

Ecosystems Support People



Togiak National
Wildlife Refuge, Alaska, US

- Wilderness and protected areas play a critical role in providing a variety of benefits that people depend on, including key wetland and watershed ecosystem services.
- As human populations continue to grow and urbanization further expands, more people will rely on ecosystem benefits to meet their most fundamental needs.
- In both rural and urban areas, marginalized populations are likely to suffer most when the availability and quality of water and food are reduced, whether due to failures in infrastructure and trade networks or to the demise of wetlands.

Increase Sustainability of Water-Based Ecosystem Services From Wilderness and Protected Areas

At Wilderness and Protected Areas:

- Encourage public support of government and non-government efforts to improve stewardship of protected areas.
- Provide opportunities to volunteer on a project, such as removing litter at a favorite protected area to safeguard water-based ecosystem services.
- Demonstrate good ethics by avoiding behaviors that impact water quality.

In Communities:

- Encourage conserving water in homes.
- Know the source and threats to a community's water supply.
- Share this brochure widely and especially with those who may become active partners in protecting water within natural systems, which is essential to our health.

Ecosystem Services: Our Life Support System

Wilderness and protected areas located throughout the North American continent generate a wide variety of benefits for people and the environment.

These benefits, often referred to as *ecosystem services*, include water; food; spiritual and cultural values; recreation; aesthetics; mitigation of climate change impacts; protection against flood, drought, and disease; and maintenance of biodiversity.



The North American Intergovernmental Committee for
Wilderness and Protected Areas Cooperation

<http://nawpa.net/>

Services From Wetlands and Watersheds

- Provides fresh drinking water
- Provides multiple-use water for industry
- Protects fish and wildlife populations for food, recreation, and cultural purposes
- Supports local economies through tourism by providing recreational opportunities
- Provides a baseline for comparing climate-induced changes in various world locations

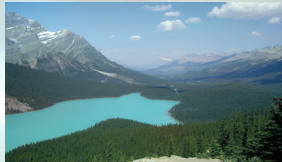


Monte Azul Biosphere Reserve, Mexico

Climate Change

From Flood Prevention to Fresh Water Resources

The Intergovernmental Panel on Climate Change (2007) reports a likely 2°C to 4.5°C temperature rise in the upcoming decades. This warming is likely to affect natural ecosystems and their ability to provide services that benefit human well-being. If natural flood prevention functions of wetlands and coastal marshes are destroyed or diminished, then flood damage costs to individuals and communities will increase substantially.



Banff National Park, Canada

People Support Ecosystems

The Millennium Ecosystem Assessment, released in 2005, is an international synthesis by more than 1,500 of the world's leading scientists, who describe natural systems as humanity's "life-support system." They have reported that the degradation and loss of wetlands is more rapid than that of other ecosystems (<http://millenniumassessment.org/documents/document.358.aspx.pdf>). When both the marketed and nonmarketed economic benefits of wetlands are included, the total economic value of unconverted wetlands is often greater than that of converted wetlands. A priority when making decisions that directly or indirectly influence wetlands is to ensure that information about the full range of benefits and values provided by different wetland ecosystem services is considered. Physical and economic water scarcity and limited or reduced access to water are major challenges facing society and are key factors limiting economic development in many countries.