

The Point Walk



Gloucester Point Beach Park

a *Chesapeake Bay Gateway* is one of your entry points to enjoy and learn about the places and stories of the Chesapeake and its watershed. The 64,000 square mile Bay watershed is a complex ecosystem. Home to over 15 million people, it has supported human occupation for 13,000 years. The Bay's natural abundance has fed multitudes, fueled rich economies and nurtured diverse cultures. You can explore this and other places in the Gateways Network at www.baygateways.net to experience the Bay's stories, spirit and mystery. Learn about the Chesapeake Bay restoration effort and how you can contribute. Our well being and the Bay's health are interdependent.

Birds at the Point

Over 200 species of birds visit Gloucester Point on an annual basis. The Beach Park is one of eight locations in Gloucester County recognized as part of the Virginia Birding and Wildlife Trail. Trail guides are available at the County Visitor's Center and from the Virginia Tourism Corporation at 1-866-VABIRDS. Bird lists are also available at the Visitor's Center, 6509 Main Street, Gloucester.



Gloucester Parks, Recreation & Tourism
6467 Main Street
Gloucester, VA 23061
804-693-2355





The Bay

The Chesapeake Bay is America's largest estuary. An *estuary* is a mixing bowl of fresh & salt water & provides a nursery for hundreds of species of wildlife. Over 2,700 species of plants & animals make the Bay home & more than 15 million people live along its shores & tributaries.

It is nearly 200 miles long with a water area equal in size to the states of Rhode Island Delaware combined (2,500 square miles). The Bay drains additional land equal to the combined area of the states of Virginia & West Virginia (64,000 square miles). The watershed includes Delaware, District of Columbia, New York, Maryland, Pennsylvania, Virginia & West Virginia.

The Chesapeake is one of America's most important waterways. Shipbuilding & other heavy industry has been located here since Colonial times. The Bay has provided a food source since before the American Indians & we continue to enjoy its bounty today. Agriculture has flourished from the days when tobacco passed through Gloucestertown, utilizing the waterway for sea borne transportation of products. Coal, mined in the Appalachian Mountains, is transshipped through Norfolk & Newport News to countries throughout the world. Over 90 million tons of imports & exports pass through the Bay's major ports in Baltimore & Hampton Roads annually. Nearly 50 military establishments, representing every branch of service, are located in the region.

Tourism provides another important modern industry around the Bay. Recreation pursuits of bird watching, fishing, hunting, boating & camping are popular throughout the area. Historic sites such as Jamestown, Williamsburg, Yorktown, Washington DC, Baltimore, Antietam, Gettysburg & Appomattox are all within the reaches of the Chesapeake Bay.

Tremendous forces have been at work changing the Bay. The impact of human influence has not always been positive & recent efforts to improve the Bay is the mission of numerous government & public organizations. *Save the Bay* should be the rallying call of all citizens.

1 * Virginia Institute of Marine Science

VIMS is a unique establishment in Virginia. Its three-part mission is to provide education, research & advisory services to the marine science community.

VIMS is one of five graduate schools of the College of William & Mary. The facility here at Gloucester Point is the main campus with satellite facilities located on the Eastern Shore & on the Rappahannock River.

The Gloucester Point campus is located on the heights above the beach & on the up-river side of the Coleman Bridge. Because of continuing research, most facilities are closed to the public, though Open House & educational activities are held during the year.



VIMS' research extends from inland watershed to open ocean with emphasis on coastal & estuarine science. Major research units include the Aquatic Breeding Center, the Center for Coastal Resources Management, the Chesapeake Bay National Estuarine Research Reserve & the Sea Grant Marine Advisory Program.

Scientific information is provided to the government & public at all levels about management & conservation issues. Services have found audiences well beyond the borders of Virginia in the national & international arenas.

2 * Beach Grasses Save Dunes

Though the dune along Gloucester Point Beach is relatively small, it helps prevent tides from flooding park facilities. Vegetation holds the sand in place & is critical to maintaining the stability of the dune. In 2003, Hurricane Isabel's storm surge completely removed the dune & buried any vegetation on the beach, except a few small Red Cedar (*Juniperus virginiana*). Following the storm, sand that had washed up into the park was used to restore the dune & American Beach Grass (*Ammophila breviligulata*) was planted. Beach grass is capable of flourishing in poor soil with a high salt content & survives being continually buried by sand. The plant sends out rhizomes (underground stems) where new shoots form. A single beach grass plant can spread horizontally up to ten feet annually.



When replanted by volunteers in March of 2004, the

beach grass was the only vegetation visible on the dunes. Sand fencing was erected to protect the new grass areas during its formative stage. Several other plant species, including blackberry (*Rubus allegheniensis*), Queen Anne's Lace (*Daucus carota*) & prickly pear cactus (*Opuntia erinacea*), emerged on the dunes.

3 * Mother Nature Comes Calling

Gloucester County is subjected to numerous storms throughout the year — the most destructive of which are low pressure systems with their counter clockwise wind rotation. The Tidewater area can experience a “Nor’easter” at anytime of the year, when the center of the low stays off shore. The strong winds from the northeast can be particularly destructive to east facing beaches, including Gloucester Point. The fetch (the distance the wind can blow unimpeded) is nearly 30 miles for easterly winds at the Point. Shore erosion is common during a Nor’easter.



The most powerful North Atlantic low-pressure systems, hurricanes, generally form in the warm waters of the tropics. Hurricane season in Virginia is June 1 thru December 1. Destruction from these systems comes from flooding, high winds, beach erosion & the storm surge. Storm surge occurs when the water is pushed toward shore by the wind & increases the level of normal tides.

Historically, nine out of ten hurricane victims lose their lives to storm surge. Modern weather forecasting has greatly reduced the loss of life from tropical storms in the United States.

On September 18, 2003, Hurricane Isabel (a category 2 storm) made land fall on the Atlantic Coast. Though the storm had lost some of its higher winds, the

destruction in Tidewater was significant due to heavy rains & in the case of Gloucester Point Beach, the storm surge. Longtime residents



compared the destruction caused by Isabel with the Chesapeake-Potomac Hurricane of August, 1933, when the storm surge was recorded at nearly 10 feet above normal low tide. Isabel’s surge was only a couple of inches less than the 1933 level. In the National Weather Service’s post-storm report, it was noted that Isabel “...will be remembered for the greatest winds & storm surge in the region since Hazel in ‘54 & the 1933 Chesapeake-Potomac Hurricane, the most extensive power outages ever in Virginia & permanent change to the landscape from the fallen trees & storm surge.”

4 * Underway—the Only Way

The Coleman Bridge is transited often by US Navy & Coast Guard ships enroute to the Yorktown Naval Weapons Station & Cheatum Annex of the Naval Supply Depot. The vessels primarily load & unload ammunition while along side the “U” shaped pier at the Weapons Station. Commercial traffic proceeds to the paper mill in West Point.

The Naval Weapons Station was established in 1918, comprises over 20 square miles of York County, & shares 14 miles of York River waterfront with the National Park Service. It was the largest naval

Class	Length	Speed	Crew	Built	Weapons	Mission
Ticonderoga (Cruiser)	563'	30+	374	1981-94	2- 5" guns, CIWS, Standard Missile, Harpoon	ASUW, AAW, ASW
Burke (Destroyer)	504'	30+	341	1991-	5" gun, CIWS, Standard Missile, Tomahawk, Harpoon	AAW, ASUW, ASW
Spruance (Destroyer)	563'	30+	353	1975-82	5" guns, CIWS, Harpoon	ASW
Perry (Frigate)	445'	29	215	1976-88	76 mm, Standard Missile, Harpoon	ASW
LSD (Dock Landing Ship)	609'	20+	854	1983-98	CIWS	Amphibious Warfare
Hamilton (WHEC)	378'	28	174	1967-72	76 mm	LE, SAR
Bear (WMEC)	270'	20	100	1984-90	76 mm	LE, SAR

Definitions of weapons and missions: Guns—5" or 76 mm (3"), Standard Missile—anti-air missile, Harpoon—ship to ship missile, Tomahawk—ship to shore long range missile, CIWS—Close in Weapons System (Gatlin gun or missile system), AAW—Anti-air Warfare, ASUW—Anti-surface Warfare, ASW—Anti-submarine Warfare, LE—Law Enforcement, SAR—Search and Rescue.

installation in the world when established. The Station provides logistics, technical, supply & related services to the ordnance of the US Atlantic Fleet, Coast Guard & some foreign naval vessels. A 1998 consolidation of units also brought the Naval Supply Center at Cheatum Annex, further up river, under the Commanding Officer of NWS which now hosts 25 commands.

Perhaps you will see one of these ships transiting the bridge. Most common visitors are Ticonderoga-class cruisers, Arleigh Burke-class guided missile destroyers, Spruance-class destroyers & Perry-class frigates — all used to protect shipping against warships, submarines & enemy aircraft; various amphibious dock landing ships — used to land Marines on foreign shores; & Hamilton-class high endurance & Famous-class medium endurance Coast Guard cutters — used for offshore patrols for homeland security — intercepting drugs, aliens & other threats as well as military, search & rescue missions & humanitarian operations.

5 * View from the Point

From this point, you can view the York River from the Cheatum Annex on the right (up river) through the Yorktown waterfront to the mouth of the Chesapeake Bay on the far left. Points of interest in a counter-clockwise direction beginning on the extreme right:



- Cheatum Annex (Naval Supply Depot)
- Naval Weapons Station
- Coleman Bridge
- Yorktown Waterfront
- Victory Memorial
- Coast Guard Training Center & Navy Fuel Pier
- Dominion Virginia Power Plant
- British Petroleum Refinery
- Goodwin Islands Preserve
- Chesapeake Bay
- Guinea Point
- Sarah's Creek

Virginia Institute of Marine Science
The York River has a deep natural channel. The Point has diurnal tides — meaning that on a normal day, we will observe two low & two high tides.

Dangerous currents are created as the water in the broad expanses of the river above & below the Coleman Bridge funnel through the narrow gap between the Point & Yorktown. The movement of water can be observed as it eddies around the abutments of the Coleman Bridge.

6 * Harvesting Nature's Bounty

Since before the arrival of European settlers, residents of Gloucester have been harvesting the bounty of the Bay. The Bay is home to over 2,700 species of plants & animals. Species of commercial interest are blue crabs, oysters, clams & numerous fin fish.



Improvements in fishing techniques, manmade changes to the watershed, natural diseases & other factors have changed the complexion of the Bay & the life led by the watermen.

Besides a source of food, oysters (filter feeders) are critical to the health of the Bay. In Colonial times, oysters could completely filter all the water in the Bay in three to four days, today it takes a year. Around 1900, over 17 million bushels of oysters were harvested in Maryland & Virginia annually. By 1993, the total harvest was less than 200,000 bushels. The decrease in filtration has increased the development of zooplankton & their predators, jellyfish. This change to the Bay, the loss of oysters, is painfully obvious to many beach swimmers during the summer if they encounter jellyfish.

With a population of more than 15 million people in the watershed, the resilience of the Bay has been severely stressed. The states in the watershed have committed to improve the quality of the Bay through the Chesapeake Bay Act. Pollution from human & animal waste products & fertilizers are two areas of particular concern in efforts to restore the Bay. Guidelines for the reduction of pollutants have been developed in conjunction with state & local authorities. The proper use of fertilizers, restoration of wetlands & establishment of riparian buffers (trees & shrubs along

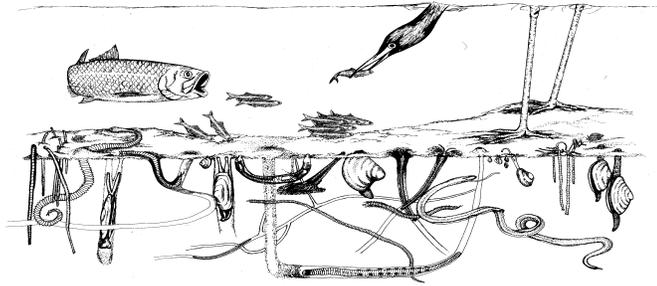


stream banks) will provide tremendous benefits to local areas & the entire Chesapeake Bay system.

7 * What Wetlands Do For You...

The wetlands of the

Chesapeake Bay are Mother Nature's nursery.



The balance of water, soil, plants & animals worked together for centuries to develop the Bay that European explorers found at the end of the sixteenth century. Europeans, & then Americans have strived since the 1600s to control & exploit the Bay & its watershed. Human actions, land use & expanding population have pressed the natural resources of the area to the limit.

Wetlands in the York River basin are primarily marshes. The dominant visible plants are grasses, while trees dominate swamps. Critical to all wetlands is what is happening along the bottom, an area we may only see at a low tide.

Bottom dwelling (Benthic) communities feed on decaying plant material from the marsh & then provide food for many other species — including commercially important ones such as blue crab, spot & croaker. Benthic communities also mix the sediment & filter the water as they burrow & feed. This "bioturbation" process helps degrade pollutants. The abundant food supplied in the wetland cord grass marshes is frequently used by wildlife & shorebirds, like the Great Blue Heron. Permanently flooded "sub-aqueous" areas are also important components of the estuarine ecosystem. These sand & mud flats are the preferred habitat for a variety of bottom-dwelling animals including clams, mussels, snails & worms.

Manmade wetlands, like the VIMS Teaching Marsh, function similar to natural wetlands but are easily viewable. Fresh water enters the marsh from the bridge retention pond & eventually mixes with the salty waters of the York River. The rocks stabilizing the channel banks allow the water/mud/sand solution from the tidal inundation to slowly dewater over time & prevent solids from reentering the York River through runoff.

Wetlands are truly an important asset to our ecosystem!

8 * Virginia's First Shots in the Civil War

It was recognized that Gloucester Point was one of the keys to Virginia's riverine defense. The Point had been continuously fortified since 1667 when a fort was built on the heights to repel expected Spanish & Dutch attacks. With the weapons of the time, this narrows in the York River protected the approach to both Richmond & the upper York River from naval assault.

About three weeks after the shelling of Fort Sumter in South Carolina, the first shots of the Civil War in Virginia were fired at Gloucester Point. On May 3, 1861, the Union vessel *USS Yankee* sailed up the river to investigate activity on the Point. It 'demonstrated' against the Confederate forces fortifying the site. The Richmond Howitzers stationed at the Point returned fire & the *Yankee* withdrew to the mouth of the river. The First Battle of Manassas, which many people recognize as the opening action of the war in Virginia, did not happen until July 21, 1861.

Three weeks after the *Yankee* incident, on May 23, 1861, Gloucester County voted with other Virginians to secede from the Union. The vote tally was 860 to 1 in favor of secession.



In 1862, Union forces were massing for a march on Richmond. General Magruder, of the Southern army, formed a defensive line from Yorktown to Williamsburg, with batteries at Gloucester Point, to protect his left flank. When the rebel forces withdrew toward Richmond in early May, Union forces occupied the fortifications & held them throughout the war. Hot air balloons were used for the first time during this action, by both forces, in a surveillance role. Union forces were content to occupy the Point & no significant movement was made into the rest of Gloucester County. Small skirmishes throughout the county continued until the end of the war on April 9, 1865.

Portions of Civil War era fortifications are still visible at Tyndall's Point Park & on the VIMS property. A monument to Gloucester's Civil War dead is located in the Colonial Court Circle, Main Street.

9 * Freedom is Won

The Battle of Yorktown was the final military action

of the American Revolutionary War. The first engagements of the War were at Lexington & Concord in April of 1775. Following the June, 1776, Battle at Bunker Hill, George Washington was named the commander of the American Army. After five years of fighting in New Jersey, New York & Massachusetts, the British changed their focus to the southern front of South Carolina early in 1780. After a series of battles & military setbacks, Lord Cornwallis, the British commander, withdrew north to Virginia. His army of approximately 7,500 men settled in Yorktown, with a contingent at Gloucester Point, to await support from New York. The French fleet, under the command of Comte De Grasse, fought the British relief fleet off Cape Henry (Virginia Beach) beginning on September 6, 1781. Though the actual battle, ending on September 8, was a draw, the French retained control of the entrance to the Chesapeake Bay & the British ships retired to New York, unable to provide reinforcements or evacuation for Yorktown. General Washington brought his forces from the New York area & the combined American & French army began a siege of Yorktown on October 7, 1781.

During the siege of Yorktown, a French force supported by colonial militia (nearly 3,000 men) encircled British forces lead by Colonel Tarleton at Gloucester Point. One significant engagement took place on October 3, 1781, when the British forces conducted a food gathering mission into Gloucester County, were overtaken by an Allied force & the 'Battle of the Hook' followed. During the battle, Colonel Tarleton was nearly captured when his horse was killed. The skirmish, which took place a couple of miles north of here, was the largest cavalry battle of the war. The bottling up of British forces at the Point & siege in Yorktown, cut off Cornwallis' supplies of food for both men & horses.

General Cornwallis had hoped to evacuate his troops in Yorktown through the Point, but a strong storm during the night, made ferrying the troops & escape impossible. With only a portion of his



troops in Gloucester & day breaking, he decided to consolidate in Yorktown. Two days later, he was forced to surrender his forces & inform General Clinton of his action.

"I have the mortification to inform your Excellency that I have been forced to give up the posts of York & Gloucester & to surrender the troops under my command, by capitulation, on the 19th instant, as prisoners of war to the combined forces of America & France." Lt. General Charles Marquis Cornwallis

10 * To Get to the Other Side

Since Colonial times, travel across the York River at Gloucester Point has been an important part of daily life — during peace & in war. Nathaniel Bacon crossed the York at this point during his rebellion against the Royal Governor in 1676 & Lord Cornwallis intended to evacuate his forces in Yorktown across these narrows in 1781.

A 1930s AAA guide for travel from Canada to Florida via Washington, Yorktown & Virginia Beach, identifies Federal Route 17 as one of the main arteries of North-South travel. It lists over 30 points of interest along the route. The guide also provides a schedule for the Gloucester-Yorktown Ferry. The ferry ran every half hour between the hours of 8 AM & 10 PM. The fee was \$.50 for car & driver & \$.15 for each additional passenger.



Gloucester Point Ferry Terminal—1940

Until the middle of the twentieth century, ferries were the only method of making the transit. In 1952, the two-lane Coleman Bridge was opened to traffic. When built, it was the longest double swing bridge (3,750 feet) in the world & is still the longest in the United States. A toll of \$.50 was collected from 1952 until 1989. The bridge served for more than forty years before being expanded when traffic loads had reached more than twice the bridge's design capacity. A replacement



Coleman Bridge after 1995

bridge was built in Norfolk in 1995. It was barged to the site, put in place & made serviceable in nine days. It was the first time a bridge of this size had been floated into place, essentially ready for traffic.

The new bridge is three times wider than the original, but weighs only 25% more, due to the use of lightweight high-strength steel. The two main river piers contain mechanisms which lift the swing spans to different levels during openings so they don't hit each other. The replacement bridge cost nearly \$77 million, over eight times the cost of the original.

11 * Port of Call

Gloucester Point's geographic location has always been the County's tie to the Chesapeake Bay & beyond. In 1707, Gloucestertown was laid out above the thriving tobacco port at the Point. In the days before the extensive road systems we take for granted, travel by water was the preferred method of getting about. Goods & people moved up & down the Bay on sail & then steam vessels.



Gloucester's prominence in the daffodil trade in the late 1800s was due to the rapid shipping available through water borne transportation. This trade is celebrated annually at the Daffodil Festival.

Gloucester Point Beach Park offers one of the best public boat landings on the York River, between West Point & the Bay.

NOAA Infra-red satellite observation of United States East Coast from Sandy Hook, NJ to Morehead City, NC.



Photographs & graphics used in the completion of the Point Walk interpretive panels were provided by:

Virginia's First Shots In the Civil War
The Virginia Historical Society, Richmond, Virginia
To Get to the Other Side
Virginia Department of Transportation, Richmond, Virginia
Port of Call
The Mariner's Museum, Newport News, Virginia
Mother Nature Comes Calling
National Oceanic & Atmospheric Administration, Washington, DC
What Wetlands Do For You
Virginia Institute of Marine Science, Gloucester Point, Virginia 7/10 drc

We invite you to
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for history, for beauty, for fun!



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