

STORMWATER MANAGEMENT FOR SINGLE-FAMILY RESIDENTIAL LOTS

VOLUME 3 – Design Your Own LID SWMF



Walton County
Planning
LIVE | WORK | PLAY



“Stormwater Management System (SMS) - A system that is designed and constructed or implemented to control discharges which are necessitated by rainfall events, incorporating methods to collect, convey, store, absorb, inhibit, treat, use, or reuse water to prevent or reduce flooding, over drainage, environmental degradation, and water pollution or otherwise affect the quantity and quality of discharges from the system.”

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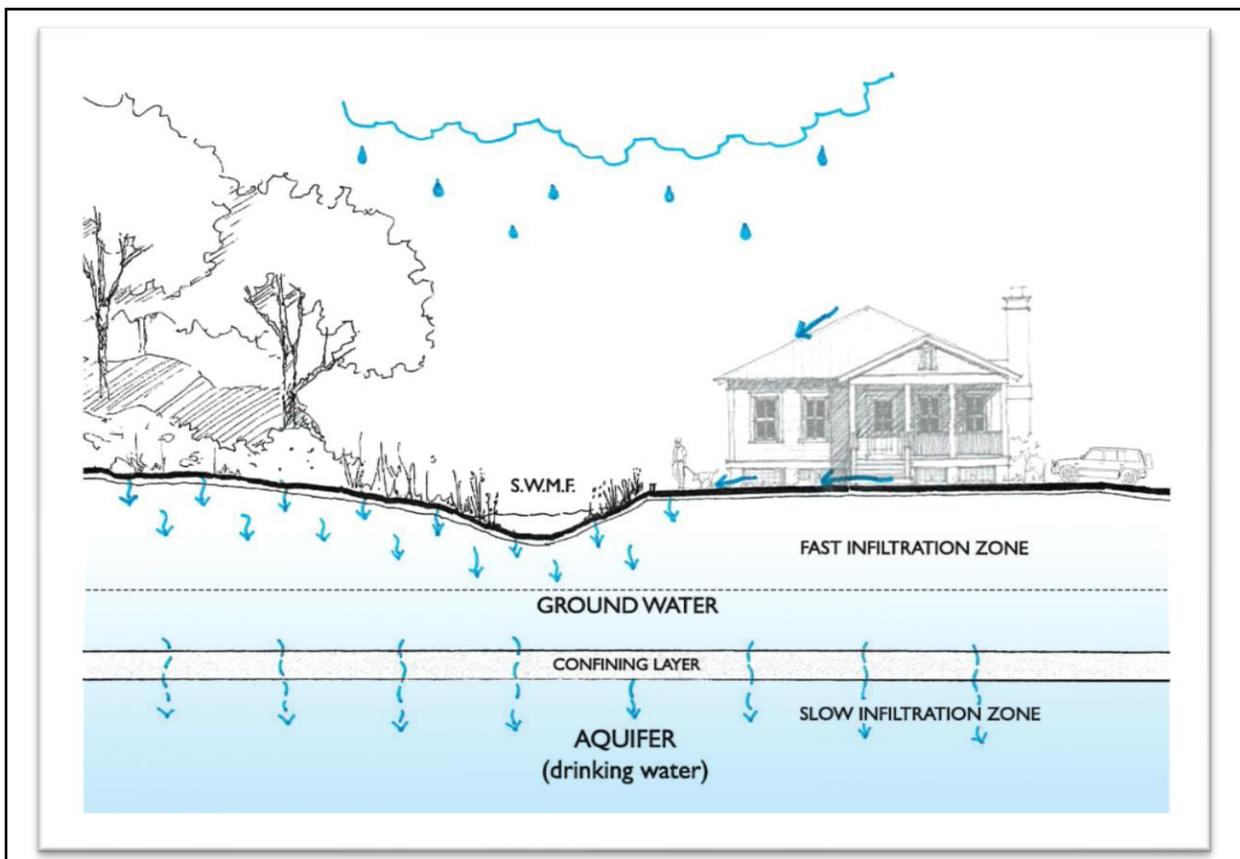
We also thank many others for support and feedback.

5.0 LID Options

In accordance with **LDC Chapter 5.06.03 Stormwater Management Performance Standards**, the County Engineer or designee may allow the use of alternative BMPs to address the stormwater quality criteria outlined in **Section 3**. This is only applicable if the provided BMP's are commonly accepted methodologies and/or there is sufficient empirical evidence to demonstrate their use can provide an equivalent if not greater level of stormwater quality treatment. Several approaches are available to implement the LID approach to designing a SWMF; this can vary from storage / reuse applications such as rain barrels and cisterns to rain gardens, planter boxes, infiltration trenches, enhanced or grassy swales, ponds, pocket wetlands, natural vegetated buffers, and pervious pavers. The following sections provide an overview of advantages, disadvantages, design considerations, design steps, and operations and maintenance (O&M) criteria for each approach.

important

The LID options presented in this manual work by infiltrating the collected stormwater into the underlying soil and groundwater. It is therefore very important that we handle the stormwater collected with great care by ensuring that fertilizers, pesticides, vehicle oil and fuel, cleaning solutions, and other hazardous substance do not enter the stormwater facility. Preventing stormwater from coming in contact with these contaminants and pre-treating the collected runoff are the best way to protect groundwater.



Stormwater management systems shall not be designed or constructed for use under residential structures, if they are then they must adhere to LDC Section 5.06.03. Stormwater management systems placed under structures present maintenance challenges to the owner. Additionally, it is never a good idea to construct a SWMF close to a structural foundation. SWMF must be at least four feet away from structural foundations or have piping integrated into the system to convey the collected water away from the foundation. If you find yourself in the situation where one of these seem to be your only option, please consult with a Florida licensed civil engineer regarding the design of your system. Systems must be designed to allow personnel and equipment to access and conduct regular maintenance activities. Regular maintenance of a SWMF is crucial to preserve the long-term effectiveness and capacity of the system.

The use of roof gutters is highly recommended for all homes utilizing LID SWMFs. However, homes built with reduces building setback and/or over one-story high are required to use roof gutters to convey the stormwater runoff from the roof directly into the LID SWMF.

	Less than 7.5 ft setback	7.5 ft setback	10 ft setback	Greater than 10 ft setback
One-story	Required	Suggested	Suggested	Suggested
Two-story or higher	Required	Required	Suggested	Suggested

Single-family home with a variety of LID applications:

