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FROM THE EDITOR

On the surface, the loss of waterfront access may seem like an issue that affects only commercial fishermen. This issue of the *Bulletin* does focus heavily on how diminishing waterfront access impacts maritime industries, such as the fishermen, processors and businesses directly dependent on the water.

But other user groups demand waterfront access too — recreational fishermen and boaters, bird watchers and sunbathers among others — want access to the water to pursue their personal interests. We all lose access to the water when open areas along the shoreline are filled in by development or bought by private parties. Decreasing access means we must search harder to find public boat ramps, fishing piers, or natural areas for recreation. So, while diminished access may not directly affect us economically, it does affect our ability to enjoy the coast in the manner to which we are accustomed.

When you think about it that way, it becomes more obvious that water access is an issue that affects everyone, whether you earn a living on the water, live on the coast, or just like to visit for a vacation. If you want to become more involved with access issues, I encourage you to attend the upcoming conference, "Working Waterways and Waterfronts 2007," hosted by Virginia Sea Grant May 9 to 11. Visit the conference Web site, www.wateraccess2007.com, for more information.

— Erin Seiling

Gloucester Point

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"WORKING WATERWAYS AND WATERFRONTS 2007"

May 9 to 11 at the Sheraton Norfolk Waterfront

Trawlers, gill netters and crab boats compete with luxury yachts and pleasure craft for dock space. Marinas and seafood processing plants vie for frontage amid restaurants and waterfront condominiums. The demand for, and limited supply of, waterfront access has driven up land values and property taxes along the water. Struggling to keep up with increasing overhead costs, many established maritime

businesses have sold out and given way to residential and retail developments. Traditional access to docks and the waterfront is often lost when private property changes hands.

Commercial fishermen, seafood processors, ice houses, marinas and boat repair yards — dependent on the water to operate — suffer when access is lost. These issues are not new, but the problem is becoming more widespread.

"Working Waterways and Waterfronts 2007" is the first national conference on waterfront access designed to find solutions to the problem.

"This will be a roll-up-the-sleeves kind of conference to get at the causes of diminishing access and find constructive, equitable ways to keep working waterfronts working," says conference co-chair, Tom Murray of Virginia Sea Grant.

The conference is drawing interest nationwide and from several foreign nations as well.

According Murray, the breadth of interest in the conference shows that the challenge of preserving public access to the water is not isolated to certain U.S. regions.

"It seems that coastal management professionals, land use planners and water-dependent businesses are grappling with this issue all around our coasts and even abroad," Murray said. "It's obviously an extremely timely topic."

The three-day conference will feature presentations that will present an array of "tools" that municipalities and individual citizens can use in their home communities to protect and preserve waterfront access. Presentations will highlight case studies of successful preservation programs initiated in 14 different states from Maine to California. In addition, a panel of legal experts will discuss regulatory options

available to state and local governments.

Experts from boating, fishing and marine manufacturing industries will guide discussions on how the loss of water access affects water-dependent businesses. Invited speakers include: Thom Dammrich, president

of National Marine Manufacturers Association; Katherine Andrews, executive director of Coastal States Organization; John Dunnigan, assistant administrator of NOAA and William Hogarth, director of NOAA Fisheries Service.

Conference registration is \$325 prior to April 1 and \$375 on or after April 1. A daily rate of \$115 is also available. Registration may be completed online through the conference Web site at, www.wateraccess2007.com, or by calling the College of William & Mary Conference Services, 1-800-249-0179.

The Sheraton Norfolk Waterside is offering a special conference rate of \$94/night for single and double rooms. Hotel reservations are available directly through the hotel at 757-622-6664, please reference the conference, "Working Waterways and Waterfronts."

The conference is sponsored by national, state and local public and private organizations and agencies. For a full list of the sponsors and more information, please visit the conference Web site at, www.wateraccess2007.com, or call Virginia Sea Grant at 804/684-7167.

A TALE OF THREE CITIES

BY ERIN SEILING

Gloucester, Massachusetts, Fisherman's Wharf in San Francisco, the Fulton Fish Market in New York;
— all places with identities uniquely tied to commercial fishing. Simply uttering such names conjures up images of flourishing fishing communities filled with boats, businesses and fresh seafood — seemingly immune from the hardships that other maritime centers face.

But a closer look reveals even these industry leaders struggle to maintain their status along the waterfront in the face of a changing market.

GLOUCESTER, MASSACHUSETTS

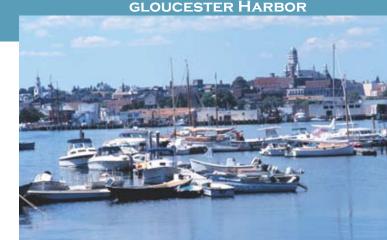
Gloucester, Massachusetts, like many New England towns, is tied culturally and economically to the sea. Early on, colonists launched small dories to gather cod from inshore waters. By the 1740s, Gloucestermen were making fishing voyages to Grand Banks, highly productive fishing grounds off of coast of Newfoundland.

"Many consider Gloucester Harbor the nations' first commercial fishing port," says Jack Wiggin, interim director of the Urban Harbors Institute of the University of Massachusetts, Boston.

"Catches of salt-cod supported a fleet of nearly 400 schooners [in Gloucester], and a multitude of shore side businesses including salt mining, ice harvesting in freshwater ponds, and a boat building industry that made the shipyards on the Essex River among the busiest and best known in the world," according to NOAA's Northeast Fisheries Science Center.

Groundfish landings spiked during the 1980s as federal regulations and increasingly efficient harvesting methods encouraged domestic harvest. Within a few short years however, stocks began collapsing one by one as overfishing took its toll on fish populations. In response, new federal regulations were developed. Designed to reduce fishing pressure and allow fish populations to recover, the regulations severely limited both the size and effort of Gloucester's fishing fleet.

"In the mid-1980s, there were 200 boats in the



FISHERMAN'S WHARF



FULTON FISH MARKET, HUNTS POINT



groundfish fleet, 80 of which were over 70 feet long," says Wiggin. "Today, only 80 boats are left, and half of those are under 70 feet. There are just far fewer draggers spending multiple days offshore. The regulations just don't support that kind of fishing anymore," he explains.

"Some vessels went elsewhere. Some of the old ones were scrapped. In 1997, 13 boats took the federal buyout," says Wiggin. And as the number of fishermen declined, a number of shore side businesses closed. "There just wasn't enough work for them to stay open," explains Wiggin.

Determined to preserve the integrity and character of the maritime industry, the city of Gloucester and the Commonwealth of Massachusetts took steps to preserve Gloucester Harbor as an industrial waterfront. Gloucester Harbor became a designated a port area, thus legally bound to maintain marine-dependent uses. Local and state regulations were put in place to prohibit the conversion of traditional maritime facilities to other uses, such as residential or retail space.

"A lot was done to help out the fishermen. It was the waterfront property owners that got overlooked [in these regulations] and who have felt the real impact," says Wiggin. While fishermen had the flexibility to pursue different seafood species, run charter businesses, or sell out entirely, waterfront support industries were severely limited in their options.

Instead of being able to sell their property to the highest bidder, waterfront industries are limited to selling only to other water-dependent uses. But, very few maritime businesses are interested in entering a declining market with such strict regulations on property use.

Many waterfront property owners are now lobbying for the right to diversify their property – selling or leasing to non-marine dependent users. The fishermen fear such diversification will lead to gentrification of the waterfront and will price water-dependent use out of the

equation.

Wiggin is working with city and state officials to find a balance that will broaden the definition of "water-dependant business" and allow more economic development along the waterfront while maintaining access for the existing commercial fleet.

"It could include things such as recreational boating and fishing, making organic fertilizer from fish byproduct, small cruises of New England or whale watching," says Wiggin.

But there is a segment of the population reluctant even to this change. They hope that groundfish stocks will rebound within the next decade and Gloucester Harbor will once again be homeport to a thriving commercial fishing fleet. They fear once waterfront access is lost, it will not be easily regained.



Boat maintenance is one of many fishery support industries in Gloucester. Processing plants, ice companies and fuel stations also rely on business from the commercial fishing industry.

Gloucester has done much to protect water access. The challenge they now face is balancing preservation with compatible development along the waterfront. And, in doing so, take care to preserve the unique culture of one of America's oldest maritime communities.

PORT OF SAN FRANCISCO: FISHERMAN'S WHARF

The Port of San Francisco began in the heyday of the California gold rush.

"In 1855, one quarter of the American population living west of the Mississippi lived in San Francisco," says William Travis, executive director of San Francisco Bay Conservation and Development Commission. "Anything and everything that came into the United States on the west coast, came in through this port," he says.

Over the years, the port has seen the rise and decline of several maritime industries. Shipbuilding and repair industries flourished during World War II as the port supported the Pacific fleet, but quickly dwindled afterwards. Commercial fishing supported nearly 300 boats during the early 1900s, fishing the Pacific for salmon, Dungeness crab, herring and rock cod. Today, the fulltime fleet numbers around 30 yessels.

But here, the decline in commercial fishing is seen as a change of the times, says Travis. Many east coast fishermen, tied to commercial fishing by heritage and tradition, have a hard time acclimating to another occupation. But, many on the west coast view fishing as just another blue collar job, says Travis. Second and third generation fishermen are few and far between.

"About one-third of [the commercial fleet] is multigenerational, but the rest of us got in the business in the 1970s and 1980s," agrees Larry Collins, a commercial fisherman in San Francisco.

During that time, the fleet fished salmon in the summer, Dungeness crab and herring during the winter, and rock cod year-round, says Collins. But most of those fisheries are now closed or heavily regulated, he explains.

"Twelve years ago they closed the rock cod fishery. Several of the Pacific salmon stocks are protected, so that limits our access to that fishery. And herring prices are way down," explains Collins. In addition, large processors have replaced the smaller processors. Now, much of the fish landed at the port is processed elsewhere and the prices are not as competitive, says Collins.

Despite the declining commercial fishing sector, the city has taken a proactive stance to protect maritime commerce. Since 1968, the port has been run by the city of San Francisco with oversight from the state. The city is committed to maintaining commercial fishing and maritime industries along the port. Cargo shipping and repair, cruise ships, passenger ferries and commercial and recreational fishing boats are balanced by tourism, and retail and office spaces along the seven and a half mile port. Commercial fishing boats are concentrated around Pier 45, nicknamed "Fisherman's Wharf."

"The biggest challenge we face today is we have a port configured for 19th century shipping technology," as a series of finger piers, which is not well-suited for 21st century use, says Travis. The city does not allow hotels, but encourages retail and office development along the piers. However, the permitting process and costly repairs needed to many piers dissuades many developers, adds Travis.

While many maritime communities shy away from tourism, San Francisco seems to embrace it. The mix of fishing and retail space near Fisherman's Wharf makes it a popular tourist destination. Pier 39, six piers away from Fisherman's Wharf, is cited as the second most popular tourist attraction in California, behind Disneyland. Collins sees tourism as a good opportunity for the local fishing fleet.

"It's a way to educate people about what they're eating and who is catching it. That's a big thing in California right now. It's important that people understand that connection between the fisherman and the product," says Collins.

Fisherman's Wharf may ultimately serve as an example to maritime communities nationwide. Food labeling is becoming more commonplace as consumers demand more information about the food they eat. It is conceivable that within time, a sector of seafood consumers will view American fishermen to be as important as the wild-caught seafood they seek out in the marketplace. Even a small increase in demand for domestic seafood would help justify the need to preserve the commercial fishing industry.

NEW YORK CITY: FULTON'S FISH MARKET

The Fulton Fish Market began in 1822; a small collection of stalls hawking food and merchandise to passengers coming into Manhattan on the nearby Fulton Ferry. Deliveries of fresh seafood were unloaded at the Fulton docks, where vendors iced, filleted and sold their catch from open-air stalls.

It was noisy. It was smelly. It was Fulton's. And it was — and still is — widely regarded as the most important wholesale fish market on the East Coast, which may explain why the market was able to hang onto its prime location despite the changes taking place in the city around it.

Located within a block of Wall Street, Fulton's was situated in an area, "many consider to be some of the prime real estate in the U.S.," says Ken Gall, seafood specialist with New York Sea Grant.

Fulton's land has long been coveted for other uses. As early as 1854, a New York City leader pondered whether, "a more advantageous disposition may not be made of that valuable property by the removal of the Fish Market."

Fulton's became increasingly out of place during the 20th century, as lower Manhattan emerged as a mecca for high-end retail.

By the 1950s, much of the seafood was delivered to the market by truck. The last boat delivery docked in 1979, thereby ending the need for the market's water access. By that time, city leaders were developing a plan to relocate the market.

"Due to both tradition and lack of space, vendors sold seafood from open stalls in all kinds of weather. Obviously, not up to industry standards," says Gall. The need to meet sanitation standards, coupled with demand for the waterfront property, lead to the decision to site the new facility off of Manhattan Island.

In November, 2005, Fulton vendors closed their stalls along the East River and moved into a state-of-the-art facility at Hunts Point in the Bronx. The new facility, built by the city, cost over \$86,000,000 and instantly brought the market up to industry standards. Despite the advantages of the new location, many vendors and city residents felt a sense of loss when the old location was closed.

Thirty seven seafood wholesale business made the move to the new facility. Other old Fulton tenants moved to different markets or closed entirely, says Gall.

"There were those that were unhappy about the move because it is a different way of operating. And, there were those that were happy and looking to the future. Today, a year after moving to the new location, there is a commitment to making it work, making it profitable," says Gall.

Charting a profitable future for local maritime industries is the common denominator for every working waterfront in the nation. No town, big or small, is immune from the challenges faced by Fulton's, Fisherman's Wharf or Gloucester. And, there is much to be learned from examining these, and other communities, to see how they have dealt with balancing new development and preserving their maritime traditions.

COASTAL CULTURE AND ITS CHANGE OF CHARACTER



THE CHALLENGE OF MAINTAINING WORKING WATERFRONTS IS NOT A FAROFF PROBLEM. AS THE NEXT THREE STORIES WILL ILLUSTRATE, TRADITIONAL FISHING TOWNS IN VIRGINIA STRUGGLE WITH THE SAME ISSUES OF BALANCING MARITIME INDUSTRY AND DEVELOPMENT. IN MANY CASES, THIS STRUGGLE IS NOT NEW.

FOR DECADES, THE ISLAND OF CHINCOTEAGE HAS WORKED TO BALANCE MARITIME TRADES WITH TOURISM AND RESIDENTIAL DEVELOPMENT. COMMERCIAL FISHERMEN ON THE ISLAND NOW MUST COPE WITH DECREASED ACCESS AND DIMINISHED WATER QUALITY AS A RESULT OF RESIDENTIAL AND TOURISM DEVELOPMENT. THE CITY OF HAMPTON, ONCE A PROSPEROUS SEAFOOD CENTER, IS LEFT WITH ONLY REMNANTS OF THE INDUSTRY THAT EARNED IT THE NICKNAME, "CRABTOWN."

NEIGHBORING NEWPORT NEWS, WHILE SUPPORTING A THRIVING SEAFOOD HARBOR, DOES NOT HAVE THE CAPACITY TO MEET THE DEMANDS OF THE AREA SEAFOOD INDUSTRY.

IF CURRENT CONVERSION TRENDS CONTINUE, THE NEW RALLYING CRY FOR VIRGINIA CITIZENS MAY NOT BE "SAVE THE BAY," BUT "SAVE THE BAY WATERMAN."

ON THE EASTERN SHORE, THE PULL OF PROGRESS MAY BE STRONGER THAN THE TIDE

STORY AND PHOTOS BY CHARLIE PETROCCI

Waves of economic influence have surged along the Eastern Shore for generations. Each emerging industry was accompanied by a surge of development to accommodate the waves of workers and

support businesses which followed. As each industry faltered, others reemerged in their stead. Industry benchmarks include: large scale oyster production, the advent of the railroad, the coastal pound net fishery of the early 20th century, an agricultural boom during the early 1920s with the white potato industry, and lumbering.

Residents and visitors alike are drawn to the Eastern Shore for its unique "sense of place," where seafood occupations strike an easy balance with small tourist attractions. However, unprecedented rates of development along the Eastern Shore have recently upset that delicate balance. Commercial and recreational fishermen find their way of life threatened by a sudden increase in residential and retail developments, tempered only recently by a flooded housing market.

Historic waterfront communities, rich in history and traditional industries are at risk of losing their cultural identity, the very thing that attracts people to the Eastern Shore. Possibly nowhere else on the Shore are the layers of coastal heritage and tradition painted thicker than in the rapidly changing island community of Chincoteague.

ABOVE: Signs of change; an abandoned crab house was once a bustling hub of activity.

A LEGACY OF LIVING OFF THE SEA

The first settlers arrived on Chincoteague in the 1690s. By the early 1800s the island was populated with about 30 families, most of whom made a living raising livestock, small subsistence farming and near shore fishing. By the late 1850s, seafood harvesting had become the dominant economic force on the island, with oysters the crop du jour.

Chincoteague has always turned to the sea for its survival. The pulse of the community was set by the tides which pulled the watermen in and out of port. So strong was Chincoteague's maritime connection that Chincoteague independently voted to side with the Union during the Civil War because island watermen and seafood dealers had already established a strong shellfish trade with New York and Philadelphia. Not wanting to risk that business connection for some far-off war, Chincoteague watermen opted to remain steadfast in their prosperous trade. Reportedly a New York City fish market hung a sign that advertised "patriotic Chincoteague oysters."



In 1876 a railroad spur ran down to nearby Franklin City, located on the Eastern Shore mainland. Shore historian Miles Barnes credits the railroad with forming the current Eastern Shore landscape.

"Forty years [after the railroad], the population of the Eastern Shore had increased by 87% and none of this growth was regulated. It virtually created the landscape that so many love today," says Barnes.

Increased access to Chincoteague fueled greater demand for local seafood and by the late 1890s the oyster industry alone contributed hundreds of thousands of dollars to the island economy. Though in later years there were other large successful seafood industries on the island including pound netting, gill netting, clamming, dragging, and even two nearby fish factories on adjacent Assateague Island, none came close to the economic importance of the oyster. Almost every citizen and business was somehow connected to oyster harvests. But the boom didn't last long and by WWII the oyster took a back seat to other seafood products.

CHINCOTEAGUE ISLAND

Along with a strong seafood industry, Chincoteague supported a healthy tourist base by the late 19th century. During that time, the Eastern Shore of Virginia was heavily promoted as a tourist destination for the leisure-elite from surrounding metropolitan areas. The extensive natural resources of the Eastern Shore, which historically provided seasonal subsistence and employment for watermen, attracted leisure sportsmen. Tourists came to hunt, fish and swim — or "fanny dunk" — the latest leisure trend of the time. The new railroad fed

LEFT: The loss of traditional waterfront businesses corresponds to a loss of craft and trades. Here, Johnny Machetti, who came to the Eastern Shore in the 1940s to fish mackerel, is mending a net, once an important trade occupation.

tourists to ferryboats which deposited them on Chincoteage to waiting island boarding houses, motels, lodges and restaurants which were developed to support the tourist boom.

When the bridge to Chincoteague opened in 1922, lines of vehicles descended onto the island. Assateague Island, once home to only some isolated fish camps, two fish factories and a handful of wild ponies, drew attention next. In 1943 Assateague became a national seashore and in 1962 a bridge connected the two adjacent islands.

Assateague Island soon became the key to the modern economic success of Chincoteague. Three major events took place in the late 20th century that still drive the economy of Assateague and Chincoteague today: the bridge to Assateague, the book Misty of Chincoteague, celebrating the wild ponies found there, and low land prices in the aftermath of the devastating 1962 Ash Wednesday storm. Inexpensive land paved the way for the development of modern motels, lodges and restaurants to accommodate droves of visi-

tors seeking to play on the wild beaches of the islands. Today well over 400,000 people visit Chincoteague Island each year, with the bulk of them making the pilgrimage during the summer months.

CHALLENGES AND CHANGES

Chincoteague, like many other popular coastal communities, faces an assortment of challenges including the loss of waterfront to development. What was once a "working waterfront" of seafood packing houses, oyster shucking houses and docks for commercial fishing boats is slowly being dissolved by development for motels, housing and townhouses. Some justifiably argue that the seafood industry is dying and reclaiming the waterfront for other purposes keeps it economically alive.

"We have been packing out boats at this dock for a long time," says Red McDonald of Chincoteague Fisheries. "We're losing a lot of our old docks to townhouses, but when people come over that bridge, they like seeing the big draggers tied up here. It makes them feel con-



ABOVE: Waterfront docks are being redeveloped throughout the Eastern Shore. Many old fish houses are being razed for townhouses or motels.

nected to the island and I think that's why a lot of these people come here," he adds. Seeing fishing boats on an island often does connect travelers to the Chincoteague "sense of place."

Other challenges brought on by development include water quality and water-based issues including waste disposal. According to the recently published Chincoteague Comprehensive Plan, sewage disposal is among the most controversial topics discussed on the island. Currently there is no central sewage or treatment center on the island. Wastewater is disposed by discharge directly into cesspools, seepage pits, holding tanks, septic tanks and drain fields. Private sewage businesses service and pump these systems at the cost to the resident. Though pathogen contamination is not yet an issue, it's important that wastewater treatment facilities and septic systems be properly maintained to treat increased effluent resulting from increasing population.

"I think water quality is a major concern here now," says Tommy Clark, waterfront restaurant owner and clam farm operator. "Water is our life here. The natural fisheries seem to be coming back and we're growing more clams in this area than ever before. So if someone wants to build on the water that's fine, as long as they have the permits and get a spray field," he adds.

Eutrophication is another concern for the waters surrounding Chincoteague with threats coming from metals, pesticides and chemical contaminants. If current population trends continue, chemicals associated with urban development may become a problem. Approximately 30 percent of the waters surrounding the island are restricted by the Virginia Department of Health, Division of Shellfish Sanitation. Though there are numerous shellfish harvesting areas around the island, the report states that there is "potential for contaminating" at this time. Thus, these bottom closures are only precautionary.

Other growing pains include diminished waterfront access and decreased aesthetics as open vistas are filled in with buildings. This past winter the Chincoteague Town Council passed an amendment to the zoning ordinance that would allow open-sided structures to be built on the ends of piers. Councilman David Ross stated he was not in favor of the amendment because there would be some instances on Chincoteague of a continuous chain of structures on the ends of piers.

"We have only a few areas left on Chincoteague where the character of Chincoteague is intact. Passing this [amendment] is certainly going to be less beneficial in terms of viewing the character of Chincoteague that we have," says Ross. He adds that the island should maintain the "openness and beauty" of the community. For most visitors and residents this is why they are here.

Judging by the amount of letters written to the editor of the island paper, *The Chincoteague Beacon*, many visitors are turned off by the multitude of signs lining the causeway and others vent about the loss of vistas around the island due to townhouse development. Several of the old time waterfront restaurants and seafood houses have been sold and developed or are currently earmarked for consolidated housing. Residents and visitors alike feel that some of the culture and charm of the island will be lost as these community denizens vanish.

Though nowhere near its glory days, seafood is still an integral part of the cultural fabric of Chincoteague. Watermen still ply the coastal bays for clam, crabs, oysters and finfish, and offshore scalloping has recently increased its presence on the island. Though the seafood industry trails far behind the island's tourism sector, it's still entrenched as an important social and economic factor in Chincoteague culture and economics.

WAVES OF CHANGE

Chincoteague is not the only Eastern Shore community grappling with development issues. Once-hidden enclaves such as Oyster, Willis Wharf and Wachapreague have recently felt the financial tug of development. A realtor's ad lures developers to the Shore region by offering a "relaxed rural coastal setting with extensive unspoiled shoreline, wide beaches, world class fishing, boating and low taxes."

Cape Charles is another good case in point. Cape Charles once rested on its laurels as the cross-Chesapeake gateway with its ferry service to Norfolk. The Bay Bridge Tunnel ended that important service and the town started to decline. In the late 1990s the upscale Bay Creek community development began to emerge and created an entrepreneurial domino effect in the area.

Now the town is becoming a popular vacation spot, with a high-end marina, golf course and extensive new housing, accommodating both part-time and permanent residents alike. The once empty storefronts along Mason Avenue are being colonized by eateries,

boutiques and other small businesses, all anchored by the resurrected Palace Theater.

There has also been a major change in the distribution of wealth. Because of the new higher-priced homes, some say Cape Charles has become a play land for the wealthy only. Others argue that low-income home

RIGHT: Scallop boats now seasonally crowd the docks along Chincoteague's waterfront. Many of these draggers are displaced shrimpers from other southern states.

owners benefit from increased land values. The town is in the midst of putting together a comprehensive plan, which will theoretically be the blueprint for development for the next 20 years or more. For its 1,200 and growing residents, there's a lot at stake.

"You almost have to have some form of growth or towns will become stagnant," says historian Barnes.

A comparison of Eastern Shore towns quickly supports that claim. Towns like Chincoteague, who long ago embraced tourism, have endured, prospered and managed to keep some maritime heritage and industry alive. While other Eastern Shore towns, reluctant to turn to tourism, struggle to stay afloat.

Residential development is the new industry sweeping through the Eastern Shore. Though not everyone welcomes the changes it will bring, community planning can chart a course that will balance new development and old traditions. But towns must act quickly, because it is evident that the Eastern Shore has been discovered — again.



Hampton Crabtown

By Erin Seiling

"We were never more merry nor fed on more plenty of good oysters [and] fish...than in the dry, warm, smoky houses of Kecoughtan." Captain John Smith, 1608.

Captain Smith, avid journalist, wrote several times of the abundant fish and seafood of the Chesapeake Bay during his travels around the region. In his writings, he notes the oysters "thick as stones" and fish so abundant he was able to spear them with his sword.

Where, then, was Kecoughtan village where Smith proclaimed to have been supplied with the most abundance of oysters and fish yet? Archeological studies have determined the 1,000 acre village was situated on the east side of the Hampton River, centered near present-day downtown Hampton.

In 1610, Governor Thomas Gates removed the native settlers from the area and by 1616, approximately 20 English settlers inhabited the village. There is evidence that the Virginia Company relied on fish and seafood from the Hampton area as a tradable product between area settlements and along the east coast.

While seafood remained a local commodity for many years, the commercial seafood industry is credited with rebuilding Hampton after the devastation of the Civil War.

OYSTERS

The oyster industry was a major economic force during the late 1800s. Watermen tonged oysters by hand from slender log canes. The distinctive canoes — outfitted with a large sail and rudder — were unique to the Chesapeake

region. Efficient and inexpensive, the canoes were used extensively by bay watermen.

A New York Times reporter described the tong fishery on the James River in that late 1870s:

"To see the oystermen balancing themselves in one of their canoes, and working with so much energy at the same time, was quite a novelty. Many of these canoes are so narrow that should a novice step into one it would almost probably be overturned; yet the oystermen work in them all day long in smooth weather, and sometimes in pretty stormy weather, and apparently keep them properly balanced without any effort."



ABOVE: Many blacks in Hampton had an established tradition as watermen, affording them a degree of economic autonomy unusual in the South.

The practice of hand tonging has changed little since then, aside from the advent of motorized boats.

In the early 1920s, 21 oyster shucking/packing houses existed in the Hampton Roads area. By the 1950s, three oyster houses dominated: J. H. Miles & Co., Inc, and the Ballard Fish and Oyster Company, both in Norfolk; and the J. S. Darling Company of Hampton.

J.S. Darling was founded in 1884 and operated along the Hampton waterfront for nearly a century. By 1915, the Darling plant processed 10,000 gallons of oysters per week, which were canned and shipped nationwide, making Hampton oysters world-famous. As much as the plant was a fixture of the community, so too was the four-story pile of oyster shell that accumulated outside the building. The shell pile became a Hampton landmark and was even featured in s 1916 issue of National Geographic. For years, the shell was crushed and used to pave roads and sidewalks in the community. Much of the shell was returned to the bay to provide beds for oyster spat, an example of early restoration efforts in the region.

Historic records from 1938 indicate that in that year, 50,000 gallons of oysters and 30,000

bushels of unshucked oysters were produced in Hampton.

RIGHT: The J.S. Darling oyster pile circa 1900. The small, dark figures atop the pile are men.

CRABS

McMenamin & Co., established in Hampton in 1878 is credited with putting the "crab" in "Crabtown," the historical nickname for the city of Hampton. Irish-born James McMenamin established his company to overcome the difficulties of transporting fresh crabmeat by processing and packing it in cans. In 1879, McMenamin perfected the canning process, which won awards in Berlin, London and Paris.

McMenamin employed 60 crab boats during the season. Boats unloaded their catch on the waterfront, where inside the plant, 350 workers —many of them women — steamed, picked and canned the meat. With these impressive numbers, the McMenamin company billed itself as "the largest plant in the world devoted exclusively to the crab industry."

McMenamin also produced seafood cookbooks that included recipes using canned McMenamin crabmeat.

Historic records from 1938 indicate that in that year, 100,000 barrels of crabs were produced in Hampton.



L.D. AMORY & CO.

Today, few of the original seafood companies remain. L.D. Amory & Co., established in the 1920s, is one of the few remaining vestiges of Hampton's "Crabtown" heyday.

Instead of specializing in one seafood product, such as crab or oysters, Amory's bought and sold a variety of products. Early on, finfish caught in the bay sustained the business. With the advent of trawlers, Amory's added a selection of offshore fish to their bill of fare. In the early 1960s, sea scallops were discovered off the coast of Virginia. Within a few years, the sea scallop fishery dominated the local seafood economy.

Today, Amory's still carries a variety of finfish and sea scallops. Their diversified product, along with "a lot of sweat equity, honesty and quality seafood," has kept Amory's in business while other seafood processors in Hampton closed, says Charlie Amory, current owner of the company. Many processors closed when fish and shellfish stocks in the bay began



declining, he explains. Crab houses, especially, suffered from a lack of local product and a lack of local pickers. Graham & Rollins, the only long-lived crab processor left in Hampton, overcame these obstacles by supplementing their product with foreign-bought blue crab meat and workforce with immigrant labor, says Amory. Amory's too, relies on imported fresh seafood to augment the supply of local seafood available.

Flexibility and hard work allowed Amory's to remain in operation. But other seafood companies in Hampton closed, leaving a lot of empty waterfront.



LEFT: Amory's Seafood is a wholesale first receiver and national distributor of seafood; boats unload on the waterfront and trucks transporting seafood depart from the opposite side of the building.

RIGHT: Bluewater Marina and Yacht Sales is across the river from Hampton University, which provides the beautiful backdrop Chris Hall describes as "Williamsburg on the waterfront."

NEW INDUSTRIES

Taking advantage of empty waterfront land during the 1960s, Chris Hall, Sr. established Bluewater Yacht Sales. In his 30+ years of operation, Hall has witnessed many changes in Hampton. Several of the surviving fishing boats and businesses located in Hampton moved to the Newport News harbor, says Hall. The remaining commercial boats relocated to docks near Amory's, which still draws in "a fair amount" of boats during the fishing season, adds Hall.

But, the rest of the waterfront has undergone an extensive revitalization effort in the last five to ten years, he says. The reduction of the city boat tax a few years ago helped draw in new pleasure craft and much of the dockage in Hampton is filled with leisure boats.

Hampton has become a very desirable place for transient boaters, attracted by the convenient dockside amenities of Hampton. Hall even refers to Hampton as "Williamsburg

on the waterfront," for the charming architecture, local restaurants, shops and museums located within blocks of the water. The local attractions and boater-friendly regulations make Hampton "one of the most desirable harbors on the East Coast, and certainly within the Chesapeake Bay," says Hall.

And the surviving seafood industry in Hampton is an integral part of the fabric of this community.

"We all want the seafood industry to be here," says Hall, "no one wants to see that go away." Commercial boats and seafood businesses docked along the picturesque waterfront help draw in visitors and add unique charm to the community. Shops and restaurants depend on tourism and with so many attractions in southeastern Virginia, any advantage is a welcome advantage. The surviving presence of commercial fishing continues to support the Hampton economy even in unintended ways.



Much of the information for this article was provided by the Hampton History museum. The museum is open Mon. - Fri. 10 a.m. to 5 p.m. and Sun. 1 p.m. to 5 p.m. Admission is \$5. For more information on the museum, visit www.hampton. va.us/history_museum.

Newport News Seafood Industrial Park: A Valuable Resource

By Erin Seiling

"Newport News used to be the real front door of the Peninsula. The ferry over from Norfolk docked here. This was the place to see and be seen. But when the Hampton Roads Bridge Tunnel opened [in 1957], the ferry went out of existence, and in many ways, so did this area of town," says Robert Bates, Harbormaster at Newport News Seafood Industrial Park. "Today, we are the back door for this area."

"The back door," metaphor works if you think of things leaving by the back door. Newport News Seafood Industrial Park, situated on a point of land at the end of Route 17, is the major commercial fishing port for the Hampton Roads area. Over 30 million pounds of seafood are landed here annually, which is then packed, processed and shipped nationwide out of this "back door."

The small port began in 1915, when the city dredged the lower portion of Newport News creek to establish a harbor, likely to support the ferry service from Norfolk. An opportunity to repurpose the harbor came in the mid-1970s when the city of Newport News donated 39 acres surrounding the harbor to establish a seafood industrial park for the benefit of local commercial fishermen.

"The harbor was charged with three objectives. First, to preserve the fishing fleet. Second to provide services to the fleet, such as

fuel and ice. And the third objective was tourism," says Bates. "There used to be a harbor tour that ran out of here," he explains, "but that's gone now."

The seafood industrial park places emphasis on supporting the commercial fishing community in Hampton Roads. The harbor supports a mix of offshore boats and smaller nearshore vessels. The boats unload their catch to four seafood packing companies and one crab processing plant housed within the port. Support services, such as fuel, ice and gear, are readily available at the harbor.

Tug companies and boat service yards are scattered among the seafood houses lining the harbor walls. Bates encourages a balance of these maritime industries within the harbor, because they provide a reliable source of income "when the fishing fleet has a down year," he says. The tug and service yards provide services that complement the objectives of the harbor without interfering or competing with the local seafood industry, says Bates.

NOAA Fisheries ranks Hampton Roads third in the nation for the value of seafood landed in 2003-2004. During the 2003-2004 fishing season, \$100.6 million of seafood was landed in Hampton Roads, which includes the ports of Newport News, Seaford and Hampton.



"Newport News Seafood Industrial Park generated \$57.6 million of the landings reported," says Bates.

Fifty six trawlers operate out of the Newport News harbor, many of which pursue sea scallops in waters from Virginia to New England. Sea scallops account for most of the seafood landed in Newport News.

"Sea scallops have become the highest value seafood product landed here in Virginia," says Bates. In 2005, the sea scallop harvest in Virginia was worth over \$84,000,000, according to the Virginia Marine Resources Commission.

Much of the harvest collected by local boats is landed at the Newport News port, although sometimes the ships offload in New Bedford, Massachusetts. But according to seafood processors in Newport News, many of the boats would rather come back to Virginia to unload.

"This port is convenient and friendly to their needs," says Terence Molloy of Chesapeake Bay Packing. "It's got all the amenities; ice, fuel, gear. They don't get that kind of welcome in New Bedford."

On March 1, the Elephant Trunk Closed Area opened for scallop harvest. This large area off the Delmarva coast holds nearly 100 million pounds of sea scallops, of which, over 15 million pounds will be harvested in 2007.

Bill DuPaul of Virginia Sea Grant says many of these scallops will be landed in Virginia ports due to the proximity of Elephant Trunk to Virginia and the fact that many Vir-

LEFT: Scallop boats fill much of the dock space in the Newport News port.

ABOVE RIGHT: The harbor has attracted boats from all over the Tidewater region, as evidenced by this rig from Hampton. Boats from North Carolina also use the port during certain seasons.



ginia vessels have traded their Georges Banks closed area trips for additional Elephant Trunk trips. Each limited access vessel is allowed three trips of 18,000 pounds each and smaller general category vessels are allowed to land 400 pounds per trip until the quota is reached. This opening will likely provide an economic boon to the Hampton Roads area.

Sea scallops may bring in much of the seafood-generated revenue for the port, but several other important fisheries also operate from the harbor.

The port enjoys an influx of boats from both Virginia and North Carolina during the flounder season. Shellfish are another lucrative fishery for the harbor. Last year, there was a strong oyster fishery in the James River for the first time in several years, according to Bates. Currently, clams are abundant just off the point and many watermen have switched to clamming this year, he adds.

Crabbing is another active fishery at the port. Inshore boats pursue blue crabs and a few years ago, offshore boats discovered Virginia also supports a red crab fishery, says Bates.

At one time, four crab processors leased land at the port. When Jim Casey arrived in 1990, that number had dwindled to two. And now, Casey's company is the only one left. Casey attributes the closures of the other crab houses to a decline in the both the blue crab catch and the pickers.

But, Casey doesn't see his business closing anytime soon. His waterfront location at the harbor has allowed him the opportunity to diversify his business.

"I've got a flow-through system set up and I'm raising live fish," says Casey.

This new business venture, initially funded by the Virginia Fishery Resource Grant Program, is proof that the seafood industrial park continues to meet the needs of the local maritime community. After 30 years in operation, the port still supports a viable maritime industry as fishing communities nationwide struggle to stay afloat.

"We are really the 'last game in town' for commercial fishing as other [Hampton Roads] cities have chosen to go the way of high-rises and tourism," says Bates. Several businesses have contacted Bates about relocating to the harbor, but "I haven't had a square foot of land to lease in ten years," he says. Bates thinks that fact alone is proof that his harbor is not only a surviving — but a thriving — working waterfront right at our own backdoor.



LEFT: Many of the seafood houses at the Newport News port process and sell sea scallops, a lucrative fishery for the Commonwealth.

ABOVE: Casey seafood is the last crab processor left at the harbor. Casey has diversified his business by adding a flow-through system for live fish. The aquaculture system was initially funded by the Virginia Fishery Resource Grant Program.

VIRGINIA SEA GRANT TECHNICAL ASSISTANCE — WATER ACCESS

BY TOM MURRAY

Maritime communities, by definition, are heavily reliant upon marine resources as the basis of the economy. Commercial and sport fishing, aquaculture, boat building and repair, and eco-tourism are all inexorably dependent upon access to healthy waters. But, cumulative impacts of growth in coastal Virginia threaten the very resources and amenities on which maritime communities rely.

Such areas are challenged to find innovative ways to promote environmental stewardship of natural resources while fostering economic development that will spur growth in household personal incomes, relocation of value-added industry, broadened tax bases and a public finance structure that is both equitable and fiscally prudent. Many maritime communities lack the resources, tools and science-based information to adequately plan for and address the impacts of rapid growth, changing populations and a declining natural resource base.

In response to this need, the Virginia Sea Grant Marine Advisory Program has worked to provide scientific expertise to regional, state and local constituencies to help communities make informed decisions on resource use. In particular, Sea Grant has engaged maritime industry leaders, who in their own way, influence the decision making processes in coastal communities. Virginia Sea Grant has focused tremendous effort in preserving local waterways and water access points and supporting economic infrastructure required by maritime industries.

Recreational boaters are a rapidly expanding user-base in the maritime community. Their increased presence in Virginia waterways means they are an important factor in decisions regarding environmental stewardship, community planning and socio-economic concerns. Recreational boaters require access via docks, ramps and waterways. Without adequate

access, demand for this growing activity would diminish along with the dollars recreational boaters pump into the economy. Similarly, commercial and sport fishermen require access to, and on, the water to ply their trade.

The demand for boating and fishing generates demand not only for access facilities but also shore side support industries. Boaters and fishers purchase services and goods from boat repair and service yards, marinas, gear and tackle stores and marine electronics distributors. Many of these industries are as water-dependent as the fishers and boaters themselves. Diminishing access to the water therefore, sets off a ripple-effect, impacting not only boaters and fishers on the water, but also the businesses that have developed to support them.

VIRGINIA SEA GRANT'S ACTIVITIES AND IMPACTS

The Sea Grant Marine Trades Program has been directly involved in enhancing public water access by providing in technical assessments and access to capital. In 2000, Virginia Sea Grant conducted a statewide survey assessing marina and boater access needs. Using the survey findings, Virginia Sea Grant was able to assist local municipalities and individuals in the private sector submit competitive proposals to obtain capital funding for boating access. Over the past seven years, Sea Grant has worked in a supporting role to Virginia's federally designated applicant agency, the Virginia Department of Health (VDOH), in competing for the U.S. Fish and Wildlife Agency's competitive Boating Infrastructure Grants (BIG) program to increase boating access in state waters. To date, Sea Grant has been instrumental in VDOH's successful efforts, securing in excess of \$3.0 million for local water access improvements under the BIG program. These successful recreational boating access projects have also

generated \$1.8 million in matching funds from local Sea Grant partners. Virginia Sea Grant's extensive outreach and educational efforts have provided guidance for the BIG program nationwide. A recent federal agency review of the BIG program noted Virginia Sea Grant's singular leadership during implementation and suggested more Sea Grant programs become involved nationwide. The completion of the baseline assessments in 2000 was a major factor in allowing Virginia Sea Grant to lead the nation in the competition for boating access funds.



ABOVE: Sea Grant has leveraged funds through the BIG project to fund numerous ventures. York River Yacht Haven used BIG funds to install under-dock oyster bags.

Virginia Sea Grant also provided regional leadership in the Atlantic Intracoastal Waterways (AIWW) Initiative of Technical Assistance, implemented on behalf of the National Sea Grant College Program and the five state Sea Grant programs from Virginia to Florida. Sea Grant initiated the coordination, planning and conduction of a meeting among Sea Grant economists, marine industry specialists and the U.S. Army Corps of Engineers to discuss the current and future use of the AIWW. Since the meeting, Virginia Sea Grant has been instrumental in supporting completion of major waterway economic evaluations in North Carolina and Florida. The evaluations provide

the needed basis for conducting federal costbenefit analyses that set priorities for waterway management.

Virginia Sea Grant continues to foster community visioning and decision-making with the goal of strengthening marine-dependent economies of coastal communities. Virginia Sea Grant's view is simply that in the coastal zone, land use is water use. Upland development decisions impact not only water quality, but also the amount and quality of water access sites available for myriad uses. Assessments of growth and development conducted by Sea Grant have provided valuable information to communities and local leaders charged with planning future development in their communities.

Similar to the technical assistance provided with infrastructure assessments, and utilizing a matching grant from EPA's Smart Growth Program, Virginia Sea Grant initiated the completion of a Geographic Information System (GIS) build-out analysis for Lancaster County, Virginia. The project, "Developing a Vision for Land Use and Waterfront Access in Lancaster County" produced a graphic representation of what Lancaster County would look like if all parcels of land were developed as currently zoned.

Residents often assume that their community's zoning regulations will protect them from inappropriate development. A graphical representation of development of all buildable land under current zoning — and how the development pattern impacts water quality and access — helps citizens to better understand the implications of existing policy. The "buildout analysis" allows the community to glimpse its future if all land is developed to the maximum extent allowed under current regulations. Lancaster County citizens now have the opportunity to use this information to participate in the upcoming dialog concerning revisions of the County's Comprehensive Plan.

As with many coastal areas transitioning from scattered rural communities to more suburban neighborhoods, Virginia localities are experiencing increasing conflicts between landside and waterside uses. Gloucester County has experienced a dramatic increase in residential waterfront development and property values in recent years while continuing to support an active, but diminishing commercial fishing industry. Escalating waterfront property values and commercial fishing industries and maritime trades are becoming increasingly less compatible. It is commonly recognized that entrepreneurs will seek business opportunities and competitive advantage when given the chance. This presents a new community development challenge within the Middle Peninsula as two successful water-dependant businesses are currently expanding and seeking entry into

the aquaculture industry and, as such, have become entwined in a waterfront use conflict debate.

The Middle Peninsula Planning District Commission (MPPDC) is taking a proactive stance in response to increasing development. With assistance from Virginia Sea Grant and the Virginia Coastal Program, the MPPDC will use GIS maps to establish baseline water use information for the York River. The GIS analysis will include historic, current and possible future uses of the land and water resources within the York River study reach and will inform future planning decisions along the Middle Peninsula. The analysis will be used to drive the policy discussion and enable local governments to identify and determine the issues and conflicts that are affecting local government's ability to make the most of their

waterfronts.

The activities outlined above are just a few examples of Virginia Sea Grant's long-standing commitment to preserving access to and on the water. These past activities have poised Virginia Sea Grant to be the national leader in organizing the national symposium on Working Waterways and Waterfronts to be held on Norfolk this May. The conference will likely spur new ideas and activities that will allow Virginia Sea Grant to continue leading efforts in protecting and preserving waterfront access within the Commonwealth.

For more information on "Working Waterways and Waterfronts 2007," please see the article on page 2.





News From The Point

Dr. William Rickards Retires

Dr. William Rickards retired in December after 25 years of service as director of Virginia Sea Grant.

Rickards began his Sea Grant career in 1971 at North Carolina Sea Grant, where he was instrumental in launching aquaculture research in the state.

"It really got us up and running," says B.J. Copeland, who was director of North Carolina Sea Grant during the 1970s. Rickards' work

with eel, trout and salmon pioneered aquaculture research in North Carolina, adds Copeland.

The Aurora lab where Rickards conducted his research was the first aquaculture facility in North Carolina, says Ron Hodson, who worked with Rickards at Aurora and was later director of North Carolina Sea Grant. Rickards was influential in securing funding for the lab, which is still an active aquaculture research

facility today. Hodson also credits Rickards with initiating aquaculture extension at North Carolina Sea Grant.

"He had an employee that worked with the community on eel farming," says Hodson. "That was the beginning of a Sea Grant aquaculture extension agent here," he says.

Rickards gave up his research in 1981 upon taking the helm of Virginia Sea Grant. The director's chair needed his "full time and attention," says Rickards. He spent much time traveling between the four institutions in the Virginia Graduate Marine Science Consortium, fostering a solid working relationship between the schools despite the physical distance separating them.

Rickards believed one of the main objectives of the consortium should be establishing a fair process for awarding Virginia Sea Grant research monies. Through his hands-on leadership, all colleges and universities in the state felt

welcome to compete for research funding.

"The institutions always felt that the selection process was competitive, but fair," says Rickards. "They knew if they put in a good proposal, they didn't need to be concerned that they wouldn't receive equal consideration [during the selection process]."

The transparent selection process awarded funds not only to the consortium institutions of Old Dominion University, William and

Mary, the University of Virginia and Virginia Tech, but also to George Mason, Radford, Norfolk State and Virginia Commonwealth University, among others. Rickards says he is proud of the high-caliber research that Virginia Sea Grant has funded at all of the participating schools.

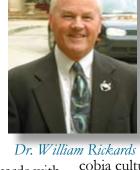
Rickards is also proud of the leading role Virginia Sea Grant played in securing aquaculture research funds in the late 1990s for

cobia culture. Rickards positioned Virginia Sea Grant to convene a meeting amongst several Sea Grant programs and private industry professionals to develop a plan for cobia research. The meeting produced a document for the National Sea Grant Office, detailing the importance of aquaculture research and a strategy for developing cobia culture.

The goal of the cobia program is coming to fruition now, as several companies are beginning commercial culture of cobia for market. Virginia Sea Grant continues to be a leader in aquaculture research within the Sea Grant network.

Rickards began his retirement by visiting his son, daughter-in-law and grandkids in Hawaii this winter and spring. Together, with this wife Betty, Rickards is contemplating a permanent move to the island.

"There's never a bad time to visit Hawaii," he says.



Virginia Sea Grant program lands at W&M/VIMS

Dave Malmquist. The Crest

The National Oceanic and Atmospheric Administration (NOAA) has designated the College of William and Mary (W&M) as the Institutional Sea Grant Program for the Commonwealth of Virginia. The program will be located at the College's Virginia Institute of Marine Science (VIMS), with an expected base budget of around \$1.4 million per year.

Sea Grant is a nationwide network of 31 university-based programs that work with coastal communities to conduct scientific research, educate and train stakeholders, and pursue extension projects that foster science-based decisions concerning the use and conservation of the nation's aquatic resources.

The Virginia Sea Grant program will focus on issues that are particularly topical to Virginia and Chesapeake Bay—including efforts to develop aquaculture for oysters and finfish, manage wild fisheries in a sustainable manner, reduce bycatch, encourage "clean marinas," and collaborate with coastal communities.

W&M President Gene R. Nichol received the letter designating the College as Virginia's Sea Grant Institution from Dr. Richard Spinrad, Assistant Administrator of NOAA's National Sea Grant College Program.

In the letter, Spinrad writes "The College of William and Mary and VIMS have earned the institutional program honor for demonstrating excellence in research, education, and public service dedicated to the environmentally responsible management and development of the nation's marine and coastal resources. The program at VIMS has clearly shown a high level of achievement. Now, as part of the Sea Grant family, it can increase its contributions to the national interest in the years ahead."

VIMS Dean and Director John Wells says "We're delighted that NOAA has chosen us as their Sea Grant partner. It's a natural fit for our mission of marine research, education, and advisory service, and will greatly complement the other federal partners that share our cam-



LEFT: William & Mary
President, Gene Nichol (right)
and VIMS Dean and Director,
John Wells (left) received the letter
designating William & Mary as
the Virginia's Sea Grant institution. Both men were instrumental
in securing the designation.
Dr. William DuPaul (not
pictured), Extension Program
Leader, is currently serving as the
interim director of Virginia Sea
Grant.

News From The Point

pus." Those partners include the Chesapeake Bay National Estuarine Research Reserve and NOAA's Chesapeake Bay Office in Virginia.

Nichol adds "We've long believed, with Dean Wells and his colleagues, that VIMS is uniquely positioned to push the boundaries of research on coastal issues and opportunities that affect the Commonwealth and Chesapeake Bay. That NOAA and the broad scientific community it represents share our view is welcome praise for our faculty, staff, and students as they continue to show us what it means to be a great public university."

Dr. William DuPaul, who leads the Marine Advisory Program, a component of Sea Grant that has been located at VIMS since 1968, will serve as the Program's interim director. He notes that the program also represents a new partner relationship with Old Dominion University, the University of Virginia, and Virginia Tech.

"William and Mary really hit a home run on this," says DuPaul. "It's quite an honor to be designated a Sea Grant institution—it's really coveted among the states. There are only 31 Sea Grant programs in the entire country. It's a big deal. It's an important program for NOAA, and for each university."

Sea Grant is based on the Cooperative Extension programs at the nation's land-grant universities, in which extension agents assist farmers and gardeners in crop selection; control of weeds, pests, and disease; and soil management.

DuPaul says that the major public benefit of Sea Grant "is that it brings good scientific information to people and businesses on the coast; to help them make better management decisions for the stewardship of our marine environment."

For instance, Sea Grant's partnership with Virginia's sea scallop industry led to a sustainable harvest plan that has helped the industry grow into the Commonwealth's largest commercial fishery, with a total economic output exceeding \$150 million per year.

DuPaul adds that Sea Grant also promotes marine literacy for the general public. "Sea Grant has a long history of bringing marine awareness to the public through extension, advisory, and educational programs. Sea Grant began efforts to build marine literacy in the 1970s and continues as a national leader in reaching industry, K-12 educators, and the public at large," says DuPaul.

The Sea Grant Marine Advisory Program at VIMS has been providing these types of advisory and educational services since Sea Grant funding first became available following Congressional passage of the National Sea Grant College Act in 1966. In fact, Dr. Bill Hargis, Director of VIMS from its founding in 1961 until 1981 (and a consultant to the National Commission on Marine Sciences and Engineering Resources during the 1960s), was one of the authors of the original Sea Grant legislation.

DuPaul says that's why "some of the language enacting Sea Grant is almost identical to the language in VIMS' mandate in the Code of Virginia. Bill Hargis was the one who was writing a lot of this back when Sea Grant was being drafted."

As interim director, DuPaul looks forward to advancing stewardship of Virginia's coastal, estuarine, and marine resources.

"Sea Grant is a highly respected federal program that has a very successful track record in helping the fishing industry, coastal communities, and the public to manage and utilize marine resources more effectively," says DuPaul. "We're excited to now be leading that charge in the Commonwealth."

The Crest is a newsletter produced by the VIMS Communications department covering events relevant to the VIMS community. For more information on The Crest, visit www.vims.edu/newsmedia/crest. html.

Chesapeake Bay Governor's School – Warsaw Wins 2007 Blue Crab Bowl

For the third consecutive year, a team from Chesapeake Bay Governor's School – Warsaw won the Blue Crab Bowl. Grafton High School from Yorktown placed second, Bishop Sullivan Catholic High from Virginia Beach placed third and Chesapeake Bay Governor's School – Glenns placed fourth.

Coached by teacher Angela Gauthier, the winning team included: Luke Bessler, Lancaster

High School; Jonathan Lee, Essex High School; and Anna Pillow, Ben Berghuis and John Andrew Harbin of Rappahannock High School. In addition to a distinctive Blue Crab Bowl trophy, the first place winners receive an allexpenses paid trip to the National Ocean Sciences Bowl (NSOB) to be held April 28-30, at Stony Brook University on Long Island, New York, where they will face off against 24 other regional champions.

Nearly 80 students competed in the 10th Annual Blue Crab Bowl hosted by VIMS in late February. A field of 16 teams, representing 14 Virginia high schools spent the day in heated competition, testing their knowledge of the oceans and marine sciences. Using questions designed by marine scientists, the round-robin, double elimination contest tested students' knowledge of oceanography, geology, biology,



Left to right: Luke Bessler, Anna Pillow, Jonathan Lee, Ben Berghuis and coach Angela Gauthier

and maritime history. Guided by their teacher coaches, students broadened their awareness and understanding of the oceans as they prepared for the competition. The Bowl provides a forum for students who excel in math and science to receive regional and national recognition for their diligence and talent.

The Blue Crab Bowl, now in its 10th year, is a cooperative effort between the Virginia Institute of Marine Science, College of William and Mary, Virginia Sea Grant, and the Old Dominion University's Department of Ocean, Earth, and Atmospheric Sciences and Center for Coastal Physical Oceanography. More than 70 faculty, staff and graduate students from both institutions donated many hours of their time for the event. Virginia's contest was among the inaugural marine science bowls started in 1998 as part of a project celebrating the International Year of the Ocean.

The Blue Crab Bowl is the Virginia regional competition of the National Ocean Sciences Bowl (NOSB). NOSB is a program of the Consortium for Oceanographic Research & Education (CORE) in Washington, DC. In partnership with the National Marine Educators Association (NMEA), CORE seeks to interest students in ocean science as a college major and potential career.

