ECOSYSTEM SERVICES





Flood control, storm protection, air and water quality, food, recreation, habitat – these are just a few of the numerous services provided by an ecosystem. Community well-being is directly tied to ecosystem health.

People live in ecosystems, and their activities, both big and small, impact ecosystem services. For communities trying to make smart decisions about their future, learning about the value of ecosystem services and the causes and effects of ecosystem change is important. Once an ecosystem is compromised, it can be hard to get those benefits back.

A blanket "we will protect our environment at all costs" is not a realistic approach, since human and nature-based changes are constantly occurring. But communities should be aware of shortand long-term consequences. NOAA provides data and information helpful for this task.

Please see the reverse of this page and visit *coast.noaa.gov/digitalcoast/topics/ecosystem-services* to learn more.

NOAA helps communities understand the value of ecosystem services by providing relevant

- Data
- Tools
- Training

Incorporating Ecosystem Services into the Decision-Making Process

Impaired sportfishing, poor water quality, and increased flooding are just a few of the impacts that may occur from landscape changes, even when those changes are happening miles away. Use the resources provided below to better understand local ecosystems, including the services, benefits, and values provided, and potential consequences of change. Everything listed here, and more, can be found at *coast.noaa.gov/digitalcoast/topics/ecosystem-services*.

Getting Started

- Federal Resource Management and Ecosystem Services Guidebook
- Econ 120 Video: Two-Minute Economic Lesson on Ecosystem Services

Helpful Resources to Use along the Way

Data

- Coastal Land Cover. Nationally standardized data and tools from NOAA (also known as C-CAP data)
- **Environmental Sensitivity Index.** Physical, biological, and human-use information used to rate shoreline sensitivity.
- **Estuarine Monitoring Data.** Used to study variability and changes in estuarine ecosystems. Provided by NOAA's national estuarine research reserves.

Tools

- Integrated Valuation of Environmental Services and Tradeoffs (InVEST) Tool. Modules used to map and value the goods and services from nature and identify ways to balance economic and environmental goals.
- **Mapping Ocean Wealth.** Mapping portal used to evaluate and visualize ecosystem benefits in relation to ocean planning and policy decisions.
- **Gulf of Mexico Ecosystem Services Valuation Database: GecoServ.** Searchable inventory of ecosystem services valuation information and studies.

Training

- **Green Infrastructure Training.** Introductory training on using nature-based services to increase community resilience from storms and other hazards.
- **Ecosystem Valuation.** Guidance for incorporating ecosystem service valuation into coastal restoration projects.
- **Green Infrastructure Guidebook.** Guidance for assessing the costs and benefits of this flood-reduction technique.

