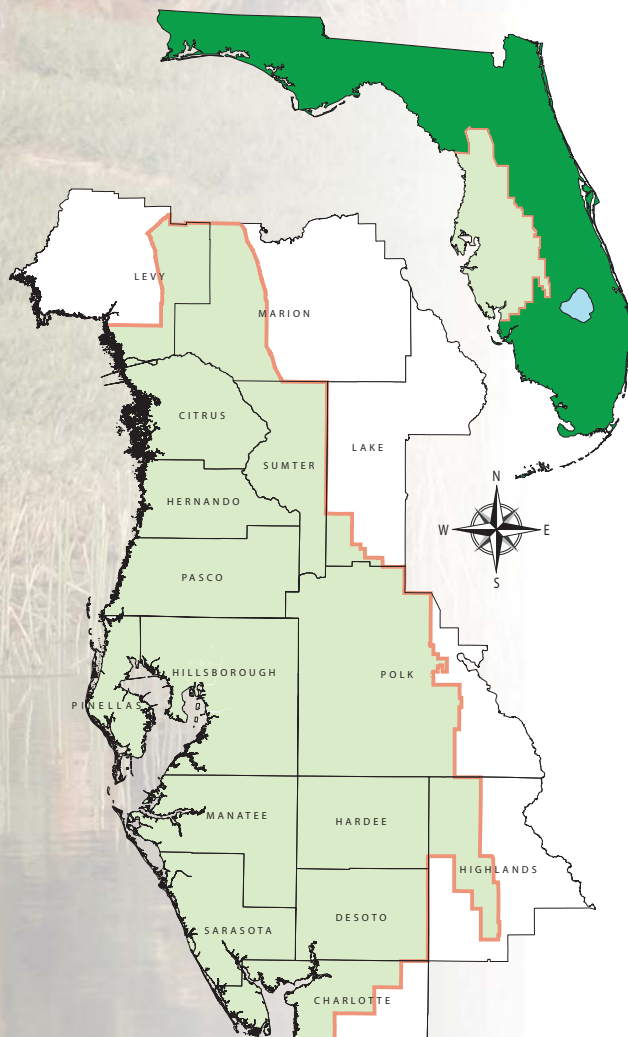


Stormwater Systems *in Your Neighborhood*



*Maintaining
landscaping and
improving
stormwater ponds*

The Southwest Florida Water Management District (District) is the agency responsible for managing and protecting your water resources. The District's mission is to maintain the balance between the water needs of current and future users, as well as to protect and maintain natural systems.



Southwest Florida Water Management District

Stormwater Systems

Simply put, a stormwater system is a tool for managing the runoff from rainfall. When rainwater lands on rooftops, parking lots, streets, driveways and other surfaces that water cannot go through, the runoff (called stormwater runoff) flows into grates, swales or ditches located around your neighborhood. These send the water into your stormwater pond. A stormwater pond is specifically designed to help prevent flooding and remove pollutants from the water before it can drain into the ground water — our main source of drinking water — or into streams, rivers, lakes, wetlands, estuaries or the gulf. Your stormwater pond might be located in your backyard, down the street or on nearby property.



Without a stormwater system, the stormwater runoff usually flows into the nearest water body without treatment. The runoff carries pollutants such as litter, motor oil, gasoline, fertilizers, pesticides, pet wastes, sediments and anything else that can float, dissolve or be swept away by moving water.



A Great Egret with long legs and a long neck stands in a shallow wetland. Its reflection is clearly visible in the calm water. The background shows green grass and some reeds.

History of Stormwater Systems

Wetlands are Florida's original stormwater systems and once covered more than half the state.

Wetlands are extremely valuable resources because they:

- Control flooding. They do this by soaking up and retaining excess water like a giant sponge. They also slow down water flow, giving floodwaters more time to recede.
- Serve as habitat for a variety of plants and animals. Many endangered plant and animal species depend on wetlands for their survival.
- Improve water quality. Wetlands slow down the flow of water and absorb pollutants, storing them, breaking them down and in some cases even using them as nutrients.

Unfortunately, because people once misunderstood the true value of wetlands, more than one-half of our original wetlands have been drained for agriculture or filled for roads, housing developments and industrial complexes.

As development increased and more paved areas covered the land, stormwater runoff became the primary source of pollution to surface waters in Florida. In the early 1980s, the Florida Legislature passed laws requiring treatment of storm water.

How Stormwater Systems Work

Stormwater systems come in a variety of shapes, sizes and forms, but basically there are two types, retention and detention.

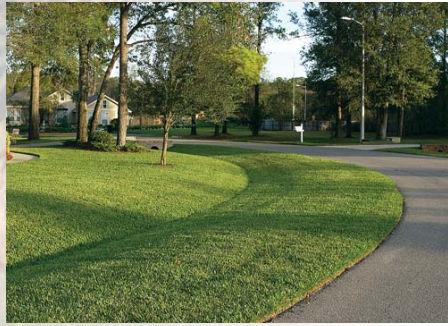


Retention System

Retention System

A retention system is designed to allow water to seep through soil into the shallow groundwater aquifer. A system can be constructed or it can be a natural depression. Grass stabilizes basin slopes and filters sediments. Retention systems are constructed so that storm water percolates into the ground without direct discharge to natural surface water bodies.





Swale

A swale is a linear retention system. It is either a constructed or natural area shaped to allow water to be quickly absorbed into the ground or to allow the water to flow to other water bodies. As in a shallow ditch, a swale promotes water absorption through soils. Swales hold water during and immediately after a storm, but they are generally dry.



Detention System

Detention System

Detention systems (ponds) are the most recognizable stormwater system. They are designed to allow material to settle and be absorbed. After a storm, water slowly drains from the pond through a pipe in the “outflow”

structure. Part of the pond, known as the permanent pool, is always below the level of the drain structure. Constructed detention systems (ponds) are required to have aquatic plants around the perimeter to help filter sediment in stormwater runoff. The owner of the pond should refer to the permit for exact specifications.

Because retention and detention systems were designed to imitate natural processes, individuals may have stormwater systems on or near their property without realizing it. What appears to be a natural indentation in the backyard may have been designed as a stormwater swale. What looks like a wild patch of shrubbery may be an important vegetative buffer around a pond.





Responsibility for Stormwater Systems

In Florida, the responsibility for permitting most stormwater systems rests with the water management districts. After developers complete construction of permitted systems in residential areas, the permit and the legal responsibility for maintaining these systems are typically passed on to a homeowners, condominium owners or property owners association.

It is then that the upkeep and maintenance of the system becomes the responsibility of the association, not the developers or the water management district. The association is responsible for labor and expenses for keeping the system functional. This responsibility applies to every homeowner and property owner in the neighborhood, even if they do not live adjacent to a detention or retention system, as everyone's storm water flows into the system.

Copies of your association's operation and maintenance permit, plans and maintenance guidelines were provided at the time of the transfer to your association's representative. For more specific information about your pond, you may call the Southwest Florida Water Management District's stormwater permitting staff. Contact information can be found on page 19 of this booklet.

Preventing Water Pollution

You can help conserve and improve the quality of water that enters the stormwater ponds and promote a healthy environment within your community by following the advice provided below.

Stormwater System Maintenance

If properly maintained, stormwater ponds help prevent flooding and filter out pollutants before they reach streams, rivers, lakes, wetlands, ground water, estuaries and, ultimately, the gulf. Following are a few basic maintenance guidelines that can help keep your stormwater system functioning properly:

- Clear or clean inflow/outflow structures.
- Remove nuisance and excess vegetation.
- Repair eroded slopes.
- Clean up trash and yard waste in your yard and gutters and around storm drains.

Florida-Friendly Landscaping

- Apply Florida-Friendly Landscaping™ principles to your landscape, which can conserve water and reduce pollution of water resources. By knowing your plants' soils and water needs, you can dramatically reduce the amount of water used for irrigation, chemicals used for pest control and fertilizers used for growth. Information on Florida-friendly landscaping can be found on the District's web site, WaterMatters.org/, or on the University of Florida's web site, FloridaYards.org/.





- Plant trees around the perimeter of a stormwater pond to help shade the area, absorb nutrients and lower the water table.
- Plant a buffer zone (minimum of ten feet) of low-maintenance plants between your lawn and shoreline to absorb nutrients and provide wildlife habitat.

Chemical Use on Landscape

- Use nontoxic chemical alternatives whenever possible and pull weeds by hand.
- Avoid overuse of fertilizers, especially near the water's edge. Rain and lawn watering can wash excess fertilizer into water bodies where excess nutrients cause algal blooms (green pond scum) and undesirable weed growth. The University of Florida's Institute of Food and Agricultural Sciences recommends using fertilizers with a high percentage of slow-release nitrogen. The higher percentage of slow-release, the less chance of leaching into Florida's water bodies. Proper fertilizer application can result in less mowing, less thatch buildup, less irrigation, fewer nutrients washing into ponds and water bodies, and fewer insect and disease problems.
- Use only herbicides labeled for aquatic use when maintaining stormwater ponds. Herbicides not labeled for aquatic use may harm fish and other aquatic life, and their application to aquatic sites is prohibited by state and federal law.
- Wait until grass is actively growing to apply fertilizer. Fertilizer applied when grass is not growing wastes your money and time and can contaminate your water.

- If fertilizer is spilled on the lawn or on the sidewalk or pavement, sweep it up as thoroughly as possible and put it back in the bag.

Additional Tips for Preventing Water Pollution

- Never dump oils and other chemicals from your home directly into stormwater drains, which are direct conduits to your stormwater pond or natural water body. Contact your local government's waste management department for a list of disposal facilities.
- Keep vehicles tuned up and in good operating condition. Check for drips and repair leaks immediately to keep nuisance oils off pavement.
- Buy low- or no-phosphate cleaners and detergents. Phosphates act as a fertilizer and increase algae and aquatic weeds in stormwater ponds. When these plants die, they rob the water of oxygen and fish may die.
- Wash your vehicles, bicycles and home equipment on the lawn, where soapy water can't quickly run toward the nearest storm drain, picking up other pollutants as it goes. Wash your car with nontoxic, low-phosphate soap and use water sparingly.
- Sweep walks and driveways instead of hosing them down.
- Clean up pet wastes from which nutrients and bacteria can enter the stormwater drains and contaminate the water system.
- Avoid cutting your lawn too short, which reduces its effectiveness in capturing runoff. Leaving it taller will help it to survive dry periods.





- Never deposit lawn clippings in water bodies and storm drains as this can increase oxygen demand in the water, which can significantly harm fish populations. Use lawn clippings for mulch or compost.
- Do not fill stormwater ponds, swales and retention systems because this can cause flooding and endanger water bodies. Stormwater systems are designed and constructed to an appropriate size. Any reduction in treatment volume will interfere with the pond's ability to hold stormwater runoff.
- Changing the elevation of large pieces of property can have drastic impacts on where storm water flows. Consult the stipulations of your neighborhood's permit before any construction.

Aquascaping Your Stormwater Pond

Aquascaping is simply landscaping the shoreline of ponds with aquatic and wetland plants. Aquascaped ponds and lakes have fewer problems than those without aquascaping. Desirable vegetation will filter polluted runoff, trap sediments, control the growth of nuisance vegetation and help make the pond visually pleasing. Aquatic plants pump oxygen into the water and create habitats by providing cover and nurseries for fish and other organisms. More importantly, vegetated shorelines help improve water quality.

Choose desirable, low-maintenance plants to aquascape your stormwater pond. Not all plants are good for aquascaping, and the removal of prohibited or unwanted plants can be difficult. Associations are advised to contact a reputable pond management company for most vegetation management programs.

The next few pages contain a brief overview of some desirable, high-maintenance and prohibited aquatic plants.



Plants Desirable for Aquascaping

Aquascaping is landscaping in and around your pond. These plants are preferred for your “aquatic garden” as they grow slowly and require little maintenance.

American white waterlily... *Nymphaea odorata*

Arrowhead..... *Sagittaria latifolia*

Blue flag iris or Dixie iris ... *Iris hexagona*

Bog buttons *Lachnocaulon* spp.

Bur-marigold..... *Bidens laevis*

Duck potato..... *Sagittaria lancifolia*

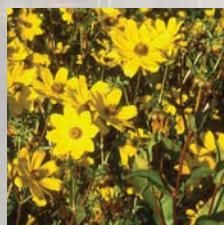
Giant bulrush *Scirpus californicus*

Golden canna *Canna flaccida*

Gulf Coast spikerush..... *Eleocharis cellulosa*

Lemon bacopa *Bacopa caroliniana*

Lizard’s tail..... *Saururus cernuus*



Bur-marigold
Bidens laevis

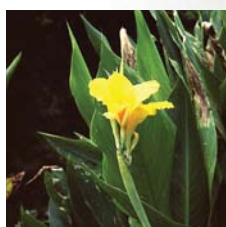
Photo: Vic Ramey
© 2002 Univ. Florida



Pickerelweed
Pontederia cordata

Photo: A. Murray
© 1999 Univ. Florida

Maidencane	<i>Panicum hemitomon</i>
Pickerelweed	<i>Pontederia cordata</i>
Pipewort	<i>Eriocaulon</i> spp.
Soft rush	<i>Juncus effusus</i>
Softstem bulrush	<i>Scirpus</i> <i>tabernaemontani</i>
Spikerush	<i>Eleocharis</i> sp.
St. John's wort.....	<i>Hypericum brachy</i> <i>phylum</i>
Swamp lily	<i>Crinum americanum</i>
Tapegrass or eelgrass	<i>Vallisneria americana</i>
Threadleaf arrowhead.....	<i>Sagittaria filiformis</i>



Golden canna
Canna flaccida

Photo: A. Murray
© 2000 Univ. Florida



Spikerush
Eleocharis sp.

Photo: Photographer not listed
© date not listed Univ. Florida

High-Maintenance Aquatic Plants

These plants may or may not be native, but they grow quickly and may become weedy. The list below is **not recommended**.

Bladderwort..... *Utricularia* spp.

Cattail *Typha* sp.

Coontail *Ceratophyllum
demersum*

Duckweed..... *Spirodela polyrhiza*

Mosquito fern..... *Azolla* sp.

Paragrass..... *Urochloa mutica*

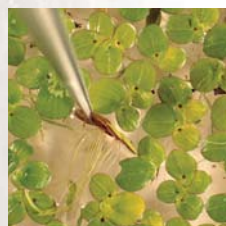
Pennywort..... *Hydrocotyle* sp.

Sedge..... *Cyperus* sp.



Cattail
Typha sp.

Photo: Kerry Dressler
1996



Duckweed
Spirodela polyrhiza

Photo: Vic Ramey
© 2000 Univ. Florida

Smartweed..... *Polygonum* spp.

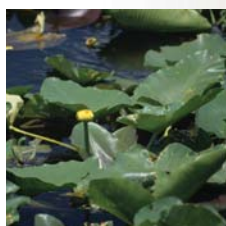
Southern naiad..... *Najas guadalupensis*

Spatterdock..... *Nuphar advena*

Torpedograss *Panicum repens*

Water fern..... *Salvinia minima*

Wild taro..... *Colocasia esculenta*



Spatterdock
Nuphar advena

Photo: Vic Ramey
© 2005 Univ. Florida



Wild taro
Colocasia esculenta

Photo: Vic Ramey
© 2005 Univ. Florida

Prohibited Aquatic Plants

Prohibited plants are aggressive weeds that are restricted by state or federal law. These invasive plants may not be possessed, transported, cultivated or imported without a special permit.

Alligatorweed *Alternanthera philoxeroides*

Aquarium watermoss..... *Salvinia molesta*

Eurasian watermilfoil..... *Myriophyllum spicatum*

Hydrilla..... *Hydrilla verticillata*

Water spinach..... *Ipomoea aquatica*

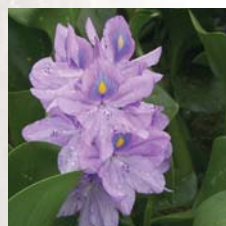
Waterhyacinth *Eichhornia crassipes*

Waterlettuce..... *Pistia stratiotes*



Hydrilla
Hydrilla verticillata

Photo: Vic Ramey
© 1999 Univ. Florida



Waterhyacinth
Eichhornia crassipes

Photo: A. Murray
© 2002 Univ. Florida

Contact Information

Your stormwater pond has been designed and constructed to meet specific criteria to ensure that it functions properly. For more information about stormwater treatment systems, call your closest Southwest Florida Water Management District office.

Brooksville Headquarters

2379 Broad Street

Brooksville, FL 34604-6899

(352) 796-7211 • 1-800-423-1476 (FL only)

This office handles permits for Hernando, Pasco, Citrus, Lake, Levy, Marion and Sumter counties.

Bartow Service Office

170 Century Boulevard

Bartow, FL 33830-7700

(863) 534-1448 • 1-800-492-7862 (FL only)

This office handles permits for Polk, Highlands and Hardee counties.

Sarasota Service Office

6750 Fruitville Road

Sarasota, FL 34240-9711

(941) 377-3722 • 1-800-320-3503 (FL only)

This office handles permits for Sarasota, Manatee, Charlotte and DeSoto counties.

Tampa Service Office

7601 Highway 301 North

Tampa, FL 33637-6759

(813) 985-7481 • 1-800-836-0797 (FL only)

This office handles permits for Hillsborough and Pinellas counties.

The Southwest Florida Water Management District (District) does not discriminate on the basis of disability. This nondiscrimination policy involves every aspect of the District's functions, including access to and participation in the District's programs and activities. Anyone requiring reasonable accommodation as provided for in the Americans with Disabilities Act should contact the District's Human Resources Director, 2379 Broad St., Brooksville, FL 34604-6899; telephone (352) 796-7211 or 1-800-423-1476 (FL only), ext. 4702; TDD 1-800-231-6103 (FL only); or email ADACoordinator@WaterMatters.org.



BALANCING WATER NEEDS ... PROTECTING WATER RESOURCES

Southwest Florida
Water Management District



WATERMATTERS.ORG • 1-800-423-1476

For more information, please contact:
Southwest Florida Water Management District
2379 Broad Street
Brooksville, FL 34604-6899
(352) 796-7211
1-800-423-1476 (FL only)

*Some text excerpted from the
Neighborhood Guide to Stormwater Systems.
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How To Operate & Maintain Your



Stormwater Management System

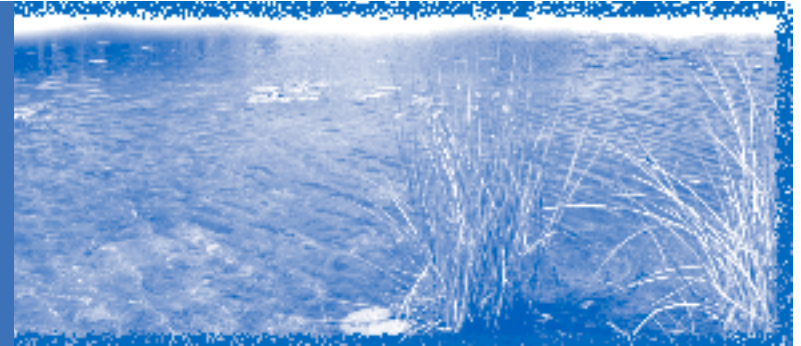


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Stormwater Management System: It's Your Responsibility

Surface water management facilities, such as ponds, ditches and swales, are constructed to trap and filter out pollutants in stormwater runoff from roads, parking lots, buildings and lawns. Discharge of untreated water to natural lakes, creeks, and rivers is harmful to natural vegetation and wildlife; this destroys one of the very things we like best about Florida — our enjoyment of the abundant clean water for recreation and aesthetic enjoyment.

The purpose of this informational pamphlet is to provide the entity/permittee responsible for the operation and maintenance of the Stormwater Management System (SWMS) with guidelines for establishing a program of routine maintenance procedures, which should minimize problems and maximize the appearance and performance of a SWMS.

Typically, site developers are responsible for operation and maintenance until construction is complete, then they are required by permit condition to transfer this responsibility to a homeowners', condominium owners', or property owners' association. After an association is legally established and construction of the surface water management system is completed, the association will assume responsibility. The operation and maintenance entity for shopping centers, individual stores and offices typically is the landowner or a management company hired by the landowner.

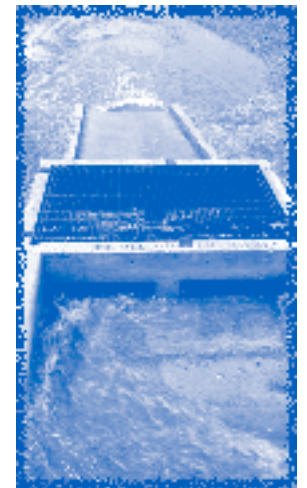


Your SWMS. . .

Your (SWMS) is designed and constructed to comply with certain environmental protection criteria. Stormwater ponds and their associated surface water management facilities are designed to capture and remove pollutants from specific volumes of stormwater runoff through processes such as percolation, filtering and/or detention. As long as they are constructed properly and maintained in an effective state, water quality standards are presumed to be met.

Stormwater management systems should be inspected on a routine basis to ensure that they are functioning properly. Inspections should be scheduled on a monthly or quarterly basis and following any major rain event. More frequent inspections may be necessary during the rainy season. Keeping detailed notes on maintenance activities will help when providing a report to the Southwest Florida Water Management District (District) at the time of your 18- or 24-month inspection. Environmental Resource Permit (ERP) or your Management and Storage of Surface Waters (MSSW) permit includes a condition that specifies how often the inspection reports are due.

It would be wise to designate one individual as the person responsible for overseeing operation and maintenance activities, monitoring and reporting. This will allow that individual to become well acquainted with the SWMS. Provide this person with a copy of the permit and District-approved construction drawings should questions or issues develop.



General Maintenance

1. All stormwater pipes, inlets, catch basins, manholes, flumes, pond inflow and outfall structures (including oil skimmers), and discharge pipes should be inspected on a regular basis (monthly or quarterly) and after major rainfalls. They should be maintained by removing built-up debris and vegetation and repairing deteriorating structures.
2. Chemicals, oils, greases or similar wastes are NOT to be disposed of directly to the stormwater facility or through storm sewers. Treatment ponds are designed to treat normal road, parking lot, roof and yard runoff only. Some chemicals may interfere with a treatment pond's functions or kill vegetation and wildlife. Dispose of these potentially dangerous materials properly by taking them to recycling facilities or to collection locations sponsored by many local governments.

Also, do not dispose of grass clippings in a SWMS. Grass clippings pose problems by smothering desirable vegetation, clogging outfall structures and, when they decompose, may cause unsightly algae blooms that can kill fish.

3. Accumulated pond sediments may contain heavy metals such as lead, cadmium and mercury, as well as other potentially hazardous materials. Therefore, sediments removed from storm sewers, inlets, pipes and ponds should be disposed of at an approved facility (check with your county Solid Waste Department or the Florida Department of Environmental Protection for disposal facilities approved to accept treatment pond sediment).
4. During any repair or maintenance activity, use care to avoid causing erosion or siltation to adjacent or off-site areas.
5. Remember, alterations (filling, enlarging, etc.) of any part of the stormwater facility is not permitted without prior approval from all applicable governing agencies.

continued on page 4

General Maintenance *continued from page 3*

6. The approved Operation and Maintenance Permit and as-built drawings are available at your local District service office. Refer to those plans and permits or additional restrictions, instructions and conditions.
7. It is usually more cost-effective to monitor and perform routine maintenance on a SWMS, rather than let it fail and have to reconstruct the entire system.
8. Mosquito growth can be minimized in a SWMS by the following measures:
 - Do not dump grass clippings or other organic debris into a SWMS — decaying grass clippings and other decomposing vegetation create ideal conditions for breeding mosquitoes.
 - Clean out any obstructions that get into the system. Debris can obstruct flow and harbor mosquito eggs and larvae.
 - Remove water lettuce and water hyacinth, which nourish and shelter mosquito larvae.
 - Stock ponds with predatory "mosquito fish" — Gambusia minnows, which may be collected from other ponds and ditches and introduced into your SWMS. Remember, the introduction of grass carp into your SWMS will require District approval.



Ditches & Swales

(AKA Percolation Ponds)

Some Environmental Resource Permits and (Management and Storage of Surface Water Permits) require that the vegetation in some ditches be protected to offset wetland impacts permitted during construction or for water quality treatment. The permit or approved construction should clearly identify which ditch vegetation must be preserved. If you're unsure, contact your local District service office.

If vegetation is not required to be protected, ditches and swales should be periodically mowed and cleaned of accumulated refuse. During the mowing operations, ditches and swales should be inspected for bare spots, damage or erosion. Bare areas should be sodded or seeded to replace the grass cover. In the case of erosion, replace the missing soils and bring the area back to grade.

Some ditches are designed to store runoff for short periods of time utilizing ditch blocks or raised inlets. These ditch blocks or inlets should not be removed or altered.

If you are unable to identify what type of treatment method serves your development, contact your District service office. Addresses are on the back of this pamphlet.



Dry Retention Ponds

(AKA Percolation Ponds)

How to recognize: Dry retention ponds are designed to be dry, except for 72 hours following a rain event, or a series of rain events if they occur frequently. They are sodded or grassed, with a concrete overflow structure that has a grated top and sometimes a rectangular weir cut in the side of the concrete structure.

How they work: A portion of the site's storm water percolates through the topsoil. The pollutants settle out and are trapped on the pond's bottom. Exposure to sun and oxygen helps break down the greases and oils.

Why they fail: Accumulated sediments with silts, oils and greases eventually seal off the porous bottom sands, resulting in little or no percolation through the filtering sands. Untreated water may discharge through the overflow structure if this occurs.

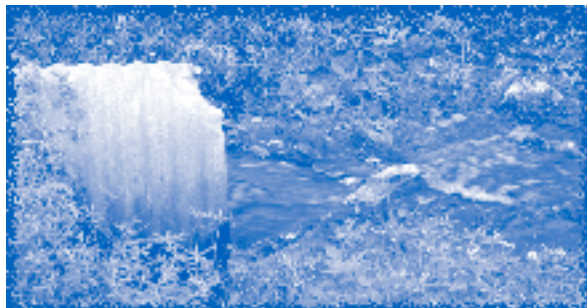


Dry Retention Ponds

(AKA Percolation Ponds)

MAINTENANCE SUGGESTIONS

1. On a monthly or quarterly basis, and following a storm event, the entity responsible for maintenance should make an inspection of the pond and its outfall structure to ensure that the system is operating properly. If standing water persists longer than 72 hours after a normal summer rain event, or if wetland vegetation such as cattails grow in the pond, the stormwater facility may be in need of repair. Repairs may be as simple as scarifying or raking the pond bottom, or may consist of removing the bottom sediment (approximately the top foot of soil) and replacing the soil with clean sand. For more information, contact your local District service office.
2. Mow frequently enough to prevent thatch buildup. Pick up grass clippings after cutting. Limit fertilizer use around the pond, and do not fertilize grass in the pond area.
3. Resod any areas (sides or bottom) where grass or sod has been removed or eroded.
4. Keep the outfall structure clear of debris and vegetation.



Effluent Filtration

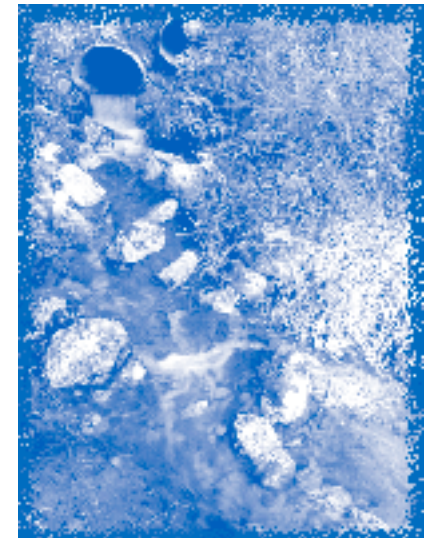
Side-drain Filtration or Underdrain Filtration

How to recognize: These ponds may either be dry or wet, but rely on a filtration system made of perforated pipe laid in a bed of filter media, such as sand, to remove pollutants. "Cleanouts," or vertical pipes with caps screwed on top, are connected to the buried pipes and extend up to the pond surface or bank. It is essential that the cap is always kept secured on the cleanout so that untreated water is not discharged through the cleanout.

How they work: A portion of the site's storm water percolates through the filter media into the perforated pipe and out through the control structure. Pollutants settle out or are trapped in the filter media. In addition, exposure to sun and oxygen helps break down the greases and oils.

Why they fail: The filter bed may become clogged with accumulated sediment, oils and greases, resulting in little or no percolation through the filtering sands. Untreated water may discharge through the overflow structure if this occurs.

For maintenance suggestions see page 9



Effluent Filtration

Side-drain Filtration or Underdrain Filtration

MAINTENANCE SUGGESTIONS

In general, if approximately 36 hours after a rain event you notice that water discharges over the top of the concrete control structure, rather than through the perforated pipe, it may be a signal that the pond is not functioning properly.

1. On a monthly or quarterly basis, and following a storm event, inspect the pond and its outfall structure to ensure that the system is operating properly.

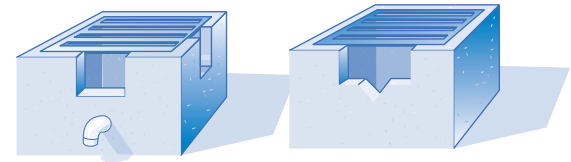
Repairs may be as simple as scarifying or raking the filter sand, forcing water through the cleanout to cleanse the perforated pipe, or as involved as replacing the filter media. Check construction plans or contact the District for more information if any questions arise.

2. Mow frequently enough to prevent thatch buildup. Pick up grass clippings after cutting. Limit fertilizer use around the pond, and do not fertilize grass in the pond area.
3. Resod any areas where grass has been removed or eroded. Do not sod over the filter media. Place stone or gravel over the filter media for stabilization, if necessary.
4. Keep the outfall structure clear of debris and vegetation.



Wet Detention Ponds

How to recognize: Look at the outfall structure. If it looks similar to the ones below and about a third of the pond is shallow or covered with vegetation (or recruiting vegetation if the pond is newly constructed), there's a good chance the facility is a wet detention pond.



How they work: Wet detention ponds are designed to detain storm water for several days while pollutant-laden sediments settle to the pond bottom. Additionally, sunlight and oxygen break down greases and oils. Vegetation in the shallow littoral zone (the shallow zone created near the pond outfall structure that designed to be vegetated) helps treat water through nutrient and heavy metal uptake.

Why they fail: After some years of use, wet detention ponds may fail. The control structure may become clogged with vegetation and sediment. Vegetation and sediment may accumulate in the pond, reducing the pond's ability to store storm water.

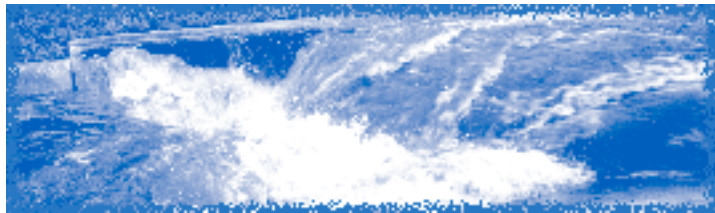
For maintenance suggestions see page 11

Wet Detention Ponds

MAINTENANCE SUGGESTIONS

1. All sodded side slopes and berms should be maintained by the procedure outlined for ditches and swales. Inflow structures should be maintained by the procedures outlined in this brochure under "General Maintenance."
2. Maintain, rather than remove, wetland vegetation that becomes established in the littoral zone. Do not cut, mow, use herbicide or grass carp to remove any of the vegetation in the littoral zone without prior approval from the District. Refer to the conditions of the permit and construction notes for any further instructions.
3. On a monthly or quarterly basis, and after severe rainfall events, check the area in front of the outfall control structure for built-up sediments, vegetation, trash and debris that impair the operation of the structure. Remove sediment, vegetation, trash and debris to an approved disposal site.
4. When littoral zone vegetation and sediment accumulate to such an extent that water depth decreases, the littoral zone may need to be regraded and revegetated. When it appears that a pond has reached this state, it is best to contact a District representative prior to large-scale maintenance.

When wet detention pond littoral zones are intentionally planted for aesthetic purposes, or to offset wetlands' impacts, removal of weedy or exotic vegetation may be required and accompanied by replanting of desirable vegetation. Check with your local District service office to determine specific requirements.



Southwest Florida Water Management District Service Offices

BROOKSVILLE (headquarters)
2379 Broad Street
Brooksville, Florida 34604-6899
(352) 796-7211 or 1-800-423-1476

TAMPA
7601 U.S. Hwy. 301 N.
Tampa, Florida 33637-6759
(813) 985-7481 or 1-800-836-0797

BARTOW
170 Century Blvd.
Bartow, Florida 33830-7700
(863) 534-1448 or 1-800-492-7862

SARASOTA
6750 Fruitville Road
Sarasota, Florida 34240-9711
(941) 377-3722 or 1-800-320-3503



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The Southwest Florida Water Management District (District) does not discriminate upon the basis of any individual's disability status. This nondiscrimination policy involves every aspect of the District's functions including one's access to, participation, employment, or treatment in its programs or activities. Anyone requiring reasonable accommodations as provided for in the Americans With Disabilities Act should contact the Communications Department at (352) 796-7211, extension 4757; TDD only 1-800-231-6103 (FL); fax (352) 754-6883; Suncom 663-6882 or view our Web site on the World Wide Web at WaterMatters.org.