TOWN OF KELLER

TOWN PROFILE

Keller is located near the central spine of the Eastern Shore in south central Accomack County and comprises 172 acres. The town was originally called Pungoteague Station and was established around a railroad station. Keller was incorporated in 1951 with the railroad being central to activities.

Figure 1: Town of Keller Aerial 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 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

Although the Town population has declined since the mid-1900's, Table 1 shows that for the last two decades the population has stayed about the same, at about 178 (American Community Survey, 2010 – 2014, US. Census, 2000, 2010). The median age for the Town is 47.5 (U.S. Census, 2010). Almost 40% of the residents are under 18 years of age (ACS, 2010-2014), which may be a higher risk during or following a storm, as these minors may require additional attention in case of evacuation, etc.

Table 1: Keller Demographic Data

	2014*	2013*	2010**	2000***
Population	178	151	178	173
Median Age	37	37.9	47.5	40.2
Disability	NA	NA	NA	NA
Income				
Median Household Income	$18,875	$15,625	$49,375 ACS: $18,984	$25,500
Poverty Level	NA	47.7%	NA	NA
Language				
Only English	100%	100%	75%	97.6%
Other than English	0%	0%	25%	2.4%
Spanish	0%	0%	9.6%	2.4%
Other	0%	0%	15.4%	0.0%

Source:* American Community Survey 2009 – 2013, ** US Census 2010, *** US Census 2000

Town officials point to the 2010 Census figures as being anomalous and inconsistent with their knowledge of the town (Keller Town Council, personal communication, November 4, 2015). Although the population may be accurate, the median household income and the languages spoken do not seem to be accurate.

WORKFORCE

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

The local workforce primarily consists of manufacturing and education. This is reflecting of Keller being primarily a residential, white collar community (*Keller Town Plan*, 1986). The workforce saw a significant drop between 2010 and 2014.

Table 2: Keller Local Workforce Industry

	Civilian Employed Population							
Industry	**2014***		**2012***		**2010***		**2000****	
	Count	Percent	Count	Percent	Count	Percent	Count	Percent
Agriculture, forestry, fishing/hunting, or mining	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Construction	5	13.9%	5	20.8%	18	27.7%	5	8.3%
Manufacturing	10	27.8%	0	0.0%	0	0.0%	13	21.7%
Wholesale trade	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Retail trade	4	11.1%	0	0.0%	12	18.5%	10	16.7%
Transportation and warehousing, and utilities	0	0.0%	0	0.0%	0	0.0%	4	6.7%
Information	0	0.0%	0	0.0%	0	0.0%	2	3.3%
Finance, insurance, real estate, and rentals	2	5.6%	2	8.3%	2	3.1%	1	1.7%
Professional, scientific, waste management	0	0.0%	0	0.0%	4	6.2%	4	6.7%
Educational and health care services	9	25.0%	10	41.7%	18	27.7%	16	26.7%
Arts, entertainment, recreation, food	0	0.0%	3	12.5%	7	10.8%	3	5.0%
Public Admin	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Other	6	16.7%	4	16.7%	4	6.2%	2	3.3%
TOTAL CIVILIAN EMPLOYED POPULATION	36	-	24	-	65	-	60	-

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.

Keller is primarily a residential community, which is reflective upon the low number of businesses within the community. However, the Town does have the only new automotive dealership, Kool Ford, and a large building materials distributor, 84 Lumber.

Table 3: Keller Business Establishment Types

Industry Code Description	**Total Establishments**		
	2013	**2011**	**2009**

Retail Trade	3	3	4
Transportation and Warehousing	0	1	1
Finance and insurance	1	1	1
Real Estate and Renal Leasing	1	0	0
Professional, Scientific, and Technical Services	1	2	2
Health Care and Social Assistance	2	2	2
Other Services (Except Public Admin)	1	1	1
Total, All Establishments	9	10	11
Total Employees	63	64	52

Source: Census Zip Code Business Patterns, 2013, 2011, 2009

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. Keller's soils and their inability to support on-site septic systems prevent the Town from developing more housing or commercial areas (*Keller Town Plan*, 1986).

HOUSING UNITS

Knowledge of a community's housing base contributes to hazard and vulnerability analysis by identifying how many homes are at risk.

More than likely there are still closer 87 housing units in the Town, as there were in 2010, as it is unlikely that 11 housing units were either destroyed or razed in four years. Keller's housing market is relatively stable, consisting primarily of single-family housing. There are some substandard housing structures within the Town (*Keller Town Plan*, 1986).

Table 4: Keller Housing

	2014*	**2010****	**2000*****
Total Housing Units	76	87	90
Occupied	54	68	72
Vacant	22	19	18
Owner-Occupied	42	47	47
Renter-Occupied	12	21	21
Median Housing Value	$129,200	NA	NA

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

TRANSPORTATION

U.S. Route 13 is Keller's most visible transportation feature, bisecting the town with 18,000 vehicles per day. The four-lane principal arterial is part of the national defense Strategic Highway Network (STRAHNET), a national system of highways necessary to support U.S. military operations, part of the National Highway System, and the Eastern Shore's only hurricane evacuation route. Bay Coast Railroad parallels U.S. Route 13. Its 130-pound rail is maintained to meet Federal Railroad Administration Class-II Standards (*Keller Town Plan*, 1989).
Vehicles available to households is one indicator of a household's ability to evacuate when necessary, and Table 5 reveals very little risk from this status.

Table 5: Keller Resident Vehicles

Vehicles Available	2014*	2010*	2000**
None	1	0	9
One	20	25	18
Two	20	28	40
Three or more	13	16	5

Source: *ACS, 2010-2014; **U.S. Census, 2000

COMMUNITY FACILITIES

Community facilities are facilities required to support the services and functions provided by the Town government or in coordination with other public and private entities. These facilities enhance the overall quality of life for the Town and its citizens. It's important to note what facilities are available in case of a hazard, and it's important to make an inventory of facilities that could be affected by a hazard.

PUBLIC SAFETY

Keller does not have its own police department. Police protection is provided by the County Sheriff Department and the State Police. Fire protection is provided by the Melfa Volunteer Fire and Rescue Company. The Painter and Wachapreague Volunteer Fire & Rescue Companies also responds to calls from Keller.

WATER SUPPLY & SEWAGE DISPOSAL

All residential treatment of wastewater is done through on-site septic systems. The Town has no public water supply and residents and commercial users are solely reliant on private wells (*Keller Town Plan*, 1989).

SOLID WASTE DISPOSAL

Town residents are responsible for their own waste disposal. There are two free Accomack County convenience centers located nearby, the Grangeville center on Wachapreague Road, and the Painter center on Wayside Drive. The County landfill is also only about 2.5 miles from the Town, just west on Route 620.

POWER AND COMMUNICATIONS INFRASTRUCTURE

The Town's location on Route 13 typically allows for ease of access for any repairs to the power line system. This location also provides access to the broadband optic cable which runs on Route 13.

PARKS AND RECREATION

There are no Parks within the Town.

STORM WATER DRAINAGE

The County and VDOT are responsible for the majority of the ditch maintenance in the Town. Because storm water flooding poses the greatest risk to the Town, and because all residents are reliant on private wells for their water supply, and septic systems for wastewater disposal, this is of the upmost importance to pursue and complete.

SCHOOLS

There are no schools within the Town of Keller.

NATURAL ENVIRONMENT

Keller encompasses 172 acres. Elevations in the Town range from approximately 35 to 45 feet above mean sea level, and slopes are typically less than 2%. Most of the soils in Keller are not ideal for development due to the majority soil type being unsuitable for individual land based waste water treatment facilities, like septic systems (*Keller Town Plan*, 1989), however, new technologies are changing this.

LAND USE LAND COVER

Forests, development, and agriculture are the three highest uses of land for the Town.

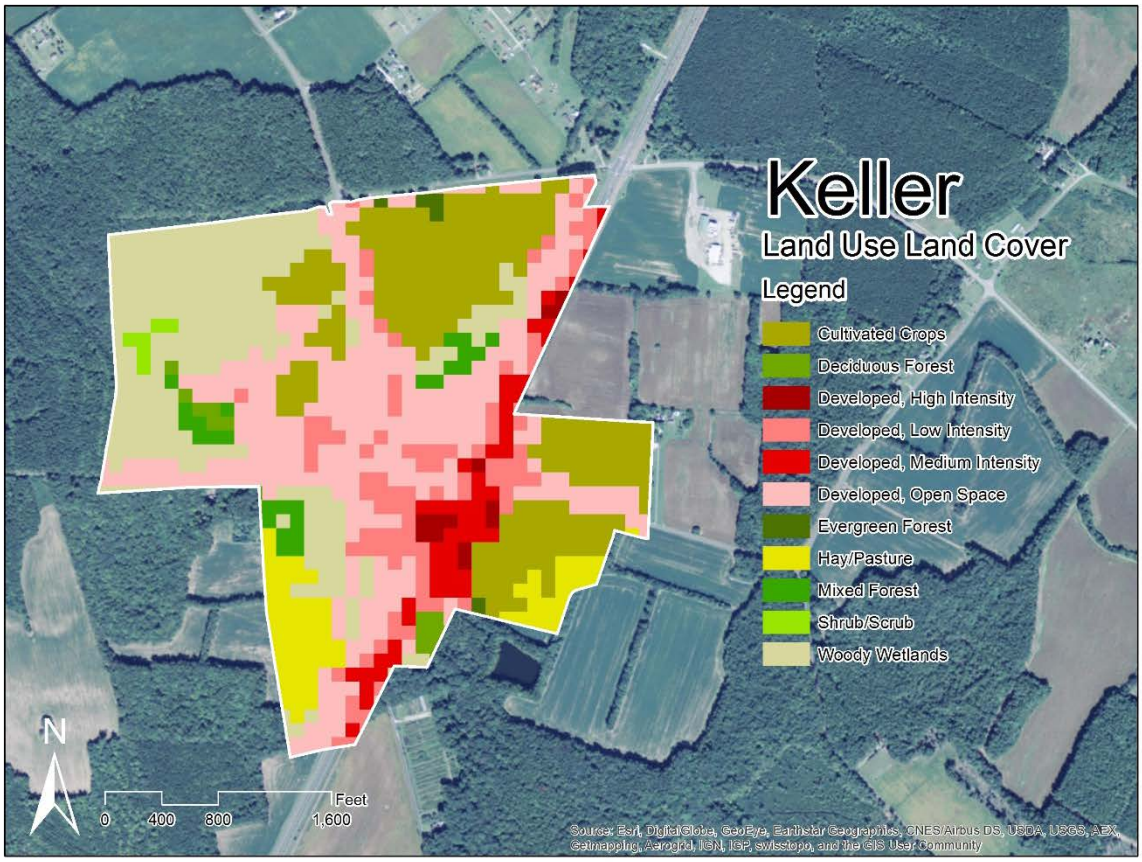

Figure 2: Keller Land Use Land Cover

GROUND WATER

The Town faces a threat of ground water contamination from several sources including failed septic systems within Town, leaks and spills of petroleum based products from underground storage tanks, and major industrial facilities within the area.

HAZARD PREPAREDNESS & COMMUNITY CAPABILITIES

PREVIOUS HAZARD MITIGATION PLANS

Keller participated in the hazard mitigation planning process since 2011. The Town's primary risk associated with hazards is storm water flooding. Keller's comprehensive plan has not been updated since 1989. The Town is interested in pursuing and updated comprehensive plan. The plan from 1989 does emphasized drainage problems within the Town.

Table 6: Town of Keller Hazard Mitigation Resources

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

NATIONAL FLOOD INSURANCE PROGRAM & HAZARD MITIGATION GRANT PROGRAM

NFIP

The Town does not currently participate in the NFIP, but has expressed interest in potentially joining the program.

HMGP

Keller has not participated in the HMGP.

HAZARD PROFILE

Stormwater flooding poses the greatest risk to the Town and has the most frequent impact.

HIGH WIND

No parts of the Town lie in the wind borne debris hazard area. This area is defined as the area extending one mile inland from the coast. The Town lies in the 110 – 120 mph design wind zone (Accomack County Building Code). Most of the residential areas are older and have mature trees in and around the homes. During a high wind event falling branches or trees may damage some structures or power lines. All power and communication lines in Town are above ground and susceptible to wind damage.

Keller has experienced several historic wind events from hurricanes and northeasters that have damaged trees and power lines in Town. The town also has a number of derelict buildings which could pose a danger of flying debris or collapse in high winds (Keller Town Council, personal communication, November 4, 2015).

COASTAL EROSION

No structures are at immediate risk to coastal erosion.

COASTAL FLOODING

No portions of the Town lie within a Special Flood Hazard Area or within the X Zone, which is the 500-year floodplain. The threat of coastal flooding within in the Town is considered to be minimal.

STORM WATER FLOODING

Storm water flooding poses the greatest risk to the Town and has the most frequent impact. The majority of the Town contains soils that are poorly drained and readily retain rainwater. The Town's poorly drained soils are located primarily in the central and northern portions of Town. The intersection where N R North Street approach U.S. Route 13 from the northeast is a particularly frequently flooded location pointed out by town officials (Keller Town Council, personal communication, November 4, 2015).

Keller regularly experiences storm water flooding during heavy rain events. Drainage problems in Town have been attributed to the soil characteristics, lack of sufficient topography for drainage, and lack of maintenance to existing drainage culverts. The *Keller Town Plan* identifies a need for upgraded drainage culverts and states that funding sources are lacking to implement the improvements. The Town relies on the Virginia Department of Transportation to perform maintenance on the main drainage ditches within the Town limits. Accomack County received grant funds to improve drainage and allocated some funding to Keller to address drainage problems. This is the first time this funding has been made available and the Town does not think it can rely on it for drainage maintenance in the future. Drainage issues are commonly experienced at the intersection of Center Avenue, West Street, and Lee Street and the northern end of West Street. Town officials indicate that these areas have poorly maintained ditches that have silted with sediment and become overgrown with vegetation. The ditch near the intersection of

Lee Street and Center Avenue is hardly recognizable. Town officials indicate that there has been no residential or commercial property damage within Town as results from storm water flooding.
The town has historically experienced severe storm water flooding events. Town officials recall at least two major flooding events where streets were inundated with rain water to the point where resident's streets were inundated with rain water to the point where residents were traveling down the streets in boats in the areas of Town that still experience flooding today. These flood waters remained for about 24 hours. The majority of houses in Town are elevated and Town officials do not remember structures being inundated during these flood events.

Table 7: Stormwater Problem Areas in Keller

	HMP 2011 & HMP 2016
Flooding Problem Areas	Central and northern parts of the town. Intersection of Center Avenue West Street Lee Street Northern end of West Street
Critical Facilities Identified	Keller Town Office Keller Post Office
Cause of Hazard	Soils poorly drain and tend to retain rainwater Lack of sufficient topography for drainage Lack of maintenance to existing drainage culverts

HAZARDS OF LOCAL SIGNIFICANCE

FIRE AND SMOKE

The Town does not have a fire department and relies on the fire departments of neighboring communities. This puts the Town at greater risk for fire damage. Specifically, there are numerous fields in the vicinity of the Town that are prone to catching fire, especially during droughts. These fires have the potential of spreading to residences in Town, especially since there are houses in Town that are dilapidated and most houses are located in close proximity to one another.

ICE AND SNOW

The Town historically has been impacted by snow and ice storms that have left residents stranded for extended periods of time. Since the Town has a relatively elderly average population, these residences are at a greater risk during these events. Additionally, the Town relies on VDOT to maintain the roads during these events.
It was suspected that a tornado destroyed a commercial building and damaged another commercial building in Town in 1998.

HAZARDOUS MATERIALS

The U.S. Route 13 highway corridor runs through Town putting residents at greater risk from HAZMAT incidences resulting from traffic accidents involving tractor trailers carrying hazardous materials. In addition, a chemical

production facility is located just on the outskirts of Town limits. This facility contributes to greater traffic containing hazardous materials through Town. Hazardous materials are transported through Town via the railroad, but this form of transportation is not as prevalent as it once was.

Figure 3: U.S. Route 13 and the railroad are shown in Keller. Photo by Curt Smith

CRITICAL FACILITIES

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

Table 8 : Town of Keller Critical Facilities

Facility	Hazards	HMP 2006	HMP 2011	HMP 2016	No. of People Affected	Loss Potential	Relocation Potential	Retrofit Potential
Keller Town Office	Storm Water Flooding Wind	-	X	X	178	Major disruption	No	Yes
Keller Post Office	Storm Water Flooding Wind	-	X	X	>500	Major disruption	No	Yes

Figure 4: The Keller Town Office is at risk from storm water flooding and wind damage. Photo by Curt Smith

FINDINGS

1. Stormwater flooding and high wind events have historically been and currently are the main hazards facing the Town.
2. The Town of Keller does not currently participate in the NFIP, but is interested in joining the program so that residents and businesses can purchase flood insurance.
3. Secondary hazards facing the Town are HazMat incidents impacting water and air quality, winter storms, groundwater contamination, drought, and fire.
4. The Town has identified areas that have poorly maintained drainage ditches that regularly cause stormwater flooding hazards. The Town is interested in mitigating these problems.