

Protecting and Improving Estuaries with Smart Growth Tools

Charlotte Harbor National Estuary Program

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Part of the National Estuary Program since 1995, the Charlotte Harbor National Estuary Program is a partnership of citizens, elected officials, resource managers, and commercial and recreational resource users who work together to protect the greater Charlotte Harbor estuarine system in Florida. The CHNEP covers watershed areas from Venice in Sarasota County, to Bonita Springs in Lee County, to Winter Haven in Polk County.



The National Estuary Program (NEP) was established under the 1987 Clean Water Act Amendments. It is a unique voluntary program that operates through partnerships with EPA and other public and private sector entities. Each NEP operates via an inclusive, collaborative decision-making process to deliver on-the-ground results, making the NEP a leading model of watershed management.



Why Is Smart Growth Important for Estuary Protection and Improvement?

Runoff from developed areas often contains nutrients, pathogens, and metals. Nationally, runoff is the second most common source of water pollution for estuaries. Cumulative impacts from conventional development -- including increased stormwater volume and flow rates -- lead to erosion, estuary degradation, and habitat destruction. Conventional stormwater management practices address peak flows and suspended solids, but are only partially effective in managing cumulative impacts. Compact development paired with preservation of critical natural areas can help protect estuaries by (1) using land more efficiently, (2) reducing the amount of impervious surface per capita, and (3) allowing open lands to filter rainwater naturally, thus recharging local groundwater aquifers and supporting improved hydrologic function.

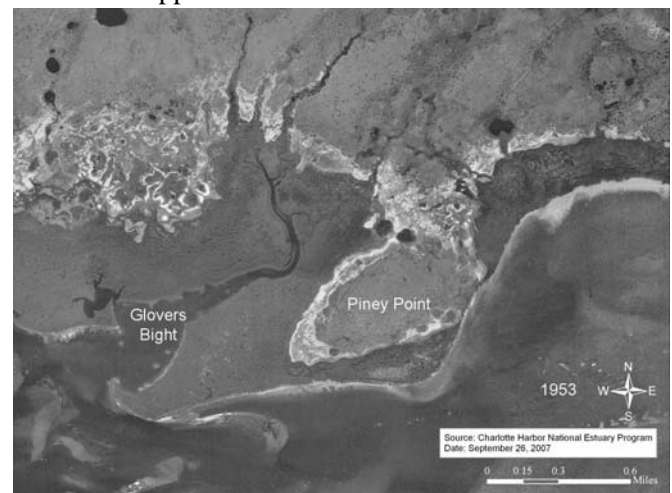
How Did The Charlotte Harbor National Estuary Program Use Smart Growth To Protect Its Estuaries?

Southwest Florida is one of the fastest growing areas in the U.S. Its beautiful beaches, warm climate, and outstanding recreational opportunities draw visitors from around the world. During peak tourist season, the area's population can swell by more than 30 percent. Many visitors return to make the area their permanent retirement home.

The Charlotte Harbor National Estuary Program (CHNEP) includes the southwest Florida coastline from Venice to Bonita Springs. The watershed covers 4,500 square miles; the associated study area includes 7 counties, 24 incorporated cities and towns, and 5 regional agencies.

Natural resources are the heart of the region's economy and quality of life. Challenges to maintaining that quality of life include past and current phosphate mining, ranching and citrus production, commercial fishing, recreation-based activities, tourism, and urban and suburban development.

The population in the CHNEP study area doubled between 1980 and 2000. By the year 2025, almost 700,000 additional residents are expected -- a 66 percent increase (from 1,052,344 to 1,750,000) over 2000 levels.



Following Hurricane Charlie in 2004, a construction boom led to increased development pressure in low density, outlying areas. Development pressures have also been compounded by (1) the sell-off of citrus groves in the wake of stiff international

Principles of Smart Growth

- Create Range of Housing Opportunities and Choices
- Create Walkable Neighborhoods
- Encourage Community and Stakeholder Collaboration
- Foster Distinctive, Attractive Communities with a Strong Sense of Place
- Make Development Decisions Predictable, Fair and Cost Effective
- Mix Land Uses
- Preserve Open Space, Farmland, Natural Beauty and Critical Environmental Areas
- Provide a Variety of Transportation Choices
- Strengthen and Direct Development Towards Existing Communities
- Take Advantage of Compact Building Design

For Additional Information:

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Smart Growth Online
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competition and citrus diseases and (2) the desire of rural counties to reclaim phosphate mines as developable lakes instead of pasture.

Recognizing the importance of environmentally responsible development to its environmental protection objectives, the CHNEP convened a two-day Coastal Community Planning and Development (CCPD) training session in December 2007. Targeted to the CHNEP's local and regional partners, the training provided a detailed introduction to alternative growth and development approaches.

How Did Smart Growth Tools Help the CHNEP Achieve Its Goals?

CHNEP has identified four major environmental threats to the area: alterations to natural hydrology, water quality degradation, loss of fish and wildlife habitat, and gaps in stewardship which call for public, decision-maker, and scientific information regarding how individual and collective actions can affect the local environment.

Land use patterns have clearly altered the character and ecology of local waters. Mangroves, which stabilize the soil and clean the water, have been removed or cut back. Seagrass beds have been damaged. Nutrient runoff has exacerbated red tide events. Groundwater supplies have been stressed by over-use.

The CCPD workshop helped the CHNEP's partners identify opportunities to conserve and restore high-priority natural areas, focus development in areas with existing infrastructure, explore options for transit-oriented development, and identify other stakeholders who will be critical partners to future planning, development, and conservation efforts. Participants' brainstormed local action plans to begin to make these ideas a reality. The CHNEP plans to follow up with course participants and help interested localities address development-related issues.

How Can Other NEPs Learn from the CHNEP Experience?

Are your partners interesting in learning more about smart growth? The CCPD course is an excellent introduction to the principles of smart growth. Offered by the National Ocean and Atmospheric Administration's (NOAA) Coastal Services Center (CSC) and developed through a partnership between NOAA and EPA, it is available to interested coastal communities. CSC's training team can come to your area and customize this training for your partners and staff. For more information, see www.csc.noaa.gov/training/comm_plan.html.

