

TOWARD UNDERSTANDING THE DYNAMICS OF WATER DEPENDENT USES AND COASTAL POLICY THROUGH RHODE ISLAND'S PORTS AND COMMERCIAL HARBORS INVENTORY

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In Rhode Island's shoreline region, port and commercial harbor planning has traditionally occurred in isolated fashion, with little attention paid to the impact of decisions on host communities, other ports and harbors; or the economic, environmental and social resources of Narragansett Bay. As in other states, ports and harbors and the working waterfront may provide solutions to some of Rhode Island's future transportation and economic development problems. However, development pressures continue to distress Rhode Island's marine-based commercial and industrial nodes, transforming them into mixed-use centers with commercial, residential, and recreational interests.

This paper reports on the findings of the first detailed inventory of the land and water areas designated by the RI Coastal Resources Management Council and coastal municipalities for commercial and industrial use, to discern the extent to which water dependent uses are occurring, the capability of waterfront facilities and equipment, and the availability of parcels for future development. A new parcel-based Geographic Information System (GIS) dataset of marine commercial/industrial uses and infrastructure was created. Site visits were conducted to the included parcels and information was validated by the communities. Existing uses were also classified by their degree of water-dependence.

In addition to the data layers, descriptive text characterizes the facilities and business operations in each municipality. Data queries are used to address key questions asked by state level planners, as well as answer an additional, distinct set of questions from the municipal perspective. This approach moves beyond a static, map-centered view of the role of GIS, to one based on queries about key relationships among the many characteristics of waterfront parcels.

The database provides more than a snapshot of Rhode Island's dynamic waterfront by revealing clear distinctions among port areas and providing insight into the interplay of municipal and state policies with market demand for waterfront development. It is designed to be easily updated, potentially serving as a monitoring and tracking tool looking forward to capture emerging dynamics of waterfront development. Municipal officials in several communities easily grasped the utility of linking policy information

such as land and water area zoning, tax and economic data and the up to date information on coastal parcel usage and capability.

The inventory also serves as the starting point for studies looking backward to detect trends over time in coastal area use and the influence of municipal land use as well as more than 37 years of state coastal management policies related to water dependent and other uses. Finally, some of the difficulties in assembling data for this study point toward the need for more comprehensive digital data development by state and municipal governments to facilitate coastal management. E-government based information systems could combine time series data on a variety of development and decision making variables with fine-scale spatial analyses such as were conducted in this ports inventory to better characterize trends in and potential locations for marine-related commercial and industrial activities.

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