

Extended Detention Basin Maintenance Plan for [[== Insert Project Name ==]]

[[== Insert Date ==]]



Extended detention ponds are basins whose outlets have been designed to detain the stormwater runoff from a water quality design storm for some minimum time (e.g., 48 hours) to allow particles and associated pollutants to settle.

Project Address and Cross Streets _____

Assessor's Parcel No.: _____

Property Owner: _____

Phone No.: _____

Designated Contact: _____

Phone No.: _____

Mailing Address: _____

The property contains [[== insert number ==]] extended detention basins, located as described below and as shown in the attached site plan.

- **Extended Detention Basin No. 1** is located at [[== describe location ==]].
- [[== Add descriptions of other extended detention basins, if applicable. ==]]
- [[== Identify Extended Detention Basin(s) designed for Hydromodification Management (HM).]]

I. Routine Maintenance Activities

Primary maintenance activities include vegetation management and sediment removal, although mosquito abatement is a concern if the extended detention basin is designed to include permanent pools of standing water. Routine maintenance activities, and the frequency at which they will be conducted, are shown in Table 1.

Table 1 Routine Maintenance Activities for Extended Detention Basins		
No.	Maintenance Task	Frequency of Task
1	Conduct annual vegetation management during the summer, removing weeds and harvesting vegetation. Remove all grass cuttings and other green waste.	Once a year
2	Trim vegetation at beginning and end of wet season to prevent establishment of woody vegetation, and for aesthetics and mosquito control.	Twice a year (spring and fall)
3	Evaluate health of vegetation and remove and replace any dead or dying plants. Remove all green waste and dispose of properly.	Twice a year
4	If turf grass is included in basin design, conduct regular mowing and remove all grass cuttings. Avoid producing ruts when mowing.	[[== insert frequency, if applicable ==]]
5	Remove sediment from forebay when the sediment level reaches the level shown on the fixed vertical sediment marker and dispose of sediment properly.	As needed

Table 1 Routine Maintenance Activities for Extended Detention Basins		
6	Remove accumulated sediment and regrade when the accumulated sediment volume exceeds 10% of basin volume and dispose of sediment properly.	Every 10 years, or as needed [[to maintain 2 in. clearance below low-flow orifice for HM design]]
7	Remove accumulated trash and debris from the extended detention basin at the middle and end of the wet season and dispose of trash and debris properly.	Twice a year (January and April)
8	Irrigate during dry weather.	[[= insert frequency =]]
9	Inspect extended detention basin using the attached inspection checklist.	Quarterly, or as needed

II. Prohibitions

Do not use pesticides or other chemical applications to treat diseased plants, control weeds or removed unwanted growth. Employ non-chemical controls (biological, physical and cultural controls) to treat a pest problem. Prune plants properly and at the appropriate time of year. Provide adequate irrigation for landscape plants. Do not over water.

III. Mosquito Abatement Contact Information

Standing water shall not remain in the treatment measures for more than five days, to prevent mosquito generation. Should any mosquito issues arise, contact the San Mateo County Mosquito Abatement District (SMCMAD), as needed for assistance. Mosquito larvicides shall be applied only when absolutely necessary, as indicated by the SMCMAD, and then only by a licensed professional or contractor. Contact information for SMCMAD is provided below.

San Mateo County Mosquito Abatement District
 1351 Rollins Road
 Burlingame, CA 94010
 PH: (650) 344-8592
 FAX: (650) 344-3843
[Email: info@smcmad.org](mailto:info@smcmad.org)

IV. Inspections

The attached Extended Detention Basin Inspection and Maintenance Checklist shall be used to conduct inspections monthly (or as needed), identify needed maintenance, and record maintenance that is conducted.

Extended Detention Basin Inspection and Maintenance Checklist

Property Address: _____

Property Owner: _____

Treatment Measure No.: _____

Date of Inspection: _____

Type of Inspection: Monthly Pre-Wet Season
 After heavy runoff End of Wet Season
 Other: _____

Inspector(s): _____

Defect	Conditions When Maintenance Is Needed	Maintenance Needed? (Y/N)	Comments (Describe maintenance completed and if any needed maintenance was not conducted, note when it will be done.)	Results Expected When Maintenance Is Performed
General				
Trash & Debris	<ul style="list-style-type: none"> • Trash and debris accumulated in basin. • Visual evidence of dumping. 			Trash and debris cleared from site and disposed of properly.
Poisonous Vegetation and noxious weeds	Poisonous or nuisance vegetation or noxious weeds, e.g., morning glory, English ivy, reed canary grass, Japanese knotweed, purple loosestrife, blackberry, Scotch broom, poison oak, stinging nettles, or devil's club.			Use Integrated Pest Management techniques to control noxious weeds or invasive species.
Contaminants and Pollution	Any evidence of oil, gasoline, contaminants or other pollutants.			No contaminants or pollutants present.
Rodent Holes	If facility acts as a dam or berm, any evidence of rodent holes, or any evidence of water piping through dam or berm via rodent holes.			The design specifications are not compromised by holes. Any rodent control activities are in accordance with applicable laws and do not affect any protected species.
Insects	Insects such as wasps and hornets interfere with maintenance activities.			Insects do not interfere with maintenance activities.

Defect	Conditions When Maintenance Is Needed	Maintenance Needed? (Y/N)	Comments (Describe maintenance completed and if any needed maintenance was not conducted, note when it will be done.)	Results Expected When Maintenance Is Performed
Tree/Brush Growth and Hazard Trees	<ul style="list-style-type: none"> • Growth does not allow maintenance access or interferes with maintenance activity. • Dead, diseased, or dying trees. 			<ul style="list-style-type: none"> • Trees do not hinder maintenance activities. • Remove hazard trees as approved by the City. (Use a certified Arborist to determine health of tree or removal requirements).
Drainage time	Standing water remains in basin more than five days.			Correct any circumstances that restrict the flow of water from the system. Restore drainage to design condition. If the problem cannot be corrected and problems with standing water recur, then mosquitoes should be controlled with larvicides, applied by a licensed pesticide applicator.
Outfall structure	Debris or silt build-up obstructs an outfall structure.			Remove debris and/or silt build-up and dispose of properly.
Side Slopes				
Erosion	<ul style="list-style-type: none"> • Eroded over 2 in. deep where cause of damage is still present or where there is potential for continued erosion. • Any erosion on a compacted berm embankment. 			Cause of erosion is managed appropriately. Side slopes or berm are restored to design specifications, as needed.
Storage Area				
Sediment	Accumulated sediment >10% of designed basin depth or affects inletting or outletting condition of the facility.			Sediment cleaned out to designed basin shape and depth; basin reseeded if necessary to control erosion. Sediment disposed of properly.
Liner (If Applicable)	Liner is visible and has more than three 1/4-inch holes in it.			Liner repaired or replaced. Liner is fully covered.
Emergency Overflow/ Spillway and Berms				
Settlement	Berm settlement 4 inches lower than the design elevation.			Dike is built back to the design elevation.

Defect	Conditions When Maintenance Is Needed	Maintenance Needed? (Y/N)	Comments (Describe maintenance completed and if any needed maintenance was not conducted, note when it will be done.)	Results Expected When Maintenance Is Performed
Tree Growth	Tree growth on berms or emergency spillway >4 ft in height or covering more than 10% of spillway.			<ul style="list-style-type: none"> Trees should be removed. If root system is small (base less than 4 inches) the root system may be left in place. Otherwise the roots should be removed and the berm restored. A civil engineer should be consulted for proper berm/spillway restoration.
Emergency Overflow/ Spillway	Rock is missing and soil is exposed at top of spillway or outside slope.			Rocks and pad depth are restored to design standards.
Debris Barriers (e.g., Trash Racks)				
Trash and Debris	Trash or debris is plugging openings in the barrier.			Trash or debris is removed and disposed of properly.
Damaged/ Missing Bars	Bars are missing, loose, bent out of shape, or deteriorating due to excessive rust.			Bars are repaired or replaced to allow proper functioning of trash rack.
Inlet/Outlet Pipe	Debris barrier is missing or not attached to pipe.			Debris barrier is repaired or replaced to allow proper functioning of trash rack.
Fencing and Gates				
Missing or broken parts	Any defect in or damage to the fence or gate that permits easy entry to a facility.			Fencing and gate are restored to design specifications.
Deteriorating Paint or Protective Coating	Part or parts that have a rusting or scaling condition that has affected structural adequacy.			Paint or protective coating is sufficient to protect structural adequacy of fence or gate.
Flow Duration Control Outlet (if included in design to meet Hydromodification Management Standard) [==refer to any attachments with additional provisions==]				
Risers, orifices and screens	Any debris or clogging			Restore unobstructed flow through discharge structure; to meet original design; dispose of debris properly.
Miscellaneous				
Miscellaneous	Any condition not covered above that needs attention to restore extended detention basin to design conditions.			Meets the design specifications.