

OCCOQUAN RESERVOIR AND CONSERVATION

The Occoquan Reservoir is a very important body of water. It provides drinking water and recreational use to roughly one million people in Northern Virginia. Its health and quality is dependent on the Occoquan watershed—the land whose runoff drains into the reservoir—and those who use the reservoir for recreational activities. It is vitally important to care for the reservoir, as our health and the health of the environment depends on it. There are ways you can help it while out on the water.



Boating

Recreational water activities, such as boating and fishing, can make a large impact on the watershed and on the reservoir itself. Certain common practices in boating and fishing can be detrimental to the environment, but there are many things you can do to help.

Boats of any sort can have an impact on the environment. For instance, chemicals used to clean boats can seep into the water, causing imbalances in the water quality and possibly harming wildlife. Any sort of spills on a boat, like oil, that manage to make their way into the water can be very harmful for the organisms living there, and they can be incredibly difficult to clean up. Boats can also stir up sediment in the water, which can disrupt habitats and creatures or plants living there. But there are practices you can put in place to stop this from happening. Use nontoxic cleaning methods on your boat, and make sure whatever method you are using doesn't have much of a chance of seeping into the water and affecting wildlife. If there are any spills on your boat, clean them up immediately, and avoid bringing chemicals onboard if there is any chance of them getting in the water. Don't overcrowd areas when boating, and don't go in areas where you're not supposed to or where endangered species may be.

Fishing



Crappie, a common fish in the Occoquan Reservoir

Fishing is another recreational activity that can disrupt living organisms in the water, and sometimes these disruptions can cause problems. There are certain ways you can improve the way you fish to benefit the environment.

Overfishing is a common concern when it comes to fishing issues. If certain areas of water are being used too much, or people are catching and keeping more than they're allowed to, this can lead to overfishing. Overfishing can lead to dramatic decreases in certain fish populations, which can then change food webs and harm the predators and prey of the species. Avoid this by only fishing where and how much you are allowed to, and not keeping species that are at risk of endangerment.

The wellbeing of all native species in the reservoir is an important thing to consider when you use it for recreation. It is always important to make sure you're not harming the population of certain fish species. For instance, the population of bluegill fish has decreased before, and even though it did not affect the overall wellbeing of the ecosystem, small changes are important

to note. Although they can usually return to normal as with the bluegill, monitoring fish populations and making sure to not overfish species that may become endangered is important to the wellbeing of the ecosystem.



Bluegill fish

Invasive Species

A lesser known—but equally important—water issue is invasive species. Invasive species are species that don't naturally belong in a particular ecosystem. They take over their new home by using up nutrients and taking space away from other native species. They can usually spread rapidly because they don't have any natural predators in that area.



Water Chestnut

One invasive species that you should be aware of is water chestnut. Water chestnut is an aquatic plant that has invasively taken over the northeast coast of the US and Canada. The Occoquan Reservoir currently has issues with these plants. They have grown in the water, creating choking blankets over the water that block out sunlight and drive out animals from the area. They can clog up water and make it hard for boats to pass through, too. Water chestnut plants are incredibly hard to get rid of because of how they spread and grow, so it's important that boaters take precautions to not spread other invasive species.

There are some easy ways for boaters and fishers to help stop the spread of invasive species. Always wash and clean your boat and belongings when coming from another area outside of the Occoquan Reservoir because plant seeds can attach and be spread easily this way. Don't release any fish into the water that don't belong there—only keep organisms where they came from. And don't release bait into the water. This can also spread invasive species without you knowing it; instead, dispose of it on land.

Pollution

Pollutants from your boat and from the land can greatly affect ecosystems. Oil and chemical spills can kill off fish and plants that get poisoned by them, making lasting impacts in the area. Fertilizers on land can flow into water and cause algae blooms, which can clog water and kill off fish due to the way they use up oxygen in the water. These issues can affect what you're fishing for and can disrupt places you fish and what you can eat, too. Water quality can also affect the health of those who use it for recreation or even for drinking water, causing huge problems. By reducing fertilizer use on land, and avoiding getting any chemicals into the water, you can preserve the health of the reservoir and the people and organisms that live in it. Also, any sort of solid trash from your boat should not go in the water; make sure to properly dispose of it on land.

