

# TOWN OF ONANCOCK

## TOWN PROFILE

The Town's port was founded to collect tax on tobacco and other products exported from Accomack County. In 1680, the Act of Cohabitation set aside 50 acres at the head of Onancock Creek for development of a town center. This area was called Port Scarborough, but was quickly changed to Onancock. Accomack's county seat was located here until 1693 when a new courthouse was built in the nearby Town of Accomac. The Town was a major port on the Eastern Shore allowing access to Baltimore's markets. The Town declined after 1884 when the railroad was built further inland (Onancock Town Plan, 2004). Today, the Town includes 665 acres (just over a square mile) and is a residential center, service area and small active port with 95 business establishments, many in its old downtown (2008 Zip Code Business Patterns).

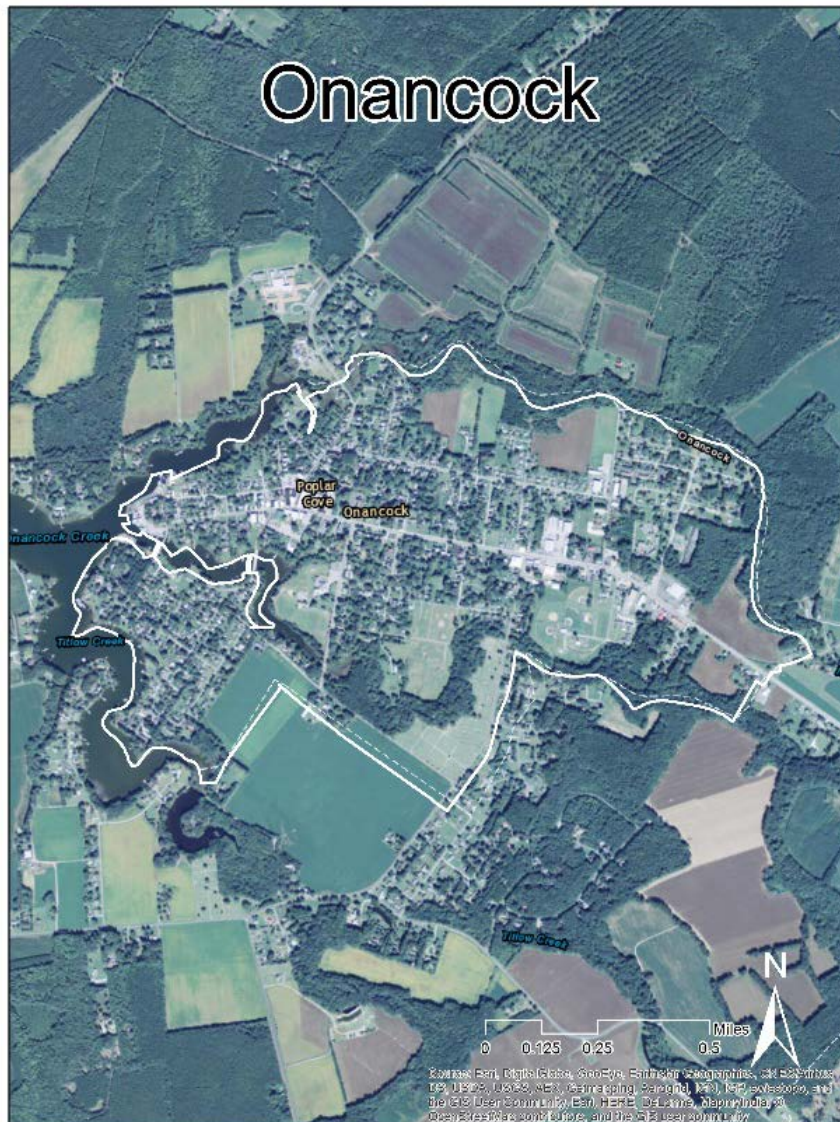


Figure 1 : Onancock Satellite Imagery

## SOCIO-ECONOMIC

Part of assessing hazards in relation to their risk is understanding the people affected. Not all people are affected equally. Some are affected by the factors that relating to their ability to understand risks posed by hazards, and some by their ability to remove themselves from harm’s way. Those factors include age, mobility, income and the languages individuals speak and the languages in which individuals are able to access information.

### DEMOGRAPHICS

The 2010 Census indicates that the Town had a population of 1,263, which is a 17.2% decline from the 1,525 people that lived in the Town during the 2000 Census. The most recent American Community Survey estimate from 2014 has the population at 1,226. The median age for residents in 2014 was 51.6, signifying an older population than the national average.

*Table 1 : Onancock Demographic Information*

	2014***	2013**	2010*	2000****
<b>Population</b>	1,226	1,381	1,263	1,525
<b>Median Age</b>	51.6	50.1	51.1	45.3
<b>Disability</b>	101	73	NA	NA
<b>Income</b>				
Median Household Income	\$39,927	\$40,313	\$41,372	\$28,214
Poverty Level	30.1%	25.6%	21.2%	NA
<b>Language</b>				
Only English	92.7%	94.7%	93.5%	94.0%
Other	7.3%	5.3%	6.5%	6.0%
Spanish	0.3%	0.9%	6.3%	4.1%
Ind-Euro	6.6%	4.2%	0.2%	0.8%
Asian	0.0%	0.0%	0.0%	0.1%
Other	0.3%	0.2%	0.0%	0.0%

\* U.S. Census 2010, \*\* American Community Survey 2009 – 2013, \*\*\* Annual Estimates of the Residential Population: 2010 – 2014, \*\*\*\* U.S. Census 2000

### WORKFORCE

Employment patterns are important to examine for two reasons. They can help to identify concentrations of people for hazard information dissemination or hazard rescue and evacuation. Additionally, they can identify where disruptions in employment and income might occur in the aftermath of a disaster.

The majority of the work force in Onancock work in educational, health care, and social services. They also work in retail trade, reflective of the downtown retail area, and manufacturing due to the close proximity of various industrial poultry plants nearby. Following an emergency situation that caused significant negative impacts to the tourism industry, the rebound for the Town would most likely also be negatively impacted. However, the significant amount of the workforce employed in education, construction, professional services, utilities, and more would be in high need and thus the negative impact would hopefully be lessened.

*Table 2 : Onancock Workforce*

Civilian Employed Population						
Industry	2014*		2010*		2000**	
	Count	Percent	Count	Percent	Count	Percent
Agriculture, forestry, fishing/hunting, or mining	15	3.0%	16	2.2%	11	1.8%
Construction	21	4.2%	72	10.0%	36	6.0%
Manufacturing	91	18.1%	88	12.2%	86	14.3%
Wholesale trade	6	1.2%	47	6.5%	51	8.5%
Retail trade	49	9.7%	76	10.6%	81	13.5%
Transportation and warehousing, and utilities	5	1.0%	27	3.8%	11	1.8%
Information	10	2.0%	11	1.5%	16	2.7%
Finance, insurance, real estate, and rentals	37	7.4%	22	3.1%	24	4.0%
Professional, scientific, waste management	37	7.4%	47	6.5%	37	6.2%
Educational, health care, social services	143	28.4%	126	17.5%	131	21.8%
Arts, entertainment, recreation, food	48	9.5%	94	13.1%	42	7.0%
Public Administration	33	6.6%	73	10.2%	48	8.0%
Other	8	1.6%	20	2.8%	26	4.3%
<b>TOTAL CIVILIAN EMPLOYED POPULATION</b>	<b>503</b>	<b>-</b>	<b>719</b>	<b>-</b>	<b>600</b>	<b>-</b>

Source: \* American Community Survey, 2010 – 2014, \*\* U.S. Census 2000

## BUSINESSES

Business data provides basic information used in projecting potential economic losses from business and employment disruption, along with wage losses to employees. It can also serve as an indicator of community recovery resources. Finally, it can help to prioritize restoration of utility and infrastructure functions following a high-intensity hazard.

Onancock is one of the few incorporated towns in the region that has an entity responsible for increasing the success of the community in order to enhance the quality of life for the citizenry. The [Onancock Business & Civic Association](#) fills this role and is an excellent resource for new residents, entrepreneurs, and information about businesses in the Town.

Onancock was once an active maritime shipping center for locally grown produce. Though it remains an active maritime port of seafood landings and commodity imports, the rail and truck shipping industry supplemented the transport of locally grown produce. The majority of Onancock’s industry focuses on retail and commercial areas. There are also construction and food services throughout Onancock.

*Table 3: Onancock Business Types*

Industry Code Description	Total Establishments		
	2013	2011	2009
Agriculture, Forestry, Fishing and Hunting	1	1	1
Construction	12	10	11

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Industry Code Description	Total Establishments		
	2013	2011	2009
Manufacturing	2	1	1
Wholesale Trade	1	2	2
Retail Trade	14	11	14
Information	4	4	4
Finance and Insurance	5	4	4
Real Estate and Rental and Leasing	7	6	8
Professional, Scientific, and Technical Services	8	11	10
Management of Companies and Enterprises	1	1	1
Administrative and Support and Waste Management and Remediation Services	3	4	5
Health Care and Social Assistance	9	9	9
Arts, Entertainment, and Recreation	2	4	4
Accommodation and Food Services	10	10	8
Other Services (Except Public Admin)	11	14	14
<b>Total, All Establishments</b>	90	92	96
<b>Total Employees</b>	590	518	533

Source: Census Zip Code Business Patterns, 2013

## BUILT INFRASTRUCTURE

Housing units, community facilities, and transportation are all important factors when considering hazard resiliency. They provide the social services necessary during hazardous scenarios, safe cover for those wanting to stay, and a way to leave towards safety.

## HOUSING UNITS

Knowledge of a community's housing base contributes to hazard and vulnerability analysis by identifying how many homes are at risk. Vehicles available to households is one indicator of a household's ability to evacuate when necessary. The Town of Onancock does have some higher density, multi-family accommodations on the northwest area of town. During educational outreach, these areas would be well-suited for additional focused attention.

The trend revealed in Table 4 below show a steady increase in the number of total housing units in the Town. The majority of these units are single-family housing and are owner-occupied. The presence of substandard housing in Onancock has been greatly reduced the last 40 years. There is still a presence of some substandard houses that have peeling paint, leaking roofs, and windows and doors in disrepair (*Onancock Town Plan, 2004*).

*Table 4: Onancock Housing*

	2014*	2010**	2000***
<b>Total Housing Units</b>	794	753	733
Occupied	649	594	656
Vacant	145	159	77
<b>Owner-Occupied</b>	394	350	411
<b>Renter-Occupied</b>	255	244	245
<b>Median Housing Value</b>	\$183,000	NA	NA

\* American Community Survey, 2010 – 2014, \*\* U.S. Census 2010, \*\*\* U.S. Census 2000

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## TRANSPORTATION

Market Street (Route 179) serves as Onancock’s primary street, and provides a direct route in and out of the Town to Highway 13. Other major roads in Town include Hill Street (Route 179), Liberty Street, and North Street. Hill Street connects to communities from the South such as Cashville, East Point, and Pungoteague. The most active internal collector roadways in Town are Kerr Street and Boundary Avenue. VDOT maintains approximately 75% of the Town’s roadways, with the Town maintaining the remaining 25% (*Onancock Town Plan, 2004*).

STAR Transit offers weekday bus service to Chincoteague and Cape Charles, with stops to all major communities, shopping centers, health care facilities, and government offices. The seasonal Tangier Ferry offers regular service to Tangier Island, and offers foot passengers and bicyclists the opportunity to connect to other boats travelling to Reedville, Virginia and Crisfield, Maryland (*Onancock Town Plan, 2004*).

**Table 5: Onancock Vehicles Available Relative to Households**

Vehicles Available	2014*	2010**	2000***
None	94	105	95
One	284	274	256
Two	172	218	200
Three or more	99	118	100

\* American Community Survey, 2010 – 2014, \*\* American Community Survey, 2006 – 2010, \*\*\* U.S. Census 2000

Individuals with personal vehicles can most often more easily remove themselves and their families from harm’s way in the case of an emergency. As of 2014, about 15% of the Town’s occupied residences are without even a single vehicle according to Table 5 above.

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## COMMERCIAL AREAS

Commercial activity in the Town is concentrated in three areas along Market Street. The first is concentrated along Market Street and clustered into three distinct areas, separated from each other by residential land uses. This commercial area is referred as the “business highway” area and includes a laundromat, car service stations, and other businesses. The second commercial area is the downtown area located farther west on Market Street. This is the Town’s “Main Street” and is characterized by one-story and two-story brick buildings. Commercial activity in this area consists of local government administrative offices, services and retail shops, and offices. The third area of commercial activity is located on Onancock Creek, known as the Onancock Wharf. Commercial uses include retail stores, a sand and gravel loading area, an oil company, a seasonal ferry service, and commercial fishing operations.

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## COMMUNITY SERVICES AND FACILITIES

Community facilities comprise all the public services and facilities provided by the Town to all residents. Those services include public water and sewage treatment facilities, police and fire departments, wharf, parks and recreation facilities, and solid waste management.

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## PUBLIC SAFETY

The Town employs five full-time police officers, headquartered at the police station on North Street next to the Town Hall. Fire protection and rescue service is provided by the Onancock Volunteer Fire Department, Inc. The volunteer fire department serves the Town of Onancock and the outlying areas of Deep Creek, Chesconessex,

## Town of Onancock

Bayside, Cashville, Nebo, East Point, and part of Savageville. There are 40 active members, 4 paid full-time firefighters, 26 volunteer firefighters, and 10 non-firefighting volunteers, providing 24/7 coverage of EMT/fire fighters paid by Accomack County. The department currently operates three fire engines, one brush fire truck, and one ambulances (Lisa Fiege, *personal communication, June 2, 2016*).

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### PARKS AND RECREATION

Onancock's Town Square is located on Market Street and covers an area of about half an acre. It features a gazebo and a monument to General Edmund R. Bagwell. The Northeast Onancock Community Park is about 14 acres and has a basketball court, playground equipment, and benches. There are fields in the Town at Fireman's Field with no active courts or maintained fields. The fields at the water tower are leased for recreational sports use. Onancock landing park (from Market St to the creek) with dingy docks, kayak launch, near the wharf. The Onancock School and surrounding recreational opportunities including a nature trail maintained by the Master Naturalists and fields for soccer, frisbee, etc.

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### WATER SUPPLY AND WASTEWATER

The Town has a municipal water system supplied by groundwater wells at Hartman Avenue. Well depths are about 265 feet, and sodium hypochloride is injected into the water at the water tank. Two smaller, back-up wells are located at the Parker Street site, along with a pump station. The water tower is 168 feet high and contains 300,000 gallon elevated storage tank. Water is distributed through two, four, six, and eight inch water lines.

The Town owns and operates a wastewater treatment facility located on North Street. The facility serves all residents and businesses in Town, as well as Airport Industrial Park, and several businesses and commercial establishments located on the west side of Route 13 south of Route 179 in Onley. The facility was updated in 2012 from a capacity of 250,000 gallons per day to 750,000 gallons per day. There are still a few septic systems in the Town, less than ten total (Lisa Feige, *personal communication, June 2, 2016*).

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### SOLID WASTE

The Town contracts with Davis Disposal for weekly residential trash collection, which is transported to the Northern Accomack County Landfill. Most residents also use the Tasley Convenience Center regularly and so this is an important resource for the Town.

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### POWER AND COMMUNICATIONS INFRASTRUCTURE

Eastern Shore Communications has a contract with the Town to have a receiver on the Water Tower for broadband. AT&T antennae for wireless service and the broadband transmission is also on the water tower. Landline telephone service is primarily provided by Verizon and Charter Communication, the latter of which is housed in the Town). The water tower, therefore, is vital in providing communications during and following emergency situations. Onancock is served by multiple power substations, and so is less likely to have widespread power loss during a hazardous event.

## NATURAL ENVIRONMENT

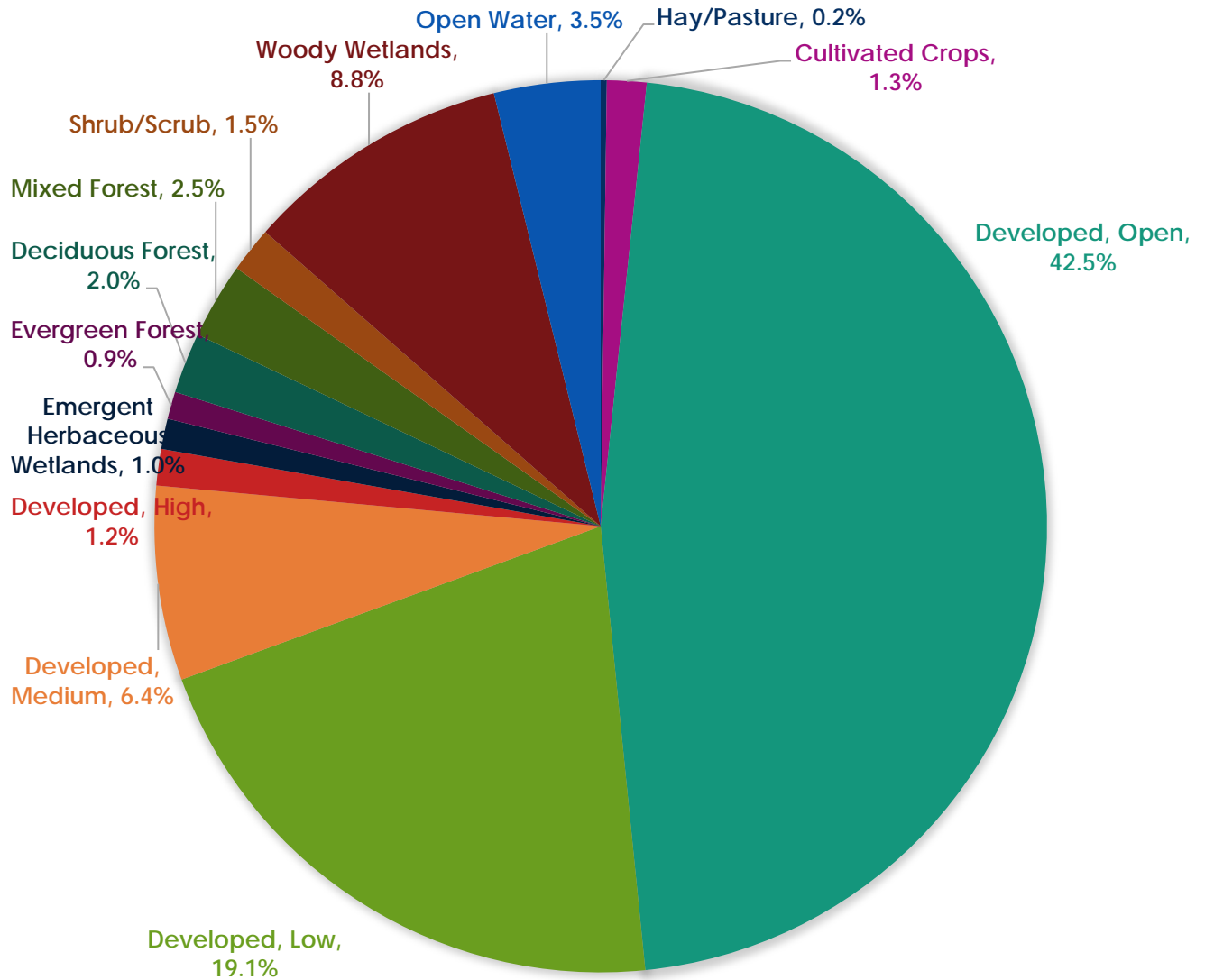
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### LAND USE LAND COVER

Almost 70% of Onancock is developed (see Figure 2), however this includes green space, such as parks and large grass yards. This trend can easily be seen in the satellite imagery for the Town, presented in Figure 1, where the majority of the Town is residential. The percentage of wetland area is somewhat low relative to the waterfront



property, approximately 3.3 miles, and many of the homes on waterfront properties are less than 80 feet from the water's edge. Because wetlands act as sponges during flooding events, typically areas with more extensive wetland fair better during these events. That said, the elevation of much of Onancock is over 20 feet, thus the Town is less sensitive to flooding, except the westernmost areas of the Town. Onancock has an official Tree Board, and thus improves their green space and long-term green-scape planning.



Source: USGS. National Land Cover Dataset. 2011

Figure 2 : Onancock Land Use Land Cover

# HAZARD PREPAREDNESS & COMMUNITY CAPABILITIES

## PREVIOUS HAZARD MITIGATION PLANS

Onancock has participated in the hazard mitigation planning process since 2006. The Town’s primary risk is associated with coastal flooding.

*Table 6 : Onancock Hazard Mitigation Resources*

	Ordinances, Plans													Resources, Committees					
Agency	Building Code	Chesapeake Bay Act	SWMP	Hazard Mitigation Plan	Comprehensive Plan	Zoning Ordinance	Storm Water Regulations	Transportation Infrastructure Inundation Vulnerability Report	All Hazards Preparedness	Emergency Operations Plans	Mutual Aid	Neighborhood Emergency Help	Virginia Hurricane Evacuation	Oil & HazMat Response Plan; HazMat Commodity Flow	Ground Water Committee	Navigable Waterways Committee	Climate Adaptation Working Group	ES Disaster Preparedness Coalition	
Local					*	*													
County	*		*																
Regional								*	*	*	*	*		*	*	*			*
State		*					*						*						
Federal		*																	



## NATIONAL FLOOD INSURANCE PROGRAM & HAZARD MITIGATION GRANT PROGRAM

### NFIP

The Town joined the NFIP on December 15, 1981. Between April 2011 and January 2016, according to the respective NFIP insurance reports, the Town had two flood insurance claims totaling \$13,954.00, which is just less than their premium of \$14,483.00. To date, the Town hasn't participated in the Community Ranking System (CRS). Unlike many of the coastal Towns on the Eastern Shore, the amount of land in the SFHA remained the same with the new 2015 FIRM. Although the area in the SFHA remained 0.1 square miles, the delineation shifted slightly, removing two buildings from the zone and adding three buildings, for a net increase of only one building in the SFHA.

*Table 7 : Summary of Onancock's past NFIP participation*

	<u>HMP 2006</u>	<u>HMP 2011</u>	<u>HMP 2016</u>
NFIP (date joined)	December 15, 1981	December 15, 1981	December 15, 1981
Number of Policies	-	30 policies	23 policies: 4 A-zone, and 19 other
Total Premium Amount	-	\$15,897	\$14,483
Total Coverage Amount	-	\$8,660,200	\$6,899,700
Number of Claims (since 1978)	0	0	2
Total Paid (since 1978)	-	-	\$13,954
HMGP	NA	NA	NA
CRS Score (1 highest, 10 lowest)	10	10	10

Source: FEMA NFIP Insurance Report April 2011, January 2016

### HMGP

The Town has never participated in the Hazard Mitigation Grant Program.

## HAZARD PROFILE

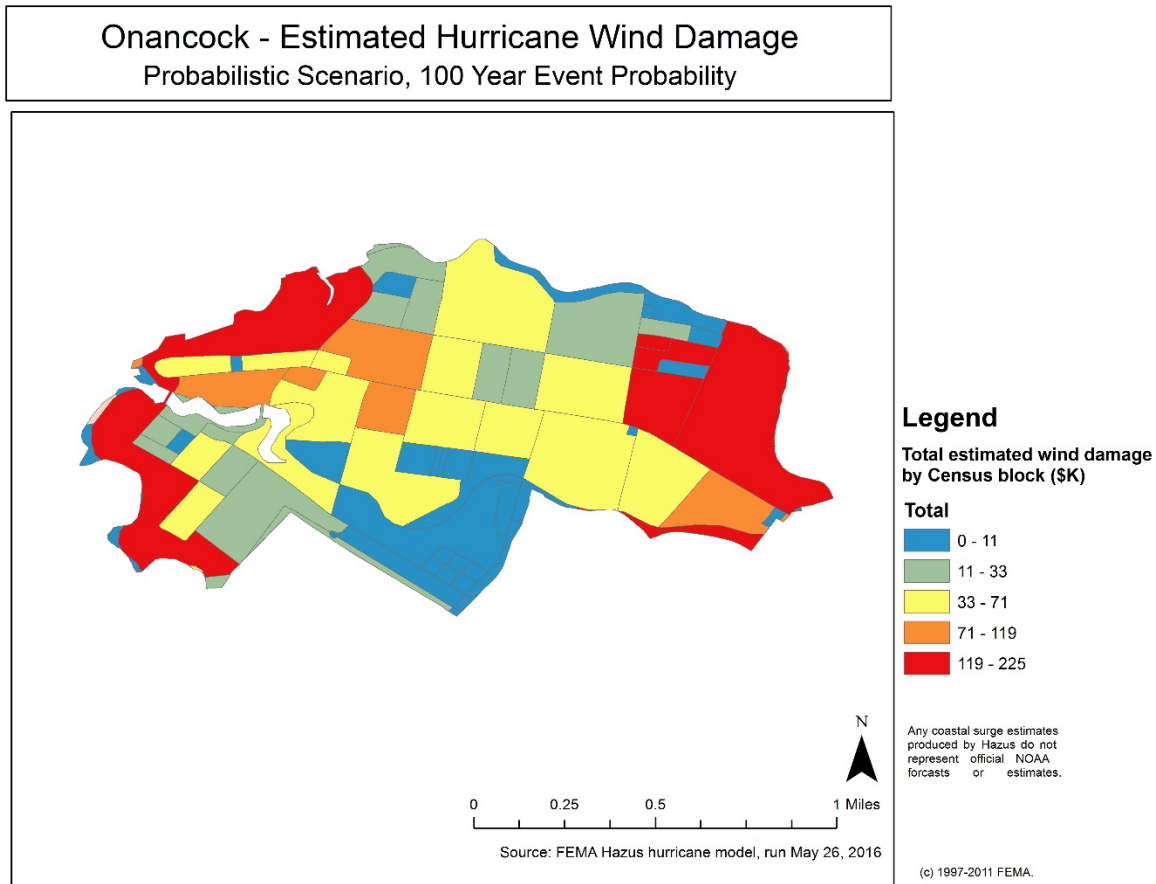
### WIND

The Town is not located in the wind borne debris hazard area. However, most of the residential areas have mature trees. High winds could damage trees within the Town and this might lead to some damage to houses and outbuildings. The Town constructed a water tower in 2008 on the east side of town that was built to withstand high wind events. Major Town facilities, including the wastewater treatment plant and water supply tower, are equipped with back-up power supplies in the event of a power outage.

Figure 4 reveals the estimated dollar value of damages for each Onancock census block that would result from wind damages from a hurricane that has a 1% chance of occurring each year. The total damages for the entire

## Town of Onancock

Town, is estimated to be just over \$3 million. About half of this total is from building damages, over 15% from content losses, and over 20% from rental and relocation costs. The total also incorporates losses from income, wages, and inventory.



*Figure 3 : Onancock Hazus® Estimated Wind Damages*

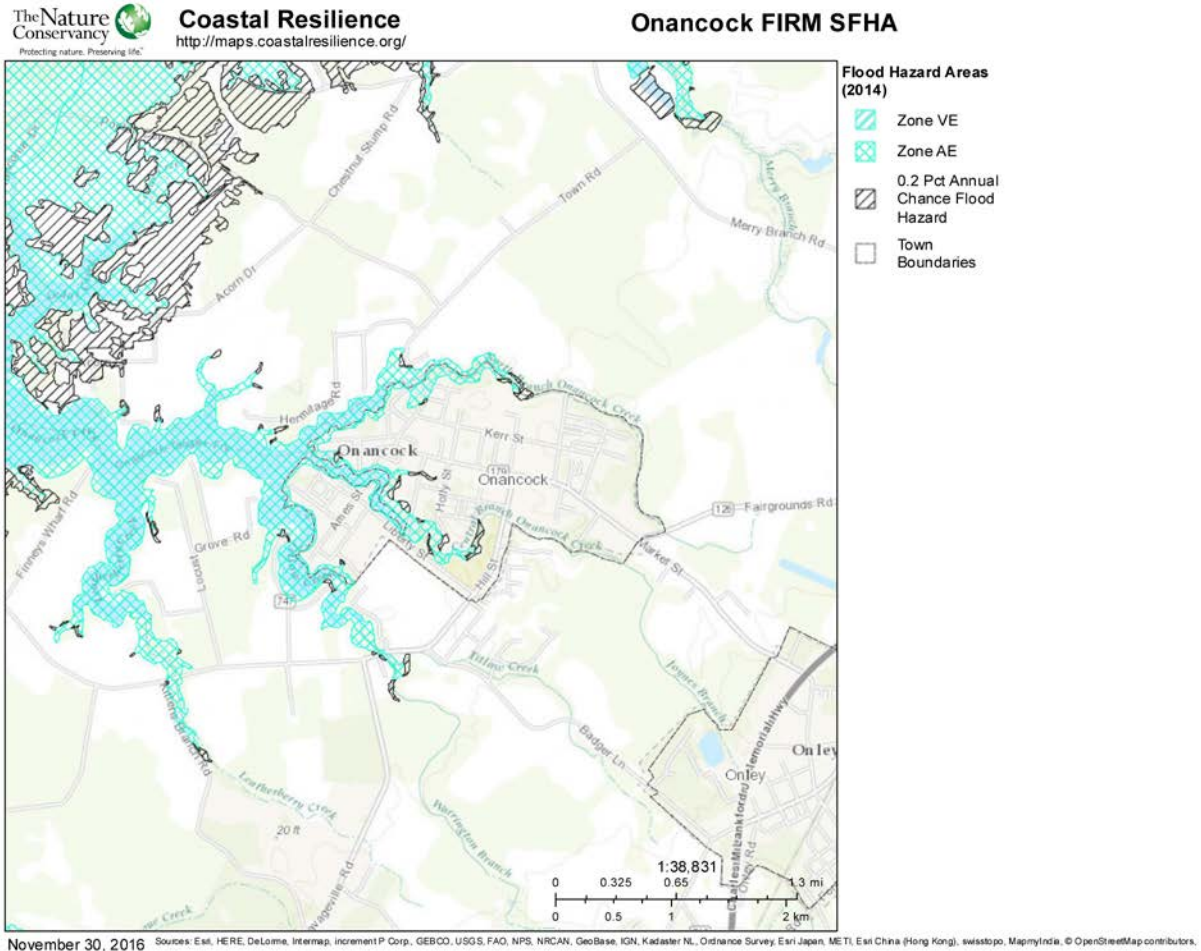
### COASTAL EROSION

Although there is some erosion risk around Onancock, no structures located in the Town appear to be vulnerable to coastal erosion at this time. The initial dredging of the Onancock Creek in the 1800's allowed the Town to develop and prosper. Regular dredging and maintenance of the Onancock Creek channel to prevent shoaling and ensure navigability is vital for the economics of the Town.

### COASTAL FLOODING

The Flood Insurance Study (FIS) for Onancock, completed in 1981, identifies that the greatest threat of flood inundation comes from hurricanes and northeasters. Development within the floodplain is minimal (Onancock FIS). The Town is located inland from the Chesapeake Bay. Onancock Creek, North Branch and Titlow Creek border the Town on three sides. In addition, Joynes Branch bisects the Town creating a northern and southern section.

According to the 2014 FEMA Flood Risk Report, the Town of Onancock still does not have any identified V zones. The Town, however, does have A zones located near the Town Wharf and along the three branches of Onancock Creek. Approximately 12 properties are located in the flood zone, nine of which are estimated by Hazus® to incur damages to structures during a 100-year storm event. During such an event it is expected that the buildings would receive about \$192,000 in building damages, just over the expected damages in 2011. There would also be about \$213,000 in content loss, and \$150,000 in losses from business interruption, for a total of just over \$555,000 in total losses. There are only four NFIP policies in the A-Zone, indicating that 7 properties and 5 structures that are in the flood zone are uninsured (FEMA NFIP Insurance Report, January 2016). The Hazus® model also estimate that there will be a total of 1,051 tons or 42 truckloads of debris generated during a 100-year storm.

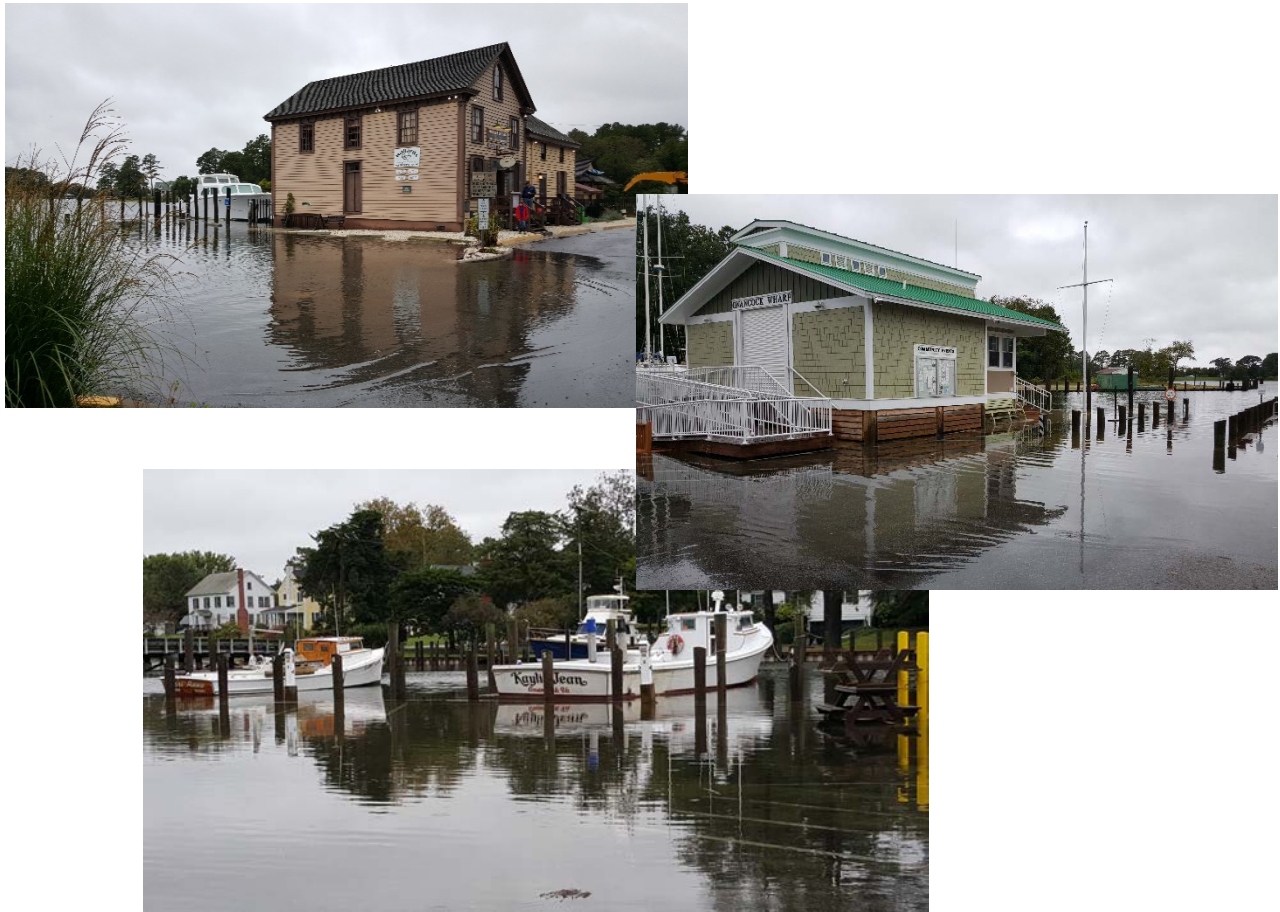


**Figure 4: Onancock Special Flood Hazard Areas Identified, as presented in the TNC Coastal Resilience mapping tool**

The Town also has three facilities that are affected by flooding, the wastewater treatment plant, Onancock Wharf, and the Harbormaster’s House. The wastewater treatment plant could contaminate Onancock Creek and North Branch and to a lesser extent the Chesapeake Bay if it failed during a flood event. Recent improvements to the plant have lessened threats from coastal and stormwater flooding and in turn have reduced the threat of contamination to the creek. The Town now has 4,000 gallon storage and dispensing tank at the Wharf. The new Onancock Wharf Harbormaster’s House, completed in 2014, was built several feet higher than the previous building and thus is more resilient to flooding damages (Mayor Jones & Lisa Fiege, personal communications, June

## Town of Onancock

2, 2016). Figure 3 below reveals a more and more common flooding situation at the wharf in Onancock (Mayor Jones, personal communications, June 2, 2016). Recent repairs were made to the wharf parking lot and drain approaches, but flooding during storm events remains a problem.



***Figure 5: Clockwise from top: The historic Hopkins Store, the new Harbormaster's House, and the parking lot, all of the Onancock Wharf during the October 2015 North American storm complex, largely influenced by Hurricane Joaquin. Photo by Connie Morrison***

### STORM WATER FLOODING

An additional 19 structures carry flood insurance, but are not located in a flood zone (FEMA NFIP Insurance Report, January 2016). This may indicate potential storm water flooding issues within the Town. The total number of NFIP policies rose from 10 in 2003 to 30 in 2011, but fell to 23 in 2016 (FEMA NFIP Insurance Report, July 2003, May 2011, January 2016).

The soil in Onancock drains well compared to many areas on the Eastern Shore and due to its coastal location, there is a change in elevation (reaching sea level approaching the surrounding creeks). Despite this, the Town still experiences some stormwater flooding problems, including the Police Office. Of particular concern is Lilliston Ave, (west of Lee St), which is partly paved right off of Market. VDOT is responsible for the maintenance of the ditches

## DRAFT Eastern Shore Hazard Mitigation Plan 2016

adjacent to state owned roads, however there are several roads that are owned by the Town, and for which the Town is responsible for maintenance.

Onancock subcontracts to have a twice weekly April through October Town-wide spray for reducing the number of mosquitos and the associated diseases.

### HAZARDS OF LOCAL SIGNIFICANCE

Due to the existence of the new fuel tanks at the wharf, there is a potential for a Hazmat incident to cause damage to Onancock Creek, North Branch and the existing homes on King Street and commercial buildings on Market Street and Onancock Wharf. There are also houses located on the creek outside of the Town's boundaries that could be damaged by an incident.

Onancock's location on the Onancock Creek and its direct connection to the Chesapeake Bay cause the Town to be vulnerable to two types of saltwater intrusion. Wells further inland could lead to vertical movement of brackish water found below the lens of potable water. Because all of the Town residents rely on the municipal water system, which is supplied by groundwater wells, this is of high concern. Further south on the Bayside, the Town of Cape Charles has already experience salt water intrusion.

Hindrances to navigation or a lack of channel maintenance would negatively impact the Town economically.

### CRITICAL FACILITIES

The following table lists the critical facilities and their relative importance to the Town.

Facility	HMP 2006	HMP 2011	HMP 2016	Hazards	No of People Affected	Loss potential	Relocation Potential	Retrofit Potential
<b>Town-owned Facility</b>								
Town Office	X	X	X	Wind Fire	Town Residents	Inconvenience	No	Yes
Police Office			X	Wind Stormwater r Fire	Town Residents	Major Disruption	No	Yes
Town Wharf, related properties and fuel tanks	-	-	X	Wind Ice Flooding Fire	2,000 +	Inconvenience	No	Yes
Waste Water Treatment Plant	X	X	X	Flooding Wind	Entire Town and properties on Onancock Creek	Devastating	No	No
Water Supply Tower	X	X	X	Wind Stormwater r	1,500	Major Disruption	No	No
South Street Pump Station	X	X	X	Flooding Stormwater r	Town Residents	Disruption	No	Yes
<b>Other Critical Facilities</b>								
National Guard Armory	X	X	X	Wind Fire			No	



Town of Onancock

Fire Station	X	X	X	Wind Stormwater	2,000 +	Major Disruption	No	Yes
Telephone Company Exchange Building	X	X	X	Wind Stormwater Fire	Entire Eastern Shore	Major Disruption	No	
Corner Mart & Royal Farms (gas stations)			X	Wind Stormwater Fire				
Bagwell Oil	X	X	Facility Removed	NA	NA	NA	NA	NA

## SUMMARY STATEMENTS

1. The greatest threat to the Town is the secondary effects of flooding. A 1%-annual-chance flood event would directly impact 9 structures within the Town and cause an estimated \$555,806 in damages.
2. Most of the residential areas are older construction with mature trees. During a storm wind or snow/ice event, branches and trees may come down causing secondary wind damage and power outages.
3. A 1%-annual-chance wind event is estimated to affect 65 buildings and cause about \$3 M in damages.
4. The Town constructed a new water and wastewater facility with increased capacity and backup power supply.
5. There are several higher occupancy housing areas in the Town that may not have access to personal vehicles and may require additional efforts in outreach for education about preparation for hazard events and for assistance during and following an event.