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## IZAAK WALTON LEAGUE OF AMERICA

### *Fact Sheet*

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### *Wetlands Functions and Values*

#### Why are Wetlands Important?

*Wildlife Habitat* – Wetlands provide shelter, food, and spawning and nesting sites for many species of birds, fish, mammals, reptiles and invertebrates. Although wetlands make up only about 5 percent of land in the United States, they support about 190 amphibian species and one-third of all bird species in the country. Almost 43 percent of the federally listed threatened and endangered animal species are in some way dependent on wetlands for survival.

*Floodwater Storage* – Depending on the area's topography and location in the watershed, wetlands can act as water storage areas. Wetlands located along a river are especially valued for their capacity to retain floodwater. In 1972, the U.S. Army Corps of Engineers determined that loss of wetlands along the Charles River near Boston would have caused \$17 million in annual flood damage. A wetland also can act as a recharge site for ground water. This depends upon the season and amount of precipitation, as well as the wetland's type, location, soils and relationship to the water table.

*Erosion Control* – Coastal wetlands shield coastlines and dissipate storm energy. They act as buffers against wind, rain and wave action. In 1992, Hurricane Andrew caused \$20 billion in damage to the developed coasts of Florida. But when Andrew hit the Louisiana coast with the same force, it cost only 2.5 billion to repair the damages because Louisiana's coastal wetlands provided a protective barrier. Wetlands also reduce channel erosion that occurs during floods by storing runoff water and releasing it at a slower rate.

*Water Purification* – Wetlands help purify drinking water by naturally filtering polluted runoff from city streets, building and agricultural lands. They trap sediments, accumulate nutrients, transform a variety of toxic substances such as pesticides and heavy metals, and can remove potentially dangerous micro-organisms from surface waters. Constructed wetlands are a highly efficient, low-cost alternative for treating sewage.

*Economic Benefits* – Fish, shellfish, cranberries, timber, wild rice and other commercially important products are harvested from wetlands. More than 95 percent of the

commercially harvested fish and shellfish in the United States are wetland dependent during some stage of their lives. The commercial fishing industry provides nearly 2 million jobs nationwide and contributes \$152 billion annually to the economy. Commercial hunting of wetland animals such as alligators, geese, beaver and muskrats contributes hundreds of millions to the economy each year. Recreational activities in wetlands also contribute to the economy. In 1996, recreational hunters of migratory birds spent \$720 million on equipment and \$576 million on travel. Anglers spent \$37.8 billion on equipment, licenses, travel and lodging in the same year.

*Recreation* – Wetlands provide great diversity and beauty simply for visual enjoyment. They provide endless opportunities for popular recreational activities such as hunting, canoeing, bird watching and hiking. More than half of all adults across the nation hunt, fish, bird-watch or photograph wildlife. Even people who may never visit a wetland may be happy just knowing that wild and beautiful places, such as natural wetlands, still exist.

*Education* – Wetlands make excellent and inexpensive outdoor laboratories. Students of all ages can benefit from experiencing the specialized habitat of wetlands firsthand. The complexity of wetland ecosystems makes them excellent subjects for research projects such as vegetation surveys and studies of water quality or wildlife.

*Intangibles* – The vibrant colors, rich diversity, and tranquil beauty of wetlands have inspired the paintings, poetry and music of so many artists. Monet's *Water Lilies*, Henry David Thoreau's *Walden*, Lynyrd Skynyrd's "Swamp Music"—these are all tributes to the wild and wondrous landscapes of wetland ecosystems. Marshes, swamps and bayous also play an important role in safeguarding the livelihoods and time-honored customs of many communities, making them a valuable part of several traditional and modern cultures.

## Why Should We Be Concerned?

Up until the early 1900's, wetlands used to be considered "wastelands" that stood in the way of productivity and development. Consequently, the initial 200 million acres of wetlands in the lower 48 states has been cut almost in half in order to make room for agriculture and human settlements. However, wetlands are now recognized to be among the Earth's most important ecosystems.

In addition to all the benefits that wetlands provide to people, an estimated 5,000 plants, 190 amphibians and reptiles, 35 percent of all birds, and 35 percent of all the federally listed threatened and endangered species depend on wetland habitat for their survival.

Given this range of benefits that wetlands produce, their decline not only has serious ecological consequences, but also important social and economic impacts. The reasons for the continued loss of wetlands in the US include urban development, accounting for 30 percent of the decline; followed by agriculture (26 percent); forestry (23 percent); and rural development (21 percent). While efforts to conserve our remaining wetlands are increasing,

the destruction and degradation of these valuable ecosystems continues to be a serious problem that we all need to address.

For more information about the economic value of wetlands, read our 2005 Wetland Sights and Sounds Newsletter series, which can be found on the Protect Our Wetlands home page at <http://www.iwla.org/pow>. All eight issues focus on the valuable role wetlands play in our economy. In addition, many resources on wetland functions and values can be found on the IWLA watershed stewardship resources page, which can also be accessed from the POW homepage. Just click on the “watershed stewardship resources” link on the right-hand menu, and start exploring all the ways you can inform yourself about wetlands and their value to you and your community!

*Founded in 1922, the Izaak Walton League of America is dedicated to common sense conservation that protects America's hunting, fishing, and outdoor heritage relying on solution-oriented conservation, education, and the promotion of outdoor recreation for the benefit of our citizens. The League has more than 40,000 members and supporters in 21 state divisions and more than 300 local chapters in 32 states.*