# Restoring Our Springs!



#### **Leading Scientific Agency**

The Southwest Florida Water Management District (District) is the leading scientific agency on springs in the region. Our Springs Team is a diverse group of scientists and engineers committed to restoring our springs. The team's goal is to improve habitat and water clarity in our first-magnitude springs and rivers. Since each spring system is different, the team uses a variety of techniques to address each system's individual challenges such as monitoring, research and development, regulation, conservation, restoration, land acquisition and management, and education.

## What is a Spring?

A spring is a natural opening in the ground where water flows directly from the aquifer to the earth's surface. The source of this fresh water is from seasonal rainfall that soaks into the ground, which is referred to as groundwater. Springs form when groundwater is under pressure and flows up

through an opening called a spring vent, supplying water flow to a river or other

water body.

## Why are Springs Important?

The District's team of springs experts is working to improve the recreational, economic and ecological value of major springs in the region. Residents and tourists alike enjoy the springs' recreational opportunities, and many come to see the springs' famous seasonal resident — the manatee. The springs and their associated rivers and bays have tremendous ecological value, and are home to countless plants and animals. Springs also provide a large economic impact for local communities.



## **First-Magnitude Springs**

There are more than 200 springs within the District. Many of these springs are part of the five first-magnitude spring groups — Rainbow River, Crystal River/Kings Bay, Homosassa River, Chassahowitzka River and Weeki Wachee River. First-magnitude springs discharge 64.6 million gallons of water per day or more. Together, these five spring groups discharge more than one billion gallons of water per day.

## **Threats to Springs**

The springs in our region are unique, complex systems that have been changing for nearly a century and it will take time to restore them.



## The challenges facing these springs are:

- Increases in nutrients like nitrogen and phosphorus due to development, excessive fertilizer use, wastewater treatment plant discharges and failing septic tanks
- Habitat loss from invasive aquatic plant and algae species as well as from development, sea walls and canals
- Reductions in discharge due to a steady decline in rainfall since the 1960s
- Increases in salinity due to spring flow declines and sea-level rise

#### What is a Springshed?

A springshed is the area of land that contributes groundwater to a spring. Your actions within the springshed affect the quality of water flowing from the spring. You can help protect Florida's springs even if you live many miles from a spring.

## **Generalized Springshed Boundaries of Major Springs**



## Here are a few ways you can help:

- Always dispose of grass clippings, litter and pet waste properly
- Never dump anything down a storm drain
- Use fertilizer sparingly
- Have septic tanks inspected every two to three years
- Volunteer for a springs protection project
- Plant a buffer zone between the lawn and shoreline

Find out more about what you can do to help and join us in the community effort to restore our springs by visiting *WaterMatters.org/Springs*.



#### COMAY 03-15

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