

3. **King and Queen County,**
4. **King William County,**
5. **Mathews County,**
6. **Middlesex County,**
7. **Town of Tappahannock, and**
8. **Town of West Point.**

With these little-notice storm events, time is of the essence with the ability to provide life-saving aid to as many residents as possible quickly after the severe storms strike. Currently there is a mutual aid agreement amongst participants of the Rappahannock Volunteer Fire Association, which includes the following Middle Peninsula volunteer fire and rescue departments: Gloucester Volunteer Fire and Rescue, King William Volunteer Fire Department, Lower Middlesex Volunteer Fire, Mathews Volunteer Fire Department, Tappahannock Volunteer Fire Department, Upper Middlesex Volunteer Fire Department, West Point Volunteer Fire and Rescue, Middlesex Volunteer Fire Department, Lower King and Queen Volunteer Fire Department, and Central King and Queen Volunteer Fire Department. While this is inclusive of some fire and rescue department within Middle Peninsula localities, this is not inclusive of all and therefore cannot be labeled as complete. Please note that this strategy focuses on creating mutual aid agreements at the County level.

Cost/Benefit Implications of Implementing Strategy 2.2.1

This strategy will have direct:

1. Benefits for local fire and rescue units since having formalized agreements in place will help to coordinate the dispatching of first response units as needed when there may be limited supply and high demand for assistance.
2. Benefits for local residents with coordinated emergency response services during these damaging and potentially life threatening natural hazards.
3. Costs to implement the mutual aid agreements should be minimal for the jurisdiction with the dedication of a small amount of emergency management and legal staff time.

Mitigation Strategy addresses the following hazards: hurricanes, ice storms, tornadoes, coastal flooding/nor'easters, coastal/shoreline erosion, sea level rise, snow storms, riverine flooding, wildfires, high winds/windstorms, dam failure, droughts, lightning, earthquakes, shrink/swell soils, extreme cold, extreme heat, land subsidence/karsts, landslides, tsunamis, volcanoes, air quality, HAZMAT, ditching flooding, and summer storms.

Strategy 2.2.2: Formalize mutual aid agreements to coordinate the region's fire units to ensure a quick and efficient response to wildfires.

Strategy 2.2.2 will be undertaken in the following Middle Peninsula localities:

1. **Essex County,**
2. **Gloucester County,**
3. **King and Queen County,**
4. **King William County,**
5. **Mathews County,**
6. **Middlesex County,**
7. **Town of Tappahannock, and**
8. **Town of West Point.**

Since numerous wildfire sites can erupt in multiple locations when dry and windy conditions are present throughout the Middle Peninsula, a coordinated regional response by all of the fire departments serving the area is required to combat this natural hazard. Clearly written and uniform mutual aid agreements can insure a greater degree of a well coordinated regional response to this natural hazard.

Currently there is a mutual aid agreement amongst participants of the Rappahannock Volunteer Fire Association, which includes the following Middle Peninsula volunteer fire and rescue departments: Gloucester Volunteer Fire and Rescue, King William Volunteer Fire Department, Lower Middlesex Volunteer Fire, Mathews Volunteer Fire Department, Tappahannock Volunteer Fire Department, Upper Middlesex Volunteer Fire Department, West Point Volunteer Fire and Rescue, Middlesex Volunteer Fire Department, Lower King and Queen Volunteer Fire Department, and Central King and Queen Volunteer Fire Department. While this is inclusive of some fire and rescue department within Middle Peninsula localities, this is not inclusive of all and therefore cannot be labeled as complete. Please note that this strategy focuses on creating mutual aid agreements at the County level.

Cost/Benefit Implications of Implementing Strategy 2.2.2

This strategy will have direct:

1. Benefits for local and nearby fire units since having formalized agreements in place will help to coordinate the dispatching of first response units as needed when there may be a limited supply and a high demand for assistance during times of multiple wildfires.
2. Benefits the local residents with coordinated emergency response services during this damaging and potentially life threatening natural hazard.
3. Costs to implement the mutual aid agreements should be minimal for the jurisdiction's emergency management and legal staff.

Mitigation Strategy addresses the following hazards: wildfires.

Objective 2.3: Improve the ability of localities to communicate with the Virginia Emergency Operations Center during state and federally declared disasters.

Goal 3: Increase the public's awareness and educational level of their vulnerabilities to natural hazards.

Objective 3.1: Provide information to residents and businesses about the types of natural hazards that they may be exposed to, where they are likely to occur and what they can do to better prepare for them to avoid their adverse affects.

Strategy 3.1.2: Encourage private property owners to perform regular and routine maintenance of ditches and culverts in order to keep them free of debris, with a special emphasis on road sections where there are chronic flooding problems, including those listed earlier in the plan.

Strategy 3.1.2 will be undertaken in the following Middle Peninsula localities:

1. Essex County,
2. Gloucester County,
3. King and Queen County,

4. **King William County,**
5. **Mathews County,**
6. **Middlesex County,**
7. **Town of Tappahannock,**
8. **Town of Urbanna, and**
9. **Town of West Point.**

As previous noted, there are many VDOT Secondary Roads that are inundated by flood waters during significant storm events. Oftentimes, the flooding occurs at low-lying section of these roads where the drainage pipes and ditches have been partially or completely blocked by vegetative debris.

Property owners with road frontage should be actively encouraged by local Emergency Management staff, by developing a proactive public information program, to keep ditch lines free of vegetative debris which would lessen the flooding at these stressed road crossings and better allow for vehicles to evacuate during severe storm events.

Cost/Benefit Implications of Implementing Strategy 3.1.2

This strategy will have direct:

1. Benefits for residents living in flood prone areas that will allow them safer evacuation and return routes during severe flooding events.
2. Costs for public information notifications via printed media, reverse 911 systems, County websites or e-mail messages.

Mitigation Strategy addresses the following hazards: ditching flooding, summer storms, coastal flooding/nor'easters, hurricanes, and sea level rise.

Strategy 3.1.3: Encourage the two power companies operating in the Middle Peninsula Region to maintain system components, including power line rights-of-way, to minimize interruptions of the electrical power grid for severe weather.

Strategy 3.1.3 will be undertaken in the following Middle Peninsula localities:

1. **Essex County**
2. **Gloucester County**
3. **King and Queen County,**
4. **King William County,**
5. **Mathews County,**
6. **Middlesex County,**
7. **Town of Tappahannock,**
8. **Town of Urbanna, and**
9. **Town of West Point.**

Local Emergency Service Coordinators will work closely with Community Relations/Education employees at Dominion/Virginia Power and Rappahannock Electric Cooperative to information and guidance to their customers about the importance of keeping trees and brush away from electric power lines on their property in order to decrease the possibility of storm damage to the power grid during severe rain/wind storm events.

Educational mailings, such as landscape design techniques as well as a list of plants to grow under power lines to promote attractive landscaping while protecting the power lines from damaging vegetative growth, could be developed by Dominion/Virginia Power and Rappahannock Electric Cooperative staff and mailed as insert with property owners' monthly electric bills.

Cost/Benefit Implications of Implementing Strategy 3.1.3

This strategy will have direct:

1. Benefits local residents with more reliable electric services during severe weather events.
2. Benefits power companies with lower maintenance and repair costs for their rights-of-way and power system equipment.
3. Costs to the 2 power companies to produce and disseminate educational materials to their customers.

Mitigation Strategy addresses the following hazards: hurricanes, ice storms, tornadoes, coastal flooding/nor'easters, coastal/shoreline erosion, snow storms, high winds/windstorms, earthquakes, and summer storms.

Strategy 3.1.4: Promote public education programs to ensure that property owners are fully informed about the flood hazards on the property that they own.

Strategy 3.1.4 will be undertaken in the following Middle Peninsula localities:

1. **Essex County,**
2. **Gloucester County,**
3. **King and Queen County,**
4. **King William County,**
5. **Mathews County,**
6. **Middlesex County,**
7. **Town of Tappahannock,**
8. **Town of Urbanna, and**
9. **Town of West Point.**

Each local government will develop and post flood mitigation materials on the Emergency Services Section of their web-site. Posted information will include a list of the locality's mitigation strategies as well as technical information that the local property owners can use to help alleviate flood damage to their properties.

Cost/Benefit Implications of Implementing Strategy 3.1.4

This strategy will have direct:

1. Benefits local residents with property in the flood plain about measures they can take to lessen flood damages to their property.
2. Costs of dedicating emergency management and public information officer's staff time to developing and distributing mitigation information.

Mitigation Strategy addresses the following hazards: hurricanes, ice storms, coastal flooding/nor'easters, snow storms, sea level rise, riverine flooding, dam failure, ditch flooding, and summer storms.

Strategy 3.1.5: Develop a public education campaign for residents living in the 100-year floodplain, especially those living on FEMA’s list of SRL and RL properties, listing methods for them to decrease flood damage including the availability of any FEMA grant funds for elevation or relocation projects.

Strategy 3.1.5 will be undertaken in the following Middle Peninsula localities:

1. **Essex County,**
2. **Gloucester County,**
3. **King William County,**
4. **Mathews County,**
5. **Middlesex County,**
6. **Town of Tappahannock,**
7. **Town of Urbanna, and**
8. **Town of West Point.**

Technical information should specify design considerations for how to handle all household utility components in flood prone areas as well as breakaway walls and venting options that allow automatic entry and exit of flood waters.

Cost/Benefit Implications of Implementing Strategy 3.1.5

This strategy will have direct:

1. Benefits local residents with property in the flood plain about measures they can take to lessen flood damages to their property.
2. Costs of dedicating emergency management and public information officer’s staff time to developing and distributing mitigation information.

Mitigation Strategy addresses the following hazards: hurricanes, ice storms, coastal flooding/inor’easters, sea level rise, riverine flooding, ditch flooding, and summer storms.

Strategy 3.1.6: Increase resident and emergency responder safety during severe winter ice storm events by developing a public education campaign to inform residents about the importance of keeping tree limbs away from their homes and electric lines.

Strategy 3.1.6 will be undertaken in the following Middle Peninsula localities:

1. **Essex County,**
2. **Gloucester County,**
3. **King and Queen County,**
4. **King William County,**
5. **Mathews County,**
6. **Middlesex County,**
7. **Town of Tappahannock,**
8. **Town of Urbanna, and**
9. **Town of West Point.**

By decreasing the potential for structures to incur damage during ice storms, this will allow the structures to remain occupied thereby lessening the number of emergency responder calls to remove

occupants from damaged homes during times when roads are dangerous and/or impassable. Localities will work with utility companies within the region to educate the public.

Cost/Benefit Implications of Implementing Strategy 3.1.6

This strategy will have direct:

1. Benefits for local residents since they will be able to stay in their undamaged homes with electric lines in tact which will allow for quicker restoration of electric service after severe winter storms.
2. Benefits for first responders with fewer risky fire and rescue calls on ice covered roads during and after severe weather events.
3. Costs of dedicating emergency management and public information officer staff time to develop and distribute ice storm related mitigation information on the locality's website and other social media sites.

Mitigation Strategy addresses the following hazards: extreme cold, ice storms, and snow storms.

Strategy 3.1.7: Develop public information and inform property owners about the long range affects that sea level rise will have on low-lying property that they own.

Strategy 3.1.7 will be undertaken in the following Middle Peninsula localities:

1. **Essex County,**
2. **Gloucester County,**
3. **King William County,**
4. **Mathews County,**
5. **Middlesex County,**
6. **Town of Urbanna, and**
7. **Town of West Point.**

The local governments noted above will provide information about the potential physical impacts of sea level rise on the Emergency Management Homepage of their jurisdictional web-site. Posted information will include areas in the locality that are expected to be affected, the time frame within which the impacts will be anticipated, the public infrastructure that may be impacted and what measures can be taken to mitigate future adverse impacts.

Cost/Benefit Implications of Implementing Strategy 3.1.7

This strategy will have direct:

1. Benefits for local residents with property located in low lying areas about measures they can take to lessen future damages from this natural hazard.
2. Benefits to local governments with reduced damages to both public infrastructure and private property.
3. Cost in staff time to assemble, post and update website information on the locality's Emergency Management Homepage about sea level rise.

Mitigation Strategy addresses the following hazards: sea level rise.

Strategy 3.1.8 Promote a public education program to ensure that property owners protect their property by decreasing flammable forest fuels surrounding homes located in wooded settings.

Strategy 3.1.8 will be undertaken in the following Middle Peninsula localities:

1. **Essex County,**
2. **Gloucester County,**
3. **King and Queen County,**
4. **King William County,**
5. **Mathews County, and**
6. **Middlesex County.**

Each of these local governments will develop and post information about wildfire risks on the Emergency Management Homepage of their website. Posted information will include safety tips to minimize threats to homes/property that the Virginia Department of Forestry has developed as well as other existing wildfire reduction strategies that are available on related websites.

Mitigation Strategy addresses the following hazards: wildfires and drought.

Cost/Benefit Implications of Implementing Strategy 3.1.8

This strategy will have direct:

1. Benefits for local residents with property located in wooded areas to lessen the potential for fire damage to their homes and property.
2. Benefits to local and state fire responders with fewer calls to save structures and rescue residents in perilous situations.

Cost in staff time to assemble, post and update website information on the locality's Emergency Management Homepage.

Objective 3.2: Improve jurisdictional mapping capabilities to show the physical areas in their locality that may be affected by natural hazard events including storm surge areas from coastal storms.

Strategy 3.2.1: Incorporate the newly digitized local floodplain maps into each County's GIS database after adoption by the local governing body, to the extent possible.

Strategy 3.2.1 will be undertaken in the following Middle Peninsula localities:

1. **Essex County,**
2. **King and Queen County,**
3. **Mathews County,**
4. **Town of Tappahannock,**
5. **Town of Urbanna, and**
6. **Town of West Point.**

Each county's GIS technician/consultant will incorporate the digitized floodplain map data into their system when a GIS system becomes available to the locality.

County planning/zoning officials will ensure that this floodplain data is readily available to property owners so that they are aware of the 100-year flood boundaries on their land.

Cost/Benefit Implications of Implementing Strategy 3.2.1

This strategy will have direct:

1. Benefits of more accurate flood plain data that will enable local officials to better guide development in flood prone areas.
2. Benefits for better data to incorporate into locality Comprehensive Plan Updates.
Costs of dedicating locality staff time in the GIS Department to incorporate the mapping products into the locality's IT system.

Strategy 3.2.2: When the Natural Hazards Mitigation Plan is updated in the future, complete:

1. **Refine and update data sets for GBS and essential facilities.**

Strategy 3.2.2 will be undertaken in the following Middle Peninsula localities:

1. **Essex County,**
2. **Gloucester County,**
3. **King and Queen County,**
4. **King William County,**
5. **Mathews County,**
6. **Middlesex County,**
7. **Town of Tappahannock,**
8. **Town of Urbanna, and**
9. **Town of West Point.**

Cost/Benefit Implications of Implementing Strategy 3.2.2

This strategy will have direct:

1. Benefits to locality Zoning Administrators/Floodplain Managers/Building Officials with more precise costs when reviewing locality-wide mitigation projects and policies.
2. Costs to local government officials to contract with engineering firms to run HAZUS models since it is a more technically specific application than more localities in the Middle Peninsula can perform with their own staff capabilities.

Mitigation Strategy addresses the following hazards: hurricanes, ice storms, tornadoes, coastal flooding/inor'easters, coastal/shoreline erosion, sea level rise, snow storms, riverine flooding, wildfires, high winds/windstorms, dam failure, droughts, lightning, earthquakes, shrink/swell soils, extreme cold, extreme heat, land subsidence/karsts, landslides, tsunamis, volcanoes, air quality, HAZMAT, ditching flooding, and summer storms.

Goal 4: Ensure that the strategies developed in this plan are incorporated into other local planning documents, ordinances, policies and procedures.

Objective 4.1: Develop an Implementation Plan within the MPNHMP Update that identifies the locality employees/officials who will be responsible for implementing each strategy that they will undertake, the local regulatory tools that the jurisdiction will use to

implement the strategies, the resources that will be needed and the time frame within which the strategy will be completed.

Strategy 4.1.1: All Natural Hazards: Adopt an Implementation Plan that includes one or more of the following:

1. Assigns locality officials/employees with the ability and authority to implement or cause to be implemented the mitigation strategies that they have agreed to in the update,
2. Determines a low, moderate and high priority for each strategy in the locality,
3. Establishes realistic timeframes for completing each strategy.
4. Appoints a natural hazard mitigation advisory committee to work with the Board of Supervisors, Planning Commission and Planning Staff to monitor progress on adopted strategies and to suggest additional mitigation strategies within the five year review period of the MPNHMP Update by 2016 and the update of the jurisdiction's next Comprehensive Plan.
5. Consider including the mitigation strategies in an Implementation Matrix as part of the jurisdiction's next Comprehensive Plan update.
6. Amend the locality's Zoning Ordinance and Subdivision Ordinance to include natural hazard mitigation strategies as they relate to land development requirements, policies and procedures.
7. Submit capital projects to the Planning Commission/Board of Supervisors for their consideration when they review the locality's Capital Improvement Program (CIP).
8. Seeks funding from various state and federal agencies for mitigation strategies that require an infusion of funds beyond what the jurisdiction can provide.

Strategy 4.1.1 will be undertaken in the following Middle Peninsula localities:

1. Essex County,
2. Gloucester County,
3. King William County,
4. Mathews County,
5. Middlesex County,
6. Town of Tappahannock,
7. Town of Urbanna, and
8. Town of West Point.

Cost/Benefit Implications of Implementing Strategy 4.1.1

This strategy will have direct:

1. Benefits for the elected officials and locality staff since it gives them specific expectations with implementing the numerous strategies in the plan.
2. Costs to local governments have been kept within reason considering the limited financial resources and the many funding responsibilities that the rural Middle Peninsula jurisdictions face.

Mitigation Strategy addresses the following hazards: hurricanes, ice storms, tornadoes, coastal flooding/inor'easters, coastal/shoreline erosion, sea level rise, snow storms, riverine flooding, wildfires, high winds/windstorms, dam failure, droughts, lightning, earthquakes, shrink/swell soils, extreme cold, extreme heat, land subsidence/karsts, landslides, tsunamis, volcanoes, air quality, HAZMAT, ditching flooding, and summer storms.

Section 9 – Implementation Plan

Overview

The Steering Committee members assigned a **low, moderate or high priority** to each of the strategies that have been proposed to lessen the adverse impacts from natural hazards in their respective communities. These priority ratings were assigned after reviewing the evaluation criteria listed at the beginning of Section 8 as well as their historical insight and knowledge of how their jurisdiction operates.

Strategies that were assigned a **higher priority** are ones that the Steering Committee members determined that their localities could implement:

1. in a timely manner,
2. with limited financial and staff resources, and
3. would reduce or eliminate losses to public infrastructure or private structures that have a history of damage from natural causes.

Strategies that were assigned a **moderate priority** are ones that the Steering Committee members determined that their localities could implement:

1. with a greater commitment of staff time,
2. a higher level of financial support from the locality, and
3. would increase public safety for a significant number of residents.

Strategies that were assigned a **low priority** are ones that Steering Committee members determined would:

1. require assistance from agencies/organizations outside of the direct control of the local government, and
2. have a lower potential to reduce or eliminate direct losses from natural hazards.

Responsible Party

The local Emergency Services Coordinator/Emergency Manager (ESC/EM) will be the primary person responsible for implementing the strategies in this plan as adopted by their jurisdiction. The ESC/EM will need to work closely with the locality's Chief Administrative Officer (CAO) since many of the strategies will require Board of Supervisor or Town Council action.

Local governing body action will include implementation of new policies or ordinances as well as the possibility of amending some existing ones. In addition, the governing body will need to approve grant applications for FEMA Hazard Mitigation Funds and/or other funding sources.

The ESC/EM and CAO will need to work closely with the locality's Building, Planning and Zoning Department staff members as well as with FEMA and VDEM Disaster Mitigation staff in order to implement a successful and comprehensive natural hazards mitigation program.

Changes to the locality's zoning ordinance, comprehensive plan, building regulations and/or capital improvements programs can be anticipated. The CAO and ESC/EM in each locality will spearhead the effort to amend existing ordinances/policies or develop new ones to help implement mitigation strategies adopted for their locality in the MPAHMP update.

Communications

The ESC/EM will develop and implement their county-wide natural hazards mitigation outreach and public awareness campaigns using local media and other proven informational outlets in their locality – including their county websites that includes additional information about their Emergency Services Department.

Each locality’s website will list and briefly describe all of the mitigation strategies that they have adopted in this plan and the timeframes by which they plan to implement them. Additionally, the website will include technical information and diagrams that residents can use to implement low-cost/low-tech construction measures to lessen potential future losses from natural hazards.

Table 110: Essex County - Locality Specific Plan of Action

| Strategy | Priority | Responsible Party | Funding Source | Status | Comment |
|----------|----------|-------------------|------------------|-----------------------|--|
| 1.1.1 | Moderate | Zoning | FEMA/land owners | By request | |
| 1.1.2 | Low | Building | Local | Yearly | |
| 1.1.4 | | | | | |
| 1.1.5 | High | BOS/VDOT | VDOT | In-progress | Should be completed in 2017 |
| 1.1.6 | High | BOS/VDOT | VDOT | In-progress | Should be completed in 2017 |
| 1.1.9 | High | Building/Zoning | Local | In-progress | |
| 1.1.10 | Low | Building | Local | Did not adopt | |
| 1.1.11 | High | Zoning | Local | On-going | |
| 1.1.13 | High | ESC/Planning | Local | In-progress | |
| 1.1.15 | High | Building/Wetlands | Local | In-progress | |
| 1.1.19 | | | | | |
| 3.1.2 | Moderate | ESC | n/a | On-going | |
| 2.2.1 | High | ESC | Local | In-progress | Currently participate in mutual aid, no formal MOU's |
| 2.2.2 | High | ESC | Local | In-progress | Currently participate in mutual aid, no formal MOU's |
| 3.1.3 | High | ESC/power co | n/a | In-progress | |
| 3.1.5 | Moderate | ESC | n/a | | |
| 3.1.6 | High | ESC | n/a | Ongoing & In-progress | |
| 3.1.7 | | | | | |
| 3.1.8 | Low | ESC | n/a | Ongoing | |
| 3.2.1 | High | Planning | n/a | In-progress | |
| 3.2.2 | Low | ESC | n/a | In-progress | 1. HAZUS flood runs for the 1 square mile threshold was completed in the 2015 HAZUS completed by Dewberry 2. During the 2015 HAZUS completed by Dewberry the newest version of HAZUS software (version 2.2) which consisted of new dasymmetric Census data (ie. general building stock). 3. 2010 Census was not included in HAZUS. |
| 4.1.1 | High | ESC | Local | In-progress | Adopted a floodplain overlay district as a component of the County's zoning ordinance. |

Table III: Town of Tappahannock Locality Specific Plan of Action

| Strategy | Priority | Responsible Party | Funding Source | Status | Comments |
|----------|----------|-------------------|----------------|--------------|--|
| 1.1.5 | High | Town/County | VDOT | ASAP | Delayed because of VDOT |
| 1.1.7 | High | Town | VDOT | ASAP | Delayed because of VDOT |
| 1.1.9 | Low | Building/Zoning | Local | W/in 2 years | Delayed because of Essex County |
| 1.1.10 | Low | Building | Essex County | w/in 2 years | |
| 1.1.11 | Low | Zoning | Local | Not started | |
| 1.1.15 | Low | Building/Wetlands | Local | w/in 2 years | |
| 1.1.19 | | | | | |
| 2.2.1 | High | ESC | Local | In-progress | Currently participate in mutual aid, no formal MOU's |
| 2.2.2 | High | ESC | Local | In-progress | Currently participate in mutual aid, no formal MOU's |
| 3.1.2 | Moderate | ESC | n/a | On-going | |
| 3.1.3 | Moderate | ESC/power co | n/a | w/in 1 years | |
| 3.1.5 | Low | ESC | n/a | Not started | |
| 3.1.6 | Low | ESC | n/a | Not started | |
| 3.2.1 | High | Planning | n/a | w/in 2 years | |
| 3.2.2 | Low | ESC | n/a | In-progress | 1.HAZUS flood runs for the 1 square mile threshold was completed in the 2015 HAZUS completed by Dewberry 2. During the 2015 HAZUS completed by Dewberry the newest version of HAZUS software (version 2.2) which consisted of new dasymmetric Census data (ie. general building stock). 3.2010 Census was not included in HAZUS. |
| 4.1.1 | High | ESC | Local | On-going | Adopted a Floodplain overlay district as a component of the County's zoning ordinance |

Table 112: Gloucester County Locality Specific Plan of Action.

| Strategy | Priority | Status | Plan to complete this strategy | Responsible Party | Funding Source | Schedule |
|-------------------------------|----------|-------------|---|--|------------------|---|
| 1.1.1 | Moderate | On-going | Continued progress on the strategy as part of the Hazard Mitigation Management Team combined with our Floodplain Management Committee and Program Public Information. | Hazard Mitigation Management Team and Floodplain Management Committee and Program Public Information | FEMA /landowners | Strategy will be continual on an annual scheduled basis |
| 1.1.2 | Moderate | On-going | Same as above | Same as above | FEMA | Strategy will be continual on an annual scheduled basis |
| 1.1.3 | M | On-going | Same as above | Engineering and Building & Grounds Departments | Federal grant | Strategy will be continual on an annual scheduled basis |
| 1.1.4 | H | On-going | Same as above | Engineering and Building & Grounds Departments | FEMA | Strategy will be continual on an annual scheduled basis as grants are available. |
| 1.1.5 (newly added strategy) | H | In-progress | Same as above | BOS/VDOT | VDOT | Strategy will be continual on an annual scheduled basis |
| 1.1.6 | H | On-going | Same as above | BOS/VDOT | VDOT | Strategy will be continual on an annual scheduled basis |
| 1.1.7 (newly added strategy) | M | In-progress | Same as above | BOS/VDOT | VDOT | Strategy will be continual on an annual scheduled basis |
| 1.1.8 | M | On-going | Same as above | Building Inspections and Planning & Zoning Departments | Local | Strategy will be continual on a bi-annual scheduled basis |
| 1.1.11 | H | On-going | Same as above | Building Inspections and Planning & Zoning Departments | Local | Strategy will be continual on an annual scheduled basis |
| 1.1.13 | M | On-going | Same as above | BOS/ Environmental Programs /Extension Service | Local | Strategy will be continual on an annual scheduled basis and updated on a regular basis. |
| 1.1.15 | M | On-going | Continued progress on the strategy as part of the Hazard Mitigation Management Team combined with our Floodplain Management Committee and Program Public Information. | Wetlands Board Environmental Programs | Local | Strategy will be continual on an annual scheduled basis |
| 1.1.18 (newly added strategy) | M | In-progress | Same as above | DIT / GIS | Local | Strategy will be continual on an annual scheduled basis |
| 1.1.19 (newly added strategy) | M | In-progress | Same as above | BOS, Building Inspections, Planning & Zoning Departments, VDOT | Local | Strategy will be continual on an annual scheduled basis and revised when plans are reviewed |

| | | | | | | |
|-------|----------|-------------|---------------|---|----------------------------|---|
| 1.3.1 | High | In-progress | Same as above | Emergency Management, Hazard Mitigation Management Team and Floodplain Management Committee, Building Inspections and Planning & Zoning Departments | Local | |
| 2.2.1 | High | In-progress | Same as above | Emergency Management | Local | Strategy will be continual on an annual scheduled basis |
| 2.2.2 | High | In-progress | Same as above | Emergency Management | Local | Strategy will be continual on an annual scheduled basis |
| 3.1.2 | M | On-going | Same as above | VDOT, Floodplain Management Committee and Program Public Information | VDOT & Local grants | Strategy will be continual on an annual scheduled basis and upgraded when VDOT make road improvements as approved by BOS. |
| 3.1.3 | Low | On-going | Same as above | Emergency Management, Hazard Mitigation Management Team and Floodplain Management Committee and Program Public Information | Dominion Power | Strategy will be continual on an annual scheduled basis as contract requires by Dominion Power. |
| 3.1.4 | Moderate | On-going | Same as above | Same as above | Program Public Information | Strategy will be continual on an annual scheduled basis |
| 3.1.5 | High | On-going | Same as above | Emergency Management, Hazard Mitigation Management Team and Floodplain Management Committee and Program Public Information | Program Public Information | Strategy will be continual on an annual scheduled basis and will apply for grants to fund PPI. |
| 3.1.6 | Moderate | On-going | Same as above | Emergency Management, Dominion Power | Dominion Power | Strategy will be continual on an annual scheduled basis |
| 3.1.7 | Low | On-going | Same as above | Middle Peninsula Planning District Commission | MP PDC | Strategy will be continual on an annual scheduled basis as part of PDC funding |
| 3.1.8 | Moderate | On-going | Same as above | Emergency Management, US Forestry Service, and Volunteer Fire Departments | USFS | Strategy will be continual on an annual scheduled basis and will seek grant opportunities. |
| 3.2.2 | Low | In-progress | Same as above | Middle Peninsula Planning District Commission | MP PDC | Strategy will be continual as the MPRHMP is scheduled for review 2016 |
| 4.1.1 | High | In-progress | Same as above | Emergency Management and BOS | local | Strategy will be continual as the MPRHMP is scheduled for review 2016 |

SECTION 9: IMPLEMENTATION PLAN

Table 113: King and Queen County - Locality Specific Plan of Action

| Strategy | Priority | Responsible Party | Funding Source | Status | Comments |
|----------|----------|-------------------|----------------|---------------|--|
| 1.1.6 | Moderate | BOS/VDOT | VDOT | On-going | Route 17 at Parkers Marina completed and now open. Road was raised. |
| 1.1.8 | Moderate | Zoning | Local | Every 2-years | |
| 1.1.9 | Low | Building/Zoning | Local | Not Started | |
| 1.1.10 | Low | Building | VDOT | In-progress | Currently requires flood elevation certificates and looking to propose freeboard with the new maps in May of 2016 |
| 1.1.13 | Moderate | ESC/Planning | VDOT | w/in 2-years | |
| 1.1.15 | Low | Building/Wetlands | Local | In-progress | VE zone properties will have high construction requirements once new maps are adopted and effective May of 2016 |
| 1.1.19 | | | | | |
| 1.2.1 | Low | ESC/CAO | Local | On-going | |
| 2.2.1 | High | ESC | Local | On-going | Currently participate in mutual aid, no formal MOU's |
| 2.2.2 | High | ESC | Local | On-going | Currently participate in mutual aid, no formal MOU's |
| 3.1.2 | Moderate | ESC | n/a | Not Started | Roadways in VDOT system needs ditch cleanouts to prevent roadway flooding |
| 3.1.3 | Moderate | ESC/power co | n/a | In-Progress | REC does a great job of this |
| 3.1.4 | High | ESC | n/a | w/in 1 year | |
| 3.1.6 | Moderate | ESC | n/a | Not started | |
| 3.1.8 | Moderate | ESC | n/a | On-going | |
| 3.2.1 | Moderate | Planning/GIS | n/a | In-Progress | New maps to be adopted and effective may of 2016. GIS online to become available to the public Fall of 2015 |
| 3.2.2 | Low | ESC | n/a | In-progress | 1. HAZUS flood runs for the 1 square mile threshold was completed in the 2015 HAZUS completed by Dewberry 2. During the 2015 HAZUS completed by Dewberry the newest version of HAZUS software (version 2.2) which consisted of new dasymmetric Census data (ie. general building stock). 3. 2010 Census was not included in HAZUS. |
| 4.1.1 | High | ESC | Local | In-Progress | Adopted a floodplain overlay district as a component of the County's zoning ordinance. |

Table 114: King William County - Locality Specific Plan of Action

| Strategy | Priority | Responsible Party | Funding Source | Status | Comments |
|----------|----------|---------------------------|----------------|--------------|--|
| 1.1.5 | High | BOS/VDOT | VDOT | | |
| 1.1.6 | Moderate | BOS/VDOT | VDOT | On-going | |
| 1.1.12 | Low | Zoning | Local | | |
| 1.1.13 | Moderate | ESC/Planning | Local | | |
| 1.1.15 | Low | Building/Wetlands | Local | On-going | |
| 1.1.16 | Moderate | Community Development | Local | Not Started | Delayed due to lack of funding |
| 1.1.18 | Low | GIS/Community Development | Local | On-going | GIS layer developed; Added stormwater BMP layer |
| 1.1.19 | | | | | |
| 2.2.1 | High | ESC | Local | On-going | Currently participate in mutual aid, no formal MOU's |
| 2.2.2 | High | ESC | Local | On-going | Currently participate in mutual aid, no formal MOU's |
| 3.1.2 | Moderate | ESC | n/a | Not started | |
| 3.1.3 | Moderate | ESC/power co | n/a | w/in 1 years | |
| 3.1.4 | Moderate | ESC | n/a | Not started | Very little development around flood plains |
| 3.1.5 | | | | Not started | Very little development around flood plains |
| 3.1.6 | Low | ESC | n/a | w/in 2 years | |
| 3.1.7 | | | | | Threat level of sea rise limited in this community. |
| 3.1.8 | Moderate | ESC | n/a | Not started | |
| 3.2.2 | Low | ESC | n/a | In-progress | 1. HAZUS flood runs for the 1 square mile threshold was completed in the 2015 HAZUS completed by Dewberry 2. During the 2015 HAZUS completed by Dewberry the newest version of HAZUS software (version 2.2) which consisted of new dasymmetric Census data (ie. general building stock). 3. 2010 Census was not included in HAZUS. |
| 4.1.1 | High | ESC | Local | In-progress | Adopted a floodplain overlay district as a component of the County's zoning ordinance. |

Table 115: Town of West Point - Locality Specific Plan of Action

| Strategy | Priority | Responsible Party | Funding Source | Status | Comments |
|----------|----------|-------------------|------------------|-------------|---|
| 1.1.1 | Moderate | Planning | FEMA/land owners | On-going | Waiting to hear from FEMA on application |
| 1.1.2 | High | Building | Local | Annually | |
| 1.1.3 | Moderate | HRSD | HRSD/Local | On-going | Relocated public works building to higher ground |
| 1.1.9 | Moderate | Building/Zoning | Local | Not started | |
| 1.1.11 | Moderate | Zoning | Local | Ongoing | Review of zone and building applications |
| 1.1.15 | Low | Building/Wetlands | Local | Not Started | |
| 2.2.1 | High | ESC | Local | On-going | Currently participate in mutual aid, no formal MOU's |
| 2.2.2 | High | ESC | Local | On-going | Currently participate in mutual aid, no formal MOU's |
| 3.1.1 | Moderate | ESC | King William | On-going | King William Dispatch has the capability of doing this for the Town if needed |
| 3.1.3 | Low | ESC/power co | n/a | Not started | |
| 3.1.6 | Moderate | ESC | Local | Not started | |
| 3.1.7 | Low | ESC | n/a | Not started | |
| 3.2.1 | High | Planning | n/a | On-going | Received new GIS information from FEMA, updated as received from FEMA |
| 3.2.2 | Low | ESC | Local | In-progress | 1.HAZUS flood runs for the 1 square mile threshold was completed in the 2015 HAZUS completed by Dewberry 2. During the 2015 HAZUS completed by Dewberry the newest version of HAZUS software (version 2.2) which consisted of new dasymetric Census data (ie. general building stock). 3.2010 Census was not included in HAZUS. |
| 4.1.1 | High | ESC | Local | In-progress | Adopted a Floodplain overlay district as a component of the County's zoning ordinance |

| Strategy | Priority | Responsible Party | Funding Source | Status | Comments |
|-----------------|-----------------|--------------------------|-----------------------|-------------------------|--|
| I.1.1 | High | Zoning | FEMA/land owners | In-progress/ ongoing | Four FEMA HMGP grants were awarded to the County for the elevation of houses for thirty-four repetitive loss properties and acquisition of three properties. The elevations and acquisitions in these four grants are in progress and are expected to be completed in 2017. Another FEMA HMGP grant for one severe repetitive loss property was used to elevate the house in 2014. |
| I.1.2 | Low | Public Works | Local | Not started | Delayed because of lack of funding |
| I.1.3 | Moderate | Public Works | Local | Not started | Delayed because of lack of funding |
| I.1.4 | High | Town/County | VDOT | In-progress/ ongoing | FEMA HMGP funds have been used to acquire one repetitive loss property. Two others are in the process of being acquired |
| I.1.6 | Low | Town | VDOT | Not started | Delayed because of lack of VDOT funding |
| I.1.9 | Low | Building/Zoning | Local | Not started | Delayed because of lack of staff to apply for inclusion and ongoing participation in the CRS Program. |
| I.1.10 | High | Building | Essex County | Delayed | Increased elevation requirements proposed for updated floodplain management ordinance, but not adopted. Potential to be addressed in the future. |
| I.1.11 | High | Zoning | Local | In-progress/ ongoing | County's Building Official is enforcing adopted Floodplain Management Ordinance. Zoning amendments will be considered by the Planning Commission to address recurrent flooding after the five-year review of the Comprehensive Plan. |
| I.1.13 | Low | Building/Wetlands | Local | Not started | No request has been made to the NRCS or Tidewater Soil and Water Conservation District for an inventory of farm pond dams. |
| I.1.15 | Moderate | Building/Wetlands | Local | In-progress/ ongoing | The County's Wetlands Projects Coordinator and the Wetlands Board are promoting "Living Shorelines" as a shoreline erosion control method to property owners by utilizing information provided by VIMS and VMRC. |

SECTION 9: IMPLEMENTATION PLAN

| | | | | | |
|-------|----------|--------------|-------|-------------------------|---|
| 2.2.1 | High | ESC | Local | On-going | Currently participate in mutual aid, no formal MOU's |
| 2.2.2 | High | ESC | Local | On-going | Currently participate in mutual aid, no formal MOU's |
| 3.1.2 | Moderate | ESC | n/a | In-progress/ ongoing | The County encourages property owners to participate in its Outfall Ditch Maintenance Program. Local VDOT maintenance crews periodically clean ditches in their right-of-way. A Ditching Committee comprised of County residents was also formed to address this problem. |
| 3.1.3 | Low | ESC/power co | n/a | Not started | No request has been made to Dominion Power for information and guidance about the importance of keeping trees and brush away from power lines. |
| 3.1.4 | High | ESC | n/a | In-progress/ ongoing | The County's Building Official regularly posts information on the County's website regarding flood hazards. |
| 3.1.5 | High | ESC | n/a | In-progress/ ongoing | The County's Building Official and the Department of Planning & Zoning inform residents about FEMA HMGP grants to elevate their houses or acquire properties. Also, the Building Official, along with a local contractor, has conducted a meeting for residents regarding the steps involved in elevating a house. |
| 3.1.6 | Low | ESC | n/a | Not started | Delayed because of lack of staff |
| 3.1.7 | High | ESC | local | In-progress/ ongoing | Department of Planning & Zoning staff provided this information to residents when the Comprehensive Plan was updated in 2010. On-going information has been provided to the Planning Commission regarding this topic in advance of the five-year review of the Comprehensive Plan. |
| 3.1.8 | Low | Public Works | Local | Not started | Delayed because of lack of staff |
| 3.2.2 | Low | ESC | n/a | In-progress | 1.HAZUS flood runs for the 1 square mile threshold was completed in the 2015 HAZUS completed by Dewberry 2. During the 2015 HAZUS completed by Dewberry the newest version of HAZUS software (version 2.2) which consisted of new asymmetric Census data (ie. general building stock). 3.2010 Census was not included in HAZUS. |

SECTION 9: IMPLEMENTATION PLAN

Table 117: Middlesex County - Locality Specific Plan of Action

| Strategy | Priority | Responsible Party | Funding Source | Status | Comments |
|----------|----------|-------------------|------------------|-------------|--|
| 1.1.1 | High | Zoning | FEMA/land owners | On-going | Managed by Staff on an on-going basis |
| 1.1.2 | Low | Building | Local | Not Started | Delayed because lack of staff; any concerns are forwarded to VDOT |
| 1.1.6 | Low | BOS/VDOT | VDOT | On-going | Managed by VDOT |
| 1.1.8 | High | Zoning | VDOT | On-going | Active program; Ordinance recently readopted |
| 1.1.9 | Low | Building/Zoning | Local | Not Started | Delayed because lack of staff |
| 1.1.11 | High | Zoning | Local | On-going | Managed by staff on an on-going basis |
| 1.1.13 | Moderate | ESC/Planning | | On-going | Coordinate with USDA Staff when required |
| 1.1.15 | High | Building/Wetlands | Local | On-going | Managed by Staff on an on-going basis |
| 1.2.1 | Low | ESC/CAO | Local | Not Started | |
| 2.2.1 | High | ESC | Local | On-going | Currently participate in mutual aid, no formal MOU's |
| 2.2.2 | High | ESC | Local | On-going | Currently participate in mutual aid, no formal MOU's |
| 3.1.2 | Low | ESC | n/a | On-going | This occurs as needed |
| 3.1.3 | Moderate | ESC/power co | n/a | On-going | Managed by Staff on an as needed basis |
| 3.1.4 | High | ESC | n/a | On-going | Managed by staff during public education deliveries |
| 3.1.5 | Low | ESC | n/a | On-going | This occurs as requested |
| 3.1.6 | High | ESC | n/a | On-going | Managed by staff during public education deliveries |
| 3.1.7 | Low | ESC | Local | Not Started | Reactionary only |
| 3.1.8 | High | ESC | n/a | On-going | Managed by Staff during public education deliveries |
| 3.2.2 | Low | ESC | n/a | In-progress | 1.HAZUS flood runs for the 1 square mile threshold was completed in the 2015 HAZUS completed by Dewberry 2. During the 2015 HAZUS completed by Dewberry the newest version of HAZUS software (version 2.2) which consisted of new dasymmetric Census data (ie. general building stock). 3.2010 Census was not included in HAZUS. |
| 4.1.1 | High | ESC | Local | In-progress | Adopted a floodplain overlay district as a component of the County's zoning ordinance. |

Table 118: Town of Urbanna - Locality Specific Plan of Action

| Strategy | Priority | Responsible Party | Funding Source | Status | Comments |
|----------|----------|-------------------|------------------|-------------|--|
| 1.1.1 | High | Zoning | FEMA/land owners | On-going | Greatly increased freeboard requirements in new floodplain ordinance beyond minimum requirement. |
| 1.1.2 | High | Building | Local | On-going | |
| 1.1.9 | Moderate | Building/Zoning | VDOT | Not Started | |
| 1.1.11 | High | Zoning | Local | On-going | Enforcement of all floodplain/zoning/building regulations in flood zones is actively pursued on an on-going basis. |
| 1.1.14 | Moderate | | | Delayed | |
| 1.1.15 | High | Building/Wetlands | Local | On-going | Conducted jointly with Middlesex County |
| 2.2.1 | High | ESC | Local | On-going | Currently participate in mutual aid, no formal MOU's |
| 2.2.2 | High | ESC | Local | On-going | Currently participate in mutual aid, no formal MOU's |
| 3.1.2 | Low | ESC | n/a | On-going | Educational materials periodically placed on web site to encourage maintenance. |
| 3.1.3 | Low | ESC/power co | n/a | On-going | Town encourages Dominion line maintenance at every opportunity. |
| 3.1.6 | Low | ESC | n/a | Delayed | Manpower constraints |
| 3.1.7 | Moderate | ESC | Local | In-progress | Materials are being developed for distribution |
| 3.2.1 | Moderate | Zoning/GIS | n/a | n/a | See Middlesex County |
| 3.2.2 | Low | ESC | n/a | In-progress | 1.HAZUS flood runs for the 1 square mile threshold was completed in the 2015 HAZUS completed by Dewberry 2. During the 2015 HAZUS completed by Dewberry the newest version of HAZUS software (version 2.2) which consisted of new dasymmetric Census data (ie. general building stock). 3.2010 Census was not included in HAZUS. |
| 4.1.1 | High | ESC | Local | In-progress | Adopted a Floodplain overlay district as a component of the County's zoning ordinance |

Local Plan Coordination and Integration

During this update the AHMP Steering added strategy 1.1.19 that focuses on integrating mitigation strategies into locality plans, policies, codes and programs across disciplines and departments. While this is a new strategy, Middle Peninsula localities have already been working toward this goal:

Essex County has developed zoning, subdivision, and floodplain ordinances that effectively reduce hazard impacts. Additionally they have adopted flood insurance rate maps and they have acquired land for open space and public recreation uses that assist in reducing hazard impacts.

Gloucester County is currently developing a Continuity of Operations Plan and has developed zoning, subdivision, floodplain, and natural hazard specific ordinances that effectively reduce hazard impacts. Additionally they have adopted flood insurance rate maps and they have acquired land for open space and public recreation. The County has referenced the AHMP in the Comprehensive Plan, Floodplain Management Plan as well as the Open Space Management Plan. In conjunction with County plans, they have also adopted ordinances (zoning, subdivision, floodplain, and natural hazard) as well as flood insurance rate maps and have acquired land for open space and public recreates uses that assist in reducing hazard impacts.

King and Queen County has developed zoning, subdivision, floodplain, and natural hazard specific (ie. stormwater) ordinances that effectively reduce hazard impacts. Additionally they have adopted flood insurance rate maps and they have acquired land for open space and public recreation (ie. conservation easements and Department of Forestry public forests) uses that assist in reducing hazard impacts.

King William County has included references to hazard mitigation in a variety of plans including the County Comprehensive Plan and the Local emergency Operations Plan. Additionally King William County adopted ordinances (zoning, subdivision, floodplain, and natural hazard) as well as flood insurance rate maps that assist in reducing hazard impacts. For more information visit

Mathews County adopted their Comprehensive Plan 2030 in January 2011 that includes a chapter on hazard mitigation. Other plans that address hazards include the Capital Improvements Plan (Adopted in 2014), Local Emergency Operations Plan (Adopted December 20, 2011), and the Transportation Plan. Additionally Mathews County adopted ordinances (zoning, subdivision, floodplain, and natural hazard) as well as flood insurance rate maps and acquired land for open space through FEMA HMGP grant funding that assist in reducing hazard impacts.

Middlesex County has developed zoning, subdivision, and floodplain ordinances that effectively reduce hazard impacts. Additionally they have adopted flood insurance rate maps to assist in reducing hazard impacts.

In conjunction with integrating hazards and mitigation into local policies and plans, Middle Peninsula localities are interested in public involvement and several localities have specifically identified additional public participation steps above the required steps to explore over the next five years:

- King William County- The County has established an All-Hazards Emergency Planning Committee to insure that the public is involved.
- Gloucester County- The public will be involved with natural hazard planning through the Local Emergency Planning Committee (LEPC) and the Floodplain Management Committee (FMC). Both of these groups are open to the public and speak to hazard identification and mitigation strategies. Copies of The Plan will be made available at both County Public Libraries.
- Tappahannock County- Monthly Town Council meetings

SECTION 9: IMPLEMENTATION PLAN

- Mathews County- County will, from time to time, include pertinent information and opportunities for input on our website www.mathewscountyva.gov.
- King and Queen County- Copies of The Plan will be made available at the Public Library. Comments from the public will be encouraged with a submission procedure outlined. The plan will be discussed at open public Board of Supervisors meetings when up for review. References to the Plan will be on the County's future Emergency Services Web Page

While the localities make an effort to engage and educate the public on hazards and mitigation, Gloucester and Mathews County school districts have participated in the Climate Education for a Changing Bay (CECB) program hosted by the Chesapeake Bay National Estuarine Research Reserve in Virginia (CBNERR). This is an effort to strengthen the public's and K-12 students' environmental literacy to enable informed decision-making necessary for community resilience to extreme weather events and other environmental hazard. Participating students and teachers are equipped with the knowledge and materials needed to increase their climate literacy. Climate literate people understand the essential principles of Earth's climate system, including sea level rise, know how to assess scientifically credible information, communicate about climate, and make informed and responsible decisions to actions that may affect climate. Community members need to understand the climate system in order to apply that knowledge in their careers and in their engagement as active members of society, creating a resilient community. In the future, CBNERR will introduce this curriculum to King and Queen County, Middlesex County, and West Point as well as have students collect locally relevant data that will be shared with community members through the next Middle Peninsula All Hazards Mitigation Plan.

Section 10 - Plan Adoption

Each of the 9 localities participating in the MPAHMP update held a public informational session during one of their regularly scheduled local governing board/council meetings.

Subsequent to these informational sessions, the 9 governing bodies adopted the MPNHMP update by resolution on the dates noted below:

| Locality | Date of Adoption |
|-----------------------|---|
| Essex County | Once FEMA approves the plan, the County will bring the plan to the BOS for adoption. Date will be updated. |
| Town of Tappahannock | Once FEMA approves the plan, the County will bring the plan to the Town Council for adoption. Date will be updated. |
| Gloucester County | Once FEMA approves the plan, the County will bring the plan to the BOS for adoption. Date will be updated. |
| King and Queen County | Once FEMA approves the plan, the County will bring the plan to the BOS for adoption. |
| King William County | Once FEMA approves the plan, the County will bring the plan to the BOS for adoption. Date will be updated. |
| Town of West Point | Once FEMA approves the plan, the County will bring the plan to the Town Council for adoption. Date will be updated. |
| Mathews | Once FEMA approves the plan, the County will bring the plan to the BOS for adoption. Date will be updated. |
| Middlesex County | Once FEMA approves the plan, the County will bring the plan to the BOS for adoption. Date will be updated. |
| Town of Urbanna | Once FEMA approves the plan, the County will bring the plan to the Town Council for adoption. Date will be updated. |

Copies of meeting minutes from Board of Supervisors/ Town Council meetings relevant to the All Hazards Mitigation Plan will be included in Appendix O. Copies of resolutions adopting the MPAHMP Update from each of the localities will also be included in Appendix O.

Section II - Plan Maintenance

The monitoring, evaluating, and updating of this plan shall be done on an annual basis and shall be the responsibility of the locality's Emergency Services Coordinator/Emergency Manager (ESC/EM), with the assistance of the Chief Executive Officer - the County Administrator or Town Manager. In some of the Middle Peninsula localities, these two positions are held by the Chief Executive Officer.

The first annual evaluation of the MPAHMP update by localities will be completed on the 1-year anniversary date after FEMA's approval of the plan. For consistency purposes, the same evaluation spreadsheet tool will be used by all of the Middle Peninsula localities and the focus of the evaluation will be on what strategies/projects have been completed, obstacles that have been encountered and new-mini-strategies that are being proposed to overcome the identified obstacles. See Appendix P for a sample of the spreadsheet.

A Regional Planner at the MPPDC will be available to coordinate the annual evaluation process of the updated MPAHMP at the request of the 9 member jurisdictions. The Planner will work with Steering Committee Members, who actively participated in the development of the AHMP. As these committee members are the most knowledgeable from their locality regarding mitigation projects, they will be able to provide the most up-to-date information from their jurisdiction.

The Regional Planner will assist Middle Peninsula localities with the annual evaluation process in the following ways:

1. Distribute an evaluation spreadsheet tool to each ESC/EM approximately one month before the annual anniversary date of the plan. Each ESC/EM will receive the spreadsheet that lists their locality-specific mitigation strategies.
2. Collate and edit the completed evaluation spreadsheets returned to MPPDC after the Steering Committee Members have solicited input from residents in their community who have benefitted from flood mitigation projects as well as co-workers and outside agencies that have undertaken mitigation projects. More specifically, over the next 5-year cycle the MPAHMP will remain posted on the MPPDC website (www.mppdc.com) and will be available at the MPPDC office in Saluda to provide an opportunity for the public to continually review and provide feedback on the Plan.
3. Convene a meeting of the Steering Committee Members to go over their evaluations before submittal to FEMA/VDEM.
4. Develop goals and mini-strategies to be accomplished in the next year for their mitigation programs.
5. Provide FEMA/VDEM with a written evaluation report of progress/obstacles/opportunities in implementing the mitigation strategies in the plan.
6. Identify possible future revisions to the plan and notify FEMA/VDEM in writing of any proposed revisions.
7. Provide follow-up assistance as requested by Steering Committee Members with strategy implementation.

The 2021 MPAHMP Update

Due to the limited jurisdictional staff and funds it can be anticipated that the 9 Middle Peninsula localities will once again undertake the 2021 update as a regional planning project. It can also be anticipated that MPPDC participating localities will ask MPPDC staff to seek funding from FEMA for this joint project. With or without partial FEMA grant funding, the update will be undertaken and completed within the 5-year mandated federal requirement.

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Appendix A –
Signed Memorandum of Understandings

**Memorandum of Understanding (MOU) between
The Middle Peninsula Planning District Commission (MPPDC) and
Essex County for the
Virginia Department of Emergency Management (VDEM)
“Middle Peninsula PDC All Hazards Mitigation Plan Update”
Grant Number HMGP-4042-006**

This Memorandum of Understanding (MOU) outlines the terms of agreement between the Middle Peninsula Planning District Commission and Essex County concerning financial obligations of the local adoption of the 2016 Middle Peninsula PDC All Hazards Mitigation Plan Update, Grant Number HMGP-4042-006.

Background

Introduction

The Disaster Mitigation Act of 2000 (DMA 2K) is a key component of the Federal government’s commitment to reduce damages to private and public property through mitigation activities. This legislation established the Pre-Disaster Mitigation (PDM) Program and created requirements for the Post-Disaster Hazard Mitigation Grant Program (HMGP). This key piece of federal legislation is known as Public Law 106-390.

DMA 2K requires local governments to develop and submit mitigation plans to qualify for PDM and HMGP funds. The Act requires that the plan demonstrate “a jurisdiction’s commitment to reduce risk from natural hazards, serving as a guide for decision makers as they commit resources to reducing the effects of natural hazards.”

As stated in 44 CFR Ch. 1 Section 201.6, Part a, a local government MUST have a mitigation plan approved in order to receive HMGP project grants and in order to apply for and receive mitigation project grants under all other mitigation grant programs.

The MPPDC is coordinating the effort to update the 2011 Middle Peninsula All Hazards Mitigation Plan.

Scope of Work

The Middle Peninsula Planning District Commission (MPPDC) will update the 2011 Middle Peninsula All-Hazards Mitigation Plan (AHMP) with the help of a Local Planning Team nominated by counties and towns in the Middle Peninsula. The plan will address several natural hazards, including hurricanes, winter storms, tornadoes, coastal flooding, coastal/shoreline erosion, sea level rise, winter storms, wildfire, riverine flooding, wind, dam failures, drought, lightning, earthquakes, shrink-swell soils, extreme cold, extreme heat, landslides, land subsidence/karst, tsunamis, and volcanoes.

The project includes the following components:

1. Planning Process
2. Risk Assessment
3. Hazard Mitigation Strategy
4. Hazard Mitigation Plan Maintenance Process
5. Hazard Mitigation Plan Adoption and Approval

Local Adoption

To be eligible for HMGP project grants (grants for a locality after a disaster), a local government must have a mitigation plan approved. Approval includes adoption by the participating jurisdiction. Please see note below.

Timeframe of Grant

September 30, 2013 to September 30, 2016, unless otherwise altered through provisions of the Grant Agreement or extended by written authorization of VDEM.

Budget Detail

Resources

The MPPDC is managing the planning process on a reimbursable basis from VDEM. The FEMA grant award is \$93,750.00 and the total regional local share is \$31,250.00. Currently the LOCAL share is \$4,464.29 per county and \$1,488.10 per town. There may be future state funds available to offset some of the local share required. If so, MPPDC will adjust billing or reimburse the locality to reflect local share requirements.

| 3 Year Federal Grant Award | Total Grant Share/Match Required | County Match/Share over life of grant (\$4,464.29 x 6 counties = \$26,785.74) | Town Match/Share over life of grant (\$1,488.10 x 3 towns = \$4,464.30) | Total County and Town Match/Share \$26,785.29 + \$4,464.30 = \$31,250.04 |
|----------------------------|----------------------------------|--|--|---|
| \$93,750.00 | \$31,250.00 | \$4,464.29 per county | \$1,488.10 per town | |
| | | 3 Year Grant: Billed to each county annually | 3 Year Grant: Billed to each town annually | |
| | | Estimated billing at \$1,488.10 per county annually | Estimated billing at \$496.03 per town annually | |

Note

VDEM states: “if the communities do not adopt (the 2016 AHMP) it could affect parts of their Public Assistance and Hazard Mitigation funds.” Further, if a locality does not adopt the plan, there is the potential for VDEM and/or FEMA to deny reimbursement to the MPPDC for a portion of the cost of performing this planning process. If this occurs, the participating locality may be responsible for its share of the unreimbursed costs incurred by the MPPDC up to \$13,400.00 per county or \$4,450.00 per town as determined by VDEM.

Agreement

Upon completion of the planning process and approval of the 2016 All Hazards Mitigation Plan (AHMP) by VDEM, Essex County should make every attempt to adopt the 2016 AHMP. Since the MPPDC will manage the project in good faith and is required bear the costs of the planning process on a reimbursable basis, if Essex County fails to adopt the plan, any resulting loss of reimbursement to the MPPDC shall be borne by Essex County, not to exceed the Essex County’s portion of federal/state/local funding.

Upon execution of this MOU by Essex County, a signed copy shall be returned to the MPPDC.

Accepted by:

Essex County

By:  12/5/2013
Date

Print Name/Title A. Reese Peck, County Administrator

Middle Peninsula Planning District Commission

By:  10/24/2013
Lewis Lawrence, Acting Executive Director Date

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Background

Introduction

The Disaster Mitigation Act of 2000 (DMA 2K) is a key component of the Federal government’s commitment to reduce damages to private and public property through mitigation activities. This legislation established the Pre-Disaster Mitigation (PDM) Program and created requirements for the Post-Disaster Hazard Mitigation Grant Program (HMGP). This key piece of federal legislation is known as Public Law 106-390.

DMA 2K requires local governments to develop and submit mitigation plans to qualify for PDM and HMGP funds. The Act requires that the plan demonstrate “a jurisdiction’s commitment to reduce risk from natural hazards, serving as a guide for decision makers as they commit resources to reducing the effects of natural hazards.”

As stated in 44 CFR Ch. 1 Section 201.6, Part a, a local government MUST have a mitigation plan approved in order to receive HMGP project grants and in order to apply for and receive mitigation project grants under all other mitigation grant programs.

The MPPDC is coordinating the effort to update the 2011 Middle Peninsula All Hazards Mitigation Plan.

Scope of Work

The Middle Peninsula Planning District Commission (MPPDC) will update the 2011 Middle Peninsula All-Hazards Mitigation Plan (AHMP) with the help of a Local Planning Team nominated by counties and towns in the Middle Peninsula. The plan will address several natural hazards, including hurricanes, winter storms, tornadoes, coastal flooding, coastal/shoreline erosion, sea level rise, winter storms, wildfire, riverine flooding, wind, dam failures, drought, lightning, earthquakes, shrink-swell soils, extreme cold, extreme heat, landslides, land subsidence/karst, tsunamis, and volcanoes.

The project includes the following components:

1. Planning Process
2. Risk Assessment
3. Hazard Mitigation Strategy
4. Hazard Mitigation Plan Maintenance Process
5. Hazard Mitigation Plan Adoption and Approval

Upon execution of this MOU by Gloucester County, a signed copy shall be returned to the MPPDC.

Accepted by:

Gloucester County _____

By: Brenda G. Garton Dec. 2, 2013
Date
Print Name/Title BRENDA G. GARTON, COUNTY ADMINISTRATOR

Middle Peninsula Planning District Commission

By: [Signature] 10/24/2013
Date
Lewis Lawrence, Acting Executive Director

**Memorandum of Understanding (MOU) between
The Middle Peninsula Planning District Commission (MPPDC) and
King and Queen County for the
Virginia Department of Emergency Management (VDEM)
“Middle Peninsula PDC All Hazards Mitigation Plan Update”
Grant Number HMGP-4042-006**

This Memorandum of Understanding (MOU) outlines the terms of agreement between the Middle Peninsula Planning District Commission and King and Queen County concerning financial obligations of the local adoption of the 2016 Middle Peninsula PDC All Hazards Mitigation Plan Update, Grant Number HMGP-4042-006.

Background

Introduction

The Disaster Mitigation Act of 2000 (DMA 2K) is a key component of the Federal government’s commitment to reduce damages to private and public property through mitigation activities. This legislation established the Pre-Disaster Mitigation (PDM) Program and created requirements for the Post-Disaster Hazard Mitigation Grant Program (HMGP). This key piece of federal legislation is known as Public Law 106-390.

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The project includes the following components:

1. Planning Process
2. Risk Assessment
3. Hazard Mitigation Strategy
4. Hazard Mitigation Plan Maintenance Process
5. Hazard Mitigation Plan Adoption and Approval

Local Adoption

To be eligible for HMGP project grants (grants for a locality after a disaster), a local government must have a mitigation plan approved. Approval includes adoption by the participating jurisdiction. Please see note below.

Timeframe of Grant

September 30, 2013 to September 30, 2016, unless otherwise altered through provisions of the Grant Agreement or extended by written authorization of VDEM.

Budget Detail

Resources

The MPPDC is managing the planning process on a reimbursable basis from VDEM. The FEMA grant award is \$93,750.00 and the total regional local share is \$31,250.00. Currently the LOCAL share is \$4,464.29 per county and \$1,488.10 per town.

There may be future state funds available to offset some of the local share required. If so, MPPDC will adjust billing or reimburse the locality to reflect local share requirements.

| 3 Year Federal Grant Award | Total Grant Share/Match Required | County Match/Share over life of grant (\$4,464.29 x 6 counties = \$26,785.74) | Town Match/Share over life of grant (\$1,488.10 x 3 towns = \$4,464.30) | Total County and Town Match/Share \$26,785.29 + \$4,464.30 = \$31,250.04 |
|----------------------------|----------------------------------|--|--|---|
| \$93,750.00 | \$31,250.00 | \$4,464.29 per county | \$1,488.10 per town | |
| | | 3 Year Grant: Billed to each county annually | 3 Year Grant: Billed to each town annually | |
| | | Estimated billing at \$1,488.10 per county annually | Estimated billing at \$496.03 per town annually | |

Note

VDEM states: "if the communities do not adopt (the 2016 AHMP) it could affect parts of their Public Assistance and Hazard Mitigation funds." Further, if a locality does not adopt the plan, there is the potential for VDEM and/or FEMA to deny reimbursement to the MPPDC for a portion of the cost of performing this planning process. If this occurs, the participating locality may be responsible for its share of the unreimbursed costs incurred by the MPPDC up to \$13,400.00 per county or \$4,450.00 per town as determined by VDEM.

Agreement

Upon completion of the planning process and approval of the 2016 All Hazards Mitigation Plan (AHMP) by VDEM, King and Queen County should make every attempt to adopt the 2016 AHMP. Since the MPPDC will manage the project in good faith and is required bear the costs of the planning process on a reimbursable basis, if King and Queen County fails to adopt the plan, any resulting loss of reimbursement to the MPPDC shall be borne by King and Queen County, not to exceed the King and Queen County's portion of federal/state/local funding.

Upon execution of this MOU by King and Queen County, a signed copy shall be returned to the MPPDC.

Accepted by:

King and Queen County _____

By: *Doris H. Morris*

1-10-14

Date

Print Name/Title DORIS H. MORRIS, CHAIRMAN

Middle Peninsula Planning District Commission

By: *[Signature]*
Lewis Lawrence, Acting Executive Director

10/24/2013

Date

**Memorandum of Understanding (MOU) between
The Middle Peninsula Planning District Commission (MPPDC) and
King William County for the
Virginia Department of Emergency Management (VDEM)
“Middle Peninsula PDC All Hazards Mitigation Plan Update”
Grant Number HMGP-4042-006**

This Memorandum of Understanding (MOU) outlines the terms of agreement between the Middle Peninsula Planning District Commission and King William County concerning financial obligations of the local adoption of the 2016 Middle Peninsula PDC All Hazards Mitigation Plan Update, Grant Number HMGP-4042-006.

Background

Introduction

The Disaster Mitigation Act of 2000 (DMA 2K) is a key component of the Federal government’s commitment to reduce damages to private and public property through mitigation activities. This legislation established the Pre-Disaster Mitigation (PDM) Program and created requirements for the Post-Disaster Hazard Mitigation Grant Program (HMGP). This key piece of federal legislation is known as Public Law 106-390.

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The MPPDC is coordinating the effort to update the 2011 Middle Peninsula All Hazards Mitigation Plan.

Scope of Work

The Middle Peninsula Planning District Commission (MPPDC) will update the 2011 Middle Peninsula All-Hazards Mitigation Plan (AHMP) with the help of a Local Planning Team nominated by counties and towns in the Middle Peninsula. The plan will address several natural hazards, including hurricanes, winter storms, tornadoes, coastal flooding, coastal/shoreline erosion, sea level rise, winter storms, wildfire, riverine flooding, wind, dam failures, drought, lightning, earthquakes, shrink-swell soils, extreme cold, extreme heat, landslides, land subsidence/karst, tsunami, and volcanoes.

The project includes the following components:

1. Planning Process
2. Risk Assessment
3. Hazard Mitigation Strategy
4. Hazard Mitigation Plan Maintenance Process
5. Hazard Mitigation Plan Adoption and Approval

Local Adoption

To be eligible for HMGP project grants (grants for a locality after a disaster), a local government must have a mitigation plan approved. Approval includes adoption by the participating jurisdiction. Please see note below.

Timeframe of Grant

September 30, 2013 to September 30, 2016, unless otherwise altered through provisions of the Grant Agreement or extended by written authorization of VDEM.

Budget Detail

Resources

The MPPDC is managing the planning process on a reimbursable basis from VDEM. The FEMA grant award is \$93,750.00 and the total regional local share is \$31,250.00. Currently the LOCAL share is \$4,464.29 per county and \$1,488.10 per town. There may be future state funds available to offset some of the local share required. If so, MPPDC will adjust billing or reimburse the locality to reflect local share requirements.

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| \$93,750.00 | \$31,250.00 | \$4,464.29 per county | \$1,488.10 per town | |
| | | 3 Year Grant: Billed to each county annually | 3 Year Grant: Billed to each town annually | |
| | | Estimated billing at \$1,488.10 per county annually | Estimated billing at \$496.03 per town annually | |

Note

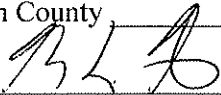
VDEM states: "if the communities do not adopt (the 2016 AHMP) it could affect parts of their Public Assistance and Hazard Mitigation funds." Further, if a locality does not adopt the plan, there is the potential for VDEM and/or FEMA to deny reimbursement to the MPPDC for a portion of the cost of performing this planning process. If this occurs, the participating locality may be responsible for its share of the unreimbursed costs incurred by the MPPDC up to \$13,400.00 per county or \$4,450.00 per town as determined by VDEM.

Agreement

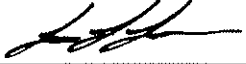
Upon completion of the planning process and approval of the 2016 All Hazards Mitigation Plan (AHMP) by VDEM, King William County should make every attempt to adopt the 2016 AHMP. Since the MPPDC will manage the project in good faith and is required bear the costs of the planning process on a reimbursable basis, if King William County fails to adopt the plan, any resulting loss of reimbursement to the MPPDC shall be borne by King William County, not to exceed the King William County's portion of federal/state/local funding.

Upon execution of this MOU by King William County, a signed copy shall be returned to the MPPDC.

Accepted by:

King William County _____
By:  01/08/14
Print Name/Title TRESTON L. FINKNER Date
COUNTY ADMINISTRATOR

Middle Peninsula Planning District Commission

By:  10/24/2013
Lewis Lawrence, Acting Executive Director Date

**Memorandum of Understanding (MOU) between
The Middle Peninsula Planning District Commission (MPPDC) and
Mathews County for the
Virginia Department of Emergency Management (VDEM)
“Middle Peninsula PDC All Hazards Mitigation Plan Update”
Grant Number HMGP-4042-006**

This Memorandum of Understanding (MOU) outlines the terms of agreement between the Middle Peninsula Planning District Commission and Mathews County concerning financial obligations of the local adoption of the 2016 Middle Peninsula PDC All Hazards Mitigation Plan Update, Grant Number HMGP-4042-006.

Background

Introduction

The Disaster Mitigation Act of 2000 (DMA 2K) is a key component of the Federal government’s commitment to reduce damages to private and public property through mitigation activities. This legislation established the Pre-Disaster Mitigation (PDM) Program and created requirements for the Post-Disaster Hazard Mitigation Grant Program (HMGP). This key piece of federal legislation is known as Public Law 106-390.

DMA 2K requires local governments to develop and submit mitigation plans to qualify for PDM and HMGP funds. The Act requires that the plan demonstrate “a jurisdiction’s commitment to reduce risk from natural hazards, serving as a guide for decision makers as they commit resources to reducing the effects of natural hazards.”

As stated in 44 CFR Ch. 1 Section 201.6, Part a, a local government MUST have a mitigation plan approved in order to receive HMGP project grants and in order to apply for and receive mitigation project grants under all other mitigation grant programs.

The MPPDC is coordinating the effort to update the 2011 Middle Peninsula All Hazards Mitigation Plan.

Scope of Work

The Middle Peninsula Planning District Commission (MPPDC) will update the 2011 Middle Peninsula All-Hazards Mitigation Plan (AHMP) with the help of a Local Planning Team nominated by counties and towns in the Middle Peninsula. The plan will address several natural hazards, including hurricanes, winter storms, tornadoes, coastal flooding, coastal/shoreline erosion, sea level rise, winter storms, wildfire, riverine flooding, wind, dam failures, drought, lightning, earthquakes, shrink-swell soils, extreme cold, extreme heat, landslides, land subsidence/karst, tsunami, and volcanoes.

The project includes the following components:

1. Planning Process
2. Risk Assessment
3. Hazard Mitigation Strategy
4. Hazard Mitigation Plan Maintenance Process
5. Hazard Mitigation Plan Adoption and Approval

Local Adoption

To be eligible for HMGP project grants (grants for a locality after a disaster), a local government must have a mitigation plan approved. Approval includes adoption by the participating jurisdiction. Please see note below.

Timeframe of Grant

September 30, 2013 to September 30, 2016, unless otherwise altered through provisions of the Grant Agreement or extended by written authorization of VDEM.

Budget Detail

Resources

The MPPDC is managing the planning process on a reimbursable basis from VDEM. The FEMA grant award is \$93,750.00 and the total regional local share is \$31,250.00. Currently the LOCAL share is \$4,464.29 per county and \$1,488.10 per town. There may be future state funds available to offset some of the local share required. If so, MPPDC will adjust billing or reimburse the locality to reflect local share requirements.

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Note

VDEM states: "if the communities do not adopt (the 2016 AHMP) it could affect parts of their Public Assistance and Hazard Mitigation funds." Further, if a locality does not adopt the plan, there is the potential for VDEM and/or FEMA to deny reimbursement to the MPPDC for a portion of the cost of performing this planning process. If this occurs, the participating locality may be responsible for its share of the unreimbursed costs incurred by the MPPDC up to \$13,400.00 per county or \$4,450.00 per town as determined by VDEM.

Agreement

Upon completion of the planning process and approval of the 2016 All Hazards Mitigation Plan (AHMP) by VDEM, Mathews County should make every attempt to adopt the 2016 AHMP. Since the MPPDC will manage the project in good faith and is required bear the costs of the planning process on a reimbursable basis, if Mathews County fails to adopt the plan, any resulting loss of reimbursement to the MPPDC shall be borne by Mathews County, not to exceed the Mathews County's portion of federal/state/local funding.

Upon execution of this MOU by Mathews County, a signed copy shall be returned to the MPPDC.

Accepted by:

Mathews County _____

By: Melinda Moran

12/13/13
Date

Print Name/Title Melinda Moran

Middle Peninsula Planning District Commission

By: Lewis Lawrence

10/24/2013
Date

Lewis Lawrence, Acting Executive Director

Mark Nugent > LPT members
Wally Horton

**Memorandum of Understanding (MOU) between
The Middle Peninsula Planning District Commission (MPPDC) and
Middlesex County for the
Virginia Department of Emergency Management (VDEM)
“Middle Peninsula PDC All Hazards Mitigation Plan Update”
Grant Number HMGP-4042-006**

This Memorandum of Understanding (MOU) outlines the terms of agreement between the Middle Peninsula Planning District Commission and Middlesex County concerning financial obligations of the local adoption of the 2016 Middle Peninsula PDC All Hazards Mitigation Plan Update, Grant Number HMGP-4042-006.

Background

Introduction

The Disaster Mitigation Act of 2000 (DMA 2K) is a key component of the Federal government’s commitment to reduce damages to private and public property through mitigation activities. This legislation established the Pre-Disaster Mitigation (PDM) Program and created requirements for the Post-Disaster Hazard Mitigation Grant Program (HMGP). This key piece of federal legislation is known as Public Law 106-390.

DMA 2K requires local governments to develop and submit mitigation plans to qualify for PDM and HMGP funds. The Act requires that the plan demonstrate “a jurisdiction’s commitment to reduce risk from natural hazards, serving as a guide for decision makers as they commit resources to reducing the effects of natural hazards.”

As stated in 44 CFR Ch. 1 Section 201.6, Part a, a local government **MUST** have a mitigation plan approved in order to receive HMGP project grants and in order to apply for and receive mitigation project grants under all other mitigation grant programs.

The MPPDC is coordinating the effort to update the 2011 Middle Peninsula All Hazards Mitigation Plan.

Scope of Work

The Middle Peninsula Planning District Commission (MPPDC) will update the 2011 Middle Peninsula All-Hazards Mitigation Plan (AHMP) with the help of a Local Planning Team nominated by counties and towns in the Middle Peninsula. The plan will address several natural hazards, including hurricanes, winter storms, tornadoes, coastal flooding, coastal/shoreline erosion, sea level rise, winter storms, wildfire, riverine flooding, wind, dam failures, drought, lightning, earthquakes, shrink-swell soils, extreme cold, extreme heat, landslides, land subsidence/karst, tsunamis, and volcanoes.

The project includes the following components:

1. Planning Process
2. Risk Assessment
3. Hazard Mitigation Strategy
4. Hazard Mitigation Plan Maintenance Process
5. Hazard Mitigation Plan Adoption and Approval

Local Adoption

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Timeframe of Grant

September 30, 2013 to September 30, 2016, unless otherwise altered through provisions of the Grant Agreement or extended by written authorization of VDEM.

Budget Detail

Resources

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Agreement

Upon completion of the planning process and approval of the 2016 All Hazards Mitigation Plan (AHMP) by VDEM, Middlesex County should make every attempt to adopt the 2016 AHMP. Since the MPPDC will manage the project in good faith and is required bear the costs of the planning process on a reimbursable basis, if Middlesex County fails to adopt the plan, any resulting loss of reimbursement to the MPPDC shall be borne by Middlesex County, not to exceed the Middlesex County's portion of federal/state/local funding.

Upon execution of this MOU by Middlesex County, a signed copy shall be returned to the MPPDC.

Accepted by:

Middlesex County _____

By:  12-13-13

Print Name/Title Matt Walker County Administrator

Date

Middle Peninsula Planning District Commission

By:  10/24/2013

Lewis Lawrence, Acting Executive Director

Date

TAPPAHANNOCK

**Memorandum of Understanding (MOU) between
The Middle Peninsula Planning District Commission (MPPDC) and
The Town of Tappahannock for the
Virginia Department of Emergency Management (VDEM)
“Middle Peninsula PDC All Hazards Mitigation Plan Update”
Grant Number HMGP-4042-006**

This Memorandum of Understanding (MOU) outlines the terms of agreement between the Middle Peninsula Planning District Commission and The Town of Tappahannock concerning financial obligations of the local adoption of the 2016 Middle Peninsula PDC All Hazards Mitigation Plan Update, Grant Number HMGP-4042-006.

Background

Introduction

The Disaster Mitigation Act of 2000 (DMA 2K) is a key component of the Federal government’s commitment to reduce damages to private and public property through mitigation activities. This legislation established the Pre-Disaster Mitigation (PDM) Program and created requirements for the Post-Disaster Hazard Mitigation Grant Program (HMGP). This key piece of federal legislation is known as Public Law 106-390.

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The MPPDC is coordinating the effort to update the 2011 Middle Peninsula All Hazards Mitigation Plan.

Scope of Work

The Middle Peninsula Planning District Commission (MPPDC) will update the 2011 Middle Peninsula All-Hazards Mitigation Plan (AHMP) with the help of a Local Planning Team nominated by counties and towns in the Middle Peninsula. The plan will address several natural hazards, including hurricanes, winter storms, tornadoes, coastal flooding, coastal/shoreline erosion, sea level rise, winter storms, wildfire, riverine flooding, wind, dam failures, drought, lightning, earthquakes, shrink-swell soils, extreme cold, extreme heat, landslides, land subsidence/karst, tsunami, and volcanoes.

The project includes the following components:

1. Planning Process
2. Risk Assessment
3. Hazard Mitigation Strategy
4. Hazard Mitigation Plan Maintenance Process
5. Hazard Mitigation Plan Adoption and Approval

Local Adoption

To be eligible for HMGP project grants (grants for a locality after a disaster), a local government must have a mitigation plan approved. Approval includes adoption by the participating jurisdiction. Please see note below.

Timeframe of Grant

September 30, 2013 to September 30, 2016, unless otherwise altered through provisions of the Grant Agreement or extended by written authorization of VDEM.

Budget Detail

Resources

The MPPDC is managing the planning process on a reimbursable basis from VDEM. The FEMA grant award is \$93,750.00 and the total regional local share is \$31,250.00. Currently the LOCAL share is \$4,464.29 per county and \$1,488.10 per town. There may be future state funds available to offset some of the local share required. If so, MPPDC will adjust billing or reimburse the locality to reflect local share requirements.

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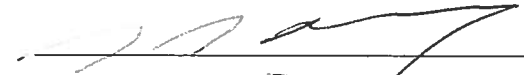
Agreement

Upon completion of the planning process and approval of the 2016 All Hazards Mitigation Plan (AHMP) by VDEM, The Town of Tappahannock should make every attempt to adopt the 2016 AHMP. Since the MPPDC will manage the project in good faith and is required bear the costs of the planning process on a reimbursable basis, if The Town of Tappahannock fails to adopt the plan, any resulting loss of reimbursement to the MPPDC shall be borne by The Town of Tappahannock, not to exceed The Town of Tappahannock's portion of federal/state/local funding.

Upon execution of this MOU by The Town of Tappahannock, a signed copy shall be returned to the MPPDC.

Accepted by:

Town of Tappahannock _____

By:  11-25-13
Date

Print Name/Title G. G. BELKLEY JR.
TOWN MANAGER

Middle Peninsula Planning District Commission

By:  10/24/2013
Lewis Lawrence, Acting Executive Director Date

**Memorandum of Understanding (MOU) between
The Middle Peninsula Planning District Commission (MPPDC) and
The Town of Urbanna for the
Virginia Department of Emergency Management (VDEM)
“Middle Peninsula PDC All Hazards Mitigation Plan Update”
Grant Number HMGP-4042-006**

This Memorandum of Understanding (MOU) outlines the terms of agreement between the Middle Peninsula Planning District Commission and The Town of Urbanna concerning financial obligations of the local adoption of the 2016 Middle Peninsula PDC All Hazards Mitigation Plan Update, Grant Number HMGP-4042-006.

Background

Introduction

The Disaster Mitigation Act of 2000 (DMA 2K) is a key component of the Federal government’s commitment to reduce damages to private and public property through mitigation activities. This legislation established the Pre-Disaster Mitigation (PDM) Program and created requirements for the Post-Disaster Hazard Mitigation Grant Program (HMGP). This key piece of federal legislation is known as Public Law 106-390.

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The MPPDC is coordinating the effort to update the 2011 Middle Peninsula All Hazards Mitigation Plan.

Scope of Work

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The project includes the following components:

1. Planning Process
2. Risk Assessment
3. Hazard Mitigation Strategy
4. Hazard Mitigation Plan Maintenance Process
5. Hazard Mitigation Plan Adoption and Approval

Local Adoption

To be eligible for HMGP project grants (grants for a locality after a disaster), a local government must have a mitigation plan approved. Approval includes adoption by the participating jurisdiction. Please see note below.

Timeframe of Grant

September 30, 2013 to September 30, 2016, unless otherwise altered through provisions of the Grant Agreement or extended by written authorization of VDEM.

Budget Detail

Resources

The MPPDC is managing the planning process on a reimbursable basis from VDEM. The FEMA grant award is \$93,750.00 and the total regional local share is \$31,250.00. Currently the LOCAL share is \$4,464.29 per county and \$1,488.10 per town. There may be future state funds available to offset some of the local share required. If so, MPPDC will adjust billing or reimburse the locality to reflect local share requirements.

| | | | | |
|---------------------------------------|--|--|---|---|
| 3 Year Grant Award | \$93,750.00 | \$31,250.00 | \$4,464.29 per county | \$1,488.10 per town |
| Federal Grant | | | | |
| Share/Match | | | | |
| Total Grant | | | | |
| County Match/Share over life of grant | (\$4,464.29 x 6 counties = \$26,785.74) | | | |
| Town Match/Share over life of grant | (\$1,488.10 x 3 towns = \$4,464.30) | | | |
| Town Match/Share | \$26,785.29 + \$4,464.30 = \$31,250.04 | | | |
| Total County and | | | | |
| 3 Year Grant | 3 Year Grant: Billed to each county annually | 3 Year Grant: Billed to each town annually | Estimated billing at \$1,488.10 per county annually | Estimated billing at \$496.03 per town annually |

Note

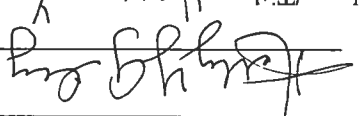
VDEM states: "if the communities do not adopt (the 2016 AHMP) it could affect parts of their Public Assistance and Hazard Mitigation funds." Further, if a locality does not adopt the plan, there is the potential for VDEM and/or FEMA to deny reimbursement to the MPPDC for a portion of the cost of performing this planning process. If this occurs, the participating locality may be responsible for its share of the unreimbursed costs incurred by the MPPDC up to \$13,400.00 per county or \$4,450.00 per town as determined by VDEM.

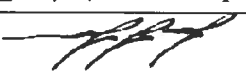
Agreement

Upon completion of the planning process and approval of the 2016 All Hazards Mitigation Plan (AHMP) by VDEM, The Town of Urbana should make every attempt to adopt the 2016 AHMP. Since the MPPDC will manage the project in good faith and is required bear the costs of the planning process on a reimbursable basis, if The Town of Urbana fails to adopt the plan, any resulting loss of reimbursement to the MPPDC shall be borne by The Town of Urbana, not to exceed The Town of Urbana's portion of federal/state/local funding.

Upon execution of this MOU by The Town of Urbana, a signed copy shall be returned to the MPPDC.

Accepted by:

Town of Urbana
 By: 
 Print Name/Title Henry Y. Garey
 Date 1/14/2014

Middle Peninsula Planning District Commission
 By: 
 Lewis Lawrence, Acting Executive Director
 Date 10/24/2013

**Memorandum of Understanding (MOU) between
The Middle Peninsula Planning District Commission (MPPDC) and
The Town of West Point for the
Virginia Department of Emergency Management (VDEM)
“Middle Peninsula PDC All Hazards Mitigation Plan Update”
Grant Number HMGP-4042-006**

This Memorandum of Understanding (MOU) outlines the terms of agreement between the Middle Peninsula Planning District Commission and The Town of West Point concerning financial obligations of the local adoption of the 2016 Middle Peninsula PDC All Hazards Mitigation Plan Update, Grant Number HMGP-4042-006.

Background

Introduction

The Disaster Mitigation Act of 2000 (DMA 2K) is a key component of the Federal government’s commitment to reduce damages to private and public property through mitigation activities. This legislation established the Pre-Disaster Mitigation (PDM) Program and created requirements for the Post-Disaster Hazard Mitigation Grant Program (HMGP). This key piece of federal legislation is known as Public Law 106-390.

DMA 2K requires local governments to develop and submit mitigation plans to qualify for PDM and HMGP funds. The Act requires that the plan demonstrate “a jurisdiction’s commitment to reduce risk from natural hazards, serving as a guide for decision makers as they commit resources to reducing the effects of natural hazards.”

As stated in 44 CFR Ch. 1 Section 201.6, Part a, a local government MUST have a mitigation plan approved in order to receive HMGP project grants and in order to apply for and receive mitigation project grants under all other mitigation grant programs.

The MPPDC is coordinating the effort to update the 2011 Middle Peninsula All Hazards Mitigation Plan.

Scope of Work

The Middle Peninsula Planning District Commission (MPPDC) will update the 2011 Middle Peninsula All-Hazards Mitigation Plan (AHMP) with the help of a Local Planning Team nominated by counties and towns in the Middle Peninsula. The plan will address several natural hazards, including hurricanes, winter storms, tornadoes, coastal flooding, coastal/shoreline erosion, sea level rise, winter storms, wildfire, riverine flooding, wind, dam failures, drought, lightning, earthquakes, shrink-swell soils, extreme cold, extreme heat, landslides, land subsidence/karst, tsunamis, and volcanoes.

The project includes the following components:

1. Planning Process
2. Risk Assessment
3. Hazard Mitigation Strategy
4. Hazard Mitigation Plan Maintenance Process
5. Hazard Mitigation Plan Adoption and Approval

Local Adoption

To be eligible for HMGP project grants (grants for a locality after a disaster), a local government must have a mitigation plan approved. Approval includes adoption by the participating jurisdiction. Please see note below.

Timeframe of Grant

September 30, 2013 to September 30, 2016, unless otherwise altered through provisions of the Grant Agreement or extended by written authorization of VDEM.

Budget Detail

Resources

The MPPDC is managing the planning process on a reimbursable basis from VDEM. The FEMA grant award is \$93,750.00 and the total regional local share is \$31,250.00. Currently the LOCAL share is \$4,464.29 per county and \$1,488.10 per town. There may be future state funds available to offset some of the local share required. If so, MPPDC will adjust billing or reimburse the locality to reflect local share requirements.

| 3 Year Federal Grant Award | Total Grant Share/Match Required | County Match/Share over life of grant (\$4,464.29 x 6 counties = \$26,785.74) | Town Match/Share over life of grant (\$1,488.10 x 3 towns = \$4,464.30) | Total County and Town Match/Share \$26,785.29 + \$4,464.30 = \$31,250.04 |
|----------------------------|----------------------------------|--|--|---|
| \$93,750.00 | \$31,250.00 | \$4,464.29 per county | \$1,488.10 per town | |
| | | 3 Year Grant: Billed to each county annually | 3 Year Grant: Billed to each town annually | |
| | | Estimated billing at \$1,488.10 per county annually | Estimated billing at \$496.03 per town annually | |

Note

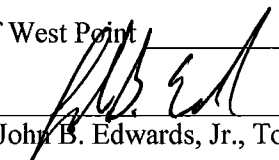
VDEM states: "if the communities do not adopt (the 2016 AHMP) it could affect parts of their Public Assistance and Hazard Mitigation funds." Further, if a locality does not adopt the plan, there is the potential for VDEM and/or FEMA to deny reimbursement to the MPPDC for a portion of the cost of performing this planning process. If this occurs, the participating locality may be responsible for its share of the unreimbursed costs incurred by the MPPDC up to \$13,400.00 per county or \$4,450.00 per town as determined by VDEM.

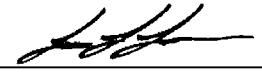
Agreement

Upon completion of the planning process and approval of the 2016 All Hazards Mitigation Plan (AHMP) by VDEM, The Town of West Point should make every attempt to adopt the 2016 AHMP. Since the MPPDC will manage the project in good faith and is required bear the costs of the planning process on a reimbursable basis, if The Town of West Point fails to adopt the plan, any resulting loss of reimbursement to the MPPDC shall be borne by The Town of West Point, not to exceed The Town of West Point's portion of federal/state/local funding.

Upon execution of this MOU by The Town of West Point, a signed copy shall be returned to the MPPDC.

Accepted by:

Town of West Point _____
By:  _____
John B. Edwards, Jr., Town Manager 11/20/13
Date

Middle Peninsula Planning District Commission
By:  _____
Lewis Lawrence, Acting Executive Director 10/24/2013
Date

Appendix **B** –
List of All Hazards Mitigation Plan Committee Members

County Administrators/Town Managers

Mindy Moran, County Administrator
Mathews County
P. O. Box 839
Mathews, VA 23109
804-725-7172
mmoran@co.mathews.va.us

Ms. Edwina Casey, Board of Supervisor
Mathews County
P O Box 472
North, VA 23128
ecasey@co.mathews.va.us

Matt Walker, County Administrator
Middlesex County
P. O. Box 428
Saluda, VA 23149
804-758-4330
m.walker@co.middlesex.va.us

Brenda Garton, County Administrator
Gloucester County
P. O. Box 329
Gloucester, VA 23061
804-693-4042
bgarton@gloucesterva.info

Mr. Garrey Curry, Jr., Assistant County
Administrator for Community Development
Gloucester County
P O Box 329
Gloucester, VA 23061
804-693-4042
GCurry@gloucesterva.info

Mr. Tom Swartzwelder, County Administrator
King and Queen County
P. O. Box 177
King and Queen C.H., VA 23085
804-785-5975
tswartzwelder@kingandqueenco.net

Mr. Reece Peck, County Administrator
Essex County
P. O. Box 1079
Tappahannock, VA 22560
804-443-4331
rpeck@essex-virginia.org

Mr. Jimmy Sydnor, Assistant Town Manager
Town of Tappahannock
P O Box 266
Tappahannock, VA 22560
804-443-3336
jsydnor@essex-virginia.org

Mr. K. Charles Griffin, County Administrator
King William County
P. O. Box 215
King William, VA 23086
804-769-4927

Mr. Jimmy Sydnor, Assistant Town Manager
Town of Tappahannock
P. O. Box 266
Tappahannock, VA 22560
804-443-3336
tappzone@tappahannock-va.gov

Ms. Holly Gailey, Town Administrator
Town of Urbanna
45 Cross Street
Urbanna, VA 23175
804-758-2613
h.gailey@urbannava.gov

Mr. John Edwards, Town Manager
Town of West Point
P. O. Box 152
West Point, VA 23181
804-843-3330
jedwards@west-point.va.us

Emergency Services Coordinators (if different than County Administrator/Town Manager)

Mr. Larry Smith, Chief of Emergency Services
(Retired)
Essex County
P.O. Box 1079
Tappahannock, VA 22569
lsmith@essex-virginia.org

Mr. Jimmy Brann, Emergency Medical Services Chief
Town of Tappahannock
P O Box 1079
Tappahannock, VA 22560
804-443-3336
jbrann@essex-virginia.org

Mr. Creig Moore, Emergency Management
Coordinator
Gloucester County
6504 Main Street
Gloucester, VA 23061
804-693-1390
cmoore@gloucesterva.info

Mr. Greg Hunter, Emergency Services
Coordinator
King & Queen County
P O Box 177
King and Queen, VA 23085
ghunter@kingandqueenco.net

Mr. Chris Bruce, Emergency Management
Coordinator
King William County
P O Box 215
King William, VA 23086
emc@kingwilliamcounty.us

Mr. Dave Burns, Emergency Services Coordinator
Mathews County
P O Box 839
Mathews, VA 23109
bouttime.dave@gmail.com

Mr. Mark Nugent, Emergency Services
Coordinator
Middlesex County
P O Box 428
Saluda, VA 23149
m.nugent@co.middlesex.va.us

Mr. Robert Mawyer, Chief of Police
Town of West Point
P O Box 152
West Point, VA 23181
wppd-chief@west-point.va.us

County Planning/Zoning Staff

Mr. Wally Horton, Director of Planning and
Community Development
Middlesex County
P O Box 428
Saluda, VA 23149
w.horton@co.middlesex.va.us

Ms. Holly McGowan, Director of Community
Development
Town of West Point
P O Box 152
West Point, VA 23181
hmcgowan@west-point.va.us

Mr. John Gill, Zoning Administrator
Town of Urbanna
45 Cross Street
Urbanna, VA 23175
804-758-2613
j.gill@urbannava.gov

Mr. John Shaw, Planning Director
Mathews County
P.O. Box 839
Mathews, VA 23109
804-725-4034
jshaw@co.mathews.va.us

State Agency Participants

Ms. Debbie Messmer, Mitigation Project
Coordinator
Virginia Department of Emergency Management
10501 Trade Court
Richmond, VA 23236
(804) 897-9975 (o)
(804) 516-5773 (c)
Debbie.Messmer@vdem.virginia.gov

Mr. Charles Kline, Floodplain Program Planner
Dame Safety & Floodplain Management
Virginia Department of Conservation and Recreation
200 East Main Street, 4th Floor
Richmond, VA 23219
804-625-3978

Ms. Marcie Parker, Residency Administrator
Virginia Department of Transportation
P. O. Box 184
Saluda, VA 23149
804-758-2321

Mr. Steve Rykal, Emergency Planner
Virginia Department of Health, Three Rivers Health District
P. O. Box 415
Saluda, VA 23149
804-758-2381 x 28

Mr. Doug Martin, Manager
U.S. Corp of Engineers
803 Front Street
Norfolk, VA 23510-1096
757-441-3538

U.S. Coast Guard
U. S. Coast Guard - Milford Station
Mathews, VA 23109
804-725-2125

Mr. Bill Sammler, Warning Coordination Meteorologist
NOAA's National Weather Service
10009 General Mahone Hwy.
Wakefield, VA 23888-2742
(757) 899-5732

Appendix C -
Steering Committee Agendas and Meeting Minutes

AGENDA

2011 All Hazards Mitigation Plan UPDATE

MPPDC Boardroom
Saluda, Va
March 13, 2014
9:00 A.M.

- 1. Welcome and Introductions**
- 2. Overview of Project**
- 3. Work Timeline and Meeting Schedule**
- 4. Suggestions for Additional Local Planning Team Members**
- 5. Review of Hazards Rankings from 2010 Plan**
- 6. HAZUS Discussion – contract award process/(Dewberry Consultants 2010)**
- 7. Inventory of Available Resources/Collect Data (worksheets)**
- 8. Discussion of Public Process**
- 9. Next Meeting**

2011 Middle Peninsula All Hazards Mitigation Plan (MPAHMP) Update

Meeting I – MINUTES

MPPDC Boardroom
Saluda, Va.
March 13, 2014

This was the first meeting of the All Hazards Mitigation Plan Local Planning Team (LPT) to focus on the update of the 2010 Middle Peninsula All Hazards Mitigation Plan (MPAHMP) that was previously adopted by all nine Middle Peninsula localities. The Committee members consist of officials from the nine Middle Peninsula localities as well as state and Federal officials who have a stake and/or interest in natural hazards mitigation planning matters.

Welcome

Mr. Harrison Bresee, project manager, welcomed everyone to the meeting and then asked everyone to introduce themselves to the group. Meeting participants included:

- C. Creig Moore, Gloucester County
- Mark Nugent, Middlesex County
- Larry E. Smith, Essex County
- Holly McGowan, Town of West Point
- Travis Lindsey, King William County
- Bret Schardein, King William County
- Dave Burns, Mathews County
- Holly Gailey, Town of Urbanna
- John Gill, Town of Urbanna
- Harrison P. Bresee III, Middle Peninsula Planning District Commission (MPPDC)

Overview of Project

Mr. Bresee gave the group a brief overview of the project. He stated that Middle Peninsula localities adopted the MPAHMP in 2010 and that the plan (http://www.mppdc.com/articles/service_centers/mandates/Final_11_24with%20Appenx1-10.pdf) needs to be updated every 5 years in order to be compliant with FEMA regulations. Since its adoption in 2010, there have been no major revisions to it. This update of the MPAHMP will include reviewing and updating mitigation strategies for those natural hazards that were identified in the 2010 plan and include new hazards such as “ditch flooding” and any others identified by the LPT.

Review of Project Timeline

Mr. Bresee referred the LPT to the Timeline that was included in the meeting packet mailed to them prior to the meeting. He noted that the contract between the Federal Emergency Management Agency (FEMA) and Virginia Department of Emergency Management (VDEM) with the MPPDC runs for 3 years, ending on September 30, 2016.

Mr. Bresee asked the LPT when they would like to meet. The team agreed that they should meet the second Thursday of each month at 9:00 a.m. in the MPPDC Boardroom in Saluda, VA.

Suggestions for Additional Local Planning Team Members

Mr. Bresee asked the LPT who else should be invited to participate in the MPAHMP. Suggestions from the LPT included: Todd Canon, VDEM (to cover Hazardous Materials); the National Weather Service; Steve Bucket, Virginia Department of Health; the Red Cross; the U.S. Forest Service; the National Guard; and a representative/geologist from the National Geological Survey. The team decided that these members should not be asked to come to every meeting, but to those meetings that focus on their area(s) of expertise.

Review of Hazards Rankings from the 2010 plan

Mr. Bresee referred the LPT to the Prioritization Worksheet for Hazards from the 2010 MPAHMP that was included in meeting handouts. It was noted that this summary of hazards and their risk ratings was completed using a Kaiser Permanente hazard vulnerability tool. Mr. Bresee asked the group if they still agreed with the rankings and ratings of the impacts of these natural hazards. Mr. Lindsey suggested that we consider adding Hazardous Materials as a threat as there is a push from the state to develop a plan. Mr. Lindsey offered to explore this in more detail and provide any guidance he could find from the Commonwealth. The LPT agreed that this hazard should be explored. Mr. Bresee mentioned the hazard of “ditch flooding”. The LPT discussed this and agreed that it was different from coastal and riverine flooding and posed a hazard in the form of unpredictable road closings during heavy rain events. The hazard should be added to the list. Finally, the issue of whether “Air Quality” should be included as a hazard was discussed. The context was related to the hazard planning which results in other localities issuing “asthmatic alerts” to the public. Mr. Bresee will explore this to see it relates to our localities.

HAZUS Discussion

Mr. Bresee told the LPT that the HAZUS Level I Analysis for the update to the 2006 AHMP was prepared by Dewberry & Davis, LLC and asked if they would like to use the same firm for the update to the 2010 AHMP. The LPT agreed that the same firm was a good choice assuming they were still legally able to provide this service. Mr. Bresee said he would look into any procurement issues, but that a conversation with VDEM had indicated that it was up to the MPPDC and the LPT to pick the firm. Mr. Bresee will proceed with contacting Dewberry & Davis LLC to get a proposal.

Inventory of Available Resources

Mr. Bresee directed the LPT’s attention to the worksheet handouts designed to allow the localities the ability to inventory their available resources, historic hazard events, hazard risks, capability, and vulnerability. The LPT discussed the worksheets and asked if there was a timeline. Mr. Bresee indicated that the worksheets should be complete by the June 12, 2014 meeting.

Discussion of Public Process

Mr. Bresee asked the LPT how they would like to approach the public outreach process. He stated that the plan was designed to include public input at all levels. The LPT was interested in holding meetings in

their localities to include as many of the area's constituencies as possible. The Public Process plan, including content and timing, will be put on the next agenda as an agenda item.

Next Meeting

The next meeting will be the 2nd Thursday of the month, April 10, 2014, in the MPPDC Boardroom at 9:00 a.m.

AGENDA

2011 All Hazards Mitigation Plan UPDATE

MPPDC Boardroom
Saluda, Va
April 10, 2014
9:00 A.M.

- 1. Welcome and Introductions**
- 2. Discussion of Including HAZMAT threats in the 2016 Plan**
- 3. Discussion of Hazard Rankings from 2011 Plan**
 - a. Do we divide Hurricanes into categories**
 - b. Add Ditch Flooding, Air Quality, HAZMAT**
- 4. Discussion of HAZUS proposal from Dewberry**
- 5. Worksheet update**
 - a. Progress to date**
 - b. Date for completion is June 12, 2014**
- 6. Discussion of Public Process – begin to set timeline, locations, and agenda**
- 7. Other Business**
- 8. Next Meeting – May 8, 2014**

**2011 Middle Peninsula
All Hazards Mitigation Plan (MPAHMP) Update**

Meeting 2 – MINUTES

MPPDC Boardroom
Saluda, Va.
April 10, 2014

This was the second meeting of the All Hazards Mitigation Plan Local Planning Team (LPT) to focus on the update of the 2010 Middle Peninsula All Hazards Mitigation Plan (MPAHMP) that was previously adopted by all nine Middle Peninsula localities. The Committee members consist of officials from the nine Middle Peninsula localities as well as state and Federal officials who have a stake and/or interest in natural hazards mitigation planning matters.

Welcome

Mr. Harrison Bresee, project manager, welcomed everyone to the meeting and then asked everyone to introduce themselves to the group. Meeting participants included:

- C. Creig Moore, Gloucester County
- Mark Nugent, Middlesex County
- Larry E. Smith, Essex County
- Holly McGowan, Town of West Point
- John Gill, Town of Urbanna
- Bobby Mawyer, Town of West Point Police Department
- Debbie Messmer, Virginia Department of Emergency Management (VDEM)
- Harrison P. Bresee III, Middle Peninsula Planning District Commission (MPPDC)

Overview of Project

Mr. Bresee gave the group a brief overview of the project. He stated that Middle Peninsula localities adopted the MPAHMP in 2010 and that the plan

(http://www.mppdc.com/articles/service_centers/mandates/Final_11_24with%20Appenx1-10.pdf) needs to be updated every 5 years in order to be compliant with FEMA regulations.

Since its adoption in 2010, there have been no major revisions to it. This update of the MPAHMP will include reviewing and updating mitigation strategies for those natural hazards that were identified in the 2010 plan and include new hazards such as “ditch flooding” and any others identified by the LPT.

Discussion of Including HAZMAT threats in the 2016 Plan

The LPT discussed the dangers of HAZMAT related incidents in the region. HAZMAT threats are real and have the potential to cause serious disruption to the safety and welfare of the citizens of the region.

The LPT would like to see HAZMAT included on the Hazard Ranking worksheet so the region can assess the threat level.

Discussion of Hazard Ranking from the 2010 Plan

The LPT discussed dividing Hurricanes into two separate items on the Hazard Worksheet based on the National Weather Service (NWS) rating of Hurricanes from Category 1 – 5 (Category 5 being the hurricane with the highest winds). The rationale is that the Middle Peninsula region has a much higher likelihood of seeing a tropical storm or hurricane rated less than a Category 2 than a Category 3 to 5 Hurricane. Through discussion the LPT ultimately decided that separating hurricane categories could cause confusion and agreed to leave the Hurricane category as one item.

The LPT discussed adding Ditch Flooding, Air Quality, HAZMAT, and Summer Storms as new threats to the region. After much discussion, it was agreed that these items were specific and different enough to merit a separate listing on the Hazard Worksheet.

The LPT agreed not to remove any Hazard items from the list created for the 2010 AHMP.

Discussion of HAZUS proposal from Dewberry

Mr. Bresee spoke with Ms. Jane Frantz at Dewberry about performing a HAZUS. Ms. Frantz stated that the FEMA had not updated their Census data since the 2010 AHMP was done for the Middle Peninsula. If she were to run a HAZUS now, she would have to manually input the data which would be more expensive than is budgeted. Mr. Bresee gave the LPT two options: 1) Wait for the Census update to run the data or 2) Run the HAZUS at a higher cost. The LPT decided on option 1 as the AHMP update is not due to be complete until 2016. However, they asked to be updated at each meeting to make sure the window to complete a HAZUS is not missed.

Worksheet update

Mr. Bresee asked if there were any questions on the Worksheets. Everyone agreed that they were clear and would be completed by the June 12, 2014 deadline.

Discussion of Public Process

The LPT discussed how they would like to involve the public in commenting on the AHMP process. It was decided that a mix of public meetings, and displaying the plan (and any drafts) on the MPPDC website with links to the locality websites, putting the plan at libraries in each locality would be ideal. Mr. Bresee stated that he would develop a plan for this process.

Other Business

It was noted that Mr. Lindsey of West Point had taken a position in New Kent County. Mr. Bresee will contact West Point to discuss their participation on the LPT and their timeframe for completing the Worksheets and Hazard Rankings.

Next Meeting

May 8, 2014 at the MPPDC Boardroom at 9am.

AGENDA

2011 All Hazards Mitigation Plan UPDATE

MPPDC Boardroom
Saluda, Va
May 8, 2014
9:00 A.M.

- 1. Welcome and Introductions**
- 2. Discussion of THIRA process (for appendix in AHMP)**
- 3. Discussion of Hazard Rankings from 2011 Plan**
 - a. Final Prioritization Worksheet**
 - b. Add Ditch Flooding, Air Quality, HAZMAT, Summer Storms**
- 4. Worksheet update**
 - a. Progress to date**
 - b. Date for completion is June 12, 2014**
- 5. Discussion of Public Process**
 - a. Public Meetings**
 - b. Plan on MPPPDC Website for Comments**
 - c. Plan at Libraries for Comments**
- 6. Other Business**
- 7. Next Meeting – Jun 12, 2014**

**2011 Middle Peninsula
All Hazards Mitigation Plan (MPAHMP) Update**

Meeting 3 - MINUTES

MPPDC Boardroom
Saluda, Va.
May 8, 2014

This was the third meeting of the All Hazards Mitigation Plan Local Planning Team (LPT) to focus on the update of the 2010 Middle Peninsula All Hazards Mitigation Plan (MPAHMP) that was previously adopted by all nine Middle Peninsula localities. The Committee members consist of officials from the nine Middle Peninsula localities as well as state and Federal officials who have a stake and/or interest in natural hazards mitigation planning matters.

Welcome

Mr. Harrison Bresee, project manager, welcomed everyone to the meeting and then asked everyone to introduce themselves to the group. Meeting participants included:

- C. Creig Moore, Gloucester County
- Larry E. Smith, Essex County
- Holly McGowan, Town of West Point
- John Gill, Town of Urbanna
- Bobby Mawyer, Town of West Point Police Department
- Trent Funkhouser, King William County
- Wally Horton, Middlesex County
- Dave Burns, Mathews County
- Harrison P. Bresee III, Middle Peninsula Planning District Commission (MPPDC)

Discussion of Threat and Hazards Identification and Risk Assessment (THIRA) process (as an appendix in the AHMP)

The LPT discussed the inclusion of the THIRA as an appendix in the AHMP. Most thought it was a good idea, but, since it was not a requirement, it was not necessary.

Discussion of Hazard Ranking from the 2010 plan

The final prioritization worksheet was presented to the LPT. The worksheet includes all the Hazards from the 2010 AHMP plus Summer Storms, Ditch Flooding, Air Quality, and HAZMAT. The LPT all agreed that the worksheet was correct. The worksheet was handed out to each county (and would be emailed after the meeting). The worksheet is due by the June 2014 meeting.

Worksheet update

Mr. Bresee asked if there were any questions on the Worksheets. Everyone agreed that they were clear and would be completed by the June 12, 2014 deadline.

Discussion of Public Process

Mr. Bresee presented the Public Process discussed at the last meeting. The process is a mix of obtaining comments at public meetings, displaying the plan (and any drafts) on the MPPDC website with links to the locality websites, putting the plan at libraries in each locality would be ideal. All agreed that the process was solid and should be implemented according the schedule as defined in the Grant Contract with Virginia Department of Emergency Management (VDEM).

Other Business

None.

Next Meeting

June 12, 2014 at the MPPDC Boardroom at 9am.

AGENDA

2011 All Hazards Mitigation Plan UPDATE

MPPDC Boardroom
Saluda, Va
August 14, 2014
9:00 A.M.

- 1. Welcome and Introductions**
- 2. Complete Hazard Rankings from 2011 Plan**
 - c. Prioritization Worksheet (Natural Hazards Summary Tool)**
 - d. New to Rank - Ditch Flooding, Air Quality, HAZMAT, Summer Storms**
- 3. Worksheet update**
 - a. Progress to date**
- 4. HAZUS Update**
 - a. 2010 Census Data HAZUS update from FEMA - pending**
- 5. Discussion of Public Process**
 - a. Public Meetings**
 - b. Plan on MPPPDC Website for Comments**
 - c. Plan at Libraries for Comments**
- 6. Other Business**
 - a. Discussion of the extended timeline for the 2014 HMGP**
- 7. Next Meeting: September 11, 2014**

**2011 Middle Peninsula
All Hazards Mitigation Plan (MPAHMP) Update**

Meeting 4 - MINUTES

MPPDC Boardroom
Saluda, Va.
August 14, 2014

This was the fourth meeting of the All Hazards Mitigation Plan Local Planning Team (LPT) to focus on the update of the 2010 Middle Peninsula All Hazards Mitigation Plan (MPAHMP) that was previously adopted by all nine Middle Peninsula localities. The Committee members consist of officials from the nine Middle Peninsula localities as well as state and Federal officials who have a stake and/or interest in natural hazards mitigation planning matters.

Welcome

Mr. Harrison Bresee, project manager, welcomed everyone to the meeting and then asked everyone to introduce themselves to the group. Meeting participants included:

- C. Creig Moore, Gloucester County
- Larry E. Smith, Essex County
- Holly McGowan, Town of West Point
- John Gill, Town of Urbanna
- Bobby Mawyer, Town of West Point Police Department
- Trent Funkhouser, King William County
- Debbie Messmer, Virginia Department of Emergency Management (VDEM)
- Harrison P. Bresee III, Middle Peninsula Planning District Commission (MPPDC)

Complete Hazard Ranking from the 2010 AHMP

Mr. Bresee asked for an update on the Prioritization Worksheet (Hazard Ranking spreadsheet or Natural Hazards summary tool). All present agreed to have the tool completed by the September 2014 meeting.

Worksheet update

Mr. Bresee asked if there were any questions on the Worksheets. To date the Town of West Point, the Town of Urbanna, and Gloucester County have completed the worksheets. All other members of the LPT agreed to complete the worksheets ASAP.

Discussion of Public Process

Mr. Bresee presented the Public Process discussed at the last meeting. The process is a mix of obtaining comments at public meetings, displaying the plan (and any drafts) on the MPPDC website with links to

the locality websites, putting the plan at libraries in each locality would be ideal. There were no changes made to the process.

Other Business

None.

Next Meeting

September 11, 2014 at the MPPDC Boardroom at 9am.

AGENDA

2011 All Hazards Mitigation Plan UPDATE

MPPDC Boardroom
Saluda, Va
September 18, 2014
9:00 A.M.

- 1. Welcome and Introductions**
- 2. Complete Hazard Rankings from 2011 Plan**
- 3. Worksheet update**
 - a. Progress to date**
 - b. Data for new hazards (need time to compile when sheets are complete)**
- 4. HAZMAT events**
 - a. Natural Hazard Driven - define**
 - b. Strategies to Mitigate - define**
- 5. Timeline**
 - a. Begin updating goals, strategies, and actions - 2015**
 - b. Solicit public comments on plan - 2015**
- 6. HAZUS Update**
 - a. 2010 Census Data HAZUS update from FEMA - pending**
- 7. Discussion of Public Process**
 - a. Public Meetings**
 - b. Plan on MPPDC Website for Comments**
 - c. Plan at Libraries for Comments**
- 8. Other Business**
 - a. 2014 HMGP**
- 9. Next Meeting: October 9, 2014**

**2011 Middle Peninsula
All Hazards Mitigation Plan (MPAHMP) Update**

Meeting 5 - MINUTES

MPPDC Boardroom
Saluda, Va.
September 11, 2014

This was the fifth meeting of the All Hazards Mitigation Plan Local Planning Team (LPT) to focus on the update of the 2010 Middle Peninsula All Hazards Mitigation Plan (MPAHMP) that was previously adopted by all nine Middle Peninsula localities. The Committee members consist of officials from the nine Middle Peninsula localities as well as state and Federal officials who have a stake and/or interest in natural hazards mitigation planning matters.

Welcome

Mr. Harrison Bresee, project manager, welcomed everyone to the meeting and then asked everyone to introduce themselves to the group. Meeting participants included:

- C. Creig Moore, Gloucester County
- Bryan Wade, Gloucester County
- Larry E. Smith, Essex County
- Mark Nugent, Middlesex County
- Dave Burns, Mathews County
- Bobby Mawyer, Town of West Point Police Department
- Harrison P. Bresee III, Middle Peninsula Planning District Commission (MPPDC)

Complete Hazard Ranking from the 2010 AHMP

Mr. Bresee asked for an update on the Prioritization Worksheet (Hazard Ranking spreadsheet or Natural Hazards summary tool). Localities that completed their worksheets include Gloucester County, Essex County, Town of West Point, and Town of Urbanna. Mr. Bresee advised the LPT that he could not begin drafting the Hazard Identification chapter until all worksheets were submitted. All present agreed to have the tool completed ASAP.

Worksheet update

Mr. Bresee asked if there were any questions on the Worksheets. To date the Town of West Point, the Town of Urbanna, Essex County (including the Town of Tappahannock), Gloucester County, King and Queen County, and Middlesex County have completed their worksheets. Mathews County agreed to complete the worksheets ASAP. King William County was not present (see other business). Mr. Bresee thanked those who had submitted their worksheets and advised the LPT that the worksheets were necessary for drafting several chapters of the 2016 AHMP update.

HAZMAT Events

Mr. Bresee advised the LPT that he had discussed HAZMAT events with Ms. Messmer of Virginia Department of Emergency Management (VDEM) as they related to the AHMP update. Ms. Messmer advised Mr. Bresee that the HAZMAT events pertinent to this plan should be in two categories: Natural Hazard Driven and Strategies to Mitigate. Examples of Natural Hazard driven would be propane tanks destroyed in a flood or wind damaging hazardous materials storage areas. Examples of Strategies to Mitigate would be weather related such as flood mitigation and drinking water warnings after a contamination event. The LPT agreed that this logic made sense.

Timeline

Mr. Bresee updated the LPT on the Grant Timeline. Goals, strategies, and actions would be updated in 2015 and a draft AHMP would be written. In 2015 public comment on the draft AHMP would be solicited. The LPT agreed that the timeline was in keeping with the update requirements and agreed to continue supporting the process.

HAZUS Update

Mr. Bresee advised the LPT that FEMA had not yet updated the Census data and a contract with Dewberry was still pending this action. Further, the timeline to complete the HAZUS was still intact. A HAZUS would need to be completed by the Summer of 2015 and Dewberry would need approximately 2 months to complete the project.

Discussion of Public Process

Mr. Bresee presented the Public Process discussed at the last meeting. No changes were made to the structure.

Other Business

It was noted that Mr. Funkhouser had resigned as County Administrator for King William County, leaving the county with no Emergency Coordinator or County Administrator. Mr. Bresee continues to encourage King William to complete their worksheets.

Mr. Nugent advised the LPT that his department at Middlesex County had purchased WebEx and would be willing to host meetings with this software.

Next Meeting

November 13, 2014 at the MPPDC Boardroom at 9am.

AGENDA

2011 All Hazards Mitigation Plan UPDATE

MPPDC Boardroom
Saluda, Va
November 13, 2014
9:00 A.M.

- 1. Welcome and Introductions**
- 2. HAZMAT events**
- 3. Timeline**
 - a. Begin updating goals, strategies, and actions - 2015**
 - b. Solicit public comments on plan - 2015**
- 4. HAZUS Update**
 - a. 2010 Census Data HAZUS update from FEMA - pending**
- 5. Discussion of Public Process**
 - a. Public Meetings**
 - b. Plan on MPPPDC Website for Comments**
 - c. Plan at Libraries for Comments**
- 6. Other Business**
 - a. 2014 HMGP – awarded**
- 7. Next Meeting?**

**2011 Middle Peninsula
All Hazards Mitigation Plan (MPAHMP) Update**

Meeting 6 - MINUTES

MPPDC Boardroom
Saluda, Va.
November 13, 2014

This was the sixth meeting of the All Hazards Mitigation Plan Local Planning Team (LPT) to focus on the update of the 2010 Middle Peninsula All Hazards Mitigation Plan (MPAHMP) that was previously adopted by all nine Middle Peninsula localities. The Committee members consist of officials from the nine Middle Peninsula localities as well as state and Federal officials who have a stake and/or interest in natural hazards mitigation planning matters.

Welcome

Mr. Harrison Bresee, project manager, welcomed everyone to the meeting and then asked everyone to introduce themselves to the group. Meeting participants included:

- Chris Bruce, King William County
- Bryan Wade, Gloucester County
- John Gill, Town of Urbanna
- Holly Gailey, Town of West Point
- Greg Hunter, King and Queen County
- Mark Nugent, Middlesex County
- Dave Burns, Mathews County
- Bret Schardein, King William County
- Harrison P. Bresee III, Middle Peninsula Planning District Commission (MPPDC)

Complete Hazard Ranking from the 2010 AHMP

Mr. Bresee asked for an update on the Prioritization Worksheet (Hazard Ranking spreadsheet or Natural Hazards summary tool). Localities that have completed the worksheets include Gloucester County, Essex County (including the Town of Tappahannock), Middlesex County, King and Queen County, Mathews County, and the Town of West Point, and Town of Urbanna. The Worksheet from King William County is still needed. Mr. Bresee advised the LPT that he could not begin drafting the Hazard Identification chapter until all worksheets were submitted. Mr. Bruce, the new Emergency Coordinator for King William County, agreed to provide the worksheet ASAP.

Worksheet update

Mr. Bresee asked if there were any questions on the Worksheets. To date the Town of West Point, the Town of Urbanna, Essex County (including the Town of Tappahannock), Gloucester County, King and Queen County, Mathews County, and Middlesex County have completed their worksheets. Mr. Bruce, the new Emergency Coordinator for King William County, agreed to work on the worksheets as

soon as he could. Mr. Bresee thanked those who had submitted their worksheets and advised the LPT that the worksheets were necessary for drafting several chapters of the 2016 AHMP update.

HAZMAT Events

Mr. Bresee advised the LPT that HAZMAT will be included in the chapters as discussed at the previous meetings.

Timeline

Mr. Bresee again updated the LPT on the Grant Timeline. Goals, strategies, and actions would be updated in 2015 and a draft AHMP would be written. In 2015, public comment on the draft AHMP would be solicited. The LPT agreed that the timeline was in keeping with the update requirements and agreed to continue supporting the process.

HAZUS Update

Mr. Bresee again advised the LPT that FEMA had not yet updated the Census data and a contract with Dewberry was still pending this action. Further, the timeline to complete the HAZUS was still intact. A HAZUS would need to be completed by the Summer of 2015 and Dewberry would need approximately 2 months to complete the project.

Discussion of Public Process

Mr. Bresee advised the LPT that the public process would begin once the worksheets were submitted and used to update chapters in the AHMP. No changes were made to the structure of the public meetings.

Other Business

Mr. Chris Bruce has been hired by King William County as their new Emergency Coordinator. He will need to come up to speed on his new position, but stated that he will be involved in and support the 2016 AHMP update process. He was welcomed by the LPT.

This meeting will be the last meeting until 2015. The project manager will reach out to the LPT in the new year.

Next Meeting

To be determined.

AGENDA

2011 All Hazards Mitigation Plan UPDATE

MPPDC Boardroom
Saluda, Va
April 16, 2015
10:00 A.M.

- 1. Welcome and Introductions**
- 2. Review completed Hazards Rankings (2010 and 2016)**
- 3. HAZUS update**
- 4. Timeline**
 - a. Begin updating goals, strategies, and actions - Summer 2015**
 - b. Solicit public comments on plan - Fall 2015**
- 5. Discussion of Public Process**
 - a. Public Meetings – Start in June 2015 with HAZUS?**
 - b. Plan on MPPDC Website for Comments**
 - c. Plan at Libraries for Comments**
- 6. Other**
- 7. Next Meeting: May 2015 – Webex?**
June 2015

2011 Middle Peninsula All Hazards Mitigation Plan (MPAHMP) Update

Meeting 7 - MINUTES

MPPDC Boardroom
Saluda, Va.
April 16, 2015

This was the seventh meeting of the All Hazards Mitigation Plan Local Planning Team (LPT) to focus on the update of the 2011 Middle Peninsula All Hazards Mitigation Plan (MPAHMP) that was previously adopted by all nine Middle Peninsula localities. The Committee members consist of officials from the nine Middle Peninsula localities as well as state and Federal officials who have a stake and/or interest in natural hazards mitigation planning matters.

Welcome

Ms. Jackie Rickards, project manager, welcomed everyone to the meeting and then asked everyone to introduce themselves to the group. Meeting participants included:

- Chris Bruce, King William County
- Dave Burns, Mathews County
- Craig Moore, Gloucester County
- Jackie Rickards, Middle Peninsula Planning District Commission (MPPDC)
- Harrison P. Bresee III, MPPDC

Complete Hazard Ranking from the 2011 AHMP

Ms. Rickards informed the group that there are multiple chapters of the plan are being updated. Therefore as the Section 4 (Hazard Identification) is currently being updated, Ms. Rickards asked the group to review the Kaiser Permanente results in comparison to the 2011 results. The objective of this review was to confirm with the group that these are the results that they want me to write about. Mr. Dave Burns questioned the ranking of Coastal Flooding at #1 since this is a common occurrence in the region and that many of the localities have adapted to this hazard. Ms. Rickards explained that this was a regional ranking, so it's dependant on all nine of the localities, however to verify the regional input there will be a review of the individual Kaiser Permanente worksheets from localities. (Please see appendix A for the 2011 and 2016 Ranking comparison).

HAZUS Update

Ms. Rickards explained that there has been progress regarding HAZUS. In February MPPDC staff signed a contract with Dewberry to update the HAZUS-MH Flood and Hurricane Module Risk Assessment analyses and subsequent HIRA element updates for the six counties of the Middle Peninsula. Additionally based on conversations with FEMA Region III there is an expectation to include a sea level in the assessment. Therefore MPPDC staff also contracted with Dewberry to add Sea Level Rise to the HAZUS assessment. The sea level rise scenarios will includes a baseline of Mean Highest High Water scenarios as well as a 6ft sea level rise scenario. According to Dewberry there have been multiple updates to the HAZUS assessment, including:

1. Use of new coastal elevations from FEMA
2. Use of coastal studies from the US Army Corps of Engineers
3. Use of new day symmetric data (ie general building stock)
4. New HAZUS version 2.2 software
5. Use of 1 square mile drainage run instead of a 10 square mile drainage run used in the 2010 plan.

To-date Dewberry has completed a HAZUS Modeling Report that reviews the various modeling efforts performed and where appropriate, denotes modeling efforts that transcend previous efforts given available scope, schedule and budget of the project. Ms. Rickards explained that Dewberry will have a draft of the final project completed by April 24, 2015.

Timeline

- a. **Begin Updating Goals, Strategies and Actions (Summer 2015):** Ms. Rickards explained that the next section of the plan to update included the goals, strategies and actions. To begin to address this, Ms. Rickards presented a handout of mitigation strategies from the 2010 plan and asked “if funding or technical expertise were to become available what mitigation strategies would your locality identify and work towards.” Committee members looked at their individual mitigation strategies and will consider updating the strategies as goals are updated.
- b. **Solicit Public Comment on Plan (Winter/Spring 2015):** According to the public process laid out early on in this project MPPDC staff is to solicit public comments on the plan update. Therefore as the HAZUS is to be completed on April 24, 2015 the first public meeting will be able to include the HAZUS as well as the HIRA for the region.

Discussion of Public Process

- a. **Public Meetings – start June 2015 with HAZUS?**
- b. **Plan on MPPC website for Comments**
- c. **Plan at Libraries for Comments**

Ms. Rickards shared with the group that as the HAZUS will be completed April 24, 2015 that public meetings can begin in late June. The committee agreed. Also Ms. Rickards asked if any locality wanted an individual public meeting. The committee agreed that having two public meeting within the region will suffice. Based on this response Ms. Rickards will begin looking for public meeting venues and begin planning the announcement for the public meetings.

Other Business

Mr. Craig Moore explained that a better way to more people around that table could be to attend the quarterly regional meetings of the Middle Peninsula and Northern Neck. He also reminded to the group to sign up for a Public Safety Response to Terrorism Awareness training in Gloucester on May 2, 2015 from 8am-5pm.

Next Meeting

To be determined.

AGENDA

2011 All Hazards Mitigation Plan UPDATE

MPPDC Boardroom
Saluda, Va
June 25, 2015
10:00 A.M.

- 1. Welcome and Introductions**
- 2. Hazards Identification Section Review**
- 3. HAZUS Review**
- 4. Mitigation Strategy Review**
- 5. Timeline**
 - a. Begin updating goals, strategies, and actions - Summer 2015**
 - b. Solicit public comments on plan – Summer & Fall 2015**
 - c. Capacity Assessment & Local Strategy Accomplishments – July 2015**
- 6. Discussion of Public Process**
 - a. Public Meetings – July 29th & 30th, 2015**
 - b. Plan on MPPDC Website for Comments**
 - c. Plan at Libraries for Comments**
- 7. Other Discussion**
- 8. Next Meeting: July 2015**

2011 Middle Peninsula All Hazards Mitigation Plan (MPAHMP) Update

Meeting 8 - MINUTES

MPPDC Boardroom
Saluda, Va.
June 25, 2015

This was the seventh meeting of the All Hazards Mitigation Plan Local Planning Team (LPT) to focus on the update of the 2011 Middle Peninsula All Hazards Mitigation Plan (MPAHMP) that was previously adopted by all nine Middle Peninsula localities. The Committee members consist of officials from the nine Middle Peninsula localities as well as state and Federal officials who have a stake and/or interest in natural hazards mitigation planning matters.

Welcome and Introductions

Ms. Jackie Rickards, project manager, welcomed everyone to the meeting and then asked everyone to introduce themselves to the group. Meeting participants included:

- Chris Bruce, King William County
- Dave Burns, Mathews County
- Craig Moore, Gloucester County
- Mark Nugent, Middlesex County
- Holly McGowan, Town of West Point
- Bobby Mawyer, Town of West Point
- Charles Kline, Virginia Department of Conservation and Recreation
- Debbie Messmer, Virginia Department of Emergency Management
- Jackie Rickards, Middle Peninsula Planning District Commission (MPPDC)
- Harrison P. Bresee III, MPPDC

Hazards Identification Section Review

Ms. Rickards explained to the Local Planning Team that the draft of the Hazards identification Section of the Mitigation Plan was complete and ready for review by the public. The Section starts with the Kaiser Permanente Tool that assesses and prioritizing hazard vulnerability threats to the Middle Peninsula region. Upon prioritization, the hazards were put into one of three hazard categories: Critical, Moderately Critical or Non-Critical. Also in this section data and maps were updated with the most recent information.

Ms. Rickards then asked the LPT to explain why the new hazards, including HAZMAT, ditch flooding, summer storms, and air quality, were added to the list of potential threats. Mr. Moore mentioned that in an effort to improve the plan and be more comprehensive these hazards were important to add to the list.

HAZUS Review

Ms. Rickards explained that there has been progress regarding HAZUS. In February MPPDC staff signed a contract with Dewberry to update the HAZUS-MH Flood and Hurricane Module Risk Assessment analyses and subsequent HIRA element updates for the six counties of the Middle Peninsula. Additionally based on conversations with FEMA Region III there is an expectation to include a sea level in the assessment. Therefore MPPDC staff also contracted with Dewberry to add Sea Level Rise to the HAZUS assessment. The sea level rise scenarios will include a baseline of Mean Highest High Water scenarios as well as a 6ft sea level rise scenario. According to Dewberry there have been multiple updates to the HAZUS assessment, including:

6. Use of new coastal elevations from FEMA
7. Use of coastal studies from the US Army Corps of Engineers
8. Use of new day symmetric data (ie general building stock)
9. New HAZUS version 2.2 software
10. Use of 1 square mile drainage run instead of a 10 square mile drainage run used in the 2010 plan.

To-date Dewberry has completed a HAZUS Modeling Report that reviews the various modeling efforts performed and where appropriate, denotes modeling efforts that transcend previous efforts given available scope, schedule and budget of the project. Ms. Rickards explained that Dewberry will have a draft of the final project completed by April 24, 2015.

Mitigation Strategy Review

Ms. Rickards read through each of the 2010 mitigation strategies and asked the group if there are any updates to make. In some cases there were mitigation strategies that were complete by localities includes:

Strategy 1.1.14 - Develop Storm Water Management Plans and Policies for urban Development areas in both King William and Gloucester Counties.

Strategy 1.2.1 – Decrease the adverse affects of drought conditions for residents – many of whom rely on individual wells as their only water source in many parts of the rural Middle Peninsula region by adopting the ordinance to implement the Drought Response and Contingency Plan contained in Section 10 of the recently completed Middle Peninsula Drought Response and Contingency Plan as well as its corresponding section in the recently completed Hampton Roads Drought Response and Contingency Plan.

Strategy 2.2.1 – Formalize mutual aid agreements to coordinate the region’s fire and emergency medical units to ensure a quick and efficient response to these severe weather events. (Completed by all MPPDC localities)

Strategy 2.2.2 – Formalize mutual aid agreements to coordinate the region’s fire units to ensure a quick and efficient response to wildfires. (Completed by all MPPDC localities)

Strategy 3.1.1 – Enhance/implement the use of rapid notification systems to warn residents of approaching flood waters and mandatory evacuation notices. (Completed by all MPPDC localities)

Strategy 3.2.1- Incorporate the newly digitized local floodplain maps into each County’s GIS database after adoption y the local governing body. (Completed by Middlesex and Gloucester Counties and Town of Urbanna).

With input from the Local Planning Team (LPT), these mitigation strategies will be updated and then will be emailed to the LPT for final review.

Timeline

- c. **Begin Updating Goals, Strategies and Actions (Summer 2015):** Ms. Rickards explained that the next section of the plan to update included the goals, strategies and actions. To begin to address this, Ms. Rickards presented a handout of mitigation strategies from the 2010 plan and asked “if funding or technical expertise were to become available what mitigation strategies would your locality identify and work towards.” Committee members looked at their individual mitigation strategies and will consider updating the strategies as goals are updated.
- d. **Solicit Public Comment on Plan (Summer/ Fall 2015):** According to the public process laid out early on in this project MPPDC staff is to solicit public comments on the plan update. Therefore as the HAZUS is to be completed on April 24, 2015 the first public meeting will be able to include the HAZUS as well as the HIRA for the region.
- e. **Capacity Assessment & Local Strategy Accomplishments (July 2015)**

Discussion of Public Process

- d. **Public Meetings – July 29th and 30th 2015**
Ms. Rickards explained that news articles have been written about AHMP and announced that there would be two public meetings on July 29th and 30th. One of the meetings would take place at the King & Queen Public Library and the other would be at the MPPDC Boardroom in Saluda.
- e. **Plan on MPPC website for Comments**
MPPDC staff posted information regarding a 30 day comment period for the AHMP as well as public meetings on the MPPDC website.
- f. **Plan at Libraries for Comments**
Ms. Rickards explained that the draft of the AHMP would be available at libraries throughout the Middle Peninsula region.

Other Business

None

Next Meeting

The next meeting will take place after the public’s review of sections 1, 3, 4, and 5 in early August.

AGENDA

2011 All Hazards Mitigation Plan UPDATE

MPPDC Boardroom
Saluda, Va

**August 13, 2015
10:00 A.M.**

- 1. Welcome and Introductions**
- 2. Review Public Comments – things to consider.**
- 3. Reviewing 2010 Mitigation Strategies**
- 4. FEMA meeting**
 - a. National Flood Insurance Program Survey**
 - b. Plan Integration**
- 5. Capability Assessment Worksheet**
- 6. Timeline**
 - a. Begin updating goals, strategies, and actions - Completed**
 - b. Solicit public comments on plan – Fall 2015**
 - c. Capacity Assessment & Local Strategy Accomplishments – August 2015**
- 7. Other Discussion**
- 8. Next Meeting: ?**

2011 Middle Peninsula All Hazards Mitigation Plan (MPAHMP) Update

Meeting 9 - MINUTES

MPPDC Boardroom
Saluda, Va.
August 13, 2015

This was the tenth meeting of the All Hazards Mitigation Plan Local Planning Team (LPT) to focus on the update of the 2011 Middle Peninsula All Hazards Mitigation Plan (MPAHMP) that was previously adopted by all nine Middle Peninsula localities. The Committee members consist of officials from the nine Middle Peninsula localities as well as state and Federal officials who have a stake and/or interest in natural hazards mitigation planning matters.

Welcome and Introductions

Ms. Jackie Rickards, project manager, welcomed everyone to the meeting and then asked everyone to introduce themselves to the group. Meeting participants included:

- Chris Bruce, King William County
- Craig Moore, Gloucester County
- John Gill, Town of Urbanna
- Jimmy Brann, Essex County
- Jackie Rickards, Middle Peninsula Planning District Commission (MPPDC)

Review Public Comments –things to consider

Ms. Rickards explained that there were a total of 5 comments made on the plan and that zero people attended the public meeting on July 29th and 30th. All comments were similar in nature and expressed concern about the inclusion of sea level rise and land subsidence within the Plan. The Local Planning Team (LPT) discussed this and concluded that it would be remiss if these topics were not included within the plan, particular since the Federal government recognizes these topics as hazards. Also it was thought that if we remove these topics from the plan Middle Peninsula localities could be excluding themselves from potential funding.

Reviewing 2010 Mitigation Strategies

As part of the AHMP update, Ms. Rickards explained that FEMA as well as VDEM is interested in seeing a better record of mitigation strategy statuses. Therefore in an effort to capture the locality's progress with mitigation strategies, Ms. Rickards created and presented a table with mitigation strategies and questions to address the progress of mitigation strategies. This will help gather information from all localities, but also helps localities gain an idea of the progress made and progress needed on mitigation strategies. While most strategies are on-going, this table provides a chance to share the accomplishments since the last plan.

FEMA Meeting

a. National Flood Insurance Program Survey

FEMA is looking for clarity regarding how are localities are managing the National Flood Insurance Program. Therefore they provided me with a worksheet to hand out to you and have completed. FEMA noted that there will be no punitive consequences if you write down that your locality has not completed a requirement. However this is more of an exercise that will help your locality get an idea what you have accomplished as well as what your locality still need to accomplish in relation to the NFIP.

b. Plan Integration

At the FEMA meeting, they expressed their interest in having localities integrate mitigation strategies into existing planning mechanisms (ie. Comprehensive plans, stormwater management plans, etc.). Therefore Ms. Rickards presented another handout that provides a list of local plans in hopes that localities will provide information about whether or not they have included the mitigation strategies in other planning documents.

Capability Assessment Worksheet

To gain an understanding of a localities ability to accomplish the mitigation strategies, Ms. Rickards presented a handout that focused on the planning and regulatory, administrative and technical, financial, and education and outreach as it relates to local mitigation capabilities.

Timeline

- f. **Begin Updating Goals, Strategies and Actions:** Completed
- g. **Solicit Public Comment on Plan (Fall 2015):** Ms. Rickards explained that the 2nd Round of the public comment will take place in late Fall on the entire plan.
- h. **Capability Assessment & Local Strategy Accomplishments (August 2015):** MPPDC staff will work on completing the Capability Assessment by the end of August.

Other Business

None

Next Meeting

TBD

AGENDA

2011 All Hazards Mitigation Plan UPDATE

Webex Conference Call
January 26, 2016
10:00 A.M.

- 1. Welcome and Introductions**
- 2. VDEM feedback**
- 3. Review Public Comments**
- 4. Timeline – Next Steps**
- 5. Other Topics**
 - a. Gather dates for BOS and Town Council Presentations and/or public outreach**
- 6. Next Meeting**

2011 Middle Peninsula All Hazards Mitigation Plan (MPAHMP) Update

Meeting 11 - MINUTES

Webex Conference Call
January 26, 2016

This was the eleventh meeting of the All Hazards Mitigation Plan Local Planning Team (LPT) to focus on the update of the 2011 Middle Peninsula All Hazards Mitigation Plan (MPAHMP) that was previously adopted by all nine Middle Peninsula localities. The Committee members consist of officials from the nine Middle Peninsula localities as well as state and Federal officials who have a stake and/or interest in natural hazards mitigation planning matters.

Welcome and Introductions

Ms. Jackie Rickards, project manager, welcomed everyone to the meeting and then asked everyone to introduce themselves to the group. Meeting participants included:

- Chris Bruce, King William County
- Craig Moore, Gloucester County
- John Gill, Town of Urbanna
- Jimmy Brann, Essex County
- Mark Nugent, Middlesex County
- Holly McGowan, Town of West Point
- Robert Mawyer, Town of West Point
- Jackie Rickards, Middle Peninsula Planning District Commission (MPPDC)

Virginia Department of Emergency Management (VDEM) feedback

Upon review of the final plan by the Local Planning Team, Ms. Rickards explained that the plan was sent to VDEM for a 30 day review. VDEM provided the following feedback on the Plan:

- When we submit this to FEMA there should be no blank spaces or yellow highlighted areas. If the adoption has not occurred then I would state something along the lines of when the adoption occurs. Also, remove the word Draft in Red and Draft across most pages
- Page 7 – you stated people received comments for their jurisdictions, FEMA would like to have those comments included in the plan.
- Page 23 – at the top you list Ditch flooding as #6, but you call it ditching, I would remove the “ing”
- Around page 40 you mention each localities Comprehensive Plan, all of the dates are form the 90s and early 2000’s is that the latest version?
- Page 46 – You do not mention the huge tornado that damaged Gloucester County, I think that should be mentioned here as impact.
- Page 50 – It seems you have stopped including impact, extent, and vulnerability under each section.
- Page 52 – Figure 17 I cannot read the caption
- Page 72 – Storm Surge Map, you could not get anything a little newer than 2008?
- Page 81 – Why is 2015 not included
- Page 87 – I am not sure what this table is referring to? I think this should be where the severe repetitive loss properties are documented. If this is something else, then we need to add a table with the SRL properties included

- Page 220 – the first paragraph is incorrect. Mathews is using the same group Gloucester is using and they have a total of 47 properties either they have mitigated using HMA funds or are in the process of mitigating
- Page 220 – the Town of West Point has elevated one property and acquired a public building and relocated their Public Works using HMA funding
- Section B.4 of the Planning Checklist – I do not think you have accurately addressed this requirement. I think you should detail the projects that have been completed in MPPDC (elevation and acquisition) and also find out from the communities how many were on the RL and SRL lists.
- Section D.1 of the Planning Checklist – This requirement can be met in 2 different ways and we touched on it at the meeting with Matt from FEMA. They want to see what was done for each section as an update...a short paragraph synopsis of what you guys looked at reviewing and changing. You can also put this in Section 1 or 2 of the plan. They want you to touch on each chapter, and I would just add something significant.

Ms. Rickards reviewed this feedback with the Local Planning Team. Ms. Rickards explained that changes to the plan have been made to address VDEM's feedback.

Review Public Comments

Ms. Rickards shared that during the public comment period which opened December 16, 2015 and closed January 14, 2016 that there were a total of 10 public. In addition two public meetings were hosted on January 5, 2016 in Saluda and on January 6, 2016 at the King & Queen Regional Library Branch. A total of one person attended the meetings.

Ms. Rickards shared all the public comments with the local planning team and asked if and how they would like to address the comments. The Committee agreed that they would be remiss if they did not include sea level rise and climate change in the plan as there is local data that supports their occurrences.

Timeline – Next Steps

Ms. Rickards reviewed the tasks that have been recently been completed to finalize the plan and the actions that need to occur in order to have this plan adopted by each locality.

- 12/4/2015 – Finish Draft of Report
- 12/15/2015 – Committee finishes plan review; MPPDC makes changes
- 12/16/2015 - Send final draft to VDEM for a 30 day review
- 12/16/2015 – 1/14/2016 – Public Comment Period; MPPDC staff posts draft on MPPDC website and sends copies of draft to local libraries
- 1/5/2016 – Public Meeting in MPPDC Boardroom, Saluda, VA
- 1/6/2016 – Public Meeting in King & Queen Library Branch, St. Stephen's Church, VA
- 1/15/2016 - MPPDC staff will collect public comments and send to Steering Committee.
- 1/26/2016 - MPPDC staff will also host a phone conference to review:
 - Public comments and gather feedback.

- Gather dates from localities regarding when presentations to BOS and/or public outreach will be given.
- 1/19/2016-1/27/2016 - MPPDC staff will make recommended changes
 - 1/28/2016 – 3/29/2016 - MPPDC staff will send final plan to FEMA for a 60 day review. During this time localities should consider hosting public outreach meetings and/or presenting the plan to the BOS. VDEM recommends that each locality adopt the plan after FEMA reviews and approves the plan. Therefore adoption of this plan will most likely take place in April or May 2016. Please note that the 2010 Middle Peninsula Natural Hazards Plan expires May 2016 therefore the 2016 plan should be adopted no later than May 2016 in order to stay compliant with the National Flood Insurance Program.

Other Topics

Ms. Rickards asked the group if they had plans to date to present the plan to their Board of Supervisors and Town Councils. Below are the responses:

1. **Town of West Point:** This plan will need to go through the Public Safety Committee and then the Town Council. Currently the plan is to present the plan to the Public Safety Committee in March and then present the plan to the Council on April 26, 2016. Holly McGowan requested that Ms. Rickards be present at that meeting.
2. **Middlesex County:** The plan was presented at the January 5, 2016 Board of Supervisors meeting and Mr. Nugent plans to recommendation plan adoption at the April 5th or May 3rd meeting of the BOS.
3. **Town of Urbanna:** John Gill said that he will double check with the Town Manager, but he's assumes that the plan will be presented at the April 18, 2016 meeting at 7pm.
4. **Essex County:** Jimmy Brann said that the plan will be presented at the April 12, 2016. He also requested that Ms. Rickards attend the meeting.
5. **King William County:** Chris Bruce will need to discuss this with the County Administration, however the meeting in April is scheduled on the 4th.
6. **Gloucester County:** Creig Moore will double check with the County Administration on how they want to present the plan to Board of Supervisors.

Please note that these dates may change. It will depend on how quick FEMA responds.

Next Meeting

Feedback provided by FEMA will determine whether or not another meeting will be scheduled.


Appendix D –
Public Meeting Sign-in Sheet (January 6, 2016)

Sign-In Sheet

All Hazards Mitigation Plan Public Meeting
January 6, 2016
King & Queen County Library
5 – 7pm


| Name | Town and County of Residence | Email |
|----------------|------------------------------|--------------------------|
| Clariest Brown | King William, Va | thomasclariest@yahoo.com |
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Appendix E -
Public Comment Announcement on the MPPDC website



MIDDLE PENINSULA
PLANNING DISTRICT COMMISSION

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PDC Info
Service Centers
Reports
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User




"Promoting the economic, social and physical development of Virginia's Middle Peninsula."

Quick Links

- Middle Peninsula Ride Share Program
- Middle Peninsula Chesapeake Bay Public Access Authority
- Middle Peninsula Demographics
- MP Community Profile
- MIP II FAQ and Fact Sheet
- Building your Community: 40 Years of MPPDC Success
- JLARC Report: Encouraging Local Collaboration Through State Incentives
- VISA: Fishing Ties Sinking Coast
- Middle Peninsula Comprehensive Economic Development Strategy
- MPPDC PAA Public Access Online Reservation System
- Working Waterfronts article Chesapeake Bay Magazine
- Mathews County Rural Ditch Enhancement Study

MPPDC:
The Power of Numbers

Home



2016 Middle Peninsula All Hazards Mitigation Plan Update

Written by MPPDC

The Middle Peninsula Planning District Commission (MPPDC), in collaboration with local officials from Essex, Gloucester, King & Queen, King William, Mathews, and Middlesex Counties and the Towns of Tappahannock, West Point, and Urbanna is updating the 2010 Middle Peninsula All-Hazards Mitigation Plan. The Plan evaluates all hazards that may affect the region and proposes cost-effective mitigation strategies to lessen the adverse impacts of future hazardous events.

As part of Plan development, public comment and feedback is required. The Plan ([view here](#)) currently includes 4 Sections for review, including the Introduction, Community Profiles, Hazard Identification, as well as Risk Analysis Assessment. The remaining chapters will become available upon completion of the Plan.

Please submit written comments to Ms. Jackie Rickards, Regional Projects Planner II, at jrickards@mppdc.com or mail comments to:

Middle Peninsula Planning District Commission
PO Box 296
125 Bouden Avenue
Saluda, VA 23149

User Name

Password

Remember Me


- [Forgot your password?](#)
- [Forgot your username?](#)

Latest Updates

- 2015 Reports
- Bids/RFPs/RFDs
- Past Meeting Packets
- Commissioners
- Alphabetical Listing of Reports

Who's Online

We have 10 guests and one member online



Virginia Association of Planning District Commissions

Appendix F –
Gazette Journal Press Releases

GLOUCESTER-MATHEWS GAZETTE-JOURNAL

Public comment sought on regional hazard plan

by Bill Nachman - Posted on Jun 24, 2015 - 12:40 PM

The Middle Peninsula Planning District Commission is seeking public comment as its staff works to update the 2011 Middle Peninsula All-Hazards Mitigation Plan, which addresses about two dozen types of hazards from hurricanes to coastal flooding to hazardous material spills.

Jackie Rickards, regional project planner for MPPDC, said that the public comment period will begin Monday, June 29, and end Tuesday, July 28.

"As part of this project," Rickards said, "there is a public participation component which needs to include notifying the public that there is a 30-day review and comment period as well as two scheduled public meetings." She said that update will include "more transportation side of things," such as the Hazmat situations.

One meeting will be held from 5-7 p.m. Wednesday, July 29, at King and Queen Library Conference Room on Newtown Road in St. Stephens Church. The second meeting will be held from 5-7 p.m. Thursday, July 30, at the MPPDC office on Bowden Avenue in Saluda.

Copies of the plan are available for review from June 29-July 28 at the Gloucester and Mathews public libraries, as well as several other libraries in the region. Comments may be sent via e-mail to jrickards@mppdc.com or mail to MPPDC, P.O. Box 286, Saluda, Va. 23149.

Only the updated introduction, community profiles, hazard intensity and risk analysis assessment components of the plan will be available for review at this time, Rickards said, and additional public comments on other components of the plan will be sought later.

The MPPDC board is expected to adopt the revised plan by May 2016, Rickards said. For more information, call MPPDC at 758-2311.

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P.O. Box 2060, Gloucester, VA 23061 - phone: 804-693-3101

GLOUCESTER-MATHEWS GAZETTE-JOURNAL

News and Information for Gloucester and Mathews, Virginia | Thursday, December 31, 2015 Vol. LXXVIII, no. 53 NEW SERIES

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MPPDC meetings next month on hazard plan

| POSTED ON DEC 18, 2015 - 01:23 PM

 [PRINTER FRIENDLY VIEW](#)

The Middle Peninsula Planning District Commission will hold two public meetings in early January to help update the 2011 Middle Peninsula All-Hazards Mitigation Plan.

Jackie Rickards, regional project planner for MPPDC, said hearings are scheduled from 5-7 p.m. Tuesday, Jan. 5, in the commission boardroom on Bowden Street in Saluda and from 5-7 p.m. Wednesday, Jan. 6 in the King & Queen Branch Library Conference Room on Newtown Road in St. Stephens Church.

The current plan addresses about two dozen types of hazards from hurricanes to coastal flooding to hazardous material spills. Copies of the plan are available of review at a number of libraries in the region. For more information, contact Rickards at jrickards@mppdc.com or call 758-2311.

To view this article in its entirety, [subscribe here](#). Already an online subscriber? [Login Here](#)

GLOUCESTER-MATHEWS GAZETTE-JOURNAL

News and Information for Gloucester and Mathews, Virginia | Thursday, December 31, 2015 Vol. LXXVIII, no. 53 NEW SERIES

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Meetings next week on hazard mitigation plan

| POSTED ON DEC 30, 2015 - 11:28 AM

 [PRINTER FRIENDLY VIEW](#)

The Middle Peninsula Planning District Commission will hold two public meetings next week to help update the 2011 Middle Peninsula All-Hazards Mitigation Plan.

Meetings will be held from 5-7 p.m. Tuesday in the commission boardroom on Bowden Street in Saluda and from 5-7 p.m. next Wednesday, Jan. 6, in the King and Queen Branch Library Conference Room on Newtown Road in St. Stephens Church.

The current plan addresses about two dozen types of hazards from hurricanes to coastal flooding to hazardous material spills. Copies of the plan are available of review at a number of libraries in the region. For more information, contact jrickards@mppdc.com or call 758-2311.

To view this article in its entirety, [subscribe here](#). Already an online subscriber? [Login Here](#)

Appendix G –
Public Comments Received During the Comment Periods

PUBLIC COMMENT PERIOD I (JUNE 29, 2015 – JULY 28, 2015)

July, 30, 2015

To Whom It May Concern:

Ref: Public Comments on the **2016 Middle Peninsula All-hazards Mitigation Draft Plan**

I find it very disturbing to see a continuing trend/push by the federal/state/local governments to write **climate change/sea level rise** language into our local emergency planning documents, as is in the case of the **2016 Middle Peninsula All-hazards Mitigation Draft Plan**.

http://www.mppdc.com/articles/service_centers/mandates/Draft_AHMP_Public_Comment_1507.pdf

For several examples see: **Chart** Pg. 14; **Air Quality** Pg. 26-31; **Sea Level Rise** pg. 46; **Hurricanes** Pgs. 60-61.

The **2016 Middle Peninsula All-hazards Mitigation Draft Plan** is blatantly setting the stage to move forward with the crushing economic and political agendas of the Obama administration [in concert with the United Nations], with policies which will **adversely affect the 5th Amendment guaranteed use of our private property rights by way of locally adopted ordinances!**

I have seen firsthand at Middle Peninsula Planning District Commission meetings [which mimic other Planning District Commissions] that **local planning** is driven by federal GRANTS [and flow-through state GRANTS], resulting in the adoption of all manner of unacceptable policies, which are forced on citizens in our communities. I have also seen when the GRANT money runs out, we taxpayers, end up with the tab for the duration!!

People are always astounded to hear that the MPPDC staffs actually get **paid based on the number of GRANTS** they secure for the Middle Peninsula local governments! Quantity not quality for the local citizens...

The issue of climate change/sea level rise is NOT settled science, quite the opposite. As the rest of the world has stopped the scam in its tracks, the administration continues on this destructive path. These issues have NO place in local emergency planning documents!

Attached, as inclusions to my comments, are a number of documents which disclosing current thinking about the issue.

Mr. Lawrence has emphatically stated in MPPDC meetings on several occasions that the Middle Peninsula is sinking due to land subsidence. This draft plan contradicts his claim. It appears that has become more politically correct to claim the *sea is rising* than the *land is sinking!*

See:

Pg. 34 4.2.5. Land Subsidence/Karst

“Land subsidence is the lowering of surface elevations due to changes made underground. The USGS notes that land subsidence is usually caused by human activity such as pumping of water, oil, or gas from underground reservoirs. Land subsidence often occurs in regions with mildly acidic groundwater and the geology is dominated by limestone, dolostone, marble or gypsum. Karst is the term used to refer to geology dominated by limestone and similar soluble rocks. The acidic groundwater dissolves the surrounding geology creating sinkholes. Sinkholes are classified as natural depressions of the land surface. Areas with large amounts of karst are characterized by the presence of sinkholes, sinking

streams, springs, caves and solution valleys. ***These conditions do not occur in the Middle Peninsula (Figure 12).***”

In addition to my comments on the **2016 Middle Peninsula All-hazards Mitigation Draft Plan**, I am including my formal complaint regarding the MPPDC citizen participation plan, in which the MPPDC scheduled its **public comment period to end before the public meetings**. Chairman Smith assured me he would seek the other MPPDC Commissioners input on extending the comment period at the last MPPDC meeting, but he failed to do so.

I request this reversed-sequenced citizen participation plan schedule not be repeated in the future, as a simple courtesy to Middle Peninsula constituents.

B.L.
Dunnsville, VA

July 31, 2015

MPPDC,

I believe a mitigation plan is a tool which should be used to “react” to a hazardous event. Any inclusion of a mandate or requirement placed upon property owners due to climate change, sea level rise or land subsidence, must be done so “only” with demonstrated, proven scientific results. This cannot be done with “modeling and assumptions” and that is all that you have at the moment. Please do not mandate to citizens what they are limited to do because you “assume” there is a need. It must be demonstrated with real proof, not theory.

I am strongly against any inclusion otherwise.

Respectfully,

B.B.
Dunnsville, VA 22454
Essex County

August 3, 2015

I have read the 2016 Middle Peninsula All-hazards Mitigation Plan with alarm. Not that the stats disturb me. I have lived long enough to know that hurricanes, tornadoes, snow, rain and sunshine happens. What concerns me is the extent to which government is getting involved. As if we humans have had a part in the cause and that government is the solution.

More and more there is solid evidence that climate change is in no way caused by human activities. For example:

The World Health Organization has been exposed by a leading U.S./UN climate scientist for using fraudulent statistics and methodologies to push for more UN control over energy and human activity. http://www.thenewamerican.com/tech/environment/item/19635-un-ipcc-scientist-scorches-who-for-exaggerating-deaths-caused-by-global-warming?utm_source=Newsletter&utm_campaign=6bc703daea-

[The Editors Top Picks 3 12 143 12 2014&utm_medium=email&utm_term=0_8ca494f2d2-6bc703daea-289802065](http://www.thenewamerican.com/tech/environment/item/21348-obama-pentagon-flogs-discredited-climate-fears-again)

and

The Obama Defense Department is at it again, ratcheting up the global warming fear index
<http://www.thenewamerican.com/tech/environment/item/21348-obama-pentagon-flogs-discredited-climate-fears-again>

How much of our money was wasted in producing this plan? Was it so that government could dictate how and where we live in order to meet the designs of government? I can't think of any other plausible reason.

Thank you for your consideration.

S.L.
Mathews County

August 3, 2015

Ms Richards,

It concerns me that the Middle Peninsula Planning District Commission continues to support the idea of climate change with it's bogus effects on the environment. The climate has not warmed in almost two decades but the assertion that it has continues. Please consider the following.

Here is the smoking gun. Speaking at a news conference in Brussels earlier this year was Christiana Figueres, executive secretary of the U.N.'s Framework Convention on Climate Change who admitted that the goal of environmental activists is not to save the world from ecological calamity but to **destroy capitalism**. She said "This is the first time in history that we are setting ourselves the task of intentionally, within a defined period of time, to change the economic development model that has been reigning for at least 150 years, since the industrial Revolution." Referring to a new international treaty, environmentalist hope will be adopted at the Paris climate change conference later this year she added "This is probably the most difficult task we have ever given ourselves, which is to intentionally transform the economic model for the first time in history".

D.E.

August 4, 2015

J Rickards, MPPDC,

I believe a mitigation plan is a tool which should be used to "react" to a hazardous event. Any inclusion of a mandate or requirement placed upon property owners due to climate change, sea level rise or land subsidence, must be done so "only" with demonstrated, proven scientific results. This cannot be done with "modeling and assumptions" and that is all that you have at the moment. Do not mandate to

citizens what they are limited to do because you “assume” there is a need. It must be demonstrated with real proof, not some assumed theory.
I am strongly against any inclusion otherwise.

Respectfully,

S.R. B.
Laneview, Va.
Essex County

PUBLIC COMMENT PERIOD 2 (DECEMBER 16, 2015 – JANUARY 14, 2016)

January 13, 2016

Please do not include any reference to Climate change or sea level rise into the all hazard mitigation plan as These issues are not yet PROVEN science as relates to the plan Thank you D. D. -- Hartfield, Va.

January 14, 2016

Ms. Rickards;

As a citizen in King William County, I am concerned about the far reaching effects of government and overstepping its bounds. The issue of climate change and sea level is not a proven science any more then evolution.....That is only one theory.....

Thus I ask that this document strip reference to climate change and sea level rise and focus tangible and measurable items, such as natural disasters and hazards associated with transportation.

B.E.
King William

January 14, 2016

A mitigation plan is a tool which should be used to “react” to naturally occurring hazardous events. Any inclusion of climate change, sea level rise or land subsidence, has nothing to do with natural causes and is solely done with political intent. Climate change terminology must be excluded since it is deemed a so called, human caused event on "modeling only" and not scientific fact. The purpose of the mitigation plan is to protect the citizens of this region with inclusions of all the naturally occurring hazardous events so as to be able to be assisted by FEMA. Let's remove the politics from the plan and do what is intended by the document. Lightning, earthquakes, droughts, and "floods," etc. occur naturally and nothing more needs to be said. Once terminology is documented and included as something that is not.... it can become that thing. Otherwise, the continued inclusion of that terminology sets the precedent to include, arson, terrorism, home invasions and who knows what else. I would suggest that termites destroying an individuals home would need to be listed as a naturally caused event and therefore could also be included if you continue down this road. I hope you capture

what is indeed needed, and nothing more. Only the terminologies to best protect the citizens and nothing more. That is what this mandate is all about.... stop the political inclusions.

I believe the public comment period expires tomorrow, Thursday the 14th, and most folks, including myself, were never provided ample notification for response. I hope that others are able to provide their comments in time.

Respectfully,

B.B.
Dunnsville, VA
Essex County

January 14, 2016

Members of the MPPDC,

A mitigation plan is a tool which should be used to “react” to naturally occurring hazardous events. Any inclusion of climate change, sea level rise or land subsidence, has nothing to do with natural causes and is solely done with political intent. Climate change terminology must be excluded since it is deemed a so called, human caused event on "modeling only" and not scientific fact. The purpose of the mitigation plan is to protect the citizens of this region with inclusions of all the naturally occurring hazardous events so as to be able to be assisted by FEMA.

Let's remove the politics from the plan and do what is intended by the document. Lightning, earthquakes, droughts, and "floods," etc. occur naturally and nothing more needs to be said. Once terminology is documented and included as something that is not.... it can become that thing. Otherwise, the continued inclusion of that terminology sets the precedent to include, arson, terrorism, home invasions and who knows what else. I would suggest that termites destroying an individuals home would need to be listed as a naturally caused event and therefore could also be included if you continue down this road.

I hope you capture what is indeed needed, and nothing more. Only the terminologies to best protect the citizens and nothing more. That is what this mandate is all about.... stop the political inclusions.

I believe the public comment period expires tomorrow, Thursday the 14th, and most folks, including myself, were never provided ample notification for response. I hope that others are able to provide their comments in time.

Respectfully,

S. B.
Laneview, Va.
Essex County

January 14, 2016

Dear Louis,

I hope that you will take in account the following as my attempt to insert my feelings as a "Public Comment".

A mitigation plan is a tool which should be used to "react" to naturally occurring hazardous events. Any inclusion of climate change, sea level rise or land subsidence, has nothing to do with natural causes and is solely done with political intent. **Climate change terminology must be removed since it is deemed a so called, human caused event on "modeling only' and backed by scientific studies calling climate change an effect of human behavior.** The purpose of the mitigation plan is to protect the citizens of this region with inclusions of all the **naturally occurring hazardous events** so as to be able to be assisted by FEMA. Let's just do what is intended by the document. Lightning, earthquakes, droughts, floods, tornadoes, hurricanes, sink holes and insect infestation, etc. occur naturally and nothing more needs to be said. Once terminology is documented and included as something that it is not.... it is opened up to all kinds of other disasters that are human caused and not natural events. Otherwise, the continued inclusion of terminology that is not **natural caused** sets the precedent to include, arson, terrorism, home invasions and who knows what else. I hope you capture what is indeed needed, and nothing more. Only the terminologies to best protect the citizens and nothing more. That is what this mandate is all about.

B. C.
Dunnsville, VA
Essex County

January 14, 2016

Members of the MPPDC,

A mitigation plan is a tool which should be used to "react" to naturally occurring hazardous events. Any inclusion of climate change, sea level rise or land subsidence, has nothing to do with natural causes and is solely done with political intent. Climate change terminology must be excluded since it is deemed a so called, human caused event on "modeling only' and not scientific fact. This terminology is the basis for the biggest hoaks ever perpetrate on the citizens of America and does not exist. The purpose of the mitigation plan is to protect the citizens of this region with inclusions of all the naturally occurring hazardous events so as to be able to be assisted by FEMA.

Let's remove the politics from the plan and do what is intended by the document. Lightning, earthquakes, droughts, and "floods," etc. occur naturally and nothing more needs to be said. Once terminology is documented and included as something that is not.... it can become that thing. Otherwise, the continued inclusion of that terminology sets the precedent to include, arson, terrorism, home invasions and who knows what else. I would suggest that termites destroying an individuals home would need to be listed as a naturally caused event and therefore could also be included if you continue down this road.

I hope you capture what is indeed needed, and nothing more. Only the terminologies to best protect the citizens and nothing more. That is what this mandate is all about.... stop the political inclusions.

I believe the public comment period expires tomorrow, Thursday the 14th, and most folks, including myself, were never provided ample notification for response. I hope that others are able to provide

their comments in time.

Respectfully

D.R.

January 19, 2016

To whom it may concern:

Local emergency plans are very important documents.

I request the plan that will be submitted to the various counties and towns needs to be simplified to a minimum document.

Climate change and sea level rise is still debatable.

Is the issue sea level rise or land subsidence? It could be one, both or neither.

In the 2016 All-Hazards Mitigation Plan Update neither sea level rise or land subsidence occur in the Middle Peninsula. (page 34, 4.2.5. Land Subsidence/KARSD)

The reference to sea level rise or land subsidence should be removed from the update.

As Global Warming is unfinished science, that entire section should be removed from the document.

If necessary, when the science is settled, can be added or not in subsequent updates.

Thank you,
W. L.
Dunnsville, VA
Essex County

January 14, 2016

Return Receipt Requested

To Whom It May Concern:

Ref: Public Comments on the **2016 Middle Peninsula All-Hazards Mitigation Plan Update**

It is crystal clear that the MPPDC, as part of the VAPDC system, is pushing a federal/state **political agenda** onto cities/counties/towns' local emergency planning documents by way of the unsettled "science" of *manmade* global warming and sea level rise!

As the current Federal Administration has been unable to pressure the U.S. Congress to adopt this **political agenda** into federal law, the Executive Branch is now in its “recurring mode” of going around Congress. The “go around” includes withdrawing emergency funding for FEMA insurance claims, if the locales resist the adoption of the **2016 All-Hazards Mitigation Plan Update** with its unacceptable language [manmade global warming and sea level rise]! Climate change and sea level rise are **world policies** enacted through the *United Nations*. Of note: the U.S. Constitution disallows the implementation of **foreign policy**, without the approval of the United States Senate!

The MPPDC, in concert with the *American Planning Association's* master planning book and with facilitators, uses the Hegelian dialectic tools, to steer/control groups to get a “consensus” in order to achieve the desired “predetermined conclusion”. Using Regionalism, local elected officials are pressured into “compliance” on plans [with threats of penalties] in order to qualify for government grants, thereby illegally depriving and adversely affecting their constituents U.S. Constitution 5th Amendment guaranteed use of their private property rights, by way of **locally adopted ordinances!**

The following statements best explain the value of **consensus** in creating sound conclusions to deal with an unknown series of events [with unprovable unscientific theories] predicted 30-50 years or more into the future:

“Appealing to a (false) consensus is a political argument and a propaganda technique to deflect from your lack of facts or empirical evidence. Consensus has no legitimacy in science.”

[odin2 Biologyteacher100 <http://www.thenewamerican.com/tech/environment/item/22294-disarming-the-alarmists-climate-change-myth-takes-three-more-hits>]

You don't have to be Einstein to understand the following, but it helps:

Albert Einstein said: **“The important thing is not to stop questioning.” So why do so many people insist the science is beyond dispute and that there's nothing further to discuss?”**

Concerning the Hegelian dialectic and its sister, the Delphi method:

“Overall the track record of the Delphi method is mixed...It must also be realized that in areas such as science and technology forecasting, the degree of uncertainty is so great that exact and always correct predictions are impossible, so a high degree of error is to be expected.”

https://en.wikipedia.org/wiki/Delphi_method

On an examination of why the MPPDC dedicates so much time “designing plans”, the bones of which were already provided by the American Planning Association [with their funding coming from the federal government], see the explanation below:

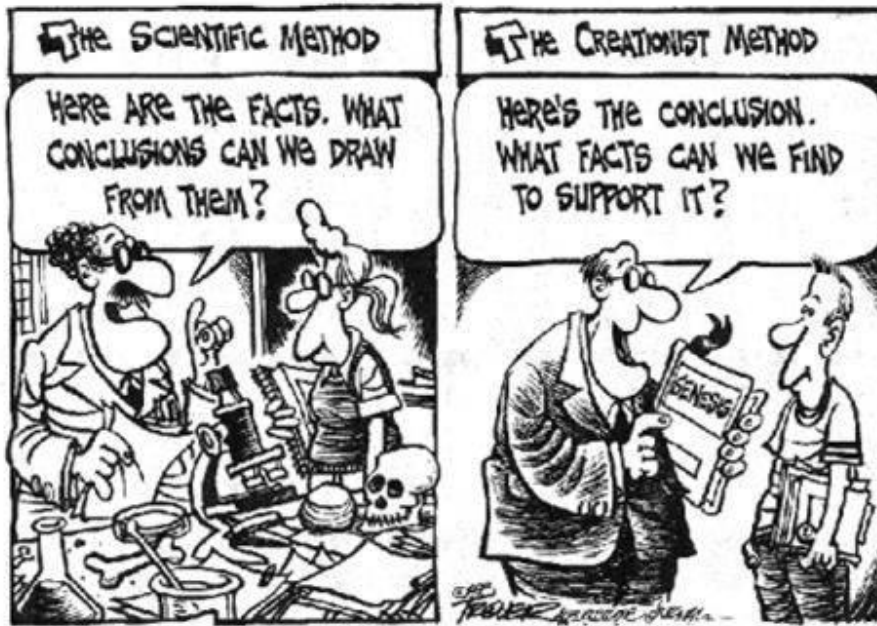
Global Warming /Climate Change is based on solid facts. Paul Watson, the co-founder of Greenpeace has said, “The data does not matter, it does not matter what is true, it only matters what people believe is true.”

The truth of the matter is best stated by Donna Holt, Executive Director, *Campaign for Liberty*:

“In the absence of any clear scientific evidence, central planning is an inappropriate extreme that should be avoided. It suggests that it's more about greater government control over the population than protecting the environment.”

www.campaignforliberty.com/VA_12/25/2011

A Visual:



RE: Link: [draft plan](#) 2016 Middle Peninsula All-Hazards Mitigation Plan Update **Section: 4.3.6. Sea Level Rise** Pages 56-59

RE: <http://www.mppdc.org/index.php/service-centers/mandates/hazards> :

*“The plan will address several natural hazards, including hurricanes, winter storms, tornadoes, coastal flooding, coastal/shoreline erosion, **sea level rise**, winter storms, wildfire, riverine flooding, wind, dam failures, drought, lightning, earthquakes, shrink-swell soils, extreme cold, extreme heat, landslides, land subsidence/karst, tsunamis, and volcanoes.”*

****8/4/15 Statement from Lewie Lawrence, Director of MPPDC:**

“The 2016 Middle Peninsula All-Hazard Mitigation Plan is driven by Federal requirements established under the Disaster Mitigation Act of 2000[**]. The Findings and Purpose of this Act is clear and enumerated below. If you disagree with the purpose of the Act, please contact Congressman Rob Wittman (VA-1) office as only Congress can change the requirements cited under the Act.

MPPDC is under contract acting on behalf of and for Middle Peninsula local governments. If you have concerns about your local government remaining consistent with the Disaster Mitigation Act of 2000, this is a local issue and I direct your inquiry to the Essex County Board of Supervisors as the adoption of the Middle Peninsula All Hazard Mitigation Plan can only be done by action of the local Board of Supervisor once approved by FEMA.

As with the two previous Middle Peninsula mitigation plans, FEMA will make the final determination of plan elements and appropriateness of plan contents. If you have suggestions concerning methodology and a litmus test for deciding what data is appropriate for inclusion, please contact FEMA directly to discuss your concerns. Our liaison at the Virginia Department of Emergency Management is CC'd above and can provide FEMA contact information if requested.”

******I ask, where is ***climate change/sea level rise*** identified in the *Disaster Act of 2000* [See below******]?
Is the federal government using bogus “science” to explain normal planet earth events, so as to regulate all aspects of our lives? I think yes...

The Supreme Court has ruled that the cost of ***regulations enacted must be justified by results obtained***. The need/costs to regulate the planet cannot be justified with climate change/sea level rise claims of ultimate remediation obtained. ***Verifiable data is unattainable through unreliable “modeling”***.

******Below is the Act referred to by Mr. Lawrence:

DISASTER MITIGATION ACT OF 2000******

SEC. 101. FINDINGS AND PURPOSE.

(a) FINDINGS.—Congress finds that—

42 USC 5133

note.

42 USC 5121

note.

Disaster Mitigation Act of 2000.

Oct. 30, 2000

[H.R. 707]

PUBLIC LAW 106–390—OCT. 30, 2000 | 14 STAT. 1553

(1) natural disasters, including earthquakes, tsunamis, tornadoes, hurricanes, flooding, and wildfires, pose great danger to human life and to property throughout the United States;

(2) greater emphasis needs to be placed on—

(A) identifying and assessing the risks to States and local governments (including Indian tribes) from natural disasters;

(B) implementing adequate measures to reduce losses from natural disasters; and

(C) ensuring that the critical services and facilities of communities will continue to function after a natural disaster;

(3) expenditures for postdisaster assistance are increasing without commensurate reductions in the likelihood of future losses from natural disasters;

(4) in the expenditure of Federal funds under the Robert T. Stafford Disaster Relief and Emergency Assistance Act (42 U.S.C. 5121 et seq.), high priority should be given to mitigation of hazards at the local level; and

(5) with a unified effort of economic incentives, awareness and education, technical assistance, and demonstrated Federal support, States and local governments (including Indian tribes)

will be able to—

(A) form effective community-based partnerships for hazard mitigation purposes;

(B) implement effective hazard mitigation measures that reduce the potential damage from natural disasters;

(C) ensure continued functionality of critical services;

(D) leverage additional non-Federal resources in meeting natural disaster resistance goals; and

(E) make commitments to long-term hazard mitigation efforts to be applied to new and existing structures.

(b) PURPOSE.—The purpose of this title is to establish a national disaster hazard mitigation program—

(1) to reduce the loss of life and property, human suffering, economic disruption, and disaster assistance costs resulting from natural disasters; and

(2) to provide a source of predisaster hazard mitigation funding that will assist States and local governments (including Indian tribes) in implementing effective hazard mitigation measures that are designed to ensure the continued functionality of critical services and facilities after a natural disaster.

***Statement of MPPDC Planner J. Rickards [8/4/15] in answer to questions about WHY counties/towns need to adopt the 2016 Middle Peninsula All-Hazards Mitigation Plan Update:

“The development of an All-Hazards Mitigation Plan is a federal requirement in order to receive disaster mitigation funding. If a locality does not participate in the development of an All Hazards Mitigation Plan then private property owners, public entities, and businesses cannot receive disaster mitigation funding. For instance, let’s say a hurricane comes through the Middle Peninsula and several properties are flooded. Most property owners recover just fine from the incident but there is one private property owner that is tired of cleaning up after floods and he/she wants to elevate his/her home. If his locality worked on and adopted an All Hazards Mitigation Plan then this private property owner could work with his locality to receive the necessary disaster mitigation funding. However if his locality did not work on or adopt an All Hazards Mitigation Plan then the private property owner is not eligible to apply.”

***My emailed public comments to MPPDC Planner J. Rickards [7/30/15] were as follows:
”I find it very disturbing to see a continuing trend/push by the federal/state/local governments to write **climate change/sea level rise** language into our local emergency planning documents, as is in the case of the **2016 Middle Peninsula All-hazards Mitigation Draft Plan**.

http://www.mppdc.com/articles/service_centers/mandates/Draft_AHMP_Public_Comment_1507.pdf
For several examples see: **Chart** Pg. 14; **Air Quality** Pg. 26-31; **Sea Level Rise** pg. 46; **Hurricanes** Pgs. 60-61.

The **2016 Middle Peninsula All-hazards Mitigation Draft Plan** is blatantly setting the stage to move forward with the crushing economic and political agendas of the Obama administration [in concert with the United Nations], with policies which will **adversely affect the 5th Amendment guaranteed use of our private property rights by way of locally adopted ordinances!**

I have seen firsthand at Middle Peninsula Planning District Commission meetings [which mimic other Planning District Commissions] that **local planning** is driven by federal GRANTS [and flow-through state GRANTS], resulting in the adoption of all manner of unacceptable policies, which are forced on citizens in our communities. I have also seen when the GRANT money runs out, we taxpayers, end up with the tab for the duration!!

People are always astounded to hear that the MPPDC staffs actually get **paid based on the number of GRANTS** they secure for the Middle Peninsula local governments! Quantity not quality for the local citizens...

The issue of climate change/sea level rise is NOT settled science, quite the opposite. As the rest of the world has stopped the scam in its tracks, the administration continues on this destructive path. These issues have NO place in local emergency planning documents!

Attached, as inclusions to my comments, are a number of documents which disclosing current thinking about the issue.

Mr. Lawrence has emphatically stated in MPPDC meetings on several occasions that the Middle Peninsula is sinking due to land subsidence. This draft plan contradicts his claim. It appears that it has become more politically correct to claim the sea is rising than the land is sinking!

See: Pg. 34 4.2.5. **Land Subsidence/Karst**

*“Land subsidence is the lowering of surface elevations due to changes made underground. The USGS notes that land subsidence is usually caused by human activity such as pumping of water, oil, or gas from underground reservoirs. Land subsidence often occurs in regions with mildly acidic groundwater and the geology is dominated by limestone, dolostone, marble or gypsum. Karst is the term used to refer to geology dominated by limestone and similar soluble rocks. The acidic groundwater dissolves the surrounding geology creating sinkholes. Sinkholes are classified as natural depressions of the land surface. Areas with large amounts of karst are characterized by the presence of sinkholes, sinking streams, springs, caves and solution valleys. **These conditions do not occur in the Middle Peninsula** (Figure 12).”*

*** Public comments [July/August 2015] made to MPPDC Planner Ms. J. Rickards, with which I concur:
“I believe a mitigation plan is a tool which should be used to “react” to a hazardous event. Any inclusion of a mandate or requirement placed upon property owners due to climate change, sea level rise or land subsidence, must be done so “only” with demonstrated, proven scientific results. This cannot be done with “modeling and assumptions” and that is all that you have at the moment. Please do not mandate to citizens what they are limited to do because you “assume” there is a need. It must be demonstrated with real proof, not theory I am strongly against any inclusion otherwise.”

I have read the 2016 Middle Peninsula All-hazards Mitigation Plan with alarm. Not that the stats disturb me. I have lived long enough to know that hurricanes, tornadoes, snow, rain and sunshine happens. What concerns me is the extent to which government is getting involved. As if we humans have had a part in the cause, and that government is the solution.

More and more there is solid evidence that climate change is in no way caused by human activities.

For example:

The World Health Organization has been exposed by a leading U.S./UN climate scientist for using fraudulent statistics and methodologies to push for more UN control over energy and human activity.

http://www.thenewamerican.com/tech/environment/item/19635-un-ipcc-scientist-scorches-who-for-exaggerating-deaths-caused-by-global-warming?utm_source=Newsletter&utm_campaign=6bc703daea-TheEditorsTopPicks312143122014&utm_medium=email&utm_term=0_8ca494f2d2-6bc703daea-289802065

and

The Obama Defense Department is at it again, ratcheting up the global warming fear index <http://www.thenewamerican.com/tech/environment/item/21348-obama-pentagon-flogs-discredited-climate-fears-again>

How much of our money was wasted in producing this plan? Was it so that government could dictate how and where we live in order to meet the designs of government? I can't think of any other plausible reason.

Thank you for your consideration.”

***Post note from a Matthews County Citizen who has been sounding a warning about these over-reaching federal/state/local plans:

“I have been warning you for a long time about federal control of localities through grant monies. The Middle Planning District Commission is a major conduit for that. I can only hope that people will come to understand that central planning is destroying their property rights. If you don't believe that, try doing something on your land without planning approval. It has little to do with good stewardship environmentalism, and everything to do with total control. When you hear or see anything related to climate change, sea level rise, and sustainable development remember this:

This is the smoking gun. Speaking at a news conference in Brussels this year was Christiana Figueres, Executive Secretary of the U.N.'s Framework Convention on Climate Change, who admitted that the goal of environmental activists is not to save the world from ecological calamity, but to destroy capitalism. She said "This is the first time in history that we are setting ourselves the task of intentionally, within a defined period of time, to change the economic development model that has been reigning for at least 150 years, since the industrial revolution." Referring to a new international treaty, environmentalist hope will be adopted at the Paris climate Change Conference later this year she added "This is probably the most difficult task we have ever given ourselves, which is to intentionally transform the economic model for the first time in history"

B. L.
Dunnsville, VA
Essex County

January 14, 2016

Jackie,

Just like all comments they are blown off by the members of the MPPDC. This commission has lost its way and has become the extension of the UN agenda 21. I am an American first and I hope that the decisions are based on what makes America great not some socialistic agenda that I have seen from the past from this commission. I have been to several meetings and you guys treat the public like second class citizens and the arrogance and some of the non scientific or any basis of truth is astounding. I consider this organization a detriment to our country and mostly the citizens of Essex County. You guys can not even police your members as to their qualifications. I look back no further than David Whitlow from Essex. When will Essex get a TRUE citizen representative? Not a hack who used to be on the BOS. Shame on this organization!

D.R.

January 20, 2016

Ms. Rickards:

Thank you for your response. See attached article about the beneficial effects of CO2 on plants [falsely referred to as “carbon”]. We learned in elementary school that CO2 is “plant food”!
As you know, every year NOAA predicts how many and how intense hurricanes will be in the United States. They can’t get it right nor do reasonable people expect them to...

Climate change predictions have been consistently wrong [i.e. Al Gore]. Why do you think the term “global warming” had to be changed to “climate change”? Proponents have had to repeatedly explain why predicted events did not occur! They constantly try to convince us that “*modeling errors*” have been fixed to produce the now corrected “*settled science*”.

The “science” of global warning/sea level rise has been tainted by political hacks who wish to *economically control* our ability to use our private property. Thinking people know that science is never “settled” when it comes to natural events like the weather!

This plan’s *political* injection of climate change/sea level rise language must be removed. Like most plans that come out of the White House and the United Nations, this plan is an unconstitutional assault on the private property protections we are afforded by the 5th Amendment.

B.L.
Dunnsville, VA
Essex County

Appendix H –
Tornado History in the Middle Peninsula Region (1950-2014)

| Tornado History in the Middle Peninsula Region (1950-2014) | | | | | | | | | | | | |
|---|----------|---------------------|--------|------------|----------|---------------|----------------|--------------|----------------|-----------------|---------------|----------------|
| Date | Time | Affected Counties | Fujita | Fatalities | Injuries | Width (yards) | Length (miles) | Damage | Touch Latitude | Touch Longitude | Lift Latitude | Lift Longitude |
| 5/11/1951 | 3:00 PM | King and Queen | 1 | 0 | 0 | 10 | 0.1 | \$5K-\$50K | 37.55 | -76.73 | - | - |
| 6/26/1954 | 7:00 PM | Essex | ? | 0 | 0 | 10 | 0.1 | \$500-\$5000 | 37.93 | -76.87 | - | - |
| 4/25/1975 | 4:00 PM | Gloucester, Mathews | 1 | 0 | 4 | 10 | 4 | \$50K-\$500K | 37.47 | -76.48 | 37.5 | -76.42 |
| 7/13/1975 | 7:20 PM | King William | 0 | 0 | 0 | 10 | 0.1 | \$50-\$500 | 37.77 | -77.17 | - | - |
| 8/14/1975 | 7:10 PM | Gloucester | 0 | 0 | 0 | 27 | 0.2 | \$500-\$5000 | 37.42 | -76.53 | - | - |
| 8/24/1975 | 10:30 PM | Gloucester | 1 | 0 | 0 | 27 | 0.1 | \$500-\$5000 | 37.3 | -76.53 | - | - |
| 7/15/1976 | 5:00 PM | Middlesex | 1 | 0 | 0 | 10 | 0.1 | - | 37.67 | -76.58 | - | - |
| 9/5/1979 | 3:30 PM | Gloucester | 1 | 0 | 0 | 20 | 0.5 | \$5K-\$50K | 37.23 | -76.48 | - | - |
| 5/24/1980 | 4:50 PM | Gloucester | 1 | 0 | 0 | 27 | 0.6 | \$500-\$5000 | 37.55 | -76.53 | - | - |
| 5/11/1981 | 5:30 PM | Middlesex | 2 | 0 | 0 | 20 | 0.2 | \$5K-\$50K | 37.68 | -76.68 | - | - |
| 3/30/1989 | 3:15 PM | Mathews | 1 | 0 | 0 | 150 | 3 | \$50K-\$500K | 37.33 | -76.32 | 37.35 | -76.27 |
| 10/18/1990 | 3:00 PM | King William | 3 | 1 | 0 | 430 | 5 | \$500K-\$5M | 37.62 | -77.1 | 37.67 | -77.05 |
| 8/6/1993 | 12:00 PM | Middlesex | 3 | 0 | 0 | 100 | 2.9 | \$5K-\$50K | 37.58 | -76.58 | - | - |
| 10/5/1995 | 11:20 AM | King and Queen | 1 | 0 | 0 | 150 | 3 | \$50K-\$500K | 37.52 | -76.77 | 37.55 | -76.75 |
| 7/12/1996 | 9:05 PM | Gloucester | 0 | 0 | 0 | 50 | 0.5 | \$10,000 | 37.28 | -76.4 | 37.28 | -76.4 |
| 7/12/1996 | 9:15 PM | Gloucester | 0 | 0 | 0 | 50 | 0.5 | \$10,000 | 37.48 | -76.62 | 37.48 | -76.62 |
| 7/15/1996 | 5:30 PM | Gloucester | 1 | 0 | 0 | 100 | 7 | \$100,000 | 37.27 | -76.48 | 37.28 | -76.37 |
| 3/9/1998 | 4:30 AM | Gloucester | 0 | 0 | 0 | 50 | 1.5 | \$20,000 | 37.77 | -76.42 | 37.28 | -76.4 |
| 7/14/2000 | 6:09 PM | Mathews | 0 | 0 | 0 | 20 | 0.5 | \$2,000 | 37.5 | -76.3 | 37.5 | -76.3 |
| 7/14/2000 | 5:08 PM | Middlesex | 0 | 0 | 0 | 20 | 0.5 | - | 37.55 | -76.33 | 37.55 | -76.33 |
| 5/8/2003 | 1:15 PM | Essex | 0 | 0 | 0 | 50 | 0.2 | - | 37.93 | -76.85 | 37.93 | -76.85 |
| 5/2/2004 | 8:30 PM | King and Queen | 1 | 0 | 0 | 100 | 1 | \$30,000 | 37.67 | -76.85 | 37.67 | -76.85 |
| 9/8/2004 | 12:05 PM | King William | 0 | 0 | 0 | 100 | 1 | \$10,000 | 37.78 | -77.1 | 37.78 | -77.1 |
| 7/8/2005 | 1:15 AM | Middlesex | 1 | 0 | 0 | 50 | 3 | \$10,000 | 37.6 | -76.6 | 37.6 | -76.6 |
| 1/14/2006 | 1:15 AM | King and Queen | 0 | 0 | 0 | 50 | 0.3 | \$10,000 | 37.77 | -76.88 | 37.77 | -76.88 |
| 9/28/2006 | 6:35 PM | King and Queen | 1 | 0 | 0 | 100 | 2 | \$30,000 | 37.67 | -76.8 | 37.67 | -76.8 |
| 4/27/2007 | 10:30 AM | Gloucester | 0 | 0 | 0 | 100 | 5.13 | \$50,000 | 37.44 | -76.67 | 37.46 | -76.58 |
| 4/20/2008 | 1:58 PM | King William | 0 | 0 | 0 | 40 | 0.3 | \$10,000 | 37.72 | -77.22 | - | - |
| 4/20/2008 | 4:25 PM | King William | 0 | 0 | 0 | 40 | 0.3 | \$10,000 | 37.71 | -77.12 | - | - |
| 4/20/2008 | 4:28 PM | King William | 0 | 0 | 0 | 25 | 0.2 | \$2,000 | 37.74 | -77.15 | - | - |
| 4/28/2008 | 2:55 PM | Gloucester, Mathews | 0 | 0 | 0 | 50 | 11 | \$20,000 | 37.39 | -76.59 | 37.47 | -76.41 |
| 4/28/2008 | 2:45 PM | Mathews | 1 | 0 | 0 | 50 | 0.3 | \$50,000 | 37.39 | -76.37 | 37.39 | -76.36 |
| 5/31/2008 | 2:52 PM | King William | 0 | 0 | 0 | 50 | 1 | \$50,000 | 37.77 | -77.27 | 37.78 | -77.25 |
| 4/16/2011 | 4:45 PM | Gloucester, Mathews | 3 | 2 | 24 | 800 | 46.89 | \$8,020,000 | 37.1532 | -76.704 | 37.4636 | -76.4241 |
| 4/16/2011 | 4:30 PM | Middlesex | 1 | 0 | 0 | 400 | 1.06 | \$100,000 | 37.6743 | -76.6037 | 37.681 | -76.5862 |
| 4/16/2011 | 5:25 PM | Middlesex | 2 | 0 | 0 | 400 | 2.8 | \$6,000,000 | 37.5331 | -76.3528 | 37.5693 | -76.3299 |
| 2/24/2012 | 5:25 PM | Mathews | 0 | 0 | 0 | 50 | 0.75 | \$20,000 | 37.3337 | -76.3012 | 37.3356 | -76.2878 |
| 5/22/2014 | 4:05 PM | King and Queen | 0 | 0 | 0 | 50 | 0.85 | \$0.01 | 37.78 | -76.94 | 37.7709 | -76.9297 |

Appendix I –
Wildfires within the Middle Peninsula 2010 – June 2015 (VDOF, 2015)

Wildfires within the Middle Peninsula 2010 – June 2015 (VDOF, 2015)

| Fire Number | County Name | Fire Origin Type | General Cause | Specific Cause | Fire Start | Total Acres |
|-------------|-------------|------------------------|----------------|-----------------------|------------|-------------|
| ESS10001 | Essex | Virginia - Non Federal | Debris Burning | Other Debris Burn | 3/10/2010 | 0.2 |
| ESS10002 | Essex | Virginia - Non Federal | Smoking | Smoking | 3/18/2010 | 0.3 |
| ESS10003 | Essex | Virginia - Non Federal | Equipment Use | Exhaust | 5/6/2010 | 0.2 |
| ESS10004 | Essex | Virginia - Non Federal | Debris Burning | Prescribed Burn | 5/4/2010 | 32 |
| ESS10005 | Essex | Virginia - Non Federal | Equipment Use | Exhaust | 6/12/2010 | 3 |
| ESS10006 | Essex | Virginia - Non Federal | Miscellaneous | Powerlines | 6/28/2010 | 48 |
| ESS10007 | Essex | Virginia - Non Federal | Miscellaneous | Other Miscellaneous | 6/21/2010 | 5 |
| ESS11001 | Essex | Virginia - Non Federal | Miscellaneous | Powerlines | 2/19/2011 | 21 |
| ESS11002 | Essex | Virginia - Non Federal | Miscellaneous | Other Miscellaneous | 2/20/2011 | 0.1 |
| ESS11003 | Essex | Virginia - Non Federal | Miscellaneous | Other Miscellaneous | 2/20/2011 | 0.1 |
| ESS11004 | Essex | Virginia - Non Federal | Equipment Use | Exhaust | 3/5/2011 | 0.5 |
| ESS11005 | Essex | Virginia - Non Federal | Debris Burning | Trash Burn | 4/6/2011 | 5 |
| ESS11006 | Essex | Virginia - Non Federal | Miscellaneous | Powerlines | 4/20/2011 | 2 |
| ESS11007 | Essex | Virginia - Non Federal | Debris Burning | Other Debris Burn | 6/3/2011 | 0.2 |
| ESS12001 | Essex | Virginia - Non Federal | Incendiary | Incendiary | 3/30/2012 | 0.1 |
| ESS12002 | Essex | Virginia - Non Federal | Lightning | Lightning | 6/22/2012 | 1 |
| ESS12003 | Essex | Virginia - Non Federal | Lightning | Lightning | 6/29/2012 | 0.1 |
| ESS12004 | Essex | Virginia - Non Federal | Equipment Use | Friction/Dragging | 7/7/2012 | 3 |
| ESS12005 | Essex | Virginia - Non Federal | Miscellaneous | Powerlines | 7/9/2012 | 0.5 |
| ESS13001 | Essex | Virginia - Non Federal | Children | Under Age 12 | 4/3/2013 | 0.1 |
| ESS13002 | Essex | Virginia - Non Federal | Debris Burning | Prescribed Burn | 9/27/2013 | 0.8 |
| ESS14001 | Essex | Virginia - Non Federal | Debris Burning | Trash Burn | 3/21/2014 | 0.4 |
| ESS14002 | Essex | Virginia - Non Federal | Equipment Use | Equipment Malfunction | 4/24/2014 | 0.1 |
| ESS14004 | Essex | Virginia - Non Federal | Miscellaneous | Other Miscellaneous | 7/19/2014 | 7 |
| ESS15001 | Essex | Virginia - Non Federal | Smoking | Smoking | 3/16/2015 | 0.1 |
| ESS15002 | Essex | Virginia - Non Federal | Miscellaneous | Powerlines | 4/22/2015 | 3 |
| GLO10001 | Gloucester | Virginia - Non Federal | Debris Burning | Other Debris Burn | 3/20/2010 | 1 |
| GLO10002 | Gloucester | Virginia - Non Federal | Lightning | Lightning | 7/18/2010 | 2 |
| GLO10003 | Gloucester | Virginia - Non Federal | Debris Burning | Other Debris Burn | 8/27/2010 | 2 |
| GLO10004 | Gloucester | Virginia - Non Federal | Debris Burning | Other Debris Burn | 8/28/2010 | 0.3 |
| GLO10005 | Gloucester | Virginia - Non Federal | Incendiary | Incendiary | 9/23/2010 | 0.3 |
| GLO10006 | Gloucester | Virginia - Non Federal | Children | Under Age 12 | 9/25/2010 | 0.2 |
| GLO11001 | Gloucester | Virginia - Non Federal | Debris Burning | Other Debris Burn | 12/24/2010 | 1.5 |
| GLO11002 | Gloucester | Virginia - Non Federal | Equipment Use | Friction/Dragging | 2/13/2011 | 3 |
| GLO11003 | Gloucester | Virginia - Non Federal | Miscellaneous | Powerlines | 2/14/2011 | 4 |
| GLO11004 | Gloucester | Virginia - Non Federal | Incendiary | Incendiary | 2/13/2011 | 9 |
| GLO11005 | Gloucester | Virginia - Non Federal | Incendiary | Incendiary | 2/17/2011 | 40 |
| GLO11006 | Gloucester | Virginia - Non Federal | Incendiary | Incendiary | 2/20/2011 | 83 |
| GLO11007 | Gloucester | Virginia - Non Federal | Incendiary | Incendiary | 2/19/2011 | 140 |
| GLO11008 | Gloucester | Virginia - Non Federal | Miscellaneous | Powerlines | 2/19/2011 | 372 |
| GLO11009 | Gloucester | Virginia - Non Federal | Incendiary | Incendiary | 8/22/2011 | 5 |
| GLO11010 | Gloucester | Virginia - Non Federal | Incendiary | Incendiary | 11/14/2011 | 8 |
| GLO12001 | Gloucester | Virginia - Non Federal | Incendiary | Incendiary | 4/7/2012 | 83 |
| GLO12002 | Gloucester | Virginia - Non Federal | Incendiary | Incendiary | 4/8/2012 | 40 |
| GLO12003 | Gloucester | Virginia - Non Federal | Debris Burning | Trash Burn | 4/15/2012 | 0.5 |

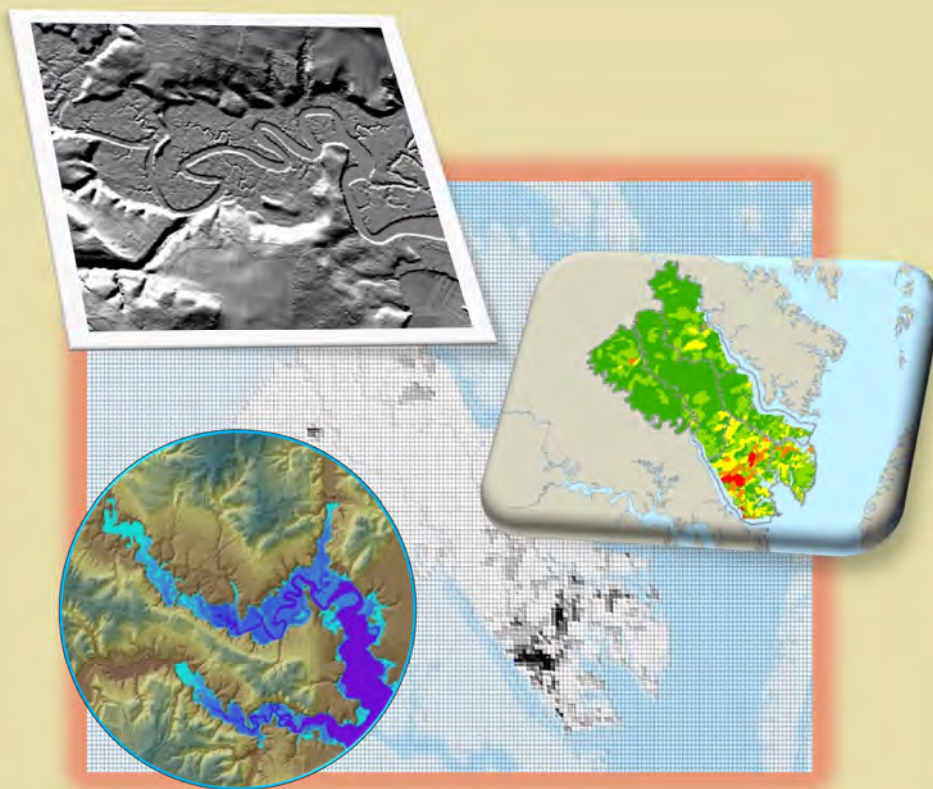
| Fire Number | County Name | Fire Origin Type | General Cause | Specific Cause | Fire Start | Total Acres |
|-------------|----------------|------------------------|----------------|---------------------|------------|-------------|
| GLO12004 | Gloucester | Virginia - Non Federal | Equipment Use | Friction/Dragging | 4/17/2012 | 1 |
| GLO12005 | Gloucester | Virginia - Non Federal | Incendiary | Incendiary | 7/7/2012 | 7.1 |
| GLO12006 | Gloucester | Virginia - Non Federal | Debris Burning | Other Debris Burn | 8/4/2012 | 0.3 |
| GLO12007 | Gloucester | Virginia - Non Federal | Miscellaneous | Woodstove Ashes | 11/25/2012 | 0.5 |
| GLO13001 | Gloucester | Virginia - Non Federal | Debris Burning | Trash Burn | 3/28/2013 | 0.4 |
| GLO13002 | Gloucester | Virginia - Non Federal | Incendiary | Incendiary | 5/30/2013 | 3.4 |
| GLO13004 | Gloucester | Virginia - Non Federal | Miscellaneous | Powerlines | 11/24/2013 | 0.5 |
| GLO14001 | Gloucester | Virginia - Non Federal | Miscellaneous | Firearms/Ammunition | 2/27/2014 | 0.3 |
| GLO14002 | Gloucester | Virginia - Non Federal | Debris Burning | Other Debris Burn | 3/2/2014 | 11 |
| GLO14003 | Gloucester | Virginia - Non Federal | Miscellaneous | Structure Fires | 4/24/2014 | 2.5 |
| GLO14004 | Gloucester | Virginia - Non Federal | Miscellaneous | Powerlines | 7/7/2014 | 0.8 |
| GLO15001 | Gloucester | Virginia - Non Federal | Children | Ages 12 - 17 | 3/12/2015 | 0.8 |
| GLO15002 | Gloucester | Virginia - Non Federal | Debris Burning | Other Debris Burn | 3/24/2015 | 0.7 |
| GLO15003 | Gloucester | Virginia - Non Federal | Incendiary | Incendiary | 4/2/2015 | 127 |
| GLO15004 | Gloucester | Virginia - Non Federal | Equipment Use | Exhaust | 4/2/2015 | 5 |
| GLO15005 | Gloucester | Virginia - Non Federal | Debris Burning | Other Debris Burn | 4/6/2015 | 0.5 |
| GLO15006 | Gloucester | Virginia - Non Federal | Incendiary | Incendiary | 5/27/2015 | 11 |
| KAQ10001 | King and Queen | Virginia - Non Federal | Miscellaneous | Other Miscellaneous | 4/3/2010 | 0.1 |
| KAQ10002 | King and Queen | Virginia - Non Federal | Miscellaneous | Other Miscellaneous | 7/24/2010 | 3 |
| KAQ11001 | King and Queen | Virginia - Non Federal | Debris Burning | Other Debris Burn | 2/19/2011 | 5 |
| KAQ12001 | King and Queen | Virginia - Non Federal | Debris Burning | Other Debris Burn | 2/27/2012 | 0.1 |
| KAQ12002 | King and Queen | Virginia - Non Federal | Lightning | Lightning | 6/30/2012 | 17 |
| KAQ12003 | King and Queen | Virginia - Non Federal | Lightning | Lightning | 6/29/2012 | 3 |
| KAQ13001 | King and Queen | Virginia - Non Federal | Lightning | Lightning | 6/28/2013 | 2 |
| KAQ13002 | King and Queen | Virginia - Non Federal | Equipment Use | Other Equipment Use | 6/24/2013 | 5 |
| KAQ14001 | King and Queen | Virginia - Non Federal | Debris Burning | Other Debris Burn | 3/15/2014 | 50 |
| KAQ14002 | King and Queen | Virginia - Non Federal | Debris Burning | Prescribed Burn | 4/12/2014 | 0.5 |
| KAQ15001 | King and Queen | Virginia - Non Federal | Debris Burning | Other Debris Burn | 2/8/2015 | 16 |
| KWMI0001 | King William | Virginia - Non Federal | Smoking | Smoking | 4/5/2010 | 2 |
| KWMI0002 | King William | Virginia - Non Federal | Children | Under Age 12 | 4/6/2010 | 0.1 |
| KWMI0003 | King William | Virginia - Non Federal | Debris Burning | Trash Burn | 7/6/2010 | 2 |
| KWMI0005 | King William | Virginia - Non Federal | Lightning | Lightning | 7/22/2010 | 2 |
| KWMI0006 | King William | Virginia - Non Federal | Debris Burning | Prescribed Burn | 9/4/2010 | 1 |
| KWMI0007 | King William | Virginia - Non Federal | Equipment Use | Friction/Dragging | 9/4/2010 | 6 |
| KWMI0008 | King William | Virginia - Non Federal | Debris Burning | Prescribed Burn | 9/10/2010 | 1 |
| KWMI1001 | King William | Virginia - Non Federal | Debris Burning | Trash Burn | 2/13/2011 | 5 |
| KWMI1002 | King William | Virginia - Non Federal | Miscellaneous | Powerlines | 2/14/2011 | 1 |
| KWMI1003 | King William | Virginia - Non Federal | Miscellaneous | Other Miscellaneous | 2/19/2011 | 46 |
| KWMI2001 | King William | Virginia - Non Federal | Miscellaneous | Vehicle Fires | 1/16/2012 | 9.9 |
| KWMI2002 | King William | Virginia - Non Federal | Smoking | Smoking | 4/16/2012 | 0.1 |
| KWMI2003 | King William | Virginia - Non Federal | Lightning | Lightning | 6/22/2012 | 12 |
| KWMI4001 | King William | Virginia - Non Federal | Debris Burning | Trash Burn | 2/28/2014 | 0.5 |
| KWMI4002 | King William | Virginia - Non Federal | Debris Burning | Other Debris Burn | 3/20/2014 | 0.1 |
| KWMI4003 | King William | Virginia - Non Federal | Children | Under Age 12 | 5/2/2014 | 0.8 |
| KWMI4004 | King William | Virginia - Non Federal | Children | Under Age 12 | 5/4/2014 | 0.2 |
| KWMI5001 | King William | Virginia - Non Federal | Miscellaneous | Woodstove Ashes | 2/6/2015 | 1 |
| KWMI5002 | King William | Virginia - Non Federal | Debris Burning | Other Debris Burn | 4/5/2015 | 0.3 |

| Fire Number | County Name | Fire Origin Type | General Cause | Specific Cause | Fire Start | Total Acres |
|-------------|--------------|------------------------|----------------|---------------------|------------|-------------|
| KWMI5003 | King William | Virginia - Non Federal | Miscellaneous | Powerlines | 4/19/2015 | 0.1 |
| MATI0001 | Mathews | Virginia - Non Federal | Debris Burning | Other Debris Burn | 5/8/2010 | 0.5 |
| MATI0002 | Mathews | Virginia - Non Federal | Equipment Use | Other Equipment Use | 9/18/2010 | 15 |
| MATI0003 | Mathews | Virginia - Non Federal | Smoking | Smoking | 11/23/2010 | 15 |
| MATI1001 | Mathews | Virginia - Non Federal | Children | Under Age 12 | 8/5/2011 | 0.2 |
| MATI2001 | Mathews | Virginia - Non Federal | Lightning | Lightning | 6/22/2012 | 1 |
| MATI2002 | Mathews | Virginia - Non Federal | Lightning | Lightning | 6/25/2012 | 0.2 |
| MATI2003 | Mathews | Virginia - Non Federal | Lightning | Lightning | 6/29/2012 | 2.3 |
| MATI3001 | Mathews | Virginia - Non Federal | Equipment Use | Friction/Dragging | 6/1/2013 | 0.5 |
| MATI4001 | Mathews | Virginia - Non Federal | Incendiary | Incendiary | 3/11/2014 | 4.1 |
| MIDI0001 | Middlesex | Virginia - Non Federal | Debris Burning | Trash Burn | 4/16/2010 | 6 |
| MIDI0002 | Middlesex | Virginia - Non Federal | Debris Burning | Trash Burn | 4/23/2010 | 0.1 |
| MIDI0003 | Middlesex | Virginia - Non Federal | Smoking | Smoking | 5/1/2010 | 0.5 |
| MIDI0004 | Middlesex | Virginia - Non Federal | Smoking | Smoking | 7/18/2010 | 0.5 |
| MIDI0005 | Middlesex | Virginia - Non Federal | Miscellaneous | Powerlines | 7/28/2010 | 0.4 |
| MIDI1001 | Middlesex | Virginia - Non Federal | Equipment Use | Exhaust | 2/14/2011 | 0.1 |
| MIDI1002 | Middlesex | Virginia - Non Federal | Debris Burning | Trash Burn | 2/15/2011 | 0.3 |
| MIDI1003 | Middlesex | Virginia - Non Federal | Debris Burning | Other Debris Burn | 2/19/2011 | 478 |
| MIDI1004 | Middlesex | Virginia - Non Federal | Smoking | Smoking | 2/19/2011 | 0.1 |
| MIDI1005 | Middlesex | Virginia - Non Federal | Smoking | Smoking | 2/19/2011 | 0.3 |
| MIDI1006 | Middlesex | Virginia - Non Federal | Lightning | Lightning | 6/10/2011 | 0.1 |
| MIDI1007 | Middlesex | Virginia - Non Federal | Miscellaneous | Structure Fires | 11/14/2011 | 1 |
| MIDI2001 | Middlesex | Virginia - Non Federal | Equipment Use | Exhaust | 4/9/2012 | 0.5 |
| MIDI2002 | Middlesex | Virginia - Non Federal | Debris Burning | Trash Burn | 4/14/2012 | 0.1 |
| MIDI2003 | Middlesex | Virginia - Non Federal | Campfires | Campfires | 8/4/2012 | 0.5 |
| MIDI2004 | Middlesex | Virginia - Non Federal | Debris Burning | Trash Burn | 12/4/2012 | 0.3 |
| MIDI4001 | Mathews | Virginia - Non Federal | Debris Burning | Trash Burn | 3/2/2014 | 0.3 |
| MIDI4002 | Middlesex | Virginia - Non Federal | Miscellaneous | Powerlines | 8/26/2014 | 0.1 |
| MIDI4003 | Middlesex | Virginia - Non Federal | Children | Ages 12 - 17 | 11/4/2014 | 0.3 |
| MIDI4004 | Middlesex | Virginia - Non Federal | Miscellaneous | Other Miscellaneous | 11/4/2014 | 0.3 |
| MIDI5001 | Middlesex | Virginia - Non Federal | Miscellaneous | Firearms/Ammunition | 4/5/2015 | 1 |

Appendix J –
Hazus Methodology

Middle Peninsula Planning District Commission 2015 Hazard Mitigation Plan Update

HAZUS Modeling Report



April 2015

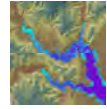
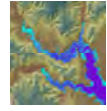


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INTRODUCTION

As part of the Middle Peninsula Planning District Project, Dewberry was asked to perform HAZUS flood and hurricane wind modeling for the next Hazard Mitigation Plan (HMP) revision. The goal and intent of the effort is that Dewberry would provide the MPPDC updated Hazard Identification and Risk Assessment (HIRA) elements that can be incorporated into the final MPPDC HMP. The effort is also a repeat effort in that Dewberry had provided the same services for the currently approved HMP.

Therefore, the work performed seeks to update the previous HIRA section maps, text and tables. Given the nature of hazard mitigation planning and the goals that the Federal Emergency Management Agency (FEMA) has set for jurisdictions to continually improve HMP's from one revision to the next, Dewberry has significantly improved the nature of the Hazus Flood modeling on behalf of the MPPDC. This report documents the various modeling efforts performed and, where appropriate, denotes modeling efforts that transcend previous efforts given available scope, schedule and budget of the project.

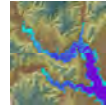
This report documents the methodology used to construct the HAZUS modeling efforts and also discusses core model results where applicable. Users of this document are directed to the final HMP that will be completed in the future (2015/2016) by the MPPDC but will include this work effort by Dewberry in the HIRA sections for Hurricane Wind and Flooding to include certain Sea Level Rise scenarios.

Flood Modeling – Riverine Streams

The previous Plan flood modeling utilized Hazus Version 1 – Maintenance Release 4; a.k.a. MR4. Significant changes have occurred with the Hazus software and models over the past five (5) years and the software has moved through the following versions:

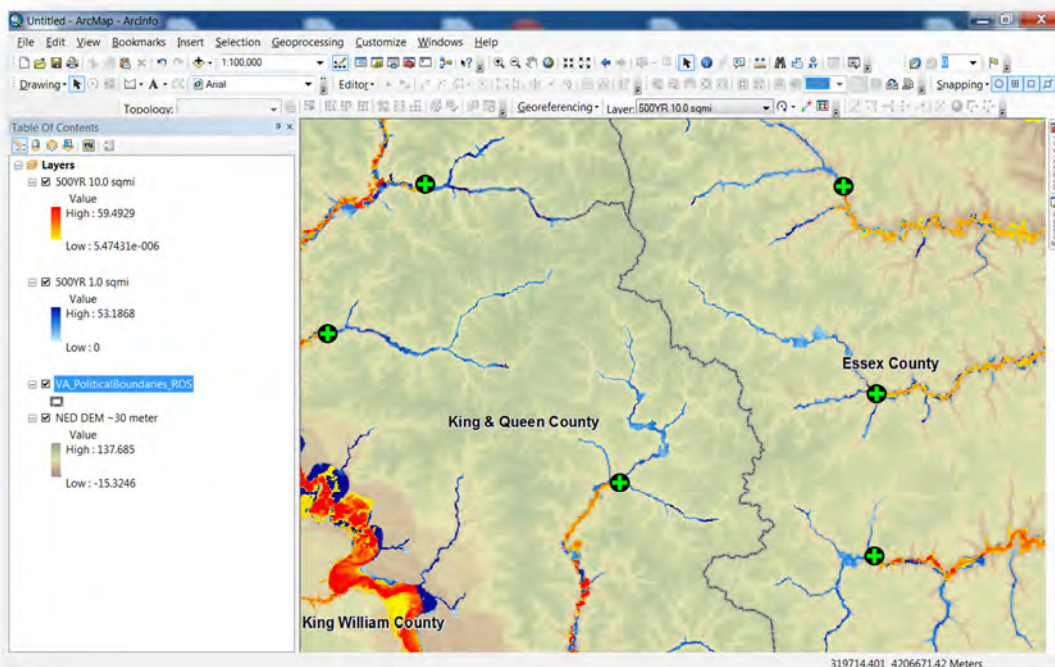
- Version 1 – Maintenance Release 4 (MR4)
- Version 1 – Maintenance Release 5 (MR5)
- Version 2.0
- Version 2.1
- Version 2.2 (current)

In addition to the version releases noted above there have also been various patches deployed in-between the version releases. One notable improvement to the Flood - Riverine Module is the automated methodology of cross section placement which, along with typical advancements in computing hardware and software, helps in the ability to process smaller drainage thresholds. Dewberry in-fact processed the project area at the one-square mile (1 mi²) as had been suggested in the previous Plan as a mitigation action that could improve the Hazus Flood modeling efforts. This new Riverine analysis included use of the most recent National Elevation Dataset (NED) digital elevation



model (DEM) at the one-arc second resolution (i.e., ~ 30 meter resolution). The previous Plan Riverine modeling effort only included one-square mile (1 mi²) delineation for Mathews County and the remainder of the Planning District utilized ten-square mile (10 mi²). The beneficial effect of using the smaller drainage area threshold means that the analysis of flooded streams will extend further upstream - offering a more complete representation of potential flooding as is shown in **Figure 1** below. It can be seen that the blue-scale depth grid delineations of the 0.2% Annual Chance or 500-year event at one-square mile (1 mi²) extends much further upstream as compared to the red-yellow scale grid of the same event delineated at ten-square miles (10 mi²). The point-marker has been added to show the relative most upstream extent of the ten-square mile (10 mi²) delineation.

Figure 1: Riverine 0.2% Annual Chance (500 Year) Depth Grids Comparison



Furthermore, the (1 mi²) delineations, for most riverine streams are consistent with the current effective or new revised preliminary FEMA floodplain mapping. **Figure 2** shows the same example area with the FEMA digital Flood Insurance Rate Map (FIRM) data overlaid with the blue-scale depth grid delineations of the 1% Annual Chance (i.e., 100-Year Event) of the one-square mile (1 mi²) depth grid. The example area shown includes primarily 1% Annual Chance Approximate Zone (i.e., Zone A) delineations and are shown as red outlined areas. The marker symbols have been left for reference.

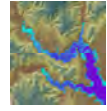
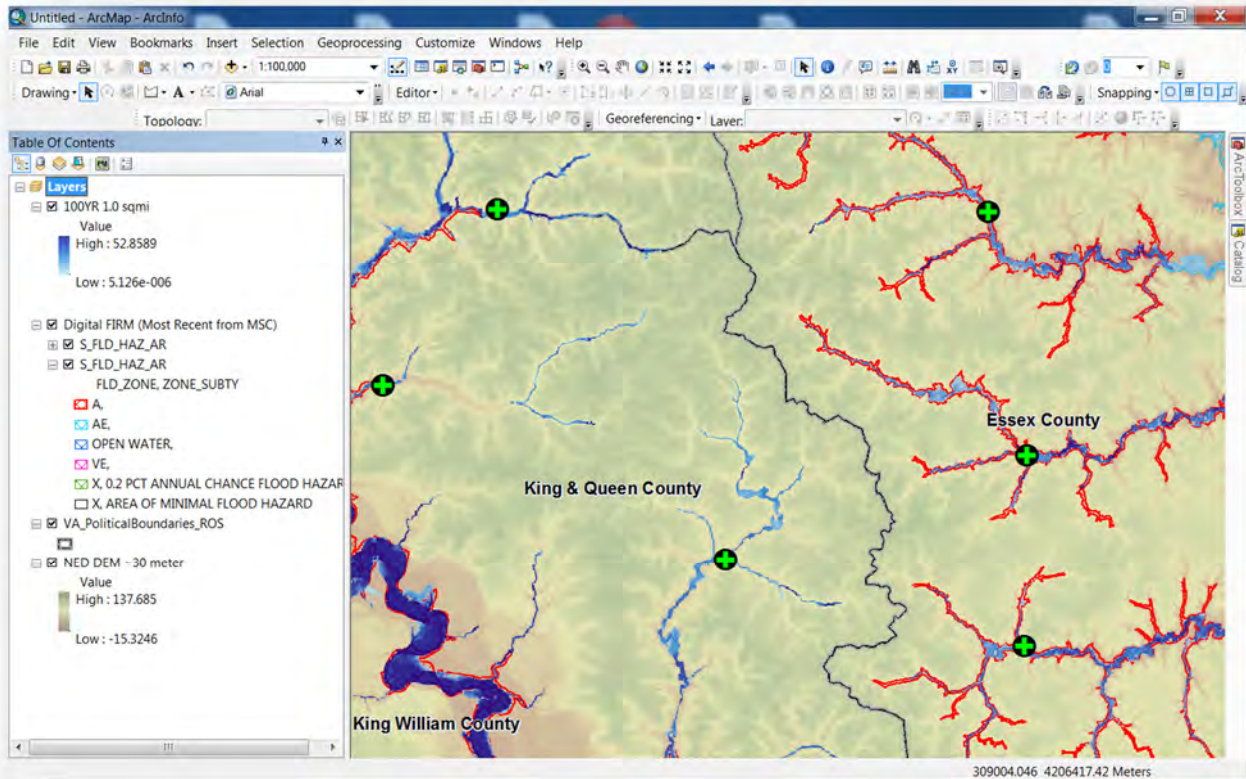


Figure 2: Riverine 1% Annual Chance Depth Grid vs. FEMA Digital FIRM Comparison

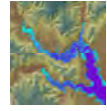


It is also important to note that most FEMA-initiated flood insurance studies use a one-square mile (1 mi²) drainage threshold for delineation of floodplains. However, users should be warned and realize that FEMA flood studies also require the use of ground data that is much more precise than one-arc second resolution (i.e., ~ 30 meter resolution); i.e., typical FEMA studies require DEM resolution of two-meter (2 m. or ~6.6 ft.) resolution or better.

Issues & Challenges Encountered:

As noted earlier, the previous Plan riverine modeling only utilized one-square mile (1 mi²) drainage threshold for Mathews. While the most recent effort now has accomplished one-square mile (1 mi²) drainage threshold for the remainder of the MPPDC planning area, there were still a few issues and challenges that existed; some were overcome and others may warrant additional consideration in the future.

- **Issue 1:**
 - Issue: Hydrology or Hydraulics would not complete for a given County.



- **Solution:** Divide the County into smaller sub-geographies to reduce the number of stream segments that Hazus must process. There were three (3) counties that had to be divided into two (2) portions each - Essex, King and Queen and lastly, King William each had to be divided into portions. Dividing these counties into smaller portions enabled Hazus to process a smaller quantity of streams and produce usable results.
- **Issue 2:**
 - **Issue:** Hazus produced “Failed Reaches” or “Problem Reaches”.
 - **Solution:** Utilize successful reaches (i.e., non-failed) from adjacent geography where it exists. For example, Dragon Swamp which borders both Essex and King and Queen Counties failed in the riverine model portion of Essex County yet, the same reach did not fail in the companion model of King and Queen. In order to overcome such issues all grids were merged across the MPPDC area to compensate for the deficiency of failed reaches. Inevitably, the Hazus software will utilize the damages estimated from the flooding source that generates the greatest amount of estimated damage. Therefore, another consideration regarding failed reaches is the interaction within Hazus between riverine and coastal hazards as defined by the depth grids from each flooding source. There are failed reaches for which the riverine module did not create a depth grid, however in-reality the same reach may actually be influenced by coastal forces and therefore the coastal methodology is able to supplement or compensate for the lack of a riverine depth grid. An example (see **Figure 3** – next page) where the coastal module generated depth for a riverine failed reach includes Hoskins Creek which runs through the Town of Tappahannock or nearby Piscataway Creek and its tributaries - Mussel Creek or Mill Creek. Also, Cohoke Mill Pond in King William County presents another example of same.

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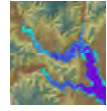
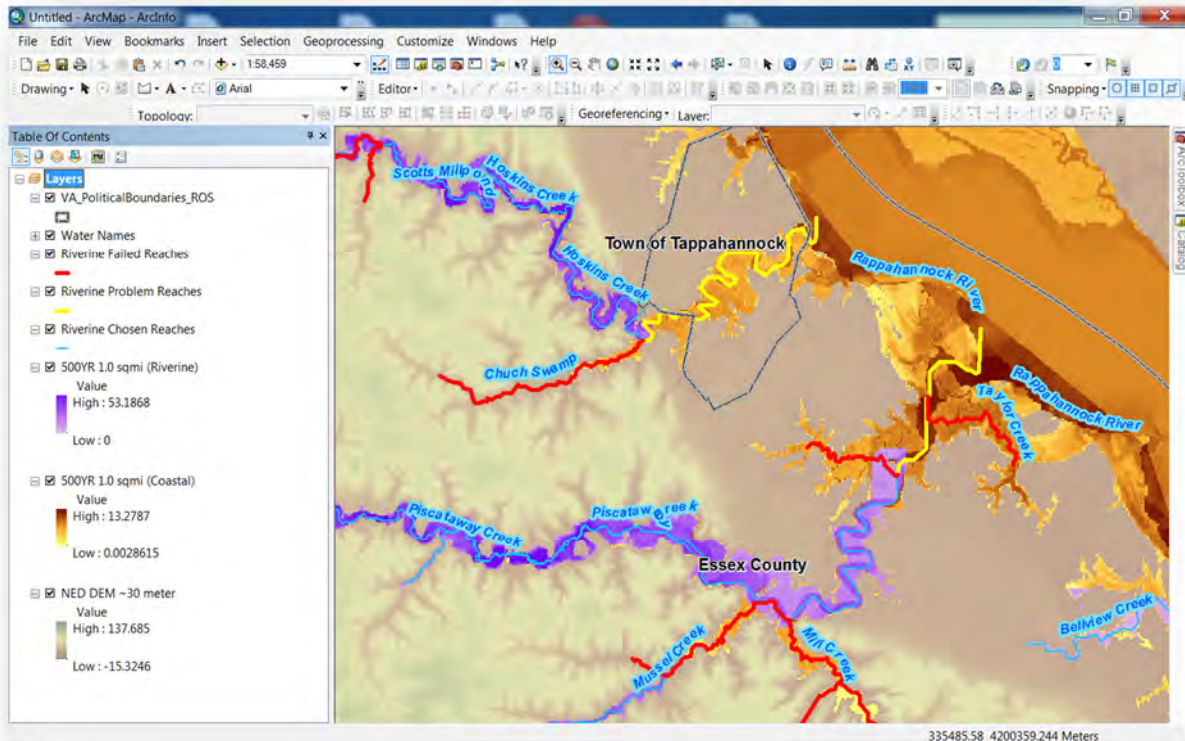
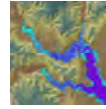


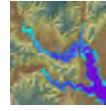
Figure 3: Riverine Failed/Problem Reaches and Riverine Depth Grid vs. Coastal Depth Grid



- **Other Discussion:** Regarding failed reaches, the Hazus documentation has little information that explains the reasons why reaches fail. However, Dewberry experience has shown that reaches fail for a few common reasons that are not always in the user's control; for example given a particular geography a reach may fail due to lack of hydrologic stream gauges within the vicinity. Another possibility is that the hydrologic methodology employed by Hazus does not produce any flow (i.e., discharge or "Q" modeling parameter); this is most common where rural regression equations are employed. Notably, it is also possible that Hazus has not been updated with the most recent regression equation parameters available from the United States Geologic Survey (USGS). While Dewberry did not verify the equation parameters in Hazus Version 2.2, based on other work that Dewberry has performed in Virginia, it was known that Hazus Version 2.1 did not include the most recent rural regression equations available from the USGS.



- **Issue 3:**
 - Issue: FEMA Region III concern over the use of Hazus Level 1 functionality.
 - Solution: The solution employed included the suggestion that the MPPDC and Dewberry discuss with FEMA Region III expectations of the Hazus modeling. The call that was held on March 13, 2015 included such discussions. Ultimately, the MPPDC and the Virginia Department of Emergency Management (VADEM) agreed that the Dewberry plan of action was reasonable and appropriate. However, for reference, Dewberry has compiled an explanation of the specific concerns expressed by the Region during the March 13, 2015 call. Dewberry agrees with the Region in that the best data is in-fact the best, however needs to be tempered with the realities of effort, time and cost. The Region expressed concern over the use of the Level 1 methodology which means the Region would prefer the use of the following:
 - Hydrology & Hydraulics (H&H) – preference would be to use data typical of FEMA Risk MAP Flood Insurance Studies (FIS) and Non-Regulatory Depth Grid creation versus the Hazus methodology. Typical H&H is accessed via models such as US Army Corps of Engineers HEC-RAS models. Where such models are not available or inaccessible, digital FIRM data may be used but legacy riverine data typically only includes water surface elevations for the 1% annual chance event which is not conducive to generating annualized loss values expected of hazard mitigation planning. Last, where models and digital FIRM data are not complete or not available, the remaining H&H data would typically be gleaned from Flood Insurance Study (FIS) reports; more specifically, users wishing to develop the flood hazard into depth grids for direct-use in Hazus, would have to convert water surface profiles within the FIS-text into digital data. Lastly, regardless of which H&H inputs mentioned are available, the user would be required to process all data to digital water surfaces for further processing into depth grids.
 - Topographic Data – preference is to use LiDAR-based topography at a resolution consistent with FEMA Risk MAP Flood Insurance Studies (FIS) and Non-Regulatory Depth Grid creation versus the one-arc second or ~ 30-meter DEM employed.
 - Depth Grid Creation – preference is again suggested to develop depth grids consistent with FEMA Risk MAP Non-Regulatory Depth Grid creation which means the use of hydraulic stream models (if they exist and are accessible), and/or the use of digital FIRM data, and/or the use of flood profiles published in FIS reports. Notably, while there is definitely benefits associated with the most accurate inputs, Dewberry noted on the call that the level of effort to produce such depth grids is quite extensive and typically is not feasible under budgets available for HMP's.



Flood Modeling – Coastal

As with the Flood Riverine, the previous Plan flood modeling utilized Hazus Version 1 – Maintenance Release 4; a.k.a. MR4. The coastal flood module has also experienced certain changes; the primary difference in the coastal model is that users no longer define certain shoreline characteristics such as wave exposure (i.e., Open Coast, Moderate/Minimal Exposure or Sheltered) and shoreline type (e.g., Rocky bluffs, sandy beaches w/ small dunes, open wetlands, etc.). Otherwise, much of the coastal module is the same in that users are still asked to choose shoreline segments and then users have the option of sub-dividing the shorelines and entering water surface and wave characteristics.

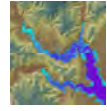
Dewberry followed user guidance for the entry of water surfaces by obtaining the most recent versions of either effective (or) newly released preliminary FIS-text from the FEMA Map Service Center (MSC). Dewberry obtained the following FEMA FIS documents:

- ESSEX COUNTY,VIRGINIA AND INCORPORATED AREAS – Revised May 4, 2015
 - FLOOD INSURANCE STUDY NUMBER - 51057CV000B
- GLOUCESTER COUNTY,VIRGINIA (ALL JURISDICTIONS) – Revised November 19, 2014
 - FLOOD INSURANCE STUDY NUMBER - 51073CV000B
- KING AND QUEEN COUNTY,VIRGINIA AND INCORPORATED AREAS – Preliminary October 3, 2013
 - FLOOD INSURANCE STUDY NUMBER - 51097CV000B
- KING WILLIAM COUNTY,VIRGINIA AND INCORPORATED AREAS – Preliminary October 3, 2013
 - FLOOD INSURANCE STUDY NUMBER - 51101CV000B
- MIDDLESEX COUNTY,VIRGINIA AND INCORPORATED AREAS – Revised May 18, 2015
 - FLOOD INSURANCE STUDY NUMBER - 51119CV000B
- MATHEWS COUNTY,VIRGINIA (ALL JURISDICTIONS) – Revised December 9, 2014
 - FLOOD INSURANCE STUDY NUMBER - 51115CV000B

Per Hazus User guidance the shoreline was divided as closely as possible to the Transect Location Map found within each respective FIS and the Starting Stillwater Elevations (typ. TABLE 2 – Transect Data) were utilized to populate the Hazus menu of Stillwater elevations. Therefore, the Hazus Level 1 methodology was utilized to perform hydrology, hydraulics and coastal hazard delineation. The resulting depth grids were created from the same NED one-arc second DEM utilized for the Riverine analysis.

Issues & Challenges Encountered:

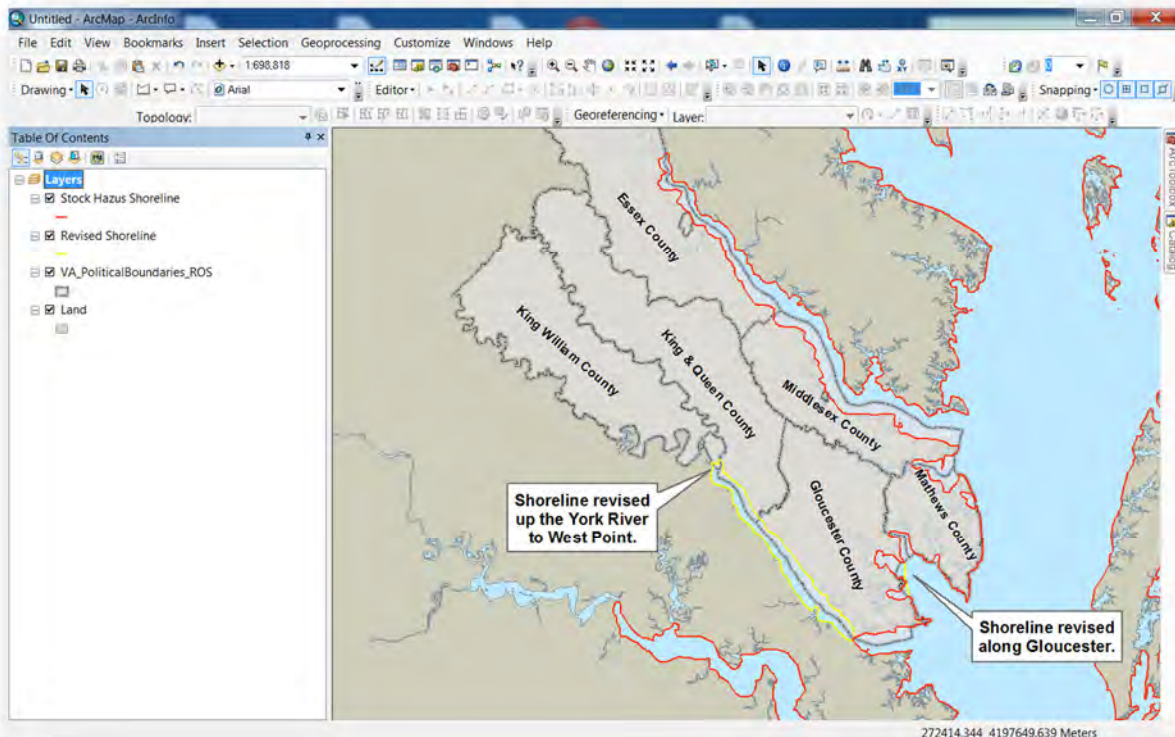
The coastal modeling performed for the previous Plan utilized the Hazus Level 1 methodology. The original intent for the current Plan update was to utilize the same depth grids as the previous Plan, however because new FEMA FIS have been released for all of the counties in the MPPDC region, it was determined that the previous analysis depth grids would not be valid to re-run through the new version

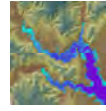


of Hazus (Version 2.2) because of the new FEMA coastal studies. There were a few issues and challenges that existed; some were overcome and others may warrant additional consideration in the future.

- **Issue 1:**
 - **Issue:** Hazus stock Shoreline file does not adequately intersect King and Queen nor King William Counties.
 - **Solution:** Dewberry made specific adjustments to the stock Hazus shoreline file in order to match, to the greatest extent possible, the most recent Flood Insurance Studies (FIS) performed along coastal Virginia and within the MPPDC region. Most importantly, all six (6) of the MPPDC counties now have coastal hazards as of the most recent FEMA Flood Studies. However, this differs from that which is in Hazus; the stock Hazus shoreline data does not intersect two (2) of six (6) counties (King William and King and Queen) and only covers a portion of Gloucester County. Inherently, if a user creates a Hazus Flood Project for any county that does not intersect with the shoreline, the user cannot define the Hazus project as having a coastal hazard. **Figure 4** shows the original stock Hazus shoreline and the edited shoreline used to extend the coastal potential up the York River along Gloucester, King and Queen, and King William Counties.

Figure 4: Hazus Shoreline Revisions





- **Issue 2:**
 - Issue: Unable to produce Coastal results for Gloucester County.
 - Solution: Simplifying the coastal shoreline was required to produce results.
 - Other Discussion: Dewberry made no less than five (5) separate attempts to produce coastal analyses for Gloucester County. In short, the coastal module would fail at the process of performing Hydrology. Based on similar experiences with other counties, it was determined that the Hazus shoreline could not be sub-divided to match the same transect divisions as documented in the FEMA FIS; the detail is too great for the simplified functionality of Hazus. The solution employed to produce results included simplifying the shoreline as also noted in **Figure 4**. The simplified shoreline enabled Hazus to no longer “stall” or “fail” at the Hydrology process. Other counties had to be re-run by simplifying the shoreline sub-divisions (see **Issue 3** below) however, the shoreline line work was not revised for other counties (except up the York River).

- **Issue 3:**
 - Issue: Unable to produce Coastal results for other counties.
 - Solution: Simplifying the manner in which the coastal shoreline is sub-divided enabled Hazus to no longer “stall” or “fail” at the processes for Hydrology.
 - Other Discussion: Dewberry made multiple attempts (as necessary) to produce coastal analyses results for each of the MPPDC counties. However, the coastal module would fail at the process of performing Hydrology *if and when* the shoreline sub-divisions were too detailed for Hazus to process. As noted earlier, in some cases the Hazus shoreline could not be sub-divided to match the same transect divisions as documented in the FEMA FIS because the detail is too great for the simplified functionality of Hazus. **Figure 5** (below) includes King and Queen County and shows an example where the Hazus shoreline was able to be sub-divided almost exactly to match the FIS; the colored shoreline segments are those defined for the coastal run in Hazus and are overlaid on a geo-referenced image of the FIS Transect Map. **Figure 6** is a zoom-in view showing the slight differences between the detailed shoreline of King and Queen; the importance is to note how the FIS Transect #9 is positioned upstream in the Mattaponi River, however the shoreline that Dewberry created to extend Hazus functionality along the York River is simplified near the Town of West Point. However **Figure 7** shows that Dewberry still utilized the appropriate “Starting Stillwater Elevations” as published in FIS Table 2 – Transect Descriptions. Consequently, the combination of **Figures 5 through 7** are shown to exemplify how Dewberry performed the Level 1 coastal shoreline work; i.e., matching the FIS as closely as possible. Other counties were not as simple and in some cases engineering judgments were applied to 1.) Simplify the shoreline sub-divisions coupled with 2.) Applying average water surface elevations and wave heights or in some cases applying a weighted average of water surface elevations and wave heights.

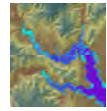


Figure 5: Hazus Shorelines for King and Queen County vs. FIS Transect Map

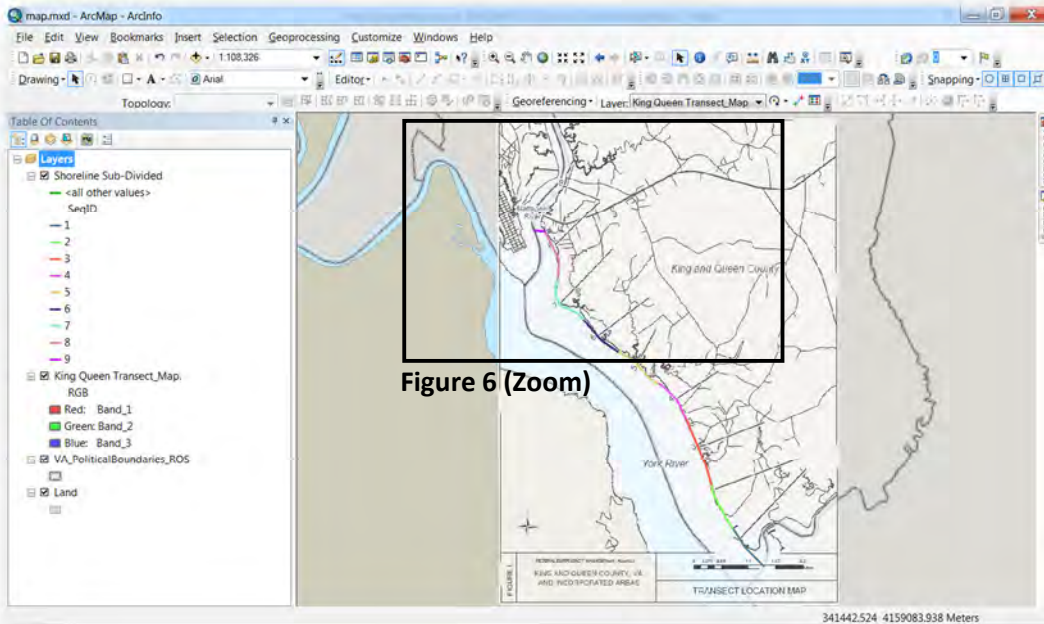
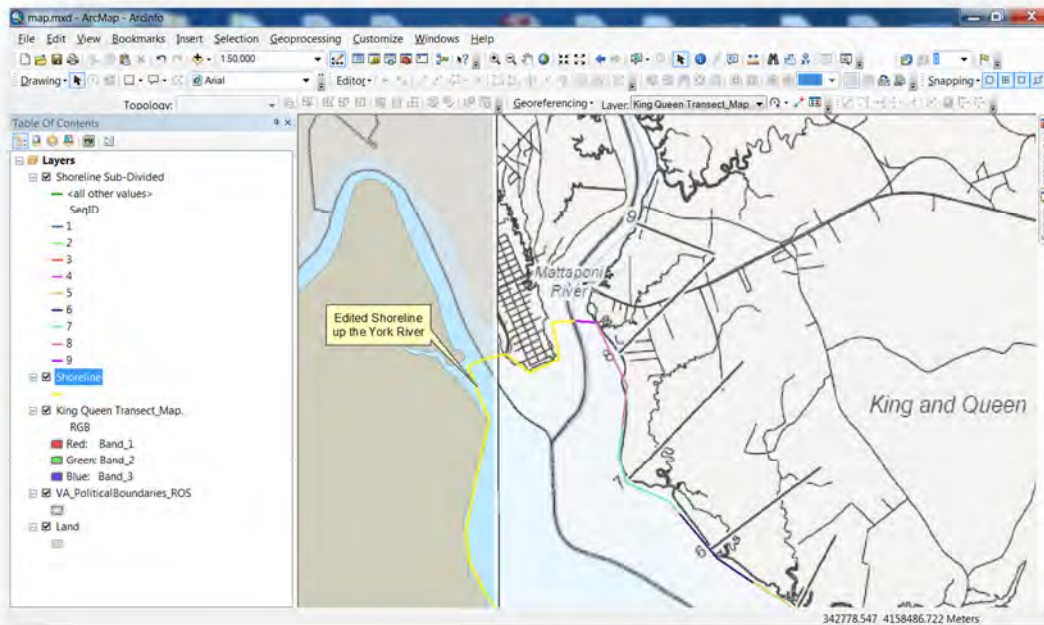


Figure 6: Hazus Shorelines for King and Queen County vs. FIS Transect Map (Zoom)



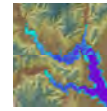
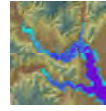


Figure 7: Hazus Shoreline Data for King and Queen County vs. FIS Table 2

| ID | FIPSSTCO | SeqID | SW10Yr | SW50Yr | SW100Yr | SW500Yr |
|------|----------|-------|--------|--------|---------|---------|
| VA71 | 51097 | 1 | 5.3 | 6.4 | 6.8 | 8.9 |
| VA71 | 51097 | 2 | 5.3 | 6.4 | 6.9 | 9 |
| VA71 | 51097 | 3 | 5.3 | 6.4 | 6.9 | 9.2 |
| VA71 | 51097 | 4 | 5.4 | 6.4 | 6.9 | 9.4 |
| VA71 | 51097 | 5 | 5.4 | 6.5 | 7 | 9.6 |
| VA71 | 51097 | 6 | 5.4 | 6.5 | 7.1 | 9.8 |
| VA71 | 51097 | 7 | 5.5 | 6.5 | 7.1 | 9.8 |
| VA71 | 51097 | 8 | 5.5 | 6.5 | 7.1 | 10.1 |
| VA71 | 51097 | 9 | 5.4 | 6.4 | 6.9 | 9.9 |

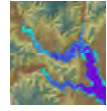
| Flooding Source | Tract Number | Starting Wave Conditions for the 1% Annual Chance Flood | | | Starting Stillwater Elevations (feet NAVD 88) | | | |
|-----------------|--------------|---|---|---------------------------------------|---|------------------|------------------|--------------------|
| | | Coordinates | Significant Wave Height H _s (ft) | Peak Wave Period T _p (sec) | 10% Annual Chance | 2% Annual Chance | 1% Annual Chance | 0.2% Annual Chance |
| York River | 1 | N 37 446994 W -76.713225 | 2.9 | 3.2 | 5.3 | 6.4 | 6.8 | 8.9 |
| York River | 2 | N 37 460488 W -76.722776 | 3.0 | 3.2 | 5.3 | 6.4 | 6.9 | 9.0 |
| York River | 3 | N 37 472234 W -76.728583 | 3.0 | 3.1 | 5.3 | 6.4 | 6.9 | 9.2 |
| York River | 4 | N 37 485628 W -76.736491 | 2.9 | 3.0 | 5.4 | 6.4 | 6.9 | 9.4 |
| York River | 5 | N 37 495476 W -76.750937 | 3.2 | 3.2 | 5.4 | 6.5 | 7.0 | 9.6 |
| York River | 6 | N 37. 503158 W -76.764848 | 3.3 | 3.3 | 5.4 | 6.5 | 7.1 | 9.8 |
| York River | 7 | N 37 512087 W -76.734966 | 3.1 | 3.2 | 5.5 | 6.5 | 7.1 | 9.8 |
| York River | 8 | N 37 528361 W -76.780236 | 2.9 | 3.1 | 5.5 | 6.5 | 7.1 | 10.1 |
| Mattaponi River | 9 | N 37 544698 W -76.777167 | 2.2 | 2.9 | 5.4 | 6.4 | 6.9 | 9.9 |

- **Issue 4:**
 - Issue: The 0.2% Annual Chance flood hazard (500 Year) of Gloucester County appears to be significantly under-estimated.
 - Solution: Discuss the matter with MPPDC and substitute the 500 Year depth grid from the previous Plan effort.
 - Other Discussion: As discussed earlier, Dewberry made multiple attempts (as necessary) to produce coastal analyses results for each of the MPPDC counties. Gloucester presented the greatest challenge and the 500 Year flood hazard of the Level 1 methodology did not produce a result that – as compared to the new digital FIRM data – seemed reasonable to use. Therefore, Dewberry contacted the MPPDC and offered the option of substituting the 500 Year depth grid from the previous Plan effort as an alternative solution. The MPPDC agreed that while the previous Plan 500 Year depth grid likely over-estimates the potential hazard, it is better to side with caution and Plan around a conservative approach. It is also important to note that Dewberry compared the Level 1 hazard delineations in all counties with the new digital FIRM data. While the digital FIRM data only includes delineations of 1% and 0.2% (100 Year & 500 Year) flood hazard, a visual comparison offers a minimal means by which to gauge how well the Hazus hazard delineations are being created. All issues and challenges being equal, Dewberry is satisfied that the Level 1 delineations are perfectly acceptable for the nature of the work – Hazard Mitigation Planning.



- **Issue 5:**
 - Issue: Level 2 Coastal Risk MAP 1% Annual Chance (100 Year) losses greater than Level 1 0.2% Annual Chance (500 Year) losses.
 - Solution: Do not substitute the Level 2 Coastal Risk MAP 1% Annual Chance (100 Year) for the Level 1 Coastal 1% Annual Chance (100 Year) in the calculation of annualized results. Rather, produce a separate result for comparison of the 100 Year coastal only.
 - Discussion: Original intent was to substitute the new Risk MAP 1% Annual Chance (100 Year) depth grid and subsequent losses for the Hazus-generated Level 1 Coastal 1% Annual Chance (100 Year) depth grid and subsequent losses. However, noting that the new Risk MAP 100 Year depth grid would have been created with much greater detail in all aspects as discussed in detail under **Issue 6** (below) the most appropriate solution is to separate the runs and respective results for comparative purposes. Furthermore, noting the goal and expectation of the Risk MAP Program as well as the nature of Hazard Mitigation Planning; as new, updated or more detailed analyses are available, professionals would endeavor to integrate and utilize new information in the planning, preparation and resilience of communities.

- **Issue 6:**
 - Issue: FEMA Region III concern over the use of Hazus Level 1 functionality.
 - Solution: The solution employed included the suggestion that the MPPDC and Dewberry discuss with FEMA Region III expectations of the Hazus modeling. The call that was held on March 13, 2015 included such discussions. Ultimately, the MPPDC and the Virginia Department of Emergency Management (VADEM) agreed that the Dewberry plan of action was reasonable and appropriate. However, for reference, Dewberry has compiled an explanation of the specific concerns expressed by the Region during the March 13, 2015 call. Dewberry agrees with the Region in that the best data is in-fact the best, however needs to be tempered with the realities of effort, time and cost. The Region expressed concern over the use of the Level 1 methodology which means the Region would prefer the use of the following:
 - Hydrology & Hydraulics (H&H) – preference would be to use data typical of FEMA Risk MAP Flood Insurance Studies (FIS) and Non-Regulatory Depth Grid creation versus the Hazus methodology. Typical H&H for *coastal studies* are limited to the development of Stillwater elevations for four (4) frequencies (10, 50, 100 & 500 Yr.) and Static Base Flood Elevations are only mapped for one (1) frequency; namely the 1% annual chance or 100 Year Event. Consequently, even the core H&H of the coastal modeling would require further analyses by qualified coastal engineers and mapping specialists to effectively produce the data required for coastal depth grid creation.



- Topographic Data – preference is to use LiDAR-based topography at a resolution consistent with FEMA Risk MAP Flood Insurance Studies (FIS) and Non-Regulatory Depth Grid creation versus the one-arc second or ~ 30-meter DEM employed.
- Depth Grid Creation – preference is again suggested to develop depth grids consistent with FEMA Risk MAP Non-Regulatory Depth Grid creation which means the use of hydraulic coastal models that have been fully-developed to produce wave-propagated water surface elevations. Again, FEMA flood studies only do this for the 100 Year. Therefore specialized additional work would be required to produce similar data for other frequencies in order to create multi-frequency hazard data that would support the expected annualized analysis typical of Hazard Mitigation Plans. Dewberry again agrees with the Region that there is definitely benefits associated with the most accurate inputs, Dewberry noted on the call that the level of effort to produce such depth grids is quite extensive and typically is not feasible under budgets available for HMP's.
- Other Discussion: As discussed (above) regarding Issue 5, Dewberry has provided the Solution of separating out certain results of the 100 Year Coastal Only Hazus runs so that these can be directly compared. Again, as already noted, over time as more detailed hazard analyses is expected, desired or deemed necessary - future modeling efforts can be sought to produce Risk MAP-based or otherwise detailed depth grids and associated loss analyses.

Hurricane (Wind) Modeling – Probabilistic Scenario

As with the previous Plan, Dewberry again performed a Probabilistic scenario in the Hazus Level 1 Hurricane (Wind) module. Notably, Dewberry ran the scenario in a Region that was created for both Flood and Hurricane as this allows results to be accessed at the census block-level. In contrast, if a Hazus project is created for only Hurricane Hazus will default to using only census tract-level geography. Ultimately, the level of detail that is able to be accessed, displayed and planned for offers a better representation of Hurricane Wind loss when mapped by census block versus census tract. **Figure 8** shows this very comparison.

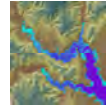
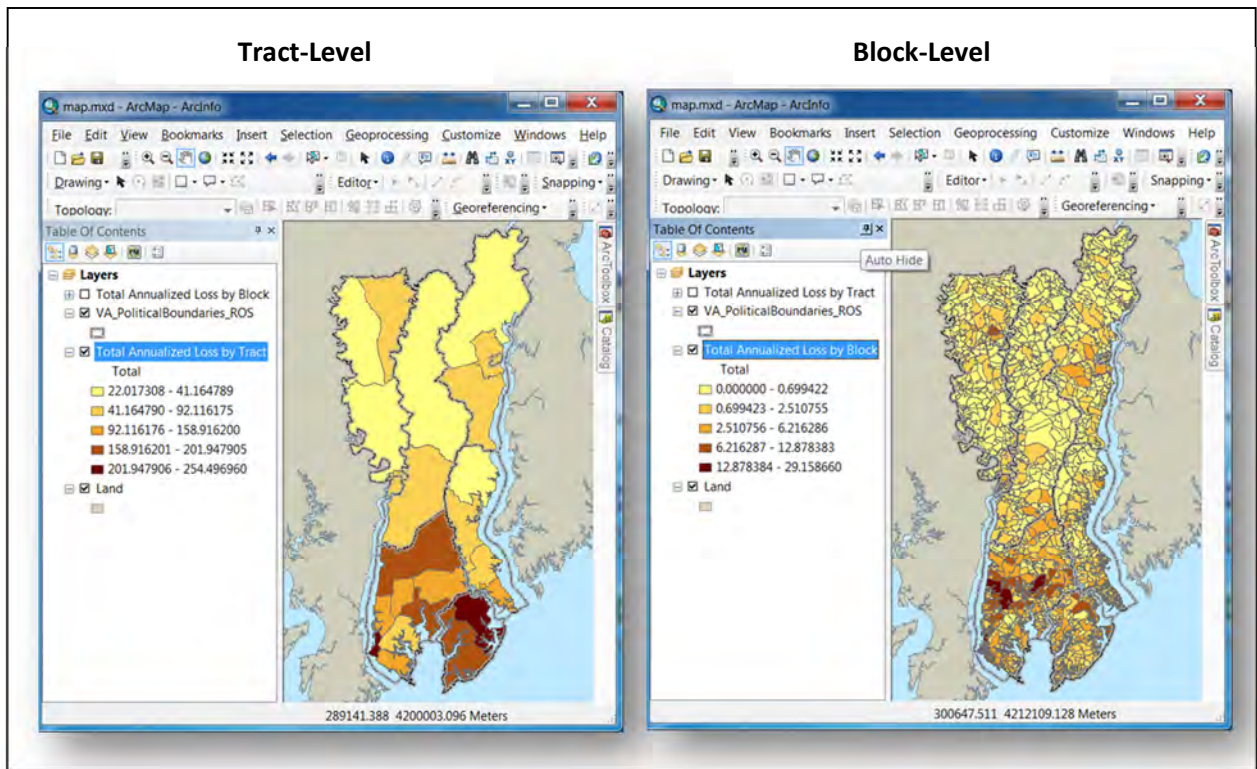
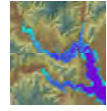


Figure 8: Hurricane (Wind) Model Results at the Tract versus Block Geography



Issues & Challenges Encountered:

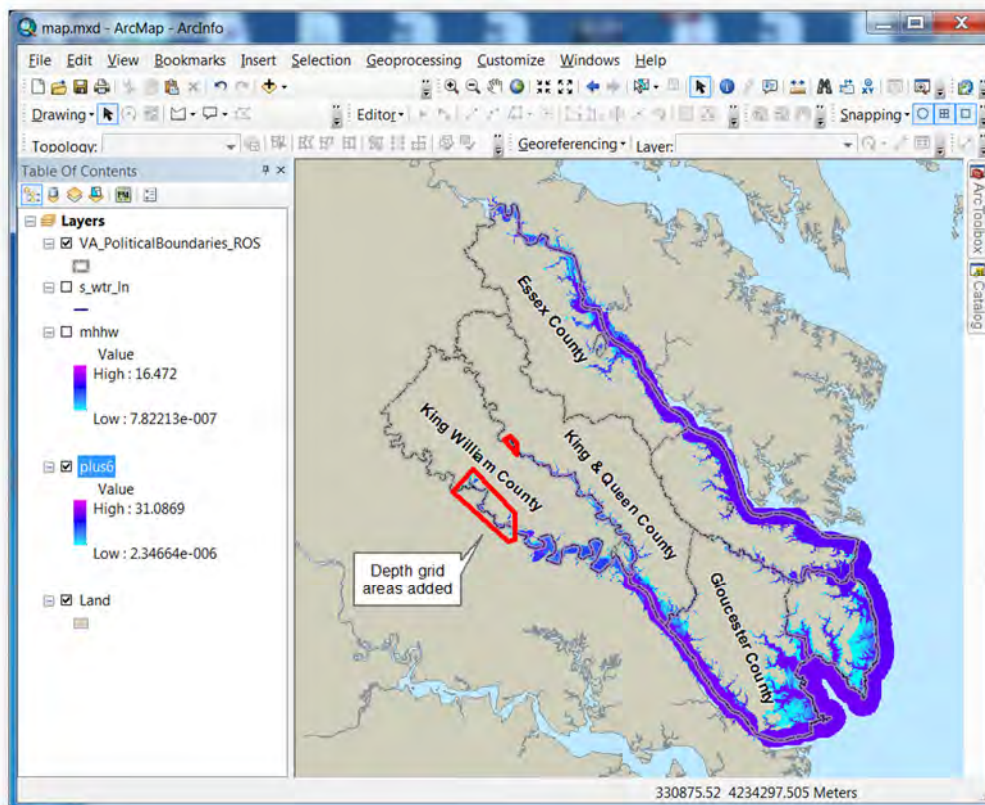
None.



Sea Level Rise Modeling – Hazus Flood Model

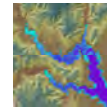
As proposed, Dewberry utilized depth grids available from NOAA Coastal Services Center Sea Level Rise Data. Dewberry obtained and utilized the depth grid of the Mean Higher High Water or Base Scenario and also the Plus 6 feet Sea Level Rise. As a benefit to the MPPDC, Dewberry estimated the addition of depth values in the upstream areas of both the Pamunkey and Mattoponi Rivers; the NOAA depth grids do not extend upstream from these areas as it is the limit of the NOAA data. The method utilized to estimate these small additional areas of depth grid included estimating the water surface elevation where the NOAA depth grids terminated. Next, Spatial Analyst was used to query all elevations in the vicinity that were equal to (or) less than the estimated elevation. The areas were extracted, assigned the estimated water elevation and then converted to a water surface grid. Last the water surface grid was subtracted from the NED one-arc second grid to produce depth values. The additional depth grids were mosaicked with the NOAA grids and ultimately run through the Hazus Flood Module.

Figure 9: Depth Grid Areas Added (Red) where NOAA data terminated



Issues & Challenges Encountered:

None.



Hazus Modeling Results

Dewberry has exported various Hazus modeling results to ESRI File Geodatabase format as standalone GIS layers and tables as necessary. These various result export files will be used to update the HIRA sections to include text, maps and tables. As a benefit to the MPPDC, Dewberry is providing the various result exports to be used as deemed necessary. As scoped, Dewberry is providing final Hazus Project Files – otherwise known as HPR files. A Hazus HPR file is essentially a zipped version of all files that are created by Hazus in the course of a given Hazus project. The HPR archive can be imported on any computer that has an active installation of Hazus Version 2.2. The delivery of HPR’s includes an Excel spreadsheet that has basic information about each Hazus Project and HPR file (see **Figure 10**). Importantly, the spreadsheet includes file size information as users need to know how much drive space may be required for a given Hazus Project if they import the HPR file.

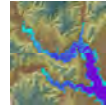
- **Results Exports to GIS:**
 - About: Result export files will be used to update the HIRA sections to include text, maps and tables.

- **Hazus Project Files (HPR):**
 - About: Zipped version of all files that are created in the course of a given Hazus project.

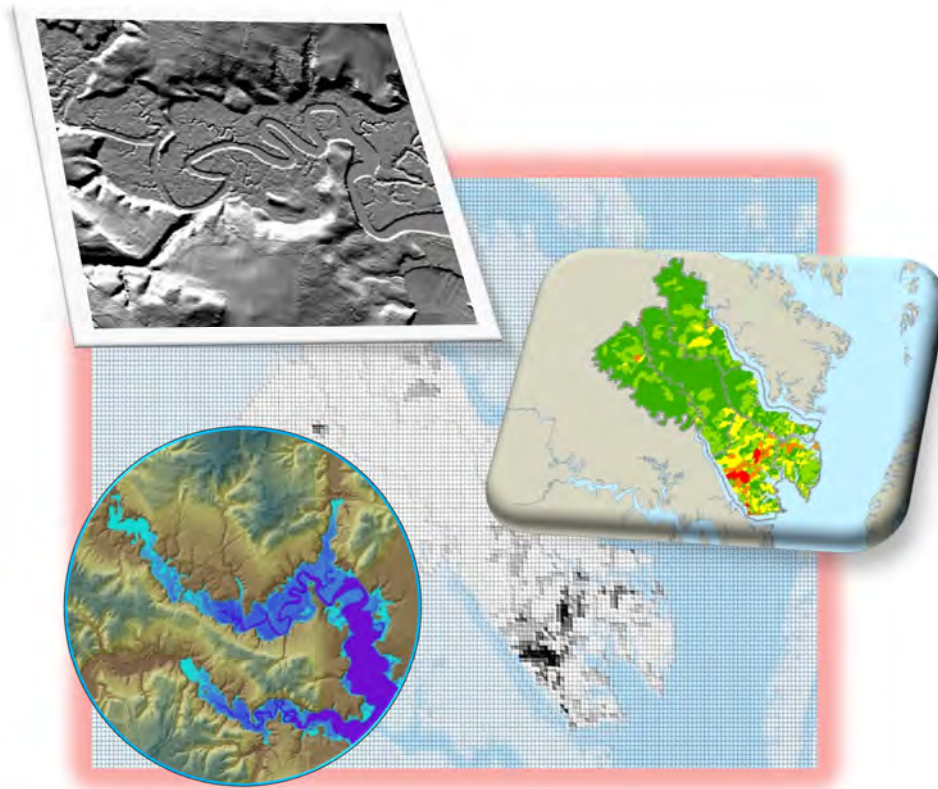
Figure 10: HPR File Information

| Hazard | Application | HPR Name | HPR File Size | Expanded File Size | Info/Source |
|--------|--|---|---------------|--------------------|--|
| FLD* | Level 1 Annualized | MPPDC2015_DasymV22.hpr** | 407 MB | 10.6 GB | Riverine and Coastal Level 1 Annualized Scenarios were run separately. One-square mile (1 mi ²) drainage threshold used for all Riverine Level 1 modeling. One-Arc Second (~ 30 meter) National Elevation Dataset (NED) Digital Elevation Model (DEM) utilized. All depth grids were extracted and mosaiced into Region-wide depth grids. The Region-wide depth grids were then imported into a new Hazus Project of the entire MPPDC Region and then the loss analysis was run. The Hazus version used in Version 2.2; which includes the new 2010 census-based data. Additionally, the new Hazus Dasymeric General Building Stock (GBS) was used. Note however that final report mapping does not display the losses by dasymeric spatial geometry, rather the results dasymeric data is joined to the stock full block geometry and displayed as such. |
| | Level 2 RiskMap Coastal 1% (100 YR) Only | MPPDC2015_DasymV22_RskMp100yrDG.hpr** | 774 MB | 25.3 GB | The depth grids provided by the US Army Corps of Engineers (USACE) were utilized as Level 2 scenario. Dewberry mosaiced all of the 1% (100 YR) depth grids provided and ran them through a Hazus Project created of the entire MPPDC Region. This HPR also includes a second scenario that is the Level 1 depth grid of the coastal-only 1% (100YR) which was run through Hazus for comparison to the Level 2 RiskMap coastal-only 1% (100YR). |
| | Sea Level Rise Scenarios (Base and Plus 6FT) | MPPDC2015_SLR.hpr** | 232 MB | 6.92 GB | NOAA depth grids of Sea Level Rise (SLR) utilized per scope of work; Base Scenario or MHHW along with the Plus 6 Feet Scenario. |
| HUR* | Probabilistic | MPPDC2015_HUR_ByBlockvFLD_Probabilistic.hpr | 163 MB | 3 GB | Hurricane model probabilistic was run with new 2010 inventory provided by MOTF. |

*NOTES: All Hazus Model Runs using Version 2.2
 All Hazus Flood Model Runs using Version 2.2 Dasymeric Data for Virginia.



HAZUS Modeling Report



Appendix K –
Nation Flood Insurance Program Survey

NATIONAL FLOOD INSURANCE PROGRAM (NFIP) SURVEY

MUNICIPALITY: ESSEX COUNTY

| 1. FLOODPLAIN IDENTIFICATION AND MAPPING | | | |
|--|--|---------------|---|
| <i>Requirement</i> | <i>Recommended Action</i> | <i>Yes/No</i> | <i>Comments</i> |
| a. Does the municipality maintain accessible copies of an effective Flood Insurance Rate Map (FIRM)/Digital Flood Insurance Rate Map (DFIRM)? Does the municipality maintain accessible copies of the most recent Flood Insurance Study (FIS)? | Place these documents in the local libraries or make available publicly. | Yes | All information is on file and available in the Essex County Building and Zoning Department |
| b. Has the municipality adopted the most current DFIRM/FIRM and FIS? | State the date of adoption, if approved. | Yes | Adopted April 14, 2015 by the Essex County Board of Supervisors |
| c. Does the municipality support request for map updates? | If yes, state how. | Yes | We assist citizens in all their requests |
| d. Does the municipality share with Federal Emergency Management Agency (FEMA) any new technical or scientific data that could result in map revisions within 6 months of creation or identification of new data? | If yes, specify how. | No | We reviewed the maps and gave our opinion of history of areas |
| e. Does the municipality provide assistance with local floodplain determinations? | If yes, specify how. | Yes | We require property owners to get elevation certifications when in question |
| f. Does the municipality maintain a record of approved Letters of Map Change? | If yes, specify the responsible office. | Yes | Essex County Building & Zoning Department (202 South Church Lane Tappahannock, VA 22560 |

| 2. FLOODPLAIN MANAGEMENT | | | |
|--|---|---------------|---------------------------|
| <i>Requirement</i> | <i>Recommended Action</i> | <i>Yes/No</i> | <i>Comments</i> |
| a. Has the municipality adopted a compliant floodplain management ordinance that, at a minimum, regulates the following: | If yes, answer questions (1) through (4) below. | No | ? |
| (1) Does the municipality issue permits for all proposed development in the Special Flood Hazard Areas (SFHAs)? | If yes, specify the office responsible. | Yes | Building and Zoning Dept. |
| (2) Does the municipality obtain, review, and utilize any Base Flood Elevation (BFE) and floodway data, and/or require BFE data for subdivision proposals and other development proposals larger than 50 lots or 5 acres? | If yes, specify the office responsible. | Yes | |
| (3) Does the municipality identify measures to keep all new and substantially improved construction reasonably safe from flooding to or above the BFE, including anchoring, using flood-resistant materials, and designing or locating utilities and service facilities to prevent water damage? | If yes, specify the office responsible. | Yes | |
| (4) Does the municipality document and maintain records of elevation data that document lowest floor elevation for new or substantially improved structures? | If yes, specify the office responsible. | Yes | |
| b. If a compliant floodplain ordinance was adopted, does the municipality enforce the ordinance by monitoring compliance and taking remedial action to correct violations? | If yes, specify how. | Yes | |

2. FLOODPLAIN MANAGEMENT

| <i>Requirement</i> | <i>Recommended Action</i> | <i>Yes/No</i> | <i>Comments</i> |
|---|-----------------------------|---------------|------------------------|
| c. Has the municipality considered adopting activities that extend beyond the minimum requirements? Examples include: <ul style="list-style-type: none"> • Participation in the Community Rating System • Prohibition of production or storage of chemicals in SFHA • Prohibition of certain types of structures, such as hospitals, nursing homes, and jails in SFHA • Prohibition of certain types of residential housing (manufactured homes) in SFHA • Floodplain ordinances that prohibit any new residential or nonresidential structures in SFHA | If yes, specify activities. | Yes | Education certificates |

3. FLOOD INSURANCE

| <i>Requirement</i> | <i>Recommended Action</i> | <i>Yes/No</i> | <i>Comments</i> |
|--|---------------------------|---------------|---|
| a. Does the municipality educate community members about the availability and value of flood insurance? | If yes, specify how. | Yes | Community meetings/ FEMA |
| b. Does the municipality inform community property owners about changes to the DFIRM/FIRM that would impact their insurance rates? | If yes, specify how. | Yes | Public notice, local newspaper |
| c. Does the municipality provide general assistance to community members regarding insurance issues? | If yes, specify how. | Y | We review maps, explain scenarios. Refer property owners to insurance companies |

NATIONAL FLOOD INSURANCE PROGRAM (NFIP) SURVEY

MUNICIPALITY: TOWN OF TAPPAHANNOCK

| 1. FLOODPLAIN IDENTIFICATION AND MAPPING | | | |
|--|--|----------|---|
| Requirement | Recommended Action | Yes/No | Comments |
| a. Does the municipality maintain accessible copies of an effective Flood Insurance Rate Map (FIRM)/Digital Flood Insurance Rate Map (DFIRM)? Does the municipality maintain accessible copies of the most recent Flood Insurance Study (FIS)? | Place these documents in the local libraries or make available publicly. | yes | |
| b. Has the municipality adopted the most current DFIRM/FIRM and FIS? | State the date of adoption, if approved. | 5-4-2015 | |
| c. Does the municipality support request for map updates? | If yes, state how. | no | We forward anyone who has a request to FEMA |
| d. Does the municipality share with Federal Emergency Management Agency (FEMA) any new technical or scientific data that could result in map revisions within 6 months of creation or identification of new data? | If yes, specify how. | yes | By forwarding information to FEMA |
| e. Does the municipality provide assistance with local floodplain determinations? | If yes, specify how. | yes | With the assistance of Essex County Building Inspector office |
| f. Does the municipality maintain a record of approved Letters of Map Change? | If yes, specify the responsible office. | no | |

| 2. FLOODPLAIN MANAGEMENT | | | |
|--|---|---------------|-----------------|
| <i>Requirement</i> | <i>Recommended Action</i> | <i>Yes/No</i> | <i>Comments</i> |
| a. Has the municipality adopted a compliant floodplain management ordinance that, at a minimum, regulates the following: | If yes, answer questions (1) through (4) below. | | |
| (1) Does the municipality issue permits for all proposed development in the Special Flood Hazard Areas (SFHAs)? | If yes, specify the office responsible. | | |
| (2) Does the municipality obtain, review, and utilize any Base Flood Elevation (BFE) and floodway data, and/or require BFE data for subdivision proposals and other development proposals larger than 50 lots or 5 acres? | If yes, specify the office responsible. | | |
| (3) Does the municipality identify measures to keep all new and substantially improved construction reasonably safe from flooding to or above the BFE, including anchoring, using flood-resistant materials, and designing or locating utilities and service facilities to prevent water damage? | If yes, specify the office responsible. | | |
| (4) Does the municipality document and maintain records of elevation data that document lowest floor elevation for new or substantially improved structures? | If yes, specify the office responsible. | | |
| b. If a compliant floodplain ordinance was adopted, does the municipality enforce the ordinance by monitoring compliance and taking remedial action to correct violations? | If yes, specify how. | | |

| 2. FLOODPLAIN MANAGEMENT | | | |
|---|------------------------------------|---------------|-----------------|
| <i>Requirement</i> | <i>Recommended Action</i> | <i>Yes/No</i> | <i>Comments</i> |
| <p>c. Has the municipality considered adopting activities that extend beyond the minimum requirements? Examples include:</p> <ul style="list-style-type: none"> • Participation in the Community Rating System • Prohibition of production or storage of chemicals in SFHA • Prohibition of certain types of structures, such as hospitals, nursing homes, and jails in SFHA • Prohibition of certain types of residential housing (manufactured homes) in SFHA • Floodplain ordinances that prohibit any new residential or nonresidential structures in SFHA | <p>If yes, specify activities.</p> | | |

| 3. FLOOD INSURANCE | | | |
|---|-----------------------------|---------------|-----------------|
| <i>Requirement</i> | <i>Recommended Action</i> | <i>Yes/No</i> | <i>Comments</i> |
| <p>a. Does the municipality educate community members about the availability and value of flood insurance?</p> | <p>If yes, specify how.</p> | | |
| <p>b. Does the municipality inform community property owners about changes to the DFIRM/FIRM that would impact their insurance rates?</p> | <p>If yes, specify how.</p> | | |
| <p>c. Does the municipality provide general assistance to community members regarding insurance issues?</p> | <p>If yes, specify how.</p> | | |

NATIONAL FLOOD INSURANCE PROGRAM (NFIP) SURVEY

MUNICIPALITY: GLOUCESTER COUNTY

| 1. FLOODPLAIN IDENTIFICATION AND MAPPING | | | |
|--|--|---------------|---|
| <i>Requirement</i> | <i>Recommended Action</i> | <i>Yes/No</i> | <i>Comments</i> |
| a. Does the municipality maintain accessible copies of an effective Flood Insurance Rate Map (FIRM)/Digital Flood Insurance Rate Map (DFIRM)? Does the municipality maintain accessible copies of the most recent Flood Insurance Study (FIS)? | Place these documents in the local libraries or make available publicly. | Y | On the emergency management website. |
| b. Has the municipality adopted the most current DFIRM/FIRM and FIS? | State the date of adoption, if approved. | Y | FIRM adopted by BOS |
| c. Does the municipality support request for map updates? | If yes, state how. | N | |
| d. Does the municipality share with Federal Emergency Management Agency (FEMA) any new technical or scientific data that could result in map revisions within 6 months of creation or identification of new data? | If yes, specify how. | ? | We provide VDEM with information and not directly to FEMA |
| e. Does the municipality provide assistance with local floodplain determinations? | If yes, specify how. | Y | Planning Development, Building officials and EM assist |
| f. Does the municipality maintain a record of approved Letters of Map Change? | If yes, specify the responsible office. | Y | County Administration |

| 2. FLOODPLAIN MANAGEMENT | | | |
|--|---|---------------|--|
| <i>Requirement</i> | <i>Recommended Action</i> | <i>Yes/No</i> | <i>Comments</i> |
| a. Has the municipality adopted a compliant floodplain management ordinance that, at a minimum, regulates the following: | If yes, answer questions (1) through (4) below. | Y | |
| (1) Does the municipality issue permits for all proposed development in the Special Flood Hazard Areas (SFHAs)? | If yes, specify the office responsible. | | Permits Building officials |
| (2) Does the municipality obtain, review, and utilize any Base Flood Elevation (BFE) and floodway data, and/or require BFE data for subdivision proposals and other development proposals larger than 50 lots or 5 acres? | If yes, specify the office responsible. | Y | Planning, Building Officials, Information Technology |
| (3) Does the municipality identify measures to keep all new and substantially improved construction reasonably safe from flooding to or above the BFE, including anchoring, using flood-resistant materials, and designing or locating utilities and service facilities to prevent water damage? | If yes, specify the office responsible. | Y | Building Official, Planning |
| (4) Does the municipality document and maintain records of elevation data that document lowest floor elevation for new or substantially improved structures? | If yes, specify the office responsible. | Y | Code Compliance, Building Officials |
| b. If a compliant floodplain ordinance was adopted, does the municipality enforce the ordinance by monitoring compliance and taking remedial action to correct violations? | If yes, specify how. | Y | BOS, County Adminsitration |

| 2. FLOODPLAIN MANAGEMENT | | | |
|---|-----------------------------|---------------|----------------------------------|
| <i>Requirement</i> | <i>Recommended Action</i> | <i>Yes/No</i> | <i>Comments</i> |
| c. Has the municipality considered adopting activities that extend beyond the minimum requirements? Examples include: <ul style="list-style-type: none"> • Participation in the Community Rating System • Prohibition of production or storage of chemicals in SFHA • Prohibition of certain types of structures, such as hospitals, nursing homes, and jails in SFHA • Prohibition of certain types of residential housing (manufactured homes) in SFHA • Floodplain ordinances that prohibit any new residential or nonresidential structures in SFHA | If yes, specify activities. | Y | Established VE construction zone |

| 3. FLOOD INSURANCE | | | |
|--|---------------------------|---------------|-----------------|
| <i>Requirement</i> | <i>Recommended Action</i> | <i>Yes/No</i> | <i>Comments</i> |
| a. Does the municipality educate community members about the availability and value of flood insurance? | If yes, specify how. | Y | CRS-PPI |
| b. Does the municipality inform community property owners about changes to the DFIRM/FIRM that would impact their insurance rates? | If yes, specify how. | Y | CRS-PPI |
| c. Does the municipality provide general assistance to community members regarding insurance issues? | If yes, specify how. | Y | CRS-PPI |

MUNICIPALITY: KING & QUEEN COUNTY

| 1. FLOODPLAIN IDENTIFICATION AND MAPPING | | | |
|--|--|--------|---|
| Requirement | Recommended Action | Yes/No | Comments |
| a. Does the municipality maintain accessible copies of an effective Flood Insurance Rate Map (FIRM)/Digital Flood Insurance Rate Map (DFIRM)? Does the municipality maintain accessible copies of the most recent Flood Insurance Study (FIS)? | Place these documents in the local libraries or make available publicly. | Yes | Located at the Front Counter of Building/Zoning & Planning Office |
| b. Has the municipality adopted the most current DFIRM/FIRM and FIS? | State the date of adoption, if approved. | Yes | New maps to be adopted around May of 2016 once letter of determination is received from FEMA in November of 2015 |
| c. Does the municipality support request for map updates? | If yes, state how. | ? | |
| d. Does the municipality share with Federal Emergency Management Agency (FEMA) any new technical or scientific data that could result in map revisions within 6 months of creation or identification of new data? | If yes, specify how. | No | N/A |
| e. Does the municipality provide assistance with local floodplain determinations? | If yes, specify how. | Yes | Only as found on the adopted FEMA Flood Maps, field determination/Flood Elevation Certificate is to be done by surveyor (required for all flood zones other than X) |
| f. Does the municipality maintain a record of approved Letters of Map Change? | If yes, specify the responsible office. | yes | Planning & Zoning Department |

| 2. FLOODPLAIN MANAGEMENT | | | |
|--|---|---------------|---|
| <i>Requirement</i> | <i>Recommended Action</i> | <i>Yes/No</i> | <i>Comments</i> |
| a. Has the municipality adopted a compliant floodplain management ordinance that, at a minimum, regulates the following: | If yes, answer questions (1) through (4) below. | Yes | |
| (1) Does the municipality issue permits for all proposed development in the Special Flood Hazard Areas (SFHAs)? | If yes, specify the office responsible. | Yes | Planning & Zoning Department |
| (2) Does the municipality obtain, review, and utilize any Base Flood Elevation (BFE) and floodway data, and/or require BFE data for subdivision proposals and other development proposals larger than 50 lots or 5 acres? | If yes, specify the office responsible. | Yes | Planning & Zoning Department |
| (3) Does the municipality identify measures to keep all new and substantially improved construction reasonably safe from flooding to or above the BFE, including anchoring, using flood-resistant materials, and designing or locating utilities and service facilities to prevent water damage? | If yes, specify the office responsible. | Yes | Planning & Zoning Department |
| (4) Does the municipality document and maintain records of elevation data that document lowest floor elevation for new or substantially improved structures? | If yes, specify the office responsible. | Yes | Planning & Zoning Department |
| b. If a compliant floodplain ordinance was adopted, does the municipality enforce the ordinance by monitoring compliance and taking remedial action to correct violations? | If yes, specify how. | Yes | Require Flood Elevation Certificates for all construction located in a floodplain other than Zone X |

| 2. FLOODPLAIN MANAGEMENT | | | |
|---|-----------------------------|---------------|---|
| <i>Requirement</i> | <i>Recommended Action</i> | <i>Yes/No</i> | <i>Comments</i> |
| <p>c. Has the municipality considered adopting activities that extend beyond the minimum requirements? Examples include:</p> <ul style="list-style-type: none"> • Participation in the Community Rating System • Prohibition of production or storage of chemicals in SFHA • Prohibition of certain types of structures, such as hospitals, nursing homes, and jails in SFHA • Prohibition of certain types of residential housing (manufactured homes) in SFHA • Floodplain ordinances that prohibit any new residential or nonresidential structures in SFHA | If yes, specify activities. | Yes | Our new proposed ordinance and map adoption will require free board and recognize LimWa |

| 3. FLOOD INSURANCE | | | |
|--|---------------------------|---------------|---|
| <i>Requirement</i> | <i>Recommended Action</i> | <i>Yes/No</i> | <i>Comments</i> |
| a. Does the municipality educate community members about the availability and value of flood insurance? | If yes, specify how. | Yes | FEMA Handouts |
| b. Does the municipality inform community property owners about changes to the DFIRM/FIRM that would impact their insurance rates? | If yes, specify how. | Yes | During latest map change, all property owners were notified by U.S. mail and news article for an Open House held in November of 2014. |
| c. Does the municipality provide general assistance to community members regarding insurance issues? | If yes, specify how. | No | |

NATIONAL FLOOD INSURANCE PROGRAM (NFIP) SURVEY

MUNICIPALITY: **KING WILLIAM COUNTY**

| 1. FLOODPLAIN IDENTIFICATION AND MAPPING | | | |
|--|--|---------------|--|
| <i>Requirement</i> | <i>Recommended Action</i> | <i>Yes/No</i> | <i>Comments</i> |
| a. Does the municipality maintain accessible copies of an effective Flood Insurance Rate Map (FIRM)/Digital Flood Insurance Rate Map (DFIRM)? Does the municipality maintain accessible copies of the most recent Flood Insurance Study (FIS)? | Place these documents in the local libraries or make available publicly. | Yes | Available from County Building and Planning Department |
| b. Has the municipality adopted the most current DFIRM/FIRM and FIS? | State the date of adoption, if approved. | Yes | 9/2/15 |
| c. Does the municipality support request for map updates? | If yes, state how. | Yes | |
| d. Does the municipality share with Federal Emergency Management Agency (FEMA) any new technical or scientific data that could result in map revisions within 6 months of creation or identification of new data? | If yes, specify how. | No | |
| e. Does the municipality provide assistance with local floodplain determinations? | If yes, specify how. | Yes | Provided information to FEMA |
| f. Does the municipality maintain a record of approved Letters of Map Change? | If yes, specify the responsible office. | Yes | Building and Planning Department |

| 2. FLOODPLAIN MANAGEMENT | | | |
|--|---|---------------|----------------------------------|
| <i>Requirement</i> | <i>Recommended Action</i> | <i>Yes/No</i> | <i>Comments</i> |
| a. Has the municipality adopted a compliant floodplain management ordinance that, at a minimum, regulates the following: | If yes, answer questions (1) through (4) below. | Yes | |
| (1) Does the municipality issue permits for all proposed development in the Special Flood Hazard Areas (SFHAs)? | If yes, specify the office responsible. | Yes | Building and Planning Department |
| (2) Does the municipality obtain, review, and utilize any Base Flood Elevation (BFE) and floodway data, and/or require BFE data for subdivision proposals and other development proposals larger than 50 lots or 5 acres? | If yes, specify the office responsible. | Yes | Building and Planning Department |
| (3) Does the municipality identify measures to keep all new and substantially improved construction reasonably safe from flooding to or above the BFE, including anchoring, using flood-resistant materials, and designing or locating utilities and service facilities to prevent water damage? | If yes, specify the office responsible. | Yes | Building and Planning Department |
| (4) Does the municipality document and maintain records of elevation data that document lowest floor elevation for new or substantially improved structures? | If yes, specify the office responsible. | No | |
| b. If a compliant floodplain ordinance was adopted, does the municipality enforce the ordinance by monitoring compliance and taking remedial action to correct violations? | If yes, specify how. | No | |

| 2. FLOODPLAIN MANAGEMENT | | | |
|---|-----------------------------|---------------|--|
| <i>Requirement</i> | <i>Recommended Action</i> | <i>Yes/No</i> | <i>Comments</i> |
| <p>c. Has the municipality considered adopting activities that extend beyond the minimum requirements? Examples include:</p> <ul style="list-style-type: none"> • Participation in the Community Rating System • Prohibition of production or storage of chemicals in SFHA • Prohibition of certain types of structures, such as hospitals, nursing homes, and jails in SFHA • Prohibition of certain types of residential housing (manufactured homes) in SFHA • Floodplain ordinances that prohibit any new residential or nonresidential structures in SFHA | If yes, specify activities. | Yes | Considered CRS but decided not to pursue at the time Adopted BFE over minimum |

| 3. FLOOD INSURANCE | | | |
|--|---------------------------|---------------|---|
| <i>Requirement</i> | <i>Recommended Action</i> | <i>Yes/No</i> | <i>Comments</i> |
| a. Does the municipality educate community members about the availability and value of flood insurance? | If yes, specify how. | No | |
| b. Does the municipality inform community property owners about changes to the DFIRM/FIRM that would impact their insurance rates? | If yes, specify how. | Yes | Mailings & Community Meeting |
| c. Does the municipality provide general assistance to community members regarding insurance issues? | If yes, specify how. | Yes | Provided FEMA contact and website information |

NATIONAL FLOOD INSURANCE PROGRAM (NFIP) SURVEY

MUNICIPALITY: URBANNA

| 1. FLOODPLAIN IDENTIFICATION AND MAPPING | | | |
|--|--|---------------|--|
| <i>Requirement</i> | <i>Recommended Action</i> | <i>Yes/No</i> | <i>Comments</i> |
| a. Does the municipality maintain accessible copies of an effective Flood Insurance Rate Map (FIRM)/Digital Flood Insurance Rate Map (DFIRM)? Does the municipality maintain accessible copies of the most recent Flood Insurance Study (FIS)? | Place these documents in the local libraries or make available publicly. | Yes | |
| b. Has the municipality adopted the most current DFIRM/FIRM and FIS? | State the date of adoption, if approved. | 4-22-15 | |
| c. Does the municipality support request for map updates? | If yes, state how. | Yes | Town staff will assist update requests |
| d. Does the municipality share with Federal Emergency Management Agency (FEMA) any new technical or scientific data that could result in map revisions within 6 months of creation or identification of new data? | If yes, specify how. | Yes | All data obtained by the town will be forwarded to State Floodplain Coordinating Office (DCR) for their assistance in forwarding to the appropriate FEMA offices |
| e. Does the municipality provide assistance with local floodplain determinations? | If yes, specify how. | No | |
| f. Does the municipality maintain a record of approved Letters of Map Change? | If yes, specify the responsible office. | Yes | Town Zoning Office |

| 2. FLOODPLAIN MANAGEMENT | | | |
|--|---|---------------|--|
| <i>Requirement</i> | <i>Recommended Action</i> | <i>Yes/No</i> | <i>Comments</i> |
| a. Has the municipality adopted a compliant floodplain management ordinance that, at a minimum, regulates the following: | If yes, answer questions (1) through (4) below. | Yes* | *Middlesex County provides cooperative administration of the Floodplain Ordinance. County Building Official is co-administrator for the Town. See Middlesex Co. for additional information |
| (1) Does the municipality issue permits for all proposed development in the Special Flood Hazard Areas (SFHAs)? | If yes, specify the office responsible. | | |
| (2) Does the municipality obtain, review, and utilize any Base Flood Elevation (BFE) and floodway data, and/or require BFE data for subdivision proposals and other development proposals larger than 50 lots or 5 acres? | If yes, specify the office responsible. | | |
| (3) Does the municipality identify measures to keep all new and substantially improved construction reasonably safe from flooding to or above the BFE, including anchoring, using flood-resistant materials, and designing or locating utilities and service facilities to prevent water damage? | If yes, specify the office responsible. | | |
| (4) Does the municipality document and maintain records of elevation data that document lowest floor elevation for new or substantially improved structures? | If yes, specify the office responsible. | | |
| b. If a compliant floodplain ordinance was adopted, does the municipality enforce the ordinance by monitoring compliance and taking remedial action to correct violations? | If yes, specify how. | Yes | All construction requiring a building permit and/or land disturbance permit receives site visits and stop work orders can be issued if violations are found. |

| 2. FLOODPLAIN MANAGEMENT | | | |
|---|-----------------------------|---------------|---|
| <i>Requirement</i> | <i>Recommended Action</i> | <i>Yes/No</i> | <i>Comments</i> |
| <p>c. Has the municipality considered adopting activities that extend beyond the minimum requirements? Examples include:</p> <ul style="list-style-type: none"> • Participation in the Community Rating System • Prohibition of production or storage of chemicals in SFHA • Prohibition of certain types of structures, such as hospitals, nursing homes, and jails in SFHA • Prohibition of certain types of residential housing (manufactured homes) in SFHA • Floodplain ordinances that prohibit any new residential or nonresidential structures in SFHA | If yes, specify activities. | Yes | Investigating the feasibility of participating in the CRS program |

| 3. FLOOD INSURANCE | | | |
|--|---------------------------|---------------|---|
| <i>Requirement</i> | <i>Recommended Action</i> | <i>Yes/No</i> | <i>Comments</i> |
| a. Does the municipality educate community members about the availability and value of flood insurance? | If yes, specify how. | Yes | Brochure/periodic web site info |
| b. Does the municipality inform community property owners about changes to the DFIRM/FIRM that would impact their insurance rates? | If yes, specify how. | Yes | Direct notification of effected land owners |
| c. Does the municipality provide general assistance to community members regarding insurance issues? | If yes, specify how. | Yes | Information and Referral |

NATIONAL FLOOD INSURANCE PROGRAM (NFIP) SURVEY

MUNICIPALITY: MATHEWS COUNTY

| 1. FLOODPLAIN IDENTIFICATION AND MAPPING | | | |
|--|--|--------|---|
| Requirement | Recommended Action | Yes/No | Comments |
| a. Does the municipality maintain accessible copies of an effective Flood Insurance Rate Map (FIRM)/Digital Flood Insurance Rate Map (DFIRM)? Does the municipality maintain accessible copies of the most recent Flood Insurance Study (FIS)? | Place these documents in the local libraries or make available publicly. | Yes | Available in the Building Department and online VIA FEMA MSC link on County website |
| b. Has the municipality adopted the most current DFIRM/FIRM and FIS? | State the date of adoption, if approved. | yes | Effective date is 12-09-2014 |
| c. Does the municipality support request for map updates? | If yes, state how. | yes | Providing assistance and guidance through the process |
| d. Does the municipality share with Federal Emergency Management Agency (FEMA) any new technical or scientific data that could result in map revisions within 6 months of creation or identification of new data? | If yes, specify how. | yes | Enforcing requirements as adopted in floodplain management ordinance |
| e. Does the municipality provide assistance with local floodplain determinations? | If yes, specify how. | yes | On a daily basis by reviewing FIRM's and making interpretations and determinations |
| f. Does the municipality maintain a record of approved Letters of Map Change? | If yes, specify the responsible office. | yes | Building Department |

| 2. FLOODPLAIN MANAGEMENT | | | |
|--|---|---------------|--|
| <i>Requirement</i> | <i>Recommended Action</i> | <i>Yes/No</i> | <i>Comments</i> |
| a. Has the municipality adopted a compliant floodplain management ordinance that, at a minimum, regulates the following: | If yes, answer questions (1) through (4) below. | yes | |
| (1) Does the municipality issue permits for all proposed development in the Special Flood Hazard Areas (SFHAs)? | If yes, specify the office responsible. | yes | Flood zone permit, building permits, etc (Building Department) |
| (2) Does the municipality obtain, review, and utilize any Base Flood Elevation (BFE) and floodway data, and/or require BFE data for subdivision proposals and other development proposals larger than 50 lots or 5 acres? | If yes, specify the office responsible. | yes | Per our floodplain management ordinance (Building Department) |
| (3) Does the municipality identify measures to keep all new and substantially improved construction reasonably safe from flooding to or above the BFE, including anchoring, using flood-resistant materials, and designing or locating utilities and service facilities to prevent water damage? | If yes, specify the office responsible. | Yes | USBC and floodplain management ordinance enforcement; plan review process (Building Department) |
| (4) Does the municipality document and maintain records of elevation data that document lowest floor elevation for new or substantially improved structures? | If yes, specify the office responsible. | yes | FEMA elevation certificate required for new construction and substantial improvement (Building Department) |
| b. If a compliant floodplain ordinance was adopted, does the municipality enforce the ordinance by monitoring compliance and taking remedial action to correct violations? | If yes, specify how. | yes | Permitting process; inspections; and requiring elevation certificates be submitted for verification |

2. FLOODPLAIN MANAGEMENT

| <i>Requirement</i> | <i>Recommended Action</i> | <i>Yes/No</i> | <i>Comments</i> |
|---|-----------------------------|---------------|---|
| <p>c. Has the municipality considered adopting activities that extend beyond the minimum requirements? Examples include:</p> <ul style="list-style-type: none"> • Participation in the Community Rating System • Prohibition of production or storage of chemicals in SFHA • Prohibition of certain types of structures, such as hospitals, nursing homes, and jails in SFHA • Prohibition of certain types of residential housing (manufactured homes) in SFHA • Floodplain ordinances that prohibit any new residential or nonresidential structures in SFHA | If yes, specify activities. | yes | Higher standards were considered, but were not adopted at this time; minimum required standards were adopted. |

3. FLOOD INSURANCE

| <i>Requirement</i> | <i>Recommended Action</i> | <i>Yes/No</i> | <i>Comments</i> |
|--|---------------------------|---------------|---|
| a. Does the municipality educate community members about the availability and value of flood insurance? | If yes, specify how. | yes | Online info; handouts; various presentations and community events |
| b. Does the municipality inform community property owners about changes to the DFIRM/FIRM that would impact their insurance rates? | If yes, specify how. | yes | Every single property owner was notified VIA mail regarding map changes and the new ordinance. In addition the public was notified VIA newspaper ads, online ads, PSA's (radio) |
| c. Does the municipality provide general assistance to community members regarding insurance issues? | If yes, specify how. | | Not specifically regarding insurance, but assistance is provided to ensure both FEMA-NFIP requirements are met and the requirements of the floodplain management ordinance are met. Assistance is also provided for flood zone determinations and providing FIRMettes. ICC letters are also provided if documentation is submitted (as required). |

NATIONAL FLOOD INSURANCE PROGRAM (NFIP) SURVEY

MUNICIPALITY: MIDDLESEX COUNTY, VA

| 1. FLOODPLAIN IDENTIFICATION AND MAPPING | | | |
|--|--|---------------|---|
| <i>Requirement</i> | <i>Recommended Action</i> | <i>Yes/No</i> | <i>Comments</i> |
| a. Does the municipality maintain accessible copies of an effective Flood Insurance Rate Map (FIRM)/Digital Flood Insurance Rate Map (DFIRM)? Does the municipality maintain accessible copies of the most recent Flood Insurance Study (FIS)? | Place these documents in the local libraries or make available publicly. | Yes | |
| b. Has the municipality adopted the most current DFIRM/FIRM and FIS? | State the date of adoption, if approved. | Yes | 3-3-15 |
| c. Does the municipality support request for map updates? | If yes, state how. | N | Not Asked |
| d. Does the municipality share with Federal Emergency Management Agency (FEMA) any new technical or scientific data that could result in map revisions within 6 months of creation or identification of new data? | If yes, specify how. | N | |
| e. Does the municipality provide assistance with local floodplain determinations? | If yes, specify how. | Yes | Review FIRM Map, Required Elevation Certification |
| f. Does the municipality maintain a record of approved Letters of Map Change? | If yes, specify the responsible office. | Yes | Flood Plain Manager/Planning Department |

| 2. FLOODPLAIN MANAGEMENT | | | |
|--|---|---------------|--------------------------------------|
| <i>Requirement</i> | <i>Recommended Action</i> | <i>Yes/No</i> | <i>Comments</i> |
| a. Has the municipality adopted a compliant floodplain management ordinance that, at a minimum, regulates the following: | If yes, answer questions (1) through (4) below. | Yes | |
| (1) Does the municipality issue permits for all proposed development in the Special Flood Hazard Areas (SFHAs)? | If yes, specify the office responsible. | Yes | Building Department |
| (2) Does the municipality obtain, review, and utilize any Base Flood Elevation (BFE) and floodway data, and/or require BFE data for subdivision proposals and other development proposals larger than 50 lots or 5 acres? | If yes, specify the office responsible. | Yes | Planning Department |
| (3) Does the municipality identify measures to keep all new and substantially improved construction reasonably safe from flooding to or above the BFE, including anchoring, using flood-resistant materials, and designing or locating utilities and service facilities to prevent water damage? | If yes, specify the office responsible. | Yes | Building Department |
| (4) Does the municipality document and maintain records of elevation data that document lowest floor elevation for new or substantially improved structures? | If yes, specify the office responsible. | Yes | Building Department |
| b. If a compliant floodplain ordinance was adopted, does the municipality enforce the ordinance by monitoring compliance and taking remedial action to correct violations? | If yes, specify how. | Yes | Inspections and Notices of Violation |

| 2. FLOODPLAIN MANAGEMENT | | | |
|---|-----------------------------|---------------|-----------------|
| <i>Requirement</i> | <i>Recommended Action</i> | <i>Yes/No</i> | <i>Comments</i> |
| <p>c. Has the municipality considered adopting activities that extend beyond the minimum requirements? Examples include:</p> <ul style="list-style-type: none"> • Participation in the Community Rating System • Prohibition of production or storage of chemicals in SFHA • Prohibition of certain types of structures, such as hospitals, nursing homes, and jails in SFHA • Prohibition of certain types of residential housing (manufactured homes) in SFHA • Floodplain ordinances that prohibit any new residential or nonresidential structures in SFHA | If yes, specify activities. | NO | |

| 3. FLOOD INSURANCE | | | |
|--|---------------------------|---------------|-----------------|
| <i>Requirement</i> | <i>Recommended Action</i> | <i>Yes/No</i> | <i>Comments</i> |
| a. Does the municipality educate community members about the availability and value of flood insurance? | If yes, specify how. | No | |
| b. Does the municipality inform community property owners about changes to the DFIRM/FIRM that would impact their insurance rates? | If yes, specify how. | No | |
| c. Does the municipality provide general assistance to community members regarding insurance issues? | If yes, specify how. | No | |

NATIONAL FLOOD INSURANCE PROGRAM (NFIP) SURVEY

MUNICIPALITY: TOWN OF WEST POINT

| 1. FLOODPLAIN IDENTIFICATION AND MAPPING | | | |
|--|--|--------|--|
| Requirement | Recommended Action | Yes/No | Comments |
| a. Does the municipality maintain accessible copies of an effective Flood Insurance Rate Map (FIRM)/Digital Flood Insurance Rate Map (DFIRM)? Does the municipality maintain accessible copies of the most recent Flood Insurance Study (FIS)? | Place these documents in the local libraries or make available publicly. | Y | |
| b. Has the municipality adopted the most current DFIRM/FIRM and FIS? | State the date of adoption, if approved. | Y | Adopted by Town Council on 8/10/2015. Sent to FEMA, waiting for approval |
| c. Does the municipality support request for map updates? | If yes, state how. | N | |
| d. Does the municipality share with Federal Emergency Management Agency (FEMA) any new technical or scientific data that could result in map revisions within 6 months of creation or identification of new data? | If yes, specify how. | Y | We would if we had data that resulted in map revisions |
| e. Does the municipality provide assistance with local floodplain determinations? | If yes, specify how. | Y | We have new maps that we supply citizens and agents with |
| f. Does the municipality maintain a record of approved Letters of Map Change? | If yes, specify the responsible office. | Y | Community Development |

| 2. FLOODPLAIN MANAGEMENT | | | |
|--|---|---------------|---|
| <i>Requirement</i> | <i>Recommended Action</i> | <i>Yes/No</i> | <i>Comments</i> |
| a. Has the municipality adopted a compliant floodplain management ordinance that, at a minimum, regulates the following: | If yes, answer questions (1) through (4) below. | Y | |
| (1) Does the municipality issue permits for all proposed development in the Special Flood Hazard Areas (SFHAs)? | If yes, specify the office responsible. | Y | Community development and building official |
| (2) Does the municipality obtain, review, and utilize any Base Flood Elevation (BFE) and floodway data, and/or require BFE data for subdivision proposals and other development proposals larger than 50 lots or 5 acres? | If yes, specify the office responsible. | Y | Community development |
| (3) Does the municipality identify measures to keep all new and substantially improved construction reasonably safe from flooding to or above the BFE, including anchoring, using flood-resistant materials, and designing or locating utilities and service facilities to prevent water damage? | If yes, specify the office responsible. | Y | Community development and building official |
| (4) Does the municipality document and maintain records of elevation data that document lowest floor elevation for new or substantially improved structures? | If yes, specify the office responsible. | Y | Community Development and building official |
| b. If a compliant floodplain ordinance was adopted, does the municipality enforce the ordinance by monitoring compliance and taking remedial action to correct violations? | If yes, specify how. | Y | Notice of violations would be mailed. Notification to owner and applicant |

| 2. FLOODPLAIN MANAGEMENT | | | |
|---|-----------------------------|---------------|-----------------|
| <i>Requirement</i> | <i>Recommended Action</i> | <i>Yes/No</i> | <i>Comments</i> |
| c. Has the municipality considered adopting activities that extend beyond the minimum requirements? Examples include: <ul style="list-style-type: none"> • Participation in the Community Rating System • Prohibition of production or storage of chemicals in SFHA • Prohibition of certain types of structures, such as hospitals, nursing homes, and jails in SFHA • Prohibition of certain types of residential housing (manufactured homes) in SFHA • Floodplain ordinances that prohibit any new residential or nonresidential structures in SFHA | If yes, specify activities. | Y | Considered CRS |

| 3. FLOOD INSURANCE | | | |
|--|---------------------------|---------------|--|
| <i>Requirement</i> | <i>Recommended Action</i> | <i>Yes/No</i> | <i>Comments</i> |
| a. Does the municipality educate community members about the availability and value of flood insurance? | If yes, specify how. | Y | When requested and community meetings |
| b. Does the municipality inform community property owners about changes to the DFIRM/FIRM that would impact their insurance rates? | If yes, specify how. | Y | When requested and community meetings |
| c. Does the municipality provide general assistance to community members regarding insurance issues? | If yes, specify how. | Y | When requested, suggest they speak to insurance agents |

Appendix L –
Gloucester County Stormwater Management Ordinance

Chapter 6 - STORMWATER MANAGEMENT

Pursuant to Virginia Code § 62.1-44.15:27, this ordinance is adopted as part of an initiative to integrate the Gloucester County stormwater management requirements with the Erosion and Sediment Control Ordinance of Gloucester County, Virginia (Chapter 7.5) and the Chesapeake Bay Preservation Ordinance (Chapter 5.5) requirements into a unified stormwater program. The unified stormwater program is intended to facilitate the submission and approval of plans, issuance of permits, payment of fees, and coordination of inspection and enforcement activities into a more convenient and efficient manner for both Gloucester County and those responsible for compliance with these programs.

Footnotes:

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Editor's note—An ordinance adopted Aug. 6, 2013, repealed ch. 6, §§ 6-1—6-13, which pertained to demonstrations and parades. Subsequently, an ordinance adopted June 3, 2014, §§ 1-1—1-16, enacted new provisions to the Code, but did not specify manner of inclusion; hence, codification as ch. 6, §§ 6-1—6-16 was at the discretion of the editor.

Sec. 6-1. - Purpose and authority.

- (a) The purpose of this chapter is to ensure the general health, safety, and welfare of the citizens of the county and protect the quality and quantity of state waters from the potential harm of unmanaged stormwater, including protection from a land-disturbing activity causing unreasonable degradation of properties, water quality, stream channels, and other natural resources, and to establish procedures whereby stormwater requirements related to water quality and quantity shall be administered and enforced.
- (b) This chapter is adopted pursuant to Article 2.3 (§ 62.1-44.15:24 et seq.) of Chapter 3.1 of Title 62.1 of the Code of Virginia.

(Ord. of 6-3-2014(I), § 1-1)

Sec. 6-2. - Definitions.

In addition to the definitions set forth in 9VAC25-870-10 of the Virginia Stormwater Management Regulations, as amended, which are expressly adopted and incorporated herein by reference, the following words and terms used in this chapter have the following meanings unless otherwise specified herein. Where definitions differ, those incorporated herein shall have precedence.

"Administrator" means the VSMP authority including the County Administrator, or her designee.

"Agreement in lieu of a stormwater management plan" means a contract between the VSMP authority and the owner or permittee that specifies methods that shall be implemented to comply with the requirements of a VSMP for the construction of a single family residence; such contract may be executed by the VSMP authority in lieu of a stormwater management plan.

"Administrative Guidance Manual" means the latest version of policies and procedures for documentation and calculations verifying compliance with the water quality and quantity requirements, review and approval of Stormwater Pollution Prevention Plans and Stormwater Management Plans, site inspections, obtaining and releasing sureties, reporting and recordkeeping, and compliance strategies for reviews, enforcement, and long-term maintenance and inspection programs.

"Applicant" means any person submitting an application for a permit or requesting issuance of a permit under this chapter.

"Best management practice" or "BMP" means schedules of activities, prohibitions of practices, including both structural and nonstructural practices, maintenance procedures, and other management practices to prevent or reduce the pollution of surface waters and groundwater systems from the impacts of land-disturbing activities.

"Chesapeake Bay Preservation Act land-disturbing activity" means a land-disturbing activity including clearing, grading, or excavation that results in a land disturbance equal to or greater than 2,500 square feet and less than one acre in all areas of jurisdictions designated as subject to the regulations adopted pursuant to the Chesapeake Bay Preservation Act, Virginia Code § 62.1-44.15:67 et seq.

"Common plan of development or sale" means a contiguous area where separate and distinct construction activities may be taking place at different times on different schedules.

"Control measure" means any best management practice or stormwater facility, or other method used to minimize the discharge of pollutants to state waters.

"Clean Water Act" or "CWA" means the federal Clean Water Act (33 U.S.C § 1251 et seq.), formerly referred to as the Federal Water Pollution Control Act or Federal Water Pollution Control Act Amendments of 1972, Public Law 92-500, as amended by Public Law 95-217, Public Law 95-576, Public Law 96-483, and Public Law 97-117, or any subsequent revisions thereto.

"Department" means the Department of Environmental Quality.

"Development" means land disturbance and the resulting landform associated with the construction of residential, commercial, industrial, institutional, recreation, transportation or utility facilities, structures, uses or the clearing of land for non-agricultural or non-silvicultural purposes.

"General permit" means the state permit titled GENERAL PERMIT FOR DISCHARGES OF STORMWATER FROM CONSTRUCTION ACTIVITIES found in Part XIV (9VAC25-880-1 et seq.) of the Regulations authorizing a category of discharges under the CWA and the Act within a geographical area of the Commonwealth of Virginia.

"Land disturbance" or "land-disturbing activity" means a man-made change to the land surface that potentially changes its runoff characteristics including clearing, grading, or excavation except that the term shall not include those exemptions specified in section 6-3(c) of this chapter.

"Layout" means a conceptual drawing sufficient to provide for the specified stormwater management facilities required at the time of approval.

"Locality" or "County" means Gloucester County, Virginia.

"Minor modification" means an amendment to an existing general permit before its expiration not requiring extensive review and evaluation including, but not limited to, changes in EPA promulgated test protocols, increasing monitoring frequency requirements, changes in sampling locations, and changes to compliance dates within the overall compliance schedules. A minor general permit modification or amendment does not substantially alter general permit conditions, substantially increase or decrease the amount of surface water impacts, increase the size of the operation, or reduce the capacity of the facility to protect human health or the environment.

"Municipal separate storm sewer system" or "MS4" means all separate storm sewers that are defined as "large", "medium," or "small" municipal separate storm sewer systems or designated under 9VAC25-870-380(A)(1).

"Operator" means the owner or operator of any facility or activity subject to regulation under this chapter.

"Permit" or "VSMP Authority Permit" means an approval to conduct a land-disturbing activity issued by the Administrator for the initiation of a land-disturbing activity, in accordance with this chapter, and which may only be issued after evidence of general permit coverage has been provided by the Department.

"Permittee" means the person to whom the VSMP Authority Permit is issued.

"Person" means any individual, corporation, partnership, association, state, municipality, commission, or political subdivision of a state, governmental body, including federal, state, or local entity as applicable, any interstate body or any other legal entity.

"Regulations" means the Virginia Stormwater Management Program (VSMP) Permit Regulations, 9VAC25-870 et seq., as amended.

"Site" means the land or water area where any facility or land-disturbing activity is physically located or conducted, including adjacent land used or preserved in connection with the facility or land-disturbing activity. Areas channelward of mean low water in tidal Virginia shall not be considered part of a site.

"State" means the Commonwealth of Virginia.

"State Board" means the Virginia Water Control Board.

"State permit" means an approval to conduct a land-disturbing activity issued by the State Board in the form of a state stormwater individual permit or coverage issued under a state general permit or an approval issued by the State Board for stormwater discharges from an MS4. Under these state permits, the Commonwealth imposes and enforces requirements pursuant to the federal Clean Water Act and regulations, the Virginia Stormwater Management Act and the Regulations.

"State Water Control Law" means Chapter 3.1 (§ 62.1-44.2 et seq.) of Title 62.1 of the Code of Virginia.

"State waters" means all water, on the surface and under the ground, wholly or partially within or bordering the Commonwealth or within its jurisdiction, including wetlands.

"Stormwater" means precipitation that is discharged across the land surface or through conveyances to one or more waterways and that may include stormwater runoff, snow melt runoff, and surface runoff and drainage.

"Stormwater Board" means the body of Board of Supervisor-appointed individuals who convene to arbitrate written decisions of the Stormwater Authority administration.

"Stormwater management plan" means a document(s) containing material describing methods for complying with the requirements of section 6-6 of this chapter. An agreement in lieu of a stormwater management plan as defined in this chapter shall be considered to meet the requirements of a stormwater management plan.

"Stormwater Pollution Prevention Plan" or "SWPPP" means a document that is prepared in accordance with good engineering practices and that identifies potential sources of pollutants that may reasonably be expected to affect the quality of stormwater discharges from a construction site, and otherwise meets the requirements of this chapter. In addition, the document shall identify and require the implementation of control measures, and shall include, but not be limited to the inclusion of, or the incorporation by reference of, an approved erosion and sediment control plan, an approved stormwater management plan, and a pollution prevention plan.

"Subdivision" means the division of any lot, tract, or parcel of land into two (2) or more lots or parcels, for the purpose, whether immediate or future, of transfer of ownership, or building development.

"Total maximum daily load" or "TMDL" means the sum of the individual wasteload allocations for point sources, load allocations for nonpoint sources, natural background loading and a margin of safety. TMDLs can be expressed in terms of either mass per time, toxicity, or other appropriate measure. The TMDL process provides for point versus nonpoint source trade-offs.

"Virginia Stormwater BMP Clearinghouse website" means a state-designated website that contains detailed design standards and specifications for control measures that may be used in Virginia to comply with the requirements of the Virginia Stormwater Management Act and associated regulations.

"Virginia Stormwater Management Act" or "Act" means Article 2.3 (§ 62.1-44.15 et seq.) of Chapter 3.1 of Title 62.1 of the Code of Virginia.

"Virginia Stormwater Management Program" or "VSMP" means a program approved by the State Board after September 13, 2011, that has been established by a locality to manage the quality and quantity of runoff resulting from land-disturbing activities and shall include such items as local ordinances, rules, permit requirements, annual standards and specifications, policies and guidelines, technical materials, and requirements for plan review, inspection, enforcement, where authorized in this article, and evaluation consistent with the requirements of Article 2.3 of Chapter 3.1 of Title 62.1 of the Code of Virginia, and associated regulations.

"Virginia Stormwater Management Program authority" or "VSMP authority" means an authority approved by the State Board after September 13, 2011, to operate a Virginia Stormwater Management Program.

(Ord. of 6-3-2014(1), § 1-2)

Sec. 6-3. - Stormwater permit requirement; exemptions.

- (a) Except as provided herein, no person may engage in any land-disturbing activity until a VSMP authority permit has been issued by the Administrator in accordance with the provisions of this chapter.
- (b) Chesapeake Bay Preservation Act land-disturbing activities do not require completion of a registration statement or require coverage under the general permit but shall be subject to an erosion and sediment control plan consistent with the requirements of the Erosion and Sediment Control Ordinance, a stormwater management plan as outlined under section 6-6 of this chapter, the technical criteria and administrative requirements for land-disturbing activities outlined in section 6-9 of this chapter, and the requirements for control measures long-term maintenance outlined under section 6-10 of this chapter.
- (c) Notwithstanding any other provisions of this chapter, the following activities are exempt from the requirements and regulations contained in this chapter, unless otherwise required by federal law:
 - (1) Permitted surface or deep mining operations and projects, or oil and gas operations and projects conducted under the provisions of Title 45.1 of the Code of Virginia;
 - (2) Clearing of lands specifically for agricultural purposes and the management, tilling, planting, or harvesting of agricultural, horticultural, or forest crops, livestock feedlot operations, or as additionally set forth by the State Board in regulations, including engineering operations as follows: construction of terraces, terrace outlets, check dams, desilting basins, dikes, ponds, ditches, strip cropping, lister furrowing, contour cultivating, contour furrowing, land drainage, and land irrigation; however, this exception shall not apply to harvesting of forest crops unless the area on which harvesting occurs is reforested artificially or naturally in accordance with the provisions of Chapter 11 (§ 10.1-1100 et seq.) of Title 10.1 of the Code of Virginia or is

converted to bona fide agricultural or improved pasture use as described in Virginia Code § 10.1-1163(B);

- (3) Single-family residences separately built and disturbing less than one acre and not part of a larger common plan of development or sale, including additions or modifications to existing single-family detached residential structures;
- (4) Land-disturbing activities that disturb less than one acre of land area, except for land-disturbing activity exceeding an area of 2,500 square feet in all areas of the county designated as subject to the Chesapeake Bay Preservation Area Designation and Management Regulations (9VAC25-830) adopted pursuant to the provisions of the Chesapeake Bay Preservation Act (Virginia Code § 62.1-44.15:67 et seq.) or activities that are part of a larger common plan of development or sale that is one acre or greater of disturbance;
- (5) Permitted or authorized discharges to a sanitary sewer or a combined sewer system;
- (6) Activities under a State or federal reclamation program to return an abandoned property to an agricultural or open land use;
- (7) Routine maintenance that is performed to maintain the original line and grade, hydraulic capacity, or original construction of a project. The paving of an existing road with a compacted or impervious surface and reestablishment of existing associated ditches and shoulders shall be deemed routine maintenance if performed in accordance with this subsection; and
- (8) Conducting land-disturbing activities in response to a public emergency where the related work requires immediate authorization to avoid imminent endangerment to human health or the environment. In such situations, the Administrator shall be advised of the disturbance within seven days of commencing the land-disturbing activity and compliance with the administrative requirements of Virginia Code § 62.1-44.15:34(A) is required within 30 days of commencing the land-disturbing activity.

(Ord. of 6-3-2014(1), § 1-3)

Sec. 6-4. - Stormwater management program established; submission and approval of plans; prohibitions.

- (a) Pursuant to § 62.1-44.15:27 of the Code of Virginia, Gloucester County hereby establishes a Virginia stormwater management program for land-disturbing activities and adopts the applicable Regulations that specify standards and specifications for VSMPs promulgated by the State Board for the purposes set out in section 6-1 of this chapter. The Gloucester County Board of Supervisors hereby designates the County Administrator as the Administrator of the Virginia stormwater management program.
- (b) No VSMP authority permit shall be issued by the Administrator until the following items have been submitted to, and approved by, the Administrator as prescribed herein:
 - (1) A permit application that includes a general permit registration statement;
 - (2) An erosion and sediment control plan approved in accordance with the Erosion and Sediment Control Ordinance of Gloucester County, Virginia (Chapter 7.5); and
 - (3) A stormwater management plan that meets the requirements of Section 6-6 of this chapter or an agreement in lieu of a stormwater management plan as determined appropriate by the Administrator.
- (c) No VSMP authority permit shall be issued until evidence of general permit coverage is obtained by the Administrator from the Department.

- (d) No VSMP authority permit shall be issued until the fees required to be paid pursuant to section 6-15 of this chapter are received, and a reasonable performance surety required pursuant to section 6-16 of this chapter has been submitted.
- (e) No VSMP authority permit shall be issued unless and until the permit application and attendant materials and supporting documentation demonstrate that all land clearing, construction, disturbance, land development and drainage will be done according to the approved permit.
- (f) No grading, building or other local permit shall be issued for a property unless a VSMP authority permit has been issued by the Administrator.

(Ord. of 6-3-2014(1), § 1-4)

Sec. 6-5. - Stormwater pollution prevention plan; contents of plans.

- (a) The Stormwater Pollution Prevention Plan (SWPPP) shall include the content specified by Section 9VAC25-870-54 and must also comply with the requirements and general information set forth in Section 9VAC25-880-70, Section II [stormwater pollution prevention plan] of the general permit.
- (b) The SWPPP shall be amended by the operator whenever there is a change in design, construction, operation, or maintenance that has a significant effect on the discharge of pollutants to state waters which is not addressed by the existing SWPPP.
- (c) The SWPPP must be maintained by the operator at a central location onsite. If an onsite location is unavailable, notice of the SWPPP's location must be posted near the main entrance at the construction site. Operators shall make the SWPPP available for public review in accordance with Section II of the general permit, either electronically or in hard copy.

(Ord. of 6-3-2014(1), § 1-5)

Sec. 6-6. - Stormwater management plan; contents of plan.

- (a) The Stormwater Management Plan, required in section 6-4 of this chapter, must apply the stormwater management technical criteria set forth in section 6-9 of this chapter to the entire land-disturbing activity. Individual lots in new residential, commercial, or industrial developments, including those developed under subsequent owners, shall not be considered separate land-disturbing activities. The Stormwater Management Plan shall consider all known sources of surface runoff and all known sources of subsurface and groundwater flows converted to surface runoff, and include the following information:
 - (1) Information on the type and location of stormwater discharges; information on the features to which stormwater is being discharged including surface waters or karst features, if present, and the predevelopment and post-development drainage areas;
 - (2) Contact information including the name, address, email address, and telephone number of the owner and the tax reference number, parcel number, and RPC of the property or properties affected;
 - (3) A narrative that includes a description of current site conditions and final site conditions;
 - (4) A general description of the proposed stormwater management facilities and the mechanism through which the facilities will be operated and maintained after construction is complete and a note that states the stormwater management meets the requirements set forth in the VSMP Permit Regulations (9VAC25-870-55) and the Administrative Guidance Manual;

- (5) Information on the proposed stormwater management facilities, including:
 - (i) The type of facilities;
 - (ii) Location, including geographic coordinates;
 - (iii) Acres treated; and
 - (iv) The surface waters or karst features, if present, into which the facility will discharge.
- (6) Hydrologic and hydraulic computations, including runoff characteristics;
- (7) Documentation and calculations verifying compliance with the water quality and quantity requirements of section 6-9 of this chapter and the Administrative Guidance Manual; and
- (8) A map or maps of the site that depicts the topography of the site and includes:
 - (i) All contributing drainage areas;
 - (ii) Existing streams, ponds, culverts, ditches, wetlands, other water bodies, and floodplains;
 - (iii) Soil types, geologic formations if karst features are present in the area, forest cover, and other vegetative areas;
 - (iv) Current land use including existing structures, roads, and locations of known utilities and easements;
 - (v) Sufficient information on adjoining parcels to assess the impacts of stormwater from the site on these parcels;
 - (vi) The limits of clearing and grading, and the proposed drainage patterns on the site;
 - (vii) Proposed buildings, roads, parking areas, utilities, and stormwater management facilities; and
 - (viii) Proposed land use with tabulation of the percentage of surface area to be adapted to various uses, including but not limited to planned locations of utilities, roads, and easements.
- (b) If an operator intends to meet the water quality and/or quantity requirements set forth in section 6-9 of this chapter through the use of off-site compliance options, where applicable, then a letter of availability from the off-site provider must be included. Approved off-site options must achieve the necessary nutrient reductions prior to the commencement of the applicant's land-disturbing activity except as otherwise allowed by § 62.1-44.15:35 of the Code of Virginia.
- (c) Elements of the stormwater management plans that include activities regulated under Chapter 4 (§ 54.1-400 et seq.) of Title 54.1 of the Code of Virginia shall be appropriately sealed and signed by a professional registered in the Commonwealth of Virginia pursuant to Article 1 (§ 54.1-400 et seq.) of Chapter 4 of Title 54.1 of the Code of Virginia.
- (d) A construction record drawing for permanent stormwater management facilities shall be submitted to the Administrator. The construction record drawing shall be appropriately sealed and signed by a professional engineer, architect, landscape architect, or land surveyor registered in the Commonwealth of Virginia, certifying that the stormwater management facilities have been constructed in accordance with the approved plan.

(Ord. of 6-3-2014(1), § 1-6)

Sec. 6-7. - Pollution prevention plan; contents of plans.

- (a) A Pollution Prevention Plan, required by 9VAC25-870-56, shall be developed, implemented, and updated as necessary and must detail the design, installation, implementation, and maintenance of effective pollution prevention measures to minimize the discharge of pollutants. At a minimum, such measures must be designed, installed, implemented, and maintained to:
 - (1) Minimize the discharge of pollutants from equipment and vehicle washing, wheel wash water, and other wash waters. Wash waters must be treated in a sediment basin or alternative control that provides equivalent treatment to a sediment basin or better treatment prior to discharge;
 - (2) Minimize the exposure of building materials, building products, construction wastes, trash, landscape materials, fertilizers, pesticides, herbicides, detergents, sanitary waste, and other materials present on the site to precipitation and to stormwater; and
 - (3) Minimize the discharge of pollutants from spills and leaks and implement chemical spill and leak prevention and response procedures.
- (b) The pollution prevention plan shall include effective best management practices to prohibit the following discharges:
 - (1) Wastewater from washout of concrete, unless managed by an appropriate control;
 - (2) Wastewater from washout and cleanout of stucco, paint, form release oils, curing compounds, and other construction materials;
 - (3) Fuels, oils, or other pollutants used in vehicle and equipment operation and maintenance; and
 - (4) Soaps or solvents used in vehicle and equipment washing.
- (c) Discharges from dewatering activities, including discharges from dewatering of trenches and excavations, are prohibited unless managed by appropriate controls.

(Ord. of 6-3-2014(1), § 1-7)

Sec. 6-8. - Review of stormwater management plan.

- (a) The Administrator shall review stormwater management plans and shall approve or disapprove a stormwater management plan according to the following:
 - (1) The Administrator shall determine the completeness of a plan in accordance with section 6-6 of this chapter, and shall notify the applicant, in writing, of such determination, within 15 working days of receipt of VSMP permit application notification. If the plan is deemed to be incomplete, the above written notification shall contain the reasons the plan is deemed incomplete.
 - (2) The Administrator shall have an additional 60 calendar days from the date of the communication of completeness to review the plan, except that if a determination of completeness is not made within the time prescribed in subdivision (1), then the plan shall be deemed complete and the Administrator shall have 60 calendar days from the date of submission to review the plan.
 - (3) For plans not approved by the Administrator, including an incomplete submittal, all comments shall be addressed and resubmitted by the applicant within 180 calendar days of the latest plan-review comment letter addressed to the applicant. Plans that are not resubmitted within this time period may be subject to a new application fee, as outlined in the Administrative Guidance Manual or referenced as a re-submittal fee in the Fee Schedule.

- (4) The Administrator shall review any plan that has been previously disapproved, within 45 calendar days of the date of resubmission.
 - (5) During the review period, the plan shall be approved or disapproved and the decision communicated in writing to the Applicant. If the plan is not approved, the reasons for not approving the plan shall be provided in writing to the Applicant. Approval or denial shall be based on the plan's compliance with the requirements of this chapter and the Administrative Guidance Manual.
 - (6) If a plan meeting all requirements of this chapter is submitted and no action is taken within the time provided above in subdivision (2) for review, the plan shall be deemed approved.
- (b) Approved stormwater plans may be modified as follows:
- (1) Modifications to an approved stormwater management plan shall be allowed only after review and written approval by the Administrator. The Administrator shall have 60 calendar days to respond in writing either approving or disapproving such request.
 - (2) The Administrator may require that an approved stormwater management plan be amended, within a time prescribed by the Administrator, to address any deficiencies noted during stormwater inspection.
- (c) The operator shall submit to the Administrator construction record drawings for permanent stormwater management facilities.

(Ord. of 6-3-2014(1), § 1-8)

Sec. 6-9. - Technical criteria for regulated land-disturbing activities.

- (a) To protect the quality and quantity of state water from the potential harm of unmanaged stormwater runoff resulting from land-disturbing activities, the county hereby adopts the technical criteria for regulated land-disturbing activities set forth in 9VAC25-870-62 [Part II B of the Regulations], as amended, expressly to include 9VAC25-870-63 [water quality design criteria requirements]; 9VAC25-870-65 [water quality compliance]; 9VAC25-870-66 [water quantity]; 9VAC25-870-69 [offsite compliance options]; 9VAC25-870-72 [design storms and hydrologic methods]; 9VAC25-870-74 [stormwater harvesting]; 9VAC25-870-76 [linear development projects]; 9VAC25-870-85 [stormwater management impoundment structures or facilities]; and 9VAC25-870-92 [comprehensive stormwater management plans], which shall apply to all land-disturbing activities regulated pursuant to this chapter, except as expressly set forth in subsection (b) and (c) of this section.
- (b) Any land-disturbing activity shall be considered grandfathered and shall be subject to 9VAC25-870-93 thru 99 [Part II C Technical Criteria of the Regulations], provided:
 - (1) A proffered or conditional zoning plan, zoning with a plan of development, preliminary or final subdivision plat, preliminary or final site plan, or any document determined by the locality to be equivalent thereto (i) was approved by the locality prior to July 1, 2012, (ii) provided a layout as defined in 9VAC25-870-10, (iii) will comply with the Part II C technical criteria of the VSMP Regulations, and (iv) has not been subsequently modified or amended in a manner resulting in an increase in the amount of phosphorus leaving each point of discharge, and such that there is no increase in the volume or rate of runoff;
 - (2) A state permit has not been issued prior to July 1, 2014; and
 - (3) Land disturbance did not commence prior to July 1, 2014.

- (c) County, state, and federal projects shall be considered grandfathered by the VSMP authority and shall be subject to the Part II C technical criteria of the VSMP Regulations, provided:
 - (1) There has been an obligation of county, state, or federal funding, in whole or in part, prior to July 1, 2012, or the department has approved a stormwater management plan prior to July 01, 2012;
 - (2) A state permit has not been issued prior to July 1, 2014; and
 - (3) Land disturbance did not commence prior to July 1, 2014.
- (d) Land-disturbing activities grandfathered under subsections b and c of this section shall remain subject to the Part II C Technical Criteria of the Regulations for one additional state permit cycle. After such time, portions of the project not under construction shall become subject to any new technical criteria adopted by the State Board.
- (e) In cases where governmental bonding or public debt financing has been issued for a project prior to July 01, 2012, such project shall be subject to the technical criteria of Part II C of the VSMP Regulations.
- (f) The Administrator may grant exceptions to the technical requirements of Part II B or Part II C of the Regulations, provided that (i) the exception is the minimum necessary to afford relief, (ii) reasonable and appropriate conditions are imposed so that the intent of the Act, the Regulations, and this chapter are preserved, (iii) granting the exception will not confer any special privileges that are denied in other similar circumstances, and (iv) exception requests are not based upon conditions or circumstances that are self-imposed or self-created. Economic hardship alone is not a sufficient reason to grant an exception from the requirements of this chapter. Exceptions granted shall be reported to the Department.
 - (1) Exceptions to the requirement that the land-disturbing activity obtain required VSMP authority permit shall not be given by the Administrator, nor shall the Administrator approve the use of a BMP not found on the Virginia Stormwater BMP Clearinghouse Website, or any other control measure duly approved by the Department.
 - (2) Exceptions to requirements for phosphorus reductions shall not be allowed unless offsite options otherwise permitted pursuant to 9VAC25-870-69 have been considered and found not available.
- (g) Nothing in this section shall preclude an operator from constructing to a more stringent standard at his discretion.

(Ord. of 6-3-2014(1), § 1-9)

Sec. 6-10. - Long-term maintenance of permanent stormwater facilities.

The Administrator shall require the provision of long-term responsibility for and maintenance of stormwater management facilities and other techniques specified to manage the quality and quantity of runoff. Such requirements shall be set forth in an instrument recorded in the county land records prior to general permit termination or earlier as required by the Administrator, and shall at a minimum:

- (a) Be submitted to the Administrator for review and approval prior to the approval of the stormwater management plan;
- (b) Be stated to run with the land;
- (c) Provide for all necessary access to the property for purposes of maintenance and regulatory inspections;

- (d) Provide for inspections and maintenance and the submission of inspection and maintenance reports to the Administrator; and
- (e) Be enforceable by all appropriate governmental parties.

(Ord. of 6-3-2014(1), § 1-10)

Sec. 6-11. - Monitoring and inspections.

- (a) Pursuant to § 62.1-44.15:37 of the Code of Virginia, the Administrator or any duly authorized agent of the Administrator shall provide for periodic inspections of a land-disturbing activity during construction for:
 - (1) Compliance with the approved erosion and sediment control plan;
 - (2) Compliance with the approved stormwater management plan;
 - (3) Development, updating, and implementation of a pollution prevention plan; and
 - (4) Development and implementation of any additional control measures necessary to address a TMDL.
- (b) The Administrator or any duly authorized agent of the Administrator may, at reasonable times and under reasonable circumstances, enter any establishment or upon any property, public or private, for the purpose of obtaining information or conducting surveys or investigations necessary in the enforcement of the provisions of this chapter when reasonable notice has been provided to the owner/agent.
- (c) In accordance with a performance bond with surety, cash escrow, letter of credit, any combination thereof, or such other legal arrangement or instrument, the Administrator may also enter any establishment or upon any property, public or private, for the purpose of initiating or maintaining appropriate actions which are required by the permit conditions associated with a permitted activity when a permittee, after proper notice, has failed to take acceptable action within the time specified.
- (d) Pursuant to § 62.1-44.15:40 of the Code of Virginia, the Administrator may require every VSMP authority permit applicant or permittee, or any such person subject to VSMP authority requirements under this chapter, to furnish when requested such application materials, plans, specifications, and other pertinent information as may be necessary to determine the effect of his discharge on the quality of state waters, or such other information as may be necessary to accomplish the purposes of this chapter.
- (e) Post-construction inspections of stormwater management facilities required by the provisions of this chapter and the recorded maintenance agreement shall be conducted by the owner and at the owner's cost pursuant to the county's adopted and Board approved inspection program, and shall occur within the minimum frequencies shown in BMP Inspection Frequency Table within the Administrative Guidance Manual following approval of the final construction record report for each stormwater facility.
- (f) The owner shall furnish to the Administrator an inspection report prepared by a qualified inspector within the time frames provided in the BMP Inspection Frequency Table within the Administrative Guidance Manual. This report shall include, but not be limited to, current photographs of the BMP, a summary of the current BMP condition, and any recommendations for improvements, if necessary.

- (g) Qualified inspection personnel include a professional engineer, architect, landscape architect, or land surveyor registered in the Commonwealth of Virginia and project inspector or combined administrator for stormwater authority who have met the certification requirements of Virginia Code § 62.1-44.15:30.
- (h) Post-construction inspections of stormwater management facilities required by the provisions of this chapter shall be conducted by the Administrator pursuant to the County's adopted and State Board approved inspection program, and shall occur, at a minimum, at least once every five (5) years.

(Ord. of 6-3-2014(1), § 1-11)

Sec. 6-12. - Hearings.

- (a) Any permit applicant or permittee, or person subject to the requirements of this chapter, aggrieved by any action of the county taken without a formal hearing, or by inaction of the county, may demand in writing a formal hearing by the Stormwater Board considering such grievance, provided a petition requesting such hearing is filed with the Administrator within 30 days after notice of such action is given by the Administrator.
- (b) The hearings held under this section shall be conducted by the Stormwater Board at a time and place identified by the Stormwater Board.
- (c) A verbatim record of the proceedings of such hearings shall be taken and filed with the Stormwater Board.

(Ord. of 6-3-2014(1), § 1-12)

Sec. 6-13. - Appeals.

The final decision of the county under this chapter shall be subject to review by the Circuit Court of Gloucester County, provided an appeal is filed within thirty (30) days from the date of any written decision adversely affecting the rights, duties, or privileges of the person engaging in or proposing to engage in land-disturbing activities. An appeal shall not stay the decision of the County.

(Ord. of 6-3-2014(1), § 1-13)

Sec. 6-14. - Enforcement.

- (a) If the Administrator determines that there is a failure to comply with the VSMP authority permit conditions or determines there is an unauthorized discharge, notice shall be served upon the permittee or person responsible for carrying out the permit conditions by, but shall not be limited to, any of the following: verbal warnings and inspection reports, notices of violation, notices of corrective action, consent special orders, and notices to comply. Written notices shall be served by registered or certified mail to the address specified in the permit application or by delivery at the site of the development activities to the agent or employee supervising such activities.
 - (1) The notice shall specify the measures needed to comply with the permit conditions and shall specify the time within which such measures shall be completed. Upon failure to comply within the time specified, a stop work order may be issued in accordance with subsection (2) or the permit may be revoked by the Administrator.

- (2) If a permittee fails to comply with a notice issued in accordance with this section within the time specified, the Administrator may issue an order requiring the owner, permittee, person responsible for carrying out an approved plan, or the person conducting the land-disturbing activities without an approved plan or required permit to cease all land-disturbing activities until the violation of the permit has ceased, or an approved plan and required permits are obtained, and specified corrective measures have been completed.

Such orders shall be issued in accordance with the Administrative Guidance Manual. Such orders shall become effective upon service on the person by certified mail, return receipt requested, sent to his address specified in the land records of the county, or by personal delivery by an agent of the Administrator. However, if the Administrator finds that any such violation is grossly affecting or presents an imminent and substantial danger of causing harmful erosion of lands or sediment deposition in waters within the watersheds of the Commonwealth or otherwise substantially impacting water quality, she may issue, without advance notice or hearing, an emergency order directing such person to cease immediately all land-disturbing activities on the site and shall provide an opportunity for a hearing, after reasonable notice as to the time and place thereof, to such person, to affirm, modify, amend, or cancel such emergency order. If a person who has been issued an order is not complying with the terms thereof, the Administrator may revoke the permit and institute a proceeding for an injunction, mandamus, or other appropriate remedy in accordance with subsection 6-14(c).

- (b) In addition to any other remedy provided by this chapter, if the Administrator determines that there is a failure to comply with the provisions of this chapter, she may initiate such informal and/or formal administrative enforcement procedures in a manner that is consistent with the Administrative Guidance Manual.
- (c) Any person violating or failing, neglecting, or refusing to obey any rule, regulation, ordinance, order, approved standard or specification, or any permit condition issued by the Administrator may be compelled in a proceeding instituted in Circuit Court of Gloucester County to obey the same and to comply therewith by injunction, mandamus or other appropriate remedy.
- (d) Any person who violates any provision of this chapter or who fails, neglects, or refuses to comply with any order of the Administrator, shall be subject to a civil penalty not to exceed \$32,500 for each violation. Each day of violation of each requirement shall constitute a separate offense.
 - (1) Violations for which a penalty may be imposed under this subsection shall include but not be limited to the following:
 - (i) No state permit registration;
 - (ii) No SWPPP;
 - (iii) Incomplete SWPPP;
 - (iv) SWPPP not available for review;
 - (v) No approved erosion and sediment control plan;
 - (vi) Failure to install stormwater BMPs or erosion and sediment controls;
 - (vii) Stormwater BMPs or erosion and sediment controls improperly installed or maintained;
 - (viii) Operational deficiencies;
 - (ix) Failure to conduct required inspections;
 - (x) Incomplete, improper, or missed inspections; and

- (xi) Discharges not in compliance with the requirements of Section 9VAC25-880-70 of the general permit.
 - (2) The Administrator may issue a summons for collection of the civil penalty and the action may be prosecuted in the appropriate court.
 - (3) In imposing a civil penalty pursuant to this subsection, the court may consider the degree of harm caused by the violation and also the economic benefit to the violator from noncompliance.
 - (4) Any civil penalties assessed by a court as a result of a summons issued by the county shall be paid into the treasury of the county to be used for the purpose of minimizing, preventing, managing, or mitigating pollution of the waters of the county and abating environmental pollution therein in such manner as the court may, by order, direct.
- (e) Notwithstanding any other civil or equitable remedy provided by this section or by law, any person who willfully or negligently violates any provision of this chapter, any order of the Administrator, any condition of a permit, or any order of a court shall be guilty of a Class 1 misdemeanor punishable by confinement in jail for not more than 12 months, or a fine of not more than \$2,500, or both.
- (f) Violation of any provision of this chapter may also result in the following sanctions:
- (1) The VSMP authority, where authorized to enforce Virginia Code § 62.1-44.15:24 et seq., may apply to the Circuit Court of Gloucester County to enjoin a violation or a threatened violation of the provisions of Virginia Code § 62.1-44.15:24 et seq. or of this chapter without the necessity of showing that an adequate remedy at law does not exist.
 - (2) With the consent of any person who has violated or failed, neglected, or refused to obey any ordinance, any condition of a permit, any order of the VSMP authority, or any provision of Virginia Code § 62.1-44.15:24 et seq., the VSMP authority may provide, in an order issued against such person, for the payment of civil charges for violations in specific sums, not to exceed the limit specified in this section. Such civil charges shall be instead of any appropriate civil penalty that could be imposed under this section. Any civil charges collected shall be paid to the treasury of the county pursuant to subsection (d)(4). Charges collected shall be applied to environmental restoration.

(Ord. of 6-3-2014(1), § 1-14)

Sec. 6-15. - Fees.

- (a) Fees to cover costs associated with implementation of a VSMP related to land-disturbing activities and issuance of general permit coverage and VSMP authority permits shall be imposed in accordance with Table I.
- (b) The applicable fees designated to the Administrator shall be paid by the Applicant directly to the Administrator at the initial plan submittal; fees designated to the Department shall be paid by the Applicant directly to the Department through the online reporting system. A minimum 50-percent of the fee is required upon submittal; the difference shall be due prior to issuance of permit.

Table 1: Stormwater Ordinance Permitting Fees

| Type of Permit | Fee Amount | |
|---|------------|----------|
| | County | State |
| Chesapeake Bay Preservation Act Land-Disturbing Activity (not subject to General Permit coverage; sites within designated areas of Chesapeake Bay Act localities with land-disturbance acreage equal to or greater than 2,500 square feet and less than 1 acre) | \$290 | \$0 |
| VSMP General/Stormwater Management - Small Construction Activity/Land Clearing (Areas within common plans of development or sale with land-disturbance acreage less than one acre, except for single-family detached residential structures) | \$209 | \$81 |
| VSMP General/Stormwater Management - Small Construction Activity/Land Clearing (single family detached residential structure with a site or area, within or outside a common plan of development or sale, that is equal to or greater than one acre but less than five acres) | \$209 | \$0 |
| VSMP General/Stormwater Management - Small Construction Activity/Land Clearing (Sites or areas within common plans of development or sale with land disturbance acreage equal to or greater than 1 acre and less than 5 Acres) | \$1,944 | \$756 |
| VSMP General/Stormwater Management - Large Construction Activity/Land Clearing (Sites or areas within common plans of development or sale with land disturbance acreage equal to or greater than 5 acres and less than 10 acres) | \$2,448 | \$952 |
| VSMP General/Stormwater Management - Large Construction Activity/Land Clearing [Sites or areas within common plans of development or sale with land disturbance acreage equal to or greater than 10 acres and less than 50 acres] | \$3,240 | \$1,260 |
| VSMP General/Stormwater Management - Large Construction Activity/Land Clearing (Sites or areas within common plans of development or sale with land disturbance acreage equal to or greater than 50 acres and less than 100 acres) | \$4,392 | \$1,708 |
| VSMP General/Stormwater Management - Large Construction Activity/Land Clearing (Sites or areas within common plans of development or sale with land disturbance acreage equal to or greater than 100 acres) | \$6,912 | \$2,688 |
| VSMP Individual Permit for Discharges of Stormwater From Construction Activities | \$0 | \$15,000 |

(c) Fees for the modification or transfer of registration statements from the general permit issued by the Board shall be imposed in accordance with VSMP Permit Regulations and adopted by this chapter in accordance with Table 2 and shall be paid directly to the Administrator.

Table 2: Fees for the modification or transfer of registration statements for the General Permit for Discharges of Stormwater from Construction Activities

| Type of Permit | Fee Amount |
|---|------------|
| Chesapeake Bay Preservation Act Land-Disturbing Activity (not subject to General Permit coverage; sites within designated areas of Chesapeake Bay Act localities with land-disturbance acreage equal to or greater than 2,500 square feet and less than 1 acre) | \$20 |
| General/Stormwater Management - Small Construction Activity/Land Clearing (Areas within common plans of development or sale with land-disturbance acreage less than one acre, except for single-family detached residential structures) | \$20 |
| General/Stormwater Management - Small Construction Activity/Land Clearing (Single-family detached residential structures within or outside a common plan of development or sale with land-disturbance acreage less than 5 acres) | \$20 |
| General/Stormwater Management - Small Construction Activity/Land Clearing (Sites or areas within common plans of development or sale with land-disturbance acreage equal to or greater than one and less than five acres) | \$200 |
| General/Stormwater Management - Large Construction Activity/Land Clearing (Sites or areas within common plans of development or sale with land-disturbance acreage equal to or greater than five acres and less than 10 acres) | \$250 |
| General/Stormwater Management - Large Construction Activity/Land Clearing (Sites or areas within common plans of development or sale with land-disturbance acreage equal to or greater than 10 acres and less than 50 acres) | \$300 |
| General/Stormwater Management - Large Construction Activity/Land Clearing (Sites or areas within common plans of development or sale with land-disturbance acreage equal to or greater than 50 acres and less than 100 acres) | \$450 |
| General/Stormwater Management - Large Construction Activity/Land Clearing (Sites or areas within common plans of development or sale with land-disturbance acreage equal to or greater than 100 acres) | \$700 |
| Individual Permit for Discharges of Stormwater from Construction Activities | \$5,000 |

- (d) If the general permit modifications result in changes to stormwater management plans that require additional review by the county, such reviews shall be subject to the fees set out in the VSMP Permit Regulations and this chapter.
- (e) The fee assessed shall be based on the total disturbed acreage of the site. In addition to the general permit modification fee, applicants seeking modifications resulting in an increase in total disturbed acreage shall pay the difference in the initial permit fee paid and the permit fee that would have applied for the total disturbed acreage in this chapter. These fees shall be paid directly to the Administrator.
- (f) Annual permit maintenance shall be imposed in accordance with Table 3 of this chapter, including fees imposed on expired permits that have been administratively continued. With respect to the general permit, these fees shall apply until the permit coverage is terminated.

Table 3: Permit Maintenance Fees

| Type of Permit | Fee Amount |
|---|------------|
| Chesapeake Bay Preservation Act Land-Disturbing Activity (not subject to General Permit coverage; sites within designated areas of Chesapeake Bay Act localities with land-disturbance acreage equal to or greater than 2,500 square feet and less than 1 acre) | \$50 |
| General/Stormwater Management - Small Construction Activity/Land Clearing (Areas within common plans of development or sale with land-disturbance acreage less than one acre) | \$50 |
| General/Stormwater Management - Small Construction Activity/Land Clearing (Sites or areas within common plans of development or sale with land-disturbance equal to or greater than one acre and less than five acres) | \$400 |
| General/Stormwater Management - Large Construction Activity/Land Clearing (Sites or areas within common plans of development or sale with land-disturbance acreage equal to or greater than five acres and less than 10 acres) | \$500 |
| General/Stormwater Management - Large Construction Activity/Land Clearing (Sites or areas within common plans of development or sale with land-disturbance acreage equal to or greater than 10 acres and less than 50 acres) | \$650 |
| General/Stormwater Management - Large Construction Activity/Land Clearing (Sites or areas within common plans of development or sale with land-disturbance acreage equal to or greater than 50 acres and less than 100 acres) | \$900 |
| General/Stormwater Management - Large Construction Activity/Land Clearing (Sites or areas within common plans of development or sale with land-disturbance acreage equal to or greater [than] 100 acres) | \$1,400 |
| Individual Permit for Discharges from Construction Activities | \$3,000 |

- (g) General permit coverage maintenance fees shall be paid annually to the county, by the anniversary date of general permit coverage. No permit will be reissued or automatically continued without

payment of the required fee. General permit coverage maintenance fees shall be applied until a Notice of Termination is effective.

- (h) The fees set forth in subsections (a) through (g) above, shall apply to:
 - (1) All persons seeking coverage under the general permit.
 - (2) All permittees who request modifications to or transfers of their existing registration statement for coverage under a general permit.
- (i) No general permit application fees will be assessed to:
 - (1) Permittees who request minor modifications to general permits as defined in section 6-2 of this chapter. Permit modifications at the request of the permittee resulting in changes to stormwater management plans that require additional review by the Administrator shall not be exempt pursuant to this section.
 - (2) Permittees whose general permits are modified or amended at the initiative of the Department, excluding errors in the registration statement identified by the Administrator or errors related to the acreage of the site.
- (j) All incomplete payments will be deemed as nonpayment, and the applicant shall be notified of any incomplete payments. Interest may be charged for late payments at the underpayment rate set forth in § 58.1-15 of the Code of Virginia and is calculated on a monthly basis at the applicable periodic rate. A 10% late payment fee shall be charged to any delinquent (over 90 days past due) account. The county shall be entitled to all remedies available under the Code of Virginia in collecting any past due amount.
- (k) The fee for applications brought for hearing through the Stormwater Board, section 6-12 of this chapter, shall be \$275.

(Ord. of 6-3-2014(1), § 1-15)

Sec. 6-16. - Performance bond.

Prior to permit issuance, the Applicant shall submit a reasonable performance bond with surety, cash escrow, letter of credit, any combination thereof, or such other legal arrangement acceptable to the county attorney and Administrator to ensure that measures could be taken by the county at the Applicant's expense should he fail, after proper notice, within the time specified to initiate or maintain appropriate actions which may be required of him by the permit conditions as a result of his land disturbing activity. If the county takes such action upon such failure by the Applicant, the county may collect from the Applicant the difference should the amount of the reasonable cost of such action exceed the amount of the security held, if any. Within 60 days of the completion of the requirements of the permit conditions, such bond, cash escrow, letter of credit or other legal arrangement, or the unexpended or unobligated portion thereof, shall be refunded to the Applicant or terminated.

(Ord. of 6-3-2014(1), § 1-16)

Appendix M –
Drought Response Ordinances from all MPPDC Localities

ESSEX

Chapter 21

Essex County Water Conservation Ordinance

Section 21-1. Water emergencies and conservation.

(a) Applicability, Purpose and authority to declare water emergencies. For purposes of this Ordinance, unless the context clearly requires a contrary meaning, the term "water" shall mean potable water withdrawn from any water utility system that is owned and/or operated "by a locality, authority, or company distributing water for a fee or charge". It shall not apply to individual wells serving residences or businesses or to community systems providing water to residences or businesses.

In the event of an actual or anticipated shortage of potable water due to climatic, hydrological, mechanical and/or other extraordinary conditions, the County of Essex may determine that certain uses of water should be reduced, restricted, curtailed and/or prohibited. These reductions, restrictions, curtailments and/or prohibitions are intended to protect the health, safety and welfare of the residents of the County of Essex.

The County Administrator, with the approval of the Board of Supervisors, or its subsequent ratification by the Board within 48 hours, is authorized to declare water emergencies in the (County/Town), as a whole or portions thereof, affecting the use of water. A Drought Emergency declaration will be issued after consideration of the conditions of individual affected water systems. The County Administrator may order mandatory restrictions on water use in response to specific conditions, such as when any system exceeds 90 percent of the permitted capacity for 3 consecutive months. The County Administrator may intervene to declare a drought emergency for privately-owned systems if the private system operation is unable to restrict water usage when needed.

(b) Drought monitoring to anticipate water emergency conditions. The County of Essex, in cooperation with other jurisdictions of the Middle-Peninsula Water Supply Planning Region, will monitor the U.S. Drought Monitor operated by the U.S. Geological Service and made available through DEQ's website at:

<http://www.deq.virginia.gov/waterresources/drought.php>.

When the USGS Drought Monitor registers a condition "D1-Moderate Drought" for the County of Essex, the County Administrator shall declare a Drought Watch alert for all water systems addressed by this ordinance.

(c) *Water conservation measures.* After the declaration of a water emergency under the authority provided by Virginia Code Sections 15.2-923 and 15.2-924, and upon a determination by the County Administrator of the existence of the following one or more conditions, the County Administrator shall take the following actions which shall apply to any person whose water supply is furnished from an affected water utility system: (1) *Condition 1 (Drought Warning).* When moderate but limited supplies of water are available or when a "D2-Severe Drought" condition is registered on the USGS Drought Monitor, the County Administrator may, through appropriate means, call upon the affected population and entities to employ prudent restraint in water usage and to conserve water voluntarily by whatever methods available.

(2) *Condition 2 (Drought Emergency).* The County Administrator is hereby further authorized during the duration of a water emergency for which voluntary measures would be insufficient to order the restriction or prohibition of any or all of the following water uses by users of an identified, affected water system after consultation with the affected water system owner/operator:

- a. Watering of outside shrubbery, trees, lawns, grass, plants, home vegetable gardens, or any other vegetation except from a watering can or other container not exceeding five gallons in capacity. This limitation shall not apply to commercial greenhouses, nursery stocks and sod growing, which may be watered in the minimum amount required to preserve plant life between 6:00 p.m. and 8:00 a.m.
- b. Washing of automobiles, trucks, trailers, or any other type of mobile equipment, except in licensed commercial vehicle wash facilities.
- c. Washing of sidewalks, streets, driveways, parking lots, service station aprons, exteriors of homes or apartments, commercial or industrial buildings or any other outdoor surface, except where mandated by federal, state or local law.
- d. The operation of any ornamental fountain or other structure making a similar use of water.
- e. The filling of swimming or wading pools requiring more than five gallons of water, or the refilling of swimming or wading pools that were drained after the effective date of the declaration of emergency, except that pools may be filled to a level of two feet below normal, or water may be added to bring the level to two feet below normal, or as necessary to protect the structure from hydrostatic damage.

- f. The use of water during outdoor recreational activities. This limitation shall not apply to water utilized for drinking and sanitary purposes during such activities.
- g. The use of water from fire hydrants for any purposes other than fire suppression and related training exercises, unless otherwise approved by the county administrator.
- h. The serving of drinking water in restaurants, except upon request.
- i. The operation of any water-cooled comfort air conditioning that does not have water-conserving equipment in operation.

(3) *Condition 3.* In addition to the restrictions and prohibitions authorized under subsection (2) above, the County Administrator is hereby further authorized during the duration of a water emergency to implement any or all of the following for any of the affected water systems:

- a. For any publicly owned and operated public water utility:
 - i. Industrial, institutional, commercial, governmental, wholesale and all other nonresidential customers shall be allotted a percentage reduction based on that customer's average monthly water consumption for the same billing period of the previous calendar year's consumption.
 - ii. Individual residential customers shall be limited to a specific volume or percentage reduction of water per month.
 - iii. If the allotted monthly water usage, as determined in subsection (3)a.i. and (3)a.ii. above, is exceeded, the customer shall be charged two times the existing service rate for consumption over the minimum monthly charge for every 1,000 gallons of water consumed above the allotted volume. Where prior consumption data is not available, the county administrator shall estimate allocations based upon the data available from similar activities of equal intensity.
 - iv. Declaration of a moratorium on new and expanded connections to the public water utility system, unless such connections are primarily intended and designed to provide fire protection and/or potable drinking water to lawfully permitted residential or nonresidential buildings that are existing or substantially constructed at the time that a water emergency is declared.
- b. For any privately owned and operated public water supply: The system operator shall be required to demonstrate on a monthly schedule, compliance with the capacity requirements set forth by the Virginia Department of Health Waterworks Regulations (12 VAC5-590-520 and 12 VAC5-590-690).

(4) *Condition 4.* When crucially limited supplies of water are available, the County Administrator shall restrict the use of water from any affected water system to purposes which are absolutely essential to life, health and safety. Such permitted uses of water may include, but may not be limited to, the provision of limited quantities of water for drinking and sanitation purposes to residents, health care facility patients and/or emergency shelter evacuees, who are unable to utilize their potable water supplies due to the loss of electrical power, storm events or other natural or manmade causes.

(5) *Failure to address leaks.* It shall be unlawful for the owner of any residential unit or units, or the owner of any commercial or industrial establishment which is found to be an excessive user of water due to leakage from waterlines or plumbing fixtures on the premises, to fail to take immediate action to repair and to stop such leakage after being so ordered by the (County Administrator/Town Manager) or his agent.

(6) *Effective date.* The imposition of the restrictions above shall become effective upon their being printed in any newspaper of general circulation in the County of Essex, or broadcasted upon any radio or television station serving the County of Essex.

(7) *Appeals for exemptions.* Upon implementation of subsections (2), (3) or (4) above, the County Administrator shall establish an appeals procedure to review customer applications for exemptions from the provisions of subsections (2), (3) or (4) on a case-by-case basis and, if warranted, to make equitable adjustments to such provisions. The County Administrator shall also be empowered to establish regulations governing the granting of temporary exemptions applicable to all or some of the uses of the water supply set forth in subsections (2), (3) or (4). The County Administrator shall, in rendering a decision on such applications, balance economic and other hardships to the applicant resulting from the imposition of water use restrictions or allocations against the individual and cumulative impacts to the water supply resulting from the granting of such exemptions and may impose reasonable conditions to ensure compliance with the terms of the exemption. Any person subject to a decision rendered by the County Administrator under this section may appeal such decision to the Board of Supervisors. The appeal shall be in writing and shall be submitted to the County Administrator, as agent for and clerk to the Board of Supervisors.

The County Administrator may issue temporary waivers or exemptions within the provisions of this subsection for such periods of time as may be necessary for the (Board of Supervisor to formally consider action on the appeal. The Board of Supervisors shall render a decision on the appeal and may: affirm, with or without modification, the County Administrator's decision; or approve the requested exemption, with or without modification. The Board of Supervisors may impose reasonable conditions to ensure compliance with the terms of any exemption granted hereunder. Any decision rendered by the Board of Supervisors shall be subject to remedies provided by statute.

(d) *Penalty for violations.* Any person, firm or entity who shall violate any of the provisions of this section, or of any of the conservation regulations promulgated by the County of Essex pursuant thereto, shall, upon conviction thereof, be subject to the penalties provided in Section (F). Each act or each day's continuation of a violation shall be deemed a separate offense. In addition to the foregoing, the County Administrator may suspend public water utility service to any person continuing to violate the provisions of this ordinance of the regulations promulgated hereunder. If such public water utility service is terminated, the person, firm or entity shall pay a reconnection fee of \$50.00 before service is restored.

(e) *Declaration of end of water emergencies.* The County Administrator shall notify the Board of Supervisors when, in his opinion, the water emergency situation no longer exists. Upon concurrence of the Board of Supervisors, the water emergency shall be declared to have ended.

(f) *Violations.* Any person, firm, entity or operator of any water system, who violates any provision of this Ordinance shall be guilty of a Class 4 misdemeanor. Any person who violates any provision of this Ordinance a second or subsequent time within 30 days shall be guilty of a Class 2 misdemeanor.

This Ordinance shall be in effect upon adoption.

Adopted December 6, 2011.

Middlesex County Water Conservation Ordinance

Water emergencies and conservation.

Section (A) Applicability, Purpose and authority to declare water emergencies. For purposes of this Ordinance, unless the context clearly requires a contrary meaning, the term "water" shall mean potable water withdrawn from any water utility system that is owned and/or operated "by a locality, authority, or company distributing water for a fee or charge". It shall not apply to individual wells serving residences or businesses or to community systems providing water to residences or businesses.

In the event of an actual or anticipated shortage of potable water due to climatic, hydrological, mechanical and/or other extraordinary conditions, Middlesex County may determine that certain uses of water should be reduced, restricted, curtailed and/or prohibited. These reductions, restrictions, curtailments and/or prohibitions are intended to protect the health, safety and welfare of the residents of Middlesex County.

The County Administrator, with the approval of the Board of Supervisors, or its subsequent ratification by the Board within 48 hours, is authorized to declare water emergencies in the County, as a whole or portions thereof, affecting the use of water. A Drought Emergency declaration will be issued after consideration of the conditions of individual affected water systems. The County Administrator may order mandatory restrictions on water use in response to specific conditions, such as when any system exceeds 90 percent of the permitted capacity for 3 consecutive months.

Section (B) Drought monitoring to anticipate water emergency conditions. Middlesex County, in cooperation with other jurisdictions of the Middle-Peninsula Water Supply Planning Region, will monitor the U.S. Drought Monitor operated by the U.S. Geological Service and made available through DEQ's website at: <http://www.deq.virginia.gov/waterresources/drought.php>. When the USGS Drought Monitor registers a condition "D1-Moderate Drought" for Middlesex County, the County Administrator shall declare a Drought Watch alert for all water systems addressed by this ordinance.

Section (C) Water conservation measures. After the declaration of a water emergency under the authority provided by Virginia Code Sections 15.2-923 and 15.2-924, and upon a determination by the County Administrator of the existence of the following one or more conditions, the County Administrator shall take the following actions which shall apply to any person whose water supply is furnished from an affected water utility system:

- (1) *Condition 1 (Drought Warning).* When moderate but limited supplies of water are available or when a "D2-Severe Drought" condition is registered on the USGS Drought Monitor, the County Administrator may, through appropriate means, call upon the affected population and entities to employ prudent restraint in water usage and to conserve water voluntarily by whatever methods available.
- (2) *Condition 2 (Drought Emergency).* The County Administrator is hereby further authorized during the duration of a water emergency for which voluntary measures would

be insufficient to order the restriction or prohibition of any or all of the following water uses by users of an identified, affected water system after consultation with the affected water system owner/operator:

- a. Watering of outside shrubbery, trees, lawns, grass, plants, home vegetable gardens, or any other vegetation except from a watering can or other container not exceeding five gallons in capacity. This limitation shall not apply to commercial greenhouses, nursery stocks and sod growing, which may be watered in the minimum amount required to preserve plant life between 6:00 p.m. and 8:00 a.m.
 - b. Washing of automobiles, trucks, trailers, or any other type of mobile equipment, except in licensed commercial vehicle wash facilities.
 - c. Washing of sidewalks, streets, driveways, parking lots, service station aprons, exteriors of homes or apartments, commercial or industrial buildings or any other outdoor surface, except where mandated by federal, state or local law.
 - d. The operation of any ornamental fountain or other structure making a similar use of water.
 - e. The filling of swimming or wading pools requiring more than five gallons of water, or the refilling of swimming or wading pools that were drained after the effective date of the declaration of emergency, except that pools may be filled to a level of two feet below normal, or water may be added to bring the level to two feet below normal, or as necessary to protect the structure from hydrostatic damage.
 - f. The use of water during outdoor recreational activities. This limitation shall not apply to water utilized for drinking and sanitary purposes during such activities.
 - g. The use of water from fire hydrants for any purposes other than fire suppression and related training exercises, unless otherwise approved by the county administrator.
 - h. The serving of drinking water in restaurants, except upon request.
 - i. The operation of any water-cooled comfort air conditioning that does not have water-conserving equipment in operation.
- (3) *Condition 3.* In addition to the restrictions and prohibitions authorized under subsection (2) above, the County Administrator is hereby further authorized during the duration of a water emergency to implement any or all of the following for any of the affected water systems:
- a. For any publicly owned and operated public water utility:
 - i. Industrial, institutional, commercial, governmental, wholesale and all other nonresidential customers shall be allotted a percentage reduction based on that customer's average monthly water consumption for the same billing period of the previous calendar year's consumption.
 - ii. Individual residential customers shall be limited to a specific volume or percentage reduction of water per month.
 - iii. If the allotted monthly water usage, as determined in subsection (3)a.i. and (3)a.ii. above, is exceeded, the customer shall be charged two times the existing service rate for consumption over the minimum monthly charge for every 1,000 gallons of water consumed above the allotted volume. Where prior consumption data is not available, the county administrator shall estimate allocations based upon the data available from similar activities of equal intensity.

- iv. Declaration of a moratorium on new and expanded connections to the public water utility system, unless such connections are primarily intended and designed to provide fire protection and/or potable drinking water to lawfully permitted residential or nonresidential buildings that are existing or substantially constructed at the time that a water emergency is declared.
 - b. For any privately owned and operated public water supply: The system operator shall be required to demonstrate on a monthly schedule, compliance with the capacity requirements set forth by the Virginia Department of Health Waterworks Regulations (12 VAC5-590-520 and 12 VAC5-590-690).
- (4) *Condition 4.* When crucially limited supplies of water are available, the County Administrator shall restrict the use of water from any affected water system to purposes which are absolutely essential to life, health and safety. Such permitted uses of water may include, but may not be limited to, the provision of limited quantities of water for drinking and sanitation purposes to residents, health care facility patients and/or emergency shelter evacuees, who are unable to utilize their potable water supplies due to the loss of electrical power, storm events or other natural or manmade causes.
- (5) *Failure to address leaks.* It shall be unlawful for the owner of any residential unit or units, or the owner of any commercial or industrial establishment which is found to be an excessive user of water due to leakage from waterlines or plumbing fixtures on the premises, to fail to take immediate action to repair and to stop such leakage after being so ordered by the County Administrator or his agent.
- (6) *Effective date.* The imposition of the restrictions above shall become effective upon their being printed in any newspaper of general circulation in Middlesex County, or broadcasted upon any radio or television station serving Middlesex County.
- (7) *Appeals for exemptions.* Upon implementation of subsections (2), (3) or (4) above, the County Administrator shall establish an appeals procedure to review customer applications for exemptions from the provisions of subsections (2), (3) or (4) on a case-by-case basis and, if warranted, to make equitable adjustments to such provisions. The County Administrator shall also be empowered to establish regulations governing the granting of temporary exemptions applicable to all or some of the uses of the water supply set forth in subsections (2), (3) or (4). The County Administrator shall, in rendering a decision on such applications, balance economic and other hardships to the applicant resulting from the imposition of water use restrictions or allocations against the individual and cumulative impacts to the water supply resulting from the granting of such exemptions and may impose reasonable conditions to ensure compliance with the terms of the exemption.

Any person subject to a decision rendered by the County Administrator under this section may appeal such decision to the Board of Supervisors. The appeal shall be in writing and shall be submitted to the County Administrator, as agent for and clerk to the Board of Supervisors.

The County Administrator may issue temporary waivers or exemptions within the provisions of this subsection for such periods of time as may be necessary for the Board of Supervisors to formally consider action on the appeal.

The Board of Supervisors shall render a decision on the appeal and may: affirm, with or without modification, the County Administrator's decision; or approve the requested exemption, with or without modification. The Board of Supervisors may impose reasonable conditions to ensure compliance with the terms of any exemption granted hereunder.

Any decision rendered by the Board of supervisors shall be subject to remedies provided by statute.

Section (D) *Penalty for violations.* Any person, firm or entity who shall violate any of the provisions of this section, or of any of the conservation regulations promulgated by Middlesex County pursuant thereto, shall, upon conviction thereof, be subject to the penalties provided in Section (F). Each act or each day's continuation of a violation shall be deemed a separate offense.

In addition to the foregoing, the County Administrator may suspend public water utility service to any person continuing to violate the provisions of this ordinance or the regulations promulgated hereunder.

If such public water utility service is terminated, the person, firm or entity shall pay a reconnection fee of \$50.00 before service is restored.

Section (E) *Declaration of end of water emergencies.* The County Administrator shall notify the Board of Supervisors when, in his opinion, the water emergency situation no longer exists. Upon concurrence of the Board of Supervisors, the water emergency shall be declared to have ended.

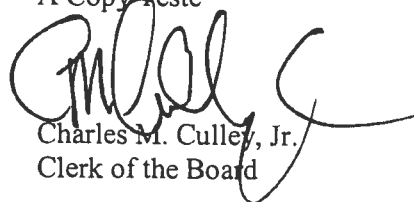
Section (F) *Violations.* Any person, firm, entity or operator of any water system, who violates any provision of this Ordinance shall be guilty of a Class 4 misdemeanor. Any person who violates any provision of this Ordinance a second or subsequent time within 30 days shall be guilty of a Class 2 misdemeanor.

This Ordinance shall be in effect upon adoption.

Present and voting:

| | |
|----------------------|-----|
| John D. Miller, Jr. | aye |
| Wayne H. Jessie, Sr. | aye |
| Fred S. Crittenden | aye |
| Carlton S. Revere | aye |
| Peter W. Mansfield | nay |

A Copy Teste



Charles M. Culley, Jr.
Clerk of the Board

(b) The biosolids monitor shall have the authority to order the abatement of any violation of state law or regulation. The abatement order shall identify the activity constituting the violation; specify the code provision or regulation violated by the activity and order cessation and correction of the violation.

(c) The county may bring suit to enjoin, restrain, correct or prevent any violation of this article.

(Ord. of 8-12-2005)

(Sec. 264 – 275 Reserved)

ARTICLE VII. WATER CONSERVATION ORDINANCE

Sec. 22-276. Purpose and Authority to Declare Water Emergencies

For purposes of this section, unless the context clearly requires a contrary meaning, the term "water" shall mean potable water withdrawn from any water utility system that is owned and/or operated "by a locality, authority, or company distributing water for a fee or charge".

In the event of an actual or anticipated shortage of potable water due to climatic, hydrological, mechanical and/or other extraordinary conditions, King and Queen County may determine that certain uses of water should be reduced, restricted, curtailed and/or prohibited. These reductions, restrictions, curtailments and/or prohibitions are intended to protect the health, safety and welfare of the residents of King and Queen County.

The County Administrator with the approval of the Board of Supervisors, or its subsequent ratification by the Board within 48 hours, is authorized to declare water emergencies in the County of King and Queen, as a whole or portions thereof, affecting the use of water.

A Drought Emergency declaration will be issued after consideration of the conditions of individual affected systems. The County Administrator may order mandatory restrictions on water use in response to specific conditions, such as when any system exceeds 90 percent of the permitted capacity for 3 consecutive months. The County Administrator may intervene to declare a drought emergency for privately-owned systems if the private system operation is unable to restrict water usage when needed.

Sec. 22-277. Drought Monitoring to Anticipate Water Emergency Conditions

King and Queen County in cooperation with other jurisdictions of the Middle-Peninsula Water Supply Planning Region, will monitor the U.S. Drought Monitor operated by the U.S. Geological Service and made available through DEQ's website at: <http://www.deq.virginia.gov/waterresources/drought.php>. When the USGS Drought Monitor registers a condition "D1-Moderate Drought" for King and Queen County, the

County Administrator shall declare a Drought Watch alert for all water systems addressed by this ordinance.

Sec. 22-278. Water Conservation Measures

After the declaration of a water emergency under the authority provided by Virginia Code Sections 15.2-923 and 15.2-924, and upon a determination by the County Administrator of the existence of the following one or more conditions, the County Administrator shall take the following actions which shall apply to any person whose water supply is furnished from an affected water utility system:

(1) Condition 1 (Drought Warning). When moderate but limited supplies of water are available or when a "D2-Severe Drought" condition is registered on the USGS Drought Monitor, the County Administrator may, through appropriate means, call upon the affected population and entities to employ prudent restraint in water usage and to conserve water voluntarily by whatever methods available.

(2) Condition 2 (Drought Emergency). The County Administrator is hereby further authorized during the duration of a water emergency for which voluntary measures would be insufficient to order the restriction or prohibition of any or all of the following water uses by users of an identified, affected water system after consultation with the affected water system owner/operator:

- a. Watering of outside shrubbery, trees, lawns, grass, plants, home vegetable gardens, or any other vegetation except from a watering can or other container not exceeding five gallons in capacity. This limitation shall not apply to commercial greenhouses, nursery stocks and sod growing, which may be watered in the minimum amount required to preserve plant life between 6:00 p.m. and 8:00 a.m.
- b. Washing of automobiles, trucks, trailers, or any other type of mobile equipment, except in licensed commercial vehicle wash facilities.
- c. Washing of sidewalks, streets, driveways, parking lots, service station aprons, exteriors of homes or apartments, commercial or industrial buildings or any other outdoor surface, except where mandated by federal, state or local law.
- d. The operation of any ornamental fountain or other structure making a similar use of water.
- e. The filling of swimming or wading pools requiring more than five gallons of water, or the refilling of swimming or wading pools that were drained after the effective date of the declaration of emergency, except that pools may be filled to a level of two feet below normal, or water may be added to bring the level to two feet below normal, or as necessary to protect the structure from hydrostatic damage.
- f. The use of water during outdoor recreational activities. This limitation shall not apply to water utilized for drinking and sanitary purposes during such activities.

- g. The use of water from fire hydrants for any purposes other than fire suppression and related training exercises, unless otherwise approved by the county administrator.
- h. The serving of drinking water in restaurants, except upon request.
- i. The operation of any water-cooled comfort air conditioning that does not have water-conserving equipment in operation.

(3) Condition 3. In addition to the restrictions and prohibitions authorized under subsection (2) above, the County Administrator is hereby further authorized during the duration of a water emergency to implement any or all of the following for any of the affected water systems:

- a. For any publicly owned and operated public water utility:
 - i. Industrial, institutional, commercial, governmental, wholesale and all other nonresidential customers shall be allotted a percentage reduction based on that customer's average monthly water consumption for the same billing period of the previous calendar year's consumption.
 - ii. Individual residential customers shall be limited to a specific volume or percentage reduction of water per month.
 - iii. If the allotted monthly water usage, as determined in subsection (3)a.i. and (3)a.ii. above, is exceeded, the customer shall be charged two times the existing service rate for consumption over the minimum monthly charge for every 1,000 gallons of water consumed above the allotted volume. Where prior consumption data is not available, the county administrator shall estimate allocations based upon the data available from similar activities of equal intensity.
 - iv. Declaration of a moratorium on new and expanded connections to the public water utility system, unless such connections are primarily intended and designed to provide fire protection and/or potable drinking water to lawfully permitted residential or nonresidential buildings that are existing or substantially constructed at the time that a water emergency is declared.
- b. For any privately owned and operated public water supply:

The system operator shall be required to demonstrate on a monthly schedule, compliance with the capacity requirements set forth by the Virginia Department of Health Waterworks Regulations (12 VAC5-590-520 and 12 VAC5-590-690).

(4) Condition 4. When crucially limited supplies of water are available, the County Administrator shall restrict the use of water from any affected water system to purposes which are absolutely essential to life, health and safety. Such permitted uses of water may include, but may not be limited to, the provision of limited quantities of water for drinking and sanitation purposes to residents, health care facility patients and/or emergency shelter evacuees, who are unable to utilize their potable water supplies due to the loss of electrical power, storm events or other natural or manmade causes.

Sec. 22-279. Failure to Address Leaks

It shall be unlawful for the owner of any residential unit or units, or the owner of any commercial or industrial establishment which is found to be an excessive user of water due to leakage from waterlines or plumbing fixtures on the premises, to fail to take immediate action to repair and to stop such leakage after being so ordered by the County Administrator or his agent.

Sec. 22-280. Effective Date

The imposition of the restrictions above shall become effective upon their being printed in any newspaper of general circulation in King and Queen County, or broadcasted upon any radio or television station serving King and Queen County.

Sec. 22-281. Appeals for Exemptions

Upon implementation of subsections (2), (3) or (4) above, the County Administrator shall establish an appeals procedure to review customer applications for exemptions from the provisions of subsections (2), (3) or (4) on a case-by-case basis and, if warranted, to make equitable adjustments to such provisions. The County Administrator shall also be empowered to establish regulations governing the granting of temporary exemptions applicable to all or some of the uses of the water supply set forth in subsections (2), (3) or (4). The County Administrator shall, in rendering a decision on such applications, balance economic and other hardships to the applicant resulting from the imposition of water use restrictions or allocations against the individual and cumulative impacts to the water supply resulting from the granting of such exemptions and may impose reasonable conditions to ensure compliance with the terms of the exemption.

Any person subject to a decision rendered by the County Administrator under this section may appeal such decision to the Board of Supervisors. The appeal shall be in writing and shall be submitted to the County Administrator, as agent for and clerk to the Board of Supervisors.

The County Administrator may issue temporary waivers or exemptions within the provisions of this subsection for such periods of time as may be necessary for the Board of Supervisors to formally consider action on the appeal.

The Board of Supervisors shall render a decision on the appeal and may: affirm, with or without modification, the County Administrator's decision; or approve the requested exemption, with or without modification. The Board of Supervisors may impose reasonable conditions to ensure compliance with the terms of any exemption granted hereunder.

Any decision rendered by the Board of Supervisors shall be subject to remedies provided by statute.

Sec. 22-282. Penalty for Violations

Any person who shall violate any of the provisions of this section, or of any of the conservation regulations promulgated by King and Queen County pursuant thereto, shall, upon conviction thereof, be subject to penalties as provided by law. Each act or each day's continuation of a violation shall be deemed a separate offense. In addition to the foregoing, the County Administrator may suspend public water utility service to any person continuing to violate the provisions of this ordinance or the regulations promulgated hereunder.

If such public water utility service is terminated, the person shall pay a reconnection fee of \$50.00 before service is restored.

Sec. 22-282. Declaration of end of Water Emergencies

The County Administrator shall notify the Board of Supervisors when, in his opinion, the water emergency situation no longer exists. Upon concurrence of the Board of Supervisors the water emergency shall be declared to have ended.

**ORDINANCE #11-03
AMEND SECTION 78-192
WATER EMERGENCIES AND CONSERVATION**

WHEREAS, the Board of Supervisors of King William County, Virginia has received a request to amend and update Chapter 78 (Utilities) of the King William County Code to be consistent with Virginia State Water Control Board Regulation 9 VAC 25-780, Local and Regional Water Supply Planning; and

WHEREAS, guidance received from the VA Department of Environmental Quality regarding the adoption of a regional water supply plan and the subsequent issuing or renewal of groundwater withdrawal permits by the VA Department of Environmental Quality indicates the need to amend and update Section 78-192, Water Emergencies and Conservation; and

WHEREAS, the request is specifically to amend Section 78-192, Water Emergencies and Conservation; and

NOW, THEREOFRE, BE IT ORDAINED AND ENACTED, that the Board of Supervisors of King William County, Virginia, does hereby amend and readopt Section 86-499 of the King William County Code to read as follows:

Section 78-192. Water Emergencies and Conservation

(a) *Application and authority to declare water emergency; notice of impending shortage.* For purposes of this section, unless the context clearly requires a contrary meaning, the term "water" shall mean potable water withdrawn from any water utility system that is owned and/or operated by the County of King William or by a purveyor distributing water within the County for a fee or charge.

In the event of an actual or anticipated shortage of potable water due to climatic, hydrological, mechanical and/or other extraordinary conditions, the County of King William may determine that certain uses of water should be reduced, restricted, curtailed and/or prohibited. These reductions, restrictions, curtailments and/or prohibitions are intended to protect the health, safety and welfare of the residents of the County of King William.

The county administrator, with the approval of the board of supervisors, or with subsequent ratification by the board at its next scheduled regular or special meeting, is authorized to declare a water emergency in the county or in portions thereof, and restrict the use of water as set forth in this section.

The County of King William, in cooperation with other jurisdictions of the Middle-Peninsula Water Supply Planning Region, will monitor the U.S. Drought Monitor operated by the U.S. Geological Service. When the USGS Drought Monitor registers a condition "D1-Moderate Drought" for the County of King William, the county administrator shall declare a Drought Watch alert for all water systems addressed by this ordinance and take appropriate steps to increase public

awareness of the potential for a significant drought event and the potential water conservation measures that may have to be implemented after further public notice.

(b) *Water conservation measures.* Should conditions continue to deteriorate and after the declaration of a water emergency the county administrator shall take the following actions as necessary according to the circumstances:

(1) When the onset of a significant drought is imminent and when moderate but limited supplies of water are available, or when a "D2-Severe Drought" condition is registered on the USGS Drought Monitor, the county administrator through appropriate means shall call upon the affected population and entities to employ prudent restraint in water usage and to conserve water voluntarily by whatever methods available and shall identify voluntary conservation measures that can be expected to reduce usage by five to ten percent.

(2) The county administrator is further authorized during a water emergency for which voluntary measures would be insufficient, to order the restriction or prohibition of any or all of the following water uses:

a. Watering of outside shrubbery, trees, lawns, grass, plants, home vegetable gardens, or any other vegetation except from a watering can or other container not exceeding five gallons in capacity. This limitation shall not apply to commercial greenhouses, nursery stocks and sod growing, which may be watered in the minimum amount required to preserve plant life between 6:00 p.m. and 8:00 a.m.

b. Washing of automobiles, trucks, trailers, or any other type of mobile equipment, except in licensed commercial vehicle wash facilities.

c. Washing of sidewalks, streets, driveways, parking lots, service station aprons, exteriors of homes or apartments, commercial or industrial buildings or any other outdoor surface, except where mandated by federal, state or local law.

d. The operation of any ornamental fountain or other structure making a similar use of water.

e. The filling of swimming or wading pools requiring more than five gallons of water, or the refilling of swimming or wading pools that were drained after the effective date of the declaration of emergency, except that pools may be filled to a level of two feet below normal, or water may be added to bring the level to two feet below normal, or as necessary to protect the structure from hydrostatic damage.

f. The use of water during outdoor recreational activities. This limitation shall not apply to water utilized for drinking and sanitary purposes during such activities.

- g. The use of water from fire hydrants for any purposes other than fire suppression and related training exercises, unless otherwise approved by the county administrator.
 - h. The serving of drinking water in restaurants, except upon request.
 - i. The operation of any water-cooled comfort air conditioning that does not have water-conserving equipment in operation.
- (3) In addition to the restrictions and prohibitions authorized under subsection (2) above, the county administrator is authorized during a water emergency to implement any or all of the following as necessary:
- a. For any publicly owned and operated public water utility:
 - i. Industrial, institutional, commercial, governmental, wholesale and all other nonresidential customers may be allotted a percentage reduction based on that customer's average monthly water consumption for the same billing period of the previous calendar year's consumption.
 - ii. Individual residential customers may be limited to a specific volume or percentage reduction of water per month.

If the allotted monthly water usage, as determined in subsection (3)a.i. and (3)a.ii. above, is exceeded, the customer shall be charged two times the existing service rate for consumption over the minimum monthly charge for every 1,000 gallons of water or fraction thereof consumed above the allotted volume. Where prior consumption data is not available, the county administrator shall estimate allocations based upon the data available from similar activities of equal intensity.
 - iii. Declaration of a moratorium on new and expanded connections to the public water utility system, unless such connections are primarily intended and designed to provide fire protection and/or potable drinking water to lawfully permitted residential or nonresidential buildings that are existing or substantially constructed at the time that a water emergency is declared.
 - b. For any privately owned and operated public water supply:

The system operator shall be required to demonstrate on a monthly schedule, compliance with the capacity requirements set forth by the Virginia Department of Health.
- (4) When water supplies are critically limited, the county administrator is authorized to restrict the use of water to purposes which are absolutely essential to life, health and safety. Such permitted uses of water may

include, but may not be limited to, the provision of limited quantities of water for drinking and sanitation purposes to residents, health care facility patients and/or emergency shelter evacuees, who are unable to utilize their potable water supplies due to the loss of electrical power, storm events or other natural or manmade causes.

(c) *Failure to address leaks.* It shall be unlawful for the owner of any residential unit or units, or the owner of any commercial or industrial establishment which is found to be an excessive user of water due to leakage from waterlines or plumbing fixtures on the premises, to fail to take immediate action to repair and to stop such leakage after being so ordered by the county administrator or his agent.

(d) *Effective date.* The imposition of any of the restrictions set forth in this section shall become effective upon their being printed in any newspaper of general circulation in the County of King William, or broadcasted upon any radio or television station serving the County of King William.

(e) *Exemptions.* Upon implementation of subsections (b)(2), (b)(3) or (b)(4) above, the county administrator shall establish an appeals procedure to review customer applications for exemptions from the restrictions imposed on a case-by-case basis and, if warranted, to make equitable adjustments to such provisions. The county administrator is empowered to establish regulations governing the granting of temporary exemptions applicable to specific restrictions. The county administrator shall, in rendering a decision on exemption requests, balance economic and other hardships to the applicant resulting from the imposition of water use restrictions or allocations against the individual and cumulative impacts to the water supply resulting from the granting of such exemptions and may impose reasonable conditions to ensure compliance with the terms of any exemption.

Any person seeking an exemption may appeal the county administrator's decision to the board of supervisors. The appeal shall be in writing and shall be submitted to the county administrator, as agent for and clerk to the board of supervisors.

The county administrator may issue temporary waivers or exemptions within the provisions of this subsection for such periods of time as may be necessary for the board of supervisors to formally consider action on the appeal.

The board of supervisors shall render a decision on the appeal and may: affirm, with or without modification, the county administrator's decision; or approve the requested exemption, with or without modification. The board of supervisors may impose reasonable conditions to ensure compliance with the terms of any exemption granted hereunder.

(f) *Penalty for violations.* Any person who shall violate any of the provisions of this section, or of any of the conservation regulations promulgated pursuant thereto, shall, upon conviction thereof, be subject to the penalties provided in

section 78-190. Each act or each day's continuation of a violation shall be deemed a separate offense.

In addition to the foregoing, the county administrator may suspend public water utility service to any person continuing to violate the provisions of this ordinance or the regulations promulgated hereunder.

If such public water utility service is terminated, the person shall pay a reconnection fee of \$50.00 before service is restored.

(g) *Declaration of end of water emergency.* The county administrator shall notify the board of supervisors when, in his opinion, the water emergency no longer exists. Upon concurrence of the board of supervisors, the water emergency shall be declared to have ended.

(Ord. of 7-23-2007(1))

C. Thomas Redd III
Chairman, Board of Supervisors

Those members voting:

S. K. Greenwood _____
T. J. Moskalski _____
T. S. Stone _____
O. O. Williams _____
C. T. Redd III _____

Adopted this _____ of _____, 2012

Copy Teste:

Trenton L. Funkhouser
County Administrator

Sec. 78-192. - Water emergencies and conservation.

(a) *Purpose and authority to declare water emergencies.* For purposes of this section, unless the context clearly requires a contrary meaning, the term "water" shall mean potable water withdrawn from any water utility system that is owned and/or operated by the County of King William.

In the event of an actual or anticipated shortage of potable water due to climatic, hydrological, mechanical and/or other extraordinary conditions, the County of King William may determine that certain uses of water should be reduced, restricted, curtailed and/or prohibited. These reductions, restrictions, curtailments and/or prohibitions are intended to protect the health, safety and welfare of the residents of the County of King William.

The county administrator, with the approval of the board of supervisors, or its subsequent ratification by the board within 48 hours is authorized to declare water emergencies in the county, as a whole or portions thereof, affecting the use of water.

A Drought Emergency declaration will be issued after consideration of the conditions of individual affected systems. The County Administrator may order mandatory restrictions on water use in response to specific conditions, such as when any system exceeds 90 percent of the permitted capacity for 3 consecutive months. The County Administrator may intervene to declare a drought emergency for privately-owned systems if the private system operation is unable to restrict water usage when needed.

(b) Drought monitoring to anticipate water emergency conditions. The County of King William, in cooperation with other jurisdictions of the Middle-Peninsula Water Supply Planning Region, will monitor the U.S. Drought Monitor operated by the U.S. Geological Service and made available through DEQ's website at: <http://www.deq.virginia.org/waterresources/drought.php>. When the USGS Drought Monitor registers a condition "D1-Moderate Drought" for the County of King William, the County Administrator shall declare a Drought Watch alert for all water systems addressed by this ordinance.

(c) Water conservation measures. After the declaration of a water emergency under the authority provided by Virginia Code Sections 15.2-923 and 15.2-924, and upon a determination by the county administrator of the existence of the following one or more conditions, the county administrator shall take the following actions which shall apply to any person whose water supply is furnished from an affected water utility system:

(1) *Condition 1 (Drought Warning).* When moderate but limited supplies of water are available, or when a "D2-Severe Drought" condition is registered on the USGS Drought Monitor, the county administrator may, through appropriate means, call upon the affected population and entities to employ prudent restraint in water usage and to conserve water voluntarily by whatever methods available.

(2) *Condition 2 (Drought Emergency).* The county administrator is hereby further authorized during the duration of a water emergency for which voluntary measures would be insufficient to order the restriction or prohibition of any or all of the following water uses by users of an identified, affected water system after consultation with the affected water system owner/operator;

- a. Watering of outside shrubbery, trees, lawns, grass, plants, home vegetable gardens, or any other vegetation except from a watering can or other container not exceeding five gallons

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in capacity. This limitation shall not apply to commercial greenhouses, nursery stocks and sod growing, which may be watered in the minimum amount required to preserve plant life between 6:00 p.m. and 8:00 a.m.

b. Washing of automobiles, trucks, trailers, or any other type of mobile equipment, except in licensed commercial vehicle wash facilities.

c. Washing of sidewalks, streets, driveways, parking lots, service station aprons, exteriors of homes or apartments, commercial or industrial buildings or any other outdoor surface, except where mandated by federal, state or local law.

d. The operation of any ornamental fountain or other structure making a similar use of water.

e. The filling of swimming or wading pools requiring more than five gallons of water, or the refilling of swimming or wading pools that were drained after the effective date of the declaration of emergency, except that pools may be filled to a level of two feet below normal, or water may be added to bring the level to two feet below normal, or as necessary to protect the structure from hydrostatic damage.

f. The use of water during outdoor recreational activities. This limitation shall not apply to water utilized for drinking and sanitary purposes during such activities.

g. The use of water from fire hydrants for any purposes other than fire suppression and related training exercises, unless otherwise approved by the county administrator.

h. The serving of drinking water in restaurants, except upon request.

i. The operation of any water-cooled comfort air conditioning that does not have water-conserving equipment in operation.

(3) *Condition 3.* In addition to the restrictions and prohibitions authorized under subsection (2) above, the county administrator is hereby further authorized during the duration of a water emergency to implement any or all of the following for any of the affected water systems:

a. For any publicly owned and operated public water utility:

i. Industrial, institutional, commercial, governmental, wholesale and all other nonresidential customers shall be allotted a percentage reduction based on that customer's average monthly water consumption for the same billing period of the previous calendar year's consumption.

ii. Individual residential customers shall be limited to a specific volume or percentage reduction of water per month.

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If the allotted monthly water usage, as determined in subsection (3)a.i. and (3)a.ii. above, is exceeded, the customer shall be charged two times the existing service rate for consumption over the minimum monthly charge for every 1,000 gallons of water consumed above the allotted volume. Where prior consumption data is not available, the county administrator shall estimate allocations based upon the data available from similar activities of equal intensity.

iii. Declaration of a moratorium on new and expanded connections to the public water utility system, unless such connections are primarily intended and designed to provide fire protection and/or potable drinking water to lawfully permitted residential or nonresidential buildings that are existing or substantially constructed at the time that a water emergency is declared.

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b. For any privately owned and operated public water supply:

The system operator shall be required to demonstrate on a monthly schedule, compliance with the capacity requirements set forth by the Virginia Department of Health Waterworks Regulations (12 VAC5-590-520 and 12 VAC5-590-690).

(4) *Condition 4.* When crucially limited supplies of water are available, the county administrator shall restrict the use of water from any affected water system to purposes which are absolutely essential to life, health and safety. Such permitted uses of water may include, but may not be limited to, the provision of limited quantities of water for drinking and sanitation purposes to residents, health care facility patients and/or emergency shelter evacuees, who are unable to utilize their potable water supplies due to the loss of electrical power, storm events or other natural or manmade causes.

(5) *Failure to address leaks.* It shall be unlawful for the owner of any residential unit or units, or the owner of any commercial or industrial establishment which is found to be an excessive user of water due to leakage from waterlines or plumbing fixtures on the premises, to fail to take immediate action to repair and to stop such leakage after being so ordered by the county administrator or his agent.

(6) *Effective date.* The imposition of the restrictions above shall become effective upon their being printed in any newspaper of general circulation in the County of King William, or broadcasted upon any radio or television station serving the County of King William.

(7) *Appeals for exemptions.* Upon implementation of subsections (2), (3) or (4) above, the county administrator shall establish an appeals procedure to review customer applications for exemptions from the provisions of subsections (2), (3) or (4) on a case-by-case basis and, if warranted, to make equitable adjustments to such provisions. The county administrator shall also be empowered to establish regulations governing the granting of temporary exemptions applicable to all or some of the uses of the water supply set forth in subsections (2), (3) or (4). The county administrator shall, in rendering a decision on such applications, balance economic and other hardships to the applicant resulting from the imposition of water use restrictions or allocations against the individual and cumulative impacts to the water supply resulting from the granting of such exemptions and may impose reasonable conditions to ensure compliance with the terms of the exemption.

Any person subject to a decision rendered by the county administrator under this section may appeal such decision to the board of supervisors. The appeal shall be in writing and shall be submitted to the county administrator, as agent for and clerk to the board of supervisors.

The county administrator may issue temporary waivers or exemptions within the provisions of this subsection for such periods of time as may be necessary for the board of supervisors to formally consider action on the appeal.

The board of supervisors shall render a decision on the appeal and may: affirm, with or

without modification, the county administrator's decision; or approve the requested exemption, with or without modification. The board of supervisors may impose reasonable conditions to ensure compliance with the terms of any exemption granted hereunder.

Any decision rendered by the board of supervisors shall be subject to remedies provided by statute.

~~(d) *Penalty for violations.* Any person who shall violate any of the provisions of this section, or of any of the conservation regulations promulgated by the County of King William pursuant thereto, shall, upon conviction thereof, be subject to the penalties provided in section 78-190. Each act or each day's continuation of a violation shall be deemed a separate offense.~~

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In addition to the foregoing, the county administrator may suspend public water utility service to any person continuing to violate the provisions of this ordinance or the regulations promulgated hereunder.

If such public water utility service is terminated, the person shall pay a reconnection fee of \$50.00 before service is restored.

~~(e) *Declaration of end of water emergencies.* The county administrator shall notify the board of supervisors when, in his opinion, the water emergency situation no longer exists. Upon concurrence of the board of supervisors, the water emergency shall be declared to have ended.~~

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(Ord. of 7-23-2007(1))

Tappahannock

ARTICLE IV. WATER

APPENDIX R

Section 58-124. Water emergencies and conservation.

(a) *Purpose and authority to declare water emergencies.* For purposes of this section, unless the context clearly requires a contrary meaning, the term "water" shall mean potable water withdrawn from any water utility system that is owned and/or operated "by a locality, authority, or company distributing water for a fee or charge".

In the event of an actual or anticipated shortage of potable water due to climatic, hydrological, mechanical and/or other extraordinary conditions, Tappahannock may determine that certain uses of water should be reduced, restricted, curtailed and/or prohibited. These reductions, restrictions, curtailments and/or prohibitions are intended to protect the health, safety and welfare of the residents of Tappahannock.

The Town Manager with the approval of the Town Council, or its subsequent ratification by the Town Council within 48 hours, is authorized to declare water emergencies in the Town as a whole or portions thereof, affecting the use of water.

A Drought Emergency declaration will be issued after consideration of the conditions of individual affected systems.

(b) Drought monitoring to anticipate water emergency conditions. The Town of Tappahannock Town Manager in cooperation with other jurisdictions of the Middle-Peninsula Water Supply Planning Region, will monitor the U.S. Drought Monitor operated by the U.S. Geological Service and made available through DEQ's website at: <http://www.deq.virginia.gov/waterresources/drought.php>. When the USGS Drought Monitor registers a condition "D1-Moderate Drought" for Tappahannock the Town Manager shall declare a Drought Watch alert for all water systems addressed by this ordinance.

(c) *Water conservation measures.* After the declaration of a water emergency under the authority provided by Virginia Code Sections 15.2-923 and 15.2-924, and upon a determination by the Town Manager of the existence of the following one or more conditions, the Town Manager shall take the following actions which shall apply to any person whose water supply is furnished from an affected water utility system:

(1) *Condition 1 (Drought Warning).* When moderate but limited supplies of water are available or when a "D2-Severe Drought" condition is registered on the USGS Drought Monitor, the Town Manager may, through appropriate means, call upon the affected population and entities to employ prudent restraint in water usage and to conserve water voluntarily by whatever methods available.

(2) *Condition 2 (Drought Emergency).* The Town Manager is hereby further authorized during the duration of a water emergency for which voluntary measures would be insufficient to order

the restriction or prohibition of any or all of the following water uses by users of an identified, affected water system after consultation with the affected water system owner/operator:

- a. Watering of outside shrubbery, trees, lawns, grass, plants, home vegetable gardens, or any other vegetation except from a watering can or other container not exceeding five gallons in capacity. This limitation shall not apply to commercial greenhouses, nursery stocks and sod growing, which may be watered in the minimum amount required to preserve plant life between 6:00 p.m. and 8:00 a.m.
- b. Washing of automobiles, trucks, trailers, or any other type of mobile equipment, except in licensed commercial vehicle wash facilities.
- c. Washing of sidewalks, streets, driveways, parking lots, service station aprons, exteriors of homes or apartments, commercial or industrial buildings or any other outdoor surface, except where mandated by federal, state or local law.
- d. The operation of any ornamental fountain or other structure making a similar use of water.
- e. The filling of swimming or wading pools requiring more than five gallons of water, or the refilling of swimming or wading pools that were drained after the effective date of the declaration of emergency, except that pools may be filled to a level of two feet below normal, or water may be added to bring the level to two feet below normal, or as necessary to protect the structure from hydrostatic damage.
- f. The use of water during outdoor recreational activities. This limitation shall not apply to water utilized for drinking and sanitary purposes during such activities.
- g. The use of water from fire hydrants for any purposes other than fire suppression and related training exercises, unless otherwise approved by the county administrator.
- h. The serving of drinking water in restaurants, except upon request.
- i. The operation of any water-cooled comfort air conditioning that does not have water-conserving equipment in operation.

(3) *Condition 3.* In addition to the restrictions and prohibitions authorized under subsection (2) above, the Town Manager is hereby further authorized during the duration of a water emergency to implement any or all of the following for any of the affected water systems:

- a. For any publicly owned and operated public water utility:
 - i. Industrial, institutional, commercial, governmental, wholesale and all other nonresidential customers shall be allotted a percentage reduction based on that customer's average monthly water consumption for the same billing period of the previous calendar year's consumption.
 - ii. Individual residential customers shall be limited to a specific volume or percentage reduction of water per month.
 - iii. If the allotted monthly water usage, as determined in subsection (3)a.i. and (3)a.ii. above, is exceeded, the customer shall be charged two times the existing service rate for consumption over the minimum monthly charge for every 1,000 gallons of water consumed above the allotted volume. Where prior consumption data is not available, the county administrator shall estimate allocations based upon the data available from similar activities of equal intensity.
 - iv. Declaration of a moratorium on new and expanded connections to the public water utility system, unless such connections are primarily intended and designed to provide

fire protection and/or potable drinking water to lawfully permitted residential or nonresidential buildings that are existing or substantially constructed at the time that a water emergency is declared.

b. For any privately owned and operated public water supply:

The system operator shall be required to demonstrate on a monthly schedule, compliance with the capacity requirements set forth by the Virginia Department of Health Waterworks Regulations (12 VAC5-590-520 and 12 VAC5-590-690).

(4) *Condition 4.* When crucially limited supplies of water are available, the Town Manager shall restrict the use of water from any affected water system to purposes which are absolutely essential to life, health and safety. Such permitted uses of water may include, but may not be limited to, the provision of limited quantities of water for drinking and sanitation purposes to residents, health care facility patients and/or emergency shelter evacuees, who are unable to utilize their potable water supplies due to the loss of electrical power, storm events or other natural or manmade causes.

(5) *Failure to address leaks.* It shall be unlawful for the owner of any residential unit or units, or the owner of any commercial or industrial establishment which is found to be an excessive user of water due to leakage from waterlines or plumbing fixtures on the premises, to fail to take immediate action to repair and to stop such leakage after being so ordered by the Town Manager or his agent.

(6) *Effective date.* The imposition of the restrictions above shall become effective upon their being printed in any newspaper of general circulation in Tappahannock, or broadcasted upon any radio or television station serving Tappahannock.

(7) *Appeals for exemptions.* Upon implementation of subsections (2), (3) or (4) above, the Town Manager shall establish an appeals procedure to review customer applications for exemptions from the provisions of subsections (2), (3) or (4) on a case-by-case basis and, if warranted, to make equitable adjustments to such provisions. The Town Manager shall also be empowered to establish regulations governing the granting of temporary exemptions applicable to all or some of the uses of the water supply set forth in subsections (2), (3) or (4). The Town Manager shall, in rendering a decision on such applications, balance economic and other hardships to the applicant resulting from the imposition of water use restrictions or allocations against the individual and cumulative impacts to the water supply resulting from the granting of such exemptions and may impose reasonable conditions to ensure compliance with the terms of the exemption.

Any person subject to a decision rendered by the Town Manager under this section may appeal such decision to the Town Council. The appeal shall be in writing and shall be submitted to the Town Manager, as agent for and clerk to the Town Council.

The Town Manager may issue temporary waivers or exemptions within the provisions of this subsection for such periods of time as may be necessary for the Town Council to formally consider action on the appeal.

The Town Council shall render a decision on the appeal and may: affirm, with or without modification, the Town Managers decision; or approve the requested exemption, with or without

modification. The Town Council may impose reasonable conditions to ensure compliance with the terms of any exemption granted hereunder.

Any decision rendered by the Town Council shall be subject to remedies provided by statute.

(d) *Penalty for violations.* Any person who shall violate any of the provisions of this section, or of any of the conservation regulations promulgated by Tappahannock pursuant thereto, shall, upon conviction thereof, be subject to the penalties provided in Section 1-18 of this code each act or each day's continuation of a violation shall be deemed a separate offense.

In addition to the foregoing, the Town Manager may suspend public water utility service to any person continuing to violate the provisions of this ordinance or the regulations promulgated hereunder.

If such public water utility service is terminated, the person shall pay a reconnection fee of \$25.00 before service is restored.

(e) *Declaration of end of water emergencies.* The Town Manager shall notify the Town Council when, in his opinion, the water emergency situation no longer exists. Upon concurrence of the Town Council, the water emergency shall be declared to have ended.

Urbanna

Article V. Water Emergencies and Conservation

§15.1-5.1 Definitions

For purposes of this section, unless the context clearly requires a contrary meaning, the term "water" shall mean potable water withdrawn from any water utility system that is owned and/or operated "by a locality, authority, or company distributing water for a fee or charge".

§15.1-5.2 Purpose and Authority

In the event of an actual or anticipated shortage of potable water due to climatic, hydrological, mechanical and/or other extraordinary conditions, the Town of Urbanna may determine that certain uses of water should be reduced, restricted, curtailed and/or prohibited. These reductions, restrictions, curtailments and/or prohibitions are intended to protect the health, safety and welfare of the residents of the Town of Urbanna.

(1) The Town Administrator, with the approval of the Town Council, or its subsequent ratification by the Council within 48 hours, is authorized to declare water emergencies in the Town of Urbanna, as a whole or portions thereof, affecting the use of water.

(2) A Drought Emergency declaration will be issued after consideration of the conditions of individual affected systems. The Town Administrator may order mandatory restrictions on water use in response to specific conditions, such as when any system exceeds 90 percent of the permitted capacity for 3 consecutive months. The Town Administrator may intervene to declare a drought emergency for privately-owned systems if the private system operation is unable to restrict water usage when needed.

§15.1-5.3 Drought Monitoring to Anticipate Water Emergency Conditions

The Town of Urbanna, in cooperation with other jurisdictions of the Middle-Peninsula Water Supply Planning Region, will monitor the U.S. Drought Monitor operated by the U.S. Geological Service and made available through DEQ's website at: <http://www.deq.virginia.gov/waterresources/drought.php>. When the USGS Drought Monitor registers a condition "D1-Moderate Drought" for The Town of Urbanna, the Town Administrator shall declare a Drought Watch alert for all water systems addressed by this ordinance.

§15.1-5.4 Water Conservation Measures

After the declaration of a water emergency under the authority provided by Virginia Code Sections 15.2-923 and 15.2-924, and upon a determination by the Town Administrator of the existence of the following one or more conditions, the Town Administrator shall take the following actions which shall apply to any person whose water supply is furnished from an affected water utility system:

(1) Condition 1 (Drought Warning). When moderate but limited supplies of water are available or when a "D2-Severe Drought" condition is registered on the USGS Drought Monitor,

the Town Administrator may, through appropriate means, call upon the affected population and entities to employ prudent restraint in water usage and to conserve water voluntarily by whatever methods available.

(2) Condition 2 (Drought Emergency). The Town Administrator is hereby further authorized during the duration of a water emergency for which voluntary measures would be insufficient to order the restriction or prohibition of any or all of the following water uses by users of an identified, affected water system after consultation with the affected water system owner/operator:

a. Watering of outside shrubbery, trees, lawns, grass, plants, home vegetable gardens, or any other vegetation except from a watering can or other container not exceeding five gallons in capacity. This limitation shall not apply to commercial greenhouses, nursery stocks and sod growing, which may be watered in the minimum amount required to preserve plant life between 6:00 p.m. and 8:00 a.m.

b. Washing of automobiles, trucks, trailers, or any other type of mobile equipment, except in licensed commercial vehicle wash facilities.

c. Washing of sidewalks, streets, driveways, parking lots, service station aprons, exteriors of homes or apartments, commercial or industrial buildings or any other outdoor surface, except where mandated by federal, state or local law.

d. The operation of any ornamental fountain or other structure making a similar use of water.

e. The filling of swimming or wading pools requiring more than five gallons of water, or the refilling of swimming or wading pools that were drained after the effective date of the declaration of emergency, except that pools may be filled to a level of two feet below normal, or water may be added to bring the level to two feet below normal, or as necessary to protect the structure from hydrostatic damage.

f. The use of water during outdoor recreational activities. This limitation shall not apply to water utilized for drinking and sanitary purposes during such activities.

g. The use of water from fire hydrants for any purposes other than fire suppression and related training exercises, unless otherwise approved by the county administrator.

h. The serving of drinking water in restaurants, except upon request.

i. The operation of any water-cooled comfort air conditioning that does not have water-conserving equipment in operation.

(3) Condition 3. In addition to the restrictions and prohibitions authorized under subsection (2) above, the Town Administrator is hereby further authorized during the duration of

a water emergency to implement any or all of the following for any of the affected water systems:

a. Industrial, institutional, commercial, governmental, wholesale and all other nonresidential customers shall be allotted a percentage reduction based on that customer's average monthly water consumption for the same billing period of the previous calendar year's consumption.

b. Individual residential customers shall be limited to a specific volume or percentage reduction of water per month.

c. If the allotted monthly water usage, as determined in subsection (3)a. and (3)b. above, is exceeded, the customer shall be charged two times the existing service rate for consumption over the minimum monthly charge for every 1,000 gallons of water consumed above the allotted volume. Where prior consumption data is not available, the county administrator shall estimate allocations based upon the data available from similar activities of equal intensity.

d. Declaration of a moratorium on new and expanded connections to the public water utility system, unless such connections are primarily intended and designed to provide fire protection and/or potable drinking water to lawfully permitted residential or nonresidential buildings that are existing or substantially constructed at the time that a water emergency is declared.

(4) Condition 4. When crucially limited supplies of water are available, the Town Administrator shall restrict the use of water from any affected water system to purposes which are absolutely essential to life, health and safety. Such permitted uses of water may include, but may not be limited to, the provision of limited quantities of water for drinking and sanitation purposes to residents, health care facility patients and/or emergency shelter evacuees, who are unable to utilize their potable water supplies due to the loss of electrical power, storm events or other natural or manmade causes.

§15.1-5.5 Failure to Address Leaks

It shall be unlawful for the owner of any residential unit or units, or the owner of any commercial or industrial establishment which is found to be an excessive user of water due to leakage from waterlines or plumbing fixtures on the premises, to fail to take immediate action to repair and to stop such leakage after being so ordered by the Town Administrator or his agent.

§15.1-5.6 Effective Date

The imposition of the restrictions above shall become effective upon their being printed in any newspaper of general circulation in the Town of Urbanna, or broadcasted upon any radio or television station serving the Town of Urbanna.

§15.1-5.7 Appeals for Exemptions

(1) Upon implementation of §15.1-5.4(2), (3) or (4) above, the Town Administrator shall establish an appeals procedure to review customer applications for exemptions from the provisions of §15.1-5.4 (2), (3) or (4) on a case-by-case basis and, if warranted, to make equitable adjustments to such provisions. The Town Administrator shall also be empowered to establish regulations governing the granting of temporary exemptions applicable to all or some of the uses of the water supply set forth in §15.1-5.4(2), (3) or (4). The Town Administrator shall, in rendering a decision on such applications, balance economic and other hardships to the applicant resulting from the imposition of water use restrictions or allocations against the individual and cumulative impacts to the water supply resulting from the granting of such exemptions and may impose reasonable conditions to ensure compliance with the terms of the exemption.

(2) Any person subject to a decision rendered by the Town Administrator under this section may appeal such decision to the Town Council. The appeal shall be in writing and shall be submitted to the Town Administrator, as agent for and clerk to the Town Council.

(3) The Town Administrator may issue temporary waivers or exemptions within the provisions of this subsection for such periods of time as may be necessary for the Town Council to formally consider action on the appeal.

(4) The Town Council shall render a decision on the appeal and may: affirm, with or without modification, the Town Administrator's decision; or approve the requested exemption, with or without modification. The Town Council may impose reasonable conditions to ensure compliance with the terms of any exemption granted hereunder.

(5) Any decision rendered by the Town Council shall be subject to remedies provided by statute.

§15.1-5.8 Penalty for Violation

Any person who shall violate any of the provisions of this section, or of any of the conservation regulations promulgated by the Town of Urbanna pursuant thereto, shall, upon conviction thereof, be subject to the penalties provided in section 1-7 of this Code. Each act or each day's continuation of a violation shall be deemed a separate offense. In addition to the foregoing, the Town Administrator may suspend public water utility service to any person continuing to violate the provisions of this ordinance or the regulations promulgated hereunder. If such public water utility service is terminated, the person shall pay a reconnection fee of \$50.00 before service is restored.

§15.1-5.9 Declaration of End of Water Emergencies

The Town Administrator shall notify the Town Council when, in his opinion, the water emergency situation no longer exists. Upon concurrence of the Town Council, the water emergency shall be declared to have ended.

Adopted:

ORDINANCE NO. 11-11

ORDINANCE NO. 11-11 AMENDS THE WEST POINT TOWN CODE, CHAPTER 62, "WATER, SEWERS AND SEWAGE DISPOSAL," BY ADDING TO ARTICLE 1, SECTION 62-9, "WATER EMERGENCIES AND CONSERVATION" TO IMPLEMENT A SYSTEM FOR WATER RESTRICTIONS IN THE EVENT OF A WATER SHORTAGE. ORDINANCE NO. 11-11 INCLUDES PENALTIES FOR VIOLATIONS: A FIRST OFFENSE RESULTS IN A WRITTEN WARNING, A SECOND OFFENSE RESULTS IN A \$ 50 FINE, A THIRD OFFENSE RESULTS IN A \$ 100 FINE, A FOURTH OFFENSE RESULTS IN A \$ 250 FINE AND WATER SERVICE SUSPENSION. THERE SHALL BE A \$ 50 FEE ASSOCIATED WITH ANY RESTORATION OF WATER SERVICE AFTER SUSPENSION. ORDINANCE NO. 11-11 IS CONSIDERED PURSUANT TO THE GRANTS OF AUTHORITY CONTAINED IN VA CODE SECTIONS 15.2-923, 15.2-924 AND 15.2-1429.

BE IT ORDAINED by the West Point Town Council that the West Point Town Code be amended by adding to Chapter 62, "Water, Sewers and Sewage Disposal" Section 62-9, "Water emergencies and conservation" to read in its entirety as follows:

"Section 62-9, "Water emergencies and conservation"

(a) *Purpose and authority to declare water emergencies.* For purposes of this section, unless the context clearly requires a contrary meaning, the term "water" shall mean potable water withdrawn from any water utility system that is owned and/or operated "by a locality, authority, or company distributing water for a fee or charge".

In the event of an actual or anticipated shortage of potable water due to climatic, hydrological, mechanical and/or other extraordinary conditions, the Town of West Point may determine that certain uses of water should be reduced, restricted, curtailed and/or prohibited. These reductions, restrictions, curtailments and/or prohibitions are intended to protect the health, safety and welfare of the residents of the Town of West Point.

The Town Manager, with the concurrence of the Town Council, and its subsequent ratification by the Council, is authorized to declare water emergencies in the Town, as a whole or portions thereof, affecting the use of water.

A Drought Emergency declaration will be issued after consideration of the conditions of individual affected systems. The Town Manager may order mandatory restrictions on water use in response to specific conditions, such as when any system exceeds 90 percent of the permitted capacity for 3 consecutive months. The Town Manager may intervene to

declare a drought emergency for privately-owned systems if the private system operation is unable to restrict water usage when needed.

(b) Drought monitoring to anticipate water emergency conditions. The Town of West Point, in cooperation with other jurisdictions of the Middle-Peninsula Water Supply Planning Region, will monitor the U.S. Drought Monitor operated by the U.S. Geological Service and made available through DEQ's website at: <http://www.deq.virginia.gov/waterresources/drought.php>. When the USGS Drought Monitor registers a condition "D1-Moderate Drought" for the Town of West Point, the Town Manager shall declare a Drought Watch alert for all water systems addressed by this ordinance.

(c) *Water conservation measures.* After the declaration of a water emergency under the authority provided by Virginia Code Sections 15.2-923 and 15.2-924, and upon a determination by the Town Manager of the existence of the following one or more conditions, the Town Manager shall take the following actions which shall apply to any person whose water supply is furnished from an affected water utility system:

(1) *Condition 1 (Drought Warning).* When moderate but limited supplies of water are available or when a "D2-Severe Drought" condition is registered on the USGS Drought Monitor, the Town Manager may, through appropriate means, call upon the affected population and entities to employ prudent restraint in water usage and to conserve water voluntarily by whatever methods available.

(2) *Condition 2 (Drought Emergency).* The Town Manager is hereby further authorized during the duration of a water emergency for which voluntary measures would be insufficient to order the restriction or prohibition of any or all of the following water uses by users of an identified, affected water system after consultation with the affected water system owner/operator:

- a. Watering of outside shrubbery, trees, lawns, grass, plants, home vegetable gardens, or any other vegetation except from a watering can or other container not exceeding five gallons in capacity. This limitation shall not apply to commercial greenhouses, nursery stocks and sod growing, which may be watered in the minimum amount required to preserve plant life between 6:00 p.m. and 8:00 a.m.
- b. Washing of automobiles, trucks, trailers, or any other type of mobile equipment, except in licensed commercial vehicle wash facilities.
- c. Washing of sidewalks, streets, driveways, parking lots, service station aprons, exteriors of homes or apartments, commercial or industrial buildings or any other outdoor surface, except where mandated by federal, state or local law.
- d. The operation of any ornamental fountain or other structure making a similar use of water.
- e. The filling of swimming or wading pools requiring more than five gallons of water, or the refilling of swimming or wading pools that were drained after

the effective date of the declaration of emergency, except that pools may be filled to a level of two feet below normal, or water may be added to bring the level to two feet below normal, or as necessary to protect the structure from hydrostatic damage.

f. The use of water during outdoor recreational activities. This limitation shall not apply to water utilized for drinking and sanitary purposes during such activities.

g. The use of water from fire hydrants for any purposes other than fire suppression and related training exercises, unless otherwise approved by the county administrator.

h. The serving of drinking water in restaurants, except upon request.

i. The operation of any water-cooled comfort air conditioning that does not have water-conserving equipment in operation.

(3) *Condition 3.* In addition to the restrictions and prohibitions authorized under subsection (2) above, the Town Manager is hereby further authorized during the duration of a water emergency to implement any or all of the following for any of the affected water systems:

a. For any publicly owned and operated public water utility:

i. Industrial, institutional, commercial, governmental, wholesale and all other nonresidential customers shall be allotted a percentage reduction based on that customer's average monthly water consumption for the same billing period of the previous calendar year's consumption.

ii. Individual residential customers shall be limited to a specific volume or percentage reduction of water per month.

iii. If the allotted monthly water usage, as determined in subsection (3)a.i. and (3)a.ii. above, is exceeded, the customer shall be charged two times the existing service rate for consumption over the minimum monthly charge for every 1,000 gallons of water consumed above the allotted volume. Where prior consumption data is not available, the county administrator shall estimate allocations based upon the data available from similar activities of equal intensity.

iv. Declaration of a moratorium on new and expanded connections to the public water utility system, unless such connections are primarily intended and designed to provide fire protection and/or potable drinking water to lawfully permitted residential or nonresidential buildings that are existing or substantially constructed at the time that a water emergency is declared.

b. For any privately owned and operated public water supply:

The system operator shall be required to demonstrate on a monthly schedule, compliance with the capacity requirements set forth by the Virginia Department of Health Waterworks Regulations (12 VAC5-590-520 and 12 VAC5-590-690).

(4) *Condition 4.* When crucially limited supplies of water are available, the Town Manager shall restrict the use of water from any affected water system to purposes which are absolutely essential to life, health and safety. Such permitted uses of water may include, but may not be limited to, the provision of limited quantities of water for drinking and sanitation purposes to residents, health care facility patients and/or emergency shelter evacuees, who are unable to utilize their potable water supplies due to the loss of electrical power, storm events or other natural or manmade causes.

(d) *Failure to address leaks.* It shall be unlawful for the owner of any residential unit or units, or the owner of any commercial or industrial establishment which is found to be an excessive user of water due to leakage from waterlines or plumbing fixtures on the premises, to fail to take immediate action to repair and to stop such leakage after being so ordered by the Town Manager or his agent.

(e) *Effective date.* The imposition of the restrictions above shall become effective upon the restrictions being posted on the Town's website, the restrictions being printed in any newspaper of general circulation in the Town of West Point, or the broadcasting of the restrictions on any radio or television station serving the Town of West Point.

(f) *Appeals for exemptions.* Upon implementation of subsections (2), (3) or (4) above, the Town Manager shall establish an appeals procedure to review customer applications for exemptions from the provisions of subsections (2), (3) or (4) on a case-by-case basis and, if warranted, to make equitable adjustments to such provisions. The Town Manager shall also be empowered to establish regulations governing the granting of temporary exemptions applicable to all or some of the uses of the water supply set forth in subsections (2), (3) or (4). The Town Manager shall, in rendering a decision on such applications, balance economic and other hardships to the applicant resulting from the imposition of water use restrictions or allocations against the individual and cumulative impacts to the water supply resulting from the granting of such exemptions and may impose reasonable conditions to ensure compliance with the terms of the exemption.

Any person subject to a decision rendered by the Town Manager under this section may appeal such decision to the Town Council. The appeal shall be in writing and shall be submitted to the Town Manager, as agent for and clerk to the Town Council.

The Town Manager may issue temporary waivers or exemptions within the provisions of this subsection for such periods of time as may be necessary for the Town Council to formally consider action on the appeal.

The Town Council shall render a decision on the appeal and may: affirm, with or without modification, the Town Manager's decision; or approve the requested exemption, with or without modification. The Town Council may impose reasonable conditions to ensure compliance with the terms of any exemption granted hereunder.

Any decision rendered by the Town Council shall be subject to remedies provided by statute.

(g) *Penalty for violations.* Any person who shall violate any of the provisions of this section, or of any of the conservation regulations promulgated by the Town of West Point pursuant thereto, shall, be subject to the following penalties:

- (1) First offense: Written warning;
- (2) Second offense \$50 fine;
- (3) Third offense \$100 fine;
- (4) Fourth offense \$250 fine and water service suspension.

Each act or each day's continuation of a violation shall be deemed a separate offense. In addition to the foregoing, the Town Manager may suspend public water utility service to any person continuing to violate the provisions of this ordinance or the regulations promulgated hereunder. If such public water utility service is terminated, the person shall pay a reconnection fee of \$50.00 before service is restored.

(h) *Declaration of end of water emergencies.* The Town Manager shall notify the Town Council when, in his opinion, the water emergency situation no longer exists. Upon concurrence of the Town Council, the water emergency shall be declared to have ended.”

Those members voting:

James H. Hudson
Deborah Ball
Tina Gulley
Charles Gordon
Paul Kelley
Joshua Lawson
Otto Shreaves
Christopher Vincent

Gloucester County

DIVISION 2. - EMERGENCY WATER CONSERVATION

Sec. 19-9.1. - Emergency water conservation procedures.

- (a) For the purposes of this section, unless the context clearly requires a contrary meaning, the term "water" shall mean potable water withdrawn from any sanitary district or the county water distribution system.
- (b) Drought watch—Water conservation alert: The county administrator shall proclaim a water conservation alert when the level of water in the Beaverdam Reservoir decreases to ninety (90) percent of its operating volume, which occurs when the reservoir is at an elevation of thirty-nine and eight-tenths (39.8) feet. Such an alert shall be rescinded when the level in the Beaverdam Reservoir has been raised to ninety-five (95) percent of its operating volume, which occurs when the reservoir is at an elevation of forty and two-tenths (40.2) feet. During a drought watch alert, the county administrator shall instruct the county staff to issue public announcements detailing the conditions and encouraging the public to conserve water. Those announcements shall include, but shall not be limited to, announcements over radio and other media.
- (c) Drought warning: The county administrator shall proclaim a drought warning when the level of water in the Beaverdam Reservoir decreases to eighty (80) percent of its operating volume, which occurs when the reservoir is at an elevation of thirty-eight and nine-tenths (38.9) feet. The drought warning shall be rescinded when the level in the reservoir has been raised to ninety (90) percent of its operating volume, which occurs when the reservoir is at an elevation of thirty-nine and eight-tenths (39.8) feet. During a drought warning, the county administrator and staff shall request that the public, including residents and commercial, industrial, and institutional facilities, conserve water. The goal of activities conducted during a drought warning shall be the voluntary reduction in community usage of five (5) to ten (10) percent.
- (d) Drought emergency: The county administrator shall proclaim a drought emergency when the level of water in the Beaverdam Reservoir decreases to seventy (70) percent of its operating volume, which occurs when the reservoir has been lowered to an elevation of thirty-eight (38) feet. The drought emergency shall be rescinded when the level in the reservoir has been raised to eighty (80) percent of its operating volume, which occurs when the reservoir is at an elevation of thirty-eight and nine-tenths (38.9) feet. During a drought emergency, it shall be unlawful for any person to use water for any of the following purposes:
 - (1) The washing of automobiles, trucks, trailers, or any other type of mobile equipment except in vehicle wash facilities operating with a water recycling system approved by the county with a prominently displayed sign in public view so stating.
 - (2) The washing of streets, driveways, parking lots, service station aprons, office buildings, exteriors of homes or apartments or other outdoor surfaces.
 - (3) Watering of outside shrubbery, trees, lawns, grass, plants or any other vegetation, except from a watering can or other container not exceeding three (3) gallons' capacity. This limitation shall not apply to greenhouse or nursery stocks which may be watered in the minimum amount required to preserve plant life between 6:00 p.m. and 8:00 a.m.
 - (4) The operation of any ornamental fountain or other structure making a similar use of water.
 - (5) The filling of swimming or wading pools requiring more than five (5) gallons of water, or the filling or refilling of swimming or wading pools requiring more than five (5) gallons of water which were drained after commencement of a water conservation alert period, except that pools contracted to be filled prior to commencement of a water conservation alert may be filled to a level of two (2) feet below normal to protect the structure from hydrostatic damage.
 - (6) The service of drinking water in restaurants except upon request.

- (7) The use of water from fire hydrants for any purpose other than fire suppression unless otherwise specifically approved by the county administrator.
- (e) During a drought emergency, it shall be unlawful for any owner of any residential unit or units or any owner of any commercial or industrial establishment to fail to take immediate action to repair and stop water leakage from waterlines or plumbing fixtures on the premises after being so ordered by the county administrator.
- (f) Exemptions.
 - (1) Any person subject to this section may apply to the board for an exemption. Such application shall be in writing and filed with the county administrator.
 - (2) The board may, upon written application, permit an exemption or less than full compliance with any terms of this section when, in its judgment, full compliance or compliance to any extent would create an unjust hardship.
 - (3) The county administrator shall be authorized to issue temporary waivers or exemptions within the provisions of this section for such periods of time as may be necessary for the board formally to consider such or for the board to take appropriate action.
- (g) Every decision of the board under this section shall be final, subject to such remedy as any aggrieved party might have at law or in equity.
- (h) The county sheriff shall issue summonses to effect compliance with this section.

(Ord. of 6-23-81, § 2-14; Ord. of 8-2-83; Ord. of 6-6-2000; Ord. of 9-1-2009)

County of Mathews, Virginia Water Conservation Policy

Water emergencies and conservation.

(a) *Purpose and authority to declare water emergencies.* For purposes of this section, unless the context clearly requires a contrary meaning, the term "water" shall mean potable water withdrawn from any water utility system that is owned and/or operated "by a locality, authority, or company distributing water for a fee or charge".

In the event of an actual or anticipated shortage of potable water due to climatic, hydrological, mechanical and/or other extraordinary conditions, the County of Mathews may determine that certain uses of water should be reduced, restricted, or curtailed. These reductions, restrictions, and curtailments are intended to protect the health, safety and welfare of the residents of Mathews County, Virginia.

The County Administrator, with the approval of the Board of Supervisors, or its subsequent ratification by the Board within 48 hours, is authorized to declare water emergencies in the County, as a whole or portions thereof, affecting the use of water.

A Drought Emergency declaration will be issued after consideration of the conditions of individual affected systems.

(b) Drought monitoring to anticipate water emergency conditions. Mathews County, in cooperation with other jurisdictions of the Middle-Peninsula Water Supply Planning Region, will monitor the U.S. Drought Monitor operated by the U.S. Geological Service and made available through DEQ's website at: <http://www.deq.virginia.gov/waterresources/drought.php>. When the USGS Drought Monitor registers a condition "D1-Moderate Drought" for Mathews County, the County Administrator shall declare a Drought Watch alert for all water systems addressed by this ordinance.

(c) *Water conservation measures.* After the declaration of a water emergency under the authority provided by Virginia Code Sections 15.2-923 and 15.2-924, and upon a determination by the County Administrator of the existence of the following one or more conditions, the County Administrator shall take the following actions which shall apply to any person whose water supply is furnished from an affected water utility system:

(1) *Condition 1 (Drought Warning).* When moderate but limited supplies of water are available or when a "D2-Severe Drought" condition is registered on the USGS Drought Monitor, the County Administrator may, through appropriate means to include newspaper, radio and postings at public buildings, call upon the affected population and entities to employ prudent restraint in water usage and to conserve water voluntarily by whatever methods available.

(2) *Condition 2 (Drought Emergency).* The County Administrator is hereby further authorized during the duration of a water emergency to formally request of citizens and businesses the

restriction or prohibition of any or all of the following water uses by users of an identified, affected water system after consultation with the affected water system owner/operator:

- a. Watering of outside shrubbery, trees, lawns, grass, plants, home vegetable gardens, or any other vegetation except from a watering can or other container not exceeding five gallons in capacity. This limitation shall not apply to commercial greenhouses, nursery stocks and sod growing, which may be watered in the minimum amount required to preserve plant life between 6:00 p.m. and 8:00 a.m.
- b. Washing of automobiles, trucks, trailers, or any other type of mobile equipment, except in licensed commercial vehicle wash facilities.
- c. Washing of sidewalks, streets, driveways, parking lots, service station aprons, exteriors of homes or apartments, commercial or industrial buildings or any other outdoor surface, except where mandated by federal, state or local law.
- d. The operation of any ornamental fountain or other structure making a similar use of water.
- e. The filling of swimming or wading pools requiring more than five gallons of water, or the refilling of swimming or wading pools that were drained after the effective date of the declaration of emergency, except that pools may be filled to a level of two feet below normal, or water may be added to bring the level to two feet below normal, or as necessary to protect the structure from hydrostatic damage.
- f. The use of water during outdoor recreational activities. This limitation shall not apply to water utilized for drinking and sanitary purposes during such activities.
- g. The use of water from fire hydrants for any purposes other than fire suppression and related training exercises, unless otherwise approved by the county administrator.
- h. The serving of drinking water in restaurants, except upon request.
- i. The operation of any water-cooled comfort air conditioning that does not have water-conserving equipment in operation.

(3) *Condition 3.* In addition to the restrictions and prohibitions authorized under subsection (2) above, the County Administrator is hereby further authorized during the duration of a water emergency to implement any or all of the following for any of the affected water systems:

- a. For any publicly owned and operated public water utility:
 - i. Industrial, institutional, commercial, governmental, wholesale and all other nonresidential customers shall be allotted a percentage reduction based on that customer's average monthly water consumption for the same billing period of the previous calendar year's consumption.
 - ii. Individual residential customers shall be limited to a specific volume or percentage reduction of water per month.
 - iii. If the allotted monthly water usage, as determined in subsection (3)a.i. and (3)a.ii. above, is exceeded, the customer shall be charged two times the existing service rate for consumption over the minimum monthly charge for every 1,000 gallons of water consumed above the allotted volume. Where prior consumption data is not available, the county administrator shall estimate allocations based upon the data available from similar activities of equal intensity.
 - iv. Declaration of a moratorium on new and expanded connections to the public water utility system, unless such connections are primarily intended and designed to provide

fire protection and/or potable drinking water to lawfully permitted residential or nonresidential buildings that are existing or substantially constructed at the time that a water emergency is declared.

b. For any privately owned and operated public water supply:

The system operator shall be required to demonstrate on a monthly schedule, compliance with the capacity requirements set forth by the Virginia Department of Health Waterworks Regulations (12 VAC5-590-520 and 12 VAC5-590-690).

(4) *Condition 4.* When crucially limited supplies of water are available, the County Administrator shall restrict the use of water from any publicly-owned or operated affected water system to purposes which are absolutely essential to life, health and safety. Such permitted uses of water may include, but may not be limited to, the provision of limited quantities of water for drinking and sanitation purposes to residents, health care facility patients and/or emergency shelter evacuees, who are unable to utilize their potable water supplies due to the loss of electrical power, storm events or other natural or manmade causes.

(5) *Effective date.* The imposition of the restrictions above shall become effective upon their being printed in any newspaper of general circulation in Mathews County, or broadcasted upon any radio or television station serving Mathews County.

(6) *Penalty for Violations:* The County Administrator may suspend publicly-owned water utility service to any person who continues to violate the provisions of this section or any of the conservation regulations promulgated by the County of Mathews.

(7) *Declaration of end of water emergencies.* The County Administrator shall notify the Board of Supervisors when, in his opinion, the water emergency situation no longer exists. Upon concurrence of the Board of Supervisors, the water emergency shall be declared to have ended.

Appendix N –
MOU amongst Rappahannock Fire Association Participants

GVERS

MEMORANDUM OF UNDERSTANDING AND COOPERATION

THIS AGREEMENT, made and entered into this *25th* day of *August 2011*, by and among the rated fire and rescue departments of the Rappahannock Volunteer Fireman's Association.

WITNESSETH:

THAT, WHEREAS, the General Assembly of Virginia did enact into law act as Va. Code Section 27-1, which provides, in part, "Whenever the necessity arises during any actual or potential emergency resulting from fire, personal injury, or other public disaster, the fire fighters or emergency medical technicians of any county, city or town may, together with all necessary equipment, lawfully go or be sent beyond the territorial limits of such county, city or town to any point within or without the Commonwealth, to assist in meeting such emergency."

WHEREAS, when responding to a call and while working at a fire or other emergency outside the territorial limits which it normally services, members and employees of county, municipal corporation, fire protection district, sanitary district and incorporated fire departments shall have all of the laws, ordinances, and regulations, and shall have all of the benefits and immunities from liability and exemptions including coverage under the Workmen's Compensation Laws, as they have when responding to a call and while working at a fire or other emergency inside the territorial limits normally served; and

WHEREAS, the purpose of this agreement is to provide a mechanism for each of the parties hereto, through their mutual cooperation, by which they may render aid to each other in case of conflagration, holocaust, civil disorder or natural disaster, which requires fire services beyond the existing capabilities of any party; and

WHEREAS, it is in the public interest for the parties hereto to enter into an agreement for mutual assistance in fire protection in order to increase fire defenses and to assure the community of adequate protection; and

WHEREAS, fire departments within the Rappahannock Volunteer Fireman's Association desire a mechanism to receive mutual aid assistance from and to send mutual aid assistance to other fire service agencies within the region;

NOW THEREFORE, in consideration of the mutual covenants contained herein by and among the parties hereto, it is hereby agreed as follows:

1. Upon receipt of a request for assistance, the Chief of the responding party will determine whether the request may be honored without impairing the respondent's capacity to provide fire protection within its own jurisdiction. The Chief or officer in charge of the responding party may authorize or provide such equipment, manpower and assistance to the requesting party, as he deems appropriate. The decision to respond and the degree of response shall remain in the discretion of the Chief or other officer in charge of the responding party.
2. No party to this agreement shall be bound to dispatch equipment, supplies or personnel to assist any other party, but every effort should be made to furnish such assistance and resources as are indicated so long as, in the judgment of the chief officer of that party, such dispatch would not seriously impair the fire defenses and protection of his own jurisdiction.
3. The Chief or other officer in charge of the party in whose jurisdiction the emergency exists and who requests assistance shall, in all instances, be in command of the emergency, controlling strategy, fire control tactics and direction of the operations.
4. It shall be the responsibility of the responding party to ensure that all personnel responding to the request for assistance are adequately trained. Each of the parties hereto shall be responsible for the conduct and actions of its personnel.
5. Each party to this agreement shall assume all liability and financial responsibility for death of or injury to any member of its own command responding to a request for assistance.
6. A party responding under the terms of this agreement shall not be responsible or financially liable for property damaged or destroyed at the scene of any civil disorder,

- holocaust, conflagration or natural disaster due to firefighting and rescue operations, fire control tactics and strategy or other operations as may be required or ordered; said liability and responsibility shall rest solely with the party requesting such aid and within whose boundaries the property shall exist, or the incident occurs.
7. The party responding to the request for mutual aid under the terms of this agreement shall assume all liability and responsibility for damage to its own apparatus and/or equipment. The responding party shall also assume liability and responsibility for any damage caused by its apparatus or equipment while en route to or returning from a specific location.
 8. The party who requests mutual aid shall in no way be deemed liable or responsible for the personal property of the members of the responding party which may be lost, stolen or damaged while they are performing their duties under the response terms herein.
 9. Each party to this agreement shall assume all costs of salaries, wages, bonuses or other compensation for its own personnel responding for duty under the terms of this agreement and shall assume all costs of the responding party's apparatus, equipment, and supplies used in the response. The responding party shall make no charge for such use to the party requesting assistance except for any special chemicals or supplies by the responding party. Such chemicals shall be paid for by the party requesting aid upon receipt of an itemized statement of costs.
 10. Any party may, at any time, terminate this agreement upon thirty-day written notice to all signatories within the agreement. Written notice shall be sent by registered mail to each department.
 11. When fire department personnel are sent to another jurisdiction pursuant to this agreement, all rights, privileges and immunities as employees or agents of the responding party, including Workmen's Compensation insurance coverage, shall be extended to include their activities when acting within the scope of this agreement.

12. If a party to this agreement does not attempt to send requested assistance aid, with the provision that such aid would not seriously impact the party's own fire protection needs, it should not request or expect to receive assistance from other parties to this agreement.
13. The parties to this mutual aid agreement may amend or alter the agreement by written amendment, signed by each of the Fire Chief of all parties involved.
14. This mutual aid agreement shall remain in force for an initial term of five years, and may be extended by authorization of the governing board of any party.

THEREFORE, the governing boards of each agency agree to this regional mutual aid agreement and cause this instrument to be signed and adopted by their duly authorized officers.

Charles L. Miller

Walkerton U.F.D.

Jim Austin

Chief Herb Austin
Abingdon Volunteer and Rescue, Inc.

J.D. Clements

Chief J.D. Clements
Gloucester Volunteer Fire and Rescue

David B. Woolard

Chief Jimmy Brand **DAVID B. WOOLARD**
Callao Volunteer Fire Department

Step Hardesty

King William Volunteer Fire Department
Step Hardesty

Jimmy Walden

Chief Jimmy Walden
Lower Middlesex Volunteer Fire Department

Ricky Thompson

Chief Ricky Thompson
Mathews Volunteer Fire Department

David R. Pitts

Quinton Volunteer Fire Department
David R. Pitts

Paul Richardson

Chief Paul Richardson
Tappahannock Volunteer Fire Department
Deputy chief *Ronnie Thomas*

William Cobb

Chief *William Cobb*
Upper Middlesex Volunteer Fire Department

Robert W. Wilson

Chief Guy Williams *Robert W. Wilson*
West Point Volunteer Fire and Rescue

Phillip Keyser

Fairfields U.F.D.
Phillip Keyser CAPT

Thomas Evans

White Stone U.F.D.

Chief Wayne South
Central King and Queen Volunteer Fire Department

John Mc Bland

Chief Tommy Lewis *Greg Hilde* President
Cople District Volunteer Fire Department

Benny Balderson

Chief Benny Balderson *Benny Balderson*
Kilmarnock Volunteer Fire Department

Jeff Calhoun

Chief Jeff Calhoun
Lower King and Queen Volunteer Fire Department

Luke Heller

Chief Les Cosby *Les Cosby* President
Mangohick Volunteer Fire Department

Bill Thrift

Chief Bill Thrift
Middlesex Volunteer Fire Department

Brian Davis

Chief Brian Davis
Richmond County Volunteer Fire Department

Eddie Weston

Chief Eddie Weston
Westmoreland Volunteer Fire Department

Lindsey Beckham

Chief Lindsey Beckham *James D. Akers Sr*
Upper Lancaster Volunteer Fire Department

David Milby

Hartfield U.F.D.
David Milby

Appendix O –
Adopting the 2016 Plan: Resolutions and Other Information

NOTE: This is a place holder. Resolutions and BOS/Town Council meeting minutes will be included following the plan adoption at the local level. This will take place after FEMA approves the 2016 plan.

Appendix P –
Strategy Evaluation Spreadsheet Sample

**King William County
2016 Mitigation Strategies Status Updates**

| FEMA Community ID# | Mitigation Strategy # | Mitigation Strategies | Strategy Mitigation (H= High M= Medium L=Low) | Strategy Status (Completed/ In-progress/ On-going/ Delayed/ Canceled/ Not Started) | If Completed, when? Add Date | If delayed or canceled please explain why? (Lack of funding, support, manpower, etc) If in-progress or on-going, please explain the progress since the last AHMP Plan? | Other Comments |
|---------------------------|------------------------------|---|--|---|-------------------------------------|---|-----------------------------|
| 510304 | 1.1.5 | Improve/maintain main evacuation route used by Middle Peninsula residents as well as Tidewater residents evacuation severe coastal weather events | | | | | |
| 510304 | 1.1.6 | Improve/maintain/reconstruct public roads that hinder the evacuation of the Middle Peninsula & Tidewater residents fleeing flood waters from severe hurricanes | | | | | |
| 510304 | 1.1.8 | Review locality's compliance with the National Flood Insurance Program with a bi-annual review of their Floodplain Ordinance and any newly permitted activity in the 100-year floodplain | L | Completed | Spring 2015 | | |
| 510304 | 1.1.9 | Investigate the FEMA Community Rating System Program in the Middle Peninsula Localities that are not currently participating in it | L | Completed | Spring 2015 | | Not interested in joining. |
| 510304 | 1.1.10 | Investigate increasing building elevation requirements for structures proposed in flood zones | L | Completed | Spring 2015 | | Adopted 1.5' freeboard |
| 510304 | 1.1.12 | Limit future development in inundation areas located below large water impoundments. | L | | | | |
| 510304 | 1.1.13 | Strongly encourage the USDA-Natural Resources Conservation Services staff and the Virginia Soil and Water Conservation District Office staff to ensure that farm pond dams remain structurally sound. | | | | | |
| 510304 | 1.1.14 | Develop storm water management plans and polices for urban development areas | | Completed | | | |
| 510304 | 1.1.15 | Promote coastal construction techniques that will minimize soil erosion and shoreline damage caused by coastal storm surges | L | On-going | | | |
| 510304 | 1.1.16 | Add evacuation route insignia to public streets that are part of the hurricane evacuation route | | Not-Started | | | Lack of Funding |
| 510304 | 1.1.17 | Install flood gauges and create erosion monitoring locations to inspect at regular intervals | | Completed | | | |
| 510304 | 1.1.18 | Create a GIS layer of data showing pond locations, their size, inspection data, and dry hydrant information to improve fire response | L | On-going | August 2015 | | Added stormwater BMP layer |
| 510304 | 1.2.1 | Decrease the adverse affects of drought conditions for residents - Adopt a Drought Response and Contingency Plan and ordinance | | Completed | | | Ordinance adopted 1-23-2012 |
| 510304 | 2.2.1 | Formalize mutual aid agreements to coordinate the region's fire and emergency medical units to ensure to quick and efficient response to these severe weather events | | Completed | | | |
| 510304 | 2.2.2 | Formalize mutual aid agreements to coordinate the region's fire unites to ensure quick and efficient response to wildfires | | Completed | | | |

| | | | | | | | |
|--------|-------|--|--|-------------|--|---|---|
| 510304 | 3.1.1 | Enhance/implement the use of rapid notification systems to warn residents of approaching flooding waters and mandatory evacuation notices. | | Completed | | | |
| 510304 | 3.1.2 | Encourage private property owners to perform regular and routine maintenance of ditches and culverts in order to keep them freed of debris, with a special emphasis on road sections where there are chronic flooding problems | | Not started | | | |
| 510304 | 3.1.3 | Encourage the two power companies operating in the Middle Peninsula Region to maintain system components, including power line rights-of-way, to minimize interruptions of the electrical power grid for severe weather. | | | | | |
| 510304 | 3.1.4 | Promote public education programs to ensure that property owners are fully informed about the flood hazards on the property that they own. | | Not started | | | Very little development around flood plains |
| 510304 | 3.1.5 | Develop a public education campaign for residents living in the 100-year floodplain, especially those living on FEMA's list of SRL and RL properties, listing methods for them to decrease flood damage including the availability of any FEMA grant funds for elevation or relocation projects. | | Not started | | | Very little development around flood plains |
| 510304 | 3.1.6 | Increase resident and emergency responder safety during severe winter ice storm events by developing a public education campaign to inform residents about the importance of keeping tree limbs away from their homes and electric lines. | | | | | |
| 510304 | 3.1.7 | Develop a public education program to ensure that property owners are fully informed about the long range affects that sea level rise will have on low-lying property that they own. | | Not started | | | Threat level of sea rise limited in this community. |
| 510304 | 3.1.8 | Promote a public education program to ensure that property owners protect their property by decreasing flammable forest fuels surrounding homes located in wooded settings. | | Not started | | | |
| 510304 | 3.2.1 | Incorporate the newly digitized local floodplain maps into each County's GIS database after adoption by the local governing body. | | Completed | | | |
| 510304 | 3.2.2 | 1. HAZUS flood runs for the 1 sq. mi. threshold. In most cases, this will need to be done on priority stream reaches as the program does not run efficiently at this level. 2. Refine and update data sets for GBS and essential facilities, and 3. Re-run HAZUS for plan update to reflect 2010 census data | | In-progress | | 1.HAZUS flood runs for the 1 square mile threshold was completed in the 2015 HAZUS completed by Dewberry 2. During the 2015 HAZUS completed by Dewberry the newest version of HAZUS software (version 2.2) which consisted of new dasymetric Census data (ie. general building stock). 3.2010 Census was not included in HAZUS. | |
| 510304 | 4.1.1 | All Natural Hazards: Adopt and Implement Plan | | In-progress | | Adopted a floodplain overlay district as a component of the County's zoning ordinance. | |

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