



## WOW - Watersheds, Oceans & Wetlands

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No matter where we live, the actions we take impact critical ecosystems as water travels throughout our watersheds, filtering through our diminishing wetlands and into our majestic struggling oceans. Through behavior change, creative design and innovative technology the future stewards of this planet can improve the health of these critical systems.

Schools can choose to implement any of the three pathways under WOW: Watersheds, Oceans or Wetlands. Separate requirements for each pathway along with tools and resources can be found on the next few pages.





## WOW - Wetlands

*Soil Quality | Soil Moisture | Migration | Wildlife Nurseries | Tidal | Non-Tidal | Water Quality | Aquatic & Terrestrial Biodiversity | Filtration | Carbon Sinks | Green Infrastructure*

What is a Wetland? Wetlands are areas where water covers the soil, or is present either at or near the surface of the soil all year or for varying periods of time during the year, including during the growing season. Water saturation (hydrology) largely determines how the soil develops and the types of plant and animal communities living in and on the soil. Wetlands may support both aquatic and terrestrial species. ([EPA – Wetlands](#))

Wetlands are amazing ecosystems. Economists estimate that one acre of wetlands provides about \$10,000 worth of ecosystem services<sup>7</sup> which include: filtering and recharging drinking water, preventing flooding, protecting our coasts from hurricanes and storms and providing habitat for diverse wildlife populations.

Today less than half of our original wetlands remain. Wetlands need our help and need it now. These ecosystems are vanishing at such a quick rate in some parts of the country that within our lifetime they may just be a memory. Multiple waterfowl and other bird species, along with mammal, reptile, amphibian, fish and insect species depend on wetlands for their survival. Forty-five percent of species found in wetlands are rare and endangered. ([University of Florida](#))

### Driving Questions

- ✓ How can we, as bird watchers, determine if the wetland is a healthy wetland for birds to use during migration?
- ✓ How can we, as wetland volunteers, raise awareness about the impacts of downstream runoff on our wetlands?
- ✓ How can we, as wetland biologists, determine the health of our wetland's vertebrate or invertebrate species?
- ✓ How can we, as home builders, plan for a new community of homes that does not impact the nearby wetland?

<sup>7</sup> Ecosystem services are defined as benefits obtained from an ecosystem.



### TOOLS AND RESOURCES

[Top 10 Tips](#) | [Fast Facts](#) | [Standards Alignment](#) | [Sample Action Plan](#) | [Wetlands Audit](#) | [Resources](#)