Appendix

L

Site Design Requirements for Small Projects

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L.1 Permit Requirements for Small Projects

Since December 1, 2012, specific sizes of small projects have had to meet site design requirements in Provision C.3.i of the reissued Municipal Regional Stormwater NPDES Permit (MRP, Regional Water Board Order No. R2-2015-0049). This applies to projects that create and/or replace at least 2,500 but less than 10,000 square feet of impervious surface, and individual single family home projects that create and/or replace 2,500 square feet or more of impervious surface. Applicable projects must implement at least one of the following site design measures:

- Direct roof runoff into cisterns or rain barrels for use.
- Direct roof runoff onto vegetated areas.
- Direct runoff from sidewalks, walkways, and/or patios onto vegetated areas.
- Direct runoff from driveways/uncovered parking lots onto vegetated areas.
- Construct sidewalks, walkways, and/or patios with permeable surfaces.
- Construct bike lanes, driveways, and/or uncovered parking lots with permeable surfaces.

Do the Requirements Apply to My Project?

The requirements apply to your project if it meets the size thresholds described above, and it received final discretionary approval on or after December 1, 2012. If your project does not require discretionary approval, such as tract map approval, conditional use permit, or design review, then the requirements apply if the building permit is issued on or after December 1, 2012.

Please note that projects in the following four ***"Special Land Use Categories"*** that create and/or replace 5,000 square feet or more of impervious surface are required to implement hydraulically-sized stormwater treatment, source control measures, AND site design measures:

- Restaurants;
- Retail gasoline outlets;
- Auto service facilities; and
- Surface parking (stand-alone or part of another use).

For these "Special Land Use Category" projects, the implementation of LID site design and stormwater treatment systems will satisfy the requirements of Provision C.3.i.

Consistent with Provision C.3.c, ***interior remodels and routine maintenance or repair are excluded from the Provision C.3.i requirements***, including:

- Roof replacement, including those that remove the entire roof;
- Exterior wall surface replacement; and
- Pavement resurfacing within the existing footprint. This exclusion applies to any routine maintenance of paved surfaces within the existing footprint, including the repaving that occurs after conducting utility work under the pavement, and the routine reconstruction of pavement, which may include removal and replacement of the subbase. If a repaving project results in changes to the footprint, grade, layout or configuration of the paved surfaces, it would trigger the requirements of Provision C.3. The pavement resurfacing exclusion also applies to the reconstruction of existing roads and trails.

L.2 Regional Guidance for Site Design Measures

To help you select and design site design measures appropriate for the project site, the Clean Water Program collaborated regionally through the Bay Area Stormwater Management Agencies Association (BASMAA) to develop four fact sheets that provide guidance regarding the six site design measures listed above. The fact sheet are included at the end of this appendix, and copies are available for download from the Clean Water Program's website www.cleanwaterprogram.org (Click on "Resources," then "Development").Table L-1 shows how the fact sheets correspond with the six site design measures.

Table L-1: Regional Fact Sheets and Corresponding Site Design Measures	
Fact Sheet	**Corresponding Site Design Measures listed in Provision C.3.i**
Managing Stormwater in Landscapes	▪ Direct roof runoff onto vegetated areas. ▪ Direct runoff from sidewalks, walkways, and/or patios onto vegetated areas. ▪ Direct runoff from driveways/uncovered parking lots onto vegetated areas.
Rain Gardens	▪ Corresponds to the same site design measures as "Managing Stormwater in Landscapes", above. Differences between rain gardens and other landscaped area include: ▪ Applicants may choose to select a rain garden if they want to capture and infiltrate more stormwater in a smaller area than is possible with most native soils. ▪ Rain gardens should have well-drained soil; soil amendments may be needed. ▪ An underdrain may be required if native soils are slow-draining.
Pervious Paving	▪ Construct sidewalks, walkways, and/or patios with permeable surfaces. ▪ Construct bike lanes, driveways, and/or uncovered parking lots with permeable surfaces.
Rain Barrels and Cisterns	▪ Direct roof runoff into cisterns or rain barrels for use.

L.3 Selecting Site Design Measures

To supplement guidance provided in the regional fact sheets, refer to Table L-2 to identify key opportunities and constraints for the site design measures listed in Provision C.3.i. Choose one or more site design measures that are a good match for your project site. Only one site design measure is required, but you may choose to implement additional measures to increase the water quality benefits of your project.

Table L-2: Opportunities and Constraints for Site Design Measures			
Site Design Measure	**Opportunities**	**Constraints**	**Guidance to Address Constraints**
Managing Stormwater in Landscapes	▪ Low areas. ▪ Flat areas or minimal slope.	▪ Steep slopes ▪ Insufficient space for landscaping	▪ Avoid in steep slopes where increased infiltration may undermine slope. ▪ Landscaped area should be at least half the size of the impervious area draining to it. ▪ Direct runoff away from building foundations.

Table L-2: Opportunities and Constraints for Site Design Measures			
Site Design Measure	**Opportunities**	**Constraints**	**Guidance to Address Constraints**
Rain Gardens	▪ Low areas. ▪ Flat areas or minimal slope. ▪ Well-drained soil ▪ Existing storm drain to tie in underdrain (if underdrain is needed)	▪ Steep slopes ▪ Insufficient space for landscaping ▪ Poorly drained soil	▪ Avoid in steep slopes. ▪ Rain garden should be at least 4% of the size of the impervious area draining to it. ▪ If soils do not drain well, consider soil amendments. ▪ An underdrain may be needed if native soils are clayey. ▪ Recommended setbacks: 10 ft. from building foundation and 5 ft. from property line
Pervious Paving	▪ Flat areas or minimal slope. ▪ Well-drained soil. ▪ Existing storm drain to tie in underdrain (if underdrain is needed).	▪ Steep slopes ▪ Poorly drained soils ▪ Buildings close to pavement	▪ Avoid use in 5% slopes and greater, unless municipality approves use of underdrain. ▪ Underdrain may be needed if native soils are clayey. ▪ Install away from buildings, or provide impermeable barrier.
Rain Barrels and Cisterns	▪ Roof area that drains to downspouts. ▪ Flat, firm area near the building for rain barrel or cistern. ▪ Landscaping that is downslope from rain barrel or cistern, allowing gravity flow of water for irrigation and discharge of overflow.	▪ Lack of landscape that requires irrigation. ▪ Irrigation system that requires high water pressure. ▪ Absence of flat, firm area near the building. ▪ Lack of suitable areas to receive overflow	▪ Interior non-potable use may be considered, if allowed by municipality. ▪ Use with low-pressure irrigation systems. ▪ Ensure adequate space to safely install rainbarrel or cistern and accommodate overflow.

L.4 Selecting Site Design Measures for Constrained Sites

Provision C.3.i does not allow for findings of infeasibility or impracticability, nor does it provide alternative compliance or in-lieu options. Therefore, one of the six site design measures must be implemented in applicable projects, even on sites with constraints such as those identified in Table L-2.

If your site has constraints such as poorly draining soils, steep slopes, or limited space for landscaping, consult with municipal staff regarding approaches to incorporating the site design measures within the constrained site.