



St. Johns River Water Management District

Understanding stormwater harvesting

What is stormwater harvesting?

Stormwater harvesting is the collection and storage of stormwater runoff for later beneficial use.

Why is stormwater harvesting important?

Stormwater harvesting benefits include:

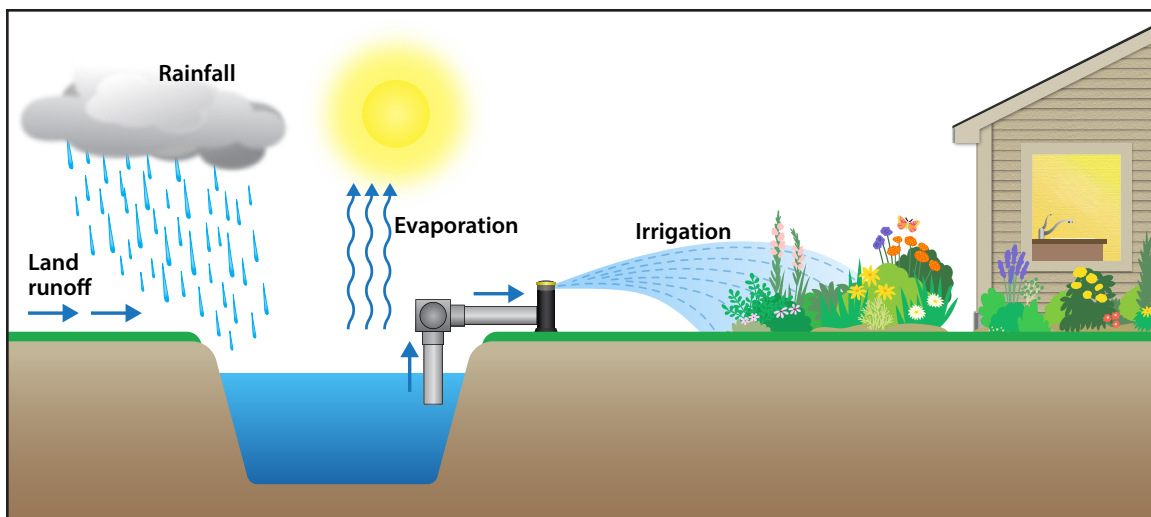
- **Alternative water supply:** Stormwater harvesting can be used instead of potable groundwater for uses such as irrigation, that can use a lower-quality source of water. Additionally, there are potential economic savings to users who would otherwise pay utility potable water fees.
- **Water quality:** Stormwater harvesting improves water quality by collecting, storing, and reducing direct stormwater discharges from ponds by using the water for irrigation or other uses. It reduces both the runoff volume and pollutants discharged to receiving waters.



What does stormwater harvesting look like?

A simple stormwater harvesting concept is shown in the following graphic, where water is withdrawn from the stormwater pond and used for irrigation.

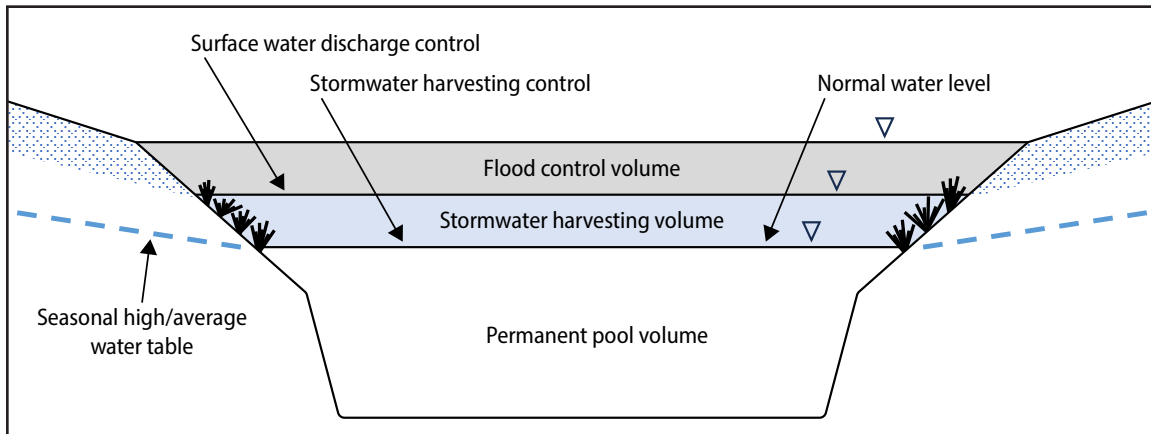
More complex stormwater harvesting systems might use horizontal wells below the stormwater pond to withdraw water.



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How does stormwater harvesting work within a permitted stormwater system?

The stormwater harvesting volume is represented by the blue area in the following graphic. Existing stormwater systems may have water available for use (shown in blue). Stormwater harvesting associated with a new stormwater management system can be intentionally designed so that the water available for use (shown in blue) is maximized.

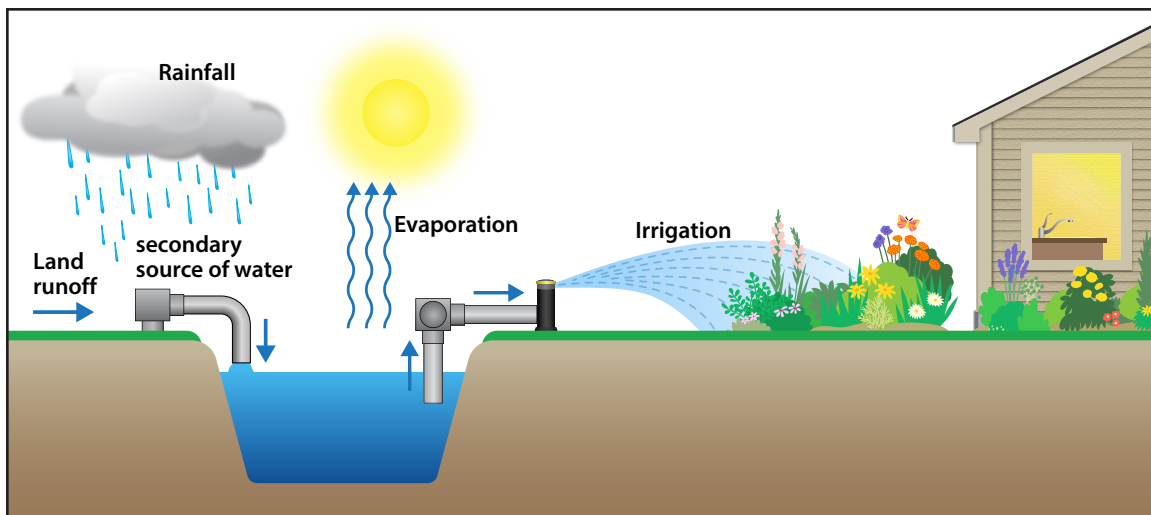


What happens when it doesn't rain and the pond level is low?

The amount of water available in the stormwater pond is dependent on rainfall/runoff and usually peak demand occurs when rainfall is low, so typically a stormwater harvesting system will have a secondary source of water.

It may be possible to supplement the pond with a lower-quality source of water. Examples of lower-quality sources include reclaimed water, the surficial aquifer, the intermediate aquifer and non-potable Floridan aquifer. District staff are available to discuss the feasibility of utilizing any of these lower-quality water sources. The potable Floridan aquifer is sometimes used as a secondary source, but only for projects where other lower-quality sources of water aren't available.

The secondary source of water supplements the pond when the water level falls to a predefined level.



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What type of projects can use stormwater harvesting?

Projects that can use a lower-quality source of water are good candidates for stormwater harvesting. Examples of uses of stormwater harvesting include:

- **Irrigation** — Golf course, parks, sports fields, residential or commercial common areas, agricultural crops, plant nurseries, cemeteries, residential yards irrigated with an HOA-controlled system
- **Cooling towers**
- **Supplementation** of existing reclaimed water systems to meet peak demands

I'm interested in stormwater harvesting for my project, what's next?

Your project will likely have or will need an Environmental Resource Permit (ERP) for the construction and management of the stormwater system.

- Visit the St. Johns River Water Management District's ePermit portal at <https://permitting.sjrwmd.com/ep/#/ep> and follow the option for Environmental Resource Services (it may be necessary to create a login).
- Select **Pre-Application Information and Request**.
- Under **Pre-Application Topics**, select **Stormwater Harvesting**.

From here, you can provide specifics of your project and request to meet with District staff to discuss the potential of using stormwater harvesting for your project.

Where can I get more information on stormwater harvesting?

Additional information on stormwater harvesting, including examples of larger projects that use stormwater harvesting is available here: www.sjrwmd.com/data/stormwater-harvesting

More information and resources are available here: <https://watereuse.org/educate/types-of-reuse/stormwater-reuse>



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