



NOAA's National Ocean Service

Residential Dock and Pier Management Tools

Background

Few issues confronting coastal managers are as difficult to manage as regulating the construction of private residential docks and piers. The number of dock permit requests has increased significantly over the last few decades. Dock authorizations are now the single most frequently sought permit from coastal managers.

Many coastal managers and citizens are concerned about the proliferation of docks and the potential impacts numerous private docks may have on the environment, navigation, and the ability of the public to access the waterfront. To help coastal managers better manage small residential docks and piers, NOAA's National Ocean Service developed the following tools. Information and links to all these projects can be found at <http://coastalmanagement.noaa.gov/dock.html>.

The Science of Small Dock and Pier Impacts

In January of 2003, NOAA's National Centers for Coastal Ocean Science (NCCOS) and the Office of Ocean and Coastal Resource Management (OCRM) sponsored an invitational workshop to review the state of scientific knowledge related to the impacts of small docks and piers. The workshop results are summarized in a report entitled "Environmental and Aesthetic Impacts of Small Docks and Piers: Workshop Report."

This workshop report provides a critical synthesis of potential consequences of the construction, presence, and use of small docks and piers on the coastal environment. Shading, contamination, and boating associated with docks are discussed, as well as navigation, aesthetic, and quality of life issues.



Dock and Pier Bibliography

As a result of the science workshop, NCCOS established a web-based bibliography of dock and pier literature. The searchable bibliography consists of published literature and unpublished reports about various aspects of the biological, physical, chemical, ecological, and aesthetic impacts of small docks and piers.

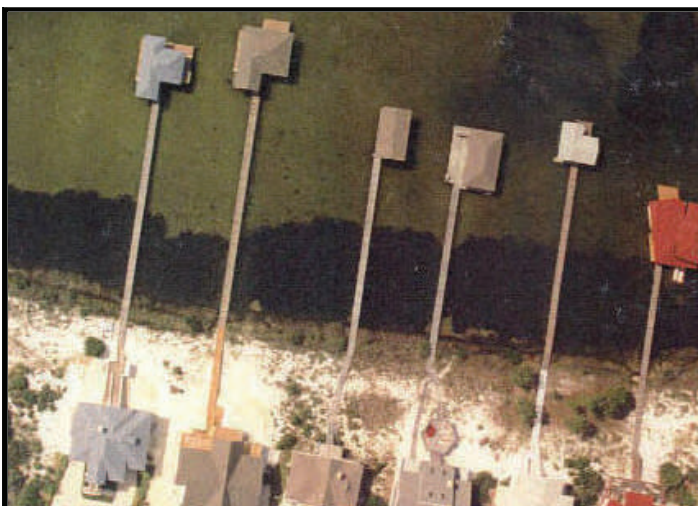
Management Tools Related to Docks and Piers

In November of 2003, OCRM, the Coastal Services Center (CSC) and NCCOS, hosted a second invitational workshop to review management options, both regulatory and non-regulatory, related to small docks and piers. A summary of this workshop, entitled "Management Tools to Minimize the Impacts of Residential Docks and Piers," is available.

Database of State Programs

OCRM and NCCOS have established a web-based, searchable database to house summary information about how coastal states manage small docks and piers. The database allows states to enter information about the standards they use to manage residential docks and piers. The database captures information on: permitting; planning and zoning; leasing; acquisition; dock siting, design and construction requirements; available outreach materials on dock and pier management; and standard operating procedures for evaluating permit applications.

The database can be browsed or queried to allow coastal managers concerned about a particular impact of a dock or pier (*i.e.*, shading, aesthetics) to see the standards other states have developed to mitigate that impact and the laws that uphold them. Information in the database can also be used to develop new standard operating procedures (SOPs)



and support denials when the impacts of a proposed project are unreasonable. By linking the science and management of residential docks and piers, the database will help state and local managers improve and justify their regulations, as well as their permitting and planning processes used to manage dock placement and design.

Inventory of Laws, Regulations, and Policies Related to Residential Docks

The CSC has compiled information about state dock management programs (statutes, regulations, and policies). The regional summaries for the southeast (Florida, Georgia, South Carolina and North Carolina) and the northeast (Maine, New Hampshire, Massachusetts, Rhode Island and Connecticut) include information about:

- The impacts of concern (environmental, navigation or public trust);
- Statutory authorities;
- State and local permitting processes;
- Dock dimension standards; and
- Contact information for each state.

Visual Impact Management

As a result of the November 2003 Management Tools workshop, NCCOS developed a Technical Report on managing the visual impacts related to small docks. This paper addresses techniques for assessing visual impacts, summarizes the legal methods available for managing these impacts and provides case studies where visual impacts have been a major part of management actions.

Dock Growth: Visualizing Alternatives

The CSC has partnered with the Massachusetts Office of Coastal Zone Management to develop a demonstration project that uses 3-D computer visualizations to illustrate how various development scenarios, including different levels of dock build-out, can change a shoreline's appearance and functionality. This technology can be used to predict aesthetic concerns, public access issues, and navigational impacts more easily. While the demonstration tool was developed for a specific site in Massachusetts, the software is available for free to create other visual simulations.



Training Materials for Small Dock Management

NCCOS and OCRM have developed dock management training materials for state and municipal officials and other local decision-makers to teach them about the issues surrounding dock and pier management and different management techniques.



The training materials include a series of presentations and a parallel workbook modules that address various topics including:

1. Introduction/Importance of Small Dock and Pier Management
2. Environmental Issues
3. Navigation Issues
4. Public Access Issues
5. Visual Impact Issues
6. Management Techniques (regulatory and non-regulatory)
7. Best Management Practices
8. Where/How to Get Additional Information and Technical Support

While national in scope, the presentations are designed so that they can be modified to meet the needs and interests of local audiences by incorporating local graphics, case studies, and summaries of state or municipal management/regulatory programs. One, several, or all of the modules could be presented depending on the audience and needs of the workshop. If more than one presentation is given at a time, we recommend identifying several local experts to give each presentation.

The workbook provides the audience with reference material to take away from the workshop and, hopefully, use in implementing management measures related to small docks.

NCCOS and OCRM have used these training materials in several regional workshops on dock and pier management from Maine to Florida.