A. Introduction

The Middle Peninsula Planning District Commission (MPPDC) is a political subdivision of the Commonwealth of Virginia formed under VA Code §15.2-4203 to provide solutions to problems of greater than local significance and cost-savings through economies of scale. The MPPDC serves nine localities of the Middle Peninsula including Essex, Gloucester, King & Queen, King William, Mathews, and Middlesex Counties as well as the Towns of Tappahannock, West Point, and Urbanna. This region has a total population of 90,826 (US Census 2010). MPPDC staff assist localities with long-term and/or regional planning efforts and has assisted member localities with a variety of projects related to coastal conflicts, policy, and land use changes, including impacts to working waterfronts.
With approximately 1,200+ miles of coastline, the Middle Peninsula is located on the western shore of the Chesapeake Bay, bound to the north by the Rappahannock River and to the south by the York River. Since the region is located in the Virginia coastal plain, it has a relatively flat topography. The southeastern-most portions of the region are at sea level, while elevation rises to approximately 200 feet above sea level moving in a northwesterly direction towards King William County. The Middle Peninsula is a predominately rural region with large agricultural fields and forestland split by a number of small closely-knit communities. These communities rely heavily on natural resource extraction to fuel their local economics, however the metropolitan areas of Hampton Roads, Richmond, and Fredericksburg-Northern Virginia are in close proximity and influence these communities.

The Middle Peninsula’s culture and heritage have been shaped by a long maritime history focused on commercial fishing and shipbuilding. In recent years however, the influx of people traveling and moving to the coast has influenced the regions dynamics. Whether a vacation destination, a location for a second home or retirement home, this interest in the waterfront has increased coastal development pressures in some areas of the region. Coastal development may have an economic appeal for some localities, but localities ultimately sacrifice losing their historical character, culture and heritage. For instance, traditional access points have been built upon, fenced off, posted “No Trespass“, or purchased by new owners who are unwilling to continue old patterns of public access uses. Thus as access to water for maritime traditions and recreational access are under threat, this affects the local economy and way of life in the region. In some parts of the region, as coastal properties become more desirable and increase in market value, property taxes increase, forcing watermen to vacate the waterfront since they can no longer afford the property taxes. While historic trends of moving to the coast created the development patterns of today, sea level rise, climate change, the Federal Flood Insurance Reform and a host of other federal and state regulations may discourage future migration to the coast and may cause homeowners and businesses to reconsider living on the rural coast.

As working waterfronts were once the epicenters of commerce as well as a cultural focal point for generations, Middle Peninsula localities are interested in preserving working waterfront infrastructure, knowledge and a maritime heritage on which the region was built. In part, MMPDC staff will continue working with localities to provide outreach tools and policy solutions that may improve and address current working waterfront issues. Localities will ultimately need to take the initiative to implement action steps to improve working waterfronts within their jurisdiction and the region.

B. History of Working Waterfronts in the Region

Working waterfronts of the Middle Peninsula were once the epicenters of economic development. They were the location of shipbuilding, a strong fisheries industry, as well as public access areas for recreational and commercial uses. Ferries transported citizens from peninsula to peninsula, while barges transported goods to and from ports in places such as the Town of West Point and Tappahannock. Watermen would start their workday on the piers and docks that speckled the coastline. They would head out to adjacent rivers and the Chesapeake
Bay to harvest fish, crab, and/or shellfish and return to the pier with their daily catch. This product would be uploaded and then sent to processing houses before going to market.

Figure 2: A photo depicting the hustle bustle of Williams Wharf in Mathews County.

In Mathews County building sailing ships was a major industry during the 1600’s to the 1990’s. Approximately 2,000 seagoing vessels were built during this time. While the East River had six shipyards that contributed to the building of these vessels there were a number of other shipyards located on Blackwater Creek, Cobbs Creek, Winter Harbor, Milford Haven, North River, Pepper Creek, Point Breeze, Put-In-Creek, Sloop Creek, and Stutts Creek that created the boat building industry in the county. The East River was also an official point of entry to the US for 10,000+ vessels. In addition to shipyards, wharfs dotted the shoreline providing transportation for passengers, cargo, packinghouses, and canneries. For instance, Williams Wharf (Figure 2) was a trading post and major port for steamboats running from Baltimore to Norfolk in the early 1900’s.

Many of these maritime trades were passed from generation to generation which engrained maritime history and culture into the Middle Peninsula.

C. Current Status of Working Waterfronts in the Region

In the Middle Peninsula of Virginia, the term `working waterfront' is defined as *real property (including support structures over water and other facilities) that provides access to coastal waters to persons engaged in commercial fishing, recreational fishing businesses, boatbuilding, aquaculture, or other water dependent, coastal-related business and is used for or supports commercial fishing, recreational fishing businesses, boatbuilding, aquaculture, or other water dependent, coastal-related business.*

With this definition in mind, in 2012 an inventory of Middle Peninsula Working Waterfronts was mapped (Figure 3). This depicted 81 working waterfront locations throughout the region.
The maritime industry and working waterfronts have been central to the regional’s heritage and culture. The Middle Peninsula region celebrates its maritime past and present heritage and culture with festivals including the Urbanna Oyster Festival, Crab Fest in Deltaville, Crab Carnival in West Point, Guinea Jubilee in Gloucester County, and Rivah Fest is Essex County. While in the past maritime trades and skills were passed down from generation to generation in more recent years a career in the maritime industry has become less lucrative and less attractive to younger people and there has been a shift in the industry. Instead of relying on the unpredictability of a wild harvest, a new generation of watermen are getting involved with oyster aquaculture that can be considered a more structured business. While environmental conditions will impact overall profits, aquaculturists can control more factors (ie. the number of oysters planted, the location, and the environment in which juveniles are reared) that increases the potential of oysters growing to maturity and being harvested. Middle Peninsula aquaculture businesses, including the Rappahannock Oyster Company (Topping, VA), Ward Oyster Company (Gloucester, VA), York River Oysters/Chessie Seafood and Aquafarms (Gloucester, VA), Oyster Company of Virginia (Mathews, VA), and Anderson’s Neck Oyster (King...
& Queen County), are examples of aquaculture businesses that have excelled as they sell directly to high-end restaurants up and down the east coast.

Economically working waterfront industries contribute to Middle Peninsula local and regional economies. Revenue is generated through tourism and recreation, boat building, harvesting of natural resources, maritime transport and marine construction. Maritime workers make a living inside the Middle Peninsula region and beyond the region. NOAA has taken a snapshot of the economic impact of the maritime industry in the region. Table 4 below provides a summary of the economic impacts to localities in the Middle Peninsula. The data reveal that the Maritime industry in Gloucester County is the strongest and continues to grow, while Mathews and Middlesex Counties maritime industry growth is slowing.

<table>
<thead>
<tr>
<th>County</th>
<th>Maritime Employees</th>
<th>Percentage of Jobs in County</th>
<th>Maritime job Wages</th>
<th>Goods and Services</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mathews</td>
<td>111</td>
<td>1.7%</td>
<td>$1 million</td>
<td>$2 million</td>
</tr>
<tr>
<td>Gloucester</td>
<td>902</td>
<td>9.5%</td>
<td>$12 million</td>
<td>$23 million</td>
</tr>
<tr>
<td>Middlesex</td>
<td>247</td>
<td>7.7%</td>
<td>$4 million</td>
<td>$8 million</td>
</tr>
<tr>
<td>Essex</td>
<td>400</td>
<td>-</td>
<td>$5.7 million</td>
<td>$10.8 million</td>
</tr>
</tbody>
</table>

Please note that NOAA does not track data for King William and King & Queen Counties, which is why they are not included in this table.

Locally a study was performed to illustrate and quantify how much working waterfronts in Aberdeen Creek, a small waterway serving seafood unloading and a processing facility, contributes to the local and regional economy. The study estimated the economic impact (i.e., expenditures, economic output, incomes, and jobs) of Aberdeen Creek’s commercial fisheries landings, processing/packing industry to the local economy. Aberdeen Creek is a classic example of a working waterway representing a critical nexus between the marine fisheries and the community; providing one of the few remaining commercial fishing unloading points in Gloucester. The study found that activities associated with harvesting, offloading, processing, packaging, and shipping seafood from the Gloucester facilities are intrinsically linked with several sectors of the local economy. The sale of seafood to both local and non-local buyers results in purchases of inputs from a variety of service and supply firms, and the distribution of incomes to local employees. These expenditures are circulated within the Gloucester economy as these dollars are spent and re-spent. The total economic impact of the Gloucester seafood industry depends on the amount of seafood landings and the general economic conditions that exist at any given time. Thus, the actual impact values will vary from year to year. Table 5 provides a summary of the total economic impacts based on the Aberdeen Creek product flow.
The maritime industry also generates revenue through the purchase of VMRC Commercial Licenses and Permits. The revenue generating from the sale of commercial gear licenses is transferred to the Virginia Marine Products Board. VMRC only retains a small portion of any license increases that have occurred over the years and deposits them into the Marine Fishing Improvement Fund.

<table>
<thead>
<tr>
<th>Impact Measure</th>
<th>Landings Only</th>
<th>25% Remains in County</th>
<th>50% Remains in County</th>
</tr>
</thead>
<tbody>
<tr>
<td>Output</td>
<td>$4.05</td>
<td>$9.37</td>
<td>$14.68</td>
</tr>
<tr>
<td>Income</td>
<td>92</td>
<td>3.87</td>
<td>6.83</td>
</tr>
<tr>
<td>Employment</td>
<td>105</td>
<td>178</td>
<td>251</td>
</tr>
<tr>
<td>Value Added</td>
<td>1.11</td>
<td>5.20</td>
<td>9.28</td>
</tr>
<tr>
<td>Indirect Business Taxes</td>
<td>0.07</td>
<td>0.24</td>
<td>0.41</td>
</tr>
<tr>
<td>Other Property Income</td>
<td>$0.13</td>
<td>$1.09</td>
<td>$2.04</td>
</tr>
</tbody>
</table>

The maritime industry also generates revenue through the purchase of VMRC Commercial Licenses and Permits. The revenue generating from the sale of commercial gear licenses is transferred to the Virginia Marine Products Board. VMRC only retains a small portion of any license increases that have occurred over the years and deposits them into the Marine Fishing Improvement Fund.

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1 § 3.2-2705. Virginia Marine Products Fund established.: There is hereby created in the state treasury a special nonreverting fund to be known as the Virginia Marine Products Fund, hereinafter referred to as "the Fund." The Fund shall be established on the books of the Comptroller. All moneys collected and allocated from marine fisheries license fees required under Subtitle II (§ 28.2-200 et seq.) of Title 28.2 shall be paid into the state treasury and credited to the Fund. Interest earned on moneys in the Fund shall remain in the Fund and be credited to it. Any moneys remaining in the Fund, including interest thereon, at the end of each fiscal year shall not revert to the general fund but shall remain in the Fund. Moneys in the Fund shall be administered by the Marine Products Board and used exclusively for the administration of this chapter, including payment for personal services and expenses of employees and agents of the Marine Products Board, rent, services, materials and supplies. Expenditures and disbursements from the Fund shall be made by the Marine Products Board on warrants issued by the Comptroller upon written request signed by the duly authorized officer of the Marine Products Board. The Auditor of Public Accounts shall audit all the accounts of the Marine Products Board as provided in § 30-133.

2 § 28.2-208. Marine Fishing Improvement Fund continued.: There is hereby continued a special, nonreverting fund in the state treasury to be known as the Marine Fishing Improvement Fund, hereinafter referred to as the Fund. The Fund shall consist of (i) that portion of the nonresident harvester’s license fees which have not been allocated to the Virginia Marine Products Fund as provided for in § 28.2-227, (ii) fees collected from the registration of commercial fishermen under § 28.2-241, and (iii) fees collected from the sale of seafood landing licenses under § 28.2-228.1. The Fund shall be administered by the Commission and used solely for (i) managing and improving marine fisheries, (ii) seafood product promotion and development services, (iii) mandatory reporting and stock assessment, (iv) education of commercial fishermen, (v) conservation and management strategies identified by the General Assembly and the Commission, (vi) public information pamphlets and summaries of rules issued with gear licenses, and (vii) retaining commercial fishermen to engage in replenishment, research, and stock assessment activities.
Similar to other coastal communities nationwide, working waterfronts within the Middle Peninsula are either adapting to present day conditions (i.e. regulations, environmental factors, land use changes, etc.) or they are disappearing. Factors that are pressuring working waterfronts include:

- Competing and adjoining uses
- Cultural shifts changing the demographics of the once rural coastal waterfront
- Commercial watermen and water-dependent businesses are being displaced
- Sea level Rise
- Shoaling and financing of dredging projects

In the recent past as people have migrated to the coast, the pattern of coastal land use and ownership has altered. In the past, the people who worked the water owned the majority of coastal property. With direct access to the water, these water dependent businesses could conduct business without time constraints of paying fees to dock or moor their boats. However, with an influx of people coming to the region for vacations, to buy a second home, or to retire, traditional access points have been built upon, fenced off, posted “No Trespass”, or purchased by new owners who are unwilling to continue old patterns of public access uses. In some areas of the region, as coastal properties become more desirable market values increase and property taxes increase, thus forcing watermen to vacate the waterfront since they can no longer afford the property taxes. While historic trends of moving to the coast created the development patterns of today, sea level rise, climate change, Federal Flood Insurance Reform and a host of other federal and state regulations may discourage future migration to the coast and cause homeowners and businesses to reconsider living on the rural coast. For instance, in the Middle Peninsula, private property owners have gifted sizeable tracts of waterfront property to the MPCBPAA. Between 2006 and July 2015, the MPCBPAA has been gifted 33 separate parcels totaling over 162 acres and valued at $3,657,000 with limited or no deed encumbrances. While some property owners are interested in donating properties to receive tax benefits or to support the MPCBPAA in improving water public access for the citizens of the Commonwealth, others merely recognize the long-term burden (i.e. financial, regulatory restrictions, environmental) of owning coastal property and want to get rid of the property.

In addition to changing coastal growth and coastal ownership patterns, Middle Peninsula coastlines will be influenced by sea-level rise. Relative Sea Level (RSL) change describes the observed change in water level at a particular location. RSL rise rates at the local level are derived from an accurate time series of water level measurements spanning several decades or more. A recent analysis of tide gauge data by the VIMS reported RSL rise rates ranging from 0.11-0.23 in/yr (2.9-5.8 mm/yr; period: 1976-2007; 10 stations) within the Chesapeake Bay region, with a number of the values representing the highest rates reported along the U.S. Atlantic coast (Boon et al. 2010). With respect to the Middle Peninsula, the two nearest stations located at Gloucester Point and Lewisetta, VA indicate current RSL rise rates of 0.17 (4.30 mm/yr) and 0.20 in/yr (5.15 mm/ yr), respectively. Also within the Chesapeake Bay region, land subsidence contributes to RSL change. Processes contributing to land subsidence include tectonic (movement of the earth’s crust) and man-induced impacts (e.g., groundwater
withdrawal, hydrocarbon removal). During the last glacial period (maximum extent approximately 20,000 yr BP), the southern East Coast limit of the Laurentide ice sheet coincided with northern portions of Pennsylvania (Mickelson and Colgan 2003³). Consequently, land subsided under the ice load and, in turn, created a forebulge or upward displacement of lands south of the ice load. Upon retreat of the glacier, the land continued to redistribute, rebounding in previously glaciated areas and subsiding in the more southern forebulge region. Land subsidence rates on the order of 0.05-0.06 in/yr (1.2-1.4 mm/yr) are attributed to the postglacial forebulge collapse within the Bay region (Douglas 1991⁴). It can take many thousands of years for impacted regions to reach isostatic equilibrium. At a more local level, over drafting of groundwater is a significant factor driving land subsidence rates. Land subsidence rates within the Middle Peninsula, based on releveling analysis, vary between 0.09-0.15 in/yr (2.4-3.8 mm/yr) with maximum values being observed at West Point (Holdahl and Morrison 1974⁵; Davis 1987⁶). Pope and Burbey (2004⁷) reported average aquifer system compaction rates of 0.06 in/yr (1.5 mm/yr; 1979-1995) and 0.15 in/yr (3.7 mm/yr; 1982-1995) near the Franklin and Suffolk pumping centers, respectively, and that compaction appeared to correlate with groundwater withdrawal. West Point was not included as part of this study. Based on land subsidence and eustatic sea level information, the RSL rise rate would be expected to be on the order of 0.22 in/yr (5.6 mm/yr) at or near West Point, VA. Extrapolating current Gloucester Point and Lewesetta rates, RSL would increase by another 0.7-0.8 ft (21-25 cm) by 2050 and 1.4-1.7 ft (43-51 cm) by 2100; this represents a conservative and low-end estimate. There is growing concern that RSL rise rates will accelerate in the future with projections of sea level increases in the Bay region of approximately 2.3-5.3 ft (70-160 cm) by 2100 (Pyke et al. 2008). Ultimately however as land subsidence exacerbates sea-level rise in the Middle Peninsula, there is a high probability that working waterfronts will be inundated, hindering access to the water for commercial and recreational uses.

Shoaling, or sediment build up in a waterway’s riverbed, is a natural process that over time makes a waterway shallow and impassable. This is another factor currently hindering ingress and egress into tributaries and rivers adjacent to the Middle Peninsula. Due to shoaling access is limited to deeper waters, directly affecting the ability of maritime industries to conduct business as normal. For instance, shoaling in Aberdeen Creek has prevented vessels from entering and navigating the waterway. Aberdeen Creek is a shallow-draft Federal navigation channel that requires dredging in order for boats to pass safely in and out the waterway. The Army Corps of Engineers dredged Aberdeen Creek in 1974 to allow for the harbors continued use, however no substantive maintenance dredging has since occurred. Today the narrowing of the channel at the entrance to Aberdeen Creek makes it difficult for ingress and egress of commercial vessels to the public landing at the end of Aberdeen Creek Road. To compound the

shoaling issue, the funding required to dredge this waterway, and others similar, in the Middle Peninsula is steep and a challenge for localities. Congress defunded the Shallow Water Dredging Program operated by the Army Corps of Engineers. As this federal revenue source for dredging has disappeared, this has left federally maintained channels and harbors are left with no direct source of revenue to fund or initiate dredging projects further pushing the financial burden onto localities with little recognition of the need for dredging in order keep waters open for navigation.

Other factors influencing working waterfronts include governmental regulations – such as federally and state managed commercial fisheries and local zoning, shifts in seafood market economics, the aging of the commercial watermen who own the working waterfront infrastructure, and the lack of recruitment of new watermen.

In Gloucester County, for instance, key commercial seafood businesses have closed for a variety of reasons. Consequently, as watermen are forced to move from or are restricted from using traditional access points, they struggle to sustain their commercial seafood businesses. With limited sites available for mooring their boats, as well as limited safe infrastructure on which to conduct business, watermen seek new and innovative options to continue business as usual.

The following case studies were selected to illustrate some of these factors in the Middle Peninsula Region:

- **Gloucester Seafood, Inc.** was representative of a working waterfront business that closed due to economic hardship and the aging of a commercial waterman.

- **Cook’s Oyster Company, Inc.** was representative of a working waterfront business that closed due to the aging of commercial watermen. Mr. Eldridge Cook owned the property and upon his retirement did not have a legacy or succession plan in place to continue operations. Mr. Cook also did not have plans to sell the property, nor were there any family members wanting to continue the seafood business. Mr. Cook passed away and now the property is currently for sale.

- **International Seafood** was representative of a working waterfront business that closed due to governmental regulations regulating the primary type of seafood product that this business harvested and processed—the Spiny Dogfish. International Seafood leased space on the property Cook’s Oyster Company, Inc. owned to operate their seafood processing business.

Due to the factors listed previously, the Middle Peninsula is slowly losing its working waterfronts- an issue that may have long-term consequences for local economies, the environment, the coastal heritage, and quality of life.
D. Working Waterfront Project Background

In 2000, the MPPDC directed staff to develop a regional strategy for managing and preserving public access and to seek enabling legislation for the formation of a special purpose political subdivision for the sole purpose of protecting the public’s right to access public water. The concept of the Middle Peninsula Chesapeake Bay Public Access Authority (MPCBPAA) was introduced. Enabling legislation to create the MPCBPAA was drafted and proposed to the Virginia 98th District Representative Delegate Harvey Morgan. Delegate Morgan introduced the legislation in 2001 for the 2002 General Assembly session, HB 619 (Middle Peninsula Chesapeake Bay Public Access Authority Act). The legislation passed and the Authority came into existence and convened for the first time on June 13, 2003.

The MPCBPAA has been the lead local policy body embraced the ownership of advocating for the preservation of working waterfronts as commercial seafood depends on access to the water. Therefore, as the MPPDC provides the staff support for the efforts of the MPCBPAA, it has sought funding for projects focused on public access and working waterfronts in the Middle Peninsula. The following is a description of MPPDC projects associated with this topic.

2008 York River Use Conflict

As the Middle Peninsula transitions from a less rural to a more suburban community, public policies and management tools for near-shore land, public water bodies, and water use rights and privileges need to adapt. Conflicts were becoming increasingly common between waterfront property owners, watermen, boaters, recreational fishermen, sportsmen, aquaculture industries, and others seeking to use the Commonwealth’s water resources. The historical balance between working waterfronts and residential development shifted to predominately residential waterfront. To begin addressing these conflicts MPPDC staff was funded through the Virginia Coastal Zone Management Program (NA07NOS4190178 Task #93.01) to create the York River Use Conflict Committee to identify and determine issues and conflicts within the York River, Gloucester County and develop policy recommendations for the Board of Supervisors (BOS) to consider.

Prior to identifying the issues and developing recommendations to resolve the conflicts the first question that needed to be answered was, “what is considered Gloucester’s jurisdiction?” The report found that the County’s jurisdiction covers all terrestrial (land area and features), aquatic (water area and features), and air (atmospheric area and features) within its boundaries. Together these areas form the sum total of the locality’s jurisdiction, in which Gloucester County has the rights and powers delegated to it by the Commonwealth of Virginia. Upon this finding the York River Conflict Committee identified conflicts and created recommendations to address them. The recommendations included the following:

**Recommendation 1.** Gloucester County BOS should develop a Coastal Living Policy. Much of use conflict is due to an overall lack of understanding about living in a coastal community. The intention of this policy is to educate residents about coastal living in Gloucester from an economic, cultural, social, environmental and regulatory perspective.
Recommendation 2. Gloucester County BOS should map and identify the County’s Land, Air and Water Territorial boundaries in the County’s Comprehensive Plan and supporting maps. Identifying the County’s authority to manage uses within its territorial boundary will frame the basis for managing conflict by establishing spatial areas for management consideration.

Recommendation 3. Gloucester County BOS should take no action at this time to manage or regulate the aquaculture industry within its jurisdiction. The Virginia Marine Resources Commission recently promulgated regulations regarding aquaculture and time is needed to determine whether the regulations resolve use conflicts regarding this relatively new industry.

Recommendation 4. Gloucester County BOS should develop a policy for the protection of working waterfront infrastructure. Public waterfront access points, together with recreational and commercial fishing industries and related support facilities should be sustained at various points throughout Gloucester County.

Recommendation 5. Gloucester County BOS should develop a Waterfront Outdoor Lighting ordinance. Light pollution, caused by overly bright and poorly designed lighting, is causing nighttime light trespass problems for waterfront users. Many Virginia localities have enacted lighting ordinances to solve this growing and serious problem.

Recommendation 6. Gloucester County BOS should adopt an ordinance restricting floating homes. It is simply a matter of time before these vessels arrive in the County and the County should be proactive in protecting its residents and waters.

Recommendation 7. Gloucester County BOS should develop a master plan for public access infrastructure to ensure equal water access for all user groups to the waterways within Gloucester County.

On February 17, 2009, the Gloucester County BOS accepted the reports and the report’s recommendations. These recommendations have been informally presented to Mathews County.

2009 New Public Policy to Support and Sustain Aquaculture-working waterfront infrastructure
Funded through the Virginia Coastal Zone Management Program (NA08NOS4190178 Task #92) MPPDC staff, with assistance from the County Administrator, created an Aquaculture Working Waterfront Steering Committee. Consisting of commercial and hobby oyster and clam farmers, county planners, and the maritime foundation within Mathews County. This committee identified current industry challenges, shared business models, and discussed how the aquaculture-working waterfront industry could be supported or enhanced by Mathews County. Along with the information gathered from committee members, MPPDC staff researched how
other coastal communities in the United States have dealt with similar issues and organized a matrix of public policy options that could be feasible in Mathews County. MPPDC staff also conducted an economic assessment of the seafood and aquaculture-working waterfront industries to supplement Mathews County Board of Supervisors understanding of the current economic climate these industries within the county. And finally MPPDC staff worked to create an educational DVD, titled Mathews Working Waterfront for the 21st Century, which focused on the economic and cultural tradeoffs of community scenarios and specific public policy options that may enhance aquaculture and associated working waterfront industries.

Project outcomes included an economic assessment of the current Mathews County seafood and working waterfront industries, an Inventory of Communities who have taken actions to preserve and sustain their working waterfront as well as the tools that were used, a model Comprehensive Plan and public policy recommendations:

**Public Policy Option 1:** Right-to-aquaculture and/or Right to Working Waterfront Policy— A policy to preserve aquaculture operations/working waterfronts will promote a good neighbor policy, and/or affirm the county’s commitment to aquaculture/working waterfronts.

  COST: Locality staff time (question of priority)

**Public Policy Option 2:** Amendments to Current Land and Water Zoning Regulations Associated with Aquaculture – Amend Mathews County’s current zoning regulations associated with aquaculture to appropriately define aquaculture and manage zones with incompatible uses. This may include exploring master spatial planning within the county’s jurisdictional boundary.

  COST: Locality staff time (question of priority)

**Public Policy Option 3:** Adopt Recommendations from the York River Use Conflict Committee – Mathews County Board of Supervisors should consider adopting six recommendations generated by the York River Use Conflict Committee for Gloucester County which address public solutions to water and land use conflicts.

  COST: Locality staff time (question of priority)

**Public Policy Option 4:** Working Waterfront Districts – a. No Net Loss Ordinance – Developing a No Net Loss Ordinance could ensure that waterfront residential development will not displace working waterfront infrastructure and services. b. Fisheries/ Maritime/ Aquaculture Activity District(s) - Establish Commercial Fisheries/ Maritime/ Aquaculture Activity Districts could designate specific uses of water for water dependant industries (commercial and recreational). c. Working Waterfront Overlay District – Establishment of a Working Waterfront Overlay District would entail the identification and preservation of areas currently and historically used as working waterfronts and/or commercial fishing and aquaculture businesses. d. Working Waterfront Lifestyle Commercial Zoning Ordinance – Developing a Working Waterfront Lifestyle Commercial Zoning Ordinance would protect permitted land uses and would not change or overwhelm the pattern of existing land uses within Mathews County.

  COST: Locality staff time (question of priority)
Public Policy Option 5: Storm Water Pollution Ordinance/ No Discharge Zones – In coincidence with Virginia Code § 15.2-1200 - General powers of counties – secure and promote the public health safety and general welfare - a water pollution ordinance or no discharge zone(s) could protect water quality pertinent for culturing shellfish.

COST: Locality staff time (question of priority)

Public Policy Option 6: Aquaculture Business Park and Incubator – The establishment of an In-water Aquaculture Business Park could create a relief option for aquaculturists with condemned waters. Aquaculturists could move shellfish stocks to these transfer areas where shellfish stocks would remain “consumable” by Virginia Department of Health standards. This park could also be open to the public to encourage hobby growers and ultimately continue a maritime tradition.

COST: To be determined during year two of this project

Public Policy Option 7: Current assessment and taxation regimes of Working Waterfront Properties

a. Current Use Valuation of Working Waterfront Properties – Instead of assessing working waterfront properties at the highest and best value, General Assembly should/could consider allowing localities, like Mathews, to assess working waterfront properties at the current/actual use value. If a. (current use valuation) is not politically possible, please consider

b. Taxation Credits/ Rebates/ Relief – Advocate action by the General Assembly to amendment the land use taxation regulation, through the development of a Land Use Taxation category specific to aquaculture.

COST: -Requires action by the General Assembly - Board of Supervisors and locality staff time (question of priority)

2010 Mathews County: In-the-Water Public Aquaculture and Maritime Business Park

To continue efforts in Mathews County, the MPPDC was funded through the Virginia Coastal Zone Management Program (NA09NOS1490163 Task #92) to focus on developing the concept and framework of an in-the-water public aquaculture business park and relay areas. In general, current aquaculture industry members, as well as hobby gardeners and entrepreneurs entering the industry could utilize the park and relay areas. To gain local support and feedback, MPPDC staff presented these concepts to the Mathews County Industrial Development Authority (IDA) as well as to the Aquaculture Working-Waterfronts (AWW) Steering Committee. The IDA responded positively to the idea and passed a resolution to support future MPPDC staff efforts on this project, while the AWW Committee provided essential local and industry feedback as to the ideal locations for the park as well as potential services that could be offered at the park. To-date the Mathews County Board of Supervisors has not taken policy action(s) concerning the business park, however with their support MPPDC staff continues to work with VMRC to establish Aquaculture Opportunity Zones in the waters Mathews County.
During this project year Mathews County updated their County's Comprehensive Plan. The document not only included new language regarding shellfish aquaculture, but the document referenced six of the seven York River Use Conflict Committee Recommendations. The draft was presented to the Planning Commission on August 17, 2010 and they voted unanimously to recommend the BOS hold a joint public hearing to solicit comments from the public but this was the only action taken by the County to address these recommendations.

2010 Law & Policy for Floating Homes

In response to conflicts regarding floating homes/structures, the MPPDC and its member localities, funded through the Virginia Coastal Zone Management Program (NA10NOS4190466 Task 2.02) and Virginia Sea Grants’ Coastal Community Development Program, undertook a study to enable local governments to identify and determine the issues and conflicts associated with floating structures and coastal governance (#NA07NOS4190178 Task 93.01). In part, this project established a Floating Home Study Committee to consider the policy implications of floating homes from a local government perspective and worked with the National Sea Grant Law Center to prepare a report on the Law and Policy Regarding Floating Homes. The Study Committee reviewed the current status of floating homes/structures within the region and developed management recommendations for local governments. More specifically the recommendations were based on three spatial classifications of floating structures, each relates to moorage characteristics and includes a starting point for a definition: 1) Floating structures and marina moorage; 2) floating structures and private pier moorage; and 3) floating structures and random moorage along waterfront. By classifying floating structures within three spatial groups, the intention of the Study Committee was to provide options for local governments depending on how proactive or reactive of a position a locality wishes to take. The Study Committee found that the economic development potential, use conflict and environmental impacts are directly related to the spatial classification of floating structures (Figure 4).

Figure 4: Gradient of Recommended Management Approaches: Management approaches for both proactive and reactive management of floating structures, relative to the spatial classification of floating structures and their economic and environmental impact as well as potential use conflict.
2011 Shallow water dredging policy and financing
The purpose of this project was to provide the MPCBPAA with a probable average annual cost for maintaining all the Federal navigation channels within the geographic boundaries of the Authority assuming other mechanisms would provide funding streams for the work in the future. Average annual costs for maintaining a beneficial use shoreline placement program to supplement the dredging program were also provided. But there are some events that could cause the average annual costs to vary (go up or down) over time. For instance, competitiveness within the dredging industry could cause variation in bid prices or physical variations at the projects could cause a more or less frequent dredging cycle. For this reason, the project brackets the most probable average annual cost with high and low bounds for the average annual cost. This allows users to perform their own prioritization and risk analyses. Considering these variations, the most probable average annual cost for maintaining (dredging) a shallow draft navigation program on the Middle Peninsula is approximately $1,630,000 per year. The cost for dredging could range from $550,000 per year to $4,917,000 per year. In addition, approximately $111,000 per year would most probably be required in order to use available suitable material in a beneficial manner for placement along nearby shorelines. The cost for beneficial placement could range from $24,000 per year to $247,000 per year.

2011 Rural Chesapeake Bay/seaside of Virginia Working Waterfront Coalition
For many Virginia rural coastal communities, there is a strong need to maximize the potential of the waterfront as a driver for economic vitality. However, market forces, changing demographics and increasing tax burdens on waterfront properties are increasingly driving a transition of waterfront properties toward residential or recreational uses. In addition, regulatory changes affecting marine fisheries management are impacting water dependent industries and working waterfronts. If access to the waterfront is limited or severed, commercial and recreational fishermen, researchers, and other water-dependent businesses will have fewer options to successfully make a living from the tidal waters of the Commonwealth including the Seaside on the Eastern shore. As a result, many rural Chesapeake Bay and Seaside communities are challenged to maintain their identity and are shifting away from water-dependent employment, leading to economic and cultural changes that can limit economic diversification opportunities and fundamentally alter the nature of the communities themselves. These challenges are particularly acute in both rural Chesapeake Bay and Seaside Coastal Communities.

During this project, a case study and report were generated in which the Accomack-Northampton Planning District Commission (ANPDC), the Northern Neck Planning District Commission (NNPDC), and the MPPDC each identified and researched three (four for ANPDC) working waterfront businesses that were closed or in danger of closing, discussed the reasons they closed or were in danger of closing, and documented the issues associated with the closing of each business. Additionally, the report discusses the land use planning tools associated with the impacted businesses, identifies the business or legacy succession planning the businesses had in place, provides a section on legacy and succession planning available for working waterfront businesses and a list resources available for businesses.
The results show that working waterfront businesses close for a variety of reasons such as: loss of fishery, death of owner, retirement of owner, sale to developer, and loss of property due to sea level rise, storms, and flooding. The zoning for the properties varies from businesses that: are non-conforming uses and cannot open after being closed for 2 years; are zoned residential with a conditional use permit; or have limited or no restrictions. The common theme for legacy planning was that it was not done. Subsequently, most of the businesses identified indicated that selling their property and/or business is their retirement solution, with no guarantee that the property would continue as a working waterfront. This report has been used to reach out to Working Waterfront owners (identified in the WW Inventory Project) to promote working waterfront legacy solutions and will be posted on www.mppdc.com for use by interested parties.

2011 Perrin River Commercial Seafood Harbor Master Plan and Improvements
Gloucester County, Virginia has seen a decline in the number of commercial waterfront businesses in recent years. The County has recognized this as an issue that affects the economy and the fundamental nature and culture of the county. In 2008, the completion of the York River Use Conflict Study further identified the need for the Gloucester County Board of Supervisors (BOS) to manage various waterfront use issues. In response, in 2009 the Gloucester County BOS passed a resolution that directed staff to develop the tools necessary to manage these issues. In part, the draft Gloucester County Comprehensive Plan under revision identifies the need to protect Working Waterfronts. In 2010, the closure of Cook’s Seafood, a major commercial waterfront business in Gloucester County, displaced over 15 commercial workboats. This event reinforced the need for both watermen and the county government to act to prevent losing the traditional watermen lifestyle in the County. This study, the Perrin River Seafood Harbor Master Plan, builds upon these previous efforts to protect the Working Waterfronts of the County. Specifically, it focuses on the Perrin River, a traditional commercial port in the Eastern portion of Gloucester County that is home to several existing working waterfront businesses, one private marina, and the much-used public “Perrin River Landing”. The landing is also locally referred to as Sedgers Creek, Sedgers Wharf, Perrin Creek Landing, Perrin Wharf, Perrin Landing and King’s Landing. The study identified existing zoning and existing waterfront uses, and developed two specific policy recommendations for the Gloucester County BOS to consider:

1.) Develop a Commercial Seafood Overlay District for the Perrin River – This is a specific tool that a local government can use to preserve and protect the working waterfront, preserve the cultural identity of the region, and preserve and create jobs. The district boundary could include only land-based parcels which require waterfront for seafood operations or land based parcels and water areas within the limited harbor area of the Perrin River. The goal is to protect the harbor and the working waterfront uses which routinely happen in and along the Perrin River while avoiding the complications of spot zoning (spot zoning is the application of zoning to a specific parcel of land within a larger zoned area when the rezoning is usually at odds with a county’s current zoning restrictions).
2.) Continue to implement the adopted recommendations from the York River Use Conflict Committee (YRUCC) - The YRUCC recommendations provide a series of tools to manage water use conflict along the waterfront. The Gloucester County Board of Supervisors should consider enacting the various policy recommendations developed by staff to bring closure to the YRUCC work. These would include the proposed working waterfront comprehensive plan language and a coastal living policy for the county. For the recommendations left unaddressed, the Board should consider providing staff with additional resources and prioritization directives to carry out the recommendations. This strategy would send a clear public policy message that Gloucester County desires an active and well-managed waterfront.

2012 Developed Working Waterfront Definitions and Conducted an Infrastructure Inventory

VIMS conducted an inventory and identified a list of businesses and landing sites connected to the waterfront. Resources utilized to create the list included: Local Comprehensive Plans, the Virginia Department of Game and Inland Fisheries (DGIF) Public Boating Access online database, commercial businesses and area watermen. Overhead photos were obtained from Google Earth or Google Maps and the nautical charts were obtained from the National Oceanic and Atmospheric Administration’s (NOAA) Online Chart Viewer. Latitude and Longitude data were obtained from Google Maps, Google Earth and the Virginia Department of Game and Inland Fisheries (DGIF) online public access database. The site photos were taken by MPPDC staff.

2013 MPPDC Perrin Wharf Improvements

The Perrin Wharf Waterfront Revitalization project was designed to reorganize the first 100 feet of the Perrin Wharf located in Gloucester County, Virginia (Figure 5), to improve the organization and safety of the docking arrangement, and to assist with the mooring and off-loading of vessels. To do this, the MPCBPAA proposed to install 10 new slip poles and 3 new finger piers using donated labor from a marine contractor. The project intended to create 5 new slips, however, the project was so well received that the MPCBPAA obtained donations for an additional five 35 foot pilings from the Gloucester County Parks and Recreation Department, and donated time and labor from another local business to load, move and unload the additional pilings. Further, with the donation of the extra pilings, the MPCBPAA and the marine contractor, were able to work together to re-organize the slip arrangement to create an additional 4 slips, for a total of 9 slips.
Figure 5: Perrin Wharf improvements. Before and after photographs.
2013 Floating structures Policy and Permitting

In the summer of 2012, Anderson’s Neck, LLC submitted a Joint Permit Application (JPA) to VMRC to establish an aquaculture business using an “Oysterplex” that would be used to harvest, clean, tag, and bag oysters in Morris Bay (King & Queen County). This Oysterplex was described by the applicant as “basically a barge with a building on it, walls, windows, doors, a roof, and solar panels on the roof to power upwellers.” In past efforts the Middle Peninsula Planning District Commission (MPPDC) staff assessed the policy implications of floating homes from a local government perspective (Virginia Coastal Zone Management Program Grant # NAOS4190466, Task 2.02). MPPDC staff considered the “use” of floating homes and focused on three specific classifications: (1) marina moorage, (2) private pier moorage, and (3) random moorage along waterfront moorage. As these categories encompassed the breath of floating structures within the region at the time, with the proposal of the Anderson Neck’s Oysterplexes that included two floating structures in open water used for commercial use rather than residential use, new permitting, regulatory and jurisdictional questions presented themselves to State and Local entities.

For this project (#NA10NOS4190205 Task 53) MPPDC staff worked to understand the permitting challenges and breakdowns of the Anderson’s Neck project and explored ways to improve permitting processes for future innovative projects. To assist with gathering this information, MPPDC staff created a Floating Structures Committee that consisted of representatives from VMRC, Virginia Department of Health, Virginia Department of Housing and Community Development, and King & Queen County. Through extensive discussions with the Committee it became clear that each State entity has a very specific lens in which they consider a proposed project that is based on the agency’s authority and mission. Nevertheless, there were two questions consistently asked amongst these entities: (1) what is the location of the floating structure, and (2) what are the intended uses of the structure? As these questions typically guide the agency in the direction of remitting the proper permit(s), State agencies advised that each submitted JPA project has unique details that are taken into consideration on a case-by-case basis.

As another outcome of working with Committee, efficient communication was identified as an essential aspect of the permitting process that moves a project along in a timely manner. It was found that State entities need to work with each other as well as with local entities to provide a holistic solution to a proposed project. For instance, during the permitting of the Anderson’s Neck project the JPA was received by the Local Wetland Board staffer at the County, it was reviewed and was found not to fall into the Board’s jurisdiction. Although this satisfied the JPA’s authorization needs from the Local Wetland Board, there were new and unanticipated local land-use implications that the King & Queen County Planning and Zoning Staff had to address. Thus communication between the Wetland Board staffer and the Planning and Zoning Staff would have improved efficiencies at the local level. Beyond this example, JPA applicants are encouraged to provide as much detailed information about the project and the proposed business plan to State and Local entities. This will assist entities with their permitting decisions. If information changes through the permitting process, this may alter the permitting course of the project and/or delay project altogether.
The Anderson’s Neck Oysterplex project proved to be challenging. As the scale and intensity of aquaculture technology and water uses change localities across the coastal zone as well as State agencies will continue to face complicated policy questions and permitting options. While localities may need to acknowledge their jurisdiction over water and/or even consider zoning over water, which is consistent with the 2011 Virginia Supreme Court ruling JENNINGS v. BOARD OF SUPERVISORS OF NORTHUMBERLAND COUNTY, State agencies may need to redefine traditional uses and their approach to projects. Regardless, however the permitting of Anderson’s Neck pushed State and Local entities to think outside of their traditional “box” and work through the permitting process. Overall, each entity gained an experience that will be a reference for the permitting of future projects.

2014 Aberdeen Creek Master Plan
Another unique working waterfront location just off the upper York River in Gloucester County, Virginia is Aberdeen Creek. Aberdeen Creek provides seasonally critical access for landing, docking, and mooring in close proximity to the public and private oyster grounds and public crabbing grounds on the upper York River. Interviews with local watermen found that water access sites on the upper York River are vital to their businesses and that Aberdeen Creek is one of the few locations they use, have traditionally used, and want to continue to use. The waterfront properties on Aberdeen Creek are predominantly developed as single-family residences, with the exception of a working waterfront area consisting of one public landing and one commercial property. While both of the working waterfront properties are in states of disrepair, they continue to be over utilized by commercial watermen during crab and oyster seasons.

The public landing has two piers and records show that the property was deeded in 1947 to government ownership specifically to be used as a public landing. However, determining which government entity owns the landing is complicated. Adjacent to the public landing is the commercial property, the former seafood processing facility, Gloucester Seafood, Inc. This property was used for processing long before Gloucester County adopted a zoning ordinance in 1984. Gloucester Seafood, Inc. maintained a business license until 2010, but they did not renew their business license after that year. The property was zoned single family residential when zoning was adopted and this zoning remained in place as part of the county-wide rezoning and zoning ordinance updates adopted in 1998. The zoning ordinance classified seafood processing as a use permitted only by special exception in certain zoning districts and not at all within the Single Family (SF-1) zoning district. Because the seafood processing use on this property was established prior to the enactment of the zoning ordinance and subsequent amendments, it was allowed to continue as a legally non-conforming use. However, pursuant to both state and local regulations, once a use ceases to exist for over two years, it no longer has vested rights to that non-conforming use. Therefore, when Gloucester Seafood, Inc. became inactive for more than two years (Figure 2), the legal nonconforming status of the property ceased. While the site is not actively used for seafood processing, it does retain much of the infrastructure that could be beneficial to working watermen.
With commercial watermen depending on sites such as those found on Aberdeen Creek, there is particular urgency for a master plan that assesses the needs of the commercial seafood industry, harbor management, and current and future infrastructure improvements for Aberdeen Creek, as well as other critical working waterfront areas within Gloucester County. A well designed and focused strategy for Aberdeen Creek will help to ensure that current and future commercial watermen have access to strategically local infrastructure and business support services to enhance and protect the important economic and cultural practices of the seafood industry in the county.

The Aberdeen Creek Harbor Master Plan provides three recommendations to the Gloucester County Board of Supervisors intended to preserve the working waterfront of the creek for future generations:

A. Amend the zoning ordinance to create a commercial waterfront district which allows certain working waterfront uses by right,
B. For the public landing, formally negotiate single ownership status and decouple joint ownership with VDOT and the Commonwealth,
C. Have Gloucester County and/or the Middle Peninsula Chesapeake Bay Public Access Authority collaborate and coordinate with other stakeholders to develop and implement a plan to maintain the channel on Aberdeen Creek.

**2014 Aberdeen Creek TIF**

As mentioned earlier Aberdeen Creek in Gloucester County, is an important harbor for commercial fishing operations along the York River. Today commercial watermen are experiencing narrowing of the channel due to shoaling, which occurs at the entrance to Aberdeen Creek.

Further complicating matters is the funding. Federal funding for dredging has historically been provided by the Army Corps of Engineers budget for shallow draft low use navigation projects. Current federal budget metrics are not providing sufficient funds at levels to sustain maintenance dredging of the 17 federal navigation channels in the Middle Peninsula. Budget restraints may continue into the future and federal channels will still need to be maintenance dredged. The question facing local governments is given the priorities which determine local government finances, how can the cost of dredging the harbor be levied against other pressing priorities.

Therefore, to begin addressing the funding issue, MPPDC staff provided possible solutions to the issue of financing through the compilation of the five products identified and compiled into a final report.

**Product #1 - Utilizing Tax Increment Financing (TIF) as a strategy to generate revenue to fund future dredging projects:** MPPDC partnered with Virginia Sea Grants to explore a new use of Tax Increment Financing (TIF) authorized under the Sec: 58-1-3245 of the Virginia State Statute. The project applied local government taxing process to help determine the possible spatial area needed to finance a dredging project for the creek.
Various scenarios were provided to cover cost of dredging and permitting as well as recommendation on supplemental financing options were provided.

**Product #2 - Aberdeen Creek Historic Shoreline Change:** MPPDC partnered with VIMS Shoreline Studies program to quantify the historic shoreline changes along the Creek. This data was used to help determine the cost of dredging and possible disposal sites and is included in the final report.

**Product 3# - Assess Aberdeen Creek’s Waterfront Infrastructure:** Scott Hardaway, Director of the VIMS Shoreline Studies program provided an assessment of the condition of Aberdeen Creek working waterfront infrastructure and an estimate of maintenance and repairs.

**Product #4 - Survey the navigation channel and determine dredge placement options:** VIMS Shoreline Studies Program provided information on bathymetric contours and channel sediment sampling. This helped to determine the extent to dredge and type of dredge material.

**Product #5: Aberdeen Creek navigation channel and associated Working Waterfront Plan:** The final report is a compilation of the first four products that can be used as guidance for other local governments with similar characteristics.

MPPDC staff researched implementing Tax Increment Financing (TIF) to finance the dredging of Aberdeen Creek. TIF is an economic development tool that allows municipalities to pay for public improvements without raising taxes or diverting current funds, but rather through the earmarking of future property tax revenue increases within the area in which the improvements are to occur, known as the TIF district. Authorized under Section §58.1-3245.2 of the Virginia State Code, TIF uses future revenue from property value increases to be allocated to projects in designated areas. A TIF district is created when a project need has been identified, the area in which the project will take place has been designated and funding is allocated through future tax revenue generation to finance the project. Specific parcels are outlined, composing the TIF district and the details of how the funding will be allocated are defined by the adoption of a policy by the local government. Unlike special districts, it is not a new tax, but redirects and segregates the increased property tax revenues generated in a specific area to a specific purpose. While traditionally, property tax revenue has been the only object of TIFs, personal property tax, sales tax and other fees have also been included to boost revenue generation.

Once a TIF district is established, a year establishing the base valuation for properties in that district is set, allowing for revenue generated from property value increases to be used to fund the project for which the district was created. In other words, the property values at the established year serve as the base line assessment value. Annual property tax revenue that exceeds the revenue of the specified year is deposited into the TIF district fund on an annual
basis for the life of the project or until the debt for the project is paid. Figure 6 provides an example of how TIF works.

The Virginia State Code provides TIF powers to localities with taxing authority, however, there are several ways local governments may create TIF districts. One way is through agreements between a locality and a third party entity commonly referred to as Community Development Association (CDA). In this case, local government creates the TIF district and the CDA is responsible for carrying out the guidelines of the policy that are outlined in an agreement between the locality and the CDA. The CDA is responsible for ensuring that the project requirements are met.

**Figure 6: TIF – how it works.**

Another way TIF districts may be created is through zoning code. Like overlay districts, localities may amend their codes to include a TIF district, however this is the least preferred method as it is very rigid and takes much longer to implement. Most local governments in Virginia that have used TIF districts prefer TIF district creation by policy rather than through local codes and legislation. TIF by policy allows local governments the flexibility to establish multiple districts with variations in terms to meet the need for which each was established without amending local law. Revenues generated from TIF are projected to help determine the life of the district. Because most TIF districts have a life span that is also flexible, TIF creation by policy is more efficient than code amendments as the policy can be amend as needed and/or dissolved once the goals are fulfilled.

**2015 Virginia Working Waterfront Plan – Local policy development**

Within coastal Virginia, increasing demand for waterfront property, has resulted in increased property values and higher costs for traditional waterfront businesses. These and other factors
have caused not only the region, but also the Commonwealth to slowly lose its working waterfronts - an issue that will have long-term consequences for local economies, the environment, coastal culture, and overall quality of coastal living. Losing working waterfronts constitutes a potential loss of jobs for watermen (i.e. recreation and commercial, shellfish farmers, etc.) and the agriculture industry (i.e. timber and grain barges); a loss of a cultural identity and heritage of the region; and a loss of working waterfront support industry jobs (i.e. boat building transportation, seafood processing, etc.).

While threats to the existence of working waterfronts remain, there is growing recognition of the problem and an expanding list of possible solutions. Nationally, coastal states and localities are using planning, zoning, land conservation and acquisition, tax incentives, public improvements, and state and local regulations to help preserve their working waterfronts. Thus in preparation for the development of a Virginia Working Waterfront’s Plan in 2015-2016, the Middle Peninsula Planning District Commission was funded through the Virginia Coastal Zone Management Program to research policy tools applicable to localities within the Commonwealth. This toolkit provides Virginia localities with policy options and tools to improve, preserve, or protect working waterfronts.

Additionally, to build on previous efforts focused on working waterfronts, MPPDC staff continued hosting meetings of the Working Waterfront Steering Committee in order to discuss on-going local working waterfront issues within communities and ways to resolve these issues. In part Committee members worked together to develop specific questions for Tidewater localities to answer. These questions aimed to understand current policies within the locality related to working waterfronts as well as new policies that the locality would consider to further protection of working waterfronts within their jurisdiction.

Overall, these projects have assisted in improving working waterfront local policies, infrastructure, and overall management.

E. The Future of Working Waterfronts in the Region

Within the Middle Peninsula, localities will need to take the lead in preserving working waterfronts within their jurisdiction. Based on interviews with Middle Peninsula localities and other coastal PDCs twelve stressors were identified, including: (1.) Shifting development patterns, (2.) Land use change, (3.) Appropriate use of zoning to ensure that the waterfront is managed in a harmonious way, (4.) Additional comprehensive plan language needed, (5.) Loss of commercial processing facilities, (6.) Loss of commercial fishing facilities, (7.) Maintain a network of public tie up facilities, (8.) Private working waterfront business owners (marina owners, dock owners, fish and oyster houses etc.) need for preservation of commercial slips that spatially and seasonally correct, (9.) Tools to expand oyster farming, (10.) Tools for business legacy planning and transition planning, (11.) Improved understanding of existing and new tools to protect water quality, and (12.) Dedicated State funding for existing public working waterfront infrastructure. Localities will need to choose an approach to address these stressors for their particular locality.
**ESSEX COUNTY –**


The Essex County 2015 Comprehensive Plan acknowledges a list of assets of associated with working waterfronts including:

- The importance of the Rappahannock River, tidal waters, and flowing streams to the County due to the resources for recreation and commerce that are essential to the growth and diversification of the economic base for the area.
- There is a need for greater management capability over waterfront access and use due to competing interests between subdividing large tracts of waterfront property into numerous smaller lots or keeping these large tracts for privacy and the upland residents and tourists seeking use of the waters. This concern leads to the need of greater management capability over waterfront access and uses.
- The importance of surface waters to the County as it holds various fish species for commercial fisheries as well as sport species. A disruption in the ecosystem can cause far-reaching effects, threatening the livelihood and health of those dependent upon these resources. Public and private access to the water and shoreline areas is important to the economy and environment of Essex County.
- NOAA’s research showed that maritime related businesses provided 12% of the total jobs in Essex County, all in recreational and tourism industries. This represents a 10 percent increase in maritime jobs since 2005. Nationwide, Maritime jobs present double the number of jobs supported by agriculture, the primary industry in Essex County. This indicates a window of opportunity for Essex County to strengthen its maritime economy by boosting recreation and tourism activities as well as promoting aquaculture and working waterfront businesses.

Therefore, while the plan describes the importance of water access and recreation, Essex County does not state specific policies about working water fronts for the future.

**GLOUCESTER COUNTY –**

$181,098 in VMRC Commercial Licenses & Permits representing 104 different types of licenses (2015).

In 2008, the York River Use Conflict Committee (YRUCC) provided the Gloucester County Board of Supervisors with recommendations on maritime water use for Gloucester County. The seven recommendations included:

- **Recommendation 1** – develop a “Coastal Living Policy”
- **Recommendation 2** – map and identify the County’s Land, Air and Water Jurisdictional boundaries in the County’s Comprehensive Plan and supporting maps.
- **Recommendation 3** – take no action at this time to manage or regulate the aquaculture industry
- **Recommendation 4** – develop a policy for the protection of working waterfront infrastructure.
Recommendation 5 – develop a Waterfront Outdoor Lighting Ordinance.
Recommendation 6 – adopt an ordinance restricting floating homes.
Recommendation 7 – develop a master plan for public access infrastructure to ensure equal water access for all user groups to the waterways within Gloucester County.

In 2009, the Gloucester County Board of Supervisors adopted these recommendations by resolution. The seven adopted recommendations were designed to: serve as a reference for the development of future public policy in Gloucester County, VA; shape future legislative and policy positions to be advocated by the Middle Peninsula Planning District Commission (MPPDC); and inform others, particularly state officials, of the County’s preferred position on coastal community development issues.

To build on the adopted recommendations of the YRUCC, the 2013 Gloucester County draft Comprehensive Plan update recognizes that water plays an important part in Gloucester’s culture, history, and economy. The plan speaks to the increase in residential development along the County’s shorelines which can contribute negative impacts on water-based industries, including seafood and boat operations. Managing land use conflicts between waterfront industries and residential development is a major goal of the County’s comprehensive plan. To this end, certain sections of the plan designate areas along the shore as working waterfront and marina areas, where future residential development can be avoided to help reduce conflict with water-based uses. These areas are intended to support uses such as commercial seafood operations, boatyards, marinas, and accessory uses. Working waterfronts are the primary use of these areas, with residential development as a secondary use, similar to the stance taken in the agricultural districts with residential uses. Mixed-use development which may incorporate residential and commercial uses in conjunction with active working waterfronts, such as marinas, may be appropriate in these areas as well. Such mixed-use developments could be achieved through the use of a Planned Unit Development District under the current ordinances but the Comprehensive Plan Update recommends the creation of a new district to better protect and encourage the continuation of these uses.

Specific goals and objectives identified in the plan relevant to working waterfronts include:

**Land Use Goal: To maintain Present and encourage additional industrial development.**

Objectives:
1. To encourage commercial recreation, tourism, fisheries, and water- and boating-related industries.
2. To encourage and support retention of the agriculture, fishing, and forestry industries.

**Economic Development Goal: To provide a balanced economy for future growth**

Objective:
1. To encourage the continuation of those industries that are basic to the local economy, including agriculture, fisheries, lumber and wood products, food and kindred products, health care facilities and service industries.
**KING WILLIAM COUNTY**

*$8,245 in VMRC Commercial Licenses & Permits representing 39 different types of licenses (2015).*

According to the King William Comprehensive Plan, aquaculture is a part of county economy, “There are 181 aquaculture species cultured worldwide with an estimated production of 10 million metric tons of seafood. By the year 2000, the likely harvest will have reached 221 million metric tons. Seafood now comprises over 15% of the U.S. household “meat” budget, up 9% from the 1980. Aqua culture endeavors in King William County include the Mattaponi Indian Fish Hatchery and Marine Science Center and the Pamunkey Indian Shad Fishery.” The plan also mentions that King William has community assets and facilities, including Zoar State Park and Zoar State Forest that has public access to the Mattaponi River for canoe launching and “dipping “for river herring in Herring Creek. Other facilities in the County include three public boat landings, the West Point Country Club and a private marina.

The only policy goals associated with working waterfront refer to improving public access to water which includes (1) : improve existing public boat ramps and increase the number of access points for public use, and (2) Ensure the provision of safe and adequate public waterfront access facilities in King William County. Beyond this, King William does not have specific policies intentions to improve working waterfronts.

**KING & QUEEN COUNTY**

*$6,993 in VMRC Commercial Licenses & Permits representing 35 different types of licenses (2015).*

The King & Queen Comprehensive Plan provides a description of the opportunities for recreational use of natural areas and local waters for canoeing, kayaking, nature, and bike trails, scenic byways, etc. Additionally the plan maps the recreational access sites and cultural facilities. Therefore based on the Plan King & Queen County does not have specific policies about working waterfronts for the future.

**MIDDLESEX COUNTY**

*$70,435 in VMRC Commercial Licenses & Permits representing 80 different types of licenses (2015).*

According to the Middlesex County Comprehensive plan WATERFRONT RECREATIONAL/MARINAS are defined as campgrounds, marinas, yacht clubs or other waterfront dependent entities and their accessory uses. These uses depend on their waterfront location and recreational nature as a major asset of their business. Beyond this statement, Middlesex County does not have specific policies about working waterfront for the future.

**MATHEWS COUNTY**

*$57,481 in VMRC Commercial Licenses & Permits representing 86 different types of licenses (2015).*
Throughout the Mathews County Comprehensive Plan, the importance of working waterfronts is noted. For instance, a key planning theme in the Comprehensive plan is, “Increased cooperative approaches and initiatives to enhance the economy through heritage tourism, ecotourism, aquaculture, and working waterfront business development that complements the environment.” The Comprehensive Plan also identifies a variety specific policy strategies associated with working waterfronts.

### Table 6: Mathews County Planning/Development Policies and Strategies for the Economy as presented in the Comprehensive Plan.

<table>
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<tr>
<th>Planning / Development Policies and Strategies for Economy</th>
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<tbody>
<tr>
<td>E2 Mathews County has a proud, traditional heritage in water-based businesses. Increased efforts should be undertaken to enhance this sector of the local and regional economy.</td>
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<tr>
<td>1. Clarify, define and pursue County authority to regulate and manage land uses beyond the physical land area and shorelines, extending to include territorial boundaries over the water.</td>
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<tr>
<td>2. Identify new or preserve existing sites for aquaculture and working waterfront businesses. Establish an Economic Development Team to ensure communication among interests, target compatible land/water uses, and adopt minimum development standards (e.g. Aquaculture Best Management Practices). Develop an economic development strategy that can be updated on an annual basis. Work with the Middle Peninsula Planning District Commission, the Virginia Economic Development Partnership, Chamber of Commerce, Virginia Marine Resources Commission, and other environmental agencies.</td>
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<tr>
<td>3. Pursue the development of a land and/or in water Aquaculture Business Park, Aquaculture Research Center or similar economic model that can enhance the economy of the County and the coastal environment. Consider financial incentives that could assist business development (e.g. special loans, incubator spaces, etc.).</td>
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<tr>
<td>Revise the County zoning ordinance to better define “aquaculture” as a use and review regulations to ensure appropriate land use management. Strengthen regulations to encourage and protect aquaculture in appropriate areas.</td>
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<td>5. Develop and pursue designation of aquaculture opportunity zone(s) as a financial incentive to promote aquaculture and encourage investment. Adopt applicable local incentives and taxation options to promote aquaculture.</td>
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<td>6. Lobby general assembly for special aquaculture land use taxation category specific to aquaculture and water based businesses, similar to agriculture land use taxation, to encourage continued use and production of important properties and operations.</td>
</tr>
<tr>
<td>7. Educate the public regarding the importance of aquaculture and working waterfronts to the community, region and the state. Develop a brochure, webpage article, or other form of communication to promote increased understanding of waterbased business operations and requirements, as well as...</td>
</tr>
</tbody>
</table>
the need for excellent water quality. Work with businesses and governmental agencies to coordinate efforts and improve communication of important coastal living issues and future goals and outcomes.

8. Affirm the commitment of the County to protect the working waterfront as a priority for economic development and preserving coastal character. Improve communication regarding pending development matters, water quality monitoring/reporting, water access, etc. Consider appropriate “good neighbor practices” that enable shared information and communication regarding development activities.

9. Consider adopting a formal resolution/policy that promotes and protects working waterfronts in Mathews County.

### Planning/Development Policies and Strategies for Public Facilities and Services

**PFS 7**

<table>
<thead>
<tr>
<th>Mathews County is recognized for its natural environment and inherent recreational amenities. Public access to the water and shores enhances residents’ quality of life and is fundamental to the eco-tourism segment of the County economy. The County should continue to promote public access and appropriate facilities along its waterways and shorelines.</th>
</tr>
</thead>
</table>

1. Update the adopted 2003 Mathews County Statewaters Access Plan to assess public needs, priorities, and recommended improvements for water access. Work with the Middle Peninsula Chesapeake Bay Public Access Authority to develop a survey to assess County residents’ needs for new and/or expanded public water access sites and facilities.

2. Pursue site planning and recommended improvements to the East River Boatyard property for public recreation and access. Consider grant funding for planning and construction (e.g., Virginia Department of Conservation & Recreation, Virginia Game & Inland Fisheries, U.S. Fish & Wildlife, and EPA Brown fields).

3. Continue to work with VIMS and other partners to plan, map, and promote the Mathews County Maritime Heritage Trail.

### Development Policies and Strategies for Environment

**EN4**

<table>
<thead>
<tr>
<th>The waterfront of Mathews County is a valuable ecological, recreational and scenic asset that should be available to all citizens. Use of waterfront lands should be balanced to provide reasonable access points for the public and protection of the environment, while recognizing the rights of private residential and business property owners.</th>
</tr>
</thead>
</table>

1. Review and update the County Statewaters Access Plan at least every five years to ensure that public access and recreational needs are met. Update the 2003 Plan in conjunction with developing a Parks and Recreation Master Plan.

2. Site any new waterfront community facilities or marinas in accordance with the checklist and criteria established by the Virginia Marine Resources Commission for Marinas and Community Facilities for Boat Mooring (1988,
www.mrc.state.va.us). Coordinate locations with aquaculture and blue infrastructure resources to minimize land use conflicts and ensure protection of water quality.

3. Identify desirable waterfront and off-shore locations for pursuing aquaculture. Develop a strategy for improving water quality, managing land use, and reducing development and pollution conflicts.

**Development Policies and Strategies for Land Use**

<table>
<thead>
<tr>
<th>LU2</th>
<th>The future sustainability of Mathews County requires planning and management of not only land uses, but also the use and treatment of the surface waters surrounding the County. The land and waters are linked; one affects the other. Future land use decisions should consider effects on both the land and the water.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1. Pursue planning and management of uses beyond the shorelines of Mathews County. Coordinate approaches and methods with state agencies and other regional governments. Develop agreed upon procedures for reviewing development and use requests that affect land and water. Adopt applicable regulations to effectively manage uses within County territorial boundaries.</td>
</tr>
<tr>
<td></td>
<td>2. Amend the Zoning Ordinance to adequately address aquaculture as a land use and amend other relevant regulations in order to protect water quality and appropriately manage aquaculture businesses/operations and surrounding land uses.</td>
</tr>
</tbody>
</table>

**Development Policies and Strategies for Gwynn’s Island**

<table>
<thead>
<tr>
<th>GWYNN 1</th>
<th>The future sustainability of Mathews County requires planning and management of not only land uses, but also the use and treatment of the surface waters surrounding the County. The land and waters are linked; one affects the other. Future land use decisions should consider effects on both the land and the water.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1. Ensure that new or expanded development appropriately addresses environmental constraints and protects water quality. Encourage design solutions that will enhance the environment and protect resources and physical investment for the long-term.</td>
</tr>
<tr>
<td></td>
<td>2. Protect working waterfront operations that are important to the economy of Mathews County. Work with multiple partners to enhance water quality of the Bay and its tributaries. Cooperatively work with and educate residents and businesses on aquaculture needs and waterfront operations.</td>
</tr>
<tr>
<td>GWYNN 2</td>
<td>Gwynn’s Island is important to County tourism and economic development efforts. Underutilized properties within the “hamlet” should be carefully considered for rehabilitation or redevelopment. Commercial waterfront development outside of the hamlet should be limited to appropriate sites for aquaculture.</td>
</tr>
</tbody>
</table>
1. Pursue the redevelopment of the former hotel site on Gwynn’s Island as a small resort facility. Ensure that development is low-impact, environmentally-friendly and a good neighbor.

2. Pursue the redevelopment of underutilized waterfront sites as recommended for aquaculture development.

**Development Policies and Strategies for West Mathews**

<table>
<thead>
<tr>
<th>WEST 4</th>
<th>Public access to the waterfront is a priority for the County. Increased public access to the waterfront should be provided in West Mathews.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1. Pursue development of the East River Boat Yard property as a public access point in West Mathews. Develop a concept plan for the property and coordinate it with district residents. Solicit partners and applicable grant funds for implementation. Encourage small business, as well as recreational concepts</td>
</tr>
</tbody>
</table>

**Development Policies and Strategies for Bayside**

<table>
<thead>
<tr>
<th>BAY 3</th>
<th>The waterfronts of Bayside host a diversity of economic businesses that serve the regional economy. Working waterfront businesses that enhance the environment are especially important to County economy and should be preserved and promoted.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1. Work with the Mathews Aquaculture and Working Waterfront Committee to identify specific opportunities and properties for enhancing aquaculture. Collaborate with multiple agencies and coordinate with property owners and businesses to build understanding and consensus.</td>
</tr>
<tr>
<td></td>
<td>2. Promote understanding among property owners of the multiple uses of waters and the waterfront, particularly with respect to the economic and environmental importance of sharing these important resources. Consider a regular newsletter or written publication to provide important information. Establish a business-citizens forum that can provide regular opportunities for discussion of conflicts or issues.</td>
</tr>
</tbody>
</table>

Specific opportunities identified in the Comprehensive Plan specific to working waterfronts include:

- Aquaculture Overlay District for coastal areas of the County and applicable waters and submerged lands which are determined to be of significant value for aquaculture. Application of this district would be for the purpose of management.
- East River Boat Yard would be an excellent opportunity to improve public access to the waterfront and to encourage local business development.

The Middle Peninsula Planning District Commission, in partnership with the Middle Peninsula Chesapeake Bay Public Access Authority will continue to promote and educate elected officials, locality staff and the general public about working waterfronts in an effort to preserve them in
the Middle Peninsula. However, it is up to the individual localities to implement tools and policies to preserve working waterfronts within their jurisdictions.