

Attachment A: Key Provisions of the HMP Report

Hydromodification Management Standard, Performance Criteria, and Applicability¹

Management Standard

Stormwater discharges from any non-exempt, Group 1 development/redevelopment project that creates or replaces one acre or more of impervious surface² 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.

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 from 10% of the pre-project 2-year peak flow³ up to the pre-project 10-year peak flow.⁴

3. Where on-site measures are not practicable, as described in the following paragraph, for achieving flow duration control criteria, projects shall comply with the HMP requirements through the use of appropriate site design, source control, and treatment

¹ The text is excerpted from the Santa Clara Valley Urban Runoff Pollution Prevention Program (SCVURPPP) "Hydromodification Management Plan" dated April 21, 2005 (submitted to the Executive Officer on May 2, 2005), and should be interpreted within the context of the analysis contained within the entire Hydromodification Management Plan.

² The HMP will continue to apply only to projects that create/replace one acre or more of impervious surface until such time as this size threshold is changed through such mechanisms as a region-wide permit, a blanket permit amendment for all Bay Area Permittees, or through reissuance of the Dischargers' permit accomplished in a consistent fashion with the other Bay Area Permittees.

³ 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.

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 the length of the curve.

control measures with flow control benefits to the maximum extent practicable⁵. In addition, where available, off-site and/or in-stream controls must be used to meet the management standard (see Performance Criterion #5).

The primary measure of practicability for application of this performance criterion is the construction cost of measures required to comply with the HMP. Meeting this criterion will be considered impracticable if the combined construction cost of both required stormwater treatment and flow control measures⁶ exceeds 2% of the project construction cost (excluding land costs). If a developer demonstrates that the cost to fully comply with the HMP and other C.3. treatment requirements will exceed this cost threshold, a determination may be made by the reviewing agency that the project shall comply with this criterion by implementing HMP controls on-site to the MEP and contributing to an in-stream or off-site solution, if available, up to a maximum cost for all controls of 2% of project cost.

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”) shall comply with the HMP requirements through the use of appropriate site design, source control, and treatment control measures with flow control benefits to the maximum extent practicable. In addition, where available, off-site and/or in-stream controls must be used to meet the management standard (see Performance Criterion #5).

To demonstrate compliance with the maximum extent practicable criterion⁵, Small Site Projects may use small scale, distributed stormwater management techniques such as bioretention facilities, infiltration trenches, filter strips, vegetated swales, and multi-functional landscape areas to achieve treatment and flow reduction. Runoff volume reduction and time of concentrations for small-scale facilities can be computed using a discrete storm event approach until other simplified tools based on continuous simulation modeling are available for sizing flow control BMPs. Small Site Projects may demonstrate that this performance criterion is being met by matching pre- and post-project runoff volume and time of concentration (based on the 2- and 10-year storms) to the MEP.

5. Off-site (drainage area) or in-stream controls may be implemented to address potential project impacts in lieu of or in combination with on-site controls, where an approved plan, including an appropriate funding mechanism, is in place that accounts for the stream changes expected to result from changes in project runoff conditions. The off-site or in-stream controls or combination of controls shall be designed to achieve the

⁵ In the Dischargers’ HMP, a criterion of 2% of project cost (not including land cost or costs of normal site enhancements such as landscaping or grading that is required for other purposes) is used to determine practicability in performance criteria 3 and 4. In those cases, projects are allowed to implement flow control measures onsite to the maximum extent practicable, with the 2% cost criterion used to define the level of effort needed to comply.

⁶ Costs of control measures shall not include land costs, soil disposal fees, hauling, contaminated soil testing, mitigation, disposal, or other normal site enhancement costs such as landscaping or grading that are required for other development purposes.

hydromodification management standard threshold of $E_p < 1.0$ from the point of discharge to the stream as far downstream as potential impacts will occur.

Operation & Maintenance

The operation and maintenance requirements of Provision C.3.e shall apply to stormwater controls implemented under the requirements of Provision C.3.f.⁷

Conditions of Applicability

All Group 1 New and Redevelopment Projects that create or replace one acre or more of impervious surface shall implement hydromodification controls that meet the performance criteria above, except for the following projects:

1. Projects that do not create an increase in impervious surface over pre-project conditions.
2. Projects located within areas that drain to stream channels within the tidally influenced area. Such areas are shown in purple on Figure 1, Attachment B.
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, Attachment B. 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, Attachment B.
5. Projects draining to an underground storm drain that discharges 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 surface⁸ and 90% or more built-out, as shown in yellow on Figure 1, Attachment B. Such projects shall be encouraged but not required to implement the HMP.

⁷ See Section 7.7 of the HMP Report for further guidance on operations and maintenance.

⁸ 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.

8. Projects that are located in areas with $\geq 65-70\%$ impervious surface⁹ and 90% or more built-out, as shown in red on Figure 1, Attachment B. Such projects shall be encouraged but not required to implement the HMP.

⁹ 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.