



PORT OF OAKLAND

Post-Construction Stormwater Design Manual

Frequently Asked Questions

October 2015

- Q1: How are **project boundaries** defined? This matters to determining whether or not a project would result in an increase of more than 50% of the impervious surface of a previously existing development.
- A1: Project boundaries shall include all areas with construction activities (both outdoors and indoors) that make up the same larger common plan of development or redevelopment.
- Q2: Is a project that results in an overall **decrease in impervious surface**, when compared to the pre-project condition, exempt from complying with the new post-construction stormwater requirements?
- A2: No. Regardless of the difference in the overall pre- and post-project impervious areas, all redevelopment projects that create or replace at least 2,500 ft² of impervious surface must comply with the Manual's post-construction stormwater requirements, unless any of the exceptions described in Section 2.2.2 applies. This conservative approach is premised on the assumption that runoff originating from any previously existing development is not being treated. If stormwater treatment controls already exist to handle runoff from a previously existing development, the Port Area Developer may reuse these same measures to treat runoff resulting from the redevelopment upon demonstrating their functional equivalence to bioretention as required in the Manual. Low impact site design measures (e.g., green roofs, permeable pavements) incorporated into a redevelopment project, on the other hand, can also provide credits to reduce, or eliminate altogether, the total amount of stormwater to be treated.
- Q3: Can one break up a project to avoid reaching the 2,500 ft² threshold?
- A3: No. Execution of a project **piecemeal** in order to avoid regulatory requirements is not allowed. All construction activities related to a larger common plan of development or redevelopment must be considered together as one single project.
- Q4: Are **permeable pavements** feasible at the Port Area?
- A4: Maybe. Permeable pavements include porous concrete and asphalt, open joint pavers, and interlocking concrete pavers, etc. They are typically suitable for flat areas subject to low to moderate heavy loads, low vehicular speed, and low sediment loading. Examples may include parking lots and access roads. Since regular maintenance will be essential to minimize clogging, equipment/resource and access needs must be considered when designing and siting permeable pavements. Consult Caltrans' *Pervious Pavement Design Guidance*, August 2014.
- Q5: Can a project avoid the post-construction stormwater requirements by replacing permanent structures with **temporary trailers**?
- A5: No. "Temporary" trailers can still result in the creation or replacement of impervious surface and often are used for extended periods of time.
- Q6: Can projects at the Oakland International Airport rely on existing **wetlands** for stormwater treatment?
- A6: No. Wetlands at the Oakland International Airport are **Waters of the U.S./State** and cannot be used to satisfy the post-construction stormwater requirements described in the Manual.

- Q7: Is **offsite stormwater mitigation** allowed if conditions preclude onsite bioretention or its equivalent?
- A7: Maybe. Runoff from road projects that cannot be infiltrated onsite can be managed using practices identified in USEPA's *Managing Wet Weather with Green Infrastructure, Municipal Handbook, Green Streets*, to the extent feasible. Offsite mitigation for all other projects must, at a minimum, be located in the same watershed as the project and treat stormwater runoff that is subject to similar pollutants of concern.
- Q8: Are **tug lanes** at the airport or **driving lanes** at the seaport considered roads?
- A8: No. For the purpose of this manual, roads refer to traditional streets and roadways as well as taxiways and runways that are created specifically for traveling by motor vehicles and aircraft.
- Q9: Is it always better to design a bioretention facility for a **drawdown time** of 24 hours instead of 48 hours?
- A9: Not necessarily. A 24-hour drawdown time results in a smaller volume of water to be treated than a 48-hour drawdown. However, 24 hours may not be enough time to infiltrate the rainwater resulting in an inadequate design. Ultimately, a facility's design drawdown time should be based on site-specific hydrogeologic conditions and the construction material selected.
- Q10: May an **architect** or **landscape architect** prepare the Post-Construction Stormwater Management Plan (PCSMP), including the design of stormwater treatment control measures?
- A10: No. Only a **certified engineering geologist, professional geologist, or professional civil engineer** has the proper state qualification(s) to prepare a PCSMP and design treatment control measures. A landscape architect must, however, certify that all proposed vegetation is appropriate for the project site.
- Q11: How does the Port ensure the continuing implementation of a Port Area Developer's **O&M Plan**?
- A11: Every Port Area Developer, his/her designee, or successor with a Regulated Project is required to, by July 1 of each year, submit to the Port a **self-certification** that the project's stormwater treatment measures are being properly operated and maintained. This is consistent with Article 3.4(c) of **Port Ordinance No. 4311** (http://www.portofoakland.com/pdf/environment/Ordinance_No4311.pdf) and the State's **Waste Discharge Requirements for SW Discharges from Small MS4s** (Order No. 2013-0001-DWQ).
- Q12: How will the Port prevent a stormwater treatment control measure from being modified or redeveloped for another purpose in the future?
- A12: The Port will ensure, through the Port Area Developers' annual self-certification process, the continuing operation and maintenance of each treatment control measure. Treatment control measures will also be mapped on the Port's GIS, PortView.
- Q13: Can the new post-construction stormwater requirements result in **significant delays in the permit application process**?
- A13: Maybe. Port staff encourages all project proponents to review the Port's Design Manual available at http://www.portofoakland.com/pdf/environment/cleanwater_manual.pdf, engage necessary expertise, and coordinate with the Port's Environmental Programs & Planning staff as early as possible during a project's planning and design phases.