and changes in runoff flows from significant new and redevelopment projects, through implementation of post-construction treatment measures, source control, and site design measures, to the maximum extent practicable. Neither Provision C.3. nor any of its requirements are intended to restrict or control local land use decision-making authority.*~~

~~6~~ *5.* In September 2003, as allowed by the Permit, the Program proposed an alternate Group 2 definition under Provision C.3.c. so as to provide consistency between the Permit and the permits for other Bay Area Phase I municipal stormwater permit holders (hereinafter referred to as "other Bay Area Permittees"). The other Bay Area Permittees include the Alameda Countywide Clean Water Program, the Contra Costa Clean Water Program, Fairfield-Suisun *Sanitary District*, and the San Mateo Stormwater Pollution Prevention Program. Specifically, the proposed revisions excluded specific projects from the Group 1 and 2 Project categories, increased the threshold for implementation of C.3. requirements to 10,000 square feet for Group 2 projects, allowed projects with water quality benefits (such as stream restoration) under an alternative compliance program, provided exemptions for certain redevelopment projects, and requested additional time for the implementation of C.3. requirements for Group 2 Projects by extending the date from October 15, 2004, to April 15, 2005.

6. The Board approved the alternate Group 2 definition at its October 15, 2003 meeting and directed the Executive Officer to sign and send a Letter of Approval to the Dischargers. *This Order conforms the Group 1 and 2 Project definitions in the Permit pursuant to the Board's prior Letter of Approval.*

Amendments of this Order

Group 2 Projects

7. This Order *also establishes definitions for Group 2A and 2B Projects to allow implementation to be completed in phases by the Dischargers. The Order ~~amends Subsection~~ extends the implementation date for Group 2A projects from April 15, 2005, to within three months of adoption of this Order. This Order also amends Provision* C.3.c.ii. of Order No. 01-119 to extend the implementation date for ~~*all*~~ Group 2*B* Projects *so as* to provide consistency with permits for other *Bay Area Permittees.* ~~*countywide programs in the San Francisco Bay Region. This Order also establishes definitions for Group 2A and 2B Projects to allow the regulation of Group 2 Projects to be completed in phases.*~~

Hydromodification Management Plan (HMP) Report

8. This Order also amends the Permit to approve *key provisions of ~~and incorporate~~* the ~~*Final Draft*~~ *Hydromodification Management Plan (HMP) Final Report*[1] *required under this Permit* (hereinafter referred to as the HMP Report), *as set forth in Attachment A of this Order, and which are hereby incorporated into this Permit.* ~~*into the Permit, subject to modifications set forth herein. The Program submitted the HMP Report on April 21, 2005, in response to Provision C.3.f.viii of the Permit.*~~ The intent of the HMP Report is to reduce the hydromodification impacts from stormwater discharges from certain development projects within the Dischargers' jurisdictions. Provision C.3.f.viii of the Permit required submittal of the HMP Report by October 15, 2003. However, the Dischargers were provided an additional three months to complete the HMP Report in order to provide the Dischargers and other Bay Area Permittees the same net amount of time to complete an HMP Report. Subsequently, the Dischargers *submitted components of their HMP and* were allowed additional time, approximately 15 more months, to resolve technical and administrative implementation issues and complete their HMP Report.

9. The other Bay Area Permittees ~~will~~ submit*ted* their own HMP reports ~~by~~ *on or about* May 15, 2005.~~, which will be followed by~~ *The next steps include ~~Water~~* Board staff review *of all the HMP reports; comments on the technical merits of each report; collaborative meetings to encourage consistency;*~~,~~ revision of the HMP reports as necessary*;*~~,~~ public notice of intent to approve and require the implementation of the HMPs~~,~~*;* and a hearing*(s)* by the ~~*Water*~~ Board. *Thus, it is expected that the other Bay Area Permittees will be required to implement their HMPs by late 2005 or early 2006. It is the Board's intention to make all the permit requirements and implementation dates essentially uniform for all Bay Area Permittees in the near future.*

10. *The Board intends to consider making revisions of the Dischargers' HMP provisions if needed to make the Dischargers' HMP consistent with the HMPs of other Bay area Permittees. The Board may do this through approval of a region-wide permit, though a blanket permit amendment for all*

[1] *Hydromodification Management Plan Report, Final Draft*, Santa Clara Valley Urban Runoff Pollution Prevention Program, *April 21*, 2005. ~~*Available at www.scvurppp.org.*~~

Bay Area Permittees, or through reissuance of the Dischargers' permit accomplished in a consistent fashion with the other Bay Area Permittees.

11. *The Board intends that the Executive Officer may request that all Bay Area Permittees investigate potential incremental costs, and benefits to waterways, from controlling a range of flows up to the 50-year peak flow versus controlling up to the 10-year peak flow, as required by this Order. Any future revisions of the Dischargers' HMP provisions may reflect improved understanding of this issue.*

~~12. *It is the Water Board's intention to make all the Permit requirements and implementation dates essentially uniform for* **all** *Bay Area Permittees in the near future. Until then, the Dischargers' Permit requires earlier implementation of some requirements than do the other Bay Area Phase I municipal stormwater permits. The Dischargers will implement their HMP approximately six months earlier than the others. Because of this disparity in implementation dates and desire for consistent requirements, the HMP adopted under this Order serves as an interim HMP. Once the other Bay Area Permittees have HMPs approved by the Water Board, the Dischargers' HMP will be revised to be as consistent as practicable with the other HMPs. We anticipate the final HMP will expand the areas of applicability and potentially modify requirements for sites of 20 acres or less.*~~

~~***Findings 11-15 Regarding the Meaning and Impacts of Hydromodification:***~~

~~*11. During urban development natural vegetated pervious ground cover is converted to impervious surfaces such as paved highways, streets, rooftops, and parking lots. Natural vegetated soil can both absorb rainwater and remove pollutants, providing a very effective natural purification process. Because pavement and concrete cannot absorb, detain or infiltrate water, or remove pollutants, the natural infiltration, detention and purification characteristics of the land are lost. As a result, the runoff leaving the developed urban area is significantly greater in volume and velocity than the pre-development runoff from the same area.*~~

~~*12. The increased flows and volumes of stormwater discharged from new impervious surfaces resulting from development projects can significantly impact beneficial uses of aquatic ecosystems due to physical modifications of watercourses, such as bank erosion, incision and widening of channels. The physical modifications of watercourses that result from increased flows and volumes of stormwater discharged from new impervious surfaces are collectively referred to herein as "hydromodification."*~~

~~*13. Hydromodification can result in loss of property as stream banks erode; increased flooding from increased runoff volume and duration as eroded sediment is deposited in downstream stream reaches with low slopes; threats to the structural stability of bridges and other structures as stream banks erode; loss of spawning, wetland, and wildlife habitat due to sediment deposition and damage to riparian vegetation; and loss of habitat and aesthetic value as streams are hardened to counteract hydromodification impacts.*~~

~~14. In response to hydromodification impacts, eroding stream banks are commonly armored (encased in concrete, rip-rap, gabions or similar structures) resulting in loss of beneficial uses of the removed aquatic ecosystem and riparian vegetation. Like all man-made structures, the armoring must be periodically maintained, and sediment must be removed regularly to reduce flooding. Channel maintenance and sediment removal are public programs financed by taxes and fees.~~

~~15. Degradation of watercourses increases with percent imperviousness. The increased volume and velocity of runoff from developed urban areas can greatly accelerate the erosion of downstream natural channels. Hydromodification control measures can reduce or eliminate the creek damaging effects of increased impervious surface construction associated with land development. A number of studies have demonstrated a direct correlation between the degree of imperviousness of an area and the degradation of beneficial uses of downstream receiving waters. Significant declines in the biological integrity and physical habitat of streams and other receiving waters have been found to occur with as little as a 10% conversion from natural to impervious surfaces. Typical medium-density single-family home projects range between 25 to 60% impervious. Even at very low densities, such as 1-2 housing units per acre, standard subdivision designs can exceed the 10% imperviousness threshold that, as noted above, is theorized to be the threshold for degradation of streams and other waters with increasing imperviousness of their catchment.[2] Studies on the impacts of imperviousness on beneficial uses of waters include "Urbanization of aquatic systems: Degradation thresholds, stormwater detection, and the limits of mitigation," Derek B. Booth and C. Rhett Jackson, Journal of the American Water Resources Association 33(5), Oct. 1997, pp. 1077-1089; "Urbanization and Stream Quality Impairment," Richard D. Klein, Water Resources Bulletin 15(4), Aug. 1979, pp. 948-963; "Stream channel enlargement due to urbanization," Thomas R. Hammer, Water Resources Research 8(6), Dec. 1972, pp. 1530-1540; and, summaries of work on the impacts of imperviousness, including "The Importance of Imperviousness," in Watershed Protection Techniques 1(3), Fall 1994, pp. 100-111, and "Impervious surface coverage: The emergence of a key environmental indicator," Chester L. Arnold et al., Journal of the American Planning Association 62(2), Spring 1996, pp.243-259.~~

Findings ~~16 21~~ *12-16* Regarding Implementation of This Order:

~~16. Dischargers are responsible for considering potential stormwater impacts when making planning and land use decisions. The goal of these requirements is to address changes in runoff flows from new development and significant redevelopment projects, through implementation of post-construction hydromodification management measures and site design measures, to the maximum extent practicable. Neither this Order nor any of its requirements are intended to restrict or control local land use decision-making authority.~~

~~17.~~ *12.* The ~~*Water*~~ Board strongly encourages land use planning agencies and developers to carefully consider, early in the development planning process, the potential impacts on water quality and beneficial uses of new development projects. The ~~*Water*~~ Board strongly discourages modifying

~~[2] A discussion of imperviousness based on type of development and time of construction is provided in Heaney, J.B., Pitt, R, and Field, R. **Innovative Urban Wet-Weather Flow Management Systems**, 1999. USEPA Doc. No. EPA/600/R-99/029 (Chapter 2).~~

watercourses to adapt to increased flows and durations of runoff, except in limited circumstances where avoidance or other natural alternatives are not feasible. In these limited circumstances, project proponents first ~~*must clearly*~~ *should* demonstrate that hydromodification has been minimized to the extent practicable by minimizing increases in flows and durations of runoff discharge from the site. Second, the project proponent*s should* ~~*must*~~ demonstrate that off site mitigation measures have been employed to the maximum extent practicable to avoid hydromodification impacts. Project proponents ~~*must*~~ also *should* document that there will be no adverse effects to water quality or beneficial uses. ~~*This approach is consistent with the California Environmental Quality Act (CEQA), federal regulations and State and federal antidegradation policies.*~~

~~*18.*~~ *13.* For the purposes of this Order, the term "Redevelopment" is defined as a project on a previously developed site that results in the addition or replacement of impervious surface, and the term "Brownfield site" means real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant.

~~*19.*~~ *14.* Transit village type developments within ¼ to within ½ mile of transit stations and/or intermodal facilities, and projects within "Redevelopment Project Areas" (as defined by Health and Safety Code Section 33000, et seq.) that redevelop an existing Brownfield site or create housing units affordable to persons of low or moderate income as defined by Health and Safety Code Section 50093, are excepted from the requirements of *Provision C.3.f. and the HMP, and after impracticability of including onsite treatment measures is established, from the requirement for alternate, equivalent offsite treatment.* ~~*this Order.*~~ Significant change in impervious surface or significant change in stormwater runoff volume or timing is unlikely in these redevelopment circumstances, because these developments would be within a largely already paved catchment, and on a site that is largely already paved or otherwise impervious.

~~*20.*~~ *15.* Certain control measures implemented or required by Dischargers for urban runoff management may create a habitat for vectors (e.g., mosquitoes and rodents) if not properly designed or maintained. Close collaboration and cooperative effort among Dischargers, local vector control agencies, ~~*Water*~~ Board staff, and the State Department of Health Services is necessary to minimize potential nuisances and public health impacts resulting from vector breeding.

~~*21.*~~ *16.* The ~~*Water*~~ Board recognized in its "Policy on the Use of Constructed Wetlands for Urban Runoff Pollution Control" (Resolution No. 94-102) that urban runoff treatment wetlands that are constructed and operated pursuant to that Resolution and are constructed outside of a creek or other receiving water, are stormwater treatment systems and, as such, are not waters of the United States subject to regulation pursuant to Sections 401 or 404 of the federal Clean Water Act. ~~*Water*~~ Board staff is working with the California Department of Fish and Game (CDFG) and U.S. Fish and Wildlife Service (USFWS) to identify how maintenance for stormwater controls required under orders such as this Order can be appropriately streamlined, given CDFG and USFWS requirements, and particularly those that address special status species. The Dischargers are expected to work diligently and in good faith with the appropriate agencies to obtain any approvals necessary to complete maintenance activities for treatment controls. If the Dischargers

have done so, when necessary and where maintenance approvals are not granted by the agencies, the Dischargers shall be considered by the ~~*Water*~~ Board to be in compliance with Provision C.3.e of the Permit.

~~Findings 22-28 Modifications to Discharger Submitted HMP Report:~~

~~22. *The Discharger's HMP Report, as submitted, is inadequate; however, this Order approves Discharger's HMP Report with the modifications made in this Order and incorporates it, as modified, into the Permit. Where there is any conflict between the Discharger submitted HMP Report and this Permit, the Permit shall prevail. The seven-chapter HMP Report contains background information, a management objective, performance standards, and guidance. Thus, the HMP Report does not constitute a clear and concise set of hydromodification management standards for public and Water Board review. The Provisions of this Order state the hydromodification management standard and performance standards for purposes of public review and involvement, Discharger implementation, Water Board approval, and enforcement. For technical background and implementation guidance, the reader is referred to the HMP Report. In most cases, this Order reiterates the HMP Report. Differences between the HMP Report and this Order are described in Findings 23-28.*~~

~~23. *The HMP Report does not state that its Plan is to be implemented during the interim period between adoption of the Dischargers' HMP and adoption of the other Bay Area Permittees' HMPs, at which time it will be revised. This Order clarifies that this HMP will be implemented during the interim period.*~~

~~24. *The HMP Report does not state that redevelopment projects may need to control hydromodification impacts. Although not all redevelopment projects will result in increased stormwater runoff, and thus require hydromodification controls, the redevelopment project proponent must demonstrate that this is the case.*~~

~~25. *Performance Standard 2 from the HMP Report is revised herein to require matching the pre- and post-development discharge rates and durations over the entire period of record, rather than from 10% of the pre-project 2-year peak flow up to the pre-project 10-year peak flow. In its technical reports, the Program demonstrated that matching the entire period of record results in an Erosion Potential (Ep) of 1.0, whereas matching a lesser portion of the record resulted in a higher Ep. Further, the Program's technical reports demonstrated that the actual size and cost of example hydromodification control units did not increase significantly when they are designed to match the entire period of record. Thus, this revision is made to provide consistency between the HMP Report's Management Objective and the Performance Criteria. In addition, Performance Standard 2 was clarified herein to reiterate the standard for "goodness of fit" (as stated in the HMP Report and supporting technical documents) for matching these rates and durations.*~~

~~26. *Performance Standard 3 from the HMP Report is revised herein to clarify what "impracticability" means and reiterate the minimum standard for "treatment control measures with flow control benefits to the maximum extent practicable." Both clarifications are taken from elsewhere in the*~~

~~*HMP Report and placed within Performance Standard 3 for ease of use. Also herein Performance Standards 3 and 5 from the HMP Report are combined for clarity for the general public.*~~

~~*27. A new Performance Standard 5 is added herein to address maintenance of stormwater control devices for controlling hydromodification impacts.*~~

~~*28. The Areas of Implementation are effectively unchanged from the HMP Report, although they are presented in a more concise format. Comments regarding the 65% impervious surface threshold are added herein to clarify that the percentage impervious surface was calculated based on aerial photography taken during the summer when foliage was maximized and covered some impervious surfaces. Thus, we estimate that the areas designated 65% impervious in these photos are more likely approximately 70% impervious.*~~

Applicable Federal, State, and Regional Regulations

~~*29.*~~ *17.* Pursuant to 40 CFR Sections 124.5.c.2 and 122.62, only those conditions to be modified by this amendment shall be reopened with this amendment. All other aspects of the existing Permit shall remain in effect and are not subject to modification by this amendment.

~~*30.*~~ *18.* Provision C.11. of the existing Permit anticipated that amendments, revisions and modifications to the Management Plan and existing Permit would be necessary from time to time, and provided direction that changes requiring major revision of the Management Plan shall be brought before the Board as permit amendments. This Order is consistent with Provision C.11. of the existing Permit.

~~*31.*~~ *19.* This action to modify an NPDES permit is exempt from the provisions of the California Environmental Quality Act (Division 13 of the Public Resources Code, Chapter 3, Section 21100, et.seq.) in accordance with Section 13389 of the California Water Code.

Notification to Dischargers and Interested Parties

~~*32.*~~ *20.* The Dischargers and interested agencies and persons have been notified of the Board's intent to modify waste discharge requirements for the existing discharge and have been provided opportunities for public meetings and to submit their written views and recommendations.

IT IS HEREBY ORDERED that the Dischargers, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted hereunder and the provisions of the Clean Water Act as amended and regulations and guidelines adopted hereunder, shall comply with the following revisions:

Provisions C.3.c. of Order 01-119 are hereby modified and amended as follows: additions to the Provisions are displayed as **underlined Bold** type, and deletions of text are displayed as ~~strikeout~~ format:

C. Provisions

3.c.i. ***Group 1 Projects:*** *Dischargers shall require Group 1 Projects to* ~~*design and*~~ *implement* ~~*stormwater treatment BMPs*~~ ***appropriate source control and site design measures and to design and implement stormwater treatment measures,*** *to reduce* ***the discharge of*** *stormwater* ~~*pollution*~~ ***pollutants*** *to the maximum extent practicable.* ~~*Implementation of this requirement shall begin on July 15, 2003, subject to a workplan, submitted March 1, 2002, acceptable to the Executive Officer, identifying incremental progress already made and to be made toward implementation of C.3.c.i. by July 15, 2003. If no acceptable workplan is received, implementation of C.3.c.i. requirements shall begin on October 15, 2002.*~~ *Group 1 Projects consist of all public and private projects in the following categories:*

1. *Commercial, industrial, or residential developments that create one acre (43,560 square feet) or more of impervious surface, including roof area, streets, and sidewalks. This category includes any development of any type on public or private land, which falls under the planning and building authority of the Dischargers, where one acre or more of new impervious surface, collectively over the entire project site, will be created.* ***Construction of one single-family home, which is not part of a larger common plan of development, with the incorporation of appropriate pollutant source control and design measures, and using landscaping to appropriately treat runoff from roof and house-associated impervious surfaces (e.g., runoff from roofs, patios, driveways, sidewalks, and similar surfaces), would be in substantial compliance with Provision C.3.***

2. *Streets, road, highways, and freeways that are under the Dischargers' jurisdiction and that create one acre (43,560 square feet) or more of new impervious surface. This category includes any newly constructed paved surface used primarily for the transportation of automobiles, trucks, motorcycles, and other motorized vehicles.* ***Excluded from this category are sidewalks, bicycle lanes, trails, bridge accessories, guardrails, and landscape features.***

3. *Significant Redevelopment projects. This category is defined as a project on a previously developed site that results in addition or replacement, which combined total 43,560 ft^2 or more of impervious surface on such an already developed site ("Significant Redevelopment"). Where a Significant Redevelopment project results in*

an increase of, or replacement of, more than fifty percent of the impervious surface of a previously existing development, and the existing development was not subject to stormwater treatment measures, the entire project must be included in the treatment measure design. Conversely, where a Significant Redevelopment project results in an increase of, or replacement of, less than fifty percent of the impervious surface of a previously existing development, and the existing development was not subject to stormwater treatment measures, only that affected portion must be included in treatment ***measure*** *design. Excluded from this category are interior remodels and routine maintenance or repair~~, including roof or exterior surface replacement and repaving~~.* ***Excluded routine maintenance and repair includes roof or exterior surface replacement, pavement resurfacing, repaving and road pavement structural section rehabilitation within the existing footprint, and any other reconstruction work within a public street or road right-of-way where both sides of that right-of-way are developed.***

3.c.ii. Group 2 Projects: Group 2 Projects will be divided into two subgroups: Group 2A and 2B.

Group 2A Implementation

The Group 2**A** Project definition is in all ways the same as the Group 1 Project definition above, except that the size threshold of impervious area for new and Significant Redevelopment projects is reduced from one acre (43,560 ft^2) to ~~*5000*~~ 10,000 square feet **and the project is one of the following land use categories:**

~~*Dischargers shall require Group 2 Projects to design and implement stormwater treatment BMPs to reduce stormwater pollution to the maximum extent practicable. Implementation of this requirement shall begin on October 15, 2004, at which time the definition of Group 1 Project is changed to include all Group 2 Projects.*~~

- **Gas stations;**
- **Auto wrecking yards;**
- ~~***Vehicle or equipment maintenance areas, including washing and repair;***~~
- ~~***Outdoor handling or storage of waste or hazardous materials;***~~
- ~~***Outdoor manufacturing area(s);***~~
- ~~***Outdoor food handling or processing;***~~
- ~~***Outdoor animal care;***~~
- ~~***Outdoor horticultural activities;***~~
- **Loading docks** ***and surface parking lots containing more than 10,000 square feet or more of impervious surface area; and***
- ~~***Surface parking lots; and***~~
- ***Vehicle or equipment maintenance areas (including washing and repair), outdoor handling or storage of waste or hazardous materials, outdoor manufacturing area(s), outdoor food handling or processing, outdoor animal care, outdoor horticultural activities, and various*** ~~*Various*~~ **other industrial and commercial uses where potential pollutant loading cannot be satisfactorily mitigated through other post-construction source control and site design**

practices. loading cannot be satisfactorily mitigated through other post-construction source control and site design practices.

Dischargers shall implement Provision C.3.d. with respect to Group 2A projects ~~*by June 15, 2005*~~ ***as soon as the Dischargers can adopt implementing ordinances, policies and/or guidance and, in any event, by no later than 3 months from the date of adoption of this Order****.*

Group 2B Implementation
Unless the Board otherwise approves an alternative Group 2 Project definition pursuant to the items listed below, ~~*T*~~***the*** **Group 2B Project definition** ~~*is*~~ ***will*** **in all ways *become* the same as the Group 1 Project definition above *(except with respect to implementation of Provision C.3.f.),*** ~~*excepts that*~~ ***but*** **the size threshold of impervious area for new and Significant Redevelopment projects** ~~*is*~~ ***will be*** **reduced from one acre (43,450 ft^2) to 10,000 square feet.** ~~*However, projects consisting of one single family home not part of a larger common plan of development are excluded from the Group 2B Project definition, and therefore excluded from the requirement to implement appropriate stormwater treatment measures. Dischargers shall begin implementation of Provision C.3.d with respect to Group 2B Projects on April 15, 2005 by August 15, 2006.~~

1. The Board intends to require in the next reissuance of the Dischargers' permit that the Dischargers shall implement Provision C.3.d. with respect to Group 2B projects by August 15, 2006.

~~***2. The Dischargers shall submit a report by February 20, 2006 showing that they have made adequate progress to ensure that they will be able to effectively implement Provision C.3.d with respect to Group 2B projects by August 15, 2006.***~~

~~3~~***2*****. In the event that this permit is administratively extended until August 15, 2006 or later, then the Dischargers shall implement Provision C.3.d. with respect to Group 2B projects by August 15, 2006.**

3**. If the Board adopts a regional municipal stormwater permit that includes a different deadline for implementation of Group 2B projects *or a different definition of Group 2 Projects,* then that deadline *and/or definition* shall supersede those implementation dates *and/or definitions* set forth above.**

C.3.iii. Alternative Project Proposal: *The Program* ***and/or any Discharger*** *may propose, for approval by the Regional Board, an Alternative Group 2 Project definition*~~*.*~~***, with the goal that any such alternative definition aim to ensure that the maximum created impervious surface area is treated for the minimum number of projects subject to Discharger review.*** *Any such proposal shall contain supporting information about the Dischargers' development patterns, and* ~~*pollutant source information,*~~ ***sizes and numbers of proposed projects for several years,*** *that demonstrates that the proposed*

definition ~~*is comparable in effectiveness to*~~ ***would be substantially as effective as*** *the Group 2 Project definition* ~~*(i.e., that a comparable development area and/or pollutant loading would be addressed under the proposed alternate definition).*~~ ***in Provision C.3.c.ii. Proposals may include differentiating projects subject to the Alternative Group 2 Project definition by land use, by focusing solely on the techniques recommended by "Start at the Source" for documented low pollutant loading land uses, and/or by optimum use of landscape areas required by Dischargers under existing codes as treatment measures.*** ~~*Proposals must be submitted by April 15, 2004, in order to be considered by the Regional Board before the Group 2 Project implementation date in C.3.c.ii.*~~ ***Proposals may be submitted anytime, with the understanding that the Group 2 Project definition, as described in Provision C.3.c.ii, will be upheld as the default in the absence of an approved Alternative Group 2 Project definition.***

Provisions C.3.f. of Order 01-119 are hereby *modified and* amended *as follows: additions to the Provisions are displayed as* ***underlined*** *Bold type, and deletions of text are displayed as* ~~*strikeout*~~ *format* ~~by replacing all of the existing language in C.3.f. with the following:~~

C.3.f.

i. ***No later than 3 months after the date of adoption of this Order, t****~~T~~he Dischargers shall manage increases in peak runoff flow and increased runoff volume, for all Group 1 Projects, where such increased flow and/or volume is likely to cause increased erosion of creek beds and banks, silt pollutant generation, or other impacts to beneficial uses. Such management shall be through implementation of* ***the key provisions of the*** ~~*a*~~ *Hydromodification Management Plan (HMP)* ***Final Report[3] as set forth in Attachment A of this Order and which are hereby incorporated into this Permit.*** *The HMP,* ~~*once approved by the Regional Board, will*~~***shall*** *be implemented so that post-project runoff shall not exceed estimated pre-project rates and/or durations, where the increased stormwater discharge rates and/or durations will result in increased potential for erosion or other significant adverse impacts to beneficial uses, attributable to changes in the amount and timing of runoff. The term duration in this* ~~*section*~~ ***Provision*** *is defined as the period that flows are above a threshold that causes significant sediment transport and may cause excessive erosion damage to creeks and streams.*

~~***i. Interim HMP Implementation***~~

~~*Dischargers shall fully and adequately implement the HMP Report, as modified by this Order, within four weeks of the date of this Order. The HMP Report, as modified herein, is hereby incorporated into the Permit and shall be fully enforceable. Upon approval by the Water Board of the other Bay Area Permittees'*~~

[3] *Hydromodification Management Plan Report, Final Report*, Santa Clara Valley Urban Runoff Pollution Prevention Program, April 21, 2005.

HMPs, the Executive Officer will make revisions to the interim HMP in order to make the Dischargers' HMPs consistent with those of the other Bay Area Permittees. The Executive Officer will solicit input from the Dischargers in making any such revisions. If there are any conflicts between the Permit and the Discharger submitted HMP Report, the provisions of the Permit shall prevail.

ii. Management Standard:

The interim HMP shall be based on the following management standard: Stormwater discharges from non-exempt, Group 1 development and redevelopment projects shall not cause an increase in the erosion potential of the receiving stream over the pre-project (existing) condition, i.e., an Erosion Potential of up to 1.0 will be maintained for stream segments downstream of the project discharge point.

iii. Performance Criteria:

1. *Projects shall meet the management standard by providing stormwater controls as needed to maintain the pre-project stream erosion potential. Stormwater controls may include a combination of on-site, off-site (drainage area), and in-stream measures.*

2. *On-site controls that are designed to provide flow duration control to the pre-project condition are considered to meet the erosion potential management standard and comply with the HMP.*

   Flow duration controls shall be designed such that post-project stormwater discharge rates and durations match pre-project discharge rates and durations for the entire period of record.[4] The allowable low flow discharge from the project site (Qcp) may be up to 10% of the pre-project 2-year peak flow.[5]

3. *Where the cost[6] of meeting the flow duration standard exceeds 2% of the total project costs, the project proponent must submit an application for impracticability with a plan for stormwater controls on the project site. The application must provide the reasons for impracticability, the relevant site data, and reasonable cost estimates. If the Discharger approves the application for impracticability, the project proponent must do one, or a combination, of the*

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[4] The post-project flow duration curve shall not deviate above the pre-project flow duration curve by more than 10% over more than 10% of curve.

[5] In computing Qcp, the allowable low flow discharge from a flow control structure on a project site, the original condition of the site before development must be considered. This does not imply that the developer is being required to provide flow controls to match pre-development conditions; rather, it is a means of apportioning the critical flow in a stream to individual projects that discharge to that stream, such that cumulative discharges do not exceed the critical flow in the stream.

[6] Cost of the flow duration control measure shall not include land costs, nor shall costs include other normal site enhancement costs such as landscaping or grading that is required for other purposes.

following options[7]*. In all cases, the project proponent must complete option "a" to the extent practicable:*

a. Incorporate site design and stormwater treatment measures that reduce runoff volume and time of concentration[8] *so that post-project runoff volumes and times of concentration match the 1-year, 2-year and 10-year storm pre-project runoff volumes and times of concentration to the maximum extent practicable.*

b. Where an appropriate mechanism exists to fund and construct off-site creek restoration or flow duration control projects within five (5) years of development project construction, contribute 2% of total project costs, plus reasonable operation and maintenance as established by the responsible entities, to an off site flow duration control designed to achieve the standard of Ep ≤1.0 from the point of project discharge to the stream as far downstream as potential impacts will occur.

c. Where an appropriate funding mechanism exists, contribute 2% of total project costs, plus reasonable operation and maintenance as established by the responsible entities, to an in-stream control project designed to protect the receiving water from erosive forces by achieving the Ep ≤1.0 from the point of project discharge to the stream as far downstream as potential impacts will occur.

4. Projects located on sites less than or equal to 20 acres in size that are not part of a larger phased development ("Small Site Project") have the option of either meeting either criterion #2 or #3 (see footnote 6).

5. All hydromodification control devices shall be subject to the operation and maintenance requirements of Provision C.3.e of the Permit.

iv. Areas of Applicability

All Group 1 New and Redevelopment Projects shall implement hydromodification controls that meet the performance criteria above, except for the following projects:

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[7] *Criteria 3 and 4 are helpful to Dischargers during this interim period because meeting the flow duration control standard presently is best accomplished by a detention and/or infiltration facility. Detention/infiltration facilities may not be suitable for all projects due to physical (space, soil, groundwater) limitations that cannot be overcome at a reasonable cost. Over the next several months, we expect information to become available and criteria established that simplify meeting the flow duration control standard by use of other stormwater treatment devices, in addition to detention/infiltration facilities. Thus, we expect Criteria 3 & 4 to change after this interim period.*

[8] *Time of concentration is defined as the length of time required for runoff to travel from the most remote point in the drainage area to the point of interest, say a storm drain inlet or receiving water.*

1. ~~*Projects that do not increase the volume of runoff over pre-project conditions*~~[9]~~.~~

2. ~~*Projects located within areas that drain to stream channels within the tidally influenced area. Such areas are shown in purple on Figure 1.*~~

3. ~~*Projects located within areas that drain to non-earthen stream channels that are hardened on three sides and extend continuously upstream from the tidally influenced area. Such areas are shown in purple on Figure 1. The Program will continue to determine the accuracy of this map.*~~

4. ~~*Projects draining to Sunnyvale East or West Channels. Such areas are shown in purple on Figure 1.*~~

5. ~~*Projects draining to an underground storm drain that discharge directly to San Francisco Bay.*~~

6. ~~*Projects that demonstrate, upon completion of stream-specific and modeling studies that are consistent with the method used in the HMP Report and its supporting technical documents that there will be no increase in potential for erosion or other adverse impact to beneficial uses to any State Waters.*~~

7. ~~*Projects that are less than 50 acres in total project size that are located in areas with < 65-70% impervious surface*~~[10] ~~*and 90% or more built-out, as shown in yellow on Figure 1. This in particular is an interim exemption meant to reduce the applicability of the HMP for the period of time when only the Santa Clara Valley, and not the other Bay Area stormwater programs, has an approved HMP.*~~

8. ~~*Projects that are located in areas with ≥ 65-70% impervious surface*~~[11] ~~*and 90% or more built-out, as shown in red on Figure 1.*~~

I, Bruce H. Wolfe, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on _____.

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[9] ~~*Because construction activities commonly result in compacted site soils, maintaining the pre-project square footage of directly connected impervious area does not, in itself, indicate the applicability of this exemption. The project must also demonstrate that the volume of runoff from the site will not increase. Directly connected impervious area is defined as an area covered by an impervious surface that drains directly across other impervious surfaces to a storm drain without first flowing across an infiltrative or filtering surface, such as an uncompacted lawn or vegetated area. For an impervious area to be considered "disconnected", the downstream pervious area must be large enough to accommodate the increase in stormwater volume and flow from the impervious area.*~~

[10] ~~*The map is based on 65% impervious surface; however, impervious surface was determined from aerial photographs taken during the summer, when foliage covered impervious surfaces.*~~

[11] ~~*The map is based on 65% impervious surface; however, impervious surface was determined from aerial photographs taken during the summer, when foliage covered impervious surfaces.*~~

Bruce H. Wolfe
Executive Officer

Attachment *A: Key Provisions of the HMP Report*
Attachment B: Figure 1. *Key Provisions of the HMP Report,* Areas of ~~*HMP*~~ Applicability

Attachment A:

Key Provisions of the HMP Report

Attachment B:

Figure 1. ***Key Provisions of the HMP Report,*** **Areas of ~~*HMP*~~ Applicability**