

Resources

Green Infrastructure Planning

Courses

- **Strategic Conservation Planning Using the Green Infrastructure Approach**
Offered by The Conservation Fund, this introductory course provides participants with a strategic approach for prioritizing conservation opportunities and a planning framework for conservation and development—integrating the green and the grey.
www.conservationfund.org/training_education/catalog_of_training_courses
- **GIS Tools for Strategic Conservation Planning**
Offered by the NOAA Coastal Services Center, this four-day course, co-instructed by staff members from the Center and The Conservation Fund, teaches students how to apply geographic information system (GIS) tools, methodologies, and analyses to strategic conservation planning using a “green infrastructure” approach.
www.csc.noaa.gov/digitalcoast/training/gisforscp.html

Resources

- **Green Infrastructure Community of Practice**
The Green Infrastructure Community of Practice is a collaborative network of organizations and agencies that are actively involved in promoting or implementing the green infrastructure approach to strategic conservation.
www.greeninfrastructure.net/content/community-practice
- **Green Infrastructure Center**
The Green Infrastructure Center is a nonprofit organization founded in December 2006 to assist communities in developing strategies for protecting and conserving their ecological and cultural assets through environmentally sensitive decisions, lifestyles, and planning.
www.gicinc.org
- **National Association of Counties (NACo) – Green Infrastructure for Counties**
NACo's Green Infrastructure Program helps counties to use management of natural resources to enhance water quality, abate flooding, lower heat in urban centers, lessen the impacts of climate change and build more resilient communities.
www.naco.org/programs/csd/pages/greeninfrastructureforcounties.aspx

Hazards Planning

Courses

- **Road Map for Adapting to Coastal Risks**
This three-hour training introduces the “Road Map” assessment methodology designed to help communities characterize their exposure to current and future hazard and climate threats and assess how existing planning and policy efforts may integrate this information to address community issues.
www.csc.noaa.gov/digitalcoast/training/coastalrisk.html

Resources

- **U.S. Environmental Protection Agency (EPA) – Managing Wet Weather**
Multiple sources of funding are available through the EPA’s Managing Wet Weather with green infrastructure program, as well as trainings on how to implement green infrastructure for stormwater management.
http://cfpub.epa.gov/npdes/home.cfm?program_id=298
- **Digital Coast Partnership Coastal Inundation Toolkit**
The toolkit was developed by the Digital Coast Partnership to help communities understand and address coastal inundation issues.
www.csc.noaa.gov/digitalcoast/inundation/index.html

Smart Growth Planning

Courses

- **Coastal Community Planning and Development**
Offered by the NOAA Coastal Services Center, this two-day course, targeted at planners, elected officials, developers, business leaders, and other local decision makers, teaches participants about planning processes, current coastal development patterns and trends, and alternatives to conventional patterns of growth and development. It provides them with examples and strategies to implement alternative development principles in their coastal communities and introduces the importance of natural hazard resilience.
www.csc.noaa.gov/training/ccpd.html

Resources

- **EPA – Making Smart Growth Happen**
EPA offers many tools and resources to help communities learn about and implement smart growth approaches.
www.epa.gov/smartgrowth/sg_implementation.htm
- **EPA/NOAA – Smart Growth for Coastal and Waterfront Communities**
The coastal and waterfront elements presented on this website augment the existing smart growth principles to reflect the specific challenges and opportunities characterizing the waterfront, be it on a coast, a river, or a lake. These elements provide guidance for communities to grow in ways that are compatible with their natural assets, creating great places for residents, visitors, and businesses.
coastalsmartgrowth.noaa.gov

Greenways Planning

- **National Park Service RTCA**
The Rivers, Trails, and Conservation Assistance (RTCA) Program, also known as the Rivers and Trails Program, is the community assistance arm of the National Park Service. The RTCA staff provides technical assistance to community groups and local, state, and federal government agencies so they can conserve rivers, preserve open space, and develop trails and greenways. The RTCA program implements the natural resource conservation and outdoor recreation mission of the National Park Service in communities across America.
www.nps.gov/ncrc/programs/rtca/whatwedo/rtcastrategicplan.pdf

Watershed Planning

- **U.S. Environmental Protection Agency (EPA) – Healthy Watershed Initiative**
The Healthy Watersheds concept is based on a holistic systems approach to watershed protection and conservation. Maintenance of aquatic ecological integrity requires that we understand not only the biological, chemical, and physical condition of water bodies but also critical watershed functional attributes, such as hydroecology, geomorphology, and natural disturbance patterns.
www.epa.gov/healthywatersheds/

Transportation Planning

- **U.S. Department of Transportation Federal Highway Administration: Planning and Environment Linkages**
State and local agencies can achieve significant benefits by incorporating environmental and community values into transportation decisions early in planning and carrying these considerations through project development and delivery. This website and report on the Department of Transportation's Eco-Logical approach offer a wealth of information developed by the highway administration and its partners to assist in strengthening planning and environment linkages.
http://www.environment.fhwa.dot.gov/ecological/eco_entry.asp

Climate Change Adaptation

Courses

- **Planning for Climate Change**

This workshop primarily focuses on actions that can be taken to prepare and adapt to the anticipated impacts of climate change.

www.nerrs.noaa.gov/CTPIndex.aspx?ID=455

- **Adapting to Climate Change: A Short Course for Land Managers**

Offered by the U.S. Department of Agriculture, Forest Service, information in this short course summarizes the state of the science for natural resource managers and decision makers regarding climate variability, change, climate projections, and ecological and management responses to climate variability.

www.fs.fed.us/ccrc/hjar/summary.html

Resources

- **Sea Level Rise and Coastal Flooding Impacts Viewer**

This viewer creates maps of potential impacts of sea level rise along the coast and provides related information and data for community officials.

www.csc.noaa.gov/digitalcoast/tools/slrviewer/index.html

- **Coastal Climate Adaptation**

This site provides information and workshop tools to help coastal communities adapt to climate change, as well as helps state and local officials collaborate on climate change adaptation initiatives.

collaborate.csc.noaa.gov/climateadaptation/

- **Coastal Resilience**

This site integrates coastal hazard, ecological, and socioeconomic information in geographies where The Nature Conservancy and partners are working to implement ecosystem-based adaptation strategies, providing interactive maps and information to help decision makers.

www.coastalresilience.org

Ecosystem Services

Resources

- **U.S. Department of Agriculture Forest Service Ecosystem Services Program**

The Forest Service is working to advance market-based approaches to conservation and stewardship on private and community lands.

www.fs.fed.us/ecosystems-services/

- **Gulf of Mexico Ecosystem Services Database**

This site provides searchable information about ecosystem service valuation studies for habitats relevant to the Gulf region, although the studies may have been conducted elsewhere.

www.gecoserv.org/

- **National Ocean Economics Program Environmental and Recreational Values**

This site provides a searchable library of environmental and recreational (non-market) research studies and value estimates of ocean and coastal resources

www.oceaneconomics.org/nonmarket/NMsearch2.asp

- **Ecological Society of America Ecosystem Services Factsheet**
www.esa.org/ecoservices/comm/body.comm.fact.ecos.html

Reports

- **The Value of Open Space: How Preserving North Carolina's Natural Heritage Benefits Our Economy and Quality of Life**
cdn.publicinterestnetwork.org/assets/oSOvKX4zq-Dh5BDq01lZDw/Value_Open_Spaces.pdf
- **Economic Benefits of Natural Land Conservation: Case Study of Northeast Florida**
www.defenders.org/resources/publications/programs_and_policy/science_and_economics/conservation_economics/valuation/investing_in_nature.pdf
- **An Ecological Economic Assessment of King County's Flood Hazard Management Plan**
www.floods.org/ace-files/documentlibrary/committees/Ecological_Economics_Assessment_of_King_County_Flood_Hazard_Management_Plan.pdf
- **Putting a Price on Riparian Corridors as Water Treatment Facilities**
www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/watershed/Riley_2009.pdf

Stakeholder Engagement

Courses

- **Negotiating for Coastal Resources**
This one-and-a-half-day interactive course provides participants with practical skills and information on all facets of negotiation.
www.csc.noaa.gov/cms/cls/negotiating_coastal.html
- **Public Issues and Conflict Management**
This three-day course is designed to increase the participant's ability to design, conduct, and control meetings in public forums.
www.csc.noaa.gov/cms/cls/public_issues_conflict.html

Resources

- **Introduction to Stakeholder Participation**
This publication discusses some of the most important considerations in stakeholder participation and offers a guide to the most common techniques.
www.csc.noaa.gov/stakeholder/

Visualization and Analysis Tools

- **NOAA Coastal Services Center Coastal County Snapshots**
The online tool turns complex data into easy-to-understand stories, complete with charts and graphs. Users select a coastal county of interest and the website provides information flood zones, coastal economies and wetlands.
www.csc.noaa.gov/snapshots/
- **Sea Level Rise and Coastal Flooding Impacts Viewer**

This viewer creates maps of potential impacts of sea level rise along the coast and provides related information and data for community officials.

www.csc.noaa.gov/digitalcoast/tools/slrviewer/index.html

- **NOAA Coastal Services Center Habitat Priority Planner**

This tool helps identify priority locations for conservation and restoration planning.

www.csc.noaa.gov/digitalcoast/tools/hpp/index.html

- **CorridorDesigner**

CorridorDesigner includes an ArcToolbox toolbox for creating habitat and corridor models with ArcGIS and an ArcMap extension for evaluating corridors.

www.corridordesign.org

- **NOAA Coastal Services Center Land Cover Atlas**

This online data viewer provides user-friendly access to regional land cover and land cover change information developed through NOAA's Coastal Change Analysis Program (C-CAP).

www.csc.noaa.gov/digitalcoast/tools/lca/

- **CanVis**

Developed by the U.S. Department of Agriculture's National Agroforestry Center, CanVis is a visualization program used to "see" potential impacts from coastal development or sea level rise.

www.csc.noaa.gov/digitalcoast/tools/canvis/