

Would Dispersed Water Management Help the Refuge?

According to a [University of Florida report](#), about 1.6 million acre-feet¹ of storage are needed in the broad area surrounding Lake Okeechobee to support the types of water management activities that would significantly benefit the Refuge. Of that total amount, 400,000 acre-feet are needed along the Caloosahatchee River.

The construction of reservoirs such as the [EAA](#) and the [C-43](#) are a major step toward achieving that goal. However, these reservoirs provide only a fraction of the necessary storage, require significant up-front funding, and take a long time to be approved, planned, and built. Dispersed Water Management (DWM) is an approach that is complimentary to building reservoirs, can be implemented relatively quickly, and requires much less up-front funding and time to implement.

DWM is the practice of retaining or holding back water on private and public lands. One of the many reasons why DWM projects should not be looked at as an alternative to reservoirs is because reservoirs hold water indefinitely and hence can release water when needed in the dry season. In contrast, the typical DWM project only holds water for a comparatively brief period before the water either evaporates or seeps into the ground.

It isn't possible to make a broad statement about the effectiveness of DWM projects in part because there are so many different types of DWM projects. These projects can, for example, be built on public land or on private land, and while the benefit of some DWM projects is primarily water storage, some others also remove a significant amount of pollutants. DWM projects also vary widely in size. Some projects hold only tens of acre-feet of water while others hold tens of thousands of acre-feet. Another key variable is that DWM projects vary in terms of the length of the lease with the landholder. See [more](#).

There have been several DWM projects implemented in Florida. A critical factor that impacts the effectiveness of these projects is the cost of acquiring and maintaining the property. See [more](#). As a result, some of the most cost-effective DWM projects are built on public lands. An example of such a project on public lands is the restoration of the Arbuckle Marsh at the [Avon Park Air Force Range](#). An example of a DWM project on private land that is regarded as successful is the [Nicodemus Slough project](#). In contrast, the [Alico DWM project](#), has been widely criticized as being ineffective due to the amount of money being paid annually to the land owners. For a detailed discussion of the success of DWM projects, see [more](#).

The best way to determine whether DWM projects would be a cost-effective way of providing relief to the Refuge requires detailed modeling of both the cost and the impact of those DWM projects, as well as assessing how those projects would fit with other water-related projects. If an appropriate opportunity presents itself, we will consider advocating for the project and will report back on any progress in this direction.

¹ An acre-foot is the amount of water that would cover an acre of land to a depth of 1 foot, = approximately 325,851 U.S. gallons

In case you missed it: U.S. Representative Brian Mast filed legislation to require the Army Corps to test Lake O water for blue-green algae and the public be notified of its presence and possible health risks before the water is discharged. See [more](#).