

Stormwater Runoff Management Practices



BMPs for stormwater control are often required as conditions for state and local permits with the goal of implementing effective runoff control strategies. Stormwater runoff management goals are to reduce the average annual loading of total suspended solids (TSS) in runoff from hull maintenance areas by 80%, based on an average of all storms in magnitude less than or equal to a 2 year - 24 hour storm.

Potential Environmental Impacts:

Stormwater runoff from parking lots and other developed surfaces represents a significant mode of pollutant transport from land-based activities to receiving waterbodies. The runoff from parking areas, buildings, repair yards, and access roads can carry nutrients, metals, suspended solids, hydrocarbons and other potential pollutants into marina basins. The highest concentration of these surface pollutants occurs in the runoff associated with the first half to one inch of rainfall depending on storm intensity. Stormwater that is treated in some way to remove pollutants before it reaches the marina basin minimizes impact to aquatic and marine life.

Legal Requirements:

- If there is a stormwater discharge from your facility, you may have to register for a *General Permit for the Discharge of Stormwater Associated with Industrial Activity* (“Stormwater General Permit”). See Appendix F for more information.

Non-structural Best Management Practices, “Good Housekeeping” Practices:

- ✦ Perform as much boat repair and maintenance as practicable inside work buildings.
- ✦ Where an inside workspace is not available, perform abrasive blasting and sanding within spray booths or tarp enclosures.
- ✦ Where buildings or enclosed areas are not available, provide clearly designated land areas as far from the water’s edge as possible for debris-producing maintenance. Collect as much maintenance debris on tarps, filter fabric, or paved surface.
- ✦ Use vacuum sanders to collect dust and chips while removing paint from hulls.
- ✦ Establish a list of “yard rules” which do-it-yourselfers and contractors must follow when performing debris-producing boat maintenance.
- ✦ Clean hull maintenance areas immediately after any maintenance is done to remove debris, and dispose of collected material properly.
- ✦ Capture pollutants out of runoff water with permeable tarps, screens, and filter cloths.
- ✦ Sweep or vacuum around hull maintenance areas, parking lots, and driveways frequently, where appropriate.
- ✦ Store all potential pollutants such as pesticides, used oil containers, detergents, etc. under cover.

Structural Best Management Practices:

- ✪ Plant a vegetated filter strip or buffer between impervious areas and the marina basin. A vegetated filter strip is a densely vegetated strip of land engineered to accept runoff from upstream development as overland sheet flow.
- ✪ Construct new or restore former wetlands where feasible and practical. Constructed stormwater wetlands are manmade shallow pools that create growing conditions suitable for wetland vegetation.
- ✪ Minimize impervious areas on marina site by paving only where absolutely necessary. Use porous pavement for parking lots and lightly traveled access roads, or other pervious materials such as gravel or crushed concrete.
- ✪ Direct roof runoff to drywells or position downspouts so that they drain to vegetated areas. Avoid draining to concrete or asphalt.
- ✪ Install oil/grit separators to capture pollutants in runoff. Water from parking lots and other areas likely to have hydrocarbons should be directed through oil/grit separators before entering any other management structure (Note: this practice requires a lot of maintenance).
- ✪ Install sand filters. Intermittent sand filter facilities are underground vault-like facilities which capture, pre-treat, and filter the first flush of stormwater runoff. In some cases these facilities can include an above-ground storage facility to store the excess volume of runoff from larger storms.
- ✪ Use catch basins with deep sumps where stormwater flows to the marina basin in large pulses.
- ✪ Maintain catch basins regularly. Typical maintenance of catch basins includes trash removal if a screen or other debris-capturing device is used, and removal of sediment by a hired contractor or on-site wet-vacuum system. At a minimum, catch basins should be cleaned at the beginning and end of each boating season.
- ✪ Add filters to storm drains that are located near work areas to screen solid materials out of runoff.
- ✪ Place absorbent materials in drain inlets to capture oil and grease.

Checklist for Clean Marina Certification:

- ✓ Do you follow “good housekeeping” techniques to keep potential pollutants from entering stormwater runoff?

YES	NO	N/A
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- ✓ Do you maintain catch basins, as necessary?

YES	NO	N/A
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