



STORMWATER REQUIREMENTS: OVERVIEW OF PROVISION C.3 MRP 3.0

Background: On October 14, 2009, the Bay Regional Water Quality Control Board (SFRWQCB), San Francisco Bay Region, issued a municipal regional stormwater permit (MRP) under the National Pollutant Discharge Elimination System (NPDES) permit program to the Alameda Countywide Clean Water Program (ACCWP). The goal of the MRP is to reduce pollution in stormwater runoff and limit increases in runoff flows from development projects. The City of Oakland, as a member of ACCWP, is a co-permittee under ACCWP's permit and is, therefore, subject to the MRP requirements.

The SFRWQCB reissued MRP 3.0. The MRP 3.0 went into effect July 1, 2022, with further changes to the Regulated Project Thresholds effective July 1, 2023.

Frequently Asked Questions Concerning the NPDES C.3 Requirements:

1. What is Provision C.3?

Provision C.3 is the section of the MRP containing post-construction stormwater management requirements for new development and redevelopment projects.

2. What are “Regulated Projects”?

“Regulated Projects” are projects that must comply with certain requirements in Provision C.3. The following types of projects are considered Regulated Projects:

- *One Single Family Home Project that creates or replaces 10,000 square feet or more of new or existing impervious surface area¹;*
- *Any other development project that creates or replaces 5,000 square feet or more of new or impervious surface area; and*
- *Any paving maintenance or paving upgrade project that creates or replaces 5,000 square feet or more of new or impervious surface area and affects/disturbs the base layer.*

3. Are there any projects exempt from the definition of Regulated Projects?

The following types of projects are not considered Regulated Projects:

- *Individual single-family dwellings that are not part of larger multi-dwelling developments and create or replace less than 10,000 sq. ft of impervious surface;*
- *Development projects that create or replace less than 5,000 square-feet of impervious surface.*
- *Routine maintenance or repair within the existing footprint;*
- *Reconstruction of existing roadways, sidewalks, bicycle lanes, and trails within the existing footprint or are less than 1 acre of continuous impervious surface;*

¹ Impervious surface is any surface that cannot be effectively (easily) penetrated by water. Permeable paving (such as permeable concrete and interlocking pavers) underlain with permeable soil or permeable storage material, and green roofs with a minimum of three inches of planting media, are not considered impervious surfaces.

- *New roads, sidewalks, trails, and roads to which travel lanes are added. If these projects create \leq 5,000 contiguous square feet of impervious area;*
- *New sidewalks built as part of new roadways and built to direct stormwater runoff to adjacent vegetated areas;*
- *New bicycle lanes that are built as part of new roadways but are not hydraulically connected to the new roadways and that direct stormwater runoff to adjacent vegetated areas;*
- *New impervious trails with a width of 10 feet or less and located more than 50 feet from the top of creek banks;*
- *New impervious trails built to direct stormwater runoff to adjacent vegetated areas, or other non-erodible permeable areas; and*
- *New sidewalks, bicycle lanes, or trails constructed with permeable surfaces.*

4. What are the requirements for Regulated Projects?

Provision C.3 requires Regulated Projects to incorporate post-construction stormwater management measures, including site design measures, source control measures, and stormwater treatment measures to reduce stormwater pollution after construction of the project. These requirements are in addition to standard stormwater-related best management practices (BMPs) required during construction, such as sedimentation and erosion control measures.

5. What are site design measures?

Site design measures are design techniques incorporated into new development and redevelopment projects to enhance the stormwater quality of the site, most commonly by reducing the amount of impervious surface at the site. Regulated Projects must implement the following site design measures, as applicable:

- *Minimize land disturbance and impervious surfaces (especially parking lots).*
- *Maximize permeability by clustering development and preserving open space.*
- *Use micro-detention, including distributed landscape based detention.*
- *Protect sensitive areas, including wetland and riparian areas, and minimize changes to natural topography.*
- *Use self-treating or self-retaining areas.*
- *Minimize stormwater runoff by implementing one or more of the following site design measures (check “Applicable” for at least one measure below):*
 - *Direct roof runoff into cisterns or rain barrels and reuse for irrigation or other non-potable use.*
 - *Direct roof runoff onto vegetated areas.*
 - *Direct runoff from sidewalks, walkways, and/or patios onto vegetated areas.*
 - *Direct runoff from driveways and/or uncovered parking lots onto vegetated areas.*
 - *Construct sidewalks, walkways, and/or patios with permeable pavement systems/surfaces.*
 - *Construct driveways, bike lanes, and/or uncovered parking lots with pavement systems/surfaces.*
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6. What are source control measures?

Source control measures are structural and operational practices to prevent pollutants from contacting stormwater runoff. Both Small Projects and Regulated Projects must implement the following site design measures, as applicable:

- *Install stenciling/medallions as directed at storm drain inlets, such as “No Dumping – Drains to Bay.”*
- *For interior floor drains, plumb drains to sanitary sewer*
- *For interior parking garage floors, plumb drains to sanitary sewer.*

- *For landscaping areas, retain existing vegetation as practicable; Select diverse species appropriate to the site and include as pest/disease resistant, drought tolerant and those that attract beneficial insects. Cover and enclose trash/recycling storage areas and design these areas to prevent storm water run-on and run-off into the trash area. Connect any drains to sanitary sewer.*
- *For pools, spas, and fountains, provide connection to the sanitary sewer to facilitate draining.*
- *For food service equipment (non-residential projects) provide sink or other area for equipment cleaning which is: connected to a grease interceptor prior to sanitary sewer drainage; large enough for the largest mat or piece of equipment to be cleaned; indoors or in an outdoor roofed area designed to prevent stormwater run-on and run-off and signage to require equipment washing in this area.*
- *For refuse areas, provide a roofed and enclosed area for dumpsters, recycling containers, etc. design to prevent stormwater run-on and run-off and connect drains in or underneath dumpsters, compactors, and tallow bin areas for food service facilities to the sanitary sewer.*
- *For outdoor process activities, perform process activities either indoors or in roofed outdoor areas designed to prevent run-on and run-off and to drain to the sanitary sewer.*
- *For outdoor equipment storage and material storage, cover the area or design to avoid pollutant contact with stormwater run-of; locate the area only on paved and contained surfaces; roof storage areas that will contain non-hazardous liquids should drain to the sanitary sewer and be contained by berms or similar structures.*
- *For vehicle equipment and cleaning and commercial car wash facilities, provide roofed, paved and bermed vehicle equipment wash areas to prevent stormwater run-on and runoff, plumb to sanitary sewer and provide signage as the designated wash area. Commercial car wash facilities shall discharge to the sanitary sewer.*
- *For vehicle equipment repair and maintenance, designate vehicle repair/maintenance area indoors, or in an outdoor area designed to prevent stormwater run-on and runoff and provide secondary containment. Do not install floor unless pretreated prior to discharge to the sanitary sewer. Connect containers and sinks used for parts cleaning to the sanitary sewer.*
- *For fuel dispensing areas, the areas shall have impermeable surface that is graded to prevent ponding, separated from the rest of the site by a grade break and canopies shall extend at least 10' in each direction from pumps and drain away from fueling area.*
- *For loading docks, cover and/or grade the docks to minimize run-on and run-off, position downspouts to direct stormwater away from the loading areas, drain water from the docks to the sanitary sewer, and install door skirts between trailers and the building.*
- *For fire sprinklers, design the discharge of fire sprinkler test water to on-site vegetated areas or to the sanitary sewer.*
- *For miscellaneous drain and wash water, drain condensate of air conditioning units to landscaping, connect large air conditioning units to the sanitary sewer, drain roofs drains to unpaved areas where practicable, and drain boiler drain lines, rooftop equipment and all wash water to the sanitary sewer.*
- *For projects that include architectural copper, discharge rinse water to sanitary sewer, or collect and dispose properly offsite.*
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7. What are stormwater treatment measures?

Stormwater treatment measures are engineered systems that use physical, chemical, or biological processes to remove pollutants from stormwater runoff. Examples of stormwater treatment measures include plant-based systems such as bioretention areas and vegetated swales, as well as mechanical systems such as vault-type media filters.

8. For Regulated Projects, what volume of stormwater runoff must the stormwater treatment measures treat?

The stormwater treatment measures are required to treat stormwater runoff from all of the new/replaced impervious surface. In other words, stormwater runoff from all of the new/replaced impervious surface must pass through a treatment system before being discharged off-site. The stormwater treatment measures must be designed according to one of the following hydraulic sizing criteria contained in Provision C.3:

A. Volume Hydraulic Design Basis – Treatment measures whose primary mode of action depends on volume capacity:

- 1) The maximized stormwater capture volume for the area, on the basis of historical rainfall records, determined using the formula and volume capture coefficients set forth in Urban Runoff Quality Management, (e.g., approximately the 85th percentile 24-hour storm runoff event);*
- 2) The volume of annual runoff required to achieve 80 percent or more capture, determined in accordance with the methodology set forth in Section 5 of the California Stormwater Quality Association's Stormwater Best Management Practice Handbook, New Development and Redevelopment (2003), using local rainfall data;*

B. Flow Hydraulic Design Basis – Treatment measures whose primary mode of action depends on flow capacity:

- 1) 10 percent of the 50-year peak flowrate;*
- 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;*
- 3) The flow of runoff resulting from a rain event equal to at least 0.2 inches per hour intensity; or*

C. Combination Flow and Volume Design Basis – Treatment measures using a combination of flow and volume capacity sized to treat at least 80 percent of the total runoff over the life of the project, using local rainfall data.

9. How do the requirements for Regulated Projects apply to redevelopment projects on previously developed sites?

Redevelopment projects on previously developed sites that replace 5,000 square feet or more of existing impervious surface (or 10,000 square feet or more for single-family homes, as explained above in Question 2) are considered Regulated Projects and are subject to C.3 requirements. Even if the project results in the net reduction of the total amount of impervious surface on-site, the project must still comply with Provision C.3 if the project meets or exceeds these thresholds. If a redevelopment project creates or replaces 5,000 square feet or more of existing impervious surface and the amount of new and replaced impervious surface equals fifty percent or more of the total amount of previously existing (pre-project) impervious surface, the entire project site (including existing impervious surface) must be included in the design of the stormwater treatment measures. If a redevelopment project creates or replaces 5,000 square feet or more of existing impervious surface and the amount of new and replaced impervious surface equals less than fifty percent of the total amount of previously existing (pre-project) impervious surface, only stormwater runoff from the new and replaced impervious surface area must be included in the design of the stormwater treatment measures.

10. What are the new Low Impact Development (LID) requirements?

Since December 1, 2011, only Low Impact Development (LID) treatment measures are allowed for most Regulated Projects. LID treatment measures are rainwater harvesting, infiltration, evapotranspiration, and/or biotreatment. Rainwater harvesting is the capture of rainwater for outdoor use (typically for landscape irrigation) or indoor use (typically for toilet/urinal flushing or industrial processes). Infiltration is stormwater runoff seepage through soil into the subsurface to mix with groundwater. Evapotranspiration

is water evaporating into the air directly or through plants. Biotreatment is stormwater treatment to remove pollutants using biological processes.

Non-LID treatment measures include high flow-rate tree well filters and mechanical vault-type media filters. Non-LID treatment measures are only allowed for Special Projects as defined by Provision C.3 (see Question 11 below).

11. What are Special Projects?

Special Projects, as defined by Provision C.3, are certain types of Regulated Projects that support smart growth, high-density, transit-oriented development and affordable housing which can have a beneficial effect on water quality when considered at the watershed scale. If it is infeasible to use 100% LID treatment measures, Special Projects are allowed to treat all or a portion of stormwater runoff with non-LID treatment measures (e.g., high flow-rate tree well filters and mechanical vault-type media filters) depending upon the location and design of the project. The Stormwater Supplemental Form MRP 3.0 required with applications for planning and zoning permits/approvals provides guidance on identifying Special Projects.

12. What are the hydromodification management requirements for Regulated Projects?

Change in the timing and volume of stormwater runoff from a site is called “hydrograph modification” or “hydromodification.” When a site is developed, stormwater runoff flows into creeks at higher rates and volumes, resulting in creek channel erosion, flooding, and habitat loss. Regulated Projects that create or replace one acre or more of impervious surface, where the total post-project amount of impervious surface would exceed the amount of existing/pre-project impervious surface, and are located in a susceptible area on the Hydromodification Susceptibility Map (attached to the City’s Stormwater Supplemental Form MRP 3.0) are required to incorporate hydromodification management (HM) measures to retain, detain, or infiltrate stormwater runoff on the site to match the flow and duration of pre-project runoff. Project applicants may use the Bay Area Hydrology Model, with the current version of the BAHM available for downloading at <https://www.clearcreeksolutions.info/downloads>, to design the HM measures. In certain cases, in-stream measures modifying the receiving creek channel to reduce the potential for erosion and sedimentation may be substituted for on-site HM measures. Regulated Projects on previously developed sites that do not increase the amount of on-site impervious surface are exempt from HM requirements.

Provision C.3 contains an “Impracticability Provision” whereby the HM requirements may be waived if physical conditions prevent a project from meeting the HM requirements for a reasonable cost (defined as two percent of project construction cost), project runoff cannot be directed to a regional HM measure, and in-stream measures are not practicable. The project must still incorporate other applicable post-construction stormwater management measures and must contribute financially to an alternative HM project. Project applicants interested in waiving HM requirements pursuant to the Impracticability Provision should consult with City staff prior to pursuing this option.

13. Which City department will be responsible for reviewing Regulated Projects for C.3 compliance?

During the review of the application for planning and zoning permits/approvals for Regulated Projects, project applicants must show the preliminary type and location of proposed post-construction stormwater management measures on a preliminary post-construction stormwater management plan. During the review of the application for construction-related permits, the Building Services Division will review and approve the detailed designs of the post-construction stormwater management measures. A flow chart showing a summary of the process for reviewing Regulated Projects subject to C.3 requirements is included on page 7.

14. Do Regulated Projects require a special permit from the City?

No special permit is required from the Planning and Zoning Division during the planning approval phase. The Building Services Division will require an infrastructure permit (“PZ or PX Permit”) for Regulated Projects during the construction permitting phase.

15. Can C.3 requirements for Regulated Projects be waived if a project is unable to meet the requirements?

In accordance with Provision C.3.e, a project applicant may demonstrate alternative compliance with C.3 requirements by treating stormwater runoff at an off-site location. Project applicants interested in off-site treatment should consult with City staff. The City currently does not have an in-lieu fee option for alternative compliance.

16. What are the project applicant’s responsibilities after construction of a Regulated Project?

The property owner is required to enter into an agreement with the City accepting the responsibility for adequate future maintenance of all installed stormwater treatment measures, including privately-sponsored treatment measures installed within the public right-of-way. City staff has prepared a standardized agreement for use with all projects.

17. What are the requirements for projects that are not Regulated Projects?

Pursuant to Provision C.3, beginning December 1, 2012, and as revised with the new MRP 3.0, projects that are not Regulated Projects, and are considered Small Projects, are required to incorporate one or more of the site design measures noted in Question 5. Small Projects are defined as:

- *Single family detached homes if the total new/replaced impervious area is >2,500 to <10,000 sq. ft.,*
or
- *All other projects if the total new/replaced impervious area is >2,500 to <5,000 sq. ft.*

Project applicants are not required to identify the proposed site design measure(s) on the application materials submitted for the planning and zoning permit/approval. Proposed site design measure(s) are required to be identified on the drawings submitted for construction-related permits.

Provision C.3 encourages, but does not require, all other projects to incorporate appropriate site design measures and source control measures. The City may require stormwater management measures under the City’s Creek Protection, Stormwater Management and Discharge Control Ordinance for projects not subject to C.3 requirements.

Pursuant to Provision C.3, beginning December 1, 2012, and as revised with the new MRP 3.0, source control measures are still required for all projects, including Small Projects as applicable. Project applicants are required to identify the proposed source control measures noted in Question 6 on the plans.

18. Do C.3 requirements apply to projects under the jurisdiction of the Port of Oakland?

The Port of Oakland is not a member of ACCWP, and is therefore, not subject to the requirements of the MRP. Please contact the Port of Oakland regarding stormwater management requirements for projects located in areas of the city under the jurisdiction of the Port of Oakland.

19. Are there guidelines for C.3 requirements?

ACCWP has prepared a handbook for project applicants entitled “C.3 Stormwater Technical Guidance” dated March 23, 2022, that contains information about C.3 requirements. The City of Oakland recommends that project applicants with projects subject to C.3 requirements refer to this handbook. The handbook is available on ACCWP’s website at [C3TG-V8-Final-2023_03-Compiled.pdf](#) ([cleanwaterprogram.org](#)). Project applicants should also refer to the City’s Stormwater Supplemental Form MRP 3.0 required with applications for planning and zoning permits/approvals.

PERMIT REVIEW PROCESS FOR REGULATED PROJECTS SUBJECT TO C.3 REQUIREMENTS

