



SAN MATEO COUNTYWIDE Water Pollution Prevention Program

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New Development Subcommittee

Proposed Agenda

June 1, 1:30 to 3:30 pm

*Redwood Shores Library, Community Room
399 Marine Parkway
Redwood City*

- I. Introductions, Announcements, Minutes & Agree on Agenda** – Matt Fabry, All (5 min.)
Objective: Meet attendees, review and approve previous meeting summary, make announcements, and agree on agenda.

- II. Review May 26 New Development Workshop** – All (5 min.)
Objective: Share observations about the workshop.

- III. Annual Report Forms** – Laura, All (5 min.)
Review Annual Report forms for New Development and Construction reporting, which will soon be available in Word format.

- IV. Review Updated Source Control Model List** – Laura, All (15 min.)
Objective: Provide comments on Model List, which was updated for consistency with the Municipal Regional Stormwater Permit (MRP).

- V. Alameda Countywide Clean Water Program's Conditions of Approval** – Laura, All (15 min.)
Objective: Provide input on whether to adapt the ACCWP Conditions of Approval for use by municipalities in San Mateo County.

- VI. Operation and Maintenance (O&M) Requirements** – Laura, All (15 min.)
Objective: Hear how other stormwater programs are planning to comply with requirements for having a prioritized plan for O&M verification inspections of treatment and HM measures.

- VII. Review Updated Maintenance Agreement** – Laura, All (10 min.)
Objective: Review Maintenance Agreement, which was updated for consistency with the MRP.
- VIII. Status of C.3 Technical Guidance** – Laura, All (5 min.)
Objective: Hear about schedule for submission of the draft update of the guidance document.
- IX. Consider Need for an Alternative Certification Checklist** – Laura, All (10 min.)
Objective: Review ACCWP's Alternative Certification Checklist and recommend whether to prepare one for the Countywide Program.
- X. Update on BASMAA Special Projects Criteria** – Laura, All (10 min.)
Objective: Hear about the purpose of the Special Projects Criteria and how BASMAA is developing these criteria for high density, smart growth and transit oriented development projects, in which low impact development (LID) requirements will be reduced.
- XI. Potential Green Street Projects within San Mateo County** – Matt, All (5 min.)
Objective: Identify potential green streets that will be developed within the County, which may be included in BASMAA's green streets reporting project.
- XII. Update on BASMAA Development Committee** - Matt, Laura, Everyone (5 min)
Objective: Hear how the Bay Area Stormwater Management Agencies Association's committee is proceeding on regional MRP tasks, including LID feasibility/infeasibility criteria, soil specifications, green roof specifications, and construction BMP flyer update.
- XIII. Consider Future Agenda Item of a "Walk-Through" of Project Review Using Countywide Program Provision C.3 Forms/Tools** - Laura, Everyone (5 min)
Objective: Provide input on whether this would be useful, and identify a volunteer to provide project information.
- XIV. Suggestion for an MRP Compliance Checklist for Development Projects, Similar to Pacifica's Water Efficient Landscaping Checklist** – Lizzy Claycomb, All (5 min.)
Objective: Provide input on whether the suggested compliance checklist would be useful for municipal staff.
- XV. Next Meeting** – Matt, Everyone (5 min.)
Objective: Schedule next meeting for August 3, 2010.

New Development Subcommittee (NDS)

Meeting Date: April 6, 2010 (meeting was held at the Serramonte Library, Daly City)

Present: David Huynh, Atherton, Gilbert Yau, Belmont, Matt Fabry, Brisbane; Kiley Kinnon, Burlingame; Muneer Ahmed, Colma; Jeanne Naughton, Daly City; Laura Prickett, EOA; Jen Chen, Hillsborough; Shaun Mao, Menlo Park; Elizabeth Claycomb, Pacifica; Leslie Lambert, Portola Valley; Paul Willis, Redwood City; Laura Russell, San Bruno; Gavin Moynahan, San Carlos; Ken Pacini, City of San Mateo; Camille Leung, San Mateo County; Rob Lecel, S. San Francisco, Jonathan Buck, Engeo

Subcommittee Actions:

1. Approved summary of February 2 Subcommittee meeting.
2. Finalized SMCWPPP's Construction Site Inspections Tracking Spreadsheet.
3. Agreed that parcel numbers are not needed on HM maps and accepted the example map scale.
4. Agreed to make the Redwood Shores Library in Redwood City the regular NDS meeting location.

Requested Technical Advisory Committee Action or Feedback/Guidance (if any): None

Other Information/Announcements:

1. Toured **Serramonte Library** to view four bioretention cells. Soil is 90% sand, with 5"/hour infiltration specified. Contractor overcompacted soil and had to uncompact. Used wetland plants.
2. **Urban Greening Grant.** The Countywide Program is working with San Carlos and Redwood City to apply for state funds to prepare plan for green streets/urban greening in a portion of those cities.
3. **Binders** were handed out to organize NDS information on Municipal Regional Stormwater Permit (MRP) compliance. Contents will be on the Countywide Program's password protected website.
4. **Construction Site Inspection Forms** were printed, in triplicate, to have copies for the site manager, data entry staff, and the file. 100 copies were provided to each municipality.
5. **Construction Site Inspections Tracking Spreadsheet** was revised per Water Board staff, to track the total numbers of sites that comply in 10 business days, and that have not complied in 30 days.
6. Draft **Annual Report Forms** were reviewed. The final forms will be available around May 1.
7. **Operation & Maintenance Verification Inspections** of stormwater treatment measures need to be tracked and reported on. Treatment measures must be inspected within 45 days of installation.
8. Draft Example Hydromodification Management (**HM**) **Control Area Maps** were reviewed.
9. The May 26 **New Development Workshop** will include sessions on low impact development basic training, Provision C.3 of the MRP, rainwater harvesting, and green roofs.
10. The Countywide Program's **C.3 Stormwater Technical Guidance** manual is being revised in collaboration with Alameda Countywide Clean Water Program.
11. Draft Update of the **HM Flyer** was reviewed. It is being updated for MRP consistency.
12. **BASMAA Update** (Bay Area Stormwater Management Agencies Association):
 - a. Presented to Water Board staff ideas for "special projects" that may use vault-based treatment.
 - b. Will hold April 14 soil specifications roundtable meeting to work toward regional specification.
 - c. Will hire consultants for green street project tracking and to develop criteria for feasibility/ infeasibility of rainwater harvesting, evapotranspiration, and infiltration.
 - d. Is reviewing literature to develop specifications for using green roofs for stormwater treatment.
13. Received **ACCWP memos** on Legal Authority to Implement the MRP and Road Projects, and a Draft **Requirements for Road Projects in the MRP fact sheet** by the Santa Clara program.
14. Matt invited Subcommittee members to volunteer to serve as **Subcommittee Chair**.
15. Laura Russell described the **Water Board staff audit** of San Bruno's stormwater program.
16. Municipal staff described how they finalized and implemented **Enforcement Response Plans**.

Work That Affects Other Subcommittees: None

Next Steps:

- Laura Prickett will ask how other programs are meeting 45-day O&M inspection requirement.
- Comments on the Draft Update of the HM flyer are due April 20.
- Laura Prickett will ask when the Santa Clara program will finalize the roadway project fact sheet.
- The final Annual Report forms will be available around May 1.
- The first draft of the updated C.3 Technical Guidance is due May 25.
- The New Development Workshop will be held Wednesday, May 26.

Next Meeting: June 1, at Redwood Shores Library, Redwood City (new regular NDS meeting site).

Section 3 - Provision C.3 Reporting New Development and Redevelopment

C.3.a. ► New Development and Redevelopment Performance Standard Implementation Summary Report

(For FY 10-11 Annual Report only) Provide a brief summary of the methods of implementation of Provisions C.3.a.i.(1)-(8).

Summary:

C.3.b. ► Green Streets Status Report

(All projects to be completed by December 1, 2014)

On an annual basis (if applicable), report on the status of any pilot green street projects within your jurisdiction. For each completed project, report the capital costs, operation and maintenance costs, legal and procedural arrangements in place to address operation and maintenance and its associated costs, and the sustainable landscape measures incorporated in the project including, if relevant, the score from the Bay-Friendly Landscape Scorecard.

Summary:

C.3.b.v.(1) ► Regulated Projects Reporting Table

Fill in attached table **C.3.b.v.(1)** or attach your own table including the same information

C.3.h.iv. ► Operation and Maintenance Inspection Program Reporting

(1) Fill in attached table **C.3.h.iv.(1)** or attach your own table including the same information

(2) On an annual basis, provide a discussion of the inspection findings for the year and any common problems encountered with various types of treatment systems and/or HM controls. This discussion should include a general comparison to the inspection findings from the previous year.

Summary:

(3) On an annual basis, provide a discussion of the effectiveness of the O&M Program and any proposed changes to improve the O&M Program (e.g., changes in prioritization plan or frequency of O&M inspections, other changes to improve effectiveness program).
Summary:

C.3.b.v.(1) ► Regulated Projects Reporting Table (part 1) – Projects Approved During the Fiscal Year Reporting Period

Project Name Project No.	Project Location, Street Address	Name of Developer	Project Phase No. ¹	Project Type & Description ²	Project Watershed ³	Total Site Area (Acres)	Total Area of Land Disturbed (Acres)	Total New and/or Replaced Impervious Surface Area ⁴ (ft ²)	Total Pre-Project Impervious Surface Area ⁵ (ft ²)	Total Post-Project Impervious Surface Area ⁶ (ft ²)
Private Projects										
Public Projects										

¹ If a project is being constructed in Phases, use a separate row entry for each Phase.

² Project Type is the type of development (i.e., new and/or redevelopment). Example descriptions of development are: 5-story office building, residential with 160 single-family homes with five 4-story buildings to contain 200 condominiums, 100 unit 2-story shopping mall, mixed use retail and residential development (apartments), industrial warehouse.

³ State the watershed(s) that the Regulated Project drains to. Optional but recommended: Also state the downstream watershed(s).

⁴ State both the total new impervious surface area and the total replaced impervious surface area, as applicable.

⁵ For redevelopment projects, state the pre-project impervious surface area.

⁶ State the post-project impervious surface area.

C.3.b.v.(1) ► Regulated Projects Reporting Table (part 2) – Projects Approved During the Fiscal Year Reporting Period

Project Name Project No.	Status of Project ⁷	Source Control Measures ⁸	Site Design Measures ⁹	Treatment Systems Approved ¹⁰	Operation & Maintenance Responsibility Mechanism ¹¹	Hydraulic Sizing Criteria ¹²	Alternative Compliance Measures ^{13/14}	Alternative Certification ¹⁵	HM Controls ^{16/17}
Private Projects									
Public Projects									

⁷ For private projects, state project application date; application deemed complete date; and, final discretionary approval date. For public projects, state plans and specifications approval date.

⁸ Examples include: properly designed trash storage areas; storm drain stenciling or signage; efficient landscape irrigation systems; etc.

⁹ Examples include: minimize impervious surfaces; conserve natural areas, including existing trees or other vegetation, and soils; construct sidewalks, walkways, and/or patios with permeable surfaces, etc.

¹⁰ List stormwater treatment system(s) approved onsite or at a joint stormwater treatment facility (e.g., flow through planter, bioretention facility, infiltration basin, etc.).

¹¹ List the legal mechanism(s) (e.g., O&M agreement with private landowner; O&M agreement with homeowners' association; O&M by public entity, etc...) that have been or will be used to assign responsibility for the maintenance of the post-construction stormwater treatment systems.

¹² See Provision C.3.d. "Numeric Sizing Criteria for Stormwater Treatment Systems" for list of hydraulic sizing design criteria (i.e., 1.a., 1.b., 2.a., 2.b., 2.c., or 3)

¹³ For Alternative Compliance at an offsite location in accordance with Provision C.3.e.i.(1), on a separate page, give a discussion of the alternative compliance site including the information specified in Provision C.3.b.v.(1)(m)(i) for the offsite project.

¹⁴ For Alternative Compliance by paying in-lieu fees in accordance with Provision C.3.e.i.(2), on a separate page, provide the information specified in Provision C.3.b.v.(1)(m)(ii) for the Regional Project.

¹⁵ Note whether a third party was used to certify the project design complies with Provision C.3.d.

¹⁶ If HM control is not required, state why not.

¹⁷ If HM control is required, state control method used (e.g., method to design and size device(s) or method(s) used to meet the HM Standard, and description of device(s) or method(s) used, such as detention basin(s), bioretention unit(s), regional detention basin, or in-stream control).

C.3.h.iv. ► Operation and Maintenance Reporting Table

Fill in table **below** or attach your own table including the same information.

Facility/Site Inspected	Party Responsible For Maintenance	Date of Inspection	Type of Inspection (annual, follow-up, etc.)	Type of Treatment/HM Control(s) Inspected ¹⁸	Inspection Findings or Results	Enforcement Action Taken	Comments

¹⁸ State the type(s) of treatment systems inspected (e.g., bioretention facility, flow-through planter, infiltration basin, etc...) and the type(s) of HM controls inspected, and indicate whether the treatment system is an onsite, joint, or offsite system.

Section 6 – Provision C.6 Construction Site Controls

C.6.a.iii ► Legal Authority

(For FY 09-10 Annual Report only) Is your agency's legal authority adequate for C.6 compliance? Yes No

If **No**, explain:

C.6.b.ii.(3) ► Enforcement Response Plan

(For FY 09-10 Annual Report only) Has your Enforcement Response Plan been developed and implemented? Yes No

If **No**, explain:

C.6.e.iii.1.a, b, c ► Site/Inspection Totals

Number of sites disturbing < 1 acre of soil requiring storm water runoff quality inspection (i.e. High Priority) (C.6.e.iii.1.a)	Number of sites disturbing ≥ 1 acre of soil (C.6.e.iii.1.b)	Total number of storm water runoff quality inspections conducted (C.6.e.iii.1.c)
#	#	#

Permittee Name: _____

C.6.e.iii.1.d ▶ Construction Activities Storm Water Violations		
BMP Category	Number of Violations¹	% of Total Violations²
Erosion Control		
Run-on and Run-off Control		
Sediment Control		
Active Treatment Systems		
Good Site Management		
Non Stormwater Management		
Total		100%

Notes:

¹Count one violation in a category for each site and inspection regardless of how many violations/problems occurred in the BMP category.

²Percentage calculated as number of violations in each category divided by total number of violations in all six categories.

C.6.e.iii.1.e ▶ Construction related storm water enforcement actions			
	Enforcement Action (as listed in ERP)¹	Number Enforcement Actions Taken	% Enforcement Actions Taken²
Level 1			
Level 2			
Level 3			
Level 4			
Total			100%

Notes:

¹Agencies should list the specific enforcement actions as defined in their ERPs.

²Percentage calculated as number of each type of enforcement action divided by the total number of enforcement actions.

C.6.e.iii.1.f, g ▶ Illicit Discharges	
	Number
Number of illicit discharges, actual and those inferred through evidence (C.6.e.iii.1.f)	
Number of sites with discharges, actual and those inferred through evidence (C.6.e.iii.1.g)	

Permittee Name: _____

C.6.e.iii.1.h, i ► Violation Correction Times		
	Number	Percent
Violations fully corrected within 10 business days after violations are discovered or otherwise considered corrected in a timely period (C.6.e.iii.1.h)		% ²
Violations not fully corrected within 30 days after violations are discovered (C.6.e.iii.1.i)		% ³
Total number of violations for the reporting year¹		100%

Notes:

¹Total number of violations equals the number of initial enforcement actions (i.e. one violation issued for several problems during an inspection at a site). It does not equal the total number of enforcement actions because one violation issued at a site may have a second enforcement action for the same violation at the next inspection if it is not corrected.

²Calculated as number of violations fully corrected in a timely period after the violations are discovered divided by the total number of violations for the reporting year.

³Calculated as number of violations not fully corrected within 30 days after the violations are discovered divided by the total number of violations for the reporting year.

C.6.e.iii.(2) ► Evaluation of Inspection Data
Describe your evaluation of the tracking data and data summaries and provide information on the evaluation results (e.g., data trends, typical BMP performance issues, comparisons to previous years, etc.).
Description:

C.6.e.iii.(2) ► Evaluation of Inspection Program Effectiveness
Describe what appear to be your program’s strengths and weaknesses, and identify needed improvements, including education and outreach.
Description:

C.6.f ▶ Staff Training Summary				
Training Name	Training Dates	Topics Covered	No. of Inspectors in Attendance	Percent of Inspectors in Attendance



DRAFT UPDATE

Source Control Measures Guidance and Model List

Background

The Countywide Program has updated its model list of source control measures, for use by the municipalities to meet requirements in the provisions of the Municipal Regional Stormwater Permit (MRP) that are briefly summarized below.

- For all development projects subject to the municipality's planning, building, development or other comparable review, which are not "Regulated Projects" (see next bullet), the municipality shall encourage the inclusion of adequate source control measures listed in Provision C.3.a.i(7). (The source controls listed in this provision are included in the Model List.)
- For all "Regulated Projects,"¹ the municipality shall require all applicable source controls listed in Provision C.3.c.i(1). (The source controls listed in this provision are included in the Model List and are nearly identical to those listed in Provision C.3.a.i(7).)
- Municipalities shall require development projects with new or rebuilt swimming pools, hot tubs, spas and fountains to comply with requirements in Provision C.15.b.v(1). (The source controls listed in this provision are included in the Model List.)

Guidance

Municipalities may use various approaches to impose the source control requirements on development projects. The source control requirements may be provided to project applicants as submittal requirements or checklists, conditions of approval, or plan check comments, etc., depending on the particular planning process used by each municipality. These measures must be expressed as requirements, as indicated in the MRP.

The Model List identifies structural source controls to manage sources of pollutants associated with the post-construction phase of new development and redevelopment projects. Each source of pollutants identified in the model list may have one or more appropriate control measures. The source control measures in the model list are intended to be applied to projects as appropriate to the project type (for example,

¹ "Regulated Projects" currently refers to projects that create and/or replace 10,000 square feet or more of impervious surface (stand-alone homes exempt). On December 1, 2011, "Regulated Projects" will also refer to restaurant, retail gasoline outlet, automotive service facility, and surface parking (stand-alone or part of another use) projects that create and/or replace 5,000 square feet or more of impervious surface.

measures controlling “pool, spa and fountain discharges” would only apply to projects that include a pool, spa and/or fountain). Some of the control measures have optional wording, which is shown in brackets [optional wording in brackets]. Each agency can choose, as appropriate, whether to make optional wording the standard in its jurisdiction, or not. Municipalities do not have to use the exact wording of a source control measure as long as the measure is equivalent in terms of preventing pollutants from reaching stormwater, groundwater, creeks and the Bay or ocean, and is consistent with the MRP.

Construction site inspections should verify that the structural source control measures required for each project are appropriately constructed and their implementation should be confirmed as part of the final inspection.

The model list does not include best management practices (BMPs) for controlling water pollution during the construction phase. Nor does it include site design measures to reduce impervious surfaces, stormwater treatment measures to remove pollutants from stormwater runoff, or hydromodification management measures to control erosive flows. These categories of stormwater controls are addressed in the Project Applicant Checklist for NPDES Requirements, which may be downloaded from the New Development Page of the Countywide Program’s website, www.flowstobay.org.

DRAFT UPDATE
MODEL LIST OF STRUCTURAL SOURCE CONTROL MEASURES

Changes made to the Model List are shown in "Tracked Changes" mode of Microsoft Word (underlined or struck out in either red or magenta text).

A. Illegal Dumping to Storm Drain Inlets and Waterways

On-site storm drain inlets shall be clearly marked with the words "No Dumping! Flows to Bay," or equivalent, using methods approved by the [Municipality].

B. Interior Floor Drains

Interior floor drains shall be plumbed to the sanitary sewer system and shall not be connected to storm drains [or interior floor drains are prohibited].

C. Parking Garages

Interior level parking garage floor drains shall be connected to [a water treatment device approved by the [Municipality] prior to discharging to] the sanitary sewer system. The applicant shall contact the local permitting authority and/or sanitary district with jurisdiction for specific connection and discharge requirements. [If a municipality determines that connecting to a sanitary sewer system is not practicable, the applicant may propose an alternative method of plumbing interior parking garage floor drains or addressing runoff subject to approval by RWQCB staff.]

D. Pesticide/Fertilizer Application and Irrigation

- 1) Landscaping shall be designed to minimize irrigation and runoff, promote surface infiltration where appropriate, ~~and~~ minimize the use of fertilizers and pesticides that can contribute to stormwater pollution, and incorporates appropriate sustainable landscaping practices and programs such as Bay-Friendly Landscaping.
- 2) Structures shall be designed to discourage the occurrence and entry of pests into buildings, and thus minimize the need for pesticides. For example, dumpster areas should be located away from occupied buildings, and building foundation vents shall be covered with screens.
- 3) If a landscaping plan is required as part of a development project application, the plan shall meet the following conditions related to reduction of pesticide use on the project site:
 - a. Where feasible, landscaping shall be designed and operated to treat stormwater runoff by incorporating elements that collect, detain, and infiltrate runoff. In areas that provide detention of water, plants that are tolerant of saturated soil conditions and prolonged exposure to water shall be specified.

- b. Plant materials selected shall be appropriate to site specific characteristics such as soil type, topography, climate, amount and timing of sunlight, prevailing winds, rainfall, air movement, patterns of land use, ecological consistency and plant interactions to ensure successful establishment.
- c. Existing native trees, shrubs, and ground cover shall be retained and incorporated into the landscape plan to the maximum extent practicable.
- d. Proper maintenance of landscaping, with minimal pesticide use, shall be the responsibility of the property owner.
- e. Integrated pest management (IPM) principles and techniques shall be encouraged as part of the landscaping design to the maximum extent practicable. Examples of IPM principles and techniques include:
 - 1. Select plants that are well adapted to soil conditions at the site.
 - 2. Select plants that are well adapted to sun and shade conditions at the site. In making these selections, consider future conditions when plants reach maturity, as well as seasonal changes.
 - 3. Provide irrigation appropriate to the water requirements of the selected plants.
 - 4. Select pest-resistant and disease-resistant plants.
 - 5. Plant a diversity of species to prevent a potential pest infestation from affecting the entire landscaping plan.
 - 6. Use “insectary” plants in the landscaping to attract and keep beneficial insects.

4) An efficient irrigation system shall be installed in areas requiring irrigation. An example of an efficient irrigation system is one that includes a weather-based (automatic, self-adjusting) irrigation controller with a moisture and/or rain sensor shutoff, and in which sprinkler and spray heads are not permitted in areas less than 8 feet wide.

E. Pool, Spa, and Fountain Discharges

- 1) New or rebuilt swimming pools, hot tubs, spas and fountains must have a connection to the sanitary sewer to facilitate draining. This connection could be a drain in the pool to the sanitary sewer or a cleanout located close enough to the pool so that a hose can readily direct the pool discharge into the sanitary sewer cleanout. [Municipalities shall coordinate with local sanitary sewer agencies to determine the standards and requirements necessary for the installation of a sanitary sewer discharge location to allow draining with the proper permits from the local sanitary sewer agency.]
- 2) Subject to local requirements, when draining is necessary, a hose or other temporary system shall be directed into a sanitary sewer clean out. Alternatively, discharges from swimming pools, hot tubs, spas and fountains may be directed

~~to vegetated areas that are large enough to accommodate the volume without allowing the discharged water to flow to the storm drain system or receiving water bodies. The clean out shall be installed in a readily accessible area [example: within 10 feet of the pool]. The applicant shall contact the local permitting authority and/or sanitary district with jurisdiction for specific connection and discharge requirements.~~

~~1) Pool (including swimming pools, hot tubs, spas and fountains) discharge drains shall not be connected directly to the storm drain or sanitary sewer system, unless the connection is specifically approved by the local permitting authority and/or sanitary district with jurisdiction, as applicable. [Exception: Public pool discharge drains may be connected to the sanitary sewer system, in accordance with applicable local requirements.]~~

~~3) [Subject to local requirements, swimming pool, spa and fountain water may be allowed to discharge to the storm drains if the water has been dechlorinated, the water is within ambient temperature, and no copper-based algae control has been added to the water. The discharger will need to demonstrate that the water has been dechlorinated and that no copper-based algicide is present.]~~

If commercial and public swimming pool discharges are discharged to land where the water would not flow to a storm drain or to a surface water, the discharge may be subject to the requirements of the State Water Resources Control Board's (SWRCB) Statewide General Waste Discharge Requirements (WDRs) for Discharges to Land with a Low Threat to Water Quality.

F. Food Service Equipment Cleaning

Food service facilities (including restaurants and grocery stores) shall have a sink or other floor mat, container, ~~and equipment cleaning area, which is connected to a grease interceptor prior to discharging to the sanitary sewer system~~ equipment, and hood filter cleaning area, which is connected to a grease interceptor prior to discharging to the sanitary sewer system. The cleaning area shall be large enough to clean the largest mat or piece of equipment to be cleaned. The cleaning area shall be indoors or in a roofed area outdoors; both areas must be plumbed to the sanitary sewer. Outdoor cleaning areas shall be designed to prevent stormwater run-on from entering the sanitary sewer and to prevent stormwater run-off from carrying pollutants to the storm drain. Signs shall be posted indicating that all food service equipment washing activities shall be conducted in this area. The applicant shall contact the local permitting authority and/or sanitary district with jurisdiction for specific connection and discharge requirements. Regular maintenance and cleaning of the grease interceptor is required and may be subject to periodic inspections conducted by municipal staff.

G. Refuse Areas

1) New buildings [such as food service facilities and/or multi-family residential complexes or subdivisions] shall provide a roofed and enclosed area ~~for enclosed area] for dumpsters and recycling containers, recycling containers, compactors, and food waste containers~~. The area shall be designed to prevent

water run-on to the area and runoff from the area and to contain litter and trash, so that it is not dispersed by the wind or runoff during waste removal.

- 2) Runoff from trash enclosures, recycling areas, and/or food compactor enclosures, or similar facilities shall not discharge to the storm drain system. Trash enclosure areas shall be designed to avoid run-on to the trash enclosure area. If any drains are installed in or beneath dumpsters, compactors, and tallow bin areas serving food service facilities, the drains shall be connected [to a grease removal device and/or treatment devices prior to discharging] to the sanitary sewer. The applicant shall contact the local permitting authority and/or sanitary district with jurisdiction for specific connection and discharge requirements.

H. Outdoor Process Activities/Equipment²

- 1) Process activities shall be performed either indoors or in roofed outdoor areas. If performed outdoors, the area shall be designed to prevent run-on to and runoff from the area with process activities. Examples of appropriate design to prevent run-on and runoff include using a berm or grade break.
- 2) Process equipment areas shall drain to the sanitary sewer system. The applicant shall contact the local permitting authority and/or sanitary district with jurisdiction for specific connection and discharge requirements. [If a municipality determines that connecting to a sanitary sewer system is not practicable, the applicant may propose an alternative method of providing for drainage of process equipment areas, subject to approval by RWQCB staff.] The pavement should be checked periodically for cracks and fractures, which should be sealed to prevent leakage.

I. Outdoor Equipment/Materials Storage

- 1) All outdoor equipment and materials storage areas shall be covered [and bermed], or shall be designed to limit the potential that runoff may contact pollutants [or storm drain inlet valves shall be provided on exterior drains in the area]. Storage or maintenance/repair activities shall occur only on paved and contained areas. The pavement should be checked periodically for cracks and fractures, which should be sealed to prevent leakage.
- 2) Storage areas containing non-hazardous liquids, such as latex-based paint, shall be covered by a roof and/or drain to the sanitary sewer system, and be contained by berms, dikes, liners or vaults or similar spill containment devices. The applicant shall contact the local permitting authority and/or sanitary district with jurisdiction for specific connection and discharge requirements. [Or – Storage areas containing non-hazardous liquids shall be covered by a roof and contained by berms, dikes, liners, vaults, or similar spill containment devices.]
- 3) All on-site hazardous materials and wastes, as defined [or regulated] by the California Public Health Code and the local Certified Unified Program Agency (CUPA) must be used and managed in compliance with the applicable CUPA

² Examples of businesses that may have outdoor process activities and equipment include machine shops and auto repair shops, and industries that have pretreatment facilities.

program regulations and the facility hazardous materials management plan approved by the CUPA authority.

J. Vehicle/Equipment Cleaning

- 1) Wastewater from vehicle and equipment washing operations shall not be discharged to the storm drain system. Any wastewater discharges to the sanitary sewer are subject to approval by the sanitary district with jurisdiction.
- 2) Commercial/industrial facilities having vehicle/equipment cleaning needs [and new residential complexes of 25 units or greater] shall either provide a roofed, bermed area for washing activities or discourage vehicle/equipment washing by removing hose bibs (faucets) and installing signs prohibiting such uses. Vehicle/equipment washing areas shall be paved, designed to prevent run-on to or runoff from the area, and plumbed to drain to the sanitary sewer. A sign shall be posted indicating the location and allowed uses in the designated wash area. The applicant shall contact the local permitting authority and/or sanitary district with jurisdiction for specific connection and discharge requirements.
- 3) Commercial car wash facilities shall be designed and operated such that no runoff from the facility is discharged to the storm drain system. Wastewater from the facility shall discharge to the sanitary sewer [or a wastewater reclamation system shall be installed and the wastewater reused with no discharges to the storm drain]. The applicant shall contact the local permitting authority and/or sanitary district with jurisdiction for specific connection and discharge requirements.

K. Vehicle/Equipment Repair and Maintenance

- 1) Vehicle/equipment repair and maintenance shall be performed in a designated area indoors, or if such services must be performed outdoors, in an area designed to prevent the run-on and runoff of stormwater.
- 2) Secondary containment shall be provided for exterior work areas where motor oil, brake fluid, gasoline, diesel fuel, radiator fluid, acid-containing batteries or other hazardous materials or hazardous wastes are used or stored. Drains shall not be installed within the secondary containment areas.
- 3) Vehicle service facilities shall not contain floor drains unless the floor drains are connected to wastewater pretreatment systems prior to discharge to the sanitary sewer, for which an industrial waste discharge permit has been obtained. The applicant shall contact the local permitting authority and/or sanitary district with jurisdiction for specific connection and discharge requirements.
- 4) Tanks, containers or sinks used for parts cleaning or rinsing shall not be connected to the storm drain system. Tanks, containers or sinks used for such purposes may only be connected to the sanitary sewer system if allowed by an industrial waste discharge permit. The applicant shall contact the local permitting authority and/or sanitary district with jurisdiction for specific connection and discharge requirements.

L. Fuel Dispensing Areas

- 1) Fueling areas³ shall have impermeable surfaces (i.e., portland cement concrete or equivalent smooth impervious surface) that are: a) graded at the minimum slope necessary to prevent ponding; and b) separated from the rest of the site by a grade break that prevents run-on of stormwater to the maximum extent practicable.
- 2) Fueling areas shall be covered by a canopy that extends a minimum of ten feet in each direction from each pump. [Alternative: The fueling area must be roofed and the roof's minimum dimensions must be equal to or greater than the area within the grade break or fuel dispensing area, as defined below³.] The canopy [or roof] shall not drain onto the fueling area.

M. Loading Docks

- 1) Loading docks shall be covered and/or graded to minimize run-on to and runoff from the loading area. Roof downspouts shall be positioned to direct stormwater away from the loading area. Water from loading dock areas shall be drained to the sanitary sewer [or diverted and collected for ultimate discharge to the sanitary sewer], [or if a municipality determines that discharge to a sanitary sewer system is not practicable, the applicant may propose an alternative method of providing for drainage from the loading area, subject to approval by RWQCB staff]. The applicant shall contact the local permitting authority and/or sanitary district with jurisdiction for specific connection and discharge requirements.
- 2) Loading dock areas draining directly to the sanitary sewer shall be equipped with a spill control valve or equivalent device, which shall be kept closed during periods of operation, subject to approval by the sanitary district with jurisdiction. [Or – delete this sentence if it is inapplicable to your municipality.]
- 3) Door skirts between the trailers and the building shall be installed to prevent exposure of loading activities to rain, unless one of the following conditions apply: the loading dock is covered, or the applicant demonstrates that rainfall will not result in an untreated discharge to the storm drain system.

N. Fire Sprinkler Test Water

Provisions shall be made in the project design and construction to allow for the discharge of fire sprinkler test water ~~to the sanitary sewer, with approval from the local permitting authority and/or sanitary district with jurisdiction. [Alternatively, fire sprinkler test water [from private residences] may be discharged to a landscaped area.] [If a municipality determines that connecting to a sanitary sewer system is not practicable, the applicant may propose an alternative method of providing for drainage of fire sprinkler test water, subject to approval by RWQCB staff.] to an onsite vegetated area. If this is not feasible, provide for~~

³ The fueling area shall be defined as the area extending a minimum of 6.5 feet from the corner of each fuel dispenser or the length at which the hose and nozzle assembly may be operated plus a minimum of one foot, whichever is greater.

discharge to the sanitary sewer subject to approval from the local permitting authority and/or sanitary district with jurisdiction.

O. Miscellaneous Drain or Wash Water

- 1) Boiler drain lines shall be directly or indirectly connected to the sanitary sewer system and may not discharge to the storm drain system.
- 2) For small air conditioning units, air conditioning condensate should be directed to landscaped areas as a minimum BMP. For large air conditioning units, in new developments or significant redevelopments, the preferred alternatives are for condensate lines to be directed to landscaped areas, or alternatively connected to the sanitary sewer system after obtaining permission from the sanitary sewer's owner. As with smaller units, any anti-algal or descaling agents must be properly disposed of. Any air conditioning condensate that is discharged to land without flowing to a storm drain may be subject to the requirements of the State Water Resources Control Board's (SWRCB) Statewide General Waste Discharge Requirements (WDRs) for Discharges to Land with a Low Threat to Water Quality.
- 3) Roof drains shall discharge and drain away from the building foundation to an unpaved area wherever practicable.
- 4) Roof top equipment including that producing air conditioning condensate [or other than that producing air conditioning condensate] shall drain to the sanitary sewer [or be covered and have no discharge to the storm drain]. The applicant shall contact the local permitting authority and/or sanitary district with jurisdiction for specific connection and discharge requirements.
- 5) An appropriately equipped facility that drains to the sanitary sewer must be provided for washing and/or steam cleaning activities. Sanitary connections are subject to the review, approval and conditions of the sanitary district with jurisdiction for receiving the discharge. These conditions shall be required for automotive related businesses.



Alameda Countywide
Clean Water Program
A Consortium of Local Agencies

The New Development Subcommittee's Conditions of Approval

Introduction

Implementation of these Conditions of Approval (COAs) was a requirement of ACCWP's 2003 Stormwater Quality Management Plan (SQMP), which is superseded by the Municipal Regional Stormwater Permit (MRP), adopted on October 14, 2009. While implementation of these performance standards is no longer a specific permit requirement, these COAs are intended to help ACCWP's member agencies implement the MRP's Provision C.3 (New Development and Redevelopment) and C.6 (Construction Site Control) requirements for private development projects. Agencies are also encouraged to incorporate these conditions of approval, as appropriate, into the specifications or other project documents for their capital improvement projects. Please note that a new COA has been added in response to the requirement in Provision C.3.a.i.2 of the MRP that agencies have a COA for projects discharging directly to Clean Water Act section 303(d)-listed water bodies, requiring that "post-development runoff not exceed pre-development levels for such pollutants that are listed."

The COAs are categorized into two groups:

- **Post-Construction Stormwater Controls**
These requirements are intended to implement Provision C.3 requirements for private development projects to incorporate permanent stormwater controls designed to reduce impacts to water quality and beneficial uses after construction is completed.
- **Construction Best Management Practices (BMPs)**
These requirements are intended to implement Provision C.6 requirements for best management practices at construction sites.

Using the Conditions of Approval

The conditions of approval listed in the following pages are a menu of items for each agency to use, as appropriate, during the review of proposed development projects. These conditions should be incorporated during agency review prior to the approval of tract maps or the issuance of use, building, or grading permits. The conditions may also be used during CEQA/NEPA environmental review, if applicable.

ACCWP also developed a Source Control Model List, which member agencies have adapted to create their individual Local Source Control Measures List, which they use to impose project-specific requirements on development projects to limit pollutant

generation, discharge and runoff. An agency may opt to create one master document that contains both the agency's Source Control Measures List and the New Development Subcommittee's Conditions of Approval. The use of such a master list is acceptable provided that agencies meet all applicable NPDES permit requirements, including

- **Regulated Projects.** Incorporate appropriate site design, source control and treatment measures in all Regulated Projects. Regulated Projects currently consist of projects that create and/or replace 10,000 square feet of impervious surface. Beginning December 1, 2011, this will also include projects that create and/or replace 5,000 square feet or more of impervious surface related to auto service facilities¹, retail gasoline outlets, restaurants², and/or surface parking³.
- **All Other Projects.** Encourage the incorporation of appropriate site design and source control measures in all projects regardless of size.
- **Avoid Prohibited Discharges.** When approving new development projects, apply source control measures to avoid prohibited discharges to the storm drain system.

Conditions of Approval

POST-CONSTRUCTION REQUIREMENTS

1. All projects shall incorporate appropriate site design measures to minimize impacts to water quality. These may include, but are not limited to, the following: minimizing land disturbance and impervious surfaces (especially parking lots); clustering of structures and pavement; directing runoff from roofs and other impervious surfaces to vegetated areas; use of micro-detention, including distributed landscape-based detention; preservation of open space; protection and/or restoration of riparian areas and wetlands as project amenities, and minimize changes to the natural topography; use "Bay Friendly" landscape design (See *Bay-Friendly Landscape Guidelines – Sustainable Practices for the Landscape Professional*, www.bayfriendly.org).
2. All projects shall incorporate all appropriate source control measures listed in the Agency's adopted Local Source Control Measures List.

¹ Auto service facilities, described by the following Standard Industrial Classification (SIC) codes:

- 5013: Establishments primarily engaged in wholesale distribution of motor vehicle supplies, accessories, tools, equipment, and parts.
- 5014: Establishments primarily engaged in wholesale distribution of tires and tubes for passenger and commercial vehicles.
- 5541: Gasoline service stations primarily engaged in selling gasoline and lubricating oils.
- 7532: Establishments primarily engaged in the repair of automotive tops, bodies, and interiors, or automotive painting and refinishing.
- 7533: Establishments primarily engaged in the installation, repair, or sale and installation of automotive exhaust systems.
- 7534: Establishments primarily engaged in repairing and retreading automotive tires.
- 7536: Establishments primarily engaged in the installation, repair, or sales and installation of automotive glass
- 7537: Establishments primarily engaged in the installation, repair, or sales and installation of automotive transmissions.
- 7538: Establishments primarily engaged in general automotive repair.
- 7539: Specialized automotive repair such as fuel service (carburetor repair), brake relining, front-end and wheel alignment, and radiator repair.

² Restaurants described by SIC code 5812: Retail sale of prepared food and drinks for on-premise or immediate consumption.

³ This requirement will apply to uncovered parking that is stand-alone, or included as part of any other development project.

3. Projects creating or replacing greater than or equal to 10,000 square feet of impervious surface must include hydraulically sized permanent stormwater treatment control measures in accordance with Municipal Regional Stormwater Permit requirements [and the City/County's hydraulic sizing requirements specified as in – insert name of local guidance document, if applicable – .]
4. For projects that discharge directly to Clean Water Act section 303(d)-listed water bodies (the list is available at www.swrcb.ca.gov/water_issues/programs/tmdl/303d_lists2006_epa.shtml) the project proponent must demonstrate that post-development runoff does not exceed pre-development levels for such pollutants that are listed. A “direct discharge” is a discharge that is routed directly to waters of the US by means of a pipe, channel, ditch (including a municipal storm sewer system), or through surface runoff. Discharges from a construction site to a municipal storm sewer system where commingling with upstream and/or downstream discharges can occur are not considered “direct discharges.”
5. Stormwater treatment measures that function primarily as infiltration devices⁴ (such as infiltration trenches, French drains, dry wells, and injection wells) shall, where practical, protect groundwater from pollutants that may be present in urban runoff. The infiltration system must include a minimum of two feet of suitable soil to achieve a maximum five inches/hour infiltration rate. Adequate maintenance must be provided to maximize pollutant removal capabilities. The vertical distance from the base of any infiltration device to the seasonal high groundwater mark shall be at least ten feet (10'), and in areas characterized by highly porous soils or high ground water tables, additional analysis may be required by the City/County. Infiltration devices shall not be recommended as treatment measures in the vicinity of known contamination sites, or for areas of industrial or light industrial activity, automotive repair shops, car washes, fleet storage areas, nurseries, and areas subject to high vehicular traffic (25,000 or greater average daily traffic [ADT] on main roadway or 15,000 or more ADT on any intersecting roadway). Infiltration devices shall be located a minimum of 100 feet horizontally from any water supply well, septic systems, and underground storage tanks with hazardous materials.
6. For projects creating and/or replacing greater than or equal to one acre of impervious surface that increase the impervious surface area over pre-project conditions, the agency may complete a Hydromodification Management (HM) Applicability Worksheet to determine if the HM requirements apply. If it is determined that the HM requirements apply, the project must (a) incorporate appropriate site planning and source control measures to manage hydromodification impacts and identify those measures implemented for treatment purposes which also are intended to contribute to reduction of post-project flows, and (b) implement the enhanced HM requirements for flow duration control as described in Attachment B of the Municipal Regional Stormwater Permit. The Bay Area Hydrology Model has been developed to size flow duration controls. See www.bayareahydrologymodel.org.

⁴ An infiltration device is any structure that is deeper than wide and designed to infiltrate stormwater into the subsurface and, as designed, bypass the natural groundwater protection afforded by surface soil.

7. The design of any stormwater quality treatment measures or hydromodification management measures incorporated in the project must incorporate the treatment control design guidance for vector control included in the Alameda Countywide Clean Water Program's Vector Control Plan.
8. If the project includes one or more permanent stormwater quality treatment control measure(s) and/or hydromodification management (HM) measures, a Stormwater Treatment Measures Maintenance Agreement (Agreement) shall be executed between the Project Owner and the City/County and recorded with the County Recorder's Office of the County of Alameda. The agency shall identify the appropriate step in the development approval process by which the Agreement must be executed (for example, prior to the approval of the Final Map, issuance of a grading permit or issuance of a building permit). The property owner shall prepare, to the City/County's satisfaction, and submit four required Exhibits to the Agreement: (1) a legible, recordable, reduced-scale (8.5"x11") copy of the Site Plan indicating the treatment measure(s) location(s) and site drainage patterns; (2) a maintenance plan, including specific long-term maintenance tasks and a schedule, and incorporating the treatment control operation and maintenance guidance for mosquito control from the Alameda Countywide Clean Water Program's Vector Control Plan; (3) checklists appropriate to the type of treatment measure(s) that will be used on the property (to be provided by the City/County unless otherwise directed by the City/County)(optional requirement municipalities shall use); and (4) a standard Treatment Measure Operation and Maintenance Inspection Report form (template to be provided by the City/County).
9. New, additional post-construction stormwater control requirements may apply to projects that receive final planning approval on or after December 1, 2011, and are "Regulated Projects" (projects that create and/or replace 10,000 square feet of impervious surface or projects that create and/or replace 5,000 square feet or more of impervious surface related to auto service facilities, retail gasoline outlets, restaurants, and/or surface parking).

REQUIREMENTS DURING CONSTRUCTION

10. The project owner shall review and comply with the current Construction General Permit issued by the State Water Resources Control Board. Requirements for filing a Notice of Intent and Project Registration Documents (PRDs) will be in effect beginning July 1, 2010. Projects active on or after the July 1, 2010, effective date shall file electronically for coverage under the new permit (adopted in September 2009). Prior to the issuance of a grading or building permit for a project that will result in land disturbance of one acre or more, the applicant shall submit to the City/County: (a) a copy of the project's Storm Water Pollution Prevention Plan (SWPPP) and (b) evidence to the City or County that a Notice of Intent (NOI) has been submitted to the (California) State Water Resources Control Board. A copy of the project's NOI and SWPPP shall be kept on-site and made available upon request for review by municipal, county and state officials, inspectors or engineers.
11. Prior to the commencement of any clearing, grading and/or excavation [resulting in a land disturbance of 10,000 square feet or more and/or requiring a grading permit], the applicant shall submit to the City/County, a Stormwater Quality Protection Plan (SQPP) or Stormwater Pollution Prevention Plan (SWPPP) to

demonstrate that the owner, developer, and/or contractor has evaluated BMPs for protection of stormwater quality during construction activities and has incorporated the site-specific, and seasonally- and phase-appropriate BMPs in the following six categories: erosion control, run-on and run-off control, sediment control, active treatment systems (as necessary), good site management, and non-stormwater management.

12. The applicant shall implement the SWPPP or SQPP, including erosion control measures to prevent soil, dirt and debris from entering the storm drain system, in accordance with the practices outlined in the ABAG *Erosion and Sediment Control Handbook*, California Stormwater Quality Association Handbooks, and Regional Water Quality Control Board's *Erosion and Sediment Control Field Manual*.
13. All projects involving any land disturbance must incorporate all of the following in project plans:
 - ✓ Perform clearing and earth moving activities only during dry weather.
 - ✓ Minimize removal of natural vegetation. Replant area as soon as possible after grading is completed. All cut and fill slopes shall be stabilized as soon as possible after grading is completed. NO site grading shall occur between October 1 and April 30 unless approved erosion and sedimentation controls are in place.
 - ✓ Delineate with field markers clearing limits, trees, easements, property line, setbacks, sensitive or critical areas, buffer zones, and drainage courses.
 - ✓ Divert onsite runoff around exposed areas and off-site runoff around the site (e.g. swales and dikes).
 - ✓ Use methods to prevent erosion and trap sediment on-site, such as sediment basins or traps, earthen dikes or berms, silt fences, check dams, storm drain inlet protection, soil blankets or mats, covers for soil stock piles, and/or other measures.
 - ✓ Include notes, specifications or attachments to describe: a) construction, operation and maintenance of erosion and sediment control measures, including inspection frequency; b) methods and schedule for grading, excavation, filling, clearing of vegetation, and storage and disposal of excavated or cleared material; c) vegetative cover and mulch specifications, including methods and schedules for planting and fertilization; and d) provisions for temporary and/or permanent irrigation.
14. The applicant is responsible for ensuring that all contractors and subcontractors are aware of and implement all stormwater quality control measures. Failure to comply with the approved construction BMPs shall result in the issuance of correction notices, citations and/or a project stop work order.
15. Construction access routes shall be limited to those approved by the City/County Engineer and shall be shown on the approved grading plan. Designated access points shall be stabilized.
16. Store, handle, and dispose of construction materials and wastes properly to prevent their contact with stormwater. Gather all construction debris on a regular basis, as deemed appropriate by the agency, and place it in a dumpster or other container which is emptied or removed at least weekly. When appropriate, use tarps on the

ground to collect fallen debris or splatters that could contribute to stormwater pollution.

17. Remove all dirt, gravel, rubbish, refuse and green waste from the sidewalk, street pavement, and storm drain system adjoining the project site.
18. Broom sweep the sidewalk and public street pavement adjoining the project site on a daily basis, or as required by the agency. Caked on mud or dirt shall be scraped from these areas before sweeping.
19. Avoid tracking dirt or other materials off-site. During wet weather, minimize driving vehicles off paved areas and other outdoor work.
20. Create a contained and covered area on the site for the storage of bags of cement, paints, flammables, oils, fertilizers, pesticides, or any other materials used on the project site that have the potential for being discharged to the storm drain system by wind or in the event of a material spill.
21. Use sediment controls or filtration to remove sediment when dewatering. Obtain all necessary permits.
22. Protect adjacent properties and undisturbed areas using vegetated buffer strips, sediment barriers or filters, dikes, mulching, or other measures as appropriate. Install filter materials (such as gravel bags, filter fabric, etc.) at the storm drain inlet nearest the downstream side of the project site:
 - (a) prior to start of the rainy season (October 1);
 - (b) prior to site dewatering activities;
 - (c) prior to street washing activities; and
 - (d) prior to saw cutting asphalt or concrete; or
 - (e) as required by the agency.Filter materials shall be maintained and/or replaced as necessary to ensure effectiveness and prevent street flooding. Dispose of filter particles in the trash.
23. Never clean machinery, tools, brushes, etc. or rinse containers into a street, gutter, storm drain, flood control channel or stream/creek. See the *Building Maintenance/Remodeling* flyer for more information.
24. Ensure that concrete/gunite supply trucks or concrete/plaster finishing operations do not discharge washwater into street gutters or drains. See the *Concrete & Mortar Application* flyer for more information.
25. Control and prevent discharge of all potential pollutants, including pavement cutting wastes, paints, concrete, petroleum products, chemicals, washwater or sediments, and non-stormwater discharges to storm drains and watercourses.
26. Avoid cleaning, fueling, or maintaining vehicles on-site, except in a designated area where washwater is contained and treated. See the *Building Maintenance/Remodeling* flyer for more information.

DRAFT UPDATE

**STORMWATER TREATMENT MEASURES
MAINTENANCE AGREEMENT**

RECITALS

This Stormwater Treatment Measures Maintenance Agreement (“Agreement”) is entered into this [insert date] by and between the City of [insert name of City] (“City”) and [insert name of property owner] (“Property Owner”), a property owner of real property described in this Agreement.

WHEREAS, On October 14, 2009, the Regional Water Quality Control Board, San Francisco Bay Region, adopted Order R2-2009-0074, the Municipal Regional Stormwater Permit (MRP) (CAS612008); and

WHEREAS, Provision C.3.h. of this MRP, and as it may be amended or reissued, requires the permittee public agencies to provide minimum verification and access assurances that all treatment measures and hydromodification management (HM) controls (if any) shall be adequately operated and maintained by entities responsible for the stormwater treatment measures and HM controls; and

WHEREAS, the Property Owner, [insert name], is the owner of real property commonly known as [insert address]_____ (the “Property”), and more particularly described in the attached legal description (Exhibit XX).

WHEREAS, attached hereto as Exhibit YY is a legible reduced-scale copy of the Site Plan or comparable document showing the stormwater treatment measures and HM controls (if any) that are to be located or to be constructed on the Property; and

WHEREAS, the City is the permittee public agency with jurisdiction over the Property.

WHEREAS, the Property Owner recognizes that the stormwater treatment measure(s) and HM controls(s) (if any) more particularly described and shown on Exhibit XX, of which full-scale plans and any amendments thereto are on file with the [Planning] Department of the City of XXX must be installed and maintained as indicated in this Agreement and as required by the NPDES permit.

WHEREAS, the City and the Property Owner agree that the health, safety and welfare of the citizens of the City require that the stormwater treatment measure(s) and HM controls (if any) detailed in the Site Plan or comparable document be constructed and maintained on the Property; and

WHEREAS, the City’s Stormwater Management Ordinance, guidelines, criteria and other written directions require that the stormwater treatment measure(s) and HM controls (if any), as shown on the approved Site Plan or comparable document, be constructed and maintained by the Property Owner

THEREFORE, in consideration of the benefit received by the Property Owner as a result of the City’s approval of the Site Plan, the Property Owner hereby covenants and agrees with the City as follows:

SECTION 1: CONSTRUCTION OF TREATMENT MEASURES

The on-site stormwater treatment measure(s) and HM controls (if any) shown on the Site

Plan or comparable document shall be constructed by the Property Owner in strict accordance with the approved plans and specifications identified for the development and any other requirements thereto which have been approved by the City in conformance with appropriate City ordinances, guidelines, criteria and other written direction.

SECTION 2: OPERATION & MAINTENANCE RESPONSIBILITY

This agreement shall serve as the signed statement by the Property Owner accepting responsibility for operation and maintenance of stormwater treatment measures and HM controls (if any) as set forth in this Agreement until the responsibility is legally transferred to another person or entity. Before the Property is legally transferred to another person or entity, the Property Owner shall provide to the City at least one of the following:

- 1) A signed statement from the public entity assuming post-construction responsibility for treatment measure and HM controls maintenance and that the treatment measures and HM controls (if any) meet all local agency design standards; or
- 2) Written conditions in the sales or lease agreement requiring the buyer or lessee to assume responsibility for operation and maintenance (O&M) consistent with this provision, which conditions, in the case of purchase and sale agreements, shall be written to survive beyond the close of escrow; or
- 3) Written text in project conditions, covenants and restrictions (CCRs) for residential properties assigning O&M responsibilities to the home owners association for O&M of the treatment measures; or
- 4) Any other legally enforceable agreement or mechanism that assigns responsibility for the maintenance of treatment measures and HM controls (if any).

SECTION 3: MAINTENANCE OF TREATMENT MEASURES AND HM CONTROLS

The Property Owner shall not destroy or remove the stormwater treatment measures and HM controls (if any) from the Property nor modify the stormwater treatment system and HM controls (if any) in a manner that lessens their effectiveness, and shall, at Property Owner's sole expense, adequately maintain the stormwater treatment measure(s) and HM controls (if any) in good working order acceptable to the City and in accordance with the maintenance plan agreed hereto and attached as Exhibit XX. This includes all pipes, channels or other conveyances built to convey stormwater to the treatment measure(s) and HM controls (if any), as well as all structures, improvements, and vegetation provided to control the quantity and quality of the stormwater. Adequate maintenance is herein defined as maintaining the described facilities in good working condition so that these facilities continue to operate as originally designed and approved. The maintenance plan shall include a detailed description of and schedule for long-term maintenance activities.

SECTION 4: SEDIMENT MANAGEMENT

Sediment accumulation resulting from the normal operation of the stormwater treatment measure(s) will be managed appropriately by the Property Owner. The Property Owner will provide for the removal and disposal of accumulated sediments. Disposal of accumulated sediments shall not occur on the Property, unless provided for in the maintenance plan. Any disposal or removal of accumulated sediments or debris shall be in compliance with all federal, state and local law and regulations.

SECTION 5: NECESSARY CHANGES AND MODIFICATIONS

At its sole expense, the Property Owner shall make changes or modifications to the stormwater treatment measure(s) and/or the long-term maintenance plan (Exhibit XX) as may be

determined as reasonably necessary by the City to ensure that treatment measures are properly maintained and continue to operate as originally designed and approved.

SECTION 6: ACCESS TO THE PROPERTY

The Property Owner hereby grants permission to the City; the San Francisco Bay Regional Water Quality Control Board (Regional Board); the San Mateo County Mosquito Abatement District (Mosquito Abatement District); and their authorized agents and employees to enter upon the Property at reasonable times and in a reasonable manner to inspect, assess or observe the stormwater treatment measure(s) in order to ensure that treatment measures and HM controls (if any) are being properly maintained and are continuing to perform in an adequate manner to protect water quality and the public health and safety. This includes the right to enter upon the Property whenever there is a reasonable basis to believe that a violation of this Agreement, the City's stormwater management ordinance, guidelines, criteria, other written direction, or the San Mateo Countywide NPDES Municipal Stormwater Permit (Regional Board Order 99-059, as amended by Regional Board Order R2-2003-0023, and any amendments or reissuances of this permit) is occurring, has occurred or threatens to occur. The above listed agencies also have a right to enter the Property when necessary for abatement of a public nuisance or correction of a violation of the ordinance guideline, criteria or other written direction. The City, Regional Board, or the Mosquito Abatement District shall provide reasonable (as may be appropriate for the particular circumstances) notice to the Property Owner before entering the property.

SECTION 7: FAILURE TO MAINTAIN TREATMENT MEASURES AND HM CONTROLS

In the event the Property Owner fails to maintain the stormwater treatment measure(s) and HM controls (if any) as shown on the approved Site Plan or comparable document in good working order acceptable to the City and in accordance with the maintenance plan incorporated in the Agreement, the City, and its authorized agents and employees with reasonable notice, may enter the Property and take whatever steps it deems necessary and appropriate to return the treatment measure(s) and HM controls (if any) to good working order. Such notice will not be necessary if emergency conditions require immediate remedial action. This provision shall not be construed to allow the City to erect any structure of a permanent nature on the Property. It is expressly understood and agreed that the City is under no obligation to maintain or repair the treatment measure(s) and HM controls (if any) and in no event shall this Agreement be construed to impose any such obligation on the City.

SECTION 8: REIMBURSEMENT OF CITY EXPENDITURES

In the event the City, pursuant to this Agreement, performs work of any nature (direct or indirect), including any reinspections or any actions it deems necessary or appropriate to return the treatment measure(s) and HM controls (if any) in good working order as indicated in Section 8, or expends any funds in the performance of said work for labor, use of equipment, supplies, materials, and the like, the Property Owner shall reimburse the City, or shall forfeit any required bond upon demand within thirty (30) days of receipt thereof for the costs incurred by the City hereunder. If these costs are not paid within the prescribed time period, the City may assess the Property Owner the cost of the work, both direct and indirect, and applicable penalties. Said assessment shall be a lien against the Property or may be placed on the property tax bill and collected as ordinary taxes by the City. The actions described in this section are in addition to and not in lieu of any and all legal remedies as provided by law, available to the City as a result of the Property Owner's failure to maintain the treatment measure(s) and HM controls (if any).

SECTION 9: INDEMNIFICATION

The Property Owner shall indemnify, hold harmless and defend the City and its authorized agents, officers, officials and employees from and against any and all claims, demands, suits, damages, liabilities, losses, accidents, casualties, occurrences, claims and payments, including attorney fees claimed or which might arise or be asserted against the City that are alleged or proven to result or arise from the construction, presence, existence or maintenance of the treatment measure(s) and HM controls (if any) by the Property Owner or the City. In the event a claim is asserted against the City, its authorized agents, officers, officials or employees, the City shall promptly notify the Property Owner and the Property Owner shall defend at its own expense any suit based on such claim. If any judgment or claims against the City, its authorized agents, officers, officials or employees shall be allowed, the Property Owner shall pay for all costs and expenses in connection herewith. This section shall not apply to any claims, demands, suits, damages, liabilities, losses, accidents, casualties, occurrences, claims and payments, including attorney fees claimed which arise due solely to the negligence or willful misconduct of the City.

SECTION 10: NO ADDITIONAL LIABILITY

It is the intent of this agreement to insure the proper maintenance of the treatment measure(s) and HM controls (if any) by the Property Owner; provided, however, that this Agreement shall not be deemed to create or effect any additional liability not otherwise provided by law of any party for damage alleged to result from or caused by storm water runoff.

SECTION 11: PERFORMANCE FINANCIAL ASSURANCE

The City may request the Property Owner to provide a performance bond, security or other appropriate financial assurance providing for the maintenance of the stormwater treatment measure(s) and HM controls (if any) pursuant to the City's ordinances, guidelines, criteria or written direction..

SECTION 12: TRANSFER OF PROPERTY

This Agreement shall run with the title to the land and any portion thereof. The Property Owner further agrees whenever the Property or any portion thereof is held, sold, conveyed or otherwise transferred, it shall be subject to this Agreement which shall apply to, bind and be obligatory to all present and subsequent owners of the Property or any portion thereof.

SECTION 13: SEVERABILITY

The provisions of this Agreement shall be severable and if any phrase, clause, section, subsection, paragraph, subdivision, sentence or provision is adjudged invalid or unconstitutional by a court of competent jurisdiction, or the applicability to any Property Owner is held invalid, this shall not affect or invalidate the remainder of any phrase, clause, section, subsection, paragraph, subdivision, sentence or provision of this Agreement.

SECTION 14: RECORDATION

This Agreement shall be recorded by the Property Owner within [insert number of days]____ days after the execution date of this Agreement in the County Recorder's Office of the County of San Mateo, California at the Property Owner's expense. The City reserves the option to record this Agreement.

SECTION 15: RELEASE OF AGREEMENT

In the event that the City determines that the stormwater treatment measures and HM controls (if any) located on the Property are no longer required, then the City, at the request of the Property Owner shall execute a release of this Maintenance Agreement, which the Property Owner

shall record in the County Recorder's Office at the Property Owner's expense. The City reserves the option to record such release of this Maintenance Agreement. The stormwater treatment measure(s) and HM controls (if any) shall not be removed from the Property unless such a release is so executed and recorded.

SECTION 16: EFFECTIVE DATE AND MODIFICATION

This Agreement is effective upon the date of execution as stated at the beginning of this Agreement. This Agreement shall not be modified except by written instrument executed by the City and the Property -Owner at the time of modification. Such modifications shall be effective upon the date of execution and shall be recorded.

Signature for the City

Date

Type or print name and title

Property Owner Signature

Date

Type or print Property Owner name and address

[[== Insert Agency Name ==]]
Alternative Certification Program
Stormwater Treatment Measure Design Criteria

[[== NOTE TO AGENCIES: THE FOLLOWING IS THE TEXT OF PROVISIONS C.3.d and C.3.i OF ACCWP'S NPDES PERMIT. YOUR AGENCY IS NOT REQUIRED TO ACCEPT ALL OF THE SIZING OPTIONS IN PROVISION C.3.d. YOU MAY DELETE ANY OF THE SIZING OPTIONS THAT YOU DO NOT WISH TO ACCEPT, BUT YOU MUST INCLUDE AT LEAST ONE FLOW-BASED AND ONE VOLUME-BASED OPTION FROM PROVISION C.3.d. THE ACCWP'S C.3 STORMWATER HANDBOOK RECOMMENDS USING THE TREATMENT CONTROL SIZING METHODS DESCRIBED IN THE CASQA HANDBOOK— THESE ARE i.2 AND ii.2. YOU MAY ADD ADDITIONAL CRITERIA THAT YOU DEVELOP FOR YOUR AGENCY. ==]]

When conducting alternative certification review, qualified professionals will review project applicant design submittals per the design criteria set forth below, including the requirements of Provisions C.3.d and C.3.i of the ACCWP's municipal stormwater NPDES permit.

1. TREATMENT MEASURE DESIGN CRITERIA FROM PROVISION C.3.D

C.3.d Numeric Sizing Criteria For Pollutant Removal Treatment Systems

All Permittees shall require that treatment measures be constructed for applicable projects, as defined in Provision C.3.c, that incorporate, at a minimum, the following hydraulic sizing design criteria to treat stormwater runoff. As appropriate for each criterion, the Permittees shall use or appropriately analyze local rainfall data to be used for that criterion.

i. Volume Hydraulic Design Basis

Treatment measures whose primary mode of action depends on volume capacity, such as detention/retention units or infiltration structures, shall be designed to treat stormwater runoff equal to:

1. The maximized stormwater quality capture volume for the area, based on historical rainfall records, determined using the formula and volume capture coefficients set forth in Urban Runoff Quality Management, WEF Manual of Practice No. 23/ ASCE Manual of Practice No. 87, (1998), pages 175-178 (e.g., approximately the 85th percentile 24-hour storm runoff event); or
2. The volume of annual runoff required to achieve 80 percent or more capture, determined in accordance with the methodology set forth in Appendix D of the California Stormwater Best Management Practices Handbook (1993), using local rainfall data.

ii. Flow Hydraulic Design Basis

Treatment measures whose primary mode of action depends on flow capacity, such as swales, sand filters, or wetlands, shall be sized to treat:

1. 10% of the 50-year peak flow rate; or
2. The flow of runoff produced by a rain event equal to at least two times the 85th percentile hourly rainfall intensity for the applicable area, based on historical records of hourly rainfall depths; or
3. The flow of runoff resulting from a rain event equal to at least 0.2 inches per hour intensity.

2. TREATMENT MEASURE DESIGN CRITERIA FROM PROVISION C.3.i

C.3.i Limitations on Use of Infiltration Treatment Measures - Infiltration and Groundwater Protection

In order to protect groundwater from pollutants that may be present in urban runoff, treatment measures that function primarily as infiltration devices (such as infiltration basins and infiltration trenches not deeper than their maximum width) shall meet, at a minimum, the following conditions:

- i.** Pollution prevention and source control measures shall be implemented at a level appropriate to protect groundwater quality at sites where infiltration devices are to be used;
- ii.** Use of infiltration devices shall not cause or contribute to degradation of groundwater water quality objectives;
- iii.** Infiltration devices shall be adequately maintained to maximize pollutant removal capabilities;
- iv.** The vertical distance from the base of any infiltration device to the seasonal high groundwater mark shall be at least 10 feet. Note that some locations within the Permittees' jurisdiction are characterized by highly porous soils and/or a high groundwater table; in these areas treatment measure approvals should be subject to a higher level of analysis (e.g., considering the potential for pollutants such as on-site chemical use, the level of pretreatment to be achieved, and similar factors);
- v.** Unless stormwater is first treated by a means other than infiltration, infiltration devices shall not be recommended as treatment measures for areas of industrial or light industrial activity; areas subject to high vehicular traffic (25,000 or greater average daily traffic on main roadway or 15,000 or more average daily traffic on any intersecting roadway); automotive repair shops; car washes; fleet storage areas (bus, truck, etc.); nurseries; and other high threat to water quality land uses and activities as designated by each Permittee; and,
- vi.** Infiltration devices shall be located a minimum of 100 feet horizontally from any water supply wells.

Proposed “Special Projects” per Provision C.3.e.ii.

DRAFT—28 March 2010

Special Projects

1. For Special Projects, permittees will require applicants for development approvals to implement Low Impact Development facilities as defined in Provision C.3.c.i.(2)(b) to the extent feasible. To the extent Low Impact Development facilities are not feasible, permittees may allow applicants to implement the following types of stormwater treatment facilities meeting the requirements of Provision C.3.d.:
 - a. A flat-bed sand or media filter meeting the relevant minimum criteria in the current edition of the California Stormwater BMP Handbooks published by the California Stormwater Quality Association (currently BMP Fact Sheet TC-40).
 - b. A proprietary surface biofilter, such as a tree-pit-style unit.
 - c. A proprietary vault-based filtration unit.

2. Special Projects are as follows:
 - a. Projects creating or replacing no more than *one acre* of impervious area and approved for development or redevelopment with permanent structures extending effectively lot-line-to-lot-line as part of a municipality’s stated objective to preserve or enhance a pedestrian-oriented type of urban design.
 - b. Projects creating or replacing up to *two acres* of impervious area, and having no surface parking areas (other than that required for emergency vehicle access, ADA accessibility, passenger and freight loading zones, and other incidental parking functions), to achieve a compact smart-growth type of urban design.
 - c. Projects located within ½ mile of a BART, light rail, or commuter rail station or within an area designated as a Transit Village or Transit Center under a City’s General Plan or a specific plan.
 - d. Portions of sites which are not being developed or redeveloped, but which must be retrofit to meet treatment requirements under the “50% rule” (Provisions C.3.b.ii.(1)(c), C.3.b.ii.(3)(a), and C.3.b.ii.(4)(b)).
 - e. Widening of existing streets or roads with additional traffic lanes.
 - f. Projects approved as Special Projects by the Executive Officer.

Board Staff Response to BASMAA’s Proposed “Special Projects” Definitions

As we discussed in the April 1 meeting, to allow Special Projects to implement LID only “to the extent feasible” will not work. The LID treatment reduction credit for each Special Projects category has to be specified, and you should assume a credit of 100% will be difficult to justify. Also, as written, your proposal potentially carves out too much geographical area that will be exempted from 100% LID treatment onsite. The overall area associated with each category should be small in a specific drainage area as well as region-wide.

Provision C.3.e.ii.(2) specifically asks for the following:

- Identification of institutional and/or technical site-specific constraints to providing 100% LID treatment onsite
- Specific criteria for each type of Special Project proposed, including size, location, minimum densities, minimum floor area ratios, or other appropriate limitations
- Identification of specific water quality and environmental benefits that justify the non-LID allowance for each type of Special Project
- An estimate of the number and cumulative area of potential Special Projects during the remaining term of the MRP.

Only some of the bulleted items above in very general terms have been included in your proposal for a few categories of Special Projects. Constraints to providing 100% LID treatment cannot be limited just to lack of space or the unwillingness of developers to set aside space for LID treatment measures. Constraints on stormwater re-use need to be addressed beyond stating that it would be very difficult to include re-use. There also needs to be a demonstration that Alternative Compliance on a 1:1 basis is infeasible within the same or neighboring drainage area as the project.

Category 2.a.

“Lot-line-to-lot-line” needs to be better defined. A “municipality’s stated objective to preserve or enhance a pedestrian-oriented type of urban design” does not sufficiently demonstrate a “specific water quality or environmental benefit that would justify non-LID treatment measures.” It should be documented why this type of development, where empty lots will be developed to match what’s next door, essentially older developments, one-, possibly two-story buildings that don’t have any landscaping or stormwater re-use, is so critical to some municipalities when other municipalities avoid this type of development altogether. This category, with a maximum cap of one acre of impervious area, could potentially carve out large portions of downtowns in every city under the MRP. The size cap should be reduced and other limiting parameters included such as density, floor area ratio, minimum number of stories, etc., as well as the specific water quality and environmental benefits from these projects that justify non-LID treatment measures.

Category 2.b.

This category with a maximum cap of two acres of impervious area could carve out entire downtowns from some of the bigger cities under the MRP. The size cap should be reduced and other limiting parameters included such as density, floor area ratio, minimum number of stories,

etc., as well as the specific water quality and environmental benefits from these projects that justify non-LID treatment measures.

Category 2.c.

This category is based on a too broad definition for Transit-oriented Development (TOD). We worked extensively with MTC to refine the TOD definition we had in earlier drafts of the MRP and it represented projects genuinely deserving of special consideration under the MRP. The proposed TOD definition should be revised to match the one we had earlier.

Category 2.d.

We don't support this category, which allows non-LID treatment for areas that need to be retrofitted with stormwater treatment because of the > 50% impervious surface area replacement rule. Because LID must be installed for any newly added impervious area, it would not be difficult to pump runoff from the existing areas into these treatment measures. The 50% rule is the one opportunity provided by the MRP to get LID treatment in retrofit situations; these existing areas should not be categorically "written off" because of drainage challenges that can be easily addressed.

Category 2.e.

We don't support this category. Some of the major arguments put forward by Permittees against requiring stormwater treatment for road rehabilitation projects were centered on how existing utilities made infeasible any kind of stormwater treatment for roads. This was also a major argument for allowing alternative compliance for the portion of roads that have traffic lanes added. The inclusion of this category as a Special Project contradicts these arguments because it implies that space and underground utilities are no longer challenges because these projects should be allowed to install non-LID measures.

Category 2.f.

Case-by-case consideration by the EO will not work. When we had a step for the EO to approve projects in an earlier draft of the MRP, Permittees and NGOs alike make it very clear to the Board that they did not want this step in the project approval process because of potential delays and the question of the EO's authority to approve projects.

BASMAA Meeting Highlights
Development Committee Meeting

Meeting Date: May 6, 2010

1. **Soil specifications work group** will prepare for the June DC meeting a draft scope of work for consultant to (1) update Contra Costa Clean Water Program soil specifications, per information obtained at the April 14 soil specifications roundtable, and (2) develop information needed for soil specifications submittal to Water Board by 12/1/10.
2. **Construction BMP Outreach Pieces work group** will review existing BASMAA construction BMP outreach pieces and make recommendations for updating the outreach pieces.
3. **Green streets.** Committee reviewed draft Request for Proposals for a consultant to assist with monitoring green streets pilot projects and modeling water quality improvements.
4. **Green roof specifications.** Preliminary green roof specifications literature review and recommendations will be revised based on DC comments.
5. **LID Feasibility/Infeasibility and Special Projects.** Lisa Austin of Geosyntec will be invited to the June DC meeting, to present criteria developed for Orange County to identify (1) feasibility/infeasibility of rainwater harvesting/use, evapotranspiration and/or infiltration, and (2) special projects where LID requirements are reduced.

Next Meeting: June 3

Applicability: Code Section: 490.1

1. Public agency or private development over 2,500 landscape area
2. Residential project over 2,500 landscape area
3. Homeowner project over 5,000 landscape area

Exempt projects:

- a. Registered local, state, or federal historical sites
- b. Ecological restoration projects that do not require a permanent irrigation system
- c. Mining or land reclamation that do not require a permanent irrigation system
- d. Botanical gardens and arboretums open to the public

See attached ordinance for additional information

Code Section: 492.3 PROJECT INFORMATION			
<i>Project Applicant:</i>		<i>Submittal Date:</i>	
<i>Project Address:</i>		<i>APN:</i>	
<i>Project Owner:</i>		<i>Project Contact:</i>	
<i>Project Type:</i>		<i>Project Landscape Area (SF):</i>	
<i>Water Purveyor:</i>			
<i>Water Supply Type:</i>	<i>Recycled</i> <input type="checkbox"/>	<i>Potable</i> <input type="checkbox"/>	<i>Well</i> <input type="checkbox"/> <i>Other</i> <input type="checkbox"/>

MET	NOT MET	N/A	Code Section: 492.3 PROJECT INFORMATION
			<i>1. Checklist</i>
			<i>2. Landscape Documentation Package</i>
			<i>3. Applicant Signature and Date</i>

Comments (For municipal staff use only):

MET	NOT MET	N/A	Code Section: 492.4 WATER EFFICIENT LANDSCAPE WORKSHEET
			<i>1. Hydrozone Information Table</i>
			<i>2. Water Budget Calculations</i>
			<i>3. MAWA calculations shown MAWA= (ETo) (.62) [(0.7xLA)] + (0.3 x(SLA)</i>
			<i>4. ETWU does not exceed MAWA</i>
			<i>5. ET rate matches correct zone</i>
			<i>6. Plant water usage factors based on WUCOLS</i>
			<i>7. Water features are shown as high hydrozone use</i>
			<i>8. Temporary irrigation systems are shown as low hydrozone</i>
			<i>9. Special Landscape Areas shown</i>
			<i>10. ETAF for SLA is 1.0 Max</i>

Comments (For municipal staff use only):

MET	NOT MET	N/A	Code Section: 492.5 SOIL MANAGEMENT REPORT
			<i>1. Number of soil samples, soil analysis, and recommendations are in line with project size, type and plants listed on the planting plan</i>

Comments (For municipal staff use only):

MET	NOT MET	N/A	Code Section: 492.6 LANDSCAPE DESIGN PLAN
			<i>1. Selection of appropriate plant materials</i>
			<i>2. Planting Plan and plant list provided</i>
			<i>3. Hydrozones identified on plans as low, medium, high or mixed</i>
			<i>4. Each hydrozone shall have plant materials with similar water use</i>
			<i>5. No turf on slopes greater than 20% where the toe of slope is impermeable</i>
			<i>6. Landscape in fire prone area is designed to address fire safety and prevention</i>
			<i>7. Fire defensible space is shown for fire prone areas</i>
			<i>8. Recreation areas shown</i>
			<i>9. Identify areas to receive recycled water</i>
			<i>10. Identify rain harvesting areas if utilized</i>
			<i>11. Type and depth of mulch (2 inch minimum)</i>
			<i>12. Identify edible garden areas</i>
			<i>13. Water features specify recirculating water system</i>
			<i>14. Water features specify use of recycled water where available</i>
			<i>15. Water features specify surface area included as high water use hydrozone</i>
			<i>16. Stabilization mulch specified on slopes to be hydroseeded</i>
			<i>17. Soil amendments, types and quantity specified to satisfy soil report</i>
			<i>18. Pervious / non-pervious hardscape areas identified</i>
			<i>19. Location and details of stormwater BMP's provided</i>
			<i>20. Water efficient landscape compliance statement</i>
			<i>21. Signature of Licensed Landscape Architect, Licensed Contractor or Authorized Designer</i>

Comments (For municipal staff use only):

MET	NOT MET	N/A	Code Section: 492.7 IRRIGATION DESIGN PLAN
			1. <i>Water Efficient Landscape Worksheet on plans</i>
			2. <i>Location, type and size of all components of the irrigation system, including controllers, main and lateral lines, valves, sprinkler heads, moisture sensing devices, rain switches, quick couplers, pressure regulators, and backflow prevention devices clearly shown on plans.</i>
			3. <i>Static water pressure noted on plans</i>
			4. <i>Flow rate GPM (gallons per minute), application rate (inches per hour), and design operating pressure PSI (pressure per square inch) for each station shown on plans</i>
			5. <i>The installation of recycled water irrigation systems shall allow for the current and future use of recycled water, unless a written exemption has been granted</i>
			6. <i>All recycled water irrigation systems shall be designed and operated in accordance with all applicable local state laws.</i>
			7. <i>Water Efficient Irrigation Compliance Statement provided</i>
			8. <i>Signature of Licensed Landscape Architect, Licensed Contractor or Authorized Designer</i>
			9. <i>Signature of Water Efficient Irrigation Compliance Statement on plans</i>
			10. <i>Dedicated irrigation water meters for landscape areas greater than 5,000SF</i>
			11. <i>Automatic irrigation controllers utilizing either evapotranspiration or soil moisture sensor data have been specified</i>
			12. <i>The irrigation system shall be designed to ensure that the dynamic pressure at each emission device is within the manufacturer's recommended pressure range for optimal performance</i>
			13. <i>If the static pressure is above or below the required dynamic pressure of the irrigation system, pressure regulating devices shall be specified to meet the required dynamic pressure of the irrigation system</i>
			14. <i>Automatic weather sensors specified</i>
			15. <i>Manual shut-off valves shown on plans located as close as possible to the point of connection of the water supply</i>
			16. <i>Backflow prevention devices shown on plans</i>
			17. <i>The irrigation system has been designed to prevent runoff, low head drainage, over spray and other similar conditions</i>

Comments (For municipal staff use only):

MET	NOT MET	N/A	Code Section: 492.7 IRRIGATION DESIGN PLAN (continued)
			<i>18. Irrigation system design matches landscape hydrozones</i>
			<i>19. In mulched planting areas, low volume irrigation is specified</i>
			<i>20. Sprinkler heads and other emission devices have matches precipitation rates</i>
			<i>21. Sprinkler spacing shall be designed to achieve the highest possible distribution uniformity using the manufacturer's recommendations. Head to head coverage is recommended</i>
			<i>22. Swing joints on all risers subject to damage that are adjacent to high traffic areas</i>
			<i>23. Check valves or anti-drain valves are required for all irrigation systems</i>
			<i>24. Narrow or irregularly shaped areas, including turf, less than eight (8) feet in width in any direction shall be irrigated with subsurface irrigation or low volume irrigation</i>
			<i>25. Slopes greater than 25% have not been irrigated with an irrigation system with a precipitation rate exceeding 0.75 inches per hour</i>
			<i>26. Each valve shall irrigate a hydrozone with similar site, slope, sun exposure, soil conditions, and plant materials with similar water use</i>
			<i>27. Sprinkler heads and other emission devices shall be selected based on what is appropriate for the plant type within that hydrozone</i>
			<i>28. Where feasible, trees shall be placed on separate valves from shrubs, groundcovers, and turf where feasible</i>
			<i>29. Individual hydrozones that mix high and low water use plants shall not be permitted</i>
			<i>30. No overhead irrigation within 24 inches of any non-permeable surface. Exemptions: a. The landscape area is adjacent to permeable surfacing and no runoff occurs b. The adjacent non-permeable surfaces are designed and constructed to drain entirely to landscaping; c. The irrigation designer specifies an alternative design or technology, as part of the Landscape Documentation Package</i>
			<i>31. Water Efficient Irrigation Compliance Statement and Signature by Authorized Designer</i>

Comments (For municipal staff use only):

MET	NOT MET	N/A	Code Section: 492.8 GRADING PLAN
			<i>1. Grading Plan showing: height of graded slopes, drainage patterns, pad elevations, finish grades and storm water improvements if applicable</i>
			<i>2. Grading Compliance Statement and Signature</i>

Comments (For municipal staff use only):

MET	NOT MET	N/A	Code Section: 492.9 CERTIFICATION OF COMPLETION
			<i>1. Project information sheet</i>
			<i>2. Signed Certificate of Completion to the local agency for review</i>
			<i>3. Landscape and irrigation maintenance schedule</i>
			<i>4. Landscape irrigation audit report conducted by a certified landscape irrigation auditor</i>
			<i>5. Certification of Installation provided</i>
			<i>6. "As-Built" drawings reflecting significant field changes</i>
			<i>7. Irrigation scheduling parameters</i>
			<i>8. Soils analysis report</i>
			<i>9. Soils analysis implementation documentation</i>
			<i>10. Certificate of Compliance submitted to water purveyor and owner</i>

Comments (For municipal staff use only):
