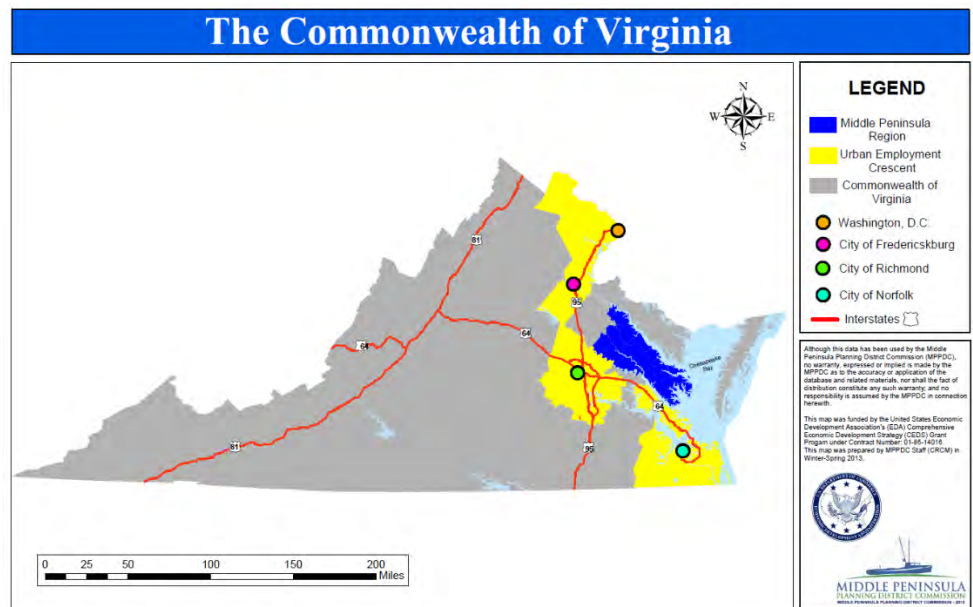


VACANT HOUSING STUDY

An Examination of Vacant and At-Risk Housing in the Middle Peninsula



Abstract

In collaboration with Virginia Coastal Policy Center- William & Mary Law School, this report addresses the issue of vacant housing in the Middle Peninsula region with possible solutions. This report contains the results of a survey conducted by the Middle Peninsula Planning District Commission (MPPDC) and demographic data of the region to more clearly express the issues that the Middle Peninsula faces in relation to vacant and at-risk housing.

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**No Vacancy:
Defining the Problem and Proposing Solutions to
Vacant Housing in the Middle Peninsula**

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INTRODUCTION

In Anglo-American culture, the principle that “a man’s house is his castle” is one of the most fundamental applications of individual freedom.¹ The ordinary American citizen invests the vast majority of his or her equity in a house. As a result, the ability to own private property and do what one wishes with that property is intertwined with one’s pursuit of the American Dream.

Ownership of private property not only strikes at the heart of our understanding of individual freedom, it is also the bedrock for a healthy community, and America has built many great communities. But communities age. Consequently, communities like Virginia’s Middle Peninsula have developed persistent and noticeable residential vacancy.² Addressing this issue is thus vital to restore the region’s economic lifeblood and to re-inspire neighborhood pride.

An overlapping concept is that of a housing ladder: the idea that as individuals gain more wealth they will acquire more comfortable or updated living quarters – for example, “renters save to become first-time home-buyers[] and first-time home-buyers trade up to bigger and better homes.”³ Although this model may be simplistic, it can illustrate the impact of vacant housing on the healthy cycle of home ownership. Abandoned small homes on the “first rung” of the ladder often make up a large proportion of vacant homes in a locality,⁴ which may impact the ability of individuals to make the move from renting to owning a home. Additionally, vacant homes may become eyesores, inviting anti-social behavior (like vandalism), and can quickly deteriorate because of the lack of maintenance.⁵

This white paper seeks to further a comprehensive strategy for revitalizing the Middle Peninsula by performing two specific tasks: discovering more precisely how to identify vacant houses within the Middle Peninsula and recommending how the Middle Peninsula Planning District Commission (the “Commission”) can address the issue. Accordingly, this white paper (1) proposes a definition of “vacant housing” to encourage uniformity in an area where uniformity is much needed, (2) identifies issues with the marketability of such property, (3) summarizes the current legal framework within which the Commission can function, (4) evaluates helpful case studies from other localities facing a similar problem, and (5) suggests specific policy changes.

The vision of this project is to think broadly: to be a resource for legislative action, such as changes to the current legal framework or to the Commission’s Regional Strategic Plan. Accordingly, this paper recommends some actions that may fall outside the Commission’s immediate reach, but which the Commission can use as a catalyst for broader state and regional action.

¹ See, e.g., Jonathon L. Hafetz, *A Man’s Home is His Castle?”: Reflections on the Home, the Family, and Privacy During the Late Nineteenth and Early Twentieth Centuries*, 8 WM. & MARY J. WOMEN & L. 175 (2002).

² See, e.g., MATHEWS COUNTY, VA COMPREHENSIVE PLAN 2030, Jan. 2018, at 31, <http://www.mathewscountyva.gov/home/showdocument?id=6033>.

³ See Hazel A. Morrow-Jones & Mary V. Wenning, *The Housing Ladder, the Housing Life-Cycle and the Housing Life-Course*, 42 URBAN STUDIES 1739, 1741 (2005) (quoting National Association of Realtors, 1990, p. 1).

⁴ See, e.g., CITY OF DANVILLE, VA, HOUSING MARKET EVALUATION AND RECOMMENDATIONS FOR STRATEGIC INTERVENTIONS, Nov. 2014, at 20, https://www.danville-va.gov/DocumentCenter/View/15539/Danville-Housing-Study_-CZB_11-2014?bidId.

⁵ See Morrow-Jones & Wenning, *supra* note 3, at 1741.

I. DEFINING THE PROBLEM: VACANT HOUSING

Central to the problem of dealing with vacant housing in any context where it may become prevalent is that there is no universal definition for the phenomenon. Adding to the problem, there is a good deal of overlap between “vacant housing” and other concepts that are entangled in statutory schemes and government agency publications, including “blighted” and “abandoned” property.

By establishing a definition that can be applied to the Middle Peninsula’s circumstances, and perhaps beyond, authorities charged with finding solutions to the vacant housing problem will be in a better position to effectively frame the problems they encounter, target the offending properties, and implement tailored solutions. In order to create such a definition, a number of sources need to be considered. Government agencies, public interest groups, state and local statutes, and other entities all deal with vacant housing, and have thus had to create their own definitions or incorporate existing ones from outside sources. By consulting these sources, pulling out the common threads, and applying them to the problems seen in the Middle Peninsula, authorities working to counter the problems that vacant housing poses can more effectively achieve their goals.

A. Sources

1. United States Census Bureau (Census Bureau)

One of the key sources in developing a definition of a vacant house is the Census Bureau. The Census Bureau is unlike many government organizations in its dealings with vacant housing in that it has an internal definition for vacant housing, albeit one that is geared quite specifically toward its’ goal: taking a snapshot of the United States’ demographics. That being said, its definition serves as a good place to start because the Census Bureau is one of the primary federal sources of information relating to the tracking of vacant houses.

The Census Bureau’s view of vacant housing is simple on the surface; it provides that “[a] housing unit is vacant if no one is living in it” when the census survey occurs, “unless its occupants are only temporarily absent.”⁶ That seems simple enough; however, the definition goes on to say that it includes one that is used as a vacation home and new housing units that have been built but not sold.⁷ It also does not define what “temporary” means, but does provide the owners of a house going on vacation as being only temporarily absent.⁸ Notably, it excludes housing units that are in such a state of disrepair that they are open to the elements.⁹ The Census Bureau also has a category entitled “Other vacant,” which encompasses housing units meant for year-round use that are vacant as a result of foreclosure, personal or family reasons, legal proceedings where the property is concerned, preparation for renting or selling, repairs, or for other reasons.¹⁰

⁶ U.S. CENSUS BUREAU, DEFINITIONS, at 3, <https://www.census.gov/housing/hvs/definitions.pdf>

⁷ *Id.*

⁸ *Id.*

⁹ *Id.*

¹⁰ *Id.* at 5.

2. United States Department of Housing and Urban Development (HUD)

Surprisingly, HUD does not appear to have a working definition of what constitutes vacant housing. In a 2014 newsletter, HUD stated that “[t]he absence of universal definitions of vacancy and abandonment complicates efforts to assess the number of vacant and abandoned properties nationally. The best aggregate sources include the U.S. Census Bureau and the U.S. Postal Service, although these are not without limitations.”¹¹ The newsletter concedes that properties can become vacant for benign reasons such as being between tenants or used for vacations,¹² which points towards the Census Bureau’s definition.¹³

3. United States Postal Service (USPS)

It should come as no surprise that the USPS has an interest in monitoring which properties are vacant—after all, it costs money to continue to deliver mail to a place that does not have anyone actually receiving it. However, in defining what constitutes a vacant house, USPS uses a frame of reference that is compatible with its goals: namely, delivering mail.

USPS defines a “vacant delivery point” as a delivery point that was active in the past, but is no longer occupied, generally for more than ninety days, and is no longer receiving mail.¹⁴ The definition excludes buildings (commercial or residential) that are “under construction, demolished, or otherwise identified as unlikely to become active.”¹⁵ However, those three categories are included under the definition of a “no-stat delivery point,” in addition to a “rural route address that has not been receiving mail for [ninety] days or longer.”¹⁶

4. The Government Accountability Office (GAO)

The GAO itself does not offer a specific definition of a vacant house, and instead points to the lack of a universal definition; specifically, it notes the Census Bureau’s and USPS’ definitions, as well as a nongovernmental organization that defined it as “a site that poses a threat to public safety or one that owners neglect.”¹⁷

A similar sentiment was echoed in a GAO report from 1978: that report included definitions from a number of studies that dealt with vacant housing.¹⁸ The first one detailed a study which “defined an abandoned building as ‘. . . a residential structure which the owner, through

¹¹ U.S. Dep’t of Hous. and Urban Dev., *Vacant and Abandoned Properties: Turning Liabilities into Assets*, EVIDENCE MATTERS, Winter 2014, at 4, https://www.huduser.gov/portal/periodicals/em/EM_Newsletter_winter_2014.pdf

¹² *Id.* at 3.

¹³ U.S. CENSUS BUREAU, *supra* note 6, at 3.

¹⁴ UNITED STATE POSTAL SERVICE, GLOSSARY OF POSTAL TERMS, at 230, <http://about.usps.com/publications/pub32.pdf>.

¹⁵ *Id.*

¹⁶ *Id.* at 148.

¹⁷ UNITED STATES GOVERNMENT ACCOUNTABILITY OFFICE, VACANT PROPERTIES: GROWING NUMBER INCREASES COMMUNITIES’ COSTS AND CHALLENGES, Nov. 2011, at 9, note 13, <https://www.gao.gov/assets/590/586089.pdf>.

¹⁸ See UNITED STATES GOVERNMENT ACCOUNTABILITY OFFICE, HOUSING ABANDONMENT: A NATIONAL PROBLEM NEEDING NEW APPROACHES, Aug. 10, 1978, <https://www.gao.gov/assets/130/123817.pdf>.

active or passive action, has removed from the housing stock for no apparent alternative profitable reason and for which no succeeding land use occurs.”¹⁹ The second study “defined an abandoned structure as one which is vacant and derelict or, more specifically, an unoccupied building which is either (1) vandalized, (2) boarded, (3) deteriorated, (4) dilapidated, or (5) has unmaintained grounds.”²⁰ The report also looked to cities that had tried to define the problem, which used the following factors commonly: tax delinquency, vacancy on a year-round basis, not receiving utilities, not being maintained, being boarded up, and/or being open to casual entry.

5. Center for Community Progress

The Center for Community Progress is a national nonprofit that focuses its efforts on erasing the problems of vacant, abandoned, and deteriorated properties in the United States.²¹ It was originally called the National Vacant Properties Campaign until it merged with other like-minded nonprofits such as the Genesee Institute.²²

Before it took on its current status as the Center for Community Progress, it defined abandoned properties as vacant residential, commercial, and industrial buildings that exhibit at least one of the following: posing a threat to public safety and thus becoming a public nuisance, or being owned or managed in a way that neglects the “fundamental duties of property ownership” such as paying related taxes or utility bills, or defaulting on a mortgage or a lien.²³

6. Virginia Uniform Statewide Building Code

Under the Virginia Uniform Statewide Building Code, when vacant or open structures are present and have been deemed to be not fit for human habitation, code officials may order that the structure be made secure against public entry.²⁴ The regulation thus contemplates vacant houses as ones that may fall into a state of disrepair to the point of being unsafe or unfit for human habitation, or that may be easily entered by the public.²⁵

7. The Virginia Code

Considering that this white paper seeks to engage with the issues associated with vacant housing in Virginia, the state’s statutes become a valuable source of information regarding how best to define the problem itself. While the term “vacant property” is not used in the Virginia Code, a few synonyms or related terms are used in statutes in contexts similar to the contexts where one would refer to vacant property. For our purposes, these statutes serve as guides for defining the contours of what vacant property is.

¹⁹ *Id.* at 1.

²⁰ *Id.*

²¹ CENTER FOR COMMUNITY PROGRESS, *About Us*, <http://www.communityprogress.net/about-pages-4.php> (last visited Apr. 18, 2018).

²² *Id.*

²³ National Vacant Properties Campaign, *Vacant Properties: The True Costs to Communities*, at 4, <https://www.smartgrowthamerica.org/app/legacy/documents/true-costs.pdf>.

²⁴ 13 VA. ADMIN. CODE § 5-63-490(J) (2018).

²⁵ *Id.*

The term “derelict building” is used by the Virginia Code in a manner that aligns with how others define vacant housing, while adding its own spin on the term. Section 15.2.-907.1 defines a derelict building as a “residential or nonresidential structure, whether or not construction has been completed, that might endanger the public’s health, safety, or welfare and for a continuous period in excess of six months, it has been (i) vacant, (ii) boarded up in accordance with the building code, and (iii) not lawfully connected to electric service from a utility service provider or not lawfully connected to any required water or sewer service from a utility service provider.”²⁶ Section 15.2-1127 refers to a city’s (or a couple town’s) ability to create a registry of derelict buildings that have been vacant “for a continuous period of 12 months or more ”²⁷

“Blight” is a term used to describe the state of a single structure or group of structures that exhibit characteristics that offend community standards relating to the safety of the structure. Section 1-219.1 defines “blighted property” as a property that “endangers the public health or safety in its condition”²⁸ Furthermore, to be considered blighted, a property must be considered a public nuisance or be “beyond repair or unfit for human occupancy or use.”²⁹ Under § 36-49.1:1, a locality may “declare any blighted property as a nuisance, and thereupon abate the nuisance..... ”³⁰

Like many of the definitional sources discussed in this paper, the Virginia Code uses the term “abandoned” in relation to property, albeit sparingly. In § 1-219.1, the Code states that, when executing an eminent domain taking, one of the acceptable “public uses” is to take property when “the property taken is in a redevelopment or conservation zone and is abandoned or the action is needed to clear title where one of the owners agrees to such acquisition or the acquisition is by agreement of all the owners.”³¹ The statute does not further define what it means for property to be abandoned, meaning that it may rely on common law definitions or that it could be interpreted by its plain meaning, lending itself to being considered synonymous with vacant property.

Finally, the Virginia Code speaks of “delinquent” property, defined as property with past due taxes. Interestingly, the Code differentiates between delinquent property that is generally in good standing and delinquent property that exhibits some of the characteristics that are associated with abandonment in this white paper.³² Section 58.1-3965 allows for the sale of delinquent property; for property in generally good standing, this becomes actionable two years after the taxes pass their due.³³ But for properties that have upon them a structure that has been condemned, or determined to be a nuisance, derelict, or blighted, the sale becomes actionable after one year.³⁴

²⁶ VA. CODE ANN. § 15.2-907.1 (2009).

²⁷ VA. CODE ANN. § 15.2-1127 (2013).

²⁸ VA. CODE ANN. § 1-219.1 (2012).

²⁹ *Id.*

³⁰ VA. CODE ANN. § 36-49.1:1 (2009).

³¹ VA. CODE ANN. § 1-219.1.

³² VA. CODE ANN. § 58.1-3965 (2015).

³³ *Id.*

³⁴ *Id.*

8. Local Ordinances

Because the definition developed by this white paper is intended to be used at a local level, initially in Virginia's Middle Peninsula, including any definitions used by the localities where it may be applied is vital to tailoring the definition to what the localities are dealing with related to vacant housing. Virginia Code Section 15.2-907.1 authorizes any locality with a real estate tax abatement program to adopt a derelict building ordinance that would allow property owners of derelict buildings to submit plans to demolish or renovate their buildings, and allow the locality to take lawful action if no plan is submitted within ninety days of the building's designation as "derelict".³⁵ This statute also provides a definition of derelict buildings to be used by all localities that adopt such ordinances.³⁶ Even though all localities in the Middle Peninsula have the authority to do this, only Mathews County has adopted this derelict building definition into their County Code.³⁷

Further, Mathews County has utilized this statutory authority to require the owner of a derelict building to submit plans to demolish or renovate the property after it has been declared derelict and notice has been given to the owner; plans must be submitted to the County Administrator within ninety days of the notice, and must have a date set by which the plan must be executed.³⁸ Also under Mathews County Code § 86-3, the definition of a public nuisance includes any "[b]uilding, wall, or other structure whose condition might endanger the public health or safety of other residents of Mathews County"³⁹ If a property's condition becomes a public nuisance, the County Administrator may, after proper notice, take steps to block access to the public nuisance or repair it.⁴⁰

While any locality in Virginia with a real estate tax abatement program may adopt derelict building ordinances like Mathews County, under Virginia Code § 15.2-1127 only cities and the towns of Clifton Forge and Pulaski are authorized to adopt ordinances requiring vacant building registration.⁴¹ Ordinances authorized under this state code provision can be utilized to require the owner of a derelict building, that has been vacant for 12 months or more, to register the building on an annual basis.⁴² Because this provision is currently limited to cities and a couple of towns, and is under the "Powers of Cities and Towns" chapter, it is unlikely to be a viable path for counties in the Middle Peninsula.

B. Creating a Definition

A workable and more universal definition of a vacant house can be synthesized by teasing out the common and pertinent themes from the preceding sources. Those common themes or factors include a lack of permanent occupants for a set time period, undesirable aesthetics, threats to public safety or public nuisances, and delinquency.

³⁵ VA. CODE ANN. § 15.2-907.1 (2009).

³⁶ *Id.*

³⁷ MATHEWS COUNTY, VA. CODE § 86-3 (2012).

³⁸ *Id.* at § 86-16.

³⁹ *Id.* at § 86-3.

⁴⁰ *Id.* at §§ 86-14, -15.

⁴¹ VA. CODE ANN. § 15.2-1127 (2013).

⁴² *Id.*

1. The Definition

Taking those factors into account, we have defined a vacant house as a unit or building in a residential zone that is characterized by (1) being abandoned or otherwise chronically unoccupied, (2) not being an active part of the housing stock of the Middle Peninsula, (3) exhibiting characteristics that create the risk of public harm, or (4) being significantly delinquent in regards to the financial duties of its owner or owners.

2. Explaining the Terms

In order to be considered “chronically unoccupied,” a house must be without a permanent occupant for twelve months or longer, beginning at the time when the house is first documented as being vacant by the appropriate authorities.

A house is actively part of the Middle Peninsula’s housing stock when it is currently occupied by a permanent occupant, being offered for sale, undergoing repair or remodeling, being used as a second home, or being used for income-generating purposes compatible with its zoning status. When none of the preceding conditions are present, the house is not considered to be actively part of the Middle Peninsula’s housing stock.

A house’s vacancy is often accompanied by traits that pose a threat to public safety or impair the value of neighboring lands. A vacant house threatens public safety when it exhibits some or all of the following: noncompliance with applicable building codes; violation of applicable health and safety standards; determination that the house is unfit for human habitation; designation as a public nuisance, as defined by applicable ordinances; or designation as blighted, as defined by applicable ordinances. A vacant house impairs neighboring property values when it has boarded up windows; when it or its surroundings have been vandalized; when it is open to casual entry by non-owners of the house; or when it has an appearance that demonstrates neglect, as evidenced by overgrown or unmaintained premises, or the deterioration or disrepair of the façade or shell of the house.

Finally, vacant houses are commonly associated with delinquency that arises in regards to unpaid property taxes or liens, unpaid or disconnected utilities, or unpaid mortgage installments and foreclosure.

3. Discussion and Implications

In analyzing the amount of time that it would take in order for a house to become vacant, the temporal descriptors (used for varying purposes) offered by the sources above included ninety days, six months, twelve months, and “permanent.” While a qualitative descriptor may initially seem like the best way to go about prescribing the length of time necessary to be considered vacant beyond a mere temporary basis because of its flexibility and context sensitivity, adequately bracketing such a term in a way to make the implementation of this definition practicable and equitable is typically extremely difficult, and subjects it to creative interpretation. Numbers, on the other hand, simplify and take the guesswork out of the process. Twelve months was specifically

chosen because it is a fairly large period of time, meaning that any owner(s) will have had plenty of time to take action if they remain at all interested in the property, and it preserves political capital by avoiding the optics of a quick land grab by the local authorities.

Active participation in the housing stock was an important factor to include because it does a good job of catching the states of usage that may slip through the cracks of the temporal occupancy requirements. If the point of localities using this definition is to improve their economic standing and aid their residents with a better housing stock, a property that is an active part of the housing stock or otherwise contributes to the economy need not be interfered with. The metric also serves as a way of assessing a property in the negative—that is, if a property is not doing anything provided for in that section, it begins to edge toward being considered a vacant house.

The section dealing with threatening public safety is meant as a way to address the common theme of public nuisance and dangerous conditions by linking them to objective standards; a certain level subjectivity is important to making a determination of vacancy, however, which is why the section also includes conditions that impair property values on a more subjective basis. By mixing the two together, it creates a mostly objective way of assessing what are ultimately common structural and visual characteristics of buildings that are in need of serious attention.

The inclusion of delinquency in the definition serves as a way to include one of the most common characteristics of vacant housing, and uses it in a way that may tip the scales towards a finding of vacancy.

II. PROBLEMS WITH THE MARKETABILITY OF VACANT HOUSING

A. Clouds on Title

Beyond the difficulties that can arise in making a designation that a house is vacant, there are significant barriers to dealing with vacant housing that result from problems with the state of the title of the vacant house and the property on which it lies. This is especially important when it comes to situations where a government entity, or even a private buyer, seeks to acquire full title to a given property.

These barriers are commonly referred to as “clouds on title.” A cloud on title can generally be defined as a claim or encumbrance which affects or impairs the state of title that the owner has to a particular property.⁴³ As discussed below, there are a number of different forms that these clouds can take, some of which present unique difficulties when it comes time to sell a property. Also discussed are some of the methods for removing clouds on title, which gives owners clear title so that they can more easily make use of or market their property.⁴⁴

⁴³ 15 M.J. Quieting Title § 3 (2017).

⁴⁴ Brian R. Giaquinto & Stephanie Showalter Otts, *Failing Septic Systems and Heirs' Property: Financial Lending Challenges and Possible Solutions*, Sea Grant Law Center, Sept. 2012, at 8, http://www.mppdc.com/articles/reports/Draft_Heir_Property_Final.pdf.

1. Heirs Property

An heirs property situation may arise, as the name suggests, in certain circumstances following the death of a property owner when the property passes to the deceased's heirs. Because of the unique ownership structures that heirs property creates, it can pose a serious problem if the new owners of the property wish to sell the property or make use of it.

There are two typical scenarios in which an heirs property situation arises.⁴⁵ The first occurs when land is passed from an owner to the owners heirs through intestate succession.⁴⁶ When this happens, it is because the deceased relative did not have a will, or did not address the disposition of the real property in question in their will.⁴⁷ When property is passed on in this manner, it is subject to state statutes dictating how it is to be distributed among the deceased's heirs.⁴⁸ In Virginia, this means that all legitimate heirs inherit an "undivided, equal share of ownership in the property"⁴⁹ The other scenario can occur where an owner of real property dies with a will, but the will is not properly probated, meaning that it is not interpreted and settled by a court in the full manner prescribed by statute.⁵⁰ When that happens, the real property may never change hands as it was meant to pursuant to the will, and the deceased person's name may remain the owner on records maintained by government officials.⁵¹

In either case, Virginia statutes create a tenancy in common for the real property, in which each heir has "an undivided interest in the property and each [heir] is entitled to equal use and possession of the property." This can be complicated exponentially by the number of heirs that receive a stake in the real property.⁵² While that may seem like a perfectly adequate way to deal with the ownership of property, problems arise when the joint tenants, the heirs, wish to make use of or sell the property. For instance, a single heir (or multiple, but not all, heirs) cannot sell the whole property to a buyer because the heir does not actually have complete title to the property in spite of the heir's right to access and use the property. On top of that, a buyer would be unlikely to strike a deal with a single heir when it is apparent that the buyer would not be getting full title to the property.

While a single heir cannot unilaterally sell the property out from under the other heirs to a buyer and reap the benefits of the sale price, that heir can file an action in court to have the tenancy dissolved and the land partitioned.⁵³ One can see how this could yield undesirable outcomes: that partitioned land may not be as useful or desirable as the whole property, the action will not likely go over well with fellow heirs, problems with the rights to access and use the rest of the land may arise, and there may be a resulting need to establish easements to allow for adequate use of the partitioned pieces.

⁴⁵ *Id.* at 3.

⁴⁶ *Id.* at 4.

⁴⁷ *Id.*

⁴⁸ *Id.*

⁴⁹ *Id.*

⁵⁰ *Id.*

⁵¹ *Id.*

⁵² *Id.*

⁵³ *Id.* at 5.

2. Other Clouds on Title

Heirs property situations are not the only clouds on title that affect the Middle Peninsula. Clouds can also occur from the following: deeds that are wrongly recorded, imperfect, void, or forged; void tax deeds; adverse possession claims; and deeds conveying land by mistake.⁵⁴ Other possible clouds on title include: undocketed or void judgements, subsequent oil and gas leases, abandoned oil leases, leases of water power, released judgement liens, vendors' liens, mechanics' liens, subsequent conveyances, claims under a will, and future platted roads.⁵⁵ Clouds on title cannot occur solely from land boundary disputes or small liens for taxes, but an error in the description of real property can be a source of a cloud on title.⁵⁶

B. Removing Clouds on Title - Quiet Title Actions

When a property owner knows that their title has been put in a questionable state by one or more clouds, the owner can initiate a quiet title action with the ultimate goal of clearing the title to the property. Clear title is essential to fully exercising the rights and benefits associated with land ownership, especially when it comes to using the property as collateral for a loan, as in the case of a mortgage, or selling a property.⁵⁷ Section 55-155 of the Virginia Code enables “[t]he owner or owners of the land subject to . . . [a] claim or right” held against their title to “bring a suit in equity praying for the extinguishment of such claim or right” held by known or unknown defendants.⁵⁸ Generally, in order to be successful in a quiet title action, “the plaintiff should in his complaint show: (1) that he has a valid, legal and equitable title to the premises; (2) that he has actual possession thereof; and (3) that the defendant lays some claim thereto, stating the nature of the claim, so far as it is within the plaintiff’s knowledge.”⁵⁹ The most important feature of a quiet title action as it relates to vacant housing is its ability to not only create an opportunity for a landowner-plaintiff to establish her claim to her property as the superior claim, but also preclude an adverse claimant from advancing their claim after the action is completed.⁶⁰ At that point, a court’s attitude toward an adverse claimant is one of “you had your chance.”⁶¹ Successful quiet title actions insure against all future claims, even those by owners unknown at the time of the quiet title suit.⁶²

III. CURRENT STATUTORY AUTHORITY ASSOCIATED WITH VACANT PROPERTY

When evaluating the law of Virginia that currently addresses vacant housing, one must acknowledge the role played by federal, state, and local law in engaging with vacant housing. While federal law is not the primary player in property law, it is the backdrop within which

⁵⁴ 15 M.J. Quieting Title § 4 (2017).

⁵⁵ *Id.*

⁵⁶ *Id.*

⁵⁷ Giaquinto & Otts, *supra* note 44, at 5, 8.

⁵⁸ VA. CODE ANN. § 55-153 (1919).

⁵⁹ 15 M.J. Quieting Title § 11 (2017).

⁶⁰ *Action*, *Black’s Law Dictionary* (10th ed. 2014).

⁶¹ *See id.*

⁶² *See* *Maine v. Adams*, 672 S.E.2d 862 (Va. 2009); *Horvath v. Bank of New York, N.A.*, 641 F.3d 617 (4th Cir. 2011).

Virginia law functions vis-à-vis vacant housing. State and local law, on the other hand, play a more direct and obvious role when it comes to the efforts to combat vacant housing.

First, this paper will provide an overview of the federal agencies implicated in the vacant housing problem, and briefly highlight the relevant programs these agencies maintain. Next, the paper will discuss Virginia's state agencies and the relevant programs they administer. Finally, the paper will review the relevant Virginia statutes which create authorities and confer upon localities the power to create authorities that bear on the problem of vacant housing.

A. Federal Agencies

Two main statutorily created entities regulate vacant housing at the federal level: The United States Department of Agriculture (USDA) and the Department of Housing and Urban Development (HUD). Neither agency's regulations will likely conflict with the Commission's ability to remedy the vacant housing problem.

1. The United States Department of Agriculture

The USDA has a variety of responsibilities related to rural life. In the vacant housing context, the USDA has the capacity to administer loans to purchase and revitalize property. Congress created the USDA and empowered it to acquire and disseminate useful information on subjects relevant to agriculture such as rural development and human nutrition.⁶³ The USDA administers many loan programs that finance housing in rural areas.⁶⁴ Taking advantage of many of these programs requires clear ownership of the land.⁶⁵ Congress authorized the Secretary of Agriculture to initiate or expand efforts to research rural housing and other problems that the Secretary determines have an effect upon the economic development or quality of rural life.⁶⁶

This authority is further delegated to the Undersecretary of Rural Development.⁶⁷ Programs have been created pursuant to this authority which bear on the problem of vacant housing. One of the most relevant programs is the Rural Housing Service's provision of Rural Housing Site loans for development of land for housing in public areas. This program allows private or public nonprofit organizations to obtain funds to acquire land to provide housing for low and moderate income families.⁶⁸ This program could potentially be used to provide funding to a corporation created by the planning district commission to be used in the acquisition of vacant housing properties.

⁶³ 7 U.S.C. § 2201 (1977).

⁶⁴ *Id.*

⁶⁵ *See, e.g.*, 7 CFR § 3550.58(a)-(e) (2012) (requiring at least an undivided interest in the property for loan eligibility.)

⁶⁶ 7 U.S.C. § 2204(b) (1996).

⁶⁷ 7 C.F.R. § 2.17(a)(3) (2015).

⁶⁸ 7 C.F.R. § 1822.262 (2018).

2. United States Department of Housing and Urban Development

Congress created HUD through 42 U.S.C. § 3531 and 24 C.F.R. pt. 1 *et seq.* implements HUD's statutory authority. HUD promotes the welfare and security of the nation by encouraging sound development of communities in the nation: through coordinating federal activities affecting housing development, encouraging the solution to housing problems, and by encouraging the lending industries to make the maximum contributions possible to housing development.⁶⁹ HUD is divided into seven program areas based on the officials responsible for carrying out various programs. This paper focuses on programs run by the Office of the Assistant Secretary for Housing/Federal Housing Commissioner, and the Assistant Secretary for Community Planning and Development. Among these programs are: (1) the Federal Housing Administration mortgage insurance program; (2) rental assistance for low income families; (3) the Government National Mortgage Association, mortgage backed securities program; (4) programs to combat housing discrimination; and (5) home buyer protection programs.⁷⁰

HUD's responsibility extends to federal programs and participation in housing and urban development.⁷¹ If housing programs violate the Fair Housing Act's prohibition on discrimination the aggrieved parties may file complaints with HUD.⁷² Violations of the Fair Housing Act include discrimination on the basis of race, color, national origin, religion, sex, familial status, and disability.⁷³ HUD also administers the functions of the Federal Housing Administration, and the Public Housing Administration. The Federal Housing Administration insures loans by private institutions to encourage improvement in housing development.⁷⁴ Therefore, as long as the Commission avoids discriminatory practices, HUD can provide funding.

The regulations that govern any program run by the Office of the Assistant Secretary for Housing or the Federal Housing Commissioner are set out in 24 C.F.R. § 200.1 *et seq.* These programs generally include providing underwriting for those who experience difficulty accessing traditional housing.⁷⁵ Several of these programs are loans to private individuals and thus have little bearing on the problem of vacant housing; however, a few programs stand out as relevant to the problem of improving property when multiple owners maintain an interest in it. The Property Improvement Loan insurance program insures loans for home improvement for borrowers with at least a fifty percent ownership interest who use the home as a primary residence.⁷⁶ Improving this property's value is desirable because it would theoretically increase the constituent property owners' interest in resolving the title to the property.

The Assistant Secretary for Community Planning and Development advises other HUD departments on community and economic development programs and functions. The programs

⁶⁹ 42 U.S.C. § 3531 (1965).

⁷⁰ Steven W. Feldman, *Department of Housing and Urban Development*, in 1 WEST'S FEDERAL ADMINISTRATIVE PRACTICE § 190 (2017).

⁷¹ 40A AM. JUR. 2D HOUSING LAWS, ETC. § 10 (2018).

⁷² 28 Am. Jur. Trials 1 § 6 (2018).

⁷³ 42 U.S.C. § 3604 (1998).

⁷⁴ D. KIRK DRUSSEL ET AL., 1 MORTGAGES AND MORTGAGE FORECLOSURE IN NEW YORK § 15:3 (2017).

⁷⁵ *Id.* at § 3.

⁷⁶ U.S. DEPT. OF HOUS. & URBAN DEV., PROGRAMS OF HUD: MAJOR MORTGAGE, GRANT, ASSISTANCE, AND REGULATORY PROGRAMS 37 (2017), <https://www.hud.gov/sites/dfiles/Main/documents/HUDPrograms2017.pdf>.

administered by this office are laid out in 24 C.F.R. 500. Pursuant to 24 C.F.R. 570, the Community Development Block Grants (CDBG) program provides funding for units of local government to help develop housing needs. These funds were distributed to the states in 1981 and the states are responsible for distributing them to eligible local governments.⁷⁷ Regardless of how the state distributes these funds they must meet one of the following objectives: benefitting low and moderate income persons; helping prevent or eliminate slums and blight; or meeting urgent community development needs.⁷⁸ Virginia manages its CDBG through the Virginia Department of Housing and Community Development (DHCD).⁷⁹ Eligible localities may apply for these funds through DHCD's website by creating an account through the "CAMS System."⁸⁰ Unfortunately, the housing element of the CDBG is a competitive grant and the deadline for proposals has already passed in 2018.⁸¹ However, application for future grants will occur in two stages: pre-application and application. The pre-application stage allows applicants to submit their proposal to the DHCD and obtain technical advice on the proposal.⁸² Proposals are ranked based on competitive scoring of the following factors: Composite Fiscal Stress which catalogs the fiscal stress level of submitting local governments; Regional Priorities which allows planning district commissions to rank the relative importance of local projects; Project Needs and Outcomes which catalogs the severity of the problem the project addresses and the solution's potential impact; Costs and Commitment which captures whether there is sufficient financial commitment to the project to make it feasible; Project Specific Evaluation, Readiness, Capacity and Impact which determines the political support behind the initiative and its compliance with national housing goals; finally, Meeting a National Objective considers the extent that the project benefits low and moderate income persons or helps mitigate slums or blight.⁸³

It is important to note that acquiring or improving housing using CDBGs requires that the funds may only be applied to vacant units if: they were occupied consistently over the past five years and rented for at least six months of the year before the locality submits the proposal; a low or middle income household purchased the unit; the locality owns the unit; a housing authority owns the unit; or a non-profit owns the unit and will sell or lease it to a low or middle income household.⁸⁴ States receive these grant funds; however, localities may want to consider trying to access some of these to help address their vacant housing problem.

It is important to note the HUD possesses the power of eminent domain.⁸⁵ HUD's power of eminent domain is governed by the Constitution, the Uniform Relocation Assistance and Real Property Acquisitions Act (URA),⁸⁶ and various other HUD regulations.⁸⁷ The Constitution

⁷⁷ *Id.* at 7.

⁷⁸ *Id.* at 10.

⁷⁹ Virginia Department of Housing and Community Development, *Community Development Block Grant (CDBG)*, Virginia.gov, <http://www.dhcd.virginia.gov/index.php/business-va-assistance/blighted-structures/community-development-block-grant-cdbg/10-community-development-block-grant-cdbg.html> (last visited Apr. 17, 2018).

⁸⁰ *Id.*

⁸¹ VA. DEPT. OF HOUS. & CMTY. DEV., 2018 CDBG Program Design, 27 (2018), <http://www.dhcd.virginia.gov/images/CDBG/2018%20CDBG%20Program%20Design.pdf>.

⁸² *Id.* at 17.

⁸³ *Id.*

⁸⁴ *Id.* at 40.

⁸⁵ U.S. DEPT. OF HOUS. & URBAN DEV., WHEN A PUBLIC AGENCY ACQUIRES YOUR PROPERTY, at 1 (2005).

⁸⁶ *Id.*

⁸⁷ *Id.*

requires that public agencies pay just compensation to owners of condemned property.⁸⁸ The URA confers a variety of protections including funding for relocation for individuals affected by HUD's exercise of eminent domain.⁸⁹ The solutions contemplate taking advantage of HUD's funding; therefore if they wish to acquire property with these funds using their eminent domain power they must abide by the conditions set out in the URA.⁹⁰ Generally, this requires: notifying the owner that their property is being acquired for a federally funded project; the agency to establish just compensation; and to ensure that the owner of the condemned property is not an employee, officer, or agent of the agency.⁹¹

B. State Agencies

Virginia possesses two state agencies relevant to the problem of vacant housing. The Virginia Housing Development Authority (VHDA), and the Virginia Department of Housing and Community Development (VHCD).

1. Virginia Housing Development Authority

The VHDA is primarily a financing and education organization focused on making partnerships with local governments, community service organizations, and lenders to create affordable housing.⁹² The General Assembly created the VHDA in Virginia Code § 36-55.24 *et seq.* Virginia Code § 36-55.25 notes that this authority was created to mitigate the shortage of safe residential housing that families of low and moderate income may afford.⁹³

Pursuant to this, the statute states that it is “necessary and in the public interest that [VHDA] provide for predevelopment costs, temporary financing, land development expenses and residential housing construction or rehabilitation . . .”, as well as mortgage financing and other financing measures.⁹⁴ All activities of the housing authority must serve a public purpose enumerated in the statute.⁹⁵ These public purposes include, increasing the supply of housing for those displaced by public actions or natural disaster, providing financing for non-housing buildings incident to residential housing, providing financing for construction and other incidental expenses to providing housing, providing technical assistance to those providing housing, and coordinating government and private efforts to provide housing.⁹⁶ The General Assembly conferred upon VHDA all the necessary powers to achieve this mission such as the ability to buy and sell property, and to enter into agreements with any governmental agency.⁹⁷

⁸⁸ *Id.*

⁸⁹ U.S. DEPT. OF HOUS. & URBAN DEV., TENANT ASSISTANCE, RELOCATION AND REAL PROPERTY ACQUISITION HANDBOOK, at 5-6 (2007), <https://www.hud.gov/sites/documents/1378C5CPDH.pdf> [hereinafter HUD HANDBOOK].

⁹⁰ U.S. DEPT. OF HOUS. & URBAN DEV., *Voluntary Acquisition vs. Involuntary Acquisition of Property*, HUD.GOV, https://www.hud.gov/program_offices/comm_planning/affordablehousing/training/web/relocation/acquisition (last visited Apr. 17, 2018).

⁹¹ HUD HANDBOOK, *supra* note 89, at 5-5 to 5-6.

⁹² VA. HOUS. DEV. AUTH., *About Us*, VHDA.COM, https://www.vhda.com/about/Pages/AboutUs.aspx#Wrrg_YjwYII (last visited Apr. 17, 2018).

⁹³ VA. CODE ANN. § 36-55.25 (2011).

⁹⁴ *Id.*

⁹⁵ *Id.*

⁹⁶ *Id.*

⁹⁷ VA. CODE ANN. § 36-55.30(7), (9) (2012).

It is important to note that localities may enable VHDA to provide financing by designating an area as a “housing revitalization area.”⁹⁸ VHDA administers grants funded purely by the Commonwealth, but is also an intermediary for federal grant administration.⁹⁹ Localities can qualify for these state grants in several ways. First, localities can qualify by passing a resolution that determines that the area is blighted,¹⁰⁰ deteriorated, deteriorating; or not likely to be rehabilitated because the facilities are subject to dilapidation, obsolescence, overcrowding, or a host of other conditions; or by determining that private investment in an area is unlikely without assistance to construct or rehabilitate decent, safe, and sanitary housing for low to moderate income families.¹⁰¹ The locality must also note that private industries are not reasonably expected to produce safe sanitary housing in that area.¹⁰² Localities need not show that private industry will not produce safe sanitary housing if they pass a resolution designating a revitalization area.¹⁰³

Housing revitalization areas can be created in other ways as well. Housing revitalization areas include redevelopment areas created under the Housing Authorities Law,¹⁰⁴ “census tracts in which 70 percent or more of the families have incomes which are 80 percent or less of the statewide median income” and census tracts which are designated by HUD in which either 50 percent or more of the families have incomes which are 60 percent or less of the area median income, or which has a poverty rate of 25 percent or higher.¹⁰⁵

When considered holistically, the statutory framework of the VHDA allows it to make mortgage loans to public and private entities, to finance the creation of multi-family housing for low-income people, to participate in federal housing programs, and to finance economically mixed projects if localities create them via resolution.¹⁰⁶ Therefore, the VHDA may provide an important source of funding for the Commission, or a corporation created by the commission, to finance the acquisition of vacant properties. For example, the areas of the Middle Peninsula affected by the vacant housing problem could be designated as a housing revitalization area because one of the conditions to create such an area is that private enterprise is not reasonably expected to create housing meeting the needs of low or moderate-income persons.¹⁰⁷ This designation would not be unreasonable because the problem of heirs property combined with the relatively low economic value of most vacant property makes it highly unlikely that private industry will step in to create housing stock that serves the Middle Peninsula's low or middle income constituents. Therefore, the Commission could use the funding opportunities provided to revitalization areas to purchase properties and re-vitalize them for occupancy by low or middle-income families.

⁹⁸ VA CODE ANN. § 36-55.30:2 (2006).

⁹⁹ *See id.*

¹⁰⁰ As noted previously “blight” describes the state of a single structure or group of structures that exhibit characteristics that offend community standards relating to the safety of the structure. Blight also requires that the property be, “beyond repair or unfit for human occupancy or use.” VA. CODE ANN. § 1-219.1.

¹⁰¹ VA. CODE ANN. § 36-55.30:2(A) (2006).

¹⁰² *Id.*

¹⁰³ *Id.* at (B).

¹⁰⁴ *See* VA. CODE ANN. § 36-1 *et seq.* (1942).

¹⁰⁵ VA. CODE ANN. § 36-55.30:2(A) (2006).

¹⁰⁶ VAC AGENCY, 13 VAC AGCY. 10, AGENCY SUMMARY (2018).

¹⁰⁷ VA CODE ANN. § 36-55.30:2(A)(ii) (2006).

2. Department of Housing and Community Development

The DHCD is primarily a body that administers state grant programs,¹⁰⁸ provides technical assistance to planning district commissions, reports on the activities of planning district commissions to the governor,¹⁰⁹ and sets their geographic boundaries.¹¹⁰ DHCD has the power of a private corporation and the discretion to decide whether public housing should be located in one place or another.¹¹¹

The General Assembly created DHCD in Virginia Code § 36-131 *et seq.* The Department generally promulgates regulations pertaining to housing, community development, building safety, and fire prevention.¹¹² They also operate an academy that trains building code inspectors.¹¹³ This body is responsible for administering HUD's Community Development Block Grants.¹¹⁴

The DHCD's authority over planning district commissions is partially supervisory and partially co-operative. The only restrictive provision is Virginia Code § 36-139.6(6) which merely requires that the DHCD ensure that planning district commissions do not overstep their statutory authority. Interestingly, Virginia Code § 36-139.6 notes that beyond providing oversight the DHCD has the duty to, "provide technical assistance to planning district commissions regarding regional approaches to area wide problems." This provision may possibly be used to seek aid from DHCD regarding the regional problem of vacant housing. DHCD's director also recommends the funding that each planning district commission receives for the planning district commissions' operation.¹¹⁵ The funding determination is made based on the minimum funding level necessary to operate a commission, the population of each commissions' district, and other factors.¹¹⁶ The DHCD also is responsible for administering the funds provided for planning district commissions in the Regional Cooperation Act.¹¹⁷ The DHCD ensures that each planning district commission submits the required report describing the sources and amounts of funding provided to the commission.¹¹⁸ Additionally, the DHCD reviews the annual report detailing the planning district commission's compliance with statutory provisions, which allows it to continue using funding.¹¹⁹ Finally, DHCD administers the Regional Co-operation Incentive Fund that is devoted to encouraging inter-local cooperation.¹²⁰ Therefore, it is vitally important the planning district commissions continue to submit reports to DHCD as failure to do so may result in a decrease or elimination of their funding.

¹⁰⁸ VA. CODE ANN. § 36-139(1)-(3) (2016).

¹⁰⁹ VA. CODE ANN. § 36-139.6(4), (6) (2013).

¹¹⁰ VA. CODE ANN. § 36-139.7(A) (1995).

¹¹¹ 40A AM. JUR. 2D HOUSING LAWS, ETC, § 11 (2018).

¹¹² VAC AGENCY, 13 VAC AGCY. 5, AGENCY SUMMARY (2018).

¹¹³ *Id.*

¹¹⁴ *Id.*

¹¹⁵ VA. CODE ANN. § 36-139.6(1) (2013).

¹¹⁶ *Id.*

¹¹⁷ *Id.* at (2).

¹¹⁸ VA. CODE ANN. § 15.2-4215 (1997).

¹¹⁹ VA. CODE ANN. § 15.2-4216(A) (1997).

¹²⁰ VA. CODE ANN. § 36-139.6(3) (2013).

C. Regional Agencies

Understanding regional and local government authorities requires a quick review of a local government's power in American law. In Dillon Rule jurisdictions localities only possess the powers expressly conferred to them by statute, powers necessarily or fairly implied from the express powers, and essential and indispensable powers.¹²¹ Virginia is a Dillon Rule state; therefore, the localities, and other statutory creatures are limited to the powers expressly conferred to them by statutes, the powers necessarily or fairly implied from these powers, or essential or indispensable powers.

1. Planning District Commissions

Planning district commissions are bodies created by statute to encourage the development of localities and to allow state and local governments to co-operate on issues of a regional nature.¹²² Planning district commissions are created by a charter between local governments within the geographic boundaries of a planning district as determined by DHCD.¹²³ Localities within a planning district must elect to become part of the planning district commission before they are represented within it.¹²⁴ Planning district commissions only possess the powers given to them by the legislation that created them;¹²⁵ therefore, the powers in Virginia Code. § 15.2-4205(A)-(B) and § 15.2-4206(1)-(3) are the limits of what a planning district commission may do. Virginia Code § 15.2-4205(A)-(B) gives the planning district commission general powers to manage their affairs such as the ability to sue and be sued, the powers of a private corporation, the power to employ staff, and the power to create a committee to exercise the powers of a planning district commission. Virginia Code § 15.2-4206(1)-(3) gives the planning district commission the power to acquire property, incur debts, and provide its property as security on loans.

Planning district commissions are created by a co-operation of localities who prepare a regional strategic plan to govern the district's activities.¹²⁶ These plans are required to consider elements of truly regional concern and to include strategies for accomplishing the planning district commission's goals.¹²⁷ Virginia state law also obligates the commission to only act in accordance with the regional strategic plan.¹²⁸ Therefore, although statutes limit the planning district commission's authority, the regional strategic plan must also be referred to as a guidepost for how the planning district commission may act.

Planning district commissions may help with the vacant housing problem by facilitating research and co-operation among localities once a satisfactory solution arises. One of the purposes of planning district commissions is to facilitate cooperation on problems of, "greater than local

¹²¹ Commonwealth v. Kersey, 22 Va. Cir. 144, 1 (1990).

¹²² VA. CODE ANN. § 15.2-4201(1)-(4) (1997).

¹²³ VA. CODE ANN. § 15.2-4203(A) (2017).

¹²⁴ *Id.*

¹²⁵ Authority of Planning District Commissions to Delegate Advisory Planning Responsibility to its Committees, 1977-78 Va. Op. Atty. Gen. 304, 1 (1977).

¹²⁶ VA. CODE ANN. § 15.2-4209 (2013).

¹²⁷ *Id.*

¹²⁸ VA. CODE ANN. § 15.2-4210 (1998).

significance” among their member localities.¹²⁹ Planning district commissions’ duties and authority also include ”conduct[ing] studies on issues and problems of regional significance”.¹³⁰ Therefore, if vacant housing is considered an issue or problem of regional significant, a planning district commission study could identify potential solutions to address vacant housing. One such solution using a planning district commission is the creation of a non-profit corporation that functions similar to a public access authority.¹³¹ Facilitating this solution would be helped by adopting vacant housing as an area of concern in the planning district commission’s regional plan.¹³² Therefore, planning district commissions clearly have a role in alleviating the vacant housing problem.

2. Land Banks

The General Assembly created land banks in Virginia Code § 15.2-7500. Land banks are independent entities created by two or more localities who pass an ordinance to create a corporation or authority to address vacant, abandoned, or tax delinquent properties.¹³³ It is important to note that land banks are subject to extensive control by the localities which created them. Land banks are governed by a board of directors,¹³⁴ and maintain a staff of their own.¹³⁵ Land banks must be governed by a board of at least five members which the participating localities appoint.¹³⁶ If multiple localities create a land bank each must appoint at least two, which may also be a part of the localities’ governing body.¹³⁷ This board appoints an executive director who holds responsibility for employing staff.¹³⁸ It's important to note that board members are also subject to ethical rules regarding their ownership of property. Board members and their employees may not maintain an interest in the land bank’s real property, any property to be acquired by the land bank, or any property acquired from the land bank.¹³⁹

Land banks are both corporations and political subdivisions of the Commonwealth.¹⁴⁰ Before one of these entities is created there must be notice published for two weeks in a newspaper specifying the time and place of a hearing where interested people can present their views on the land bank.¹⁴¹ Land banks generally have the power to manage any land they might receive through making contracts and being able to acquire insurance on their assets.¹⁴² Land banks are authorized to acquire real property by gift, exchange, or purchase, and the entities are expressly authorized to convey property to the localities.¹⁴³ Localities are required to set forth the procedures by which the land bank will dispose of the land and are authorized to set a ranking for the uses that the land held

¹²⁹ VA. CODE ANN. § 15.2-4207(A) (2009).

¹³⁰ VA. CODE ANN. § 15.2-4208(1)(1998).

¹³¹ VA. CODE ANN. § 15.2-4206(1)(1997).

¹³² VA. CODE ANN. § 15.2-4210.

¹³³ VA. CODE ANN. § 15.2-7501 (2016).

¹³⁴ VA. CODE ANN. § 15.2-7503 (2016).

¹³⁵ VA. CODE ANN. § 15.2-7504 (2016).

¹³⁶ VA. CODE ANN. § 15.2-7503(A) (2016).

¹³⁷ *Id.*

¹³⁸ VA. CODE ANN. § 15.2-7504.

¹³⁹ VA. CODE ANN. § 15.2-7505(A)-(B) (2016).

¹⁴⁰ VA. CODE ANN. § 15.2-7504.

¹⁴¹ VA. CODE ANN. § 15.2-7502 (2016).

¹⁴² VA. CODE ANN. § 15.2-7506 (2016).

¹⁴³ VA. CODE ANN. § 15.2-7507 (2018).

by the land bank will be put to.¹⁴⁴ Land banks are allowed to receive grants and loans from localities, and may retain payments for providing services using the land.¹⁴⁵ Additionally, after a public hearing a locality may designate an existing nonprofit entity and its board to carry out the functions of a land bank entity.¹⁴⁶ Non-profits that carry out land banking functions need not comply with the requirements for creating a board set out in Virginia Code § 15.2-7503.¹⁴⁷

3. Public Access Authorities

Similar to planning district commissions, public access authorities are creatures of state statute limited by the Dillon Rule. Virginia statutes create several public access authorities; however, most of them possess similar powers and limitations. The Middle Peninsula Chesapeake Bay Public Access Authority (MPCBPAA) serves as a relevant example. Generally, public access authorities may be created by an operating agreement that participating localities approve through a resolution.¹⁴⁸ The purposes of these authorities generally include: identifying land for use by the public as a public access site, researching and determining ownership of all such sites, determining appropriate levels of public use at the sites, developing appropriate mechanisms for transferring title to the authority, determining which holdings should be sold to advance the authority's mission, expending public funds or donations to achieve environmental objectives, and performing other duties to fulfill the authority's mission.¹⁴⁹ In the case of the MPCBPAA, its power to receive or expend land is limited by its proscription to restore or create tidal wetlands and to create public access points.¹⁵⁰ In pursuit of their goals, public access authorities are also authorized to: exercise various administrative powers, receive gifts of property or money from public or private entities, exercise the powers necessary to manage the properties as public access assets, and to “[d]o all things necessary or convenient to the purposes of the act,” including conveying property.¹⁵¹

The power to “[d]o all things necessary or convenient to the purposes of the act,” may provide some justification for the MPCBPAA to receive and then sell non-coastal properties for a profit that can then be applied to purchase or improve coastal sites that will provide public water access.¹⁵² The Attorney General interpreted this phrase, in the context of airport commissions, to authorize the commissions to act consistent with the purposes laid down in the purpose section of their enabling legislation.¹⁵³ This opinion bears no direct application on the MPCBPAA; however, it does provide an example of prior interpretation of statutory language providing authority similar to the public access authority's statutory authority. Additionally, the MPCBPAA enabling legislation lists one of its purposes as identifying properties that may be sold to advance the authority's mission.¹⁵⁴ This could provide some justification for believing that the MPCBPAA may be authorized to “flip” properties in certain circumstances in order to advance its mission;

¹⁴⁴ VA. CODE ANN. § 15.2-7508 (2016).

¹⁴⁵ VA. CODE ANN. § 15.2-7509 (2016).

¹⁴⁶ VA. CODE ANN. § 15.2-7512(A) (2016).

¹⁴⁷ VA. CODE ANN. § 15.2-7512(B) (2016).

¹⁴⁸ VA. CODE ANN. § 15.2-7512(B).

¹⁴⁹ *Id.*

¹⁵⁰ *Id.* at (1), (7).

¹⁵¹ VA. CODE ANN. § 15.2-6606(1)-(20) (2018).

¹⁵² *Id.* at (19).

¹⁵³ *Peninsula Airport Commission's Ability to Guarantee a Private Loan*, 2017 WL 3951664, 3 n.15 (2017).

¹⁵⁴ VA. CODE ANN. § 15.2-6601(6) (2018).

however, the ambiguity of whether such an action would fall within the scope of the authority's mission is sufficient enough that the Authority should seek advice from the Office of the Attorney General pursuant to Virginia Code § 15.2-6606(18) when considering receiving a specific property donation for the purposes of reselling it. The MPCBPAA also may consider acting pursuant to its authority under Virginia Code § 15.2-6632(9) which allows it to accept gifts of property and use them to aid its creation or maintenance of public access sites.¹⁵⁵ However, the ambiguity under this statute is also sufficient to warrant seeking advice from the Office of the Attorney General pursuant to Virginia Code § 15.2-6606(18).

D. Local Government

A survey of the ordinances of the Middle Peninsula revealed that most localities lack ordinances specifically addressing vacant property. Several localities do possess ordinances that allow for the placement of a lien on the property that is improperly maintained;¹⁵⁶ however, this is as far as their local code goes in addressing the problem of vacant properties. At least one county does have an ordinance on the books requiring addressing “derelict” buildings that are defined as structures that might endanger the public's health, safety, or welfare for continuous period in excess of six months.¹⁵⁷ In Virginia any locality with a real estate tax abatement program is authorized to adopt similar derelict building ordinances.¹⁵⁸ By contrast, only cities and the towns of Clifton Forge and Pulaski are authorized to adopt ordinances requiring vacant building registration.¹⁵⁹

Several non-Middle Peninsula localities possess Vacant Property Registration Ordinances or VPROs.¹⁶⁰ These ordinances require landowners to register their vacant properties with a database that in turn can be used to easily identify the properties.¹⁶¹ There are three models of these ordinances: the vacancy and abandonment model, the foreclosure model, and the hybrid model.¹⁶² The vacancy and abandonment model requires registration after a certain length of vacancy.¹⁶³ The foreclosure model requires notice of default or intent to foreclose as part of judicial proceedings or advertisement by the mortgagee or services as part of judicial process.¹⁶⁴ Finally, the hybrid model shares vacancy and foreclosure characteristics.¹⁶⁵ The section below discusses these ordinances in more exhaustive detail.

¹⁵⁵ VA. CODE ANN. § 15.2-6632(9) (2018).

¹⁵⁶ See e.g. KING AND QUEEN COUNTY, VA., CODE § 22-101 (2018).

¹⁵⁷ MATHEWS COUNTY, VA., CODE § 86-16 (2012).

¹⁵⁸ VA. CODE ANN. § 15.2-907.1.

¹⁵⁹ VA. CODE ANN. § 15.2-1127.

¹⁶⁰ See Safeguard Properties, *Vacant Property Registration*, SAFEGAURDPROPERTIES.COM, http://www.safeguardproperties.com/Resources/Vacant_Property_Registration/VA.aspx?filter=vpr (last visited Apr. 17, 2018) (listing cities in Virginia with VPROs).

¹⁶¹ Yang Sang Lee et al., *New Data on Local Vacant Property Registration Ordinances*, 15 *Citiescape: A J of Pol'y Dev. and Res.* 259, 289 (2013), available at <https://www.huduser.gov/portal/periodicals/citiescape/vol15num2/ch22.pdf>.

¹⁶² *Id.* at 260.

¹⁶³ *Id.*

¹⁶⁴ *Id.*

¹⁶⁵ *Id.*

The Housing Revitalization Zone Act¹⁶⁶ gives DHCD a powerful tool for fighting the problem of vacant housing. The first tool the act provides is allowing grants to be conferred to individual actors upon designation of a housing revitalization zone. These zones are created when local governments apply to DHCD requesting that an area be declared a housing revitalization zone.¹⁶⁷ The governor may approve housing revitalization zones if no more than twenty housing revitalization zones exist at a given time; and the county, where the zone is being created, does not already host two housing revitalization zones.¹⁶⁸ One of the following conditions must also be present: the zone has a per capita income below eighty percent of the planning district's median per capita income; or the zone has residential vacancy rate of at least 120 percent of the planning district's average rate.¹⁶⁹ The designation allows "qualified business firms" and "qualified owner occupants"¹⁷⁰ to receive grants for "qualified zone improvements."¹⁷¹

Qualified business firms and owner occupants are those that undertake construction or rehabilitation of housing.¹⁷² Construction or rehabilitation of housing is a "qualified zone improvement" eligible for grants if it includes expenditure for improvements necessary to rehabilitate or construct a residential building.¹⁷³ These expenditures do not include the cost of acquiring the real property or building; professional fees associated with acquiring the building; zoning fees associated with acquiring the building; outbuilding; or fees incurred as a result of a loan to acquire the building.¹⁷⁴ It's important to note that for a qualified business firm an investment of \$25,000 of rehabilitation expenses or \$50,000 in construction expenses is required to qualify for a grant for a single family housing unit.¹⁷⁵ For a qualified owner occupant \$12,500 in rehabilitation expenses or \$50,000 in new construction expenses is required for each housing unit.¹⁷⁶ Qualified business firms and owner occupants may apply for grant money by submitting a statement to the DHCD accompanied by a form, that DHCD provides and an independent certified public accountant fills out, certifying that the applicant is a qualified business firm or owner occupant.¹⁷⁷ Housing Revitalization Zones also allow local governments to mitigate the problem of vacant housing. One option they provide is allowing local governments to sell any land they own within the zone on the condition that its buyer develop it.¹⁷⁸

Another option they provide is allowing local governments to provide local tax incentives to develop properties within housing revitalization zones. These tax incentives include: reduced permit fees; reduced user fees; partial tax exemption for rehabilitated real estate; and public funds' use to improve living conditions in the zones through activities such as code enforcement, public safety, and infrastructure maintenance.¹⁷⁹ The designation of a housing revitalization zone also

¹⁶⁶ VA. CODE ANN. § 36-157 *et seq.*

¹⁶⁷ VA. CODE ANN. § 36-160(A) (2000).

¹⁶⁸ *Id.* at (B).

¹⁶⁹ *Id.*

¹⁷⁰ VA. CODE ANN. § 36-165(A)-(B) (2000).

¹⁷¹ VA. CODE ANN. § 36-166(A) (2000).

¹⁷² VA. CODE ANN. § 36-165(A)-(B).

¹⁷³ VA. CODE ANN. § 36-166(A) (2000).

¹⁷⁴ *Id.*

¹⁷⁵ *Id.*

¹⁷⁶ *Id.*

¹⁷⁷ VA. CODE ANN. § 36-165(C) (2000).

¹⁷⁸ VA. CODE ANN. § 36-163 (2000).

¹⁷⁹ VA. CODE ANN. § 36-168(A) (2000).

allows localities some flexibility with existing law through: the creation of special zoning districts; reforming the permit process; and exemptions from local ordinances.¹⁸⁰ Therefore, housing revitalization zones provide localities and individuals with powerful tools to ease the vacant housing problem.

Housing Rehabilitation Zones also give localities a powerful tool to combat vacant housing. Similar to housing revitalization zones, rehabilitation zones permit the locality to incentivize development within the zone through permit fee reduction, user fee reduction, and waiver of tax liens.¹⁸¹ The zone also allows localities to use special zoning, a special permit process, and exemptions from some local ordinances but not those established pursuant to the Chesapeake Bay Preservation Act, the Erosion and Sediment Control Law, and the Virginia Stormwater Management Act.¹⁸² It is important to note that an area may be designated as both a rehabilitation and a revitalization zone.¹⁸³ Designation of a rehabilitation zone automatically makes the area eligible for funding as a “housing revitalization area” under Virginia Code § 36-55.30:2.¹⁸⁴ This opens up funding from VHDA for “economically mixed projects” which are residential housing or housing developments, which families of low or moderate income will occupy, that VHDA finances as a single project.¹⁸⁵ Therefore, the chief benefit of adopting rehabilitation zones and revitalization zones is adding an additional funding mechanism to alleviate vacant housing.

Finally, local governments may use the power of eminent domain to condemn vacant housing and develop it. It is important to note that the Virginia Code limits the use of eminent domain to acquiring property for public uses with just compensation.¹⁸⁶ Acquisition for public use occurs if:

- (i) the property is taken for the possession, ownership, occupation, and enjoyment of property by the public or a public corporation; (ii) the property is taken for construction, maintenance, or operation of public facilities by public corporations or by private entities provided that there is a written agreement with a public corporation providing for use of the facility by the public; (iii) the property is taken for the creation or functioning of any public service corporation, public service company, or railroad; (iv) the property is taken for the provision of any authorized utility service by a government utility corporation; (v) the property is taken for the elimination of blight provided that the property itself is a blighted property; or (vi) the property taken is in a redevelopment or conservation area and is abandoned or the acquisition is needed to clear title where one of the owners agrees to such acquisition or the acquisition is by agreement of all the owners.¹⁸⁷

¹⁸⁰ *Id.*

¹⁸¹ VA. CODE ANN. § 36-55.64(B) (2016).

¹⁸² *Id.* at (D).

¹⁸³ *Id.* at (G).

¹⁸⁴ *Id.*

¹⁸⁵ VA. CODE ANN. § 36-55.26 (2011).

¹⁸⁶ VA. CODE ANN. § 1-219.1(A).

¹⁸⁷ *Id.*

Therefore, local governments may theoretically use eminent domain to acquire vacant properties and develop them or to simply clear title to the vacant properties. However, this method seems expensive as it requires paying each owner just compensation which may be above the property's market value.

IV. TOOLS ADOPTED BY OTHER LOCALITIES DEALING WITH VACANT HOUSING

A variety of localities around the country have encountered problems with vacant housing. Looking to these localities can provide some guidance as to potential case studies, solutions, and lessons to be learned. Approaches of course vary, and many testimonials come from urban or suburban contexts, which may not directly apply to the Middle Peninsula, which is mainly rural. Nonetheless, we have tried to include as many examples as we could from existing solutions. Since a rural environment is more likely to be governed at the county level rather than by city councils, we hope the inclusion of these examples will help to bridge the statistical gap between rural communities and more heavily populated areas of the country.

A. Registration Ordinances

Many ordinances known as VPROs, or Vacant Property Registration Ordinances, originated when the United States housing market virtually collapsed in 2009.¹⁸⁸ Municipalities and local governments scrambled to respond to the crisis. Faced with mounting levels of vacant, abandoned, and foreclosed properties, many enacted new VPROs as a response to spreading neighborhood blight, decreased property values and other negative aspects triggered by waves of vacated homes and other buildings.¹⁸⁹

Today, hundreds of localities currently enact one form or another of these types of ordinances.¹⁹⁰ Many have followed the model adopted by the Center for Community Progress, which lays out several main underlying principles:

1. First, they seek to identify vacant property owners so that the locality can easily reach them if necessary.
2. Second, they seek to inform vacant property owners of their obligations under relevant statutes and regulations.
3. Third, they seek to establish certain minimum maintenance standards for vacant property owners to meet¹⁹¹

To achieve these goals, localities have, among other things, included definitions of the properties and parties which must register, and the requirements and procedures for registering.¹⁹²

¹⁸⁸ See Yun Sang Lee, Patrick Terranova & Dan Immergluck, *New Data on Local Vacant Property Registration Ordinances*, U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT (2013), <https://www.huduser.gov/portal/periodicals/cityscpe/vol15num2/ch22.pdf>.

¹⁸⁹ See *id.*

¹⁹⁰ See *id.*

¹⁹¹ See *id.*

¹⁹² See *id.*

Many schemes also provide for late registration penalties, maintenance requirements, and fee structures.¹⁹³

In addition to these substantive tasks, VPROs can also accomplish an important revenue-raising function. As entities with limited funds, localities must often settle for less-than-ideal compromise solutions. VPROs, however, allow localities to design them such that they pay for themselves going forward. Some localities set high fees in their VPROs in an attempt to encourage property owners to rehabilitate their properties. For example, vacant property registration fees in California cost up to \$600.¹⁹⁴ The effect of the fee can be further enhanced by granting waivers for vacant properties scheduled for rehabilitation or rebates after restoration occurs.¹⁹⁵ Some cities, such as Wilmington, Delaware, have also set graduated fee schedules, where the fee increases with each passing year of vacancy.¹⁹⁶

Localities that choose to implement such fees need to ensure that they can be legally justified on the basis of cost as well as other potential consequences of high fees. One such risk is the possibility that, under adverse economic conditions, property owners who are currently paying their taxes and minimally maintaining their properties may choose to instead abandon their properties.¹⁹⁷ A variation on this fee-centered approach is to establish different property tax levels for vacant properties, where authorized by law.¹⁹⁸ For example, the District of Columbia sets its tax rates for occupied residences at \$0.85 per \$100 value, but sets its tax rates for vacant properties at \$5 per \$100, and tax rates for blighted property at \$10 per \$100.¹⁹⁹ It is important to note, however, that while differentiated punitive tax rates such as these may be effective in Washington, DC, where the housing market is strong, they may be more difficult to implement in weaker markets, and run the risk of increasing rather than decreasing tax delinquency.²⁰⁰

Regardless of the strategy chosen, VPROs seem to be the dominant approach favored by localities who wish to address a growing problem with abandoned properties. While VPROs require statutory approval by the legislative body in question, they also carry the weight of legitimacy with voters that other, quicker solutions may not have. Because of their flexible design, VPROs give localities options as to how best to address the particularized problems in their varying jurisdictions.

¹⁹³ See Kayo Manson-Tompkins, *Municipalities and their Requirements affecting Residential Foreclosures: California*, USFN (Friday, February 19, 2016), <http://www.usfn.org/blogpost/1296766/239531/Municipalities-and-their-Requirements-affecting-Residential-Foreclosures-California>.

¹⁹⁴ See *id.*

¹⁹⁵ See CITY OF WILMINGTON, DELAWARE, *Vacant Property Registration Program*, <https://www.wilmingtonde.gov/government/city-departments/licenses-and-inspections/vacant-property-registration-program>.

¹⁹⁶ See *id.*

¹⁹⁷ See PPG BUFFALO, *Overview of Municipal Vacant Building Registries*, https://ppgbuffalo.org/files/documents/housing_neighborhoods/housing_conditions_and_repairs/housingneighborhoodsvacantpropertyregistrationlaws.pdf.

¹⁹⁸ See MORTGAGE CONTRACTING SERVICES, *Property Registration Result: District of Columbia*, <https://www.mcs360.com/codecompliance/v31/washington-district-of-columbia-washington-dc-vacant-property-registration-ordinance.aspx>.

¹⁹⁹ See *id.*

²⁰⁰ See Alan Mallach, *Building a Better Urban Future: New Directions for Housing Policies in Weak Market Cities*, COMMUNITY DEVELOPMENT PARTNERSHIPS' NETWORK (June 2005), <https://shelterforce.org/wp-content/uploads/2008/04/BetterUrbanFuture.pdf>.

B. Administrative Action (Non-Legislative Action)

Some localities tackle vacant housing at a more immediate level, through action by local administrative agencies. To a certain extent, all local remedies must pass through an agency at some point. However, some localities place more emphasis on their roles in the process. While the purpose of a VPRO is chiefly to assist a locality in tracking vacant property owners and maintain minimum standards, a locality may also want to take a more active role in encouraging property owners to restore their properties to productive use, thereby preventing instead of just reacting to abandoned housing problems. This can be accomplished through fees, taxes, or the threat of public action.²⁰¹ However, these strategies essentially only work then it makes sense economically for the property owner to restore his property.²⁰²

Many property owners would prefer to perform their own improvements on their properties rather than risk losing the property or have to pay for the locality or non-profit to do the work. In New Jersey, cities are authorized to create abandoned property lists.²⁰³ Once such a list is created, the locality is authorized to take the listed properties through their spot blight eminent domain power.²⁰⁴ This process has been successful in Newark, NJ for example, where roughly one-third of all vacant property owners have chosen to rehabilitate their properties rather than risk having the city take their properties.²⁰⁵ Similarly, Baltimore, MD implemented a concentrated vacant property receivership program that resulted in approximately half of the property owners voluntarily improving their properties in order to avoid a receivership.²⁰⁶ Additionally, San Diego, CA requires vacant property owners to file a Statement of Intent including “a plan of action and timeline for bringing vacant property into productive use.”²⁰⁷ If the property owner thereafter fails to carry out the terms of this Statement of Intent, he may incur financial penalties.²⁰⁸

C. Vacant Property Receivership and Land Banking

This third option works as a possible supplement to either the statutory or administrative actions outlined above. Even under aggressive statutory and administrative vacant property programs described previously, the property owner retains the option of demolishing rather than

²⁰¹ *See id.*

²⁰² *See id.*

²⁰³ *See, e.g.*, MORTGAGE CONTRACTING SERVICES, Property Registration Result: Newark, New Jersey, <https://www.mcs360.com/codecompliance/v533/newark-new-jersey-newark-vacant-property-registration-ordinance.aspx>.

²⁰⁴ *See* HOUSING & COMMUNITY DEVELOPMENT, NETWORK OF NEW JERSEY, *Spot Blight Eminent Domain*, https://www.hcdnj.org/index.php?option=com_content&view=article&catid=19:site-content&id=623:spot-blight-eminent-domain#spot%20blight (last visited Sept. 28, 2018).

²⁰⁵ *See* MORTGAGE CONTRACTING SERVICES, Property Registration Result: Newark, New Jersey, <https://www.mcs360.com/codecompliance/v533/newark-new-jersey-newark-vacant-property-registration-ordinance.aspx>.

²⁰⁶ *See* Eric Friedman, *Vacant Properties in Baltimore: Strategies for Reuse*, ABELL FOUNDATION (January 18, 2003), <https://www.abell.org/sites/default/files/files/2003%20Friedman.pdf>.

²⁰⁷ *See* CITY OF SAN DIEGO, CALIFORNIA, *Property Value and Protection Ordinance (PVPO)*, <https://www.sandiego.gov/ced/zoning/pvpo>.

²⁰⁸ *Id.*

restoring the property.²⁰⁹ In order for a locality to ensure that a vacant property is preserved and restored to use, it can use a vacant property receivership, also known as a possession or conservatorship, to fill that purpose.²¹⁰

In general, vacant property receiverships operate when the locality or non-profit organization applies to the court to be appointed as the receiver of a vacant property for the purpose of restoring it to use.²¹¹ Once a receiver is appointed, that entity has physical control over the property and the power to borrow, spend money, place liens against the property, and rehabilitate the property.²¹² Once the property is rehabilitated, the owner may regain the property or it may be sold by the court or by the receiver.²¹³ Land banking, one specific type of receivership program, is where the locality purchases land, whether as a long-term investment or as a temporary holding to flip later for profit.²¹⁴ Receivership includes, but is not limited to, land banking policies.²¹⁵

Receivership is a powerful tool for localities and should be pursued carefully. Before undertaking a receivership, the locality should consider the following questions:

1. Are vacant property receiverships permitted by state law? State statutes vary on this, and while some courts may be willing to grant a receivership petition even without explicit state law provisions permitting it, it is far easier to accomplish with clear statutory authorization, such as what exists in Pennsylvania.²¹⁶ Virginia state law expressly permits property receiverships for localities that have adopted a vacant property ordinance pursuant to § 15.2-907.1.²¹⁷
2. Is the vacant property a good candidate for receivership? Is it economically feasible in light of the available resources and market to rehabilitate the property?
3. Does the applicable state law give priority to the receiver's lien over other liens? If not, it may be difficult to borrow the required amount of funding to rehabilitate the property and cover the costs of the receivership. Virginia state law does not give receiver's liens priority over other liens.²¹⁸
4. Does the applicable state law provide a means for recovering the costs of rehabilitation and placing the property into responsible hands after the receivership? Vacant property receiverships work best when there is a clear exit strategy.²¹⁹ Virginia state law lays out these details in § 15.2-907.2.²²⁰

²⁰⁹ See HOUSING AND COMMUNITY DEVELOPMENT NETWORK OF NEW JERSEY, Vacant Property Receivership, http://www.hcdnnj.org/index.php?option%3Dcom_content%26view%3Darticle%26catid%3D19:site-content%26id%3D613:vacant-property-receivership.

²¹⁰ See Melanie B. Lacey, *A National Perspective on Vacant Property Receivership*, 25 J. OF AFFORDABLE HOUSING 133, 134 (2016), https://www.americanbar.org/content/dam/aba/publications/journal_of_affordable_housing/vol25no1/ah-25-1-11-lacey.pdf.

²¹¹ *Id.* at 135-36.

²¹² *Id.* at 136.

²¹³ *Id.*

²¹⁴ See *id.* at 146.

²¹⁵ See *id.*

²¹⁶ See PA. STAT. ANN. tit. 68, §§ 1101 *et seq.*

²¹⁷ See VA. CODE ANN. § 15.2-907.2 (2017).

²¹⁸ See *id.*

²¹⁹ See Lacey, *supra* note 210, at 148-51.

²²⁰ See VA. CODE ANN. § 15.2-907.2 (2017).

In addition to Pennsylvania’s law referenced above, other states and localities with strong vacant property receivership programs include New Jersey, Ohio, Indiana, and Baltimore.²²¹ For example, Baltimore’s receivership ordinance allows the city to ask the courts to appoint a receiver for any property which has an outstanding vacant building notice.²²² Under this ordinance, the landowner of the vacant property can only avoid having a receiver appointed by demonstrating the ability to rehabilitate the property immediately.²²³ If a receiver is appointed, his expenses in rehabilitating the property are treated as a super-priority lien, giving him higher priority over other all other liens and creditors.²²⁴ This ordinance has been particularly effective at addressing Baltimore’s vacant row housing problem because it permits foreclosure on a vacant property before rehabilitation work has begun, allowing the rehabilitating developer to begin his work immediately, rather than imposing long waiting periods.²²⁵ Baltimore’s ordinance also gives the court the option to privatize nuisance abatement to help alleviate the costs associated with rehabilitation.²²⁶

V. STRATEGIES AND PRACTICES TO BETTER ENGAGE WITH THE PROBLEM OF VACANT HOUSING

A. Solutions Through Additional Legislation

1. Incorporate vacant housing as an area of concern into the MPPDC’s Regional Strategic Plan.

Under § 15.2-4209 of the Virginia Code, each planning district commission is required to prepare a regional strategic plan for the guidance of the district.²²⁷ This plan includes regional goals and objectives, strategies to meet those goals, and methods for measuring success.²²⁸ For the Middle Peninsula Planning District Commission, the closest analogue to a Regional Strategic Plan is the Comprehensive Economic Development Strategy, published in December of 2013.²²⁹ In that document, there is no mention of vacant housing as an issue confronted by the localities that make up the Middle Peninsula.²³⁰ Given the prevalence and pervasiveness of this problem in this region, combatting vacant housing should become a key goal as part of the MPPDC’s larger strategy to improve the region’s economy. With that in place, this would provide a level of clear consensus for action by the MPPDC further down the line. Section 15.2-4210 of the Virginia Code requires that a planning district commission act only in conformity with its regional strategic plan, so having

²²¹ See Lacey, *supra* note 210, at 148-51.

²²² James J. Kelly Jr., *Refreshing the Heart of the City: Vacant Building Receivership As a Tool for Neighborhood Revitalization and Community Empowerment*, J. OF AFFORDABLE HOUSING & COMM. DEV. LAW 210, 217 (2004).

²²³ See *id.*

²²⁴ See *id.*

²²⁵ See *id.*

²²⁶ See *id.*

²²⁷ VA. CODE ANN. § 15.2-4209 (2013).

²²⁸ *Id.*

²²⁹ MIDDLE PENINSULA PLAN. DIST. COMM., COMPREHENSIVE ECONOMIC DEVELOPMENT STRATEGY, Dec. 2013, at 1, http://www.mppdc.org/articles/reports/CEDS_FINAL_140110_RED.pdf.

²³⁰ See generally *id.*

a clear reference to vacant housing as an issue the MPPDC wishes to engage with will lend itself to clear conformity.²³¹

2. Create a purpose clause in the style of the Chesapeake Bay Public Access Authority.

Another potential solution is to lobby for the addition of a clause in Virginia Code § 15.2-4207, which lays out the purpose of planning district commissions, that would expressly allow them to purchase property and resell it for a profit. Additionally, the Chesapeake Bay Public Access Authority’s purpose section includes a clause that authorizes it to “[d]o all things necessary to carry out the purposes of the act,” which would be a good addition for the purposes of a planning district commission, and would more clearly allow it to “flip” properties.²³² Inserting language into Virginia Code § 15.2-4207 that expressly allows for holding properties and selling them for a profit would allow planning district commissions to perform this act without risking falling outside their statutory authorization.

3. Incorporate the definition for vacant housing developed by this white paper for use in MPPDC plans, programs, and other materials, and advocate for its inclusion in related statutes and ordinances.

As the earlier discussion of definitional issues with vacant housing showed, there is a significant need for uniformity in how entities define vacant housing, and a need to have that definition tailored to the context of combatting it as a social and economic problem. By taking the definition developed in this white paper and incorporating it in the plans and other documents generated by the MPPDC, as well as pushing for its inclusion in any relevant statutes that affect the MPPDC, the Commission will be left with a significantly simpler way of justifying actions as being within the authority granted to it. This is particularly important in a Dillon Rule state, where clear delineations of authority are key to government action.

The definition also lends itself to the creation of a tool that could be used to more objectively judge whether something falls within the definition, such as a checklist. A preliminary form of such a checklist is appended to this white paper.

4. Implement a “Vacant Property List” in the style of New Jersey.

As detailed above, New Jersey and Baltimore have adopted an abandoned property list where properties that have been identified as vacant are shortlisted to put the public on notice of impending condemnation by the government. Since Newark and Baltimore have experienced a good degree of success in addressing vacant houses using this technique, Middle Peninsula localities could also adopt a similar approach. Middle Peninsula localities could lobby the legislature for authority similar to that provide for cities and certain towns under Virginia Code § 15.2-1127.²³³

²³¹ VA. CODE ANN. § 15.2-4210 (1998).

²³² VA. CODE ANN. § 15.2-6606(1) to -(20) (2018).

²³³ VA. CODE ANN. § 15.2-1127.

As an area of further improvement, localities should consider whether and how to follow up with property owners that step forward to claim a property on the abandoned property list. While the list helps to bring owners forward, it does not necessarily address the problem of vacancy itself. Instead, localities must take advantage of the information provided by the list (i.e., contact information for “missing” property owners) and follow up with them about how to address the core issues facing the property in the first place.

5. Advocate for localities to enact derelict building ordinances like those described from Mathews County.

Enacting ordinances like the ones discussed from Mathews County in Section I(A)(8) of this white paper would give localities a means of establishing a process for property owners to submit plans to demolish or renovate properties which have been declared derelict. And, if the property owner fails to do so, provides the locality with authority to take certain actions to remedy the situation. In order for localities to be able to implement this type of ordinance, they must have a real estate tax abatement program in place, per state law.²³⁴

B. Funding Options

1. Use the Regional Cooperation Incentive Fund and Virginia Community Development Block Grant as sources of funding for vacant housing identification and improvement projects.

In addition to state general appropriation funding,²³⁵ the Department of Housing and Community Development (DHCD) administers the Regional Cooperation Incentive Fund (RCIF).²³⁶ Section 15.2-4217 of the Virginia Code, part of the larger statutory framework that created the planning district commissions themselves, establishes the creation of the RCIF for the purposes of funding “inter-local strategic . . . planning and other regional cooperative activities” and makes disbursements to planning district commissions on a matching grant basis.²³⁷ This could be a valuable source of funds when it comes to funding efforts to collect data, locate vacant property, and establish plans and long-term goals between the localities for dealing with vacant housing, but it does not appear to be possible to use funds through this program for something like directly acquiring property.

The Virginia Community Development Block Grant Program could be another funding source. The grant program “provides funding to eligible units of local government for planning and implementing projects that address critical community development needs, including housing, infrastructure and economic development.”²³⁸ The goals of such funding is to improve “the economic and physical environment in Virginia’s communities through activities which primarily

²³⁴ VA. CODE ANN. § 15.2-907.1 (2009).

²³⁵ See VA. CODE ANN. §§ 39-139.6(2) (2013); 15.2-4216 (1997).

²³⁶ VA. CODE ANN. §§ 39-139.6(3) (2013); 15.2-4217 (2012).

²³⁷ VA. CODE ANN. § 15.2-4210 (1998).

²³⁸ VA. DEP’T OF HOUS. AND URBAN DEV., COMMUNITY DEVELOPMENT BLOCK GRANT (CDBG), <http://www.dhcd.virginia.gov/index.php/business-va-assistance/blighted-structures/community-development-block-grant-cdbg/10-community-development-block-grant-cdbg.html>.

benefit low- and moderate-income persons, prevent or eliminate slums and blighting conditions or meet urgent needs which threaten the welfare of citizens.”²³⁹ The program requires that “units of local government in non-entitlement localities” be the applicants, however they can partner with planning district commissions, among other entities, for the implementation of their proposed activity.²⁴⁰ Applying this application framework to efforts to alleviate the problems associated with vacant housing would not likely be a stretch by any means, and it could provide a valuable source of funding when it comes time to implement a MPPDC plan or program.

2. Acquire funding from DHCD’s Neighborhood Stabilization Program (NSP).

Another funding possibility is the NSP administered through DHCD. The NSP is a grant funded by HUD which is administered by DHCD.²⁴¹ The purpose of the program is to assist state and local governments in acquiring and redeveloping vacant or foreclosed properties that may become sources of abandonment or blight in the community.²⁴² DHCD already allocated the funds to non-Middle Peninsula localities;²⁴³ however, a review of eligibility criteria may be helpful for future application. Eligibility for NSP funding requires that: 100 percent of the single or multi-family units rehabilitated with NSP funds be inhabited by people at or below 120 percent of the locality’s median income; if NSP funds are used to bring multi-family housing up to DHCD standards 100 percent must be occupied by people at or below 120 percent of the locality’s median income; if NSP funds are used to improve building wide components 51 percent or more must be occupied by people at or below 120 percent of the locality’s median income; the program cannot set aside funds or set goals adversely affecting low income, minority, elderly or female headed household; rent charged to tenants with incomes at or below 120 percent of the locality’s median income will not exceed HOME restrictions on rent;²⁴⁴ and the project requires safe reliable mortgage products following sound underwriting standards.²⁴⁵

²³⁹ *Id.*

²⁴⁰ *Id.*

²⁴¹ Chesapeake Redevelopment and Hous. Auth., *Neighborhood Stabilization Project*, CRHA.ORG, [www.crhava.org/community_development/development_programs/community_development/neighborhood_stabilization_project_\(nsp\).php](http://www.crhava.org/community_development/development_programs/community_development/neighborhood_stabilization_project_(nsp).php) (last visited Apr. 17, 2018).

²⁴² VA. HOUS. DEV. AUTH., *Neighborhood Stabilization Program (NSP)*, VHDA.COM, <http://www.dhcd.virginia.gov/index.php/dhcd-resources/programs/housing-programs/103-neighborhood-stabilization-program-nsp.html> (last visited Apr. 17, 2018).

²⁴³ *Id.*

²⁴⁴ These restrictions require a maximum rent of the lesser of the fair market rent for existing housing for comparable units; or rent not exceeding 30 percent of the adjusted income for a family whose annual income exceeds 65 percent of the median income for the area. In the case of rental projects with five or more units twenty percent of the home must be occupied by very low income families and the rent must not exceed 30 percent of the annual income of a family whose income is 50 percent of the median income for the area. Additionally, the rent must not exceed 30 percent of the family’s adjusted income if they receive Federal or State rental subsidies. U.S. DEPT. OF HOUS. & URBAN DEV., *Home Rent Limits*, HUD.GOV, <https://www.hudexchange.info/programs/home/home-rent-limits/> (last visited Apr. 17, 2018).

²⁴⁵ VA. HOUS. DEV. AUTH., 2009 NSP Manual 25 (2009).

C. Solutions Under Existing Law

1. Leverage the MPPDC’s authority to create and operate nonprofit corporations, or to implement its own plans and programs, in order to engage in property transactions.

Understanding the language of § 15.2-4207 of the Virginia Code is key to finding out exactly what a planning district commission can do. That section outlines the purposes of the planning district commissions that the larger Regional Cooperation Act creates, of which this section is a part.²⁴⁶ The section provides that the general purpose of a planning district commission is to “encourage and facilitate local government cooperation and state-local cooperation in addressing . . . problems of greater than local significance,” and to “promote the orderly and efficient development of the physical, social and economic elements of the district by planning, and encouraging and assisting localities to plan, for the future.”²⁴⁷ Programs dealing with vacant housing would very likely be seen as fitting that mold.

Two parts of this section are particularly interesting as they relate to the MPPDC’s goals of alleviating vacant housing through its authorized channels. Under § 15.2-4207(B), “the commission may assist the localities by carrying out plans and programs for the improvement and utilization of their physical, social and economic elements” when one or more localities request the commission’s assistance.²⁴⁸ The section also provides that part of the purpose of a planning district commission can be to help create nonprofit organizations that perform functions and operate programs that further the purposes of the planning district commissions, and that a planning district commission operate such a nonprofit itself.²⁴⁹ The takeaway is that when the MPPDC is requested to, and it wishes to, become the actor carrying out the plans it promulgates, it may do so itself, or it may do so through a nonprofit corporation it creates.

Given that § 15.2-4206 of the Virginia Code gives planning district commissions the power to “acquire, lease, sell, exchange, donate, and convey” property, it seems that it is at least arguable that the MPPDC could implement a plan, or create and run a nonprofit, designed to work in a similar way to a public access authority’s ability to buy and sell property, but with a scope aimed toward vacant inland properties.²⁵⁰

The legality of this course of action would be bolstered by the MPPDC integrating vacant housing, ideally the definition of it advanced in this white paper, into its plans and strategies to clearly establish it as a “problem of greater than local significance” and keep it in line with its role in planning for the future as laid out in § 15.2-4207.²⁵¹ It would also need to be incorporated into regional strategic plans, as discussed in Section V(A)(1) of this white paper.

²⁴⁶ VA. CODE ANN. § 15.2-4207 (2009).

²⁴⁷ *Id.* at (A), (B).

²⁴⁸ *Id.* at (B).

²⁴⁹ *Id.* at (C).

²⁵⁰ VA. CODE ANN. § 15.2-4206(1) (1997).

²⁵¹ VA. CODE ANN. § 15.2-4207(A)–(B).

With that all in place, the MPPDC would do well to leverage its purchasing power with landowners whose interest in their property may be clouded in order to facilitate owners and interest-holders taking responsibility for covering the costs and dealing with the potential headache of quiet title actions. Alternatively, the MPPDC could assume the risk of a resulting court battle in exchange for a lower sale price and the conveyance of a quitclaim deed to the commission, under which the seller makes no guarantees about the condition of the title of the property in question.

2. Rehabilitate existing vacant housing through a modified “payment in lieu of tax” (PILOT) program.

A potential option to incentivize private actors to rehabilitate their property could be to establish a form of a “payment in lieu of tax” (PILOT) program. A PILOT program typically involves a non-profit organization contributing a suggested amount, depending on their specific situation and the calculation of the benefits it will bring to the community.²⁵² The amount of tax benefits received is supposed to match the organization’s beneficial contribution to the community. However, a similar concept could potentially be used to encourage property owners of vacant housing to rehabilitate properties in exchange for certain benefits. Such a program could be structured in a manner that would allow the property owner to receive certain savings or deferments on their property taxes in exchange for the rehabilitation and the structure being placed back into the active housing market.

3. Implement land banking.

Implement a program to either purchase properties that property owners are willing to sell but cannot because of a chronic loss of equity, or accept donations of the same through a receivership program. The former is riskier because as with the real estate market in general, there is no guarantee a seller will find a willing buyer. Thus, ambitious localities may find themselves with land that they cannot sell. Nonetheless, the purpose of land banking and receivership programs is to take off the market property which clearly lacks value for one reason or another and repurpose it to sell later.

Land bank entities may be set up by localities to purchase vacant properties and then flip them for a profit. Localities may also allow an existing non-profit entity to carry out the functions of a land bank by passing an ordinance pursuant to Virginia Code § 15.2-7512. Therefore, localities could allow a non-profit created by the MPPDC to carry out the functions of a land bank. This land bank could also purchase vacant properties and resell them at a profit. As quasi-governmental entities, land banks are empowered to manage and repurpose an inventory of vacant properties or surplus land. Over 75 communities nationwide have instituted land banks.²⁵³ In Virginia, the Land Bank Entities Act, or title 15.2, chapter 75 of the Virginia Code, expressly authorizes localities to create land banks, subject to a public hearing held first.²⁵⁴ The powers of land banks are enumerated in section 15.2-7506.²⁵⁵

²⁵² See generally DAPHNE A. KENYON & ADAM H. LANGLEY, PAYMENTS IN LIEU OF TAXES: BALANCING MUNICIPAL AND NONPROFIT INTERESTS (2010).

²⁵³ See Dan Kildee & Amy Hovey, *What Is a Land Bank?*, <https://www.hudexchange.info/resources/documents/LandBankingBasics.pdf>.

²⁵⁴ See VA. CODE ANN. § 15.2-7501.

²⁵⁵ See VA. CODE ANN. § 15.2-7506.

Because the statute authorizing localities to use land banks was only created in 2016,²⁵⁶ most localities have not yet utilized it. Danville, Virginia became the first locality to take steps toward implementing a land bank program in 2017.²⁵⁷ The Danville Neighborhood Development Corporation is currently preparing to implement their land bank program with the assistance of the nonprofit group Center for Community Progress.²⁵⁸ The locality is still working on structuring the policies and program, and as of September 2018 it is not yet active.²⁵⁹

Another example is the Maggie Walker Community Land Trust (MWCLT) in Richmond, Virginia. The City of Richmond adopted an ordinance in February 2018 designating the MWCLT as a land bank entity to assist the City in addressing abandoned, vacant, and tax delinquent properties.²⁶⁰ Richmond enacted this ordinance in accordance with section 15.2-7512 of the Virginia Code, a statute which empowers localities to designate a nonprofit entity to act as a land bank.²⁶¹ A land bank is an entity that can acquire and hold land for a period of time until it is ready for re-use.²⁶² While holding the land, the land bank can address blight and other conditions, and handle the process of transferring the property to the organization that will put the property to productive use.²⁶³ The relationship between Richmond and the MWCLT is defined in a Memorandum of Agreement, which calls for an annual plan and a nine-member Citizen's Advisory Panel.²⁶⁴

The MWCLT preserves affordable homeownership options by placing land in the land trust and allowing purchase of the home at a reduced rate.²⁶⁵ The homeowner can then use the land as any normal homeowner would.²⁶⁶ When the homeowner goes to sell the home, he will receive equity for all the money he has paid in down payments and mortgage payments, plus half of the appreciated equity.²⁶⁷ The half of the appreciated equity remains in the house, allowing the next buyer to purchase it below market value.²⁶⁸ The goal of this program is to keep neighborhoods diverse and vibrant by ensuring that more citizens are able to afford housing even as housing prices rise.²⁶⁹ MWCLT homes currently exist in parts of Richmond and are available to families earning

²⁵⁶ *Id.*

²⁵⁷ Colter Anstaett, *Danville Land Bank, Non-Profit Being Created to Help Fight Blight*, WSLs, June 12, 2017, <https://www.wsls.com/news/virginia/southside/danville-land-bank-non-profit-being-created-to-help-fight-blight>.

²⁵⁸ DANVILLE NEIGHBORHOOD DEVELOPMENT CORPORATION, *Land Bank*, <https://danvillencdc.org/land-bank/> (last visited Sept. 22, 2018).

²⁵⁹ *Id.*

²⁶⁰ RICHMOND, VA., ORDINANCE No. 2017-196 (2018), <https://richmondva.legistar.com/LegislationDetail.aspx?ID=3163331&GUID=C3E170F3-EE01-42CF-B873-71A505A55F04>.

²⁶¹ *See* VA. CODE ANN. § 15.2-7512; RICHMOND, VA., ORDINANCE No. 2017-196 (2018).

²⁶² MAGGIE WALKER COMMUNITY LAND TRUST, *Richmond's CLT Land Bank: First in the Nation*, <https://maggiewalkerclt.org/richmonds-cltland-bank-first-in-the-nation/> (last visited Nov. 19, 2018).

²⁶³ *Id.*

²⁶⁴ *Id.*

²⁶⁵ MAGGIE WALKER COMMUNITY LAND TRUST, *About MWCLT*, <https://maggiewalkerclt.org/about/> (last visited Sept. 23, 2018).

²⁶⁶ *Id.*

²⁶⁷ *Id.*

²⁶⁸ *Id.*

²⁶⁹ *Id.*

up to 115% of the area’s median income.²⁷⁰ A program like this is another method for Middle Peninsula localities to consider implementing.

4. Use rehabilitated property to create public housing for public employees.

A creative solution to the vacant housing crisis that also might support regional concerns related retaining government employees in the region, is for housing rehabilitated according to one of the options discussed previously to be used as a public housing resource for employees of state or local government. Such an approach would need to comply with all anti-discriminatory laws under the federal Fair Housing Act and other applicable federal laws that prohibit discrimination.²⁷¹ To avoid liability for discriminatory practices, a public workforce housing program would need to avoid discriminating on the basis of race, color, religion, sex or national origin when making housing decisions such as setting the terms of a sale or lease, or advertising the listing.²⁷²

5. Utilize Community Organizations

The Middle Peninsula Planning District Commission could coordinate with HOAs, civic leagues, and community associations to examine and address the issue of vacant housing. An HOA is usually a private association formed by a real estate developer to function as a private government, allowing for expedited procedures and community self-enforcement in a much more efficient way than traditional government. HOAs can regulate minute details of homes (e.g., how tall the grass should be cut, whether windows can have blinds, etc.). More importantly, HOAs are decentralized and encourage “buy-in” by homeowners, which eliminates a common problem facing traditional government solutions: non-compliance or half-hearted compliance by property owners. While HOAs tend to be concentrated in urban centers, some Middle Peninsula localities utilize HOAs as well. Wider use of HOAs in the Middle Peninsula can encourage private property owners to take greater responsibility and initiative for their own properties.

In Virginia, developers can create HOAs that are governed by the Property Owners' Association Act, codified in title 55, chapter 26 of the Virginia Code. The Act does not explicitly require the establishment of “common areas,” but section 55-509’s definition of a “declaration” (an HOAs governing document) seems to assume that HOAs will have some sort of common-area-subdivision arrangement:

“Declaration” means any instrument, however denominated, recorded among the land records of the county or city in which the development or any part thereof is located, that . . . (ii) creates the authority in the association to impose on lots, or on the owners or occupants of such lots, or on any other entity any mandatory payment of money in connection with the provision of maintenance and/or services for the benefit of some or all of the lots, the owners or occupants of the lots, or the common area.²⁷³

²⁷⁰ *Id.*

²⁷¹ *See* 42 U.S.C. § 3604 (1998).

²⁷² *See id.*

²⁷³ *See* VA. CODE ANN. § 55-509 (2015).

On the other hand, this assumption that many HOAs will have common areas does not translate into a mandate that all HOAs have such areas. Rather, it seems to allow the opposite possibility.

In addition, many Virginia neighborhoods use voluntary civic leagues. One such example is in Virginia Beach, Virginia, where many neighborhoods have formed their own voluntary HOAs to involve neighbors in making decisions.²⁷⁴ A civic league is a non-profit organization whose primary purpose is to improve the quality of life in the neighborhood by involving citizens in decision-making and dialogues.²⁷⁵ The promotion of civic leagues in the Middle Peninsula could help improve the dissemination of information and communication among homeowners about the issue of vacant housing in their neighborhood.

6. Utilize Service Districts.

Service districts, expressly authorized in section 15.2-2400 of the Virginia Code, apply more directly to areas in which “more complete” or “more timely” provision of government services is desired.²⁷⁶ Because Virginia is a Dillon Rule state, authorization at the state level is required for local governments to be able to create ordinances that establish service districts.²⁷⁷ Once permission is granted at the state level, the locality is authorized to enact an ordinance to achieve the desired goals.

State code has authorized the establishment of service districts for several localities in Virginia. For example, Virginia Code Section 15.2-2403(13) grants authority for the Town of Front Royal to establish a service district to address rat and skunk infestation, and subsection (14) grants authority for Accomack County to establish a service district to better serve aerospace-related economic development.²⁷⁸ In addition to these specific grants of authority, Section 15.2-2403 grants general authority for localities to adopt ordinances establishing service districts to provide water supply, dams, sewerage, garbage removal and disposal, heat, light, sidewalks, fire-fighting equipment, economic development services, beautification, landscaping, beach and shoreline management, dredging of creeks and rivers to maintain existing uses, control of infestations, parking, transportation, and other necessary and desirable services.²⁷⁹ Using this authority, Virginia Beach has established through ordinance special service districts for dredging projects.²⁸⁰ The dredging projects are supported by city funds and service district taxes, and will attempt to preserve and enlarge the navigable rivers, enhance stormwater capacity and water quality, and protect public recreation areas and property values.²⁸¹

²⁷⁴ See, e.g., LAKE SHORES CIVIC LEAGUE, *What is a Civic League?*, <http://lakeshores.org/civic-league/what-is-a-civic-league/> (last visited Sept. 24, 2018).

²⁷⁵ *Id.*

²⁷⁶ See VA. CODE ANN. § 15.2-2400 (2000).

²⁷⁷ USLEGAL.COM, *Dillon’s Rule Law and Legal Definition*, <https://definitions.uslegal.com/d/dillons-rule/> (last visited Sept. 24, 2018).

²⁷⁸ See VA. CODE ANN. § 15.2-2403(13)-(14) (2018).

²⁷⁹ *Id.* at (1).

²⁸⁰ VIRGINIA BEACH, VA. CODE § 35.3-1 (2011).

²⁸¹ VIRGINIA BEACH, VA. CODE § 35.3-4 (2011).

Looking to the Middle Peninsula and other Virginia localities affected by vacant housing issues, the question becomes whether service districts could be used to address the issue of blight. While blighted areas could indeed be deemed areas in which “more complete” or “more timely” government services are desired, such areas would probably be better suited to land banks, which have broader authority to manage or entirely repurpose land, or as recipients of VHDA grants by designation as “housing revitalization areas.”²⁸²

7. Execute Heirship Affidavits.

The problem of multiple ownership of vacant properties may be alleviated through the use of an heirship affidavit. An heirship affidavit is a device afforded to property owners by Virginia law which records the intestate transfer of real estate.²⁸³ Heirship affidavits include: (1) a description of the decedent’s real estate at the time of death, (2) an acknowledgement that the decedent died intestate, and (3) the decedent’s heirs’ name and addresses.²⁸⁴ Executing heirship affidavits would help alleviate the heirs property problem of vacant housing prophylactically by providing some certainty about the property’s ownership. This certainty would facilitate acquiring the property from its owners and rehabilitating it for housing purposes.

VI. CONCLUSION

Ownership of property is vital to the flourishing of communities. The epidemic of vacant properties in Virginia’s Middle Peninsula has greatly dampened the vitality of the region. The solutions proposed in this paper aim to revitalize this vibrant section of Virginia through proposing: (1) legislative change, (2) taking advantage of funding, and (3) using legal methods provided under current Virginia law. The revitalization of these localities requires time and gradual development as interested parties work to improve their communities. This paper represents an important initial step towards developing a framework for the continued vitality of Virginia’s Middle Peninsula. A uniform definition for vacant housing provides the basis for future legislation. Defining the problems with marketability provides an important context from which to view the problem. Laying out the legal authorities surrounding vacant housing provides an important tool with which to attack the problem. Finally, case studies provide real examples of how intelligent, interested parties have approached the vacant housing problem. It is true that property ownership is the bedrock of a healthy community. With that in mind, using this report and incorporating its suggestions into plans for combatting vacant housing will provide a foundation for future generations to erect an enduring barrier against this pervasive issue.

²⁸² See *infra* Part III(B)(1) .

²⁸³ Giaquinto & Otts, *supra* note 44, at 7.

²⁸⁴ *Id.*

Appendix A: Sample Checklist for Applying Vacant House Definition

A “Vacant House” is a unit or building in a residential zone that is that is characterized by (1) being abandoned or otherwise chronically unoccupied, (2) not being an active part of the housing stock of the Middle Peninsula, (3) exhibiting characteristics that create the risk of public harm, (4) or being significantly delinquent in regards to the financial duties of its owner or owners.

When any two (2) of the following are true, a house shall be considered vacant:

- Check this box when a house is unoccupied for a period of time lasting at least twelve (12) months, beginning at the time when the house is first documented as being vacant by the appropriate authorities.
- Where none of the following conditions are present, check this box. A house is actively part of the Middle Peninsula’s housing stock when it is:
 - Currently occupied by a permanent resident,
 - Being offered for sale,
 - Undergoing repair or remodeling,
 - Being used as a vacation house, or
 - Being used for an income-generating purposes compatible with its zoning status.
- Check this box when a house’s vacancy creates a public harm. A public harm is created when it either poses a threat to public safety or impairs the value of neighboring lands, or both.
 - Check this box if the house impairs public safety. A vacant house poses a threat to public safety when it exhibits any two (2) of the following:
 - Noncompliance with applicable building codes;
 - Violation of applicable health and safety standards;
 - Determination that the house is unfit for human habitation;
 - Designation as a public nuisance, as defined by applicable ordinances;
 - Designation as blighted, as defined by applicable ordinances.
 - Check this box if the house impairs neighboring property values. A vacant house impairs neighboring property values when it exhibits any two (2) of the following traits:
 - Boarded up window(s);
 - Vandalization on the premises or house itself;
 - Openness to casual entry by non-owner(s) of the house;
 - An appearance demonstrating neglect, as evidenced by one or more of the following:
 - Overgrown or unmaintained grounds or premises;
 - Deterioration or disrepair of the façade or shell of the house;
 - Other: _____
- Check this box when a house is significantly delinquent. A vacant house exhibits significant delinquency when any two (2) of the following traits are present:
 - Unpaid property taxes and/or liens
 - Unpaid or cut off utilities
 - Unpaid mortgage installments, and resulting foreclosure.

Middle Peninsula Planning District Commission (MPPDC)
2019

**Middle Peninsula Vacant Housing Survey Results, Demographic
Data, Analysis, & Conclusions**

Lewis Lawrence – Executive Director MPPDC
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INTRODUCTION

The following tables and graphs depict the results from the surveys that the Middle Peninsula Planning District Commission (MPPDC) distributed by mail or electronically via the website SurveyMonkey. The respondents who received this survey have been identified as either having an address, or an address in their neighborhood that was listed in a Virginia Dominion Power database indicating that the power has been turned off for more than one year. If a structure is without power for over a year, there is a distinct possibility that the structure is vacant. **2017 U.S. Census American Fact Finder DP04 Selected Housing Characteristics data indicates that 37.93% of Middlesex County housing stock is vacant followed by 34.34% of Mathews; 23.37% of Essex; 19% King and Queen, 10% King William and Gloucester**

The Middle Peninsula survey was divided into two segments. Part A of the survey was a brief, six-question section that assisted the MPPDC with identifying vacant residential structures on the Middle Peninsula, as well as helping to identify the perceived impact that these vacant residential structures have on the surrounding community. Part B contained questions that should be answered only by the respondents who own a vacant residential structure and were interested in continuing to assist the MPPDC with its assessment. Part B contained questions related to opportunities to repurpose vacant residential structures into community assets.

Not all questions asked on the survey were included in this final report because some questions did not produce or yield any results. This report contains only these questions that revealed a trait noteworthy of inclusion or where an analysis of the results could be conducted, and conclusions drawn.

For the purposes of this survey, a vacant residential structure is defined as a unit or building in any zoning district that is characterized by:

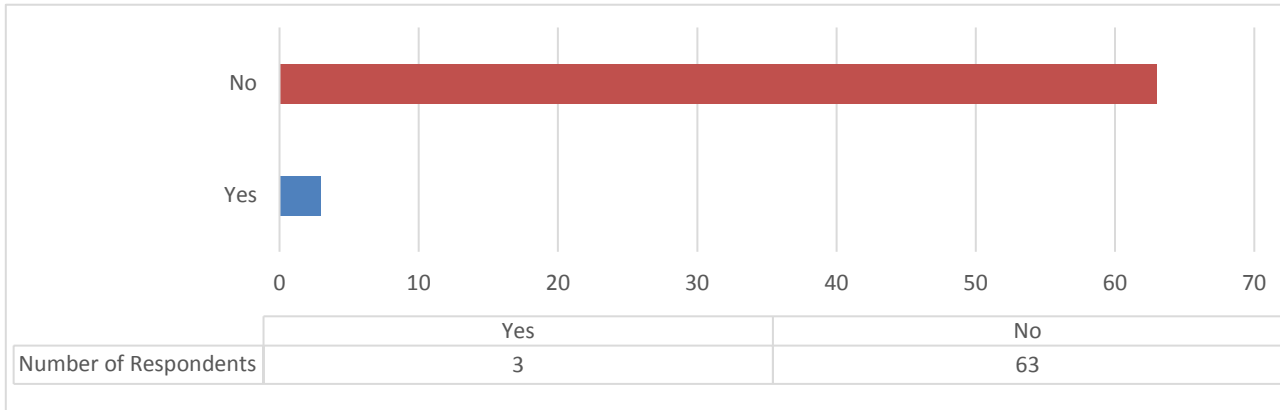
1. Being abandoned or otherwise unoccupied for more than twelve months;
2. Not being an active part of the housing stock of the Middle Peninsula;
3. Exhibiting characteristics that create the risk of public harm; or
4. Being significantly delinquent in regards to the financial duties of its owner or owners.

I. SURVEY RESULTS & ANALYSIS

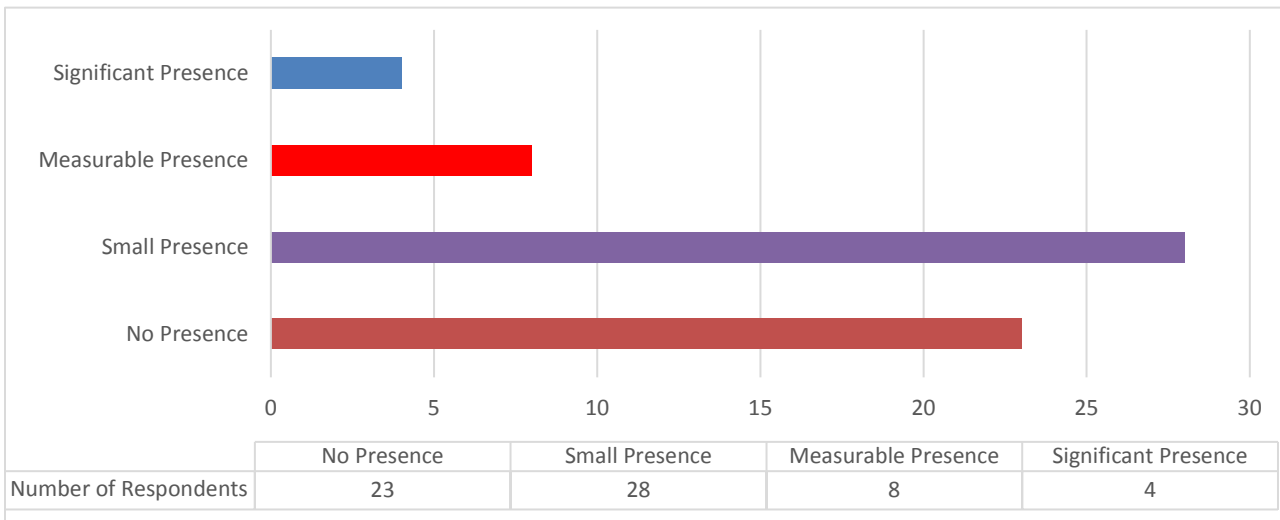
This survey began with a very straightforward question: “do you own a structure on the Middle Peninsula that meets one or more of the vacant residential structure characteristics?” The results for Question 1 were as follows: 95% of the sixty-six respondents who answered this survey stated that they did not own a vacant structure in the Middle Peninsula. Therefore, only three respondents acknowledged that they owned a vacant structure within the Middle Peninsula region. This is incongruent with the vacant housing estimate provided by the US Census. Survey results for this questionnaire not necessarily indicative of the entire region because the six counties that comprise the Middle Peninsula as of 2018 have a total population of 91,820. This survey represents only 0.0007187% of the total population for the entire Middle Peninsula Region.

Question 2 shows that 80.95% of those who responded to the survey stated that there is either no presence or a small presence of vacant housing in their neighborhood. This is surprising because this survey was distributed to property owners that either own residential structures or live in neighborhoods where residential structures have been identified as being vacant. Only 19.5% of the people who responded to the survey identified that there was either a measurable or significant presence of vacant housing in their neighborhood.

Question 2: Do you own a structure on the Middle Peninsula that meets one or more of the vacant residential structure characteristics and could therefore be defined as vacant?



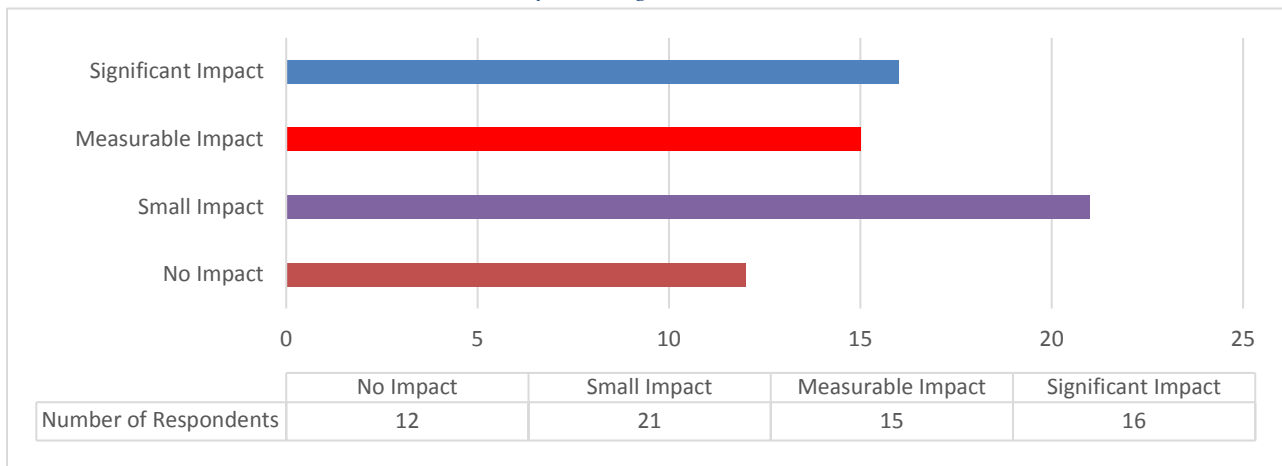
Question 1: How would you characterize the presence of vacant residential structures in your neighborhood?



Question 3 respondents were uncertain as to how much of an impact vacant residential structures can have on property values within their neighborhood. 48.44% of the respondents answered that vacant housing structures have either a measurable or significant impact on their property values. Meanwhile, 51.56% stated that vacant housing structures had either no impact or a very small impact on their property values.

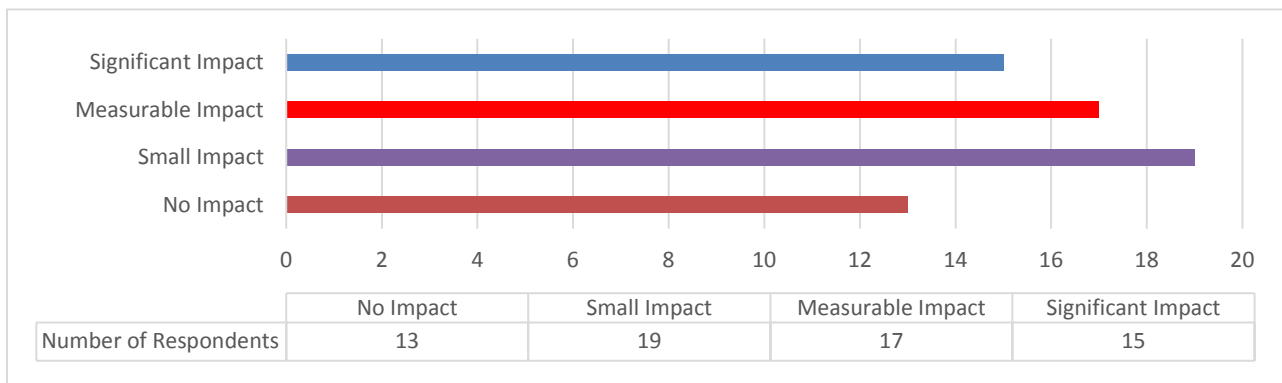
This question could have been answered in one of two ways depending on how the respondent interpreted this question. People could have translated this question as in do vacant structures in general have an impact on the property values in their neighborhood or do vacant houses currently located in your neighborhood have an impact on your property values? Typically, most researchers agree that vacant structures do have a significant impact on the overall health of the community and the property values within a neighborhood.

Question 3: To what extent do you believe vacant residential structures affects property values throughout your neighborhood?



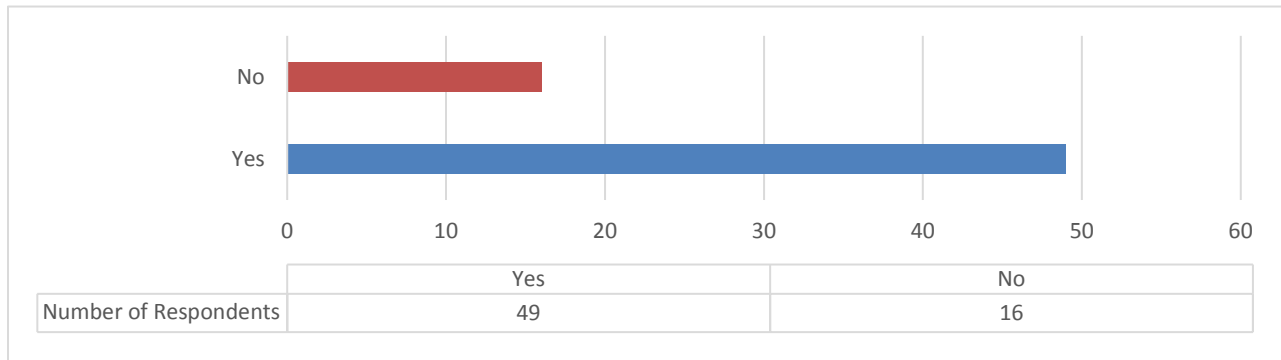
Question 4 results are slightly contradictory to what research on vacancy housing has told researchers in the past. Based on research, vacant housing can have a significant impact on property value, the health of the community, attracting new residents, crime, and the overall economy. However, exactly 50% of the community is under the impression that vacant residential structures have either a small or no impact on being able to attract new residents to the neighborhood.

Question 4: To what extent do you believe vacant residential structures impact attracting new residents to your neighborhood?



Question 5 reveals that most people in the Middle Peninsula would support public programs that offer resources to owners of vacant residential structures. Fortunately, there are many government programs that are designed to help alleviate the pressure that counties have with vacant housing.

Question 5: Would you support public programs that offer resources to owners of vacant residential structures that would allow them to improve their vacant structures to the point where they can be reoccupied?



Question 6: If you answered yes to Question 1, how long has your structure been vacant?	
Respondent Number	Responses
1	8 Months
2	10 Years
3	10 Years
4	50+ Years
5	No Response

Question 6 communicates that most vacant structures within the Middle Peninsula have been vacant for an extended period. As outlined in the vacant housing survey, for a residential structure to be considered vacant, it must be unoccupied for at least twelve months. However, three of the respondents expressed that their structure has been vacant for more than 10 years with one person identifying that their property has been vacant for 50 years or more. These are economically stressed properties, which leads to less property tax revenue for the county and can be indicative

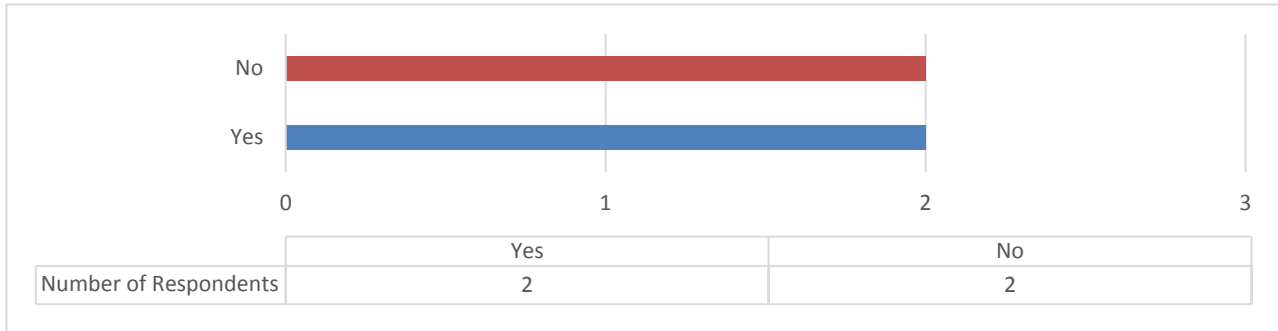
of a community in decline. Vacant houses negatively impact the housing stock and can cost the locality economic revenue. Buildings that remain vacant for a long period of time typically become severely dilapidated as the owner disregards maintenance of the property.

Question 7: Please list the primary reasons for how your structure became vacant and why it has remained vacant:	
Number of Respondents	Responses
1	There was a landslide and the property/residence has been condemned by King William County. Prohibitive costs are the reason why this structure has remained vacant (approximately \$1 million dollars or more to repair the damage caused by the landslide).
2	Prior tenant destroyed the property. The property has remained vacant because the appearance is so dilapidated (even though there have been recent attempts to improve the appearance).
3	It is a residential structure in a heavy commercial area (near the intersection of U.S. Route 17 and U.S. Route 360). The property is not zoned for residential and is no longer grandfathered into the zoning ordinance. The previous owner died while residing there.
4	The structures are not currently being lived in. The residences were originally purchased by my grandfather to add to the existing acreage parcels he owned throughout the Middle Peninsula.
5	No Response

Question 7 reports as to why these vacant structures became vacant and why they have remained that way. Respondent #1 is extremely unique and relevant because the respondent’s particular property has been condemned by King William County due to a landslide, more than likely caused by flooding or severe storm event. Middle Peninsula residents will need help with finance and design to promote flood resistant structures with proper elevations above the Base Flow Elevation (BFE).

Question 8 reveals that at least half of the respondents who own vacant structures have no desire to upgrade the property. This further demonstrates the need for innovative solutions to deal with the vacancy housing dilemma that the Middle Peninsula is facing. Half of these properties will continue to remain unoccupied and derelict, which will continue to provide no economic benefit for the county.

Question 8: Do you plan to upgrade the vacant structure in order to put it back into a productive use?

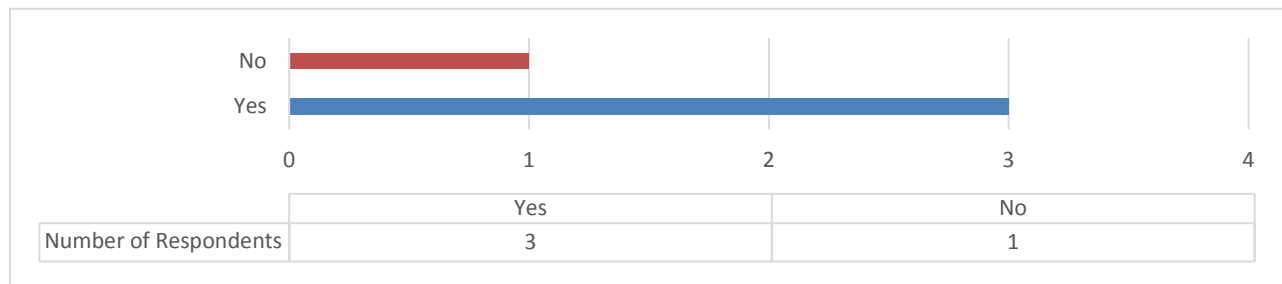


Question 9 reveals the main reason why structures are not upgraded is due to the lack of funds or the overall cost of the project. This is a very typical response from those who have vacant structures because it costs a substantial amount of capital to renovate or demolish structures.

Question 9: If you own a vacant residential structure and do not plan to upgrade the vacant structure, please provide the reasons why:	
Number of Respondents	Responses
1	Cost
2	The best use for the property is commercial, not residential
3	It is not financially responsible as an owner
4	No Response

Most of the respondents who own a vacant structure wish to demolish the structure as the results in Question 10 demonstrate. However, most of the respondents noted that they cannot afford to demolish these structures. Demolishing a structure can be a very expensive and time-consuming project.

Question 10: Do you desire to demolish your vacant structure?



Question 11: If you desire to demolish your vacant residential structure, please provide the reasons why:	
Number of Respondents	Reponses
1	Property is condemned
2	Selling the Land
3	The structure is not suitable for commercial uses
4	Non-Applicable

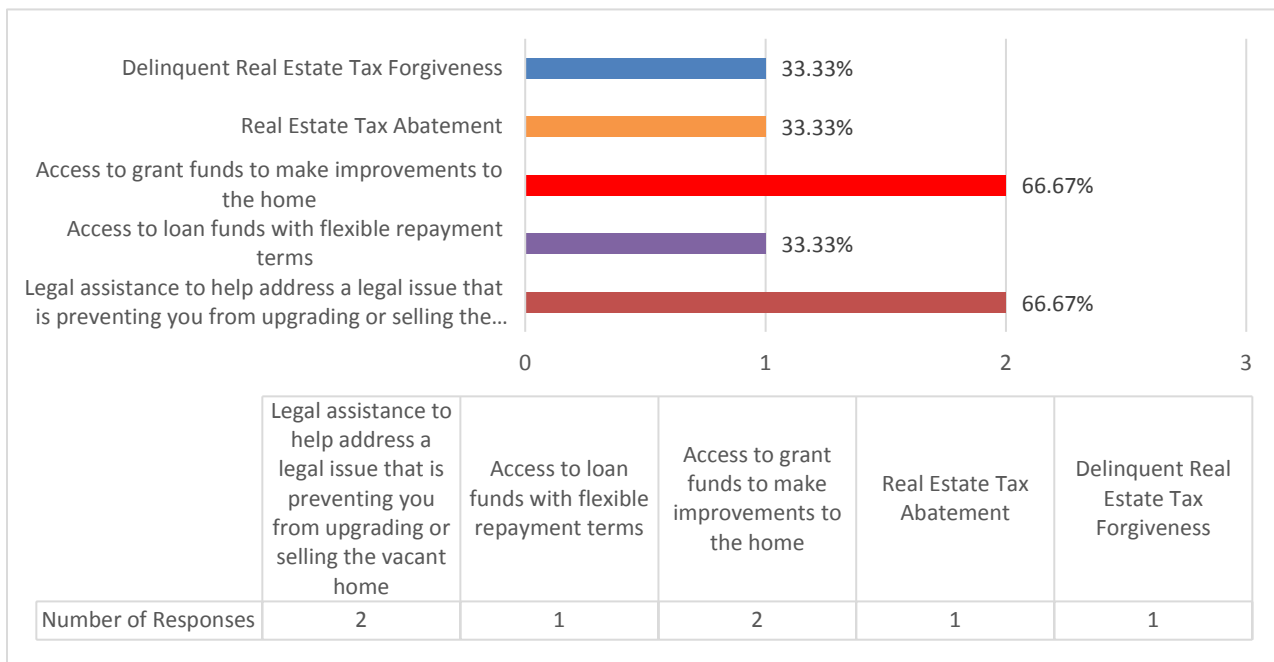
Question 11 and 12 reveals that most people have a valid reason for demolishing a vacant structure or cannot afford the costs that the demolition would entail. These questions substantiate the fact presented earlier that it is rather expensive to demolish structures and that there is little assistance that can be provided to individuals wishing to perform this procedure.

Question 12: If you desire to demolish your vacant residential structure but are unable to, please provide the reasons why:	
Number of Respondents	Reponses
1	Cost
2	Cost
3	The costs of demolishing the structure exceed available funds
4	Non-Applicable

As the respondents noted in Question 13, many programs would be beneficial to those who own vacant houses to assist them in repurposing their vacant structure. Gaining access to grant funds to make improvements to the home and being presented with legal assistance to help address any legal issues that may be preventing them from upgrading or selling the vacant home were the two most popular types of programs, however. One program that could help alleviate the amount of

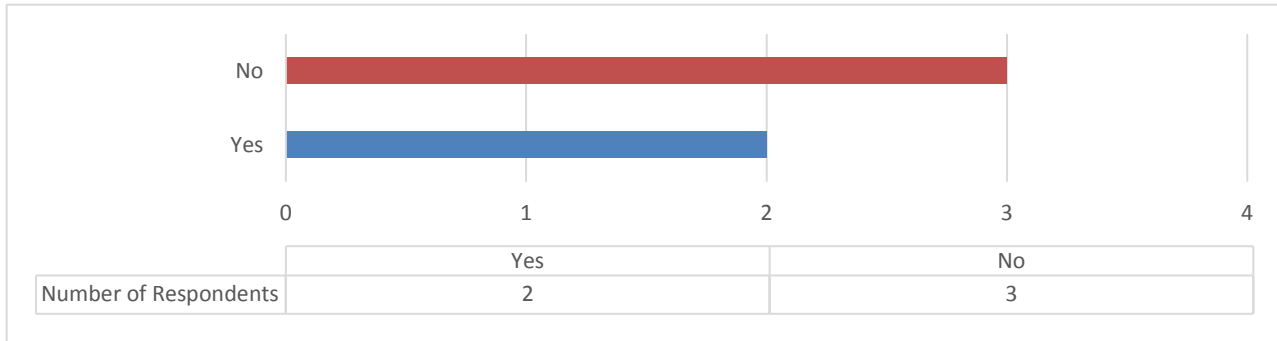
vacant homes in the Middle Peninsula is the Home Affordable Modification Program (HAMP). HAMP's goal is to offer homeowners who are at risk of foreclosure reduced monthly mortgage payments that are affordable and sustainable over the long-term.

Question 13: Which of the following programs would assist you in repurposing your vacant structure? Please check the box next to the types of programs that you would utilize if they were offered (can select more than one):



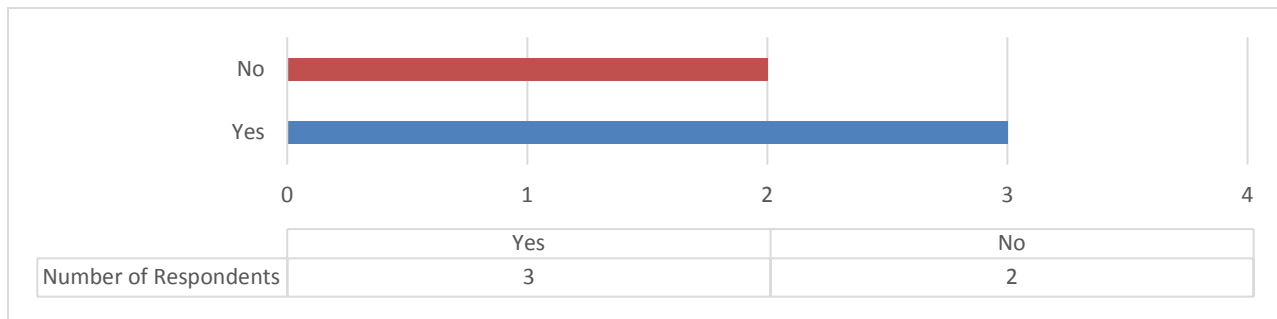
Question 14 reveals that most people would still not consider making improvements to their vacant structures even if these programs existed and they were eligible. Therefore, even though the respondents recognize that these programs could potentially be beneficial to them to assist with their vacant housing issue, they would still not be interested in making improvements to their house.

Question 14: Would you consider making improvements to your vacant structure if one or more of these programs were available?



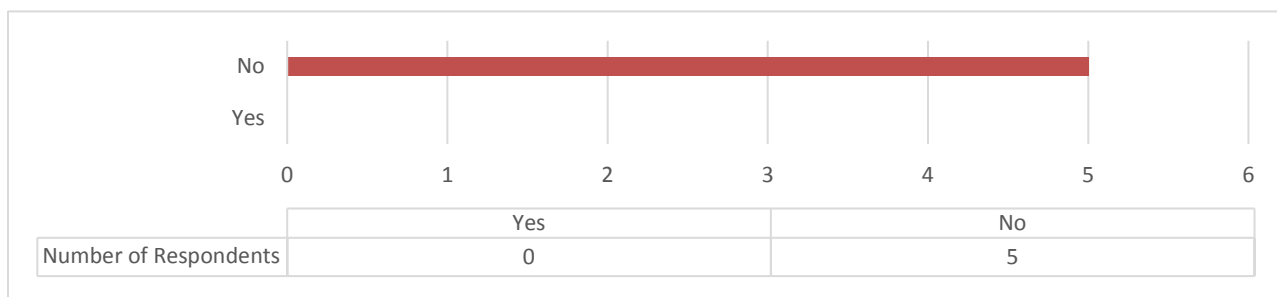
Question 15 indicates more people would consider participating in a program that would better their house but only if the owner rents or sells to a Middle Peninsula employee. This program would be beneficial for two reasons. The first reason is because this provides an incentive for people to renovate and improve their vacant residential structures. The second reason is that it would provide housing structures for those to work within the Middle Peninsula which could encourage people to begin to apply for job opportunities within Middle Peninsula counties.

Question 15: Would you consider participating in one or more of these programs if it required that upon completion, you must rent or sell your structure to a Middle Peninsula employee?

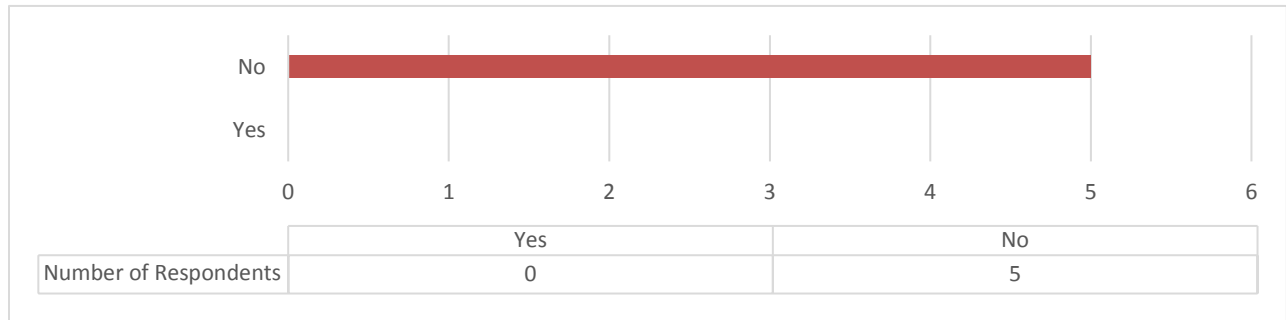


The final two questions, Question 16 and 17, both show that none of the respondents who own a vacant structure would donate the structure to a public entity or rent/sell their residential structure to a Middle Peninsula employee for less than market rate. This further promotes the argument that the municipality must take steps to motivate the owner of the vacant residential structure to make a decision on what they are going to do with the property or take more forceful steps to remedy the situation.

Question 16: Would you consider participating in one or more of these programs if it required that upon completion, you must rent or sell your structure to a Middle Peninsula employee at below market rate?



Question 17: Would you consider donating your vacant structure to a public entity on the Middle Peninsula that focuses on affordable housing?



II. DEMOGRAPHIC DATA

In order to understand the vacant housing issue, data was collected from sources that are related or have an effect on the vacant housing issue that the Middle Peninsula faces. Table 1 below depicts how many vacant houses are found in each of the counties that comprise the Middle Peninsula region. Additionally, this table gives a brief description of why houses are vacant and the current status. For instance, we observed that in Middlesex County there are over 2,000 homes that are vacant because these homes are for non-occupancy, seasonal, recreational, or are otherwise seldomly used.

Table 1: Number of Estimated Vacant Houses in Middle Peninsula Counties

Status:	Essex County	Gloucester County	King & Queen County	King William County	Mathews County	Middlesex County
Total	1,363	1,588	666	681	1,970	2,763
For rent	114	76	16	0	104	33
Rented, not occupied	33	0	0	0	0	0
For sale only	98	134	36	60	159	149
Sold, not occupied	27	32	0	50	0	43
For seasonal, recreational, or occasional use	686	675	261	184	1,393	2,022
Other vacant	405	671	353	387	314	516

All Tables are 2017 US Census American Fact Finder

The second table shows the total housing stock for each Middle Peninsula county. The percentage on the last row represents the share of houses that have been determined to be vacant for each county. This is important because as the report by CityLab details, “a healthy rental vacancy rate typically hovers around 7 to 8 percent, and a healthy homeowner vacancy rate is pegged much lower, at 2 percent or below. A vacancy rate of above 12 percent is considered high, and above 20 percent is considered hyper-vacancy” (Florida). By this definition, four of the six counties have been considered to have a high or hyper-vacancy rate, which is troubling for the economies of these localities.

Table 2: Housing Status for Middle Peninsula Counties

Status	Essex County	Gloucester County	King & Queen County	King William County	Mathews County	Middlesex County
Total	5,833	16,334	3,477	6,760	5,736	7,285
Occupied	4,470	14,746	2,811	6,079	3,766	4,522
Vacant	1,363	1,588	666	681	1,970	2,763
Percentage of Vacant Houses	23.37%	9.72%	19.15%	10.07%	34.34%	37.93%

The following tables were used to create Map 1, Map 2 and Map 3 found in the Appendix. These tables are significant as they depict which census tracts could possibly be designated objectively as a Housing Revitalization Area or Housing Revitalization Zone in order to receive funding under the Virginia Housing Development Authority Act. MPPDC has requested a review of possible eligibility by Virginia Housing Development Authority for this designation. Alternatively, under 36-55.30:2 a local board may also subjectively designate an area without the need of complex demographic data to create the tools needed. This designation will enable funding for Economically Mixed Projects.

§36-55.26 "Economically mixed project" means residential housing or housing development, which may consist of one or more buildings located on contiguous or noncontiguous parcels that the HDA determines to finance as a single economically mixed project, to be occupied by persons and families of low and moderate income and by other persons and families as the HDA shall determine.

Section 36-55.30:2. Housing revitalization areas; economically mixed projects. This section is described in detail in the following excerpt.

- A. “For the sole purpose of empowering the HDA to provide financing in accordance with this chapter, the governing body of any city or county may by resolution designate an area within such city or county as a revitalization area if such governing body shall in such resolution make the following determinations with respect to such area: (i) either (a) the area is blighted, deteriorated, deteriorating or, if not rehabilitated, likely to deteriorate by reason that the buildings, improvements or other facilities in such area are subject to one or more of the following conditions: dilapidation; obsolescence; overcrowding; inadequate ventilation, light or sanitation; excessive land coverage; deleterious land use; or faulty or inadequate design, quality or condition; or (b) the industrial, commercial or other economic development of such area will benefit the city or county but such area lacks the housing needed to induce manufacturing, industrial, commercial, governmental, educational, entertainment, community development, healthcare or nonprofit enterprises or undertakings to locate or remain in such area; and (ii) private enterprise and investment are not reasonably expected, without assistance, to produce the construction or rehabilitation of decent, safe and sanitary housing and supporting facilities that will meet the needs of low and moderate income persons and families in such area and will induce other persons and families to live within such area and thereby create a desirable economic mix of residents in such area. Any redevelopment area, conservation area, or rehabilitation area created or designated by the city or county pursuant to Chapter 1 (§ 36-1 et seq.) of this title, any census tract in which 70 percent or more of the families have incomes which are 80 percent or less of the statewide median income as determined by the federal government pursuant to Section 143 of the United States Internal Revenue Code or any successor code provision on the basis of the most recent decennial census for which data are available, and any census tract which is designated by the United States Department of Housing and Urban Development and, for the most recent year for which census data are available on household income in such tract, either in which 50 percent or more of the households have an income which is less than 60 percent of the area median gross income for such year or which has a poverty rate of at least 25 percent shall be deemed to be designated as a revitalization area without adoption of the above described resolution of the city or county. In any revitalization area, the HDA may provide financing for one or more economically mixed projects and, in conjunction therewith,

any nonhousing buildings that are incidental to such project or projects or are determined by the governing body of the city or county to be necessary or appropriate for the revitalization of such area or for the industrial, commercial or other economic development thereof.”

- B. “The HDA may finance an economically mixed project that is not within a revitalization area if the governing body of the city or county in which such project is or will be located shall by resolution determine (i) either (a) that the ability to provide residential housing and supporting facilities that serve persons or families of lower or moderate income will be enhanced if a portion of the units therein are occupied or held available for occupancy by persons and families who are not of low and moderate income or (b) that the surrounding area of such project is, or is expected in the future to be, inhabited predominantly by lower income persons and families and will benefit from an economic mix of residents in such project and (ii) private enterprise and investment are not reasonably expected, without assistance, to produce the construction or rehabilitation of decent, safe and sanitary housing and supporting facilities that will meet the needs of low and moderate income persons and families in such area and will induce other persons and families to live within such area and thereby create a desirable economic mix of residents in such area.”
- C. “In any economically mixed project financed under this section, the percentage of units occupied or held available for occupancy by persons and families who are not of low and moderate income, as determined as of the date of their initial occupancy of such units, shall not exceed 80 percent.”

The other section that the MPPDC has found in the Code of Virginia is Section 36-160 Housing revitalization zone designation. This section is described in the following excerpt:

- A. The governing body of any county, city or town may make written application to the Department to have an area or areas declared to be a housing revitalization zone. Such application shall include a description of the location of the area or areas in question, and a general statement identifying proposed local incentives to complement the state incentives. Two or more adjacent jurisdictions may file a joint application for a housing revitalization zone lying in the jurisdictions submitting the application.
- B. The Governor may approve, upon the recommendation of the Director of the Department, the designation of up to twenty areas as housing revitalization zones for a period of fifteen years. Any county, city, or town shall be eligible to apply for more than one housing revitalization zone designation; however, each county, city, and town shall be limited to a total of two housing revitalization zones. Any such area shall consist of contiguous United States census tracts or any portion thereof in accordance with the most current United States Census or with the most current data from the local planning district commission. Any such area seeking designation as a housing revitalization zone shall also meet at least one of the following criteria: (i) have per capita income below eighty percent of the median per capita income for the planning district or (ii) have a residential vacancy rate that is at least 120 percent of the average vacancy rate for the planning district. No more than ten percent of a locality's land area may be in a single housing revitalization zone.

The following tables are presented as data that may be used to help the Middle Peninsula localities determine if certain areas may or may not qualify for designation. The first set of tables (Table 3 – Table 9) represent the income level with the median and mean calculated for households and families for each census tract for all six counties within the Middle Peninsula.

Table 3 shows the income level for each census tract in Essex County. Census tract 9507 has an extremely low median household income level at only \$37,069. This is because 25.30% of the households located in this census tract has an income of between \$15,000 to \$34,999. That is extremely high and shows this census tract is

particularly impoverished.

Subject	Census Tract 9506		Census Tract 9507		Census Tract 9508	
	Households	Families	Households	Families	Households	Families
Total	1,478	1,005	1,601	849	1,391	991
Less than \$10,000	2.70%	1.30%	8.30%	5.40%	3.10%	0.00%
\$10,000 to \$14,999	3.30%	3.50%	10.40%	2.50%	6.00%	1.60%
\$15,000 to \$24,999	11.20%	8.00%	16.50%	7.10%	7.30%	6.40%
\$25,000 to \$34,999	14.10%	9.20%	10.20%	9.70%	7.00%	7.80%
\$35,000 to \$49,999	11.20%	14.90%	17.80%	18.50%	16.30%	16.40%
\$50,000 to \$74,999	20.00%	20.20%	17.90%	23.90%	26.80%	27.20%
\$75,000 to \$99,999	16.40%	20.80%	9.30%	14.70%	15.70%	18.70%
\$100,000 to \$149,999	17.10%	16.20%	4.60%	8.70%	12.10%	14.00%
\$150,000 to \$199,999	0.80%	1.20%	4.20%	7.90%	3.70%	5.20%
\$200,000 or more	3.20%	4.80%	0.90%	1.60%	1.90%	2.60%
Median income (dollars)	51,982	58,496	37,069	55,679	56,492	67,596
Mean income (dollars)	72,858	82,255	48,749	66,548	66,819	76,709

Table 3: Income Level for Each Census Tract in Essex County, Virginia

Table 4 shows the income level for four of the eight census tracts in Gloucester County. All four of the census tracts have a median household income level that is above the average for the Middle Peninsula.

Subject	Census Tract 1001		Census Tract 1002.01		Census Tract 1002.02		Census Tract 1002.03	
	Households	Families	Households	Families	Households	Families	Households	Families
Total	2,915	2,213	2,028	1,612	1,461	992	1,504	900
Less than \$10,000	3.50%	2.70%	7.30%	3.50%	2.10%	0.00%	3.40%	2.40%
\$10,000 to \$14,999	3.00%	0.00%	1.70%	0.00%	7.70%	0.90%	1.70%	1.10%
\$15,000 to \$24,999	7.10%	3.10%	2.60%	0.00%	7.00%	5.70%	8.90%	0.80%
\$25,000 to \$34,999	6.00%	4.00%	3.70%	1.60%	9.30%	2.40%	14.40%	5.40%
\$35,000 to \$49,999	14.80%	16.00%	8.80%	9.50%	10.30%	15.70%	5.70%	6.20%
\$50,000 to \$74,999	21.90%	19.70%	24.10%	26.60%	19.80%	20.40%	19.00%	23.30%
\$75,000 to \$99,999	16.30%	22.00%	19.30%	21.80%	21.00%	27.90%	13.10%	12.60%
\$100,000 to \$149,999	19.70%	22.20%	23.80%	28.30%	12.20%	11.50%	14.00%	19.20%
\$150,000 to \$199,999	4.70%	6.70%	4.50%	4.70%	6.30%	9.30%	8.40%	12.80%
\$200,000 or more	3.20%	3.70%	4.10%	4.10%	4.20%	6.10%	11.40%	16.10%
Median income (dollars)	64,734	77,264	77,593	83,856	63,835	79,487	67,803	93,182
Mean income (dollars)	79,456	90,538	87,255	94,259	78,307	92,856	93,424	117,826

Table 4: Income Level for each Census Tract in Gloucester County, Virginia Part 1

Table 5 shows the income level for the other four census tracts in Gloucester County. The two census tracts with the lowest median income for households in Gloucester County are census tract 1003.01 with \$52,995 and census tract 1004 with \$56,563. In census tract 1003.01, 15.80% of the household make between \$25,000 and \$34,999, which is a significant portion of the population that does not have a high-income level. On the other hand, in census tract 1004, 14.40% of the population makes less than \$10,000, which demonstrates an example of extreme poverty.

Table 5: Income Level for each Census Tract within Gloucester County, VA Part 2

Subject	Census Tract 1003.01		Census Tract 1003.02		Census Tract 1004		Census Tract 1005	
	Households	Families	Households	Families	Households	Families	Households	Families
Total	2,416	1,542	2,205	1,508	613	401	1,604	1,154
Less than \$10,000	3.60%	1.70%	4.10%	2.80%	14.40%	11.00%	6.00%	2.60%
\$10,000 to \$14,999	1.60%	0.00%	2.70%	1.70%	1.30%	0.00%	2.70%	9.30%
\$15,000 to \$24,999	10.30%	6.60%	5.30%	4.80%	10.60%	3.50%	10.70%	8.20%
\$25,000 to \$34,999	15.80%	10.90%	9.00%	4.20%	7.20%	9.00%	4.60%	5.40%
\$35,000 to \$49,999	11.90%	8.60%	16.60%	13.90%	10.60%	9.20%	17.60%	9.70%
\$50,000 to \$74,999	23.50%	27.50%	24.10%	25.40%	24.30%	24.20%	15.30%	14.20%
\$75,000 to \$99,999	10.00%	12.10%	16.20%	15.90%	12.20%	17.20%	15.20%	17.90%
\$100,000 to \$149,999	16.10%	22.60%	15.50%	21.70%	14.20%	19.00%	13.20%	16.60%
\$150,000 to \$199,999	4.10%	6.50%	5.20%	7.60%	3.60%	4.50%	6.20%	5.20%
\$200,000 or more	3.10%	3.60%	1.40%	2.10%	1.60%	2.50%	8.40%	10.90%
Median income (dollars)	52,995	64,740	64,469	73,456	56,563	66,250	65,000	76,167
Mean income (dollars)	68,563	82,503	73,431	85,375	62,593	74,574	89,664	100,891

Table 6 shows the income level for both census tracts in King & Queen County. Both census tracts in King & Queen County have a relatively low median income for the household at \$51,827 for census tract 9504 and \$49,936 for census tract 9505. The largest income range for both census tracts is \$35,000-\$49,999 at 20.20% and 21.00% respectively.

Table 6: Income Level for each Census Tract in King & Queen County, VA

Subject	Census Tract 9504		Census Tract 9505	
	Households	Families	Households	Families
Total	1,671	1,126	1,140	736
Less than \$10,000	3.40%	0.80%	7.10%	7.10%
\$10,000 to \$14,999	6.00%	4.50%	5.30%	2.90%
\$15,000 to \$24,999	10.50%	4.40%	10.80%	7.70%
\$25,000 to \$34,999	8.20%	6.60%	6.00%	4.30%
\$35,000 to \$49,999	20.20%	24.00%	21.00%	23.20%
\$50,000 to \$74,999	17.80%	24.20%	17.30%	18.90%
\$75,000 to \$99,999	14.40%	11.50%	17.20%	17.90%
\$100,000 to \$149,999	12.50%	13.70%	12.80%	13.90%
\$150,000 to \$199,999	4.80%	7.10%	2.50%	3.80%
\$200,000 or more	2.20%	3.30%	0.20%	0.30%
Median income (dollars)	51,827	59,643	49,936	55,217
Mean income (dollars)	65,223	74,898	59,566	64,951

Table 7 displays the income level for each census tract in King William County. The census tract with the lowest median income for households in census tract 9502 with \$56,923. However, this census tract has the least number of households/families out of all the census tracts in King William County.

Table 7: Income Level for each Census Tract within King William County, VA

Subject	Census Tract 9501.01		Census Tract 9501.02		Census Tract 9502		Census Tract 9503	
	Households	Families	Households	Families	Households	Families	Households	Families
Total	1,530	1,171	2,186	1,839	990	772	1,373	1,057
Less than \$10,000	4.30%	2.60%	1.90%	1.80%	3.80%	0.10%	0.90%	0.00%
\$10,000 to \$14,999	3.10%	0.90%	0.00%	0.00%	2.20%	5.70%	1.70%	1.50%
\$15,000 to \$24,999	8.60%	8.20%	4.70%	4.40%	12.30%	7.30%	9.70%	2.10%
\$25,000 to \$34,999	6.60%	4.70%	9.50%	9.40%	15.30%	14.90%	7.30%	6.50%
\$35,000 to \$49,999	14.50%	14.50%	7.40%	9.40%	11.40%	14.40%	9.50%	8.50%
\$50,000 to \$74,999	24.30%	21.40%	24.40%	21.80%	20.40%	21.90%	27.20%	26.60%
\$75,000 to \$99,999	14.60%	16.30%	21.10%	22.40%	16.50%	15.70%	16.50%	20.40%
\$100,000 to \$149,999	17.50%	22.80%	20.90%	19.40%	11.40%	11.90%	21.30%	26.60%
\$150,000 to \$199,999	2.50%	3.20%	2.90%	3.50%	5.50%	6.60%	2.10%	2.70%
\$200,000 or more	4.00%	5.20%	7.10%	8.00%	1.20%	1.60%	3.90%	5.00%
Median income (dollars)	61,759	69,596	76,983	78,343	56,923	58,929	67,109	80,768
Mean income (dollars)	77,098	87,478	91,679	92,893	65,496	69,410	81,805	93,869

Table 8 represents the income level for both of the census tracts in Mathews County. Both census tracts are relatively well off with a median household income of \$56,458 and \$66,642. From the research that has been conducted thus far, it is believed that neither of these census tracts are eligible for being designated as a housing revitalization area.

Table 8: Income Level for each Census Tract in Matthews County, VA

Subject	Census Tract 9513		Census Tract 9514	
	Households	Families	Households	Families
Total	1,911	1,457	1,855	1,083
Less than \$10,000	6.40%	7.10%	3.70%	3.20%
\$10,000 to \$14,999	2.30%	0.00%	4.50%	3.30%
\$15,000 to \$24,999	7.30%	4.40%	12.00%	9.30%
\$25,000 to \$34,999	8.60%	7.30%	5.10%	4.70%
\$35,000 to \$49,999	15.60%	13.20%	12.60%	8.80%
\$50,000 to \$74,999	17.90%	21.90%	22.70%	27.10%
\$75,000 to \$99,999	12.40%	17.20%	16.70%	21.40%
\$100,000 to \$149,999	11.90%	11.20%	13.40%	13.40%
\$150,000 to \$199,999	11.30%	10.10%	2.20%	3.80%
\$200,000 or more	6.30%	7.70%	7.20%	5.00%
Median income (dollars)	56,458	63,350	66,642	67,917
Mean income (dollars)	84,650	89,458	77,012	78,091

Table 9 represents the income level for each census tract in Middlesex County. Unfortunately, census tract 9511 and 9512 are both considered to have low median household incomes. In census tract 9511, the median income for household was only \$39,856 and in census tract 9512 it was \$46,686.

Subject	Census Tract 9509		Census Tract 9510		Census Tract 9511		Census Tract 9512	
	Households	Families	Households	Families	Households	Families	Households	Families
Total	701	486	1,595	1,005	1,089	684	1,137	750
Less than \$10,000	9.70%	7.40%	5.10%	5.40%	9.70%	0.00%	6.10%	1.20%
\$10,000 to \$14,999	5.10%	0.00%	9.10%	2.90%	5.90%	2.30%	8.70%	6.00%
\$15,000 to \$24,999	12.60%	8.00%	10.60%	6.80%	9.90%	6.00%	6.90%	5.10%
\$25,000 to \$34,999	5.60%	7.20%	5.30%	4.40%	14.50%	18.30%	14.20%	14.10%
\$35,000 to \$49,999	11.10%	11.90%	13.50%	17.60%	18.50%	18.60%	17.20%	17.10%
\$50,000 to \$74,999	17.70%	19.10%	27.10%	32.70%	20.10%	26.30%	19.10%	19.10%
\$75,000 to \$99,999	9.00%	13.00%	9.30%	7.70%	6.30%	10.10%	6.40%	5.70%
\$100,000 to \$149,999	18.40%	17.70%	12.50%	10.80%	9.20%	9.10%	13.90%	20.10%
\$150,000 to \$199,999	5.30%	7.60%	2.90%	4.70%	4.10%	6.60%	1.20%	1.90%
\$200,000 or more	5.60%	8.00%	4.50%	7.10%	1.70%	2.80%	6.40%	9.70%
Median income (dollars)	55,188	71,875	57,438	61,705	39,856	54,397	46,686	60,833
Mean income (dollars)	79,927	97,594	70,452	81,165	56,580	71,849	67,281	82,472

Table 9: Income Level for each Census Tract in Middlesex County, VA

The next set of tables represent the poverty levels for each census tract in Middle Peninsula counties. The poverty rate is the ratio of the number of people (in a given age group) whose income falls below the poverty line; taken as half the median household income of the total population. It is also available by relative age group: child poverty (0-5 years old, 0-18 years, and 5-17 years), working-age poverty (18-64 years, 18-34 years, and 35-64 years), and elderly poverty (greater than 60 years and greater than 65 years). This is other factor that can be measured in order to see which census tracts within the Middle Peninsula could be eligible for the above-mentioned programs. Therefore, Tables 10 – 16 has this information broken down into relevant categories so that the economic landscape can be better understood by geography.

Table 10 reveals statistics for each of the census tracts for Essex County. The census tract that we see that has the most alarming poverty rate is in Census Tract 9507 with 20.20% of the population living below the poverty level. We see that out of the 1,730 people that are classified as either black/African American 489 (28.30%) are considered to be living below the poverty level. This is very alarming because the poverty level for the entire state of Virginia is only 11.20% and for black/African Americans is at 19.40%. Finally, the child poverty rate for this census tract is also very high because it is at 30.60% for under 18 years of age, which is double the Virginia poverty rate for the under the age of 18 category.

Table 10: Poverty Rate for each Census Tract in Essex County, VA

Subject	Census Tract 9506			Census Tract 9507			Census Tract 9508		
	Total	Below Poverty Level	% Below Poverty Level	Total	Below Poverty Level	% Below Poverty Level	Total	Below Poverty Level	% Below Poverty Level
Population for whom Poverty Status is Determined	3,366	342	10.20%	3,700	749	20.20%	3,940	264	6.70%
Age									
Under 18 years	564	107	19.00%	805	246	30.60%	978	0	0.00%
Under 5 years	182	10	5.50%	201	86	42.80%	321	0	0.00%
5 to 17 years	382	97	25.40%	604	160	26.50%	657	0	0.00%
Related Children of Householder Under 18 years	564	107	19.00%	795	236	29.70%	978	0	0.00%
18 to 64 years	2,044	202	9.90%	2,158	430	19.90%	2,237	209	9.30%
18 to 34 years	549	45	8.20%	721	199	27.60%	675	44	6.50%
35 to 64 years	1,495	157	10.50%	1,437	231	16.10%	1,562	165	10.60%
60 years and over	955	50	5.20%	1,041	150	14.40%	1,029	89	8.60%
65 years and over	758	33	4.40%	737	73	9.90%	725	55	7.60%
Sex									
Male	1,624	109	6.70%	1,482	235	15.90%	1,765	132	7.50%
Female	1,742	233	13.40%	2,218	514	23.20%	2,175	132	6.10%
Race & Hispanic/Latino Origin									
White	1,695	56	3.30%	1,827	244	13.40%	2,583	224	8.70%
Black/African American	1,509	248	16.40%	1,730	489	28.30%	938	40	4.30%
American Indian/Alaska Native	103	21	20.40%	0	0	-	6	0	0.00%
Asian	10	0	0.00%	11	6	54.50%	0	0	-

Native Hawaiian/Pacific Islander	0	0	-	0	0	-	0	0	-
Other Race	10	10	100.00%	0	0	-	294	0	0.00%
Two or more races	39	7	17.90%	132	10	7.60%	119	0	0.00%
Hispanic/Latino origin	0	0	-	28	0	0.00%	350	14	4.00%
Educational Attainment Level									
Population 25 years and over	2,532	224	8.80%	2,583	439	17.00%	2,568	220	8.60%
Less than High School Graduate	409	85	20.80%	497	163	32.80%	423	92	21.70%
High School Graduate (includes equivalency)	879	53	6.00%	938	197	21.00%	896	40	4.50%
Some College, Associate's Degree	739	79	10.70%	539	49	9.10%	904	88	9.70%
Bachelor's Degree or Higher	505	7	1.40%	609	30	4.90%	345	0	0.00%

In Table 11, we see four of the eight census tracts for Gloucester County. These four census tracts do not have a high poverty rate when taking into consideration the entire population. However, when we look more closely at the poverty levels for each category, we do notice one statistic that does stand out. The poverty level for the black/African American population in census tract 1002.01 is 24.10% and in census tract 1002.03 is 32.00%. Additionally, in census tract 1002.01, 25.60% of the population that is less than a high school graduate is below the poverty level.

Table 11: Poverty Rate for each Census Tract in Gloucester County, VA Part 1

Subject	Census Tract 1001			Census Tract 1002.01			Census Tract 1002.02			Census Tract 1002.03		
	Total	Below Poverty Level	% Below Poverty Level	Total	Below Poverty Level	% Below Poverty Level	Total	Below Poverty Level	% Below Poverty Level	Total	Below Poverty Level	% Below Poverty Level
Population for whom Poverty Status is Determined	7,515	380	5.10%	5,398	518	9.60%	3,714	121	3.30%	3,396	270	8.00%
Age												
Under 18 years	1,534	71	4.60%	1,235	131	10.60%	667	0	0.00%	575	51	8.90%
Under 5 years	497	8	1.60%	241	27	11.20%	140	0	0.00%	138	8	5.80%
5 to 17 years	1,037	63	6.10%	994	104	10.50%	527	0	0.00%	437	43	9.80%
Related children of householder under 18 years	1,534	71	4.60%	1,235	131	10.60%	667	0	0.00%	571	47	8.20%
18 to 64 years	4,825	264	5.50%	3,448	281	8.10%	2,378	97	4.10%	2,001	180	9.00%
18 to 34 years	1,652	37	2.20%	672	86	12.80%	764	31	4.10%	569	64	11.20%
35 to 64 years	3,173	227	7.20%	2,776	195	7.00%	1,614	66	4.10%	1,432	116	8.10%
60 years and over	1,670	88	5.30%	1,164	138	11.90%	890	32	3.60%	1,137	39	3.40%
65 years and over	1,156	45	3.90%	715	106	14.80%	669	24	3.60%	820	39	4.80%
Sex												

Male	3,770	103	2.70%	2,707	191	7.10%	1,751	31	1.80%	1,732	110	6.40%
Female	3,745	277	7.40%	2,691	327	12.20%	1,963	90	4.60%	1,664	160	9.60%
Race												
White	6,371	260	4.10%	4,845	455	9.40%	3,277	84	2.60%	2,819	106	3.80%
Black/African American	852	120	14.10%	261	63	24.10%	305	11	3.60%	500	160	32.00%
American Indian/Alaska Native	40	0	0.00%	0	0	-	0	0	-	0	0	-
Asian	54	0	0.00%	102	0	0.00%	26	0	0.00%	0	0	-
Native Hawaiian/Pacific Islander	0	0	-	0	0	-	0	0	-	0	0	-
Other Race	16	0	0.00%	0	0	-	0	0	-	15	0	0.00%
Two or more races	182	0	0.00%	190	0	0.00%	106	26	24.50%	62	4	6.50%
Hispanic/Latino Origin	83	0	0.00%	137	0	0.00%	121	26	21.50%	42	0	0.00%
Educational Attainment Level												
Population 25 years and over	5,525	272	4.90%	3,801	301	7.90%	2,707	121	4.50%	2,626	196	7.50%
Less than High School Graduate	598	67	11.20%	425	109	25.60%	205	22	10.70%	119	8	6.70%
High School Graduate (includes equivalency)	1,709	36	2.10%	1,312	110	8.40%	970	49	5.10%	549	56	10.20%
Some College, Associate's Degree	1,974	116	5.90%	1,293	66	5.10%	999	29	2.90%	1,027	114	11.10%
Bachelor's Degree or Higher	1,244	53	4.30%	771	16	2.10%	533	21	3.90%	931	18	1.90%

In Table 12, we see the other four census tracts that represent Gloucester County. Census tract 1004 and 1005 both have slightly high poverty levels at 18.70% and 16.30% for the entire population. Both of these census tracts have a very high child poverty rate (under the age of 18 years) with 16.70% percent of the population in census tract 1004 and 37.20% in census tract 1005 living in poverty. Additionally, the white population for both of these census tracts have a very high poverty level as well with 19.80% in census tract 1004 and 16.30% in census tract 1005 of the population being below the poverty level. Finally, the Hispanic population in census tract 1005 has a poverty level of 40.90%, which is abnormally high.

Table 12: Poverty Rate for each Census Tract in Gloucester County, VA Part 2

Subject	Census Tract 1003.01			Census Tract 1003.02			Census Tract 1004			Census Tract 1005		
	Total	Below Poverty Level	% Below Poverty Level	Total	Below Poverty Level	% Below Poverty Level	Total	Below Poverty Level	% Below Poverty Level	Total	Below Poverty Level	% Below Poverty Level
Population for whom Poverty Status is Determined	5,527	312	5.60%	5,742	667	11.60%	1,404	262	18.70%	4,064	663	16.30%
Age												

Under 18 years	1,099	50	4.50%	1,262	233	18.50%	227	38	16.70%	878	327	37.20%
Under 5 years	311	15	4.80%	277	33	11.90%	56	22	39.30%	282	171	60.60%
5 to 17 years	788	35	4.40%	985	200	20.30%	171	16	9.40%	596	156	26.20%
Related Children of Householder Under 18 years	1,099	50	4.50%	1,262	233	18.50%	227	38	16.70%	878	327	37.20%
18 to 64 years	3,414	222	6.50%	3,634	376	10.30%	796	156	19.60%	2,414	247	10.20%
18 to 34 years	1,249	138	11.00%	1,261	227	18.00%	239	79	33.10%	624	86	13.80%
35 to 64 years	2,165	84	3.90%	2,373	149	6.30%	557	77	13.80%	1,790	161	9.00%
60 years and over	1,418	40	2.80%	1,141	58	5.10%	518	80	15.40%	1,107	114	10.30%
65 years and over	1,014	40	3.90%	846	58	6.90%	381	68	17.80%	772	89	11.50%
Sex												
Male	2,368	28	1.20%	2,985	345	11.60%	802	160	20.00%	2,051	189	9.20%
Female	3,159	284	9.00%	2,757	322	11.70%	602	102	16.90%	2,013	474	23.50%
Race												
White	4,871	235	4.80%	5,017	620	12.40%	1,210	239	19.80%	3,861	630	16.30%
Black/African American	328	77	23.50%	615	13	2.10%	141	23	16.30%	35	0	0.00%
American Indian/Alaska Native	0	0	-	47	26	55.30%	0	0	-	0	0	-
Asian	0	0	-	10	0	0.00%	14	0	0.00%	21	0	0.00%
Native Hawaiian/Pacific Islander	0	0	-	0	0	-	0	0	-	0	0	-
Other Race	0	0	-	9	0	0.00%	0	0	-	27	0	0.00%
Two or More Races	328	0	0.00%	44	8	18.20%	39	0	0.00%	120	33	27.50%
Hispanic/Latino Origin	226	0	0.00%	152	0	0.00%	0	0	-	452	185	40.90%
Educational Attainment Level												
Population 25 years and Over	4,010	209	5.20%	3,995	268	6.70%	1,062	152	14.30%	2,840	263	9.30%
Less than High School Graduate	318	41	12.90%	447	78	17.40%	104	35	33.70%	445	61	13.70%
High School Graduate (includes equivalency)	1,338	127	9.50%	1,449	117	8.10%	370	59	15.90%	963	93	9.70%
Some College, Associate's Degree	1,385	19	1.40%	1,388	73	5.30%	304	45	14.80%	795	86	10.80%
Bachelor's Degree or Higher	969	22	2.30%	711	0	0.00%	284	13	4.60%	637	23	3.60%

Table 13 has the poverty rate for both census tracts located in King & Queen County. Both census tracts have a relatively high poverty level of 16.40% and 14.40% respectfully. In census tract 9504, 39.60% of the population is below the poverty level and in census tract 9505, 27.60% of the population is below the poverty level for under the age of 18 years. Additionally, the poverty rate for the black/African American population for both census tracts is extremely high at 27.20% and 29.10%. The final noticeable figure that should be pointed out are that those who did

not graduate from high school have a poverty rate of 18.30% and 24.40% in both census tracts.

Table 13: Poverty Rate for each Census Tract in King & Queen County, VA

Subject	Census Tract 9504			Census Tract 9505		
	Total	Below Poverty Level	% Below Poverty Level	Total	Below Poverty Level	% Below Poverty Level
Population for whom Poverty Status is Determined	4,158	683	16.40%	2,894	417	14.40%
Age						
Under 18 years	864	342	39.60%	485	134	27.60%
Under 5 years	136	61	44.90%	231	46	19.90%
5 to 17 years	728	281	38.60%	254	88	34.60%
Related Children of Householder Under 18 years	864	342	39.60%	485	134	27.60%
18 to 64 years	2,429	278	11.40%	1,737	224	12.90%
18 to 34 years	596	56	9.40%	617	86	13.90%
35 to 64 years	1,833	222	12.10%	1,120	138	12.30%
60 years and over	1,168	82	7.00%	939	135	14.40%
65 years and over	865	63	7.30%	672	59	8.80%
Sex						
Male	2,133	326	15.30%	1,391	205	14.70%
Female	2,025	357	17.60%	1,503	212	14.10%
Race & Hispanic/Latino Origin						
White	2,483	253	10.20%	2,328	266	11.40%
Black/African American	1,359	369	27.20%	481	140	29.10%
American Indian/Alaska Native	43	0	0.00%	0	0	-
Asian	0	0	-	0	0	-
Native Hawaiian/Pacific Islander	0	0	-	0	0	-
Other Race	0	0	-	10	0	0.00%
Two or More Races	273	61	22.30%	75	11	14.70%
Hispanic/Latino origin	137	0	0.00%	88	7	8.00%
Educational Attainment Level						
Population 25 years and over	2,958	299	10.10%	2,221	258	11.60%
Less than High School Graduate	470	86	18.30%	283	69	24.40%
High School Graduate (includes equivalency)	1,394	180	12.90%	775	72	9.30%
Some College, Associate's Degree	546	24	4.40%	734	109	14.90%
Bachelor's Degree or Higher	548	9	1.60%	429	8	1.90%

Table 14 represents the poverty rate for each census tract in King William County. The census tract that is of main importance is census tract 9501.01 with a poverty rate of 24.30%. This census tract has a poverty rate of 48.30% for those under the age of 18 and 54.50% for those between the ages of 5 and 17. The poverty rate for the black/African American population for census tract 9501.01 is at 50.30% and the Asian population has a 100% poverty rate.

Table 14: Poverty Rate for each Census Tract in King William County, VA

Subject	Census Tract 9501.01			Census Tract 9501.02			Census Tract 9502			Census Tract 9503		
	Total	Below Poverty Level	% Below Poverty Level	Total	Below Poverty Level	% Below Poverty Level	Total	Below Poverty Level	% Below Poverty Level	Total	Below Poverty Level	% Below Poverty Level
Population for whom Poverty Status is Determined	4,151	1,009	24.30%	6,268	385	6.10%	2,508	253	10.10%	3,331	128	3.80%
Age												
Under 18 years	1,212	585	48.30%	1,440	238	16.50%	507	89	17.60%	626	26	4.20%
Under 5 years	299	87	29.10%	322	38	11.80%	180	32	17.80%	198	5	2.50%
5 to 17 years	913	498	54.50%	1,118	200	17.90%	327	57	17.40%	428	21	4.90%
Related Children of Householder Under 18 years	1,212	585	48.30%	1,404	202	14.40%	507	89	17.60%	626	26	4.20%
18 to 64 years	2,392	397	16.60%	4,048	147	3.60%	1,561	135	8.60%	2,101	95	4.50%
18 to 34 years	764	132	17.30%	1,150	48	4.20%	477	37	7.80%	889	65	7.30%
35 to 64 years	1,628	265	16.30%	2,898	99	3.40%	1,084	98	9.00%	1,212	30	2.50%
60 years and over	811	33	4.10%	1,251	34	2.70%	671	57	8.50%	822	19	2.30%
65 years and over	547	27	4.90%	780	0	0.00%	440	29	6.60%	604	7	1.20%
Sex												
Male	2,070	556	26.90%	3,116	119	3.80%	1,323	156	11.80%	1,570	21	1.30%
Female	2,081	453	21.80%	3,152	266	8.40%	1,185	97	8.20%	1,761	107	6.10%
Race												
White	2,950	411	13.90%	5,037	160	3.20%	1,493	87	5.80%	2,975	121	4.10%
Black/African American	1,055	531	50.30%	1,013	73	7.20%	741	138	18.60%	175	7	4.00%
American Indian/Alaska Native	15	0	0.00%	0	0	-	114	18	15.80%	0	0	-
Asian	30	30	100.00%	33	0	0.00%	5	0	0.00%	112	0	0.00%
Native Hawaiian/Pacific Islander	0	0	-	0	0	-	0	0	-	0	0	-
Other Race	37	37	100.00%	0	0	-	5	0	0.00%	13	0	0.00%
Two or More Races	64	0	0.00%	185	152	82.20%	150	10	6.70%	56	0	0.00%
Hispanic/Latino Origin	51	0	0.00%	0	0	-	0	0	-	78	0	0.00%
Educational Attainment Level												
Population 25 years and over	2,756	394	14.30%	4,306	147	3.40%	1,815	158	8.70%	2,378	44	1.90%
Less than High School Graduate	235	21	8.90%	525	34	6.50%	275	58	21.10%	122	14	11.50%
High School Graduate	970	193	19.90%	1,531	82	5.40%	747	42	5.60%	933	21	2.30%

(includes equivalency)												
Some College, Associate's degree	1,008	97	9.60%	1,473	31	2.10%	548	58	10.60%	755	9	1.20%
Bachelor's Degree or Higher	543	83	15.30%	777	0	0.00%	245	0	0.00%	568	0	0.00%

Table 15 represents the poverty rate for both census tracts in Mathews County. Census tract 9514 has a slightly high poverty level at 12.00% for the entire population but once again, the child poverty rate is extremely high at 24.30% for those under the age of 18. Furthermore, the poverty rate for the black/African American population for census tract 9513 is at 20.50% and for those who did not graduate high school is at 21.80%.

Table 15: Poverty Rate for each Census Tract in Mathews County, VA

Subject	Census Tract 9513			Census Tract 9514		
	Total	Below Poverty Level	% Below Poverty Level	Total	Below Poverty Level	% Below Poverty Level
Population for whom Poverty Status is Determined	4,788	457	9.50%	3,965	475	12.00%
Age						
Under 18 years	810	176	21.70%	552	134	24.30%
Under 5 years	173	84	48.60%	80	0	0.00%
5 to 17 years	637	92	14.40%	472	134	28.40%
Related Children of Householder Under 18 years	810	176	21.70%	552	134	24.30%
18 to 64 years	2,641	219	8.30%	2,195	281	12.80%
18 to 34 years	738	76	10.30%	594	101	17.00%
35 to 64 years	1,903	143	7.50%	1,601	180	11.20%
60 years and over	1,693	129	7.60%	1,544	60	3.90%
65 years and over	1,337	62	4.60%	1,218	60	4.90%
Sex						
Male	2,310	294	12.70%	1,901	245	12.90%
Female	2,478	163	6.60%	2,064	230	11.10%
Race						
White	4,173	372	8.90%	3,345	261	7.80%
Black/African American	322	66	20.50%	598	214	35.80%
American Indian/Alaska Native	28	0	0.00%	0	0	-
Asian	26	0	0.00%	0	0	-
Native Hawaiian/Other Pacific Islander	0	0	-	0	0	-
Other Race	0	0	-	0	0	-
Two or More Races	239	19	7.90%	22	0	0.00%
Hispanic/Latino origin	60	0	0.00%	0	0	-
Educational Attainment Level						
Population 25 years and over	3,820	281	7.40%	3,068	288	9.40%

Less than High School Graduate	280	61	21.80%	292	75	25.70%
High School Graduate (includes equivalency)	1,070	116	10.80%	1,224	160	13.10%
Some College, Associate's Degree	1,506	16	1.10%	653	32	4.90%
Bachelor's Degree or Higher	964	88	9.10%	899	21	2.30%

In Table 16 we have the poverty rate for each census tract in Middlesex County. The only census tract that has a high poverty rate is census tract 9509 with a poverty rate of 14.40%. Once again, this census tract has a high child poverty rate of 20.90% for those under the age of 18 and 50.60% for those under the age of 5. Additionally, the poverty rate for the working class in census tract 9509 between the age of 35 and 64 at 16.50%. Finally, the senior poverty rate is very high as well for census tract 9509 at 17.10% for those 60 years and older.

Table 16: Poverty Rate for each Census Tract in Middlesex County, VA

Subject	Census Tract 9509			Census Tract 9510			Census Tract 9511			Census Tract 9512		
	Total	Below poverty level	% below poverty level	Total	Below poverty level	% below poverty level	Total	Below poverty level	% below poverty level	Total	Below poverty level	% below poverty level
Population for whom Poverty Status is Determined	1,825	263	14.40%	3,519	366	10.40%	2,632	180	6.80%	2,384	250	10.50%
Age												
Under 18 years	387	81	20.90%	516	93	18.00%	490	0	0.00%	265	58	21.90%
Under 5 years	89	45	50.60%	58	0	0.00%	84	0	0.00%	113	58	51.30%
5 to 17 years	298	36	12.10%	458	93	20.30%	406	0	0.00%	152	0	0.00%
Related Children of Householder Under 18 years	387	81	20.90%	495	72	14.50%	490	0	0.00%	265	58	21.90%
18 to 64 years	1,163	169	14.50%	1,928	237	12.30%	1,235	131	10.60%	1,283	122	9.50%
18 to 34 years	369	38	10.30%	553	40	7.20%	293	4	1.40%	323	78	24.10%
35 to 64 years	794	131	16.50%	1,375	197	14.30%	942	127	13.50%	960	44	4.60%
60 years and over	444	76	17.10%	1,484	80	5.40%	1,128	71	6.30%	1,090	76	7.00%
65 years and over	275	13	4.70%	1,075	36	3.30%	907	49	5.40%	836	70	8.40%
Sex												
Male	845	116	13.70%	1,624	195	12.00%	1,297	52	4.00%	1,269	93	7.30%
Female	980	147	15.00%	1,895	171	9.00%	1,335	128	9.60%	1,115	157	14.10%
Race & Hispanic/Latino Origins												
White	1,432	144	10.10%	2,465	147	6.00%	2,048	106	5.20%	2,174	235	10.80%
Black/African American	297	53	17.80%	903	178	19.70%	584	74	12.70%	87	0	0.00%
American Indian/Alaska Native	0	0	-	19	9	47.40%	0	0	-	19	0	0.00%
Asian	0	0	-	0	0	-	0	0	-	0	0	-

Native Hawaiian/Pacific Islander	0	0	-	14	0	0.00%	0	0	-	0	0	-
Other Race	25	25	100%	19	19	100%	0	0	-	0	0	-
Two or More Races	71	41	57.70%	99	13	13.10%	0	0	-	104	15	14.40%
Hispanic/Latino Origin	12	0	0.00%	19	19	100%	0	0	-	12	12	100.00%
Educational Attainment Level												
Population 25 years and over	1,271	182	14.30%	2,689	233	8.70%	2,031	180	8.90%	1,967	165	8.40%
Less than High School Graduate	192	73	38.00%	235	63	26.80%	313	54	17.30%	131	0	0.00%
High School Graduate (includes equivalency)	426	17	4.00%	787	54	6.90%	685	30	4.40%	718	34	4.70%
Some College, Associate's Degree	406	68	16.70%	992	82	8.30%	714	31	4.30%	531	108	20.30%
Bachelor's Degree or Higher	247	24	9.70%	675	34	5.00%	319	65	20.40%	587	23	3.90%

III. HOUSING AT RISK – MIDDLE PENINSULA ALL HAZARD MITIGATION PLAN

This section contains most of Section 5 from the Middle Peninsula All Hazard Mitigation Plan that was produced in 2016 for the following counties: Essex County, Middlesex County, King William County, King & Queen County, Mathews County, and Gloucester County. The reason for including At-Risk structures is to show that Middle Peninsula Counties have an equally stressing problem facing residential structures located within coastal flood hazard areas. The following information is able to show that houses in the Middle Peninsula are susceptible to becoming vacant due to flooding and sea level rise and or need adaptation or rehabilitation to adapt to increasing natural hazards such as tidal flooding and storm surge.

Middle Peninsula currently has approximately 43,501 structures with an estimated exposure value of approximately \$17.7 billion. Average estimated replacement value of buildings in the study area range from approximately \$94,000 to \$297,000, with the mean approximation value of \$134,000². Eighty-one percent of the planning district's general occupancy is categorized as residential, followed by commercial (12%). Table 19 below provides inventory information for each of the six counties that were included in the analysis. Gloucester County occupies a large percentage (40%) of the building stock exposure for the region. Residential units alone that are at risk are valued at \$5,698,054,000.

Hazus is a regional multi-hazard loss estimation model that was developed by the Federal Emergency Management Agency and the National Institute of Building Sciences. The primary purpose of Hazus is to provide methodology and software application to develop multi-hazard losses at a regional scale. The loss estimates are used primarily by local, state and regional officials to plan and stimulate efforts to reduce risk from multi-hazards and prepare for emergency response and recovery¹. For specifics regarding methodology please see Appendix J.

Potential loss estimates analyzed in Hazus-MH include:

- Physical damage to residential and commercial buildings, schools, essential facilities, and

- infrastructure
- Economic loss including lost jobs, business interruptions, repair and reconstruction costs.

The Hazus Flood Model analyzes both riverine and coastal flood hazards. Flood hazard is defined by a relationship between depth of flooding and the annual chance of inundation to that depth. Statistical flood frequencies were modeled in this revision to be able to determine annualized loss for each of the counties in Middle Peninsula PDC. Statistical flood frequencies are modeled by looking at the damage that is likely to occur over a given period of time, known as a return period or recurrence interval.

Depth, duration and velocity of water in the floodplain are the primary factors contributing to flood losses. Other hazards associated with flooding that contribute to flood losses include channel erosion and migration, sediment deposition, bridge scour and the impact of flood-born debris. The Hazus Flood Model allows users to estimate flood losses primarily due to flood depth to the general building stock (GBS). While velocity is also considered, it is not a separate input parameter and is accounted within depth-damage functions (i.e., expected percent damage given an expected depth) for census blocks that are defined as either coastal or riverine influenced. The agricultural component will allow the user to estimate a range of losses to account for flood duration. The flood model does not estimate the losses due to high velocity flash floods at this time!

Flood Analysis

The flood analysis for the HIRA was completed using the FEMA Hazus – MH V2.2 software for both riverine and coastal flood hazards. Varying flood analyses have been performed to both identify and characterize the flood hazard and the subsequent loss-potential or risk. The standard methodology of defining loss potential for any given hazard, includes annualizing the potential over a series of statistical return periods. Annualization is the mathematical method of converting individual losses to a weighted- average that may be experienced in any given year. The standard scope pertaining to flood risk corresponds to annualizing the 0.2%, 1%, 2%, 4%, and 10% flooding return periods. In layman’s-terms these same annual-chance return periods are often described as the 500-year, 100-year, 50-year, 25-year and 10-year events as shown in Table 17 below:

Table 17: Annual Probability Base on Flood Recurrence Intervals

Flood Recurrence Interval	Annual Chance of Occurrence
10 year	10.0%
25 year	4.0%
50 year	2.0%
100 year	1.0%
500 year	0.2%

Practically, these statistical events represent the chance of being equaled or exceeded in any given year; i.e., the likelihood that a particular event with a given intensity occurs on average at least once every x- years. Once each of these statistical return periods are calculated, an annualized value is computed thus offering a perspective for any given year.

The various flood modeling performed as part of the current Plan update, along with the respective risk results, represent the primary goal of producing estimated flood losses for the aforementioned statistical return periods and then the annualized flood losses. However, it is important to note that the idiom of ‘comparing apples with oranges’ very-much applies to the various elements of flood modeling as well as modeling risk from flooding potential. Therefore, where appropriate differing modeling methodologies and their respective results have been separated for comparative purposes as described and highlighted in the

bulleted List below. The same list also presents the order in which Hazus modeling information is presented:

The various modeling performed includes the following:

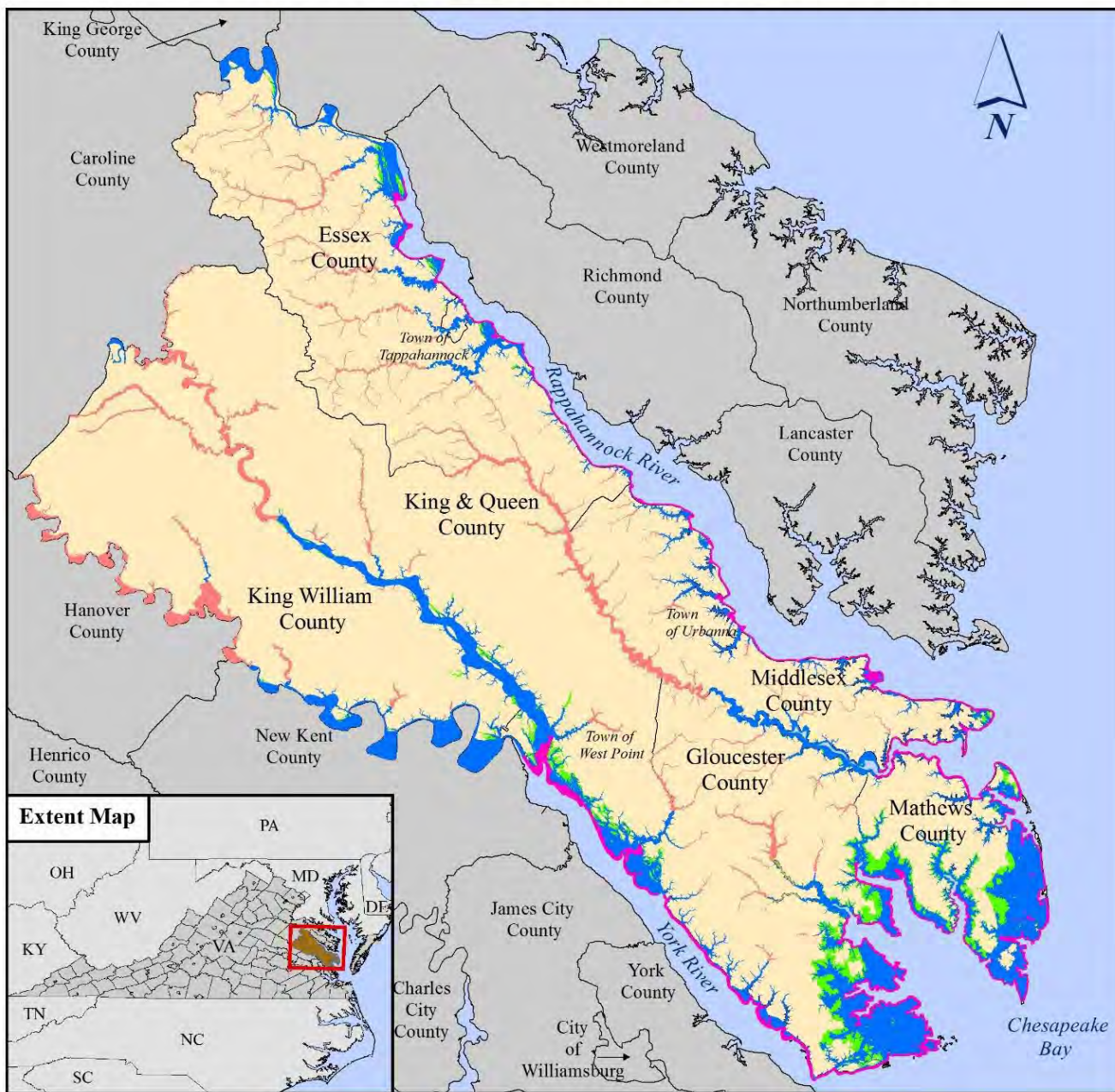
- **FEMA Floodplains and Depth Grid Information**
- **Hazus Building Stock (Inventory of Buildings):**
 - All modeling utilized stock Hazus inventory values (Version 2.2 – Census 2010)
 - All modeling utilized Hazus Dasymetric Census Geographies
 - All modeling utilized stock Hazus facilities
- **Hazus Level 1 Multi-frequency Flood Modeling** – Hazus Level 1 methodology employed
 - Core Inputs or Parameters:
 - Digital Elevation Model (DEM) – National Elevation Dataset (NED) One-Arc Second (~30 meter resolution)
 - Frequencies (Both Riverine & Coastal) - 0.2%, 1%, 2%, 4%, and 10%
 - Riverine:
 - One-Square Mile (1 mi²) Drainage Threshold
 - Coastal:
 - Stillwater elevations from Table 2 – Transect Data from each respective FEMA Flood Insurance Study (FIS):
 - ESSEX COUNTY – Revised May 4, 2015
 - GLOUCESTER COUNTY – Revised November 19, 2014
 - KING AND QUEEN COUNTY – Preliminary October 3, 2013
 - KING WILLIAM COUNTY – Preliminary October 3, 2013
 - MIDDLESEX COUNTY – Revised May 18, 2015
 - MATHEWS COUNTY – Revised December 9, 2014
 - NOTE: Hazus stock shoreline data was modified to extend up the York River so that Level 1 coastal modeling could be completed for King William County, King and Queen County and portions of Gloucester County upstream of the George Washington Memorial Highway Bridge (US 17).
- **Hazus Level 1 Annualized Loss** - Hazus Level 1 methodology employed (from Multi- frequency above)
- **Comparative Flood Modeling:**
 - FEMA RiskMAP 1% Coastal - Hazus Level 2 methodology employed
 - Hazus Level 2 – Only use of the updated or refined flood hazard produced and provided by Army Corps of Engineers (USACE) for FEMA Risk MAP studies
 - Hazus Level 1 – Only 1% Coastal (from Multi-frequency above)
 - Use only the Level 1 Coastal 1% frequency to compare to the FEMA RiskMAP Coastal 1% frequency

FEMA Floodplains and Depth Grid Information

FEMA initiates Flood Insurance Studies (FIS) on a national prioritization schedule. The most recent FIS's have been incorporated into this Plan as outlined by date in the list above; dates ranging from October 2013 to May 2015. These various new studies have produced updated coastal flood hazards for all of the jurisdictions in the MPPDC planning area; and riverine flood hazards remain from previous flood insurance studies. Figure 106 illustrates the extent of flood hazards as defined by the most recent FEMA flood insurance studies.

Map 1

FEMA Flood Hazard Areas - digital FIRM



Middle Peninsula Planning District Commission

Projection:
VA Lambert Conformal Conic
North American Datum 1983

Disclaimer: Uncertainties are inherent in any loss estimation methodology. The purpose of the analysis and data sets are to give general indication of areas that may be susceptible to hazards.

Legend:

Flood Zones

VE	AE
AE, FW	A
0.2 % Annual Chance	
Minimal Flooding Area	

0 2.5 5 10 Miles

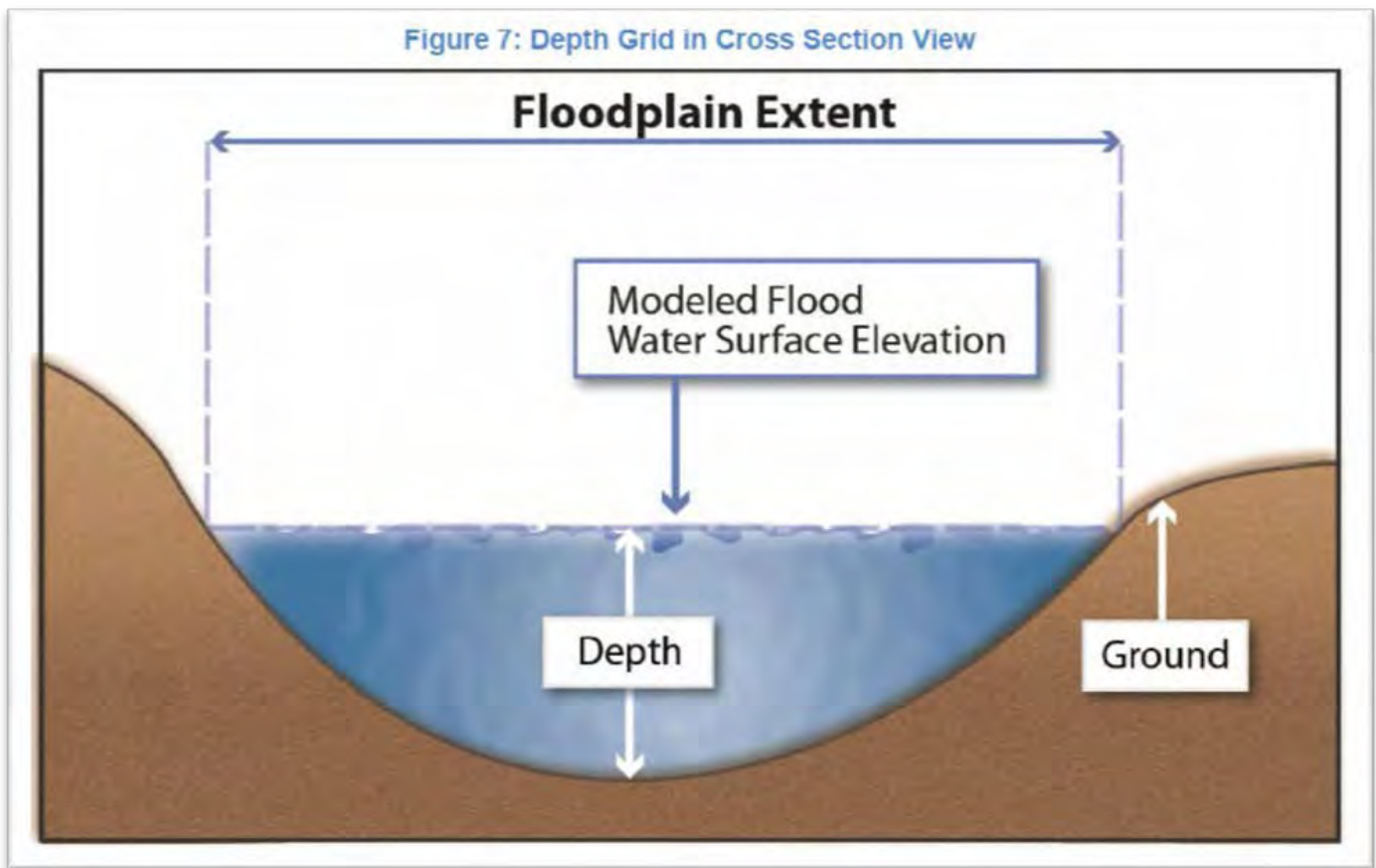
Data Information:

The FEMA Flood Insurance Rate Map (FIRM) is the official map of a community that has both SFHA and risk premium zones delineated. DFIRM data is shown for Essex, Mathews, King & Queen, King William, Middlesex and Gloucester Counties.

Data Sources:
FEMA DFIRM Data
HAZUS-MH MR4 County Boundaries
MPPDC Town Boundaries

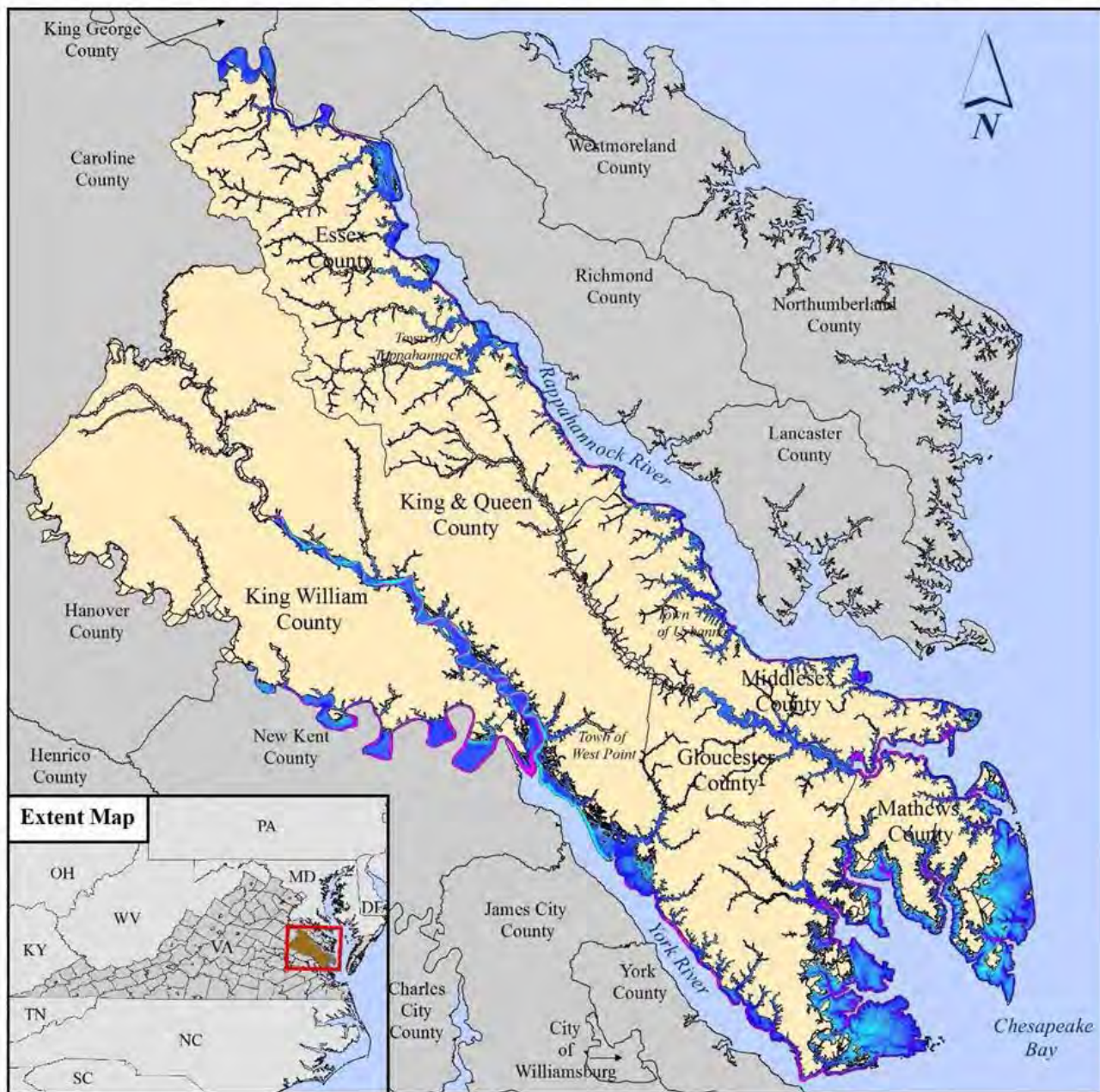
The new coastal flood hazards associated with the most recent FEMA studies have been produced under the RiskMAP Program. In short, the RiskMAP Program seeks to include risk assessments as part of a flood insurance study to better communicate the risk of flooding. Consequently, a RiskMAP study includes all of the regulatory Flood Insurance Study products; namely engineering, floodplain mapping, digital FIRM data and report text. However, in addition to the traditional regulatory products, RiskMAP also includes new non-regulatory products aimed at communicating risk. One of the core non-regulatory datasets includes the creation of depth grids from the digital FIRM data. These new depth grids are the key to performing risk assessments in the Hazus software as they are able to be directly imported.

The flood hazard within Hazus is ultimately defined by a depth grid which is a representation of the difference between the estimated water surface and ground elevations for each respective flood frequency or annual chance. The following image is a simplified representation as shown in FEMA’s Guidance for Flood Risk Analysis and Mapping, Flood Depth and Analysis Grids (May 2014):



The new RiskMAP projects for each of the counties in the MPPDC planning area include new coastal 1% Annual Chance depth grids. Map 2 below shows these new coastal 1% Annual Chance depth grids and the new FEMA digital FIRM floodplains:

FEMA digital FIRM & RiskMAP 1% Coastal Depth Grid



Middle Peninsula Planning District Commission

Dewberry

Projection:
VA Lambert Conformal Conic
North American Datum 1983

Disclaimer: Uncertainties are inherent in any loss estimation methodology. The purpose of the analysis and data sets are to give general indication of areas that may be susceptible to hazards.

Legend:

All Flood Zones

RiskMAP Depth Grid(s)
1% Coastal Depth

High : 72.1
Low : 0

0 2.5 5 10 Miles

Data Information:

The FEMA Flood Insurance Rate Map (FIRM) is the official map of a community that has both SFHA and risk premium zones delineated. Depth Grids are a key data source for Hazus modeling. The new RiskMAP 1% Coastal Depth Grid(s) are shown.

Data Sources:
FEMA DFIRM & Depth Grid Data
HAZUS-MH County Boundaries
MPPDC Town Boundaries

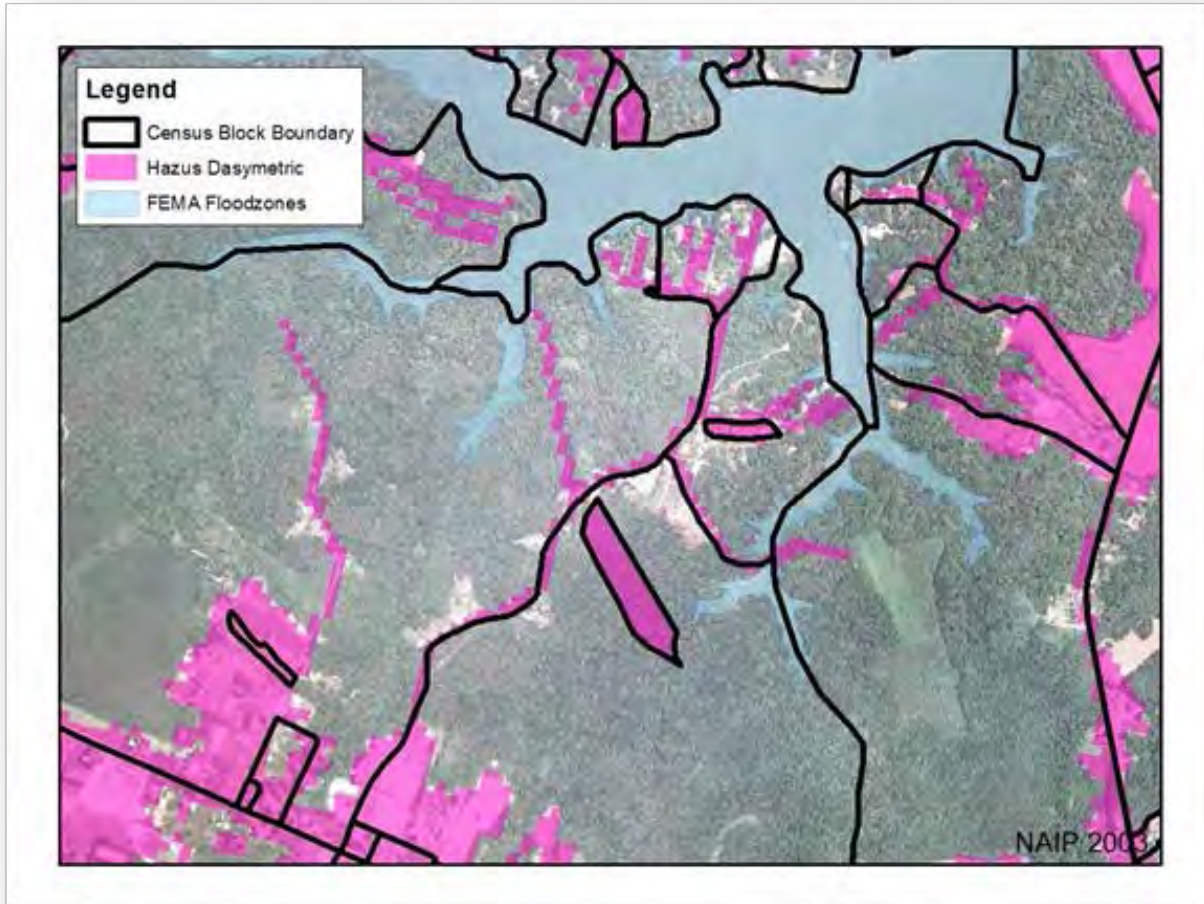
RiskMAP depth grids are considered to be superior to depth grids created from typical out-of-the-box Hazus analyses for a variety of reasons. However, users should understand that RiskMAP coastal projects are only scoped to produce 1% Annual Chance depth grids; i.e., multi-frequency depth grids are not prescribed for coastal projects. Armed with this information, it therefore becomes necessary to model multiple-frequencies in Hazus to arrive at annualized loss results. Fortunately, Hazus is a tool that offers flexibility and enables the user to provide more detailed inputs or specify input parameters that can introduce an increased level of reliability of depth values produced. Notwithstanding, RiskMAP depth grids are considered superior because of the guidelines under which they were created and the precision and accuracy of the inputs to their creation. Ultimately, where RiskMAP projects produce new multi-frequency depth grids, these grids can all be run through Hazus and a new annualized values can be produced. And where multi-frequency depth grids do not exist, it best to refrain from ‘mixing apples and oranges’ and rather, compare results for relative differences or similarities.

Ultimately, the Hazus flood modeling and risk assessments for this Plan update have been produced with the intent to improve upon previous Plan Hazus modeling and to incorporate any new RiskMAP-based depth grids. Riverine flood hazards were not updated in the most recent FIS’s and there are no new RiskMAP depth grids. Therefore, this Plan update includes Hazus Level 1 multi-frequency modeling for both riverine and coastal. Improvements to the riverine modeling from the previous Plan are related to the drainage area threshold defined. In most cases, the FEMA flood maps have been developed for streams with contributing drainage area of 1 square mile. The previous Plan Hazus flood modeling only utilized a one-square mile drainage threshold for Mathews County and the remainder were completed at ten-square mile. However, this Plan revision has utilized one-square mile drainage threshold for all counties in the MPPDC region. As for the Level 1 multi-frequency modeling for coastal influences, the new Stillwater elevations from Table 2 – Transect Data from each respective FEMA Flood Insurance Study (FIS) was entered into the Hazus software.

Results from the various Hazus flood modeling are covered in sections below with primary focus on the annualized results. However, first the inventory of building stock is discussed.

Building Stock

Hazus building stock is the inventory of buildings (i.e., square-footage) of each respective type or sub-type of buildings in the following categories; residential, commercial, industrial, agricultural, religious, government, and education. Hazus assumes that all square-footage (i.e., buildings) are evenly distributed throughout a given census block and therefore damage is estimated as a percent and is weighted by the area of inundation at a given depth for a given census block. The methodology therefore, is known as an area-weighted methodology. FEMA has initiated recent improvements to the area-weighted methodology by further refining the distribution of building square-footage to land areas characterized by development and removing land areas typical of non-developed land classes (e.g., forests, wetlands, etc...). This refinement is called dasymetric mapping and the current Plan modeling utilizes the FEMA dasymetric building stock. The following shows a small example area in which the developed areas are pink:



Use of the new dasymeric data will typically reduce the total area subject to area-weighted loss estimations - particularly for those census blocks that have flood risk yet actual development does not exist within the floodplains. An area analysis of the dasymeric versus full stock census blocks is exemplified in the chart below:

Digital FIRM Acreage Type	Census Block Type	
	Dasymeric	Full Stock
Acres of 0.2% Annual Chance Floodplains (500-year)	5,909 Ac (1% of Total Acres)	14,806 Ac (2% of Total Acres)
Acres of 1% Annual Chance Floodplains (100-year)	23,216 Ac (3% of Total Acres)	85,736 Ac (11% of Total Acres)
Total Acres of Census Blocks MPPDC Region	794,644 Ac	

A comparison of FEMA digital FIRM data intersecting the two types of Hazus census blocks reveals that an estimated four percent (4%) of the dasymeric data is within the extents of the 0.2% Annual Chance Floodplains versus thirteen percent (13%) when using full census blocks. And, considering the 1% Annual Chance Floodplains, there is approximately three percent (3%) intersecting the dasymeric data versus eleven percent (11%) when using full census blocks. Consequently, this refinement can be considered a benefit to the risk analyses in that the expectation of over-estimations are mitigated by limiting potential losses ONLY to developed areas.

As noted earlier, loss estimations are first based on inundation area for specified sub-types of building square-footage. The second type of data includes information on the local economy that is used in estimating losses. Table 18 displays the economic loss categories used to calculate annualized losses by Hazus. Data for this analysis has been provided at the census block level.

Table 18: Hazus Direct Economic Loss Categories and Descriptions

Category Name	Description of Data Input into Model	Hazus Output
Building	Cost per sq ft to repair damage by structural type and occupancy for each level of damage	Cost of building repair or replacement of damaged and destroyed buildings
Contents	Replacement value by occupancy	Cost of damage to building contents
Inventory	Annual gross sales in \$ per sq ft	Loss of building inventory as contents related to business activities
Relocation	Multiple factors; primarily a function of Rental Costs (\$/ft ² /month) for non-entertainment buildings where damage ≥10%	Relocation expenses (for businesses and institutions); disruption costs to building owners for temporary space.
Income	Income in \$ per sq. ft per month by occupancy	Capital-related incomes losses as a measure of the loss of productivity, services, or sales
Rental	Rental costs per month per sq. ft by occupancy	Loss of rental income to building owners
Wage	Wages in \$ per sq ft per month by occupancy	Employee wage loss as described in income loss

Middle Peninsula currently has approximately 43,501 structures with an estimated exposure value of approximately \$17.7 billion. Average estimated replacement value of buildings in the study area range from approximately \$94,000 to \$297,000, with the mean approximation value of \$134,000. Eighty-one percent of the planning district's general occupancy is categorized as residential, followed by commercial (12%). Table 19 below provides inventory information for each of the six counties that were included in the analysis. Gloucester County occupies a large percentage (40%) of the building stock exposure for the region.

Table 19: Building Stock Exposure for General Occupancies by County

County	Residential	Commercial	Industrial	Agriculture	Religion	Govt.	Education	Total
Gloucester	\$5,698,054	\$831,318	\$147,429	\$32,557	\$84,190	\$32,437	\$190,065	\$7,016,050
King William	\$2,463,239	\$274,254	\$110,725	\$32,549	\$41,687	\$24,273	\$24,786	\$2,971,513
Middlesex	\$2,151,683	\$354,607	\$65,244	\$14,045	\$26,670	\$11,736	\$40,679	\$2,664,664
Essex	\$1,578,275	\$402,650	\$146,178	\$25,395	\$28,679	\$18,661	\$31,423	\$2,231,261
Mathews	\$1,566,770	\$149,340	\$45,066	\$9,877	\$19,875	\$6,830	\$12,042	\$1,809,800
King & Queen	\$886,914	\$52,850	\$29,064	\$6,710	\$19,927	\$2,968	\$7,284	\$1,005,717
Total	\$14,344,935	\$2,065,019	\$543,706	\$121,133	\$221,028	\$96,905	\$306,279	\$17,699,005

All values are in thousands of dollars

Building stock exposure is also classified by building type. General Building Types (GBTs) have been developed as a means to classify the different buildings types. This provides an ability to differentiate between buildings with substantially different damage and loss characteristics. Model building types represent the characteristics of core construction of buildings in a class. The damage and loss prediction models are developed for model building types and the estimated performance is based upon the "average characteristics" of the total population of buildings within each class. Five general classifications have been established, including wood, masonry, concrete, steel and manufactured homes (MH). A brief description of the building types is available in Table 20. The Hazus inventory serves as the default when a user does not have better data available.

Table 20: Hazus General Building Type Classes

General Building Type	Description
Wood	Wood frame construction
Masonry	Reinforced or unreinforced masonry construction
Steel	Steel frame construction
Concrete	Cast-in-place or pre-cast reinforced concrete construction
MH	Factory-built residential construction

Wood construction represents the majority (61%) of building types in the planning district. Masonry construction accounts for a quarter of the building type exposure. Table 21 below provides building stock exposure for the five main building types.

Table 21: Building Stock Exposure for General Building Type by County

County	Wood	Masonry	Concrete	Steel	Manufactured Home	Total
Gloucester	\$4,338,118	\$1,782,044	\$177,833	\$591,235	\$126,913	\$7,016,143
King William	\$1,895,656	\$751,978	\$61,374	\$227,445	\$35,155	\$2,971,608
Middlesex	\$1,631,388	\$678,395	\$67,789	\$225,948	\$61,315	\$2,664,835
Mathews	\$1,166,398	\$450,836	\$32,534	\$113,035	\$47,165	\$1,809,968
Essex	\$1,202,922	\$558,827	\$102,763	\$319,225	\$47,615	\$2,231,352
King & Queen	\$661,413	\$247,318	\$11,118	\$49,521	\$36,527	\$1,005,897
Total	\$10,895,895	\$4,469,398	\$453,411	\$1,526,409	\$354,690	\$17,699,803
<i>All values are in thousands of dollars</i>						

Multi-frequency Flood Modeling – Hazus Level 1 methodology

As explained earlier, annualized loss is the preferred manner with which to express potential risk for hazard mitigation planning as it is useful for creating a common denominator by which different types of hazards can be compared. The tables below (Table 22 – Table 28) show the multi-frequency results for the MPPDC Region and each County. The following section will present details of the annualized losses; see General Building Stock Loss Estimation (Annualized Flood Loss).

Table 22: Hazus Level I Multi-Frequency GBS Losses for the MPPDC Region

Area	Scenario	Total Loss	Building Loss	Contents Loss	Business Disruption
MPPDC Region	Level I - 10YR	\$107,113	\$57,802	\$48,644	\$1,126
MPPDC Region	Level I - 25YR	\$137,228	\$74,580	\$61,788	\$1,375
MPPDC Region	Level I - 50YR	\$194,731	\$105,823	\$87,602	\$1,941
MPPDC Region	Level I - 100YR	\$245,562	\$133,342	\$110,570	\$2,427
MPPDC Region	Level I - 500YR	\$842,030	\$460,912	\$375,607	\$7,497
MPPDC Region	Level I - Annualized	\$18,102	\$9,921	\$8,111	\$116
<i>Data in Thousands of Dollars</i>					

Table 23: Hazus Level I Multi-Frequency GBS Losses for Essex County

Area	Scenario	Total Loss	Building Loss	Contents Loss	Business Disruption
Essex County	Level I - 10YR	\$7,226	\$3,729	\$3,432	\$80
Essex County	Level I - 25YR	\$8,994	\$4,676	\$4,243	\$89
Essex County	Level I - 50YR	\$12,846	\$6,599	\$6,126	\$140
Essex County	Level I - 100YR	\$16,813	\$8,843	\$7,846	\$144
Essex County	Level I - 500YR	\$31,230	\$16,306	\$14,666	\$287
Essex County	Level I - Annualized	\$1,047	\$548	\$493	\$6
<i>Data in Thousands of Dollars</i>					

Table 24: Hazus Level I Multi-Frequency GBS Losses for Gloucester County

Area	Scenario	Total Loss	Building Loss	Contents Loss	Business Disruption
Gloucester County	Level I - 10YR	\$53,037	\$27,925	\$24,750	\$25,491
Gloucester County	Level I - 25YR	\$68,606	\$36,345	\$31,788	\$32,684
Gloucester County	Level I - 50YR	\$98,481	\$52,381	\$45,397	\$46,610
Gloucester County	Level I - 100YR	\$121,998	\$64,526	\$56,568	\$58,085
Gloucester County	Level I - 500YR	\$565,571	\$310,999	\$251,301	\$255,854
Gloucester County	Level I - Annualized	\$9,984	\$5,394	\$4,552	\$79
<i>Data in Thousands of Dollars</i>					

Table 25: Hazus Level I Multi-Frequency GBS Losses for King & Queen County

Area	Scenario	Total Loss	Building Loss	Contents Loss	Business Disruption
King & Queen County	Level I - 10YR	\$3,850	\$2,295	\$1,512	\$43
King & Queen County	Level I - 25YR	\$5,152	\$3,088	\$2,011	\$53
King & Queen County	Level I - 50YR	\$7,086	\$4,294	\$2,735	\$57
King & Queen County	Level I - 100YR	\$7,535	\$4,612	\$2,878	\$45
King & Queen County	Level I - 500YR	\$19,376	\$11,714	\$7,506	\$156
King & Queen County	Level I - Annualized	\$585	\$355	\$224	\$6

Data in Thousands of Dollars

Table 26: Hazus Level I Multi-Frequency GBS Losses for King William County

Area	Scenario	Total Loss	Building Loss	Contents Loss	Business Disruption
King William County	Level I - 10YR	\$12,037	\$5,882	\$6,084	\$107
King William County	Level I - 25YR	\$14,339	\$7,084	\$7,169	\$124
King William County	Level I - 50YR	\$17,689	\$8,729	\$8,851	\$147
King William County	Level I - 100YR	\$20,858	\$10,332	\$10,395	\$191
King William County	Level I - 500YR	\$65,545	\$29,037	\$35,462	\$1,584
King William County	Level I - Annualized	\$1,656	\$797	\$852	\$11

Data in Thousands of Dollars

Table 27: Hazus Level I Multi-Frequency GBS Losses for Mathews County

Area	Scenario	Total Loss	Building Loss	Contents Loss	Business Disruption
Mathews County	Level I - 10YR	\$21,094	\$12,426	\$8,575	\$104
Mathews County	Level I - 25YR	\$29,509	\$17,341	\$12,025	\$167
Mathews County	Level I - 50YR	\$45,778	\$26,496	\$19,003	\$325
Mathews County	Level I - 100YR	\$60,800	\$35,055	\$25,356	\$451
Mathews County	Level I - 500YR	\$134,862	\$78,353	\$55,815	\$798
Mathews County	Level I - Annualized	\$3,682	\$2,170	\$1,500	\$13

Data in Thousands of Dollars

Table 28: Hazus Level I Multi-Frequency GBS Losses for Middlesex County

Area	Scenario	Total Loss	Building Loss	Contents Loss	Business Disruption
Middlesex County	Level I - 10YR	\$9,869	\$5,545	\$4,291	\$51
Middlesex County	Level I - 25YR	\$10,628	\$6,046	\$4,552	\$46
Middlesex County	Level I - 50YR	\$12,851	\$7,324	\$5,490	\$59
Middlesex County	Level I - 100YR	\$17,558	\$9,974	\$7,527	\$79
Middlesex County	Level I - 500YR	\$25,446	\$14,503	\$10,857	\$119
Middlesex County	Level I - Annualized	\$1,148	\$657	\$490	\$1

Data in Thousands of Dollars

General Building Stock Loss Estimation (Annualized Flood Loss)

Annualized loss is the preferred manner with which to express potential risk for hazard mitigation planning as it is useful for creating a common denominator by which different types of hazards can be compared. While annualized loss values in and of themselves do not necessarily determine if the values are too high or too low, when compared across a region the relative difference in values can indicate problem areas for prioritization or justification for further and more detailed analyses. Next, we consider the annualized losses of the Hazus Level 1 analyses.

Hazus Level 1 flood model annualized losses for the Middle Peninsula PDC are \$18,102,000 US Dollars. Property or “capital stock” losses are \$18,093,000 US Dollars and make up about 99.95% of the damages which includes the values for building, content, and inventory. Business interruption accounts for \$9,000 US Dollars (0.05%) of the annualized losses and includes relocation, income, rental and wage costs.

The flood model incorporates National Flood Insurance Program (NFIP) entry dates to distinguish Pre-FIRM and Post-FIRM census blocks. The results provided in this report show the combined total losses for both pre- and post-FIRM values combined.

Table 47 illustrates the expected annualized losses broken down by county and Table 29 includes the annualized losses along with Population and Per-Capita losses.

Table 29: County Based Hazus Annualized Loss for both Pre- and Post-FIRM by Building Type

County	Building	Content	Inventory	Relocation	Income	Rental	Wage	Annualized Loss
Gloucester	\$5,394	\$4,552	\$31	\$0	\$1	\$0	\$6	\$9,984
Mathews	\$2,170	\$1,500	\$12	\$0	\$0	\$0	\$0	\$3,682
King William	\$797	\$852	\$5	\$0	\$0	\$0	\$2	\$1,656
Middlesex	\$657	\$490	\$1	\$0	\$0	\$0	\$0	\$1,148
King & Queen	\$355	\$224	\$6	\$0	\$0	\$0	\$0	\$585
Essex	\$548	\$493	\$6	\$0	\$0	\$0	\$0	\$1,047
Total	\$9,921	\$8,111	\$61	\$0	\$1	\$0	\$8	\$18,102

All values in Thousands of Dollars

Table 30: County Based Census 2010 Population; Hazus Annualized Loss & Per-Capital Loss

County	Population ¹	Annualized Loss (US Dollar)	Per-Capita Loss (US Dollar)
Mathews	8,978	\$3,682,000	\$410.11
Gloucester	36,858	\$9,984,000	\$270.88
Middlesex	10,959	\$1,148,000	\$104.75
King William	15,935	\$1,656,000	\$103.92
Essex	11,151	\$1,047,000	\$93.89
King & Queen	6,945	\$585,000	\$84.23
MPPDC Region	90,826	\$18,102,000	\$199.30

¹ 2010 Census-based population counts - as exists within Hazus stock data.

Gloucester County has the highest annualized loss, \$9,984,000 US Dollars, accounting for 55.2% of the total losses for Middle Peninsula and 40% of the county's building stock, and ranks second (2nd) in terms of per-capita losses at \$270.88. The majority of the expected damages can be attributed to building and content value.

Mathews County has the second highest loss, \$3,682,000 US Dollars, accounting for 20.34% of the total annualized losses for Middle Peninsula and 17% of the county's building stock, however has the greatest annualized per-capita loss at \$410.11.

Building value loss accounts for approximately 55% of the expected annualized damages and 45% is attributed to content value loss. Table 43 summarizes the property losses and business interruption losses shown for pre- and post-FIRM structures.

Residential building damage represents the majority of the damages, followed closely by the residential content damages. Wood buildings account for \$11,529,000 US Dollars, or 62.1% of the annualized damages of which the majority (54.06%) are in Gloucester County. Occupancy results indicate that agricultural, non-profit and industrial have the largest percent of exposure at risk; i.e. these are the predominant occupancy types that intersect the flood hazard. Manufactured homes only account for 5.05% of the total annualized damages but have the highest percentage of building stock at risk to yearly damages. Tables 49 and 50 summarize the property losses and business interruption losses shown by occupancy and building type. The slight differences in the annualized losses for building type and occupancy can be attributed to the Hazus classification methodology (Table 51 and 52).

Table 31: Annualized Loss by Building Type

Building Type	Building	Contents	Inventory	Relocation	Income	Rental	Wage	Annualized Loss
Wood	\$6,886	\$4,641	\$2	\$0	\$0	\$0	\$0	\$11,529
Masonry	\$2,459	\$2,122	\$6	\$0	\$0	\$0	\$2	\$4,589
Steel	\$329	\$1,088	\$42	\$0	\$0	\$0	\$2	\$1,461
Manufactured Housing	\$444	\$147	\$0	\$0	\$0	\$0	\$0	\$591
Concrete	\$80	\$289	\$5	\$0	\$0	\$0	\$1	\$375
Annualized Loss	\$10,198	\$8,287	\$55	\$0	\$0	\$0	\$5	\$18,545
% of Ann. Loss	54.99%	44.69%	0.30%	0%	0%	0%	0.03%	<i>Hazus-MH (V2.2) results</i>
Values In Thousands of Dollars								

Table 32: Annualized Loss by General Occupancy Type

Occupancy Type	Building	Contents	Inventory	Relocation	Income	Rental	Wage	Annualized Loss
Residential	\$9,244	\$5,732	\$0	\$0	\$0	\$0	\$0	\$14,976
Commercial	\$426	\$1,408	\$19	\$0	\$0	\$0	\$2	\$1,855
Industrial	\$161	\$352	\$41	\$0	\$0	\$0	\$0	\$554
Non-Profit	\$36	\$207	\$0	\$0	\$0	\$0	\$0	\$243
Agricultural	\$8	\$71	\$1	\$0	\$0	\$0	\$0	\$80
Education	\$44	\$321	\$0	\$0	\$1	\$0	\$4	\$370
Government	\$2	\$20	\$0	\$0	\$0	\$0	\$2	\$24
Annualized Loss	\$9,921	\$8,111	\$61	\$0	\$1	\$0	\$8	\$18,102
% of Ann. Loss	54.81%	44.81%	0.34%	0%	0.01%	0%	0.04%	<i>Hazus-MH (V2.2) results</i>
Values in Thousands of Dollars								

Table 33: County Based Hazus Annualized Loss by General Building Type

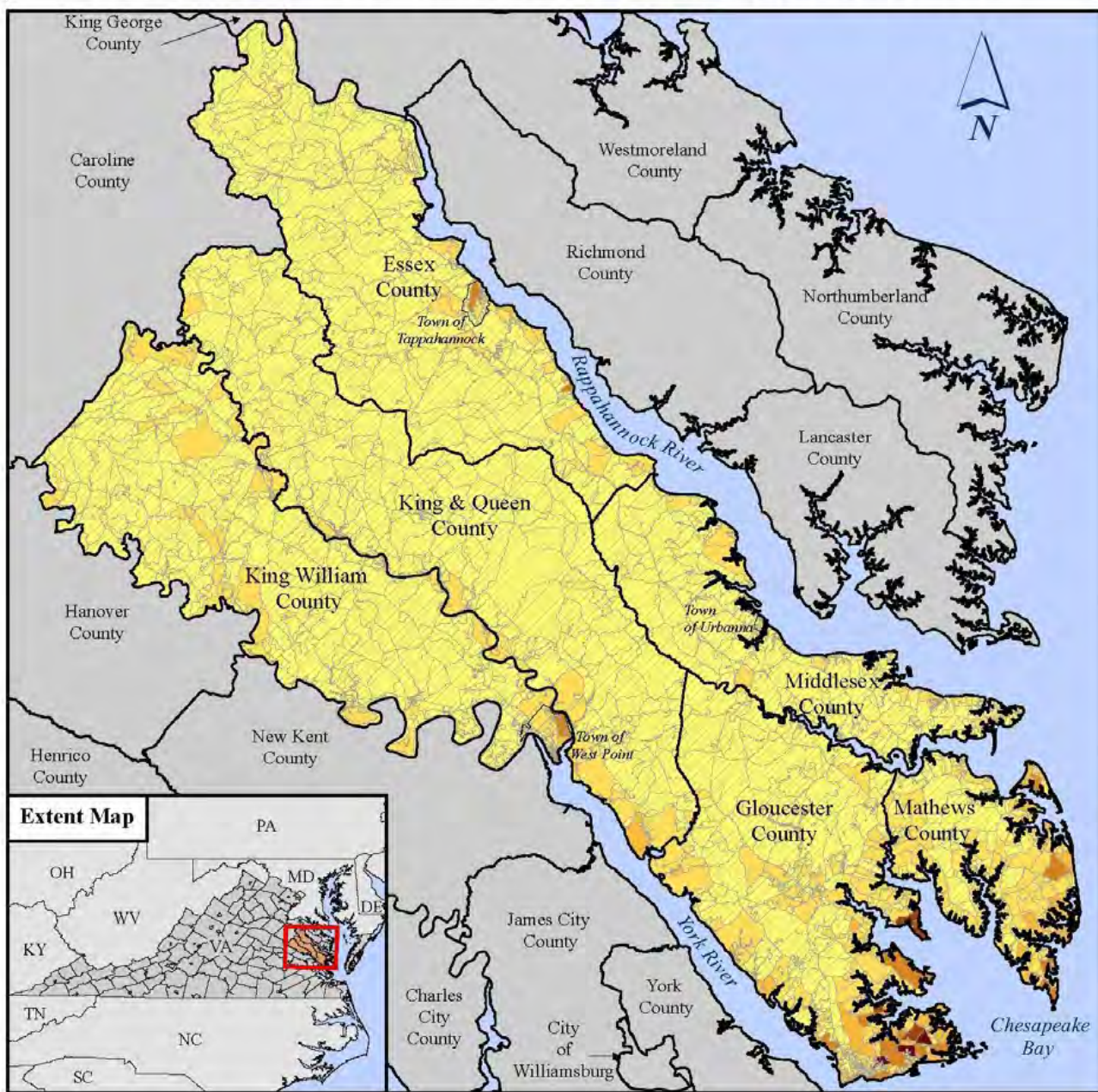
County	Total Exposure	Concrete	Masonry	Manufactured Homes	Steel	Wood	Annualized Loss
Gloucester	\$7,016,050	\$182	\$2,549	\$320	\$904	\$6,233	\$10,188
Mathews	\$1,809,800	\$33	\$907	\$192	\$154	\$2,543	\$3,829
King William	\$2,971,513	\$103	\$440	\$3	\$212	\$903	\$1,661
Middlesex	\$2,664,664	\$13	\$292	\$23	\$57	\$813	\$1,198
King & Queen	\$1,005,717	\$6	\$136	\$31	\$25	\$404	\$602
Essex	\$2,231,261	\$38	\$265	\$22	\$109	\$633	\$1,067
Annualized Loss		\$375	\$4,589	\$591	\$1,461	\$11,529	\$18,545
% of Annualized Loss		2.02%	24.75%	3.19%	7.88%	62.17%	<i>Hazus-MH (V2.2) results</i>
% of Total Exposure		2.56%	25.25%	2.00%	8.62%	61.56%	
All values in Thousands of Dollars							

Table 34: County Based Hazus Annualized Loss by General Occupancy Type

County	Total Exposure	Residential	Commercial	Industrial	Non-Profit	Education	Government	Agriculture	Annualized Loss
Gloucester	\$7,016,050	\$7,948	\$1,227	\$249	\$153	\$354	\$8	\$45	\$9,984
Mathews	\$2,231,261	\$3,350	\$139	\$123	\$36	\$5	\$3	\$26	\$3,682
King William	\$2,971,513	\$1,285	\$243	\$65	\$39	\$6	\$12	\$6	\$1,656
Middlesex	\$2,664,664	\$1,017	\$98	\$18	\$14	\$1	\$0	\$0	\$1,148
King & Queen	\$1,005,717	\$543	\$0	\$42	\$0	\$0	\$0	\$0	\$585
Essex	\$1,809,800	\$833	\$148	\$57	\$1	\$4	\$1	\$3	\$1,047
Annualized Loss		\$14,976	\$1,855	\$554	\$243	\$370	\$24	\$80	\$18,102
% of Annualized Loss		82.73%	10.25%	3.06%	1.34%	2.04%	0.13%	0.44%	<i>Hazus-MH (V2.2) results</i>
% of Exposure		81.05%	11.67%	3.07%	1.25%	1.73%	0.55%	0.68%	

Maps 3 through 9 on the following pages show the total annualized loss for the planning district and individual counties culminating in Map 10 which categorizes the Total Annualized Losses by Top Ten ranking and a Hotspot overlay representing those areas throughout the MPPDC Region that may require mitigation measures.

HAZUS-MH Flood Module: Total Annualized Loss



Middle Peninsula Planning District Commission

Dewberry

Projection:
VA Lambert Conformal Conic
North American Datum 1983

Disclaimer: Uncertainties are inherent in any loss estimation methodology. The purpose of the analysis and data sets are to give general indication of areas that may be susceptible to hazards.

Legend:

Annualized Loss by Census Block

- No Loss Calculated
- <= \$50,000
- \$50,001 - \$100,000
- \$100,001 - \$200,000
- \$200,001 - \$300,000
- >= \$300,001

0 2.5 5 10 Miles

Data Information:

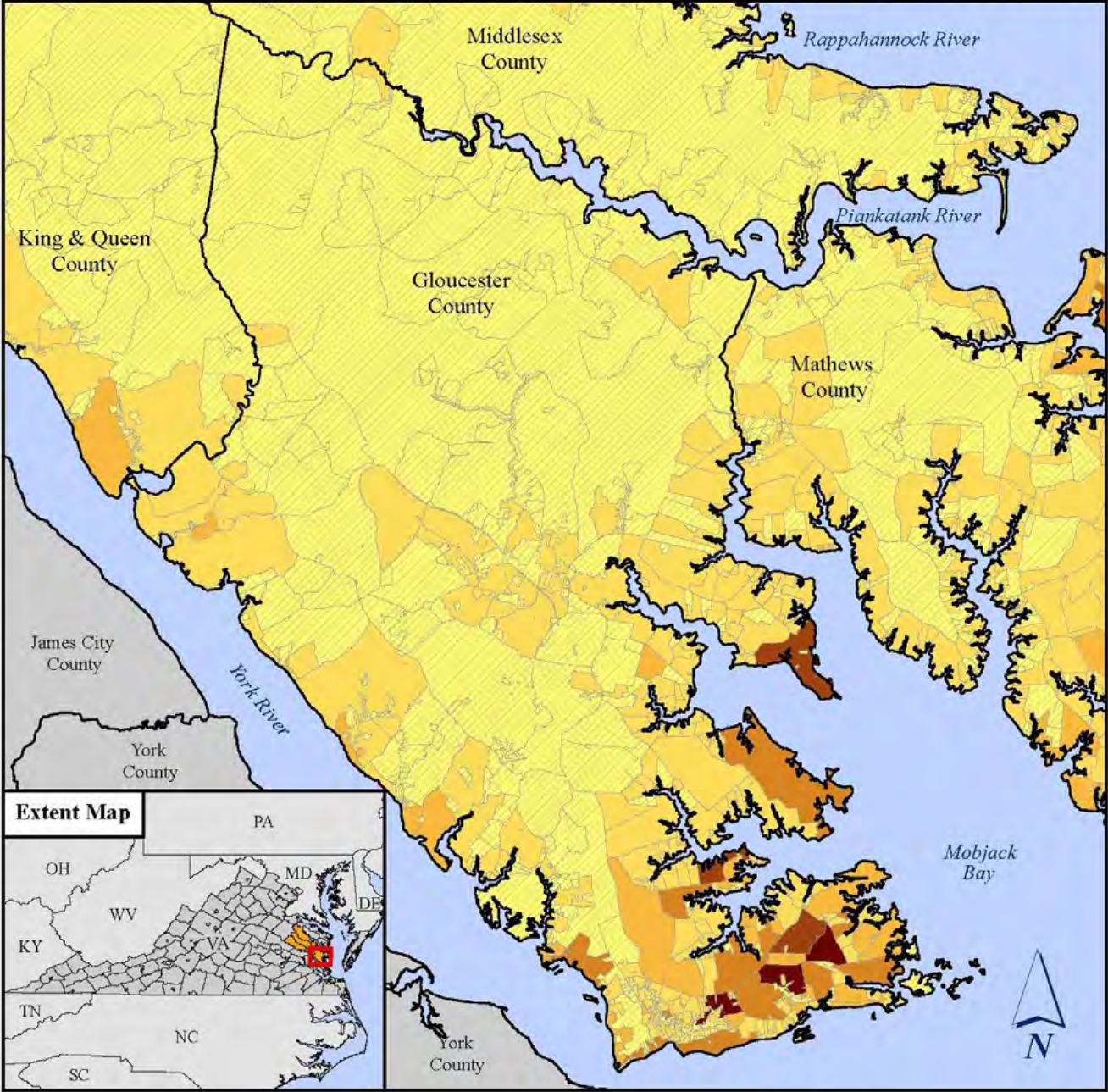
Annualized Full Replacement General Building Stock economic loss was calculated using Hazus dasymetric GBS but are displayed using full census blocks. Annualized loss is defined as the expected value of loss in any one year, and is developed by weighting the frequency losses (1.0%, 4%, 2%, 1% and 0.2% events).

Loss values have been summarized for pre- and post-FIRM buildings.

Data Sources:

HAZUS-MH v2.2 Flood Model (Analysis 03/2015)
HAZUS-MH v2.2 County Boundaries
MPPDC Town Boundaries

HAZUS-MH Flood Module: Total Annualized Loss



Middle Peninsula Planning District Commission

Projection:
VA Lambert Conformal Conic
North American Datum 1983

Disclaimer: Uncertainties are inherent in any loss estimation methodology. The purpose of the analysis and data sets are to give general indication of areas that may be susceptible to hazards.

Legend:
Annualized Loss by Census Block

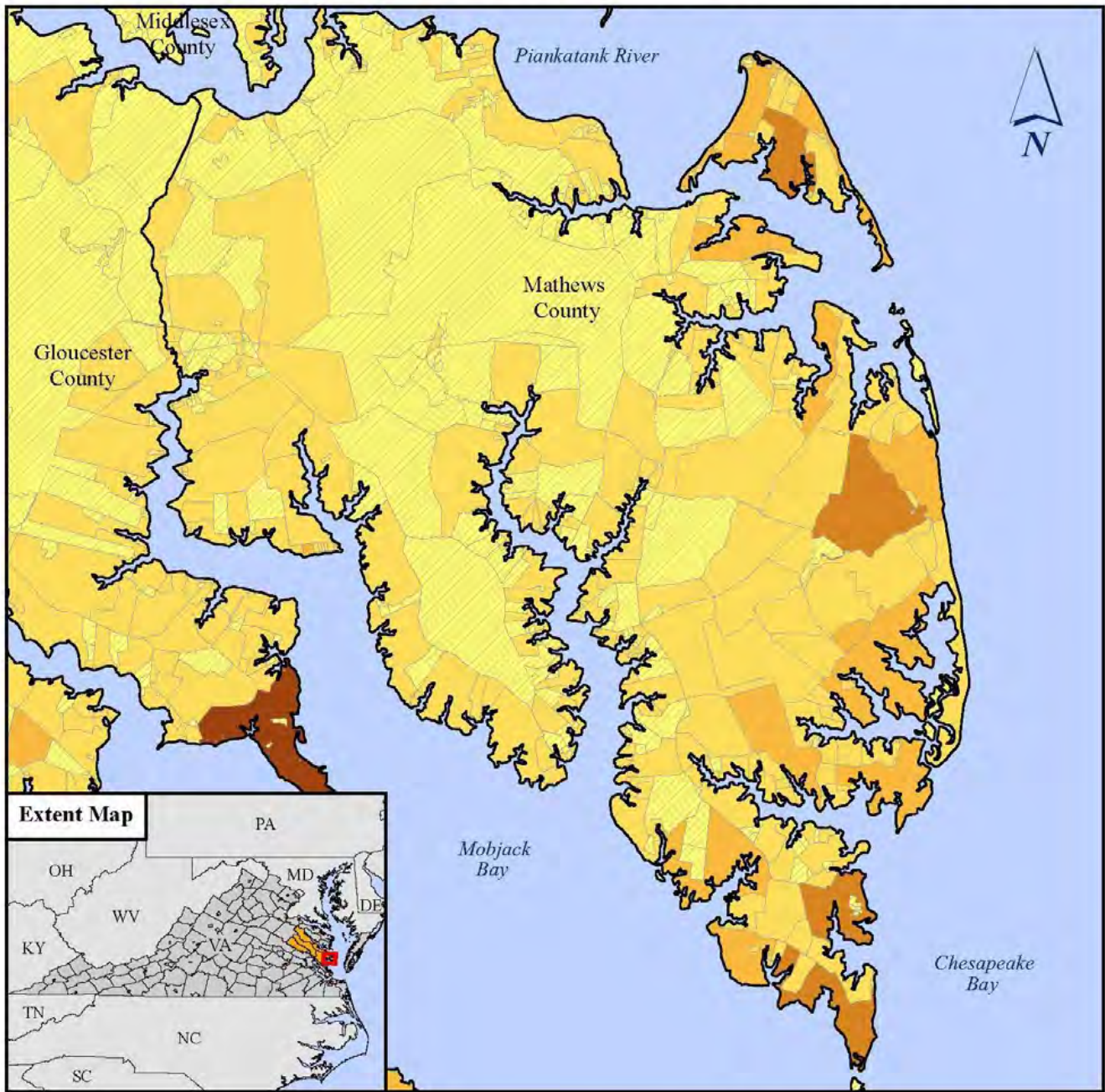
- No Loss Calculated
- <= \$50,000
- \$50,001 - \$100,000
- \$100,001 - \$200,000
- \$200,001 - \$300,000
- >= \$300,001


0 1 2 4 Miles


Data Information:
Annualized Full Replacement General Building Stock economic loss was calculated using Hazus dasymetric GBS but are displayed using full census blocks. Annualized loss is defined as the expected value of loss in any one year, and is developed by weighting the frequency losses (10%, 4%, 2%, 1% and 0.2% events).
Loss values have been summarized for pre- and post-FIRM buildings.

Data Sources:
HAZUS-MH v2.2 Flood Model (analysis 03/2015)
HAZUS-MH v2.2 County Boundaries
MPPDC Town Boundaries

HAZUS-MH Flood Module: Total Annualized Loss




 Middle Peninsula
Planning District Commission

 **Dewberry**

Projection:
VA Lambert Conformal Conic
North American Datum 1983

Disclaimer: Uncertainties are inherent in any loss estimation methodology. The purpose of the analysis and data sets are to give general indication of areas that may be susceptible to hazards.

Legend:
Annualized Loss by Census Block

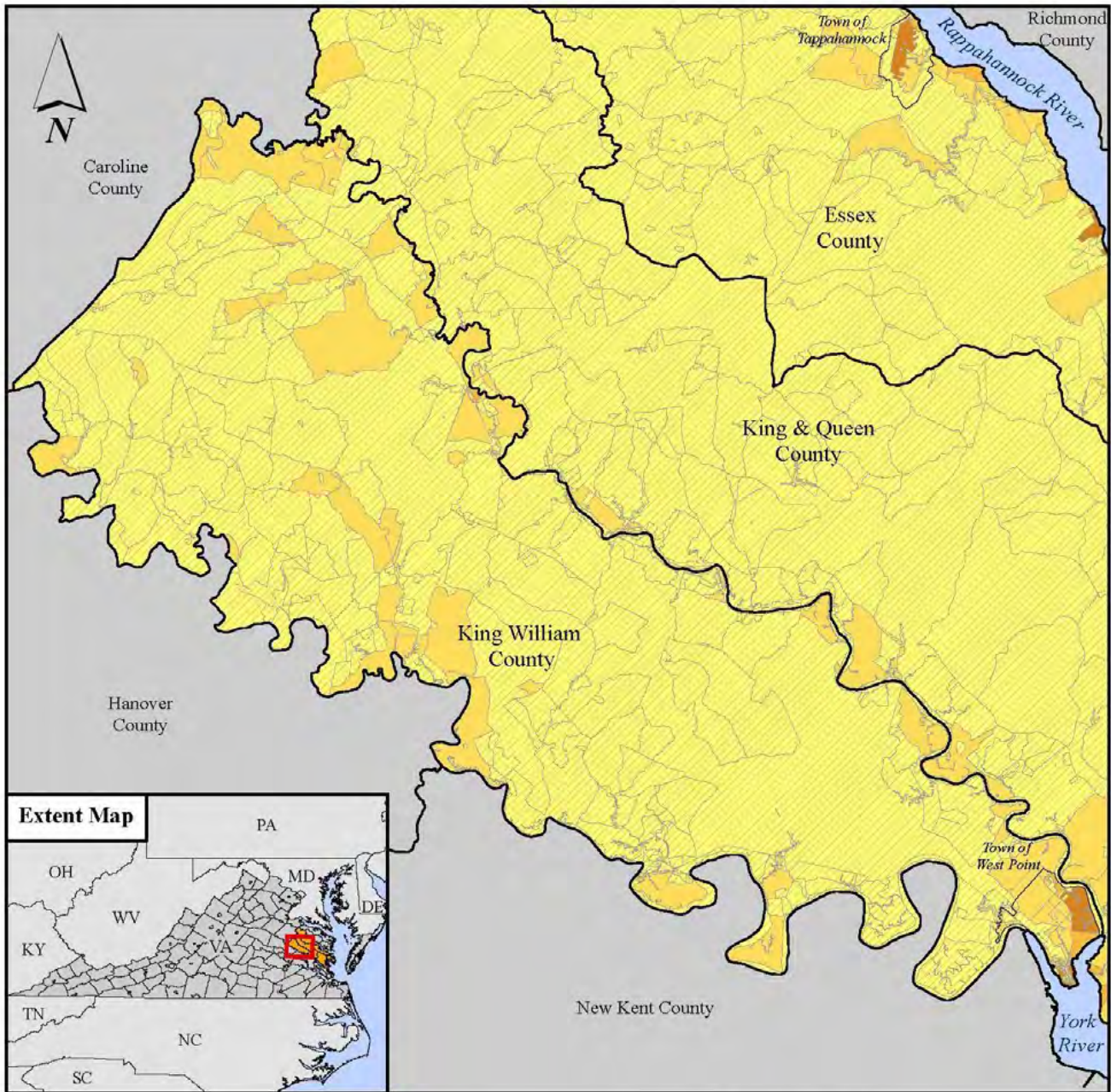
-  No Loss Calculated
-  < \$50,000
-  \$50,001 - \$100,000
-  \$100,001 - \$200,000
-  \$200,001 - \$300,000
-  > \$300,001

0 0.5 1 2 Miles

Data Information:
Annualized Full Replacement General Building Stock economic loss was calculated using Hazus dasymmetric GBS but are displayed using full census blocks. Annualized loss is defined as the expected value of loss in any one year, and is developed by weighting the frequency losses (10%, 4%, 2%, 1% and 0.2% events).
Loss values have been summarized for pre- and post-FIRM buildings.

Data Sources:
HAZUS-MH v2.2 Flood Model (analysis 03/2015)
HAZUS-MH v2.2 County Boundaries
MPPDC Town Boundaries

HAZUS-MH Flood Module: Total Annualized Loss



Middle Peninsula Planning District Commission

Dewberry

Projection:
VA Lambert Conformal Conic
North American Datum 1983

Disclaimer: Uncertainties are inherent in any loss estimation methodology. The purpose of the analysis and data sets are to give general indication of areas that may be susceptible to hazards.

Legend:
Annualized Loss by Census Block

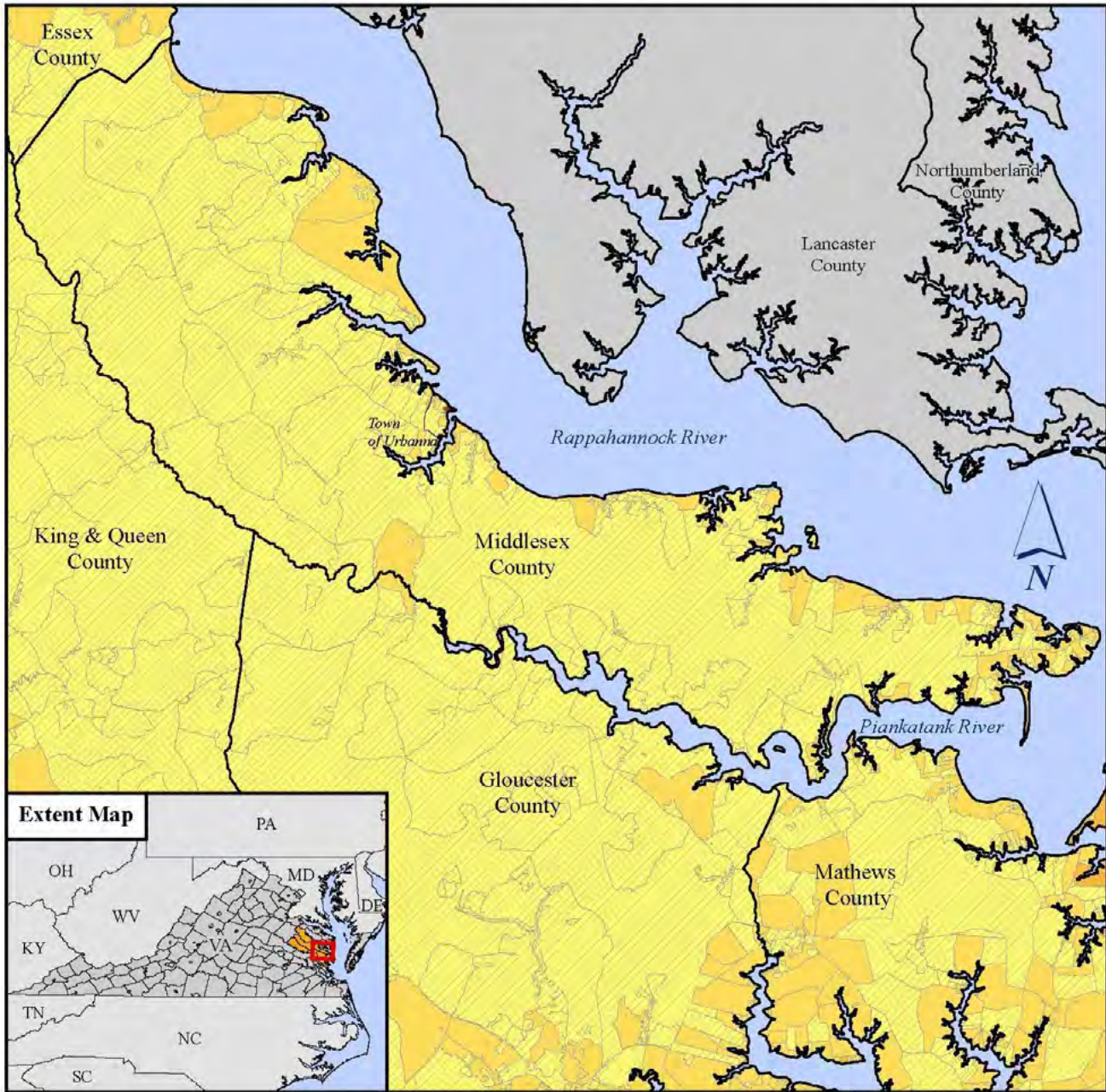
- No Loss Calculated
- ≤ \$50,000
- \$50,001 - \$100,000
- \$100,001 - \$200,000
- \$200,001 - \$300,000
- ≥ \$300,001

0 1 2 4 Miles

Data Information:
Annualized Full Replacement General Building Stock economic loss was calculated using Hazus dasymetric GBS but are displayed using full census blocks. Annualized loss is defined as the expected value of loss in any one year, and is developed by weighting the frequency losses (10%, 4%, 2%, 1% and 0.2% events).
Loss values have been summarized for pre- and post-FIRM buildings.

Data Sources:
HAZUS-MH v2.2 Flood Model (analysis 03/2015)
HAZUS-MH v2.2 County Boundaries
MPPDC Town Boundaries

HAZUS-MH Flood Module: Total Annualized Loss



Middle Peninsula Planning District Commission

Projection:
VA Lambert Conformal Conic
North American Datum 1983

Disclaimer: Uncertainties are inherent in any loss estimation methodology. The purpose of the analysis and data sets are to give general indication of areas that may be susceptible to hazards.

Legend:

Annualized Loss by Census Block

- No Loss Calculated
- <= \$50,000
- \$50,001 - \$100,000
- \$100,001 - \$200,000
- \$200,001 - \$300,000
- >= \$300,001

0 1 2 4 Miles

Data Information:

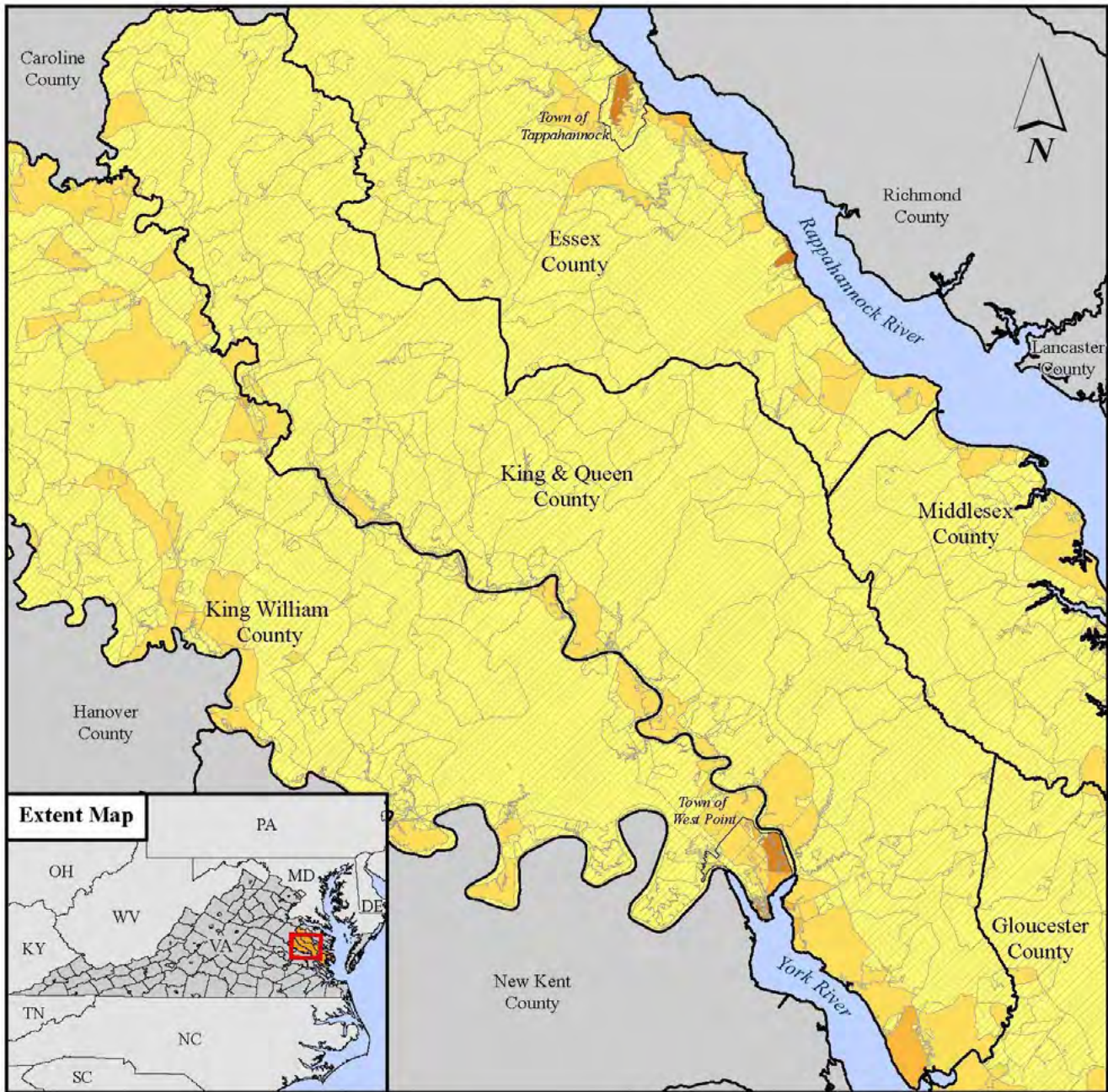
Annualized Full Replacement General Building Stock economic loss was calculated using Hazus dasymetric GBS but are displayed using full census blocks. Annualized loss is defined as the expected value of loss in any one year, and is developed by weighting the frequency losses (10%, 4%, 2%, 1% and 0.2% events).

Loss values have been summarized for pre- and post-FIRM buildings.

Data Sources:

- HAZUS-MH v2.2 Flood Model (analysis 03/2015)
- HAZUS-MH v2.2 County Boundaries
- MPPDC Town Boundaries

HAZUS-MH Flood Module: Total Annualized Loss



Middle Peninsula Planning District Commission

Dewberry

Projection:
VA Lambert Conformal Conic
North American Datum 1983

Disclaimer: Uncertainties are inherent in any loss estimation methodology. The purpose of the analysis and data sets are to give general indication of areas that may be susceptible to hazards.

Legend:

Annualized Loss by Census Block

- No Loss Calculated
- < \$50,000
- \$50,001 - \$100,000
- \$100,001 - \$200,000
- \$200,001 - \$300,000
- > \$300,001

0 1 2 4 Miles

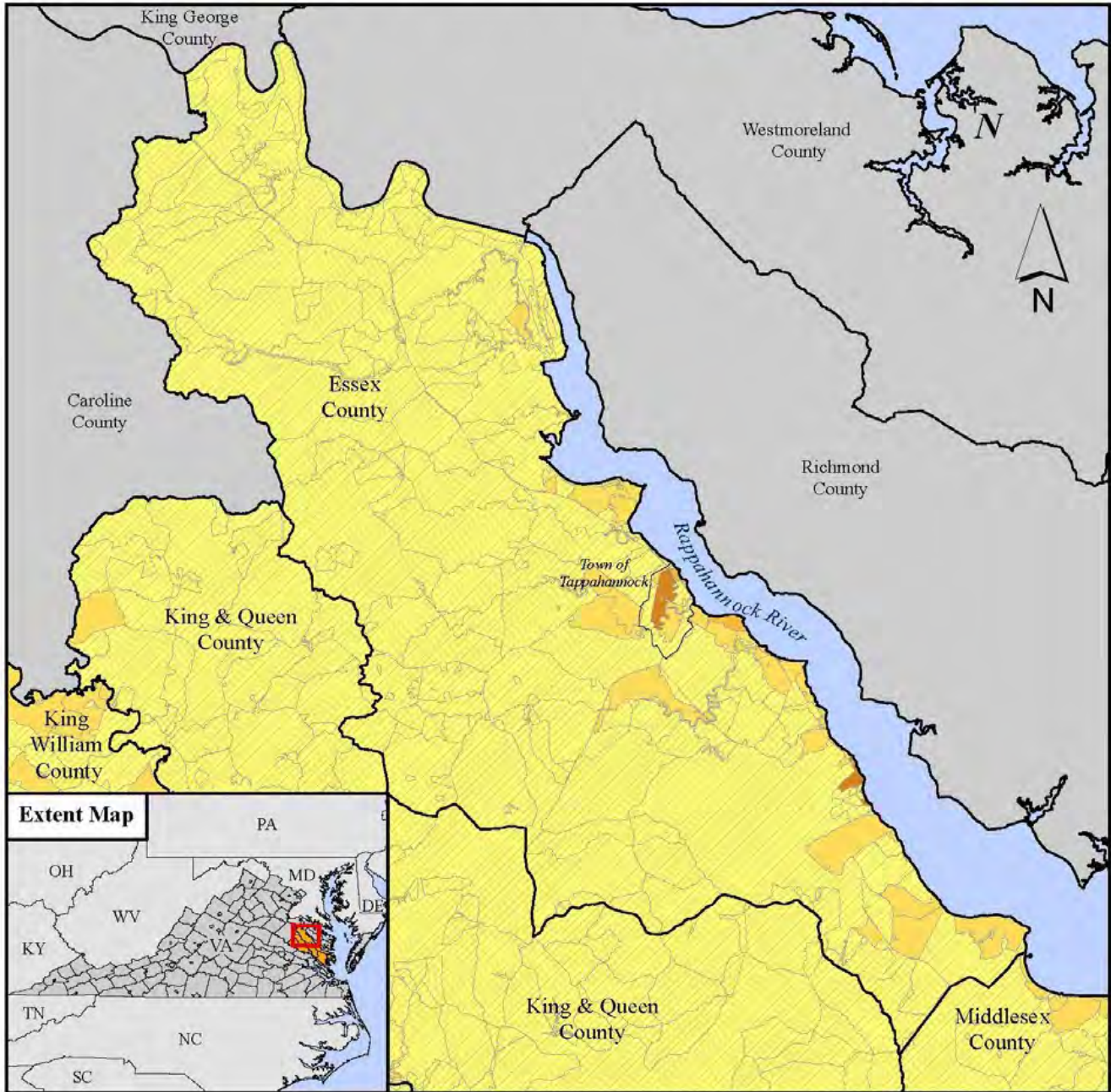
Data Information:

Annualized Full Replacement General Building Stock economic loss was calculated using Hazus dasymmetric GBS but are displayed using full census blocks. Annualized loss is defined as the expected value of loss in any one year, and is developed by weighting the frequency losses (10%, 4%, 2%, 1% and 0.2% events). *Loss values have been summarized for pre- and post-FIRM buildings.*

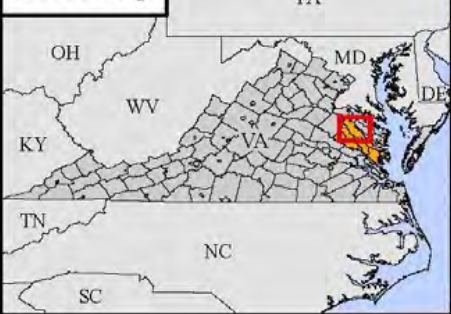
Data Sources:

- HAZUS-MH v2.2 Flood Model (analysis 03/2015)
- HAZUS-MH v2.2 County Boundaries
- MPPDC Town Boundaries

HAZUS-MH Flood Module: Total Annualized Loss



Extent Map

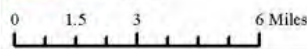


Projection:
VA Lambert Conformal Conic
North American Datum 1983

Disclaimer: Uncertainties are inherent in any loss estimation methodology. The purpose of the analysis and data sets are to give general indication of areas that may be susceptible to hazards.

Legend:
Annualized Loss by Census Block

- No Loss Calculated
- <= \$50,000
- \$50,001 - \$100,000
- \$100,001 - \$200,000
- \$200,001 - \$300,000
- >= \$300,001



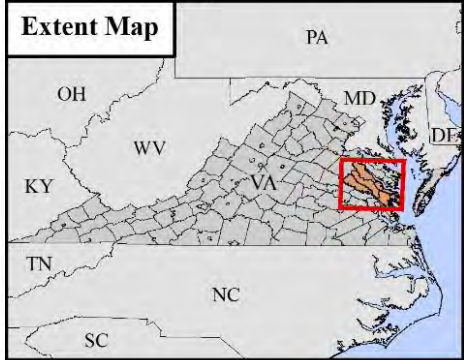
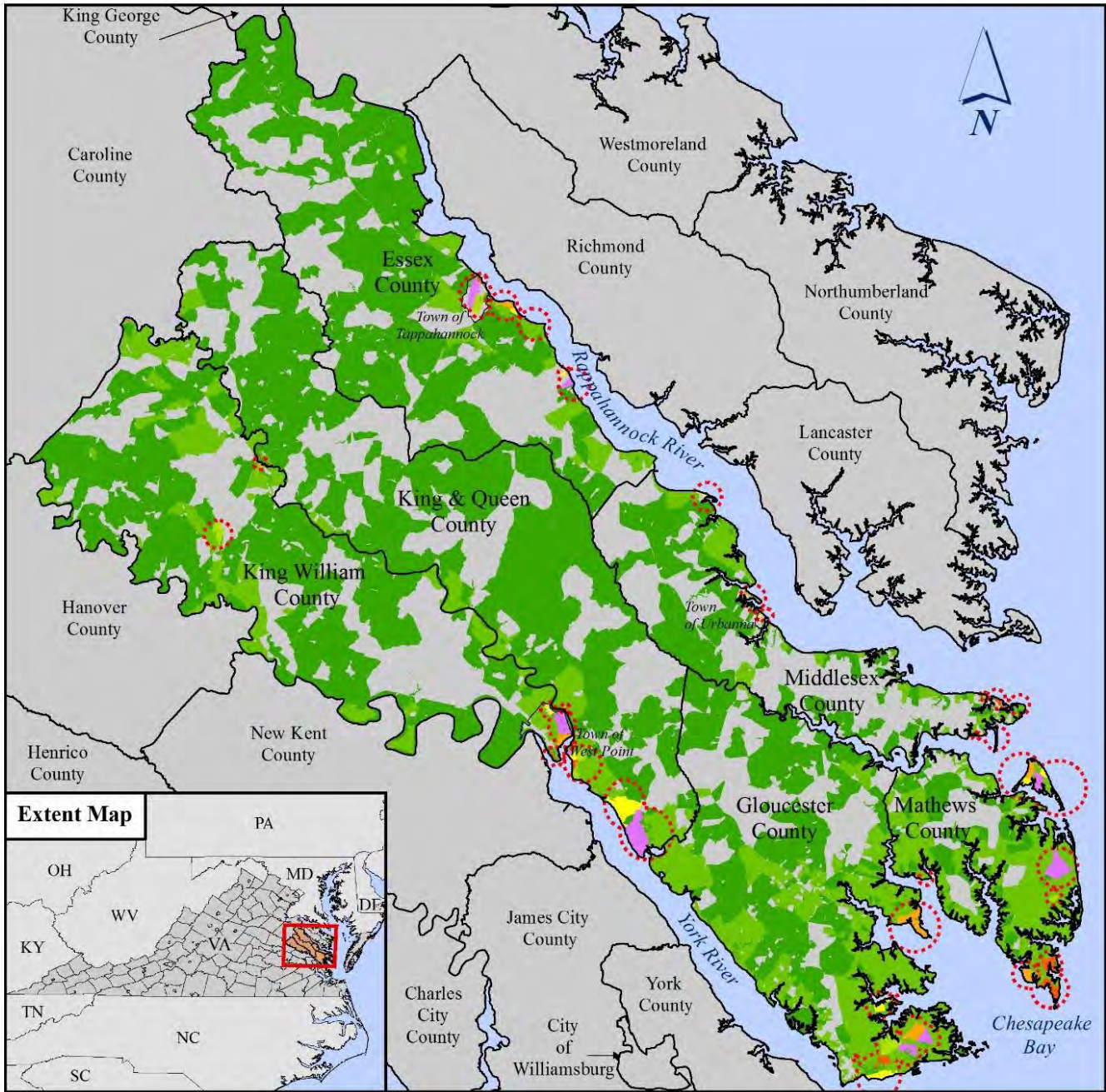
Data Information:

Annualized Full Replacement General Building Stock economic loss was calculated using Hazus dasymmetric GBS but are displayed using full census blocks. Annualized loss is defined as the expected value of loss in any one year, and is developed by weighting the frequency losses (10%, 4%, 2%, 1% and 0.2% events).
Loss values have been summarized for pre- and post-FIRM buildings.

Data Sources:

HAZUS-MH v2.2 Flood Model (analysis 03/2015)
HAZUS-MH v2.2 County Boundaries
MPPDC Town Boundaries

HAZUS-MH Flood Module: Total Annualized Loss (Ranked)



Middle Peninsula Planning District Commission

Dewberry

Projection:
VA Lambert Conformal Conic
North American Datum 1983

Disclaimer: Uncertainties are inherent in any loss estimation methodology. The purpose of the analysis and data sets are to give general indication of areas that may be susceptible to hazards.

Legend

Total Annualized Loss - Ranked Hot Spots (Top Ten By County)

- Annualized Loss Is Zero
- Has Annualized Losses (Not in Top Ten)
- Rank 9 and 10
- Rank 7 and 8
- Rank 5 and 6
- Rank 3 and 4
- Rank 1 and 2

Hotspot

0 2.5 5 10 Miles

Data Information:

Annualized Full Replacement General Building Stock economic loss was ranked for the top ten (10) by Total Loss and mapped in groups of two. Top ten ranking can offer perspective where mitigation efforts may be appropriate. However, these losses are mapped independent of known Repetitive Loss Properties. Hotspot areas for reference.

Data Sources:

- HAZUS-MH v2.2 Flood Model (Analysis 03/2015)
- HAZUS-MH v2.2 County Boundaries
- MPPDC Town Boundaries

Gloucester County accounts for almost 55.15% of the planning district's annualized losses. The census blocks bordering the York River and Mobjack Bay have higher loss values as compared to the larger census blocks in the northwest portions of the county. Collective damages between both the York River and Mobjack Bay are nearly equivalent. The southeast portion of the County contains the greatest concentration of loss. The vicinity of Guinea Road and Kings Creek Road; beginning in the locale of Hayes and heading east to Kings Creek being bordered on the north by the Severn River and on the south by the York River exhibits the greatest concentration of loss. Additionally, the land area of Saddlers Neck to Stump Point being bounded on the north by the Northwest Branch Severn River and Willetts Creek to the south exhibits a second concentration of risk. Finally, the peninsula and vicinity of Ware Neck Point -where the Ware River and North River converge – is another location exhibiting a concentration of losses.

Losses in Mathews County are spread throughout the county with a high frequency of census block having damages greater than \$50,000 US Dollars along the Chesapeake Bay to include the various harbor/haven inlets and also at the confluences of the Piankatank River in the north as well as Mobjack Bay in the south. Another location that exhibits relatively higher loss estimates includes Roys Point in the area around Daniel Avenue. Ultimately, Mathews County ranks second of the six counties and accounts for 20.4% of the total annualized losses in the MPPDC planning district.

The census blocks bordering the Pamunkey and Mattaponi rivers contain almost all of the annualized damages for King William County with the greatest concentration of losses in the Town of West Point. Wood framed structures across the county account for more than 50% of the losses. The total annualized damages for the Town of West Point is approximately \$1.3 million US Dollars. Total annualized losses of the Pamunkey Indian Reservation is approximately \$40,000 US Dollars and the Mattaponi Indian Reservation is \$14,000 US Dollars. Two (2) locations in the northwestern portion of the County exhibit relatively higher annualized loss values; the two areas are in the vicinity of both Manquin and Aylett with Aylett experiencing the greater losses near \$145,000 US Dollars and Manquin having estimated losses of \$40,000 US Dollars.

Middlesex County's annualized losses account for 6.3% of the total risk with wood framed structures accounting for nearly 68% of the losses. The census blocks along the Rappahannock River collectively account for the greatest amount of losses within the County. Losses in the vicinity of Mud Creek, Balls Point, The Town of Urbanna, and the confluence with the Chesapeake Bay constitute the areas having the highest loss values. The Town of Urbanna has an estimated \$300,000 US Dollars in annualized damages and includes the census block having the highest estimated loss (\$226,000 US Dollars) within the County. The second highest census block loss (\$70,000) is located at the confluence between the Rappahannock River and the Chesapeake Bay in the southeastern portion of the County.

King and Queen County has the lowest annualized loss values for the region, accounting for 3.2% of the total damages. Residential occupancy makes up the majority of the losses in the county. A relatively small group of census blocks along the York River account for most of the damages near \$400,000 US Dollars. In comparison, along the Mattaponi River damages are in the range of near \$100,000 or roughly one-quarter of the expected damages along the York River. Notwithstanding, a small pocket of development at the end of Limehouse Road along the Mattaponi River downstream of Muddy Point and opposite the Town of West Point is an area with annualized losses near \$20,000 US Dollars. The majority of damage within Essex County is along the Rappahannock River with the greatest concentration of annualized losses from the Town of Tappahannock in the north, extending downstream to the vicinity of Wares Warf. Total annualized damages along the length of the Rappahannock are approximately \$1.34 million. The concentrated damages from Tappahannock to Wares Point is approximately \$0.67 million or nearly one-half of the expected

damages along the Rappahannock River.

The Town of Tappahannock accounts for approximately \$0.34 million or nearly one-half of the expected damages in the area of concentrated damages along the Rappahannock. The county and town combined, account for approximately 5.8% of annualized damages for the MPPDC region.

Comparative Flood Modeling:

Noting the existence of new RiskMAP-based depth grids from recent FEMA studies, presented below are results of running the new coastal-only 1% Annual Chance Flood Hazard (Tables 53-59). As discussed earlier, the new RiskMAP-based depth grid was not utilized to replace the Hazus Level 1 depth grids. However, the study data (i.e., the same study data that would have been used to create the RiskMAP-based depth grid) was utilized in the Level 1 analysis. Again, this included use of the Stillwater Elevations reported for coastal transects in Table 2 – Transect Data for each FEMA Flood Insurance Study. Consequently, the loss values presented below for general comparison, effectually exhibit that losses are relatively close. Consequently, knowing that losses are relatively close is confirmation that the Hazus Level 1 methodology is quite reasonable for the regional estimations and analyses presented. However, in the event that further analyses at smaller mapping scales (e.g., Parcel-level) are warranted in other projects, it would be advisable to use the RiskMAP-based data.

Table 35: MPPDC Loss Comparison - 1% Coastal (RiskMAP vs. Level I Methodology)

Area	Scenario	Total Loss	Building Loss	Contents Loss	Business Disruption
MPPDC Region	100YR_RiskMapCstlOnly ^A	\$233,744	\$128,057	\$104,166	\$2,220
MPPDC Region	100YR_LVL1CstlOnly ^B	\$236,591	\$128,430	\$106,547	\$2,389
Data in Thousands of Dollars					
Notes:					
^A Scenario uses depth grids produced for FEMA RiskMAP Studies by USACE circa March 2015.					
^B Scenario uses depth grids produced from Hazus Level I methodology; NED I-Arc DEMs, 1 mi ² Drainage Threshold, most recent coastal water surfaces from FEMA FIS text (Table 2 – Transect Data) for each respective county.					

Table 36: Essex County Loss Comparison - 1% Coastal (RiskMAP vs. Level I Methodology)

Area	Scenario	Total Loss	Building Loss	Contents Loss	Business Disruption
Essex County	100YR_RiskMapCstlOnly ^A	\$14,695	\$7,541	\$7,014	\$162
Essex County	100YR_LVL1CstlOnly ^B	\$16,421	\$8,637	\$7,663	\$141
Data in Thousands of Dollars					
Notes:					
^A Scenario uses depth grids produced for FEMA RiskMAP Studies by USACE circa March 2015.					
^B Scenario uses depth grids produced from Hazus Level I methodology; NED I-Arc DEMs, 1 mi ² Drainage Threshold, most recent coastal water surfaces from FEMA FIS text (Table 2 – Transect Data) for each respective county.					

Table 37: Gloucester County Loss Comparison - 1% Coastal (RiskMAP vs. Level I Methodology)

Area	Scenario	Total Loss	Building Loss	Contents Loss	Business Disruption
Gloucester County	100YR_RiskMapCstlOnly ^A	\$108,158	\$58,259	\$49,148	\$50,416
Gloucester County	100YR_LVLICstlOnly ^B	\$118,631	\$62,714	\$55,018	\$56,528
Data in Thousands of Dollars					
Notes:					
^A Scenario uses depth grids produced for FEMA RiskMAP Studies by USACE circa March 2015.					
^B Scenario uses depth grids produced from Hazus Level I methodology; NED 1-Arc DEMs, 1 mi ² Drainage Threshold, most recent coastal water surfaces from FEMA FIS text (Table 2 – Transect Data) for each respective county.					

Table 38: King & Queen County Loss Comparison - 1% Coastal (RiskMAP vs. Level I Methodology)

Area	Scenario	Total Loss	Building Loss	Contents Loss	Business Disruption
King Queen County	100YR_RiskMapCstlOnly ^A	\$5,152	\$3,094	\$2,004	\$54
King Queen County	100YR_LVLICstlOnly ^B	\$7,140	\$4,375	\$2,720	\$45
Data in Thousands of Dollars					
Notes:					
^A Scenario uses depth grids produced for FEMA RiskMAP Studies by USACE circa March 2015.					
^B Scenario uses depth grids produced from Hazus Level I methodology; NED 1-Arc DEMs, 1 mi ² Drainage Threshold, most recent coastal water surfaces from FEMA FIS text (Table 2 – Transect Data) for each respective county.					

Table 39: King William County Loss Comparison - 1% Coastal (RiskMAP vs. Level I Methodology)

Area	Scenario	Total Loss	Building Loss	Contents Loss	Business Disruption
King William County	100YR_LVLICstlOnly ^B	\$16,553	\$7,961	\$8,489	\$163
King William County	100YR_RiskMapCstlOnly ^A	\$18,428	\$8,564	\$9,737	\$194
Data in Thousands of Dollars					
Notes:					
^A Scenario uses depth grids produced for FEMA RiskMAP Studies by USACE circa March 2015.					
^B Scenario uses depth grids produced from Hazus Level I methodology; NED 1-Arc DEMs, 1 mi ² Drainage Threshold, most recent coastal water surfaces from FEMA FIS text (Table 2 – Transect Data) for each respective county.					

Table 40: Mathews County Loss Comparison - 1% Coastal (RiskMAP vs. Level I Methodology)

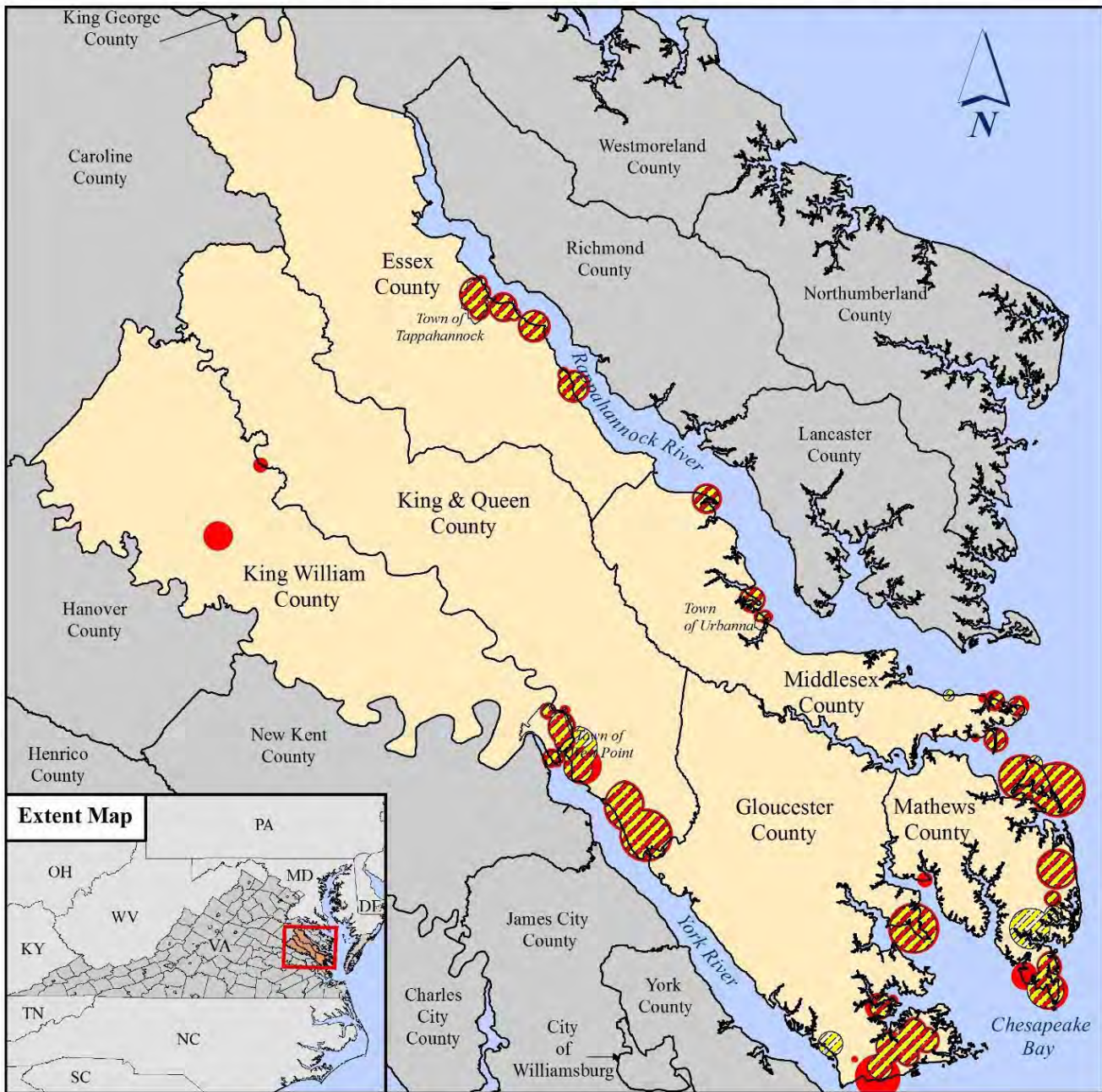
Area	Scenario	Total Loss	Building Loss	Contents Loss	Business Disruption
Mathews County	100YR_LVLICstlOnly ^B	\$60,614	\$34,946	\$25,279	\$451
Mathews County	100YR_RiskMapCstlOnly ^A	\$65,453	\$37,867	\$27,188	\$466
Data in Thousands of Dollars					
Notes:					
^A Scenario uses depth grids produced for FEMA RiskMAP Studies by USACE circa March 2015.					
^B Scenario uses depth grids produced from Hazus Level I methodology; NED I-Arc DEMs, 1 mi ² Drainage Threshold, most recent coastal water surfaces from FEMA FIS text (Table 2 – Transect Data) for each respective county.					

Table 41: Middlesex County Loss Comparison - 1% Coastal (RiskMAP vs. Level I Methodology)


Area	Scenario	Total Loss	Building Loss	Contents Loss	Business Disruption
Middlesex County	100YR_LVLICstlOnly ^B	\$17,232	\$9,797	\$7,378	\$79
Middlesex County	100YR_RiskMapCstlOnly ^A	\$21,858	\$12,732	\$9,075	\$76
Data in Thousands of Dollars					
Notes:					
^A Scenario uses depth grids produced for FEMA RiskMAP Studies by USACE circa March 2015.					
^B Scenario uses depth grids produced from Hazus Level I methodology; NED I-Arc DEMs, 1 mi ² Drainage Threshold, most recent coastal water surfaces from FEMA FIS text (Table 2 – Transect Data) for each respective county.					

A comparison of the “hot spots” that exist from the Level 1 Annualized and the new RiskMAP-based 1% Annual Chance loss estimates reveals very similar results. Map 11 below, shows the hot spots generated from the two different types of modeling. It can be seen that the new RiskMAP-based analysis shows a number of similarities in the potential flood losses. Any location where the two hot spot types overlap, are locations where the relative risk is considered to be comparative or relatively similar. However, it is important to note that the two (2) Level 1 Annualized Hotspots in northwestern King William County (vicinity of Manquin and Aylett) are areas attributed to Riverine flooding influence. Therefore, the RiskMAP 1% Coastal Hotspots will not reveal these same areas as potential hot spots. Consequently, the RiskMAP 1% Coastal Hotspots will reveal the addition of other new areas given the extents of the coastal flood hazard (see Map 12 – FEMA digital FIRM & RiskMAP 1% Coastal Depth Grid).

HAZUS-MH Flood Module: Hot Spot Comparison



Extent Map







Dewberry

Projection:
 VA Lambert Conformal Conic
 North American Datum 1983

Disclaimer: Uncertainties are inherent in any loss estimation methodology. The purpose of the analysis and data sets are to give general indication of areas that may be susceptible to hazards.

Legend
 Hot Spots Based on Top Ten Rank
 (Top Ten By County)

-  RiskMap 1% Coastal Hotspot
-  Level 1 Annualized Hotspot
-  MPPDC Region

0 2.5 5 10 Miles

Data Information:

General Building Stock total economic loss was ranked for the top ten (10) by each County. Then, Hot spot areas were generated from the top ten.

Hotspot areas may indicate areas that may require further mitigation or consideration for more detailed analyses.

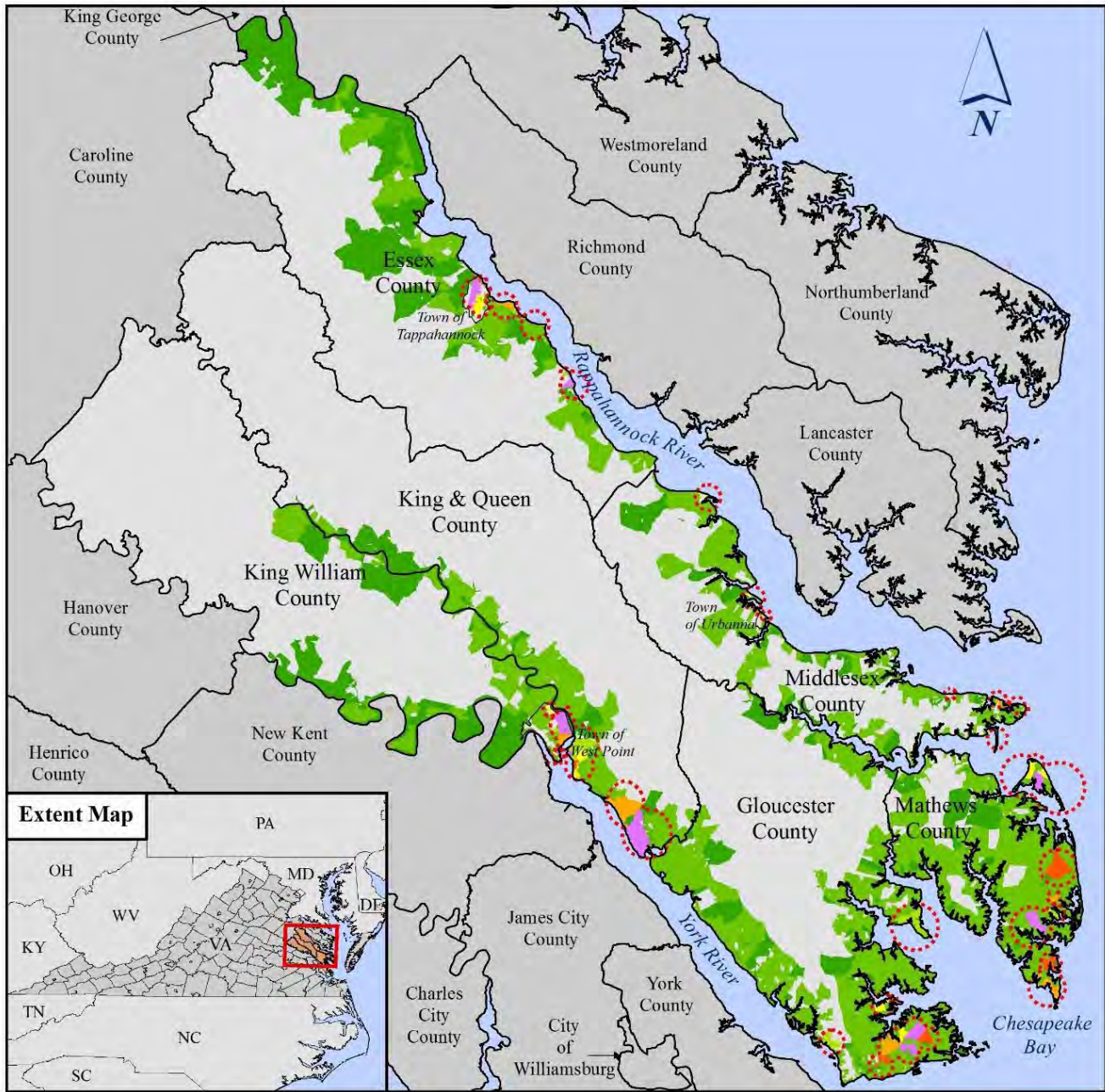
Data Sources:

- HAZUS-MH v2.2 Flood Model (Analysis 03/2015)
- HAZUS-MH v2.2 County Boundaries
- MPPDC Town Boundaries

Given the coastal focus of the RiskMAP study, it can be seen that a few new areas of consideration include the following:

- Middlesex County – an area along the Rappahannock River where the River confluences with Woods Creek.
- Gloucester County – an area along the York River, east of the Carmines Islands and situated between Carmines Island Road (in the west) and Pigeon Hill Road (in the east).
- Mathews County – portions of land on the northern banks of Horn Harbor and also along Winter Harbor.
- King and Queen County – a greater area (as compared to the Level 1 Annualized Hot Spot) in the vicinity of Mattaponi; i.e., confluence of Mattaponi and York Rivers near State Highway 33 (Lewis B. Puller Memorial Highway).

HAZUS-MH Flood Module: RiskMap 1% Coastal Loss (Ranked)



Middle Peninsula Planning District Commission

Projection:
VA Lambert Conformal Conic
North American Datum 1983

Disclaimer: Uncertainties are inherent in any loss estimation methodology. The purpose of the analysis and data sets are to give general indication of areas that may be susceptible to hazards.

Legend
RiskMAP 1% Coastal Total Loss - Ranked Hot Spots
(Top Ten By County)

- Not Included In Analysis
- 1% Coastal Loss Is Zero
- Has 1% Coastal Losses (Not In Top Ten)
- Rank 9 and 10
- Rank 7 and 8
- Rank 5 and 6
- Rank 3 and 4
- Rank 1 and 2

Hotspot

0 2.5 5 10 Miles

Data Information:

Total Full Replacement General Building Stock economic loss was ranked for the top ten (10) by Total Loss and mapped in groups of two. Top ten ranking can offer perspective where mitigation efforts may be appropriate. However, these losses are mapped independent of known Repetitive Loss Properties. Hotspot areas for reference.

Data Sources:

- HAZUS-MH v2.2 Flood Model (Analysis 03/2015)
- HAZUS-MH v2.2 County Boundaries
- MPPDC Town Boundaries

Sea Level Rise

The Hazus Flood Model analyzes both riverine and coastal flood hazards. Flood hazard within Hazus is defined by depth of flooding. Other contributing factors of damage include the duration and velocity of water in the floodplain. Other hazards associated with flooding that may contribute to flood losses include channel erosion and migration, sediment deposition, bridge scour and the impact of flood-born debris. The Hazus Flood Model allows users to estimate flood losses primarily due to flood depth to the general building stock (GBS). While velocity is also considered, it is not a separate input parameter and is accounted within depth-damage functions (i.e., expected percent damage given an expected depth) for census blocks that are defined as either coastal or riverine influenced.

Flood-specific modeling was performed in this Plan revision to determine annualized flood loss however it is important to note that the Sea Level Rise analyses while similar is not 100% the same as the multi-frequency analyses performed and presented in the Flood Section; see Flood Analysis. While this section does not intend to fully explain detailed elements of coastal flood modeling, a basic amount of information is offered to differentiate between the two report sections.

Coastal flood modeling typically includes identifying baseline tidal water levels and then computing additions or increases to water surface levels from various natural forces such as storm surge effects (i.e., water level increases as the result of a storm pushing landward) as well as other wave-related effects such as increased wave heights and the run-up of waves over the land as waves crash. Other factors of coastal storms play a part in estimating increased water surface levels such as shoreline and/or dune erosion. Consequently, each of the scenarios presented in the Flood Analysis section, includes depth grids produced from modeling that takes into account increases to water surface levels from the various forces typical of coastal storm events – a.k.a. Storm Surge.

In contrast, the Hazus analysis performed for the Sea Level Rise scenarios (this section) DO NOT include the use of depth grids that include storm surge. Rather, this Sea Level Rise section uses depth grids that 1.) Are depths from the baseline tidal water levels (Mean Higher High Water or MHHW) and 2.) Includes the addition of six-feet of water – as if the new baseline tidal water level were increased by simply adding more water into the same ‘bathtub’ - as it were. The two depth grids run through Hazus represent these two aforementioned scenarios developed by NOAA - Office for Coastal Management for the on-line application known as Sea Level Rise and Coastal Flooding Impacts v2.0.

Multiple resources were consulted for data that would support Sea Level Rise (SLR) risk assessments across the Middle Peninsula planning district. Primary focus was placed on the existence of Hazus-ready inputs, which would include the existence and availability of depth grids. Depth grids are able to be directly imported into the Hazus Flood model and eliminates the need to pre-process other modeling or Geographic Information Systems (GIS) data. Generally-speaking, the creation of depth grids require GIS data that represents an estimated water surface along with an associated ground surface. Thereafter, the difference between the two surfaces represents the estimated depth of flooding for a given location; i.e., water elevation less ground elevation equals depth; see Depth Grid Graphic in the Flood Analysis Section.

Considering the SLR resources researched, depth grids were only available from NOAA's Office for Coastal Management (see <http://coast.noaa.gov/slr/>) as part of its Sea Level Rise and Coastal Flooding Impacts v2.0 Application. An additional resource was available from VIMS – The Virginia Institute of Marine Science at the College of William & Mary, however the resource is NOT depth grids but rather a GIS mapping product that delineates the inundation areas of 1.5 Feet of Sea Level Rise plus an additional 3-Feet of storm surge. To exemplify the various resources consulted in search of the priority SLR depth grids, the following list

offers an itemization and brief description(s):

- US EPA - Titus, J.G., D.E. Hudgens, C.Hershner, J.M. Kassakian, P.R. Penumalli, M. Berman, and W.H. Nuckols. 2010. "Virginia". In James G. Titus and Daniel Hudgens (editors). The Likelihood of Shore Protection along the Atlantic Coast of the United States. Volume 1: Mid-Atlantic. Report to the U.S. Environmental Protection Agency. Washington, D.C.
 - [The] "...study develops maps that distinguish the areas likely to be protected from erosion and inundation as the sea rises from those areas that are likely to be left to retreat naturally assuming that current policies and economics trends continue." – page 709.
 - The study claims to be "...literally a "first approximation" of the likelihood of shore protection." – page 710.
 - The study report includes a variety of tables culminating in and seeking to describe AREA OF LAND VULNERABLE TO SEA LEVEL RISE. However, a number of MPPDC jurisdictions are void of results with the authors citing the following:
 - "Value omitted because the topographic information Titus and Wang used for this jurisdiction had poor vertical resolution." – page 777 (Note e of TABLE 8-10).
 - The study includes GIS data that distinguishes between three (3) primary land classes; Tidal Wetlands, Tidal Open Water and Uplands. An overlay Digital Elevation Model (DEM) is also included that indicates a series of elevation bands at half-foot elevation intervals ranging from zero-feet (0.0 Ft.) to three-feet (3.0 Ft.) above the delineation of Tidal Wetlands.
 - The study includes additional analyses in cooperation with Virginia Institute of Marine Science (VIMS) and mapping that characterizes the likelihood of shoreline protection; see VIMS below.
 - No depth grid data available.
- VIMS – Virginia Institute of Marine Science, College of William & Mary.
 - RECURRENT FLOODING STUDY FOR TIDEWATER VIRGINIA. Report submitted to the Virginia General Assembly. January 2013.
 - The study, in-part, developed mapping of areas affected (i.e., expected inundation) by:
 - Projected Sea Level Rise of 1.5 Feet with...
 - Projected Storm Surge of an additional 3.0 Feet
 - The study suggests that the scenario elements noted above (SLR of 1.5 feet and Surge of +3 feet) "...represent very moderate assumptions..." and that the values are "...within the range..." of best available forecasts; - page 8.
 - Inquiry also revealed that depth grid data was not produced as part of the study.
 - Comprehensive Coastal Resource Management Tool
 - No depth grids.
- US Fish and Wildlife Services (USFWS) (and partners) – SLAMM View Application (Sea Level Affecting Marshes Model)
 - No depth grids.
- Climate Central – Surging Seas Application (Sea Level Affecting Marshes Model)
 - No depth grids.
- The Nature Conservancy (and partners) - Coastal Resilience Tool
 - Application utilizes the same data used in the National Oceanic and Atmospheric Administration (NOAA) Sea Level Rise and Coastal Flooding Impacts v2.0 Application; see below (NOAA – Office for Coastal Management).
 - Application does not cover Virginia.
- NOAA - Office for Coastal Management
 - Sea Level Rise and Coastal Flooding Impacts v2.0
 - Sea Level Rise based on Mean Higher High Water (MHHW) conditions and the

- addition of incremental 1-foot SLR increases to include Plus 1-Foot to Plus 6- Foot.
- Depth grids available.
- Depth grids obtained and used for this Plan; this Plan utilizes the Base Scenario of Mean Higher High Water (MHHW) conditions and also the Plus 6-Foot Scenario. Other scenarios were not utilized; namely the Plus 1-Foot, Plus 2- Foot, Plus 3-Foot, Plus 4-Foot and Plus 5-Foot.

Building Stock

The same dasymetric building stock (i.e., square-footage inventory of buildings) that was utilized for the Flood Analysis was also used for Sea Level Rise.

All building inventory statistics (i.e., building stock exposure by county or general building type) that were used for the Sea Level Rise Hazus scenarios are the same as defined in the Flood Analysis section. Please see Flood Analysis, Table 39. Building stock exposure for general occupancies by county and Table 37. Building stock exposure for general building type by county.

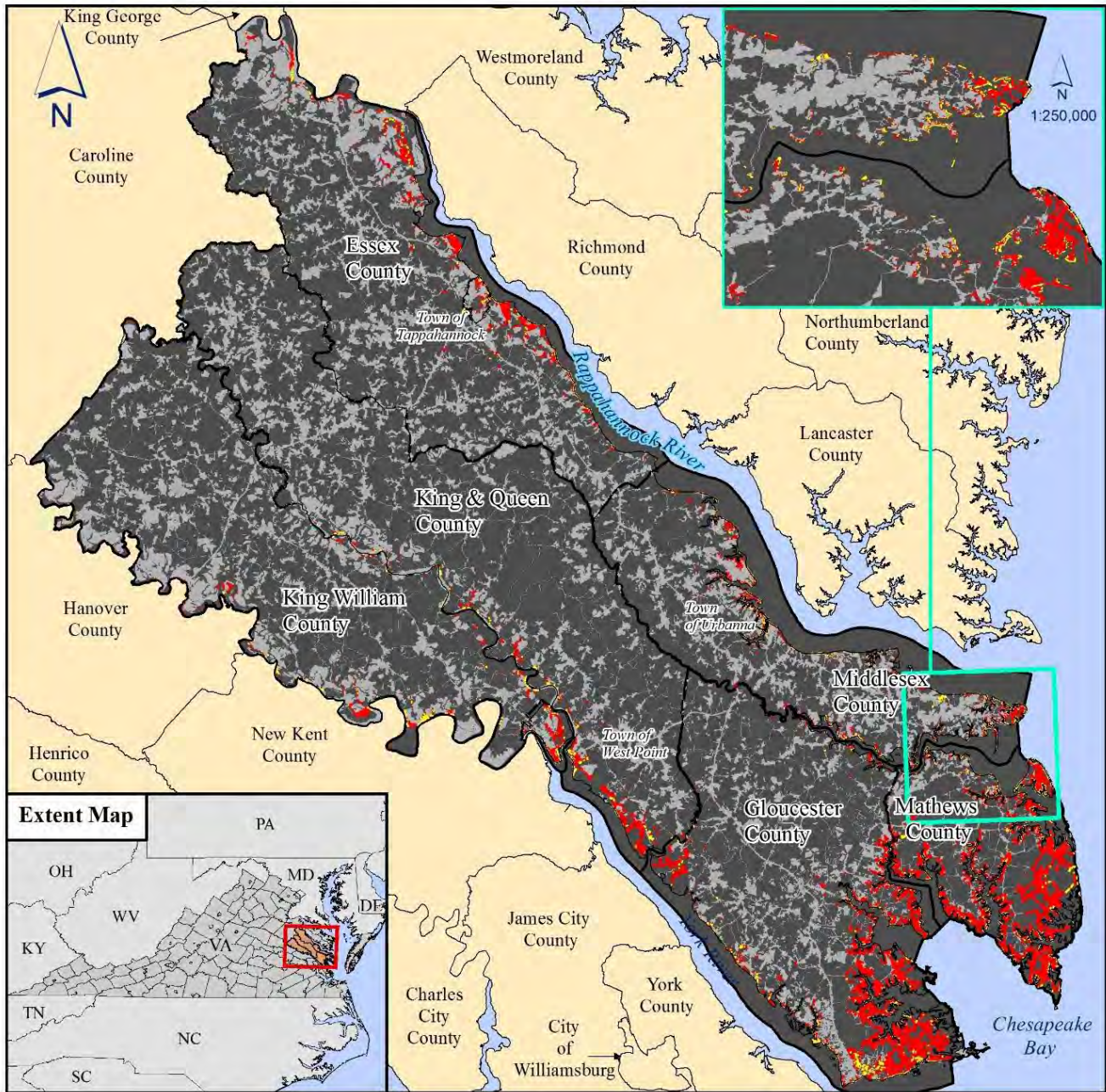
Dynamics of exposure (and also loss) are dependent on a number of variables. A key variable, for example, includes the spatial accuracy (30-meter) of the land-use/land-cover data used to create the developed areas of the dasymetric building stock inventory. Another key variable includes the spatial accuracy (i.e., horizontal accuracy) and also the vertical accuracy of the topographic data used to delineate flood inundation areas. Therefore, detailed site analyses may be appropriate and necessary to further understand local dynamics. However, noting the regional nature of the risk assessments performed, a few tables for reference are provided of the Sea Level Rise scenarios to help better understand the dasymetric building stock that is 1.) Potentially exposed and 2.) May experience potential loss. First, acreage of developed land intersecting the SLR scenarios is captured in Table 42 below:

Table 42: Acreage of Dasymetric Areas (30m Developed Areas) Intersecting SLR Scenarios

Base (MHHW) Sea Level Rise Scenario			Plus 6-Foot Sea Level Rise Scenario		
Rank MHHW	County	Acreage of Dasymetric Developed Areas	Rank Plus 6FT	County	Acreage of Dasymetric Developed Areas
1	Mathews	105	1	Mathews	4,817
2	Middlesex	96	2	Gloucester	4,155
3	Gloucester	63	3	Essex	837
4	King William	30	4	Middlesex	585
5	King and Queen	28	5	King and Queen	454
6	Essex	22	6	King William	393
Total		344	Total		11,242

Map 13 - Dasymetric Areas Intersecting SLR Scenarios (next page) shows the dasymetric developed areas intersecting both the Base (MHHW) and the Plus 6-Foot Scenario's. The map also shows an example area in closer detail (scale of 1:250,000).

Dasymetric Areas Intersecting SLR Scenarios



Extent Map

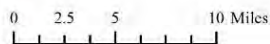


Projection:
 VA Lambert Conformal Conic
 North American Datum 1983

Disclaimer: Uncertainties are inherent in any loss estimation methodology. The purpose of the analysis and data sets are to give general indication of areas that may be susceptible to hazards.

Legend:

- Dasymetric Areas & SLR Scenarios
- Developed Areas Exposed To Base (MHHW) Scenario
 - Developed Areas Exposed To Plus 6FT Scenario
 - Hazus Dasymetric Data (Developed Areas)



Data Information:

Dasymetric data is developed areas based on 30-meter Landuse/Landcover (LU/LC). Hazus inventory is adjusted to the LU/LC thus limiting potential loss to areas where the dasymetric data intersects the flood hazard. This map shows the areas intersecting the Base (MHHW) and Plus 6-foot NOAA Sea Level Rise scenarios intersecting the Hazus Dasymetric areas. Details of the NOAA SLR can be accessed at http://coast.noaa.gov/digitalcoast/_fpdf/SLRViewerFAQ.pdf

Data Sources:

- IIAZUS-MH v2.2 Flood Model (Analysis 03/2015)
- IIAZUS-MH v2.2 County Boundaries
- MPPDC Town Boundaries

Next, Table 43 and Table 44 show the Total Exposure In the Flood Hazard Area of the Hazus Dasymetric Data by General Occupancy Type for both of the Sea Level Rise scenarios.

Table 43: Exposed General Occupancy by County - Sea Level Rise Base Scenario (MHHW)

County	Residential	Commercial	Industrial	Agriculture	Religion	Govt.	Education	Total Exposure
Middlesex	\$24,347	\$1,121	\$303	\$32	\$257	\$15	\$17	\$26,092
Mathews	\$19,910	\$1,199	\$285	\$132	\$95	\$36	\$45	\$21,702
Gloucester	\$17,251	\$1,793	\$415	\$40	\$176	\$19	\$83	\$19,777
Essex	\$5,553	\$516	\$75	\$14	\$34	\$0	\$88	\$6,280
King William	\$4,065	\$409	\$58	\$13	\$2	\$1	\$0	\$4,549
King and Queen	\$2,361	\$1	\$477	\$0	\$0	\$0	\$-0	\$2,840
Total	\$73,488	\$5,040	\$1,613	\$231	\$565	\$70	\$233	\$81,241
<i>All values in Thousands of Dollars</i>								

Table 44: Exposed General Occupancy by County - Sea Level Rise Plus 6 Feet Scenario

County	Residential	Commercial	Industrial	Agriculture	Religion	Govt.	Education	Total Exposure
Gloucester	\$590,313	\$72,485	\$17,186	\$2,934	\$8,721	\$653	\$14,805	\$707,095
Mathews	\$601,918	\$25,535	\$15,695	\$4,401	\$4,251	\$958	\$724	\$653,482
Middlesex	\$156,312	\$8,602	\$2,355	\$193	\$1,800	\$167	\$160	\$169,587
Essex	\$87,087	\$12,067	\$4,404	\$559	\$221	\$68	\$371	\$104,776
King William	\$61,575	\$13,675	\$1,950	\$70	\$1,369	\$426	\$807	\$79,873
King and Queen	\$33,313	\$23	\$1,358	\$0	\$10	\$4	\$-0	\$34,708
Total	\$1,530,517	\$132,388	\$42,948	\$8,156	\$16,372	\$2,275	\$16,867	\$1,749,521
<i>All values in Thousands of Dollars</i>								

Users are encouraged to consider that while one County may have a greater area of developed land intersecting the SLR flood inundation, the square-footage and/or value of structures within the developed areas may have very different value estimates. Consequently, it can be seen that Middlesex County has a great deal of development in close proximity to the Base (MHHW) Scenario flood hazard – particularly in the Residential category (\$24.3 Million). However, as was mentioned earlier, the resolution or spatial accuracy of the 30-meter land-use/land-cover data used to create the dasymetric developed areas does not take into account elevation. There are areas within the District that have development on high ground near flooding sources. Middlesex County has a number of these areas. This combination in conjunction with higher residential exposure (\$24.3 Million) shows Middlesex as more susceptible to the Base (MHHW) Sea Level Rise Scenario.

In contrast, development patterns in the eastern-most portion of Middlesex as well as the two most eastern counties of Gloucester and Mathews, exhibit development that is set-back away from areas of open and tidal waters – thus exhibiting less exposure to the Base (MHHW) SLR Scenario. However, as water levels rise, as would be the case of the Plus 6-Foot Scenario, the development along the low-lying fringes of the coastal

plain become more susceptible to the flood hazard and therefore includes a greater proportion of building inventory exposed to the potential rising water levels.

Sea Level Rise – Hazus Level 1 Methodology General Building Stock Loss Estimation Losses are presented similar to the Flood Analysis however, only the combined Total losses of all building categories are presented in an effort to keep the results as simple as possible for relative comparison to the more detailed multi-frequency flood analysis. To reiterate, the multi-frequency analysis (Flood Analysis) DOES include water surface levels that take into account storm surge.

Hazus Level 1 flood model losses for the Middle Peninsula planning district from the Base Sea Level Rise scenario (MHHW) are approximately \$10.2 Million US Dollars and the Plus 6-Foot of Sea Level Rise are approximately \$283.5 Million US Dollars which is a 96% increase in the expected Total damages. Property or “capital stock” losses of the Base Sea Level Rise accounts for all of the expected loss (\$10.2 Million) whereas the Plus 6-Foot of Sea Level Rise scenario is estimated to be approximately \$283.1 Million or 99.86% of the damages which includes the values for building, content, and inventory. Business interruption of the Plus 6-Foot of Sea Level Rise scenario accounts for \$386,000 US Dollars (0.14%) of the losses and includes relocation, income, rental and wage costs.

Table 45 and Table 46 illustrate the expected losses broken down by county from the Sea Level Rise scenarios. Middlesex County, having the highest level of estimated exposure (\$26.092 Million US Dollars) within the Base Sea Level Rise inundation area, also has the highest loss from the Base Sea Level Rise scenario at approximately \$3.02 Million US Dollars which accounts for 30% of the total losses for the Middle Peninsula⁷. Gloucester County is attributed with 27% of total losses at approximately \$2.76 Million, and Mathews County has losses of approximately \$2.5 Million or 25% of the total – followed by King William (9%), Essex (7%) and last King and Queen (2%). The relatively higher loss percentages attributed to Middlesex, Gloucester and Mathews counties suggests that the distribution of development at-risk includes the low-lying coastal plains along the Chesapeake and Mobjack Bays as well as the York River.

The Plus 6-Foot of Sea Level Rise scenario also shows the greater combined losses in the down-east area however, Gloucester and Mathews account for the greatest combined losses (75%). Gloucester County has the highest loss from the Plus 6-Foot of Sea Level Rise scenario at approximately \$116.6 Million US Dollars, accounting for 41% of the total losses for the Middle Peninsula. The Plus 6-Foot of Sea Level Rise scenario shows Mathews County at approximately \$96.9 Million and ranked second (34% of Total) – followed by Middlesex County at approximately \$29.2 Million (10% of Total) – and then King William (6%), Essex (6%) and last King and Queen (2%). Again, the relatively higher loss percentages attributed to Gloucester and Mathews counties suggests that the distribution of development at-risk includes the low-lying coastal plains along the Chesapeake and Mobjack Bays as well as the York River. Map 14 exemplifies the differences between the inundation extents of the SLR Base and Plus 6-Foot scenarios; the mapping of the depth grids represented by red/orange areas are the increased inundation areas of the Plus 6-Foot scenario. Development in these areas would be susceptible to greater potential losses.

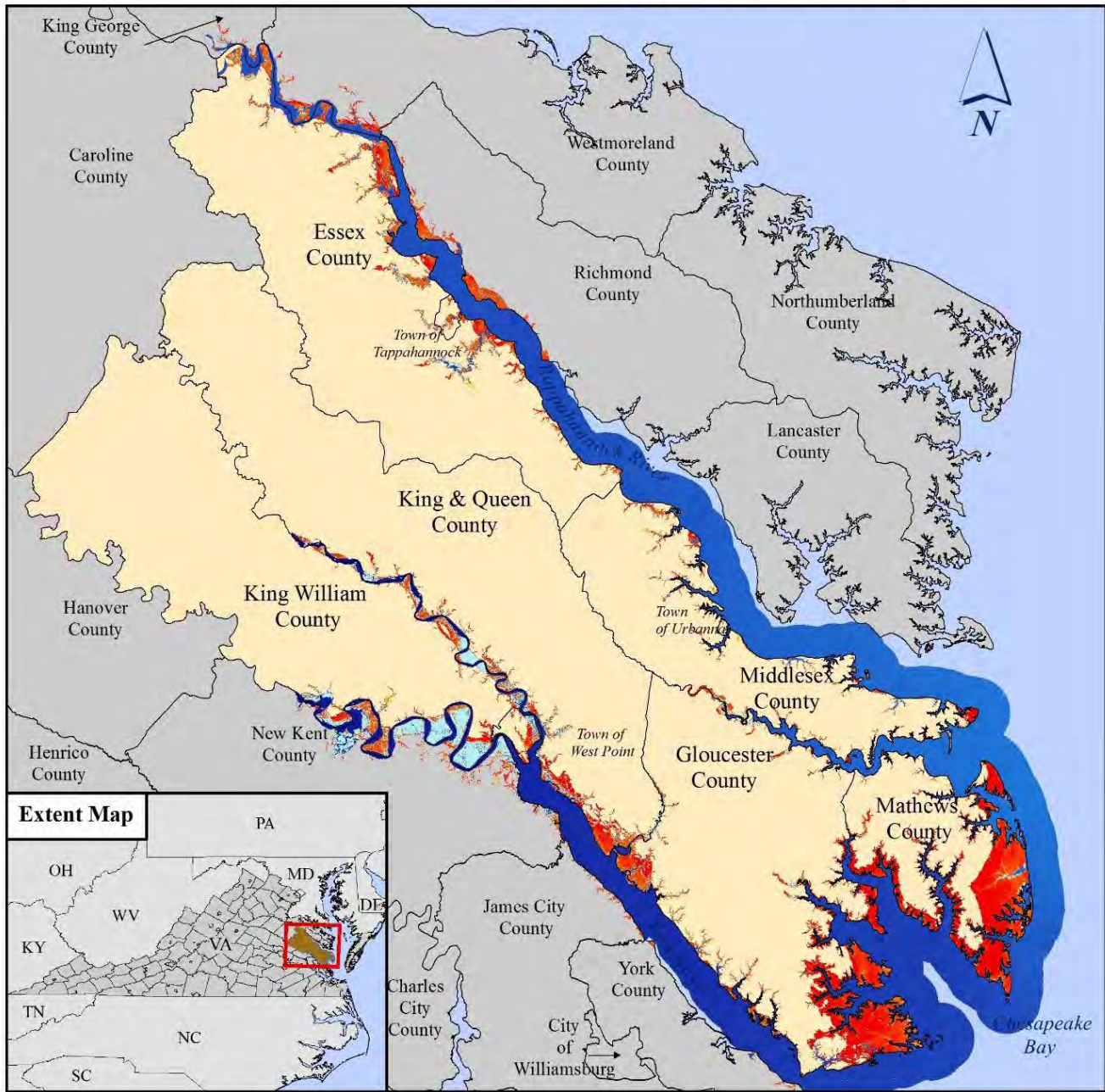
Table 45: County Based Hazus Loss for Both Pre- and Post-FIRM - Sea Level Rise Base

County	Building	Content	Inventory	Relocation	Income	Rental	Wage	Total Loss
Middlesex	\$1,805	\$1,209	\$1	\$0	\$0	\$0	\$0	\$3,015
Gloucester	\$1,638	\$1,120	\$2	\$0	\$0	\$0	\$0	\$2,760
Mathews	\$1,494	\$1,002	\$0	\$0	\$0	\$0	\$0	\$2,496
King William	\$532	\$406	\$0	\$0	\$0	\$0	\$0	\$938
Essex	\$391	\$331	\$0	\$0	\$0	\$0	\$0	\$722
King and Queen	\$150	\$97	\$7	\$0	\$0	\$0	\$0	\$254
Total	\$6,010	\$4,165	\$10	\$0	\$0	\$0	\$0	\$10,185
<i>All values in Thousands of Dollars</i>								

Table 46: County Based Hazus Loss for Both Pre- and Post-FIRM - Sea Level Rise Plus 6 Feet

County	Building	Content	Inventory	Relocation	Income	Rental	Wage	Total Loss
Gloucester	\$63,431	\$52,381	\$607	\$70	\$38	\$5	\$93	\$116,625
Mathews	\$55,754	\$40,566	\$492	\$73	\$8	\$7	\$18	\$96,918
Middlesex	\$16,772	\$12,342	\$66	\$13	\$5	\$0	\$6	\$29,204
King William	\$8,561	\$9,603	\$89	\$2	\$12	\$0	\$22	\$18,289
Essex	\$8,202	\$7,511	\$140	\$8	\$1	\$0	\$4	\$15,866
King and Queen	\$3,999	\$2,561	\$61	\$1	\$0	\$0	\$0	\$6,622
Total	\$156,719	\$124,964	\$1,455	\$167	\$64	\$12	\$143	\$283,524
<i>All values in Thousands of Dollars</i>								

Sea Level Rise Depth Grids Comparison



Extent Map



Projection:
VA Lambert Conformal Conic
North American Datum 1983

Disclaimer: Uncertainties are inherent in any loss estimation methodology. The purpose of the analysis and data sets are to give general indication of areas that may be susceptible to hazards.

Legend:

Base SLR (MHHW)
Depth
High
Low

SLR Plus 6-FT
Depth
High
Low

0 2.5 5 10 Miles

Data Information:
SLR depth grids comparison. Red/Orange areas represent increased inundation from the Plus 6-FT scenario. Increased damage/loss would be expected in the areas of increased inundation.
NOTE: Details of the SLR analysis performed by NOAA can be accessed at http://coast.noaa.gov/digitalcoast/_pdf/SLRViewerFAQ.pdf

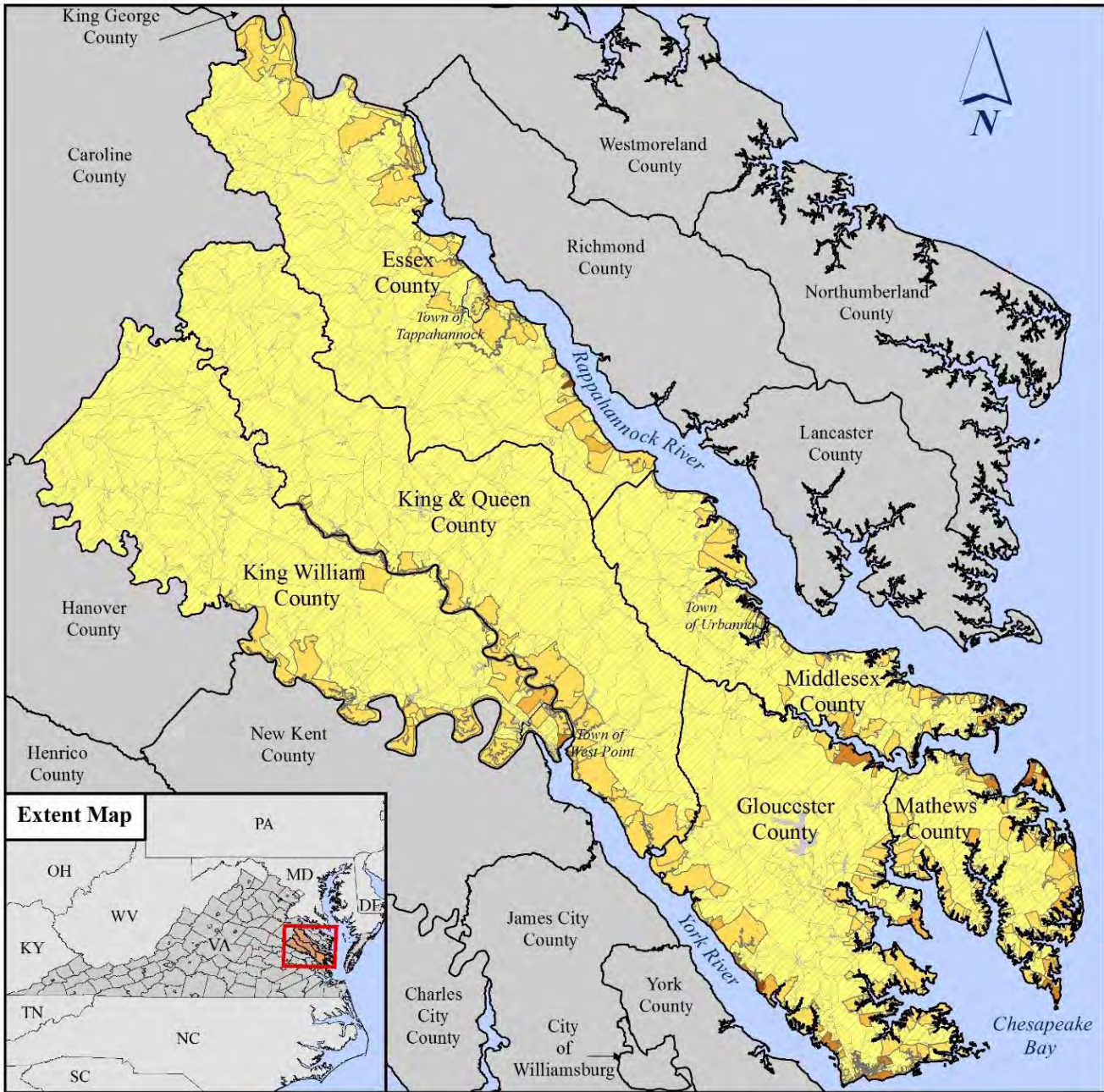
Data Sources:
NOAA SLR Depth Grid Data
HAZUS-MH County Boundaries
MPPDC Town Boundaries

Maps 15 through 25 on the following pages show the total losses for the planning district for both SLR scenarios, Ranking of the top ten loss of census blocks (Ranked within each respective County) and last, a map showing the comparative differences in the ranked hot spot areas representing those areas throughout the MPPDC Region that may require mitigation measures. County-specific maps are shown of the Plus 6-Foot SLR scenario.

Again, users of these maps are reminded that the scenarios shown in the following maps DO NOT include increases to water surface levels from the various natural forces typical of coastal storm events (e.g., Storm Surge). The following results are intended to offer perspective on potential damage/loss in the event that the baseline water surface were to increase by 6-Feet.

Another factor to consider while viewing Maps and Tables is that the Base Scenario is essentially the average of the highest tide that is experienced on a daily basis over a long period of time. Typical there are two high tides in a given day, the MHHW represents the mean (or average) of the higher of the two tides as recorded over a period of record. The definition as provided by NOAA – Tides & Currents states, “The average of the higher high-water height of each tidal day observed over the National Tidal Datum Epoch. For stations with shorter series, comparison of simultaneous observations with a control tide station is made in order to derive the equivalent datum of the National Tidal Datum Epoch.”⁸

HAZUS-MH Flood Module: Sea Level Rise Base Scenario



Middle Peninsula Planning District Commission

Dewberry

Projection:
 VA Lambert Conformal Conic
 North American Datum 1983

Disclaimer: Uncertainties are inherent in any loss estimation methodology. The purpose of the analysis and data sets are to give general indication of areas that may be susceptible to hazards.

Legend:

Base Sea Level Rise Loss by Census Block

- No Loss Calculated
- <= \$15,000
- \$15,001 - \$50,000
- \$50,001 - \$150,000
- \$150,001 - \$300,000
- >= \$300,001

0 2.5 5 10 Miles

Data Information:

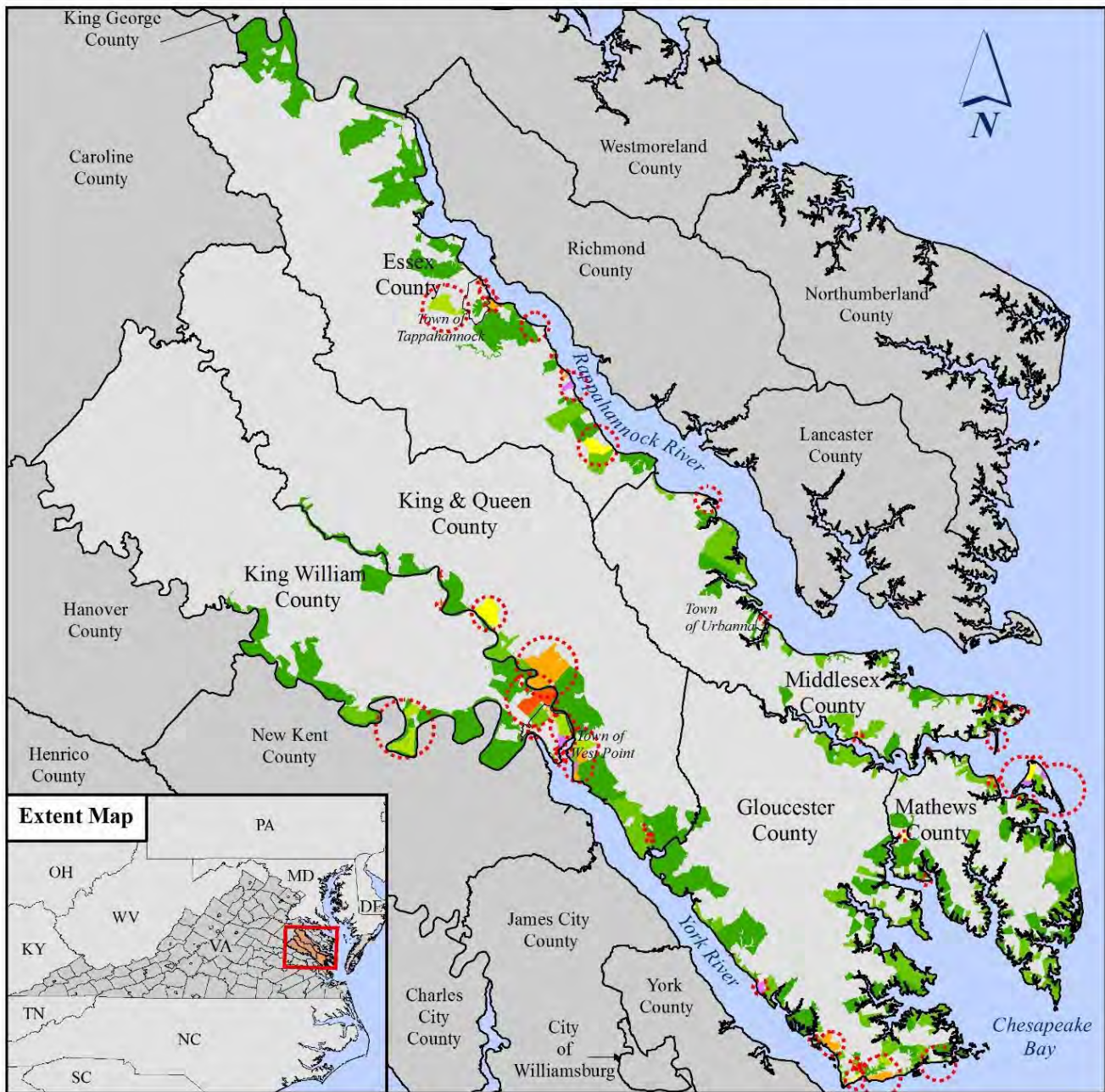
Does not include wind driven tides, erosion, subsidence, or future construction and does not incorporate a detailed pipe network analysis or engineering-grade hydrologic analysis. Details of the SLR analysis performed by NOAA can be accessed at http://coast.noaa.gov/digitalcoast/_pdf/SLRViewerFAQ.pdf

Loss values have been summarized for pre- and post-FIRM buildings.

Data Sources:

- HAZUS-MH v2.2 Flood Model (Analysis 03/2015)
- HAZUS-MH v2.2 County Boundaries
- MPPDC Town Boundaries

Sea Level Rise Base Scenario (MHHW): Total Loss (Ranked)



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Dewberry

Projection:
 VA Lambert Conformal Conic
 North American Datum 1983

Disclaimer: Uncertainties are inherent in any loss estimation methodology. The purpose of the analysis and data sets are to give general indication of areas that may be susceptible to hazards.

Legend

SLR Base (MHHW) Total Loss - Ranked Hot Spots
 (Top Ten By County)

- Not Included in Analysis
- Loss Is Zero
- Has Losses (Not In Top Ten)
- Rank 9 and 10
- Rank 7 and 8
- Rank 5 and 6
- Rank 3 and 4
- Rank 1 and 2

Hotspot

0 2.5 5 10 Miles

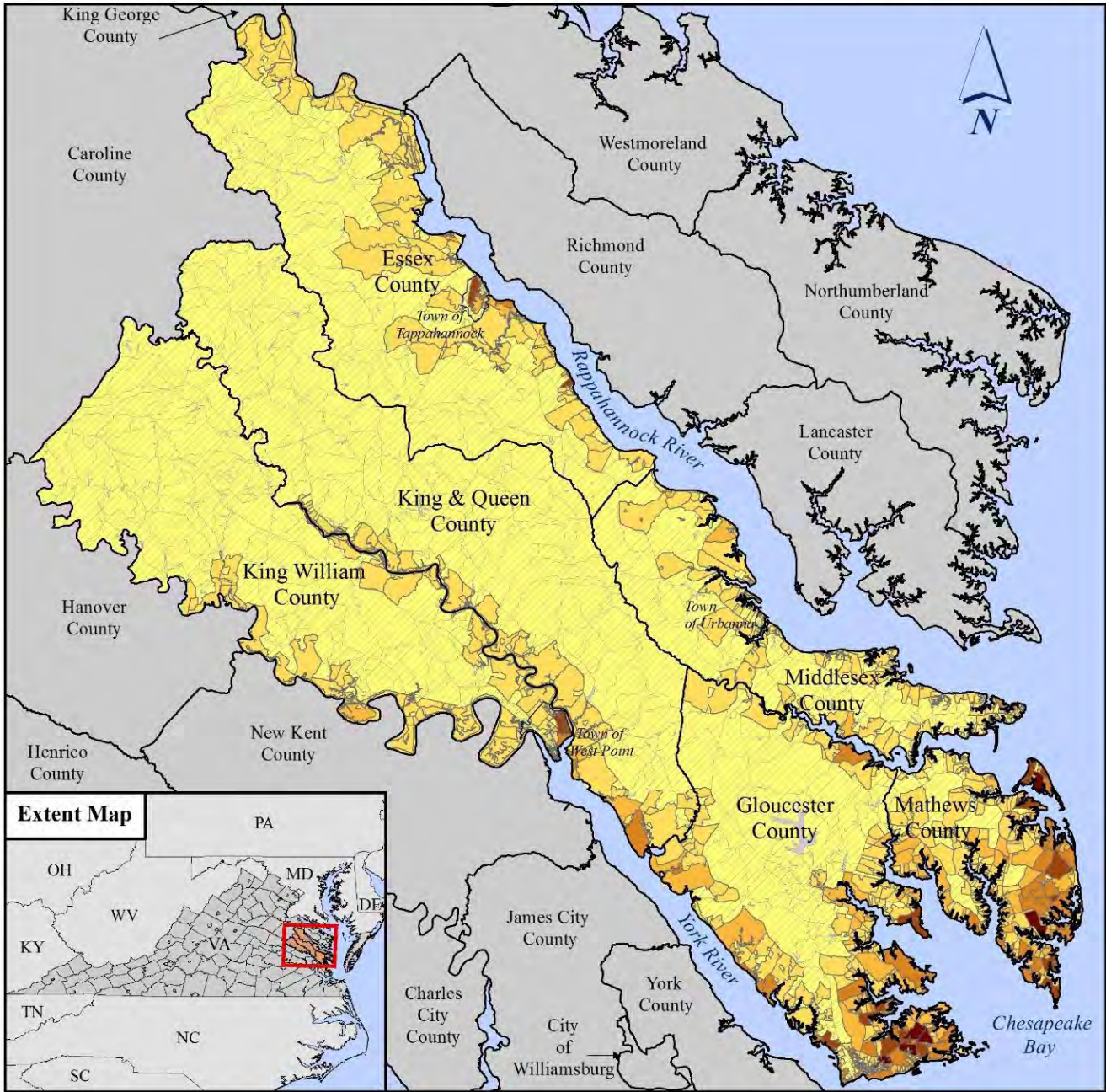
Data Information:

SLR Base Full Replacement General Building Stock economic loss was ranked for the top ten (10) by Total Loss and mapped in groups of two. Top ten ranking can offer perspective where mitigation efforts may be appropriate. However, these losses are mapped independent of known Repetitive Loss Properties. Hotspot areas for reference.

Data Sources:

- HAZUS-MH v2.2 Flood Model (Analysis 03/2015)
- HAZUS-MH v2.2 County Boundaries
- MPPDC Town Boundaries

HAZUS-MH Flood Module: Sea Level Rise Plus6FT Scenario



Middle Peninsula Planning District Commission

Projection:
VA Lambert Conformal Conic
North American Datum 1983

Disclaimer: Uncertainties are inherent in any loss estimation methodology. The purpose of the analysis and data sets are to give general indication of areas that may be susceptible to hazards.

Legend:
Plus 6FT Sea Level Rise Loss by Census Block

- No Loss Calculated
- <= \$175,000
- \$175,001 - \$650,000
- \$650,001 - \$1,600,000
- \$1,600,001 - \$3,200,000
- >= \$3,200,001

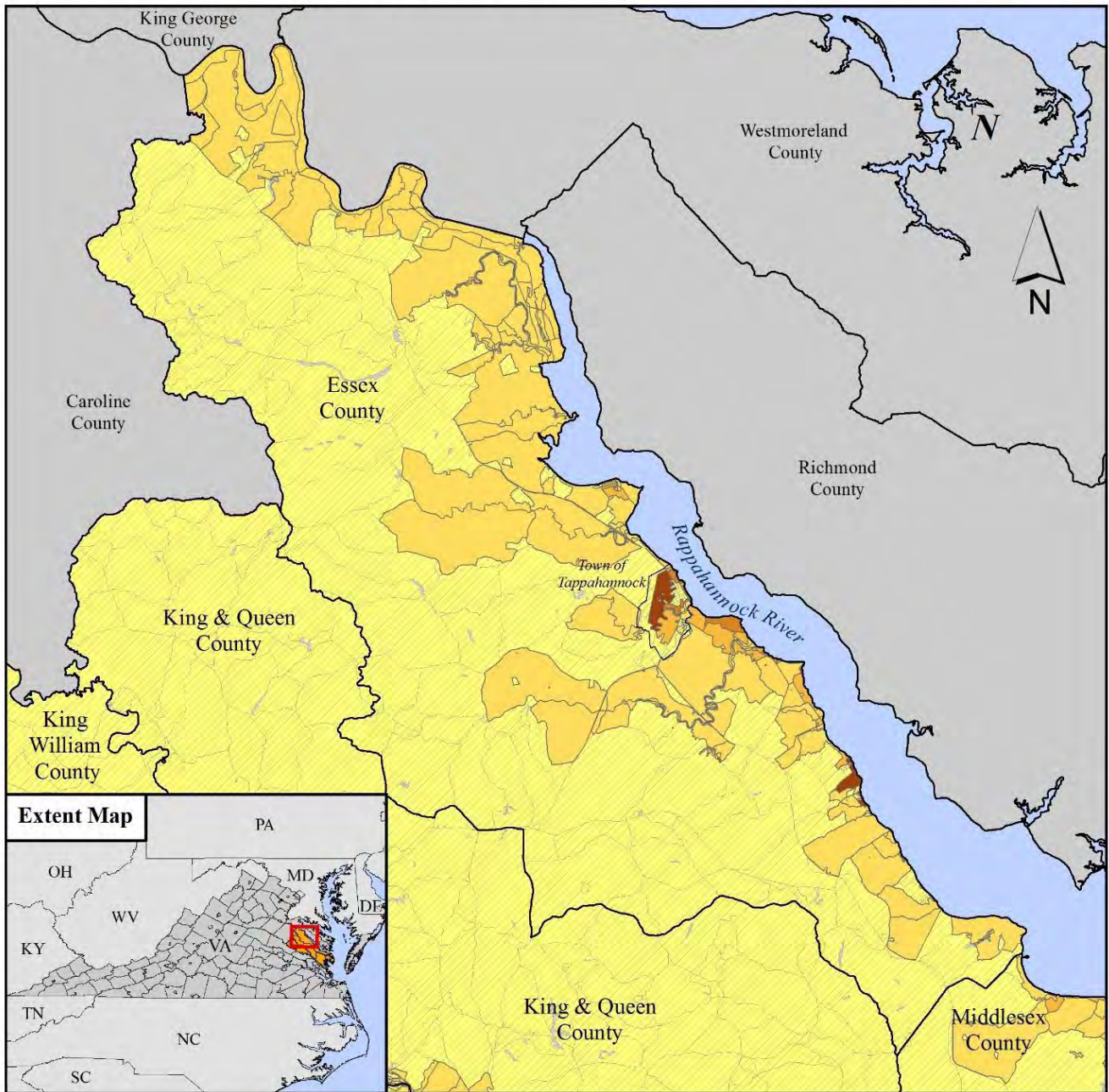

0 2.5 5 10 Miles

Data Information:
Does not include wind driven tides, erosion, subsidence, or future construction and does not incorporate a detailed pipe network analysis or engineering-grade hydrologic analysis. Details of the SLR analysis performed by NOAA can be accessed at <http://coast.noaa.gov/digitalcoast/~/pdf/SLRViewerFAQ.pdf>


Loss values have been summarized for pre- and post-FIRM buildings.

Data Sources:
HAZUS-MH v2.2 Flood Model (Analysis 03/2015)
HAZUS-MH v2.2 County Boundaries
MPPDC Town Boundaries

HAZUS-MH Flood Module: Sea Level Rise Plus6FT Scenario

**Middle Peninsula
Planning District Commission**



Projection:
VA Lambert Conformal Conic
North American Datum 1983

Disclaimer: Uncertainties are inherent in any loss estimation methodology. The purpose of the analysis and data sets are to give general indication of areas that may be susceptible to hazards.

Legend:
Plus 6FT Sea Level Rise Loss by Census Block

- No Loss Calculated
- <= \$175,000
- \$175,001 - \$650,000
- \$650,001 - \$1,600,000
- \$1,600,001 - \$3,200,000
- >= \$3,200,001

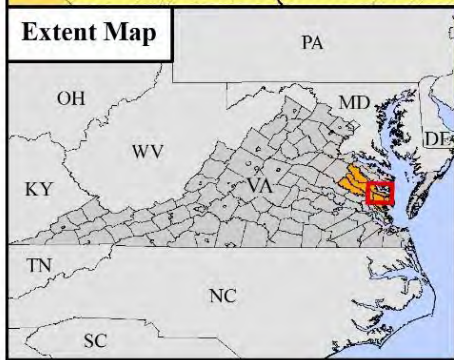
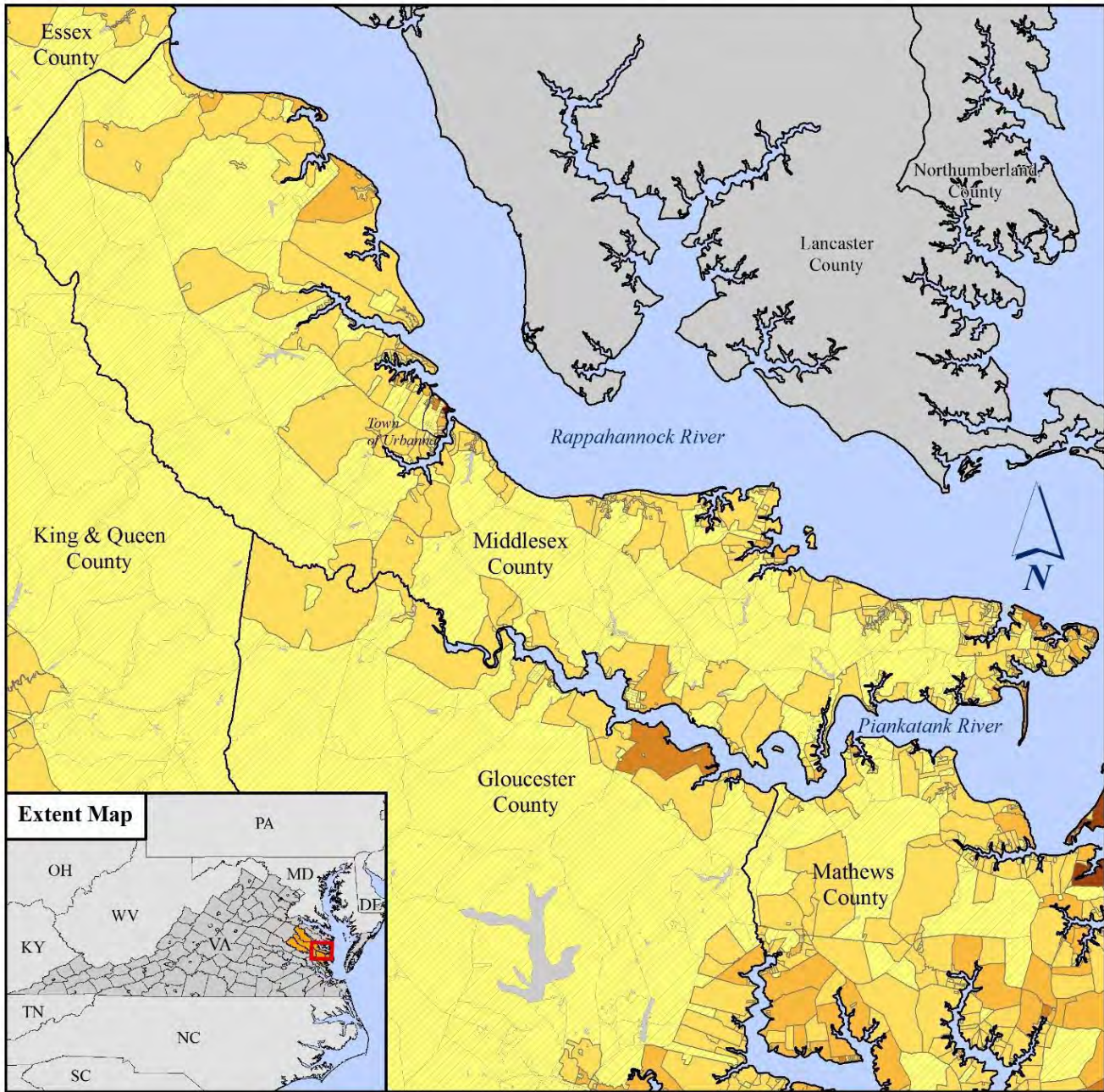
0 1.5 3 6 Miles

Data Information:
Does not include wind driven tides, erosion, subsidence, or future construction and does not incorporate a detailed pipe network analysis or engineering-grade hydrologic analysis. Details of the SLR analysis performed by NOAA can be accessed at http://coast.noaa.gov/digitalcoast/_pdf/SLRViewerFAQ.pdf

Loss values have been summarized for pre- and post-FIRM buildings.

Data Sources:
HAZUS-MH v2.2 Flood Model (Analysis 03/2015)
HAZUS-MH v2.2 County Boundaries
MPPDC Town Boundaries

HAZUS-MH Flood Module: Sea Level Rise Plus6FT Scenario



Middle Peninsula Planning District Commission

Dewberry

Projection:
VA Lambert Conformal Conic
North American Datum 1983

Disclaimer: Uncertainties are inherent in any loss estimation methodology. The purpose of the analysis and data sets are to give general indication of areas that may be susceptible to hazards.

Legend:

Plus 6FT Sea Level Rise Loss by Census Block

- No Loss Calculated
- <= \$50,000
- \$50,001 - \$100,000
- \$100,001 - \$200,000
- \$200,001 - \$300,000
- >= \$300,001

0 1.25 2.5 5 Miles

Data Information:

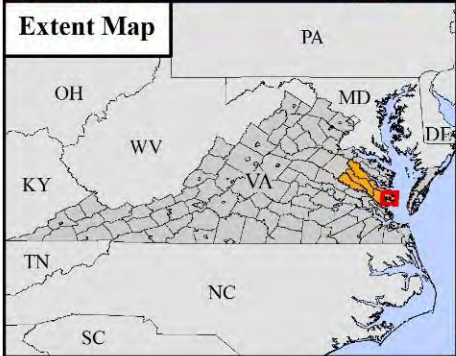
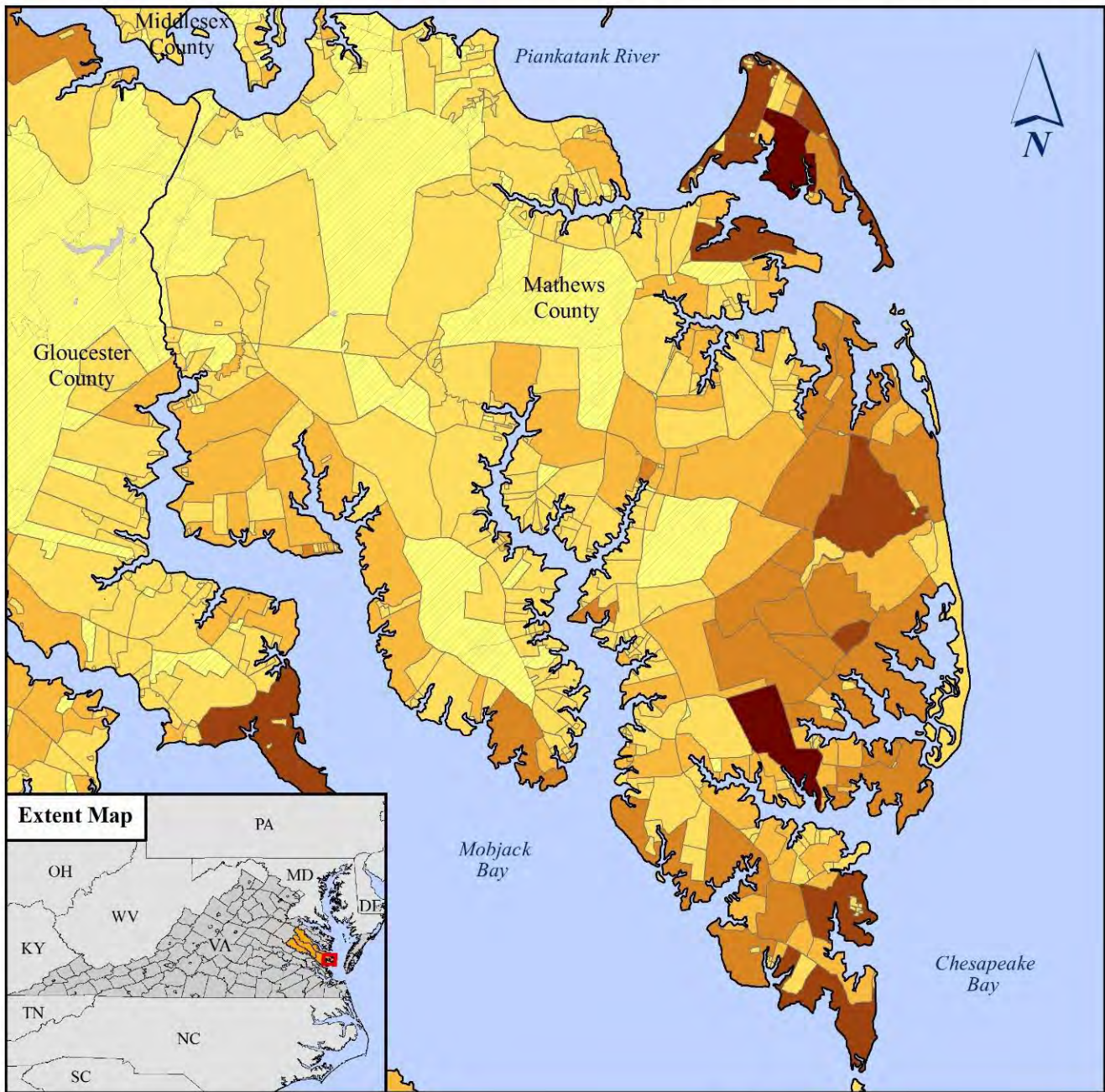
Does not include wind driven tides, erosion, subsidence, or future construction and does not incorporate a detailed pipe network analysis or engineering-grade hydrologic analysis. Details of the SLR analysis performed by NOAA can be accessed at http://coast.noaa.gov/digitalcoast/_pdf/SLRViewerFAQ.pdf

Loss values have been summarized for pre- and post-FIRM buildings.

Data Sources:

- HAZUS-MH v2.2 Flood Model (analysis 03/2015)
- HAZUS-MH v2.2 County Boundaries
- MPPDC Town Boundaries

HAZUS-MH Flood Module: Sea Level Rise Plus6FT Scenario



Middle Peninsula Planning District Commission

Projection:
VA Lambert Conformal Conic
North American Datum 1983

Disclaimer: Uncertainties are inherent in any loss estimation methodology. The purpose of the analysis and data sets are to give general indication of areas that may be susceptible to hazards.

Legend:
Plus 6FT Sea Level Rise Loss by Census Block

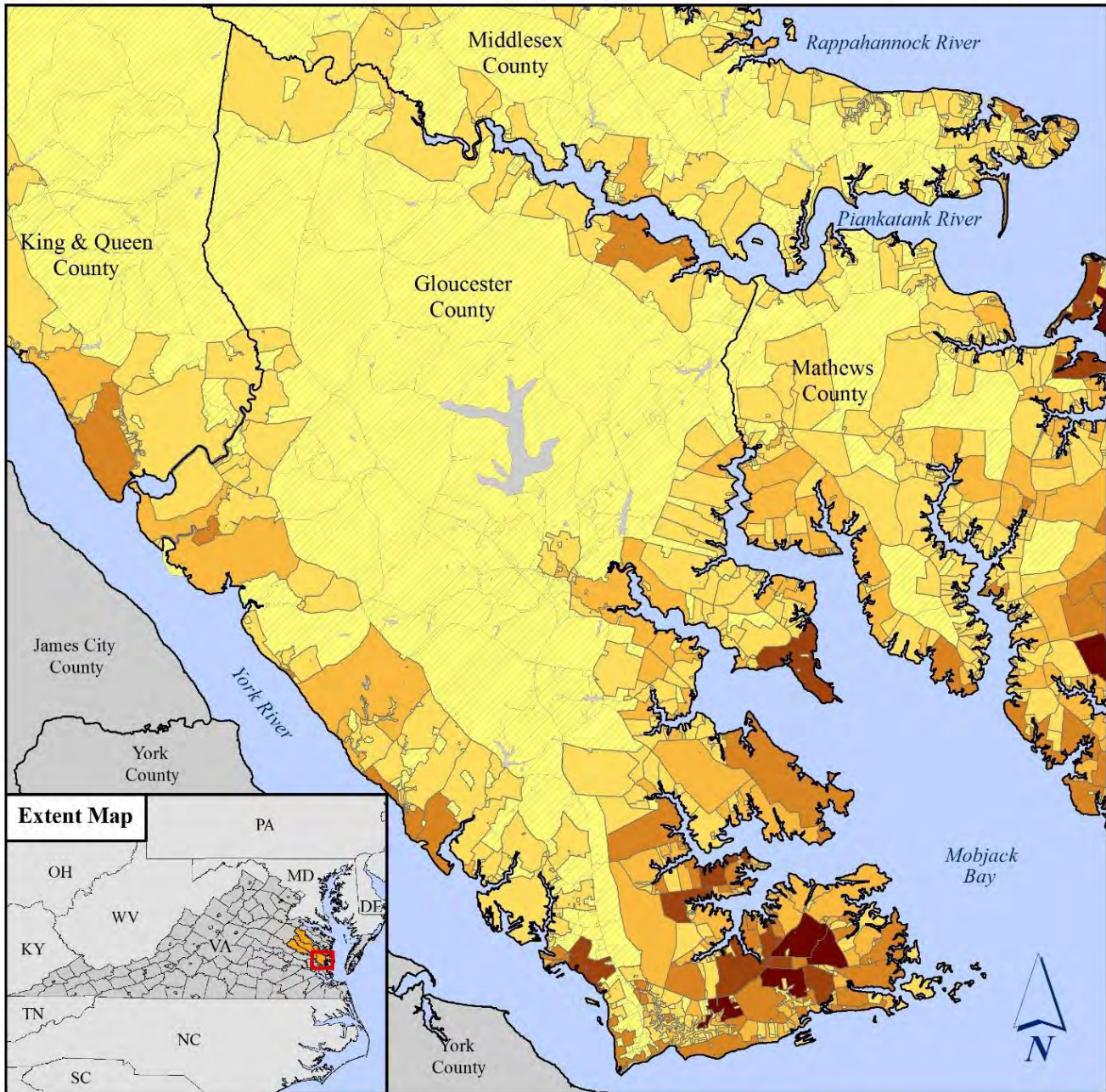
- No Loss Calculated
- < - \$50,000
- \$50,001 - \$100,000
- \$100,001 - \$200,000
- \$200,001 - \$300,000
- > = \$300,001

0 0.5 1 2 Miles

Data Information:
Does not include wind driven tides, erosion, subsidence, or future construction and does not incorporate a detailed pipe network analysis or engineering-grade hydrologic analysis. Details of the SLR analysis performed by NOAA can be accessed at <http://coast.noaa.gov/digitalcoast/~/pdf/SLRViewerFAQ.pdf>
Loss values have been summarized for pre- and post-FIRM buildings.

Data Sources:
HAZUS-MH v2.2 Flood Model (analysis 03/2015)
HAZUS-MH v2.2 County Boundaries
MPPDC Town Boundaries

HAZUS-MH Flood Module: Sea Level Rise Plus6FT Scenario



Middle Peninsula Planning District Commission

Projection:
VA Lambert Conformal Conic
North American Datum 1983

Disclaimer: Uncertainties are inherent in any loss estimation methodology. The purpose of the analysis and data sets are to give general indication of areas that may be susceptible to hazards.

Legend:
Plus 6FT Sea Level Rise Loss by Census Block

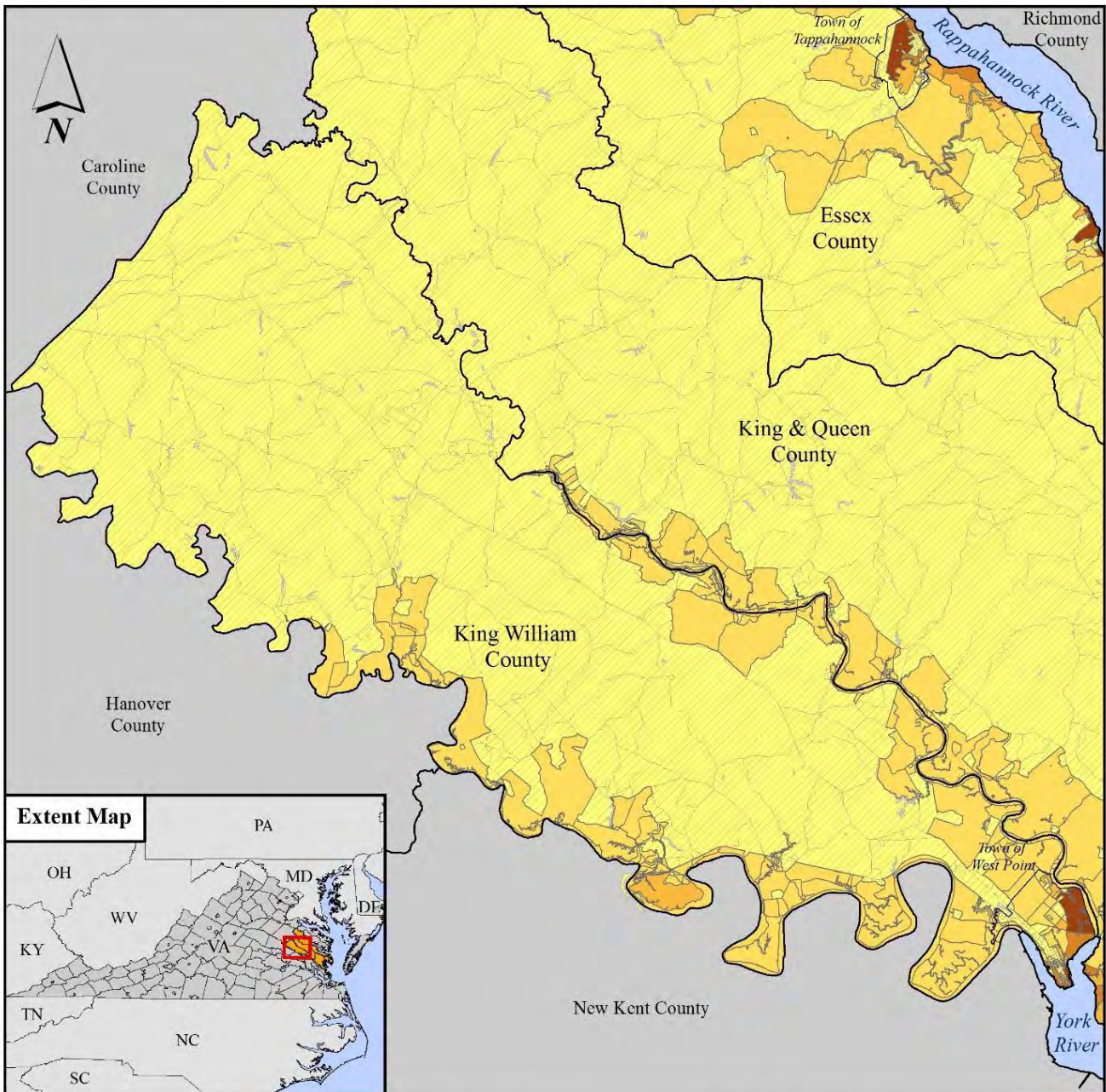
- No Loss Calculated
- <= \$50,000
- \$50,001 - \$100,000
- \$100,001 - \$200,000
- \$200,001 - \$300,000
- >= \$300,001

0 1.25 2.5 5 Miles

Data Information:
Does not include wind driven tides, erosion, subsidence, or future construction and does not incorporate a detailed pipe network analysis or engineering-grade hydrologic analysis. Details of the SLR analysis performed by NOAA can be accessed at <http://coast.noaa.gov/digitalcoast/~/pdf/SLRViewerFAQ.pdf>
Loss values have been summarized for pre- and post-FIRM buildings.

Data Sources:
HAZUS-MH v2.2 Flood Model (analysis 03/2015)
HAZUS-MH v2.2 County Boundaries
MPPDC Town Boundaries

HAZUS-MH Flood Module: Sea Level Rise Plus6FT Scenario



Middle Peninsula Planning District Commission
Dewberry

Projection:
 VA Lambert Conformal Conic
 North American Datum 1983

Disclaimer: Uncertainties are inherent in any loss estimation methodology. The purpose of the analysis and data sets are to give general indication of areas that may be susceptible to hazards.

Legend:
 Plus 6FT Sea Level Rise Loss by Census Block

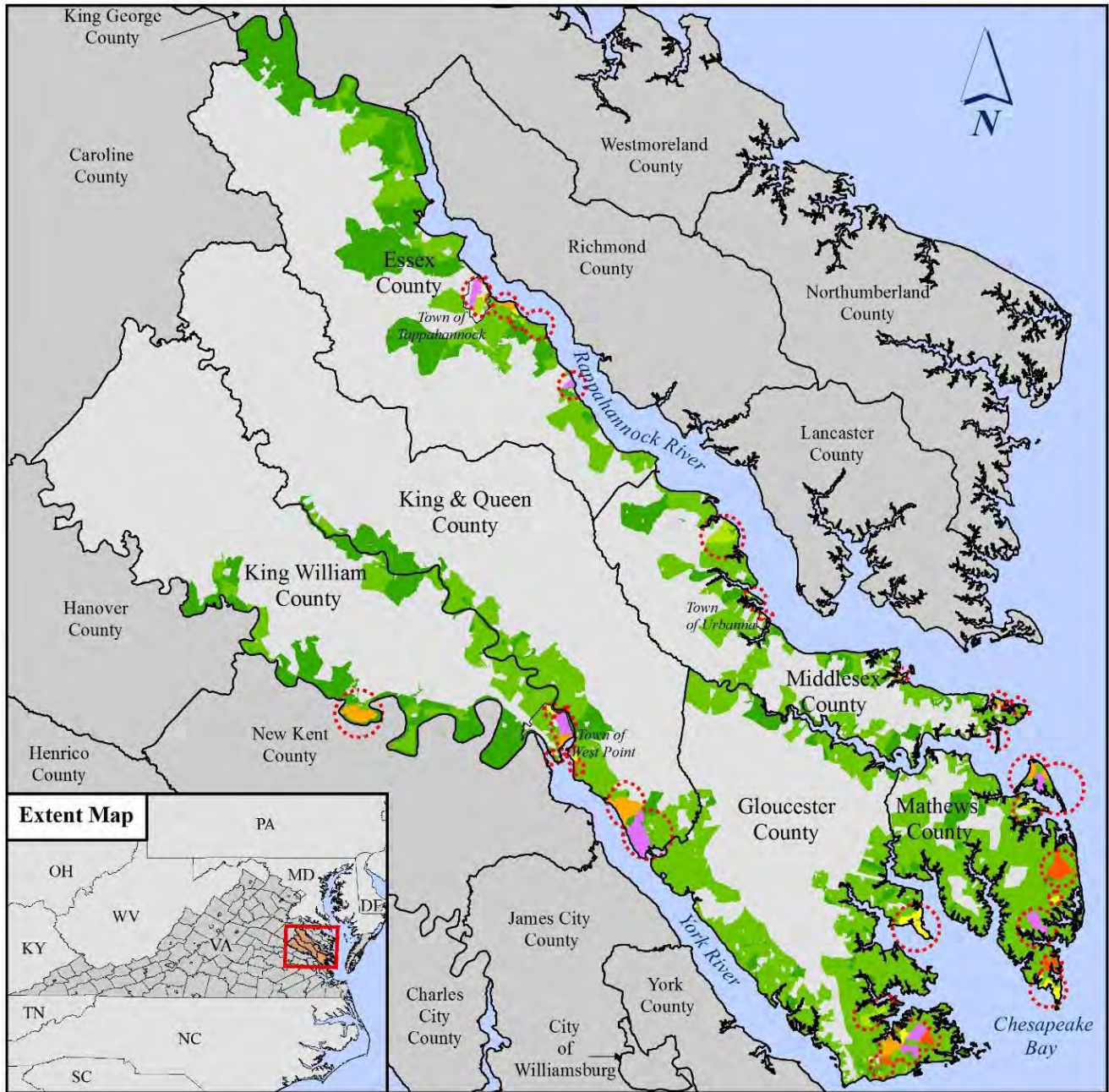
- No Loss Calculated
- <= \$50,000
- \$50,001 - \$100,000
- \$100,001 - \$200,000
- \$200,001 - \$300,000
- >= \$300,001

0 1.25 2.5 5 Miles

Data Information:
 Does not include wind driven tides, erosion, subsidence, or future construction and does not incorporate a detailed pipe network analysis or engineering-grade hydrologic analysis. Details of the SLR analysis performed by NOAA can be accessed at http://coast.noaa.gov/digitalcoast/_pdf/SLRViewerFAQ.pdf
 Loss values have been summarized for pre- and post-FIRM buildings.

Data Sources:
 HAZUS-MH v2.2 Flood Model (analysis 03/2015)
 HAZUS-MH v2.2 County Boundaries
 MPPDC Town Boundaries

Sea Level Rise Plus 6FT Scenario: Total Loss (Ranked)



Middle Peninsula Planning District Commission

Dewberry

Projection:
VA Lambert Conformal Conic
North American Datum 1983

Disclaimer: Uncertainties are inherent in any loss estimation methodology. The purpose of the analysis and data sets are to give general indication of areas that may be susceptible to hazards.

Legend
SLR Plus 6FT Total Loss - Ranked Hot Spots
(Top Ten By County)

- Not Included In Analysis
- Loss Is Zero
- Has Losses (Not In Top Ten)
- Rank 9 and 10
- Rank 7 and 8
- Rank 5 and 6
- Rank 3 and 4
- Rank 1 and 2

Hotspot

0 2.5 5 10 Miles

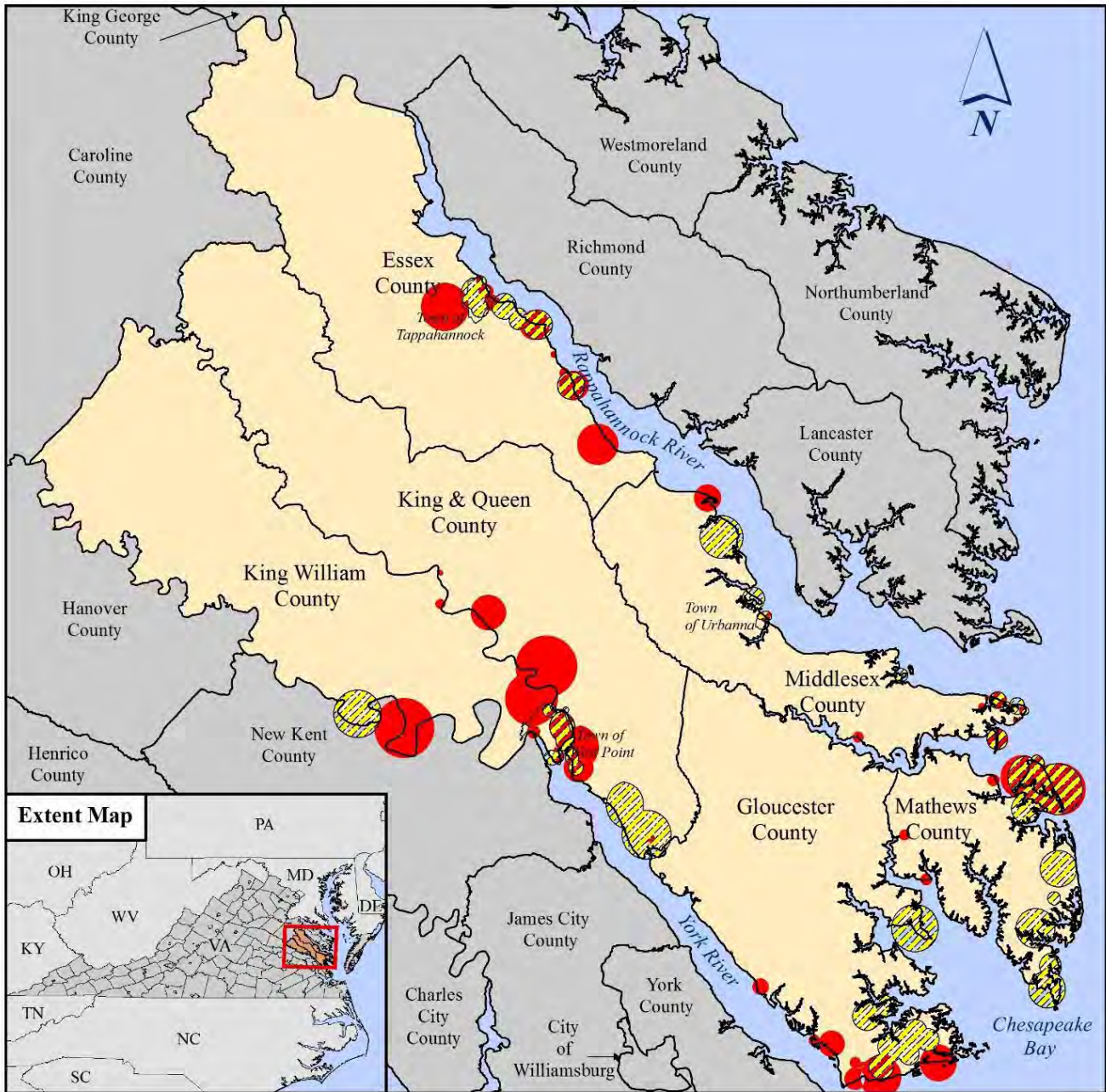
Data Information:

SLR Plus 6FT Full Replacement General Building Stock economic loss was ranked for the top ten (10) by Total Loss and mapped in groups of two. Top ten ranking can offer perspective where mitigation efforts may be appropriate. However, these losses are mapped independent of known Repetitive Loss Properties. Hotspot areas for reference.

Data Sources:

- HAZUS-MH v2.2 Flood Model (Analysis 03/2015)
- HAZUS-MH v2.2 County Boundaries
- MPPDC Town Boundaries

Sea Level Rise Scenario Hot Spot Comparison



Middle Peninsula Planning District Commission

Projection:
VA Lambert Conformal Conic
North American Datum 1983

Disclaimer: Uncertainties are inherent in any loss estimation methodology. The purpose of the analysis and data sets are to give general indication of areas that may be susceptible to hazards.

Legend
Hot Spots Based on Top Ten Rank
(Top Ten By County)

- HotSpot SLR Plus6-FT
- HotSpot SLR Base (MHHW)
- MPPDC Region

0 2.5 5 10 Miles

Data Information:

General Building Stock total economic loss was ranked for the top ten (10) by each County. Then, Hot spot areas were generated from the top ten.

Hotspot areas may indicate areas that may require further mitigation or consideration for more detailed analyses.

Data Sources:

- HAZUS-MH v2.2 Flood Model (Analysis 03/2015)
- HAZUS-MH v2.2 County Boundaries
- MPPDC Town Boundaries

Sea Level Rise Scenario Comparison Tables:

Table 47: Hazus Loss for both Pre- and Post-FIRM - Sea Level Rise Base (MHHW) and Plus 6 Feet

Area	Scenario ^A	Total Loss	Building Loss	Contents Loss	Business ^B Disruption
MPPDC Region	SLR_Base	\$10,185	\$6,010	\$4,165	\$11
MPPDC Region	SLR_Plus6	\$283,524	\$156,719	\$124,964	\$2,660
Essex County	SLR_Base	\$722	\$391	\$331	\$1
Essex County	SLR_Plus6	\$15,866	\$8,202	\$7,511	\$178
Gloucester County	SLR_Base	\$2,760	\$1,638	\$1,120	\$1,122
Gloucester County	SLR_Plus6	\$116,625	\$63,431	\$52,381	\$53,751
King and Queen County	SLR_Base	\$254	\$150	\$97	\$7
King and Queen County	SLR_Plus6	\$6,622	\$3,999	\$2,561	\$62
King William County	SLR_Base	\$938	\$532	\$406	\$0
King William County	SLR_Plus6	\$18,289	\$8,561	\$9,603	\$208
Mathews County	SLR_Base	\$2,496	\$1,494	\$1,002	\$0
Mathews County	SLR_Plus6	\$96,918	\$55,754	\$40,566	\$711
Middlesex County	SLR_Base	\$3,015	\$1,805	\$1,209	\$1
Middlesex County	SLR_Plus6	\$29,204	\$16,772	\$12,342	\$131
		Data in Thousands of Dollars			

Notes:

^A Scenario does not include wind driven tides nor consider natural processes such as erosion, subsidence, or future construction and does not incorporate a detailed pipe network analysis or engineering-grade hydrologic analysis. Details of the SLR analysis performed by NOAA can be accessed at http://coast.noaa.gov/digitalcoast/_/pdf/SLRViewerFAQ.pdf

^B Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss

Potential Mitigation Actions:

The potential mitigation actions noted are those that are Hazus-specific and would benefit from refinement of Hazus analyses.

- Perform Hazus analyses based on the same data resources used to develop the inundation areas mapped in the report submitted to the Virginia General Assembly in January 2013 titled – RECURRENT FLOODING STUDY FOR TIDEWATER VIRGINIA by the Virginia Institute of Marine Science, Center for Coastal Resources Management at the College of William & Mary. This study appears to include the most widely accepted Sea Level Rise plus Storm Surge Scenario facing coastal Virginia. It would therefore be appropriate to consider 1.) The creation of depth grids from the study data and then 2.) Hazus Risk Assessment. It would also be beneficial to incorporate elements of the design storm into a combined Hazus Flood and Hurricane Scenario - in this manner benefits of the combined methodology can be realized – which includes methods to guard against over-counting or double-counting losses by simply adding damages from each respective Hazus model.
- Refine and update data sets for GBS and essential facilities.
 - Improvements in the future should aim to further refine the building stock. Notably, one improvement should include adding any new development that may not have been in the land use/land cover data; e.g., new housing developments, new construction, etc...
 - Perform localized building-level assessments in known areas of loss and or areas subject to likely losses.

IV. CONCLUSIONS

Much of Middle Peninsula public policy over the last 40 years has encouraged the development of residential units. As first noted and illustrated within the 2015 Middle Peninsula Comprehensive Economic Development Strategy, Comprehensive Plans for all Middle Peninsula counties were combined and run through a Wordle analysis. The resulting Middle Peninsula “word cloud” was compared to two “economic” word clouds offered by the U.S. Economic Development Administration (EDA). The comparison of the Middle Peninsula word cloud to the “economic” word clouds illustrates that the Comp Plans and hence stated local policies in the Middle Peninsula have focused on preservation of land and building residential units. However, not actively encouraging economic resiliency, entrepreneurship, innovation, and/or job growth combined with the economic crisis of 2008 and increased flooding risk from coastal hazards has exacerbated the vacancy rates, abandoned and housing rehabilitations needs found within the Middle Peninsula.



Middle Peninsula

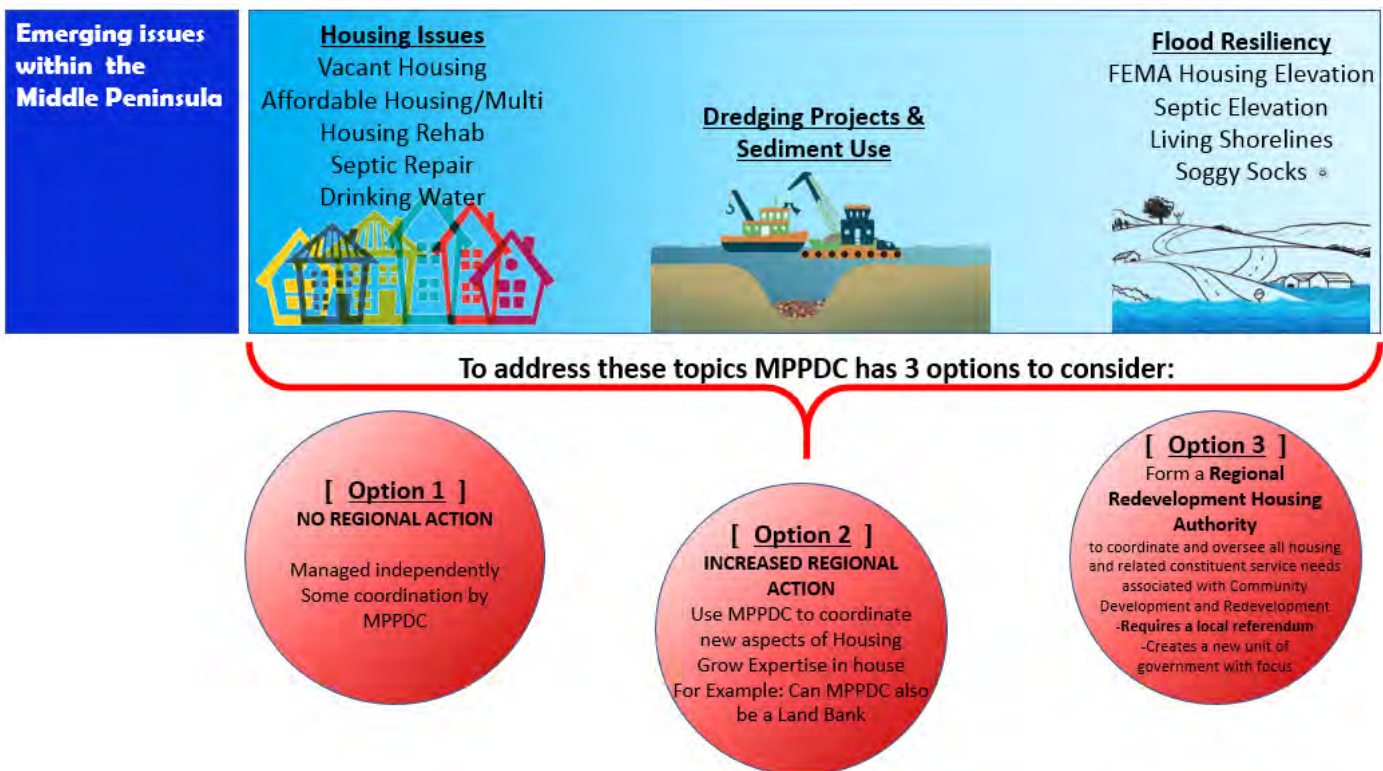


EDA



EDA

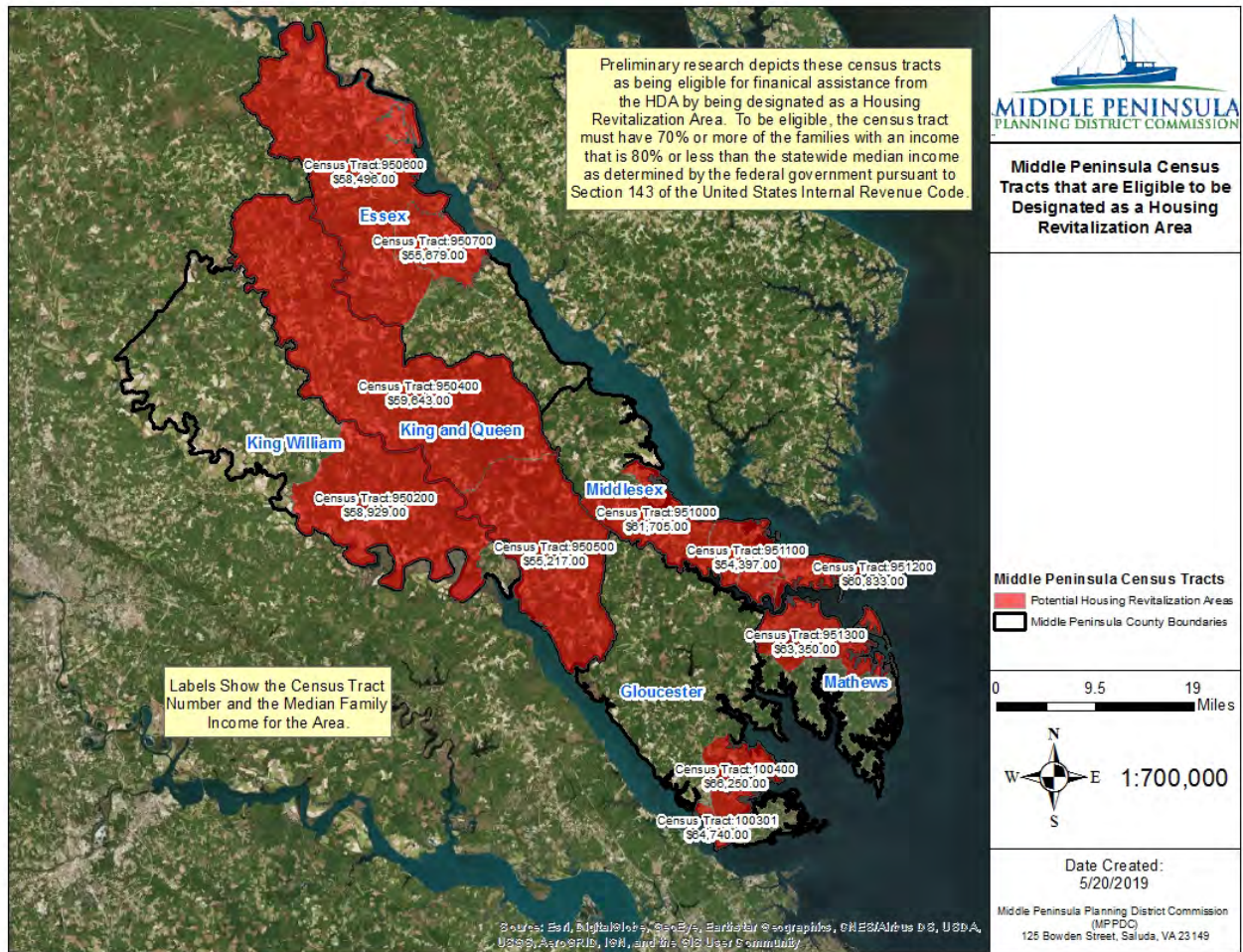
This report offers choices to help change the socio-economic trajectory of the Middle Peninsula. Three policy options are presented for the consideration of the Middle Peninsula Planning District Commission. The emerging issues cited below represent a more coordinated and comprehensive approach to addressing complex rural coastal housing issues found in and across the Middle Peninsula



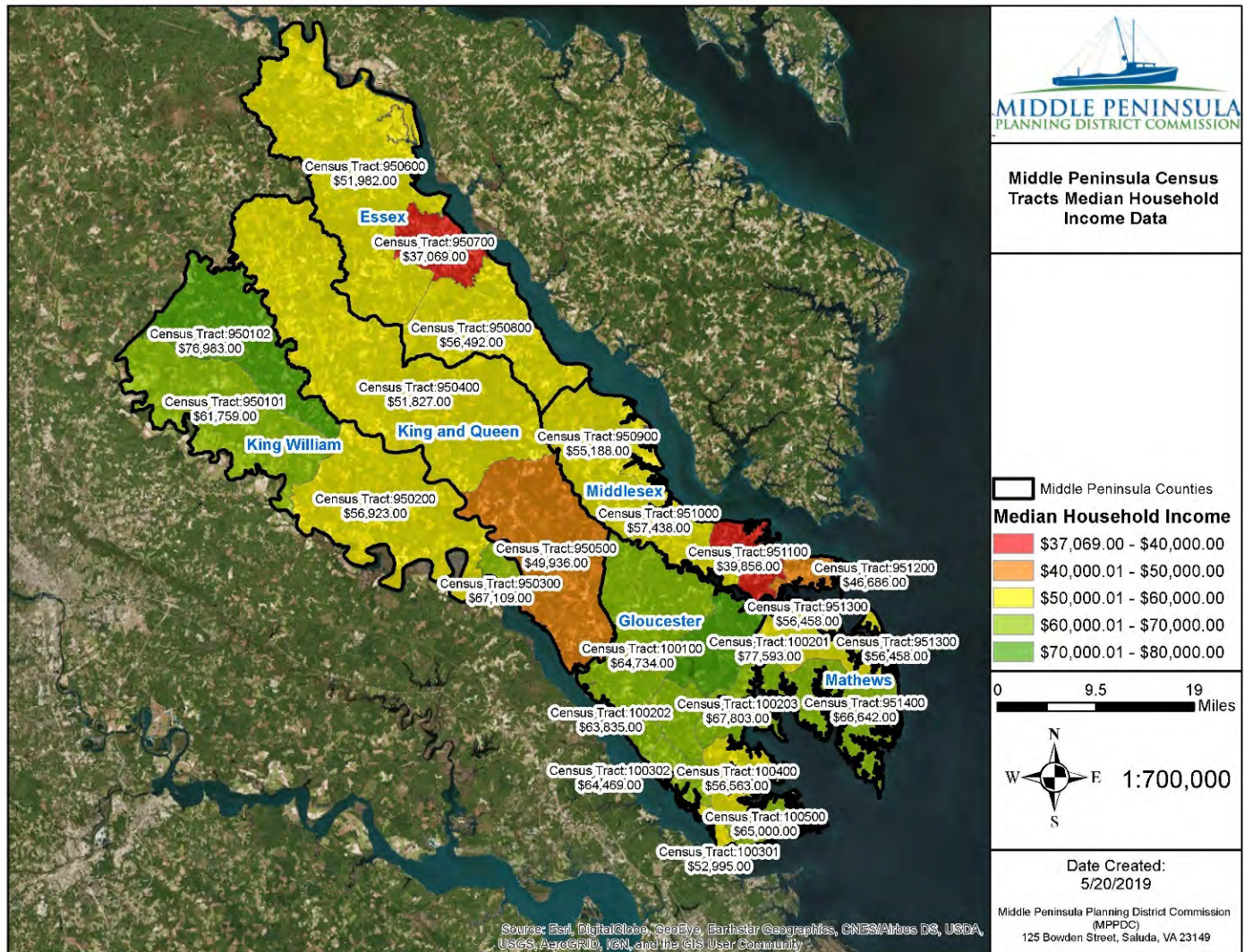
After consultation with the Commission at the May 22, 2019 Commission meeting, Option 1 was recognized as having minimal value to solve the complex problems facing the region. Option 3, establishing a Regional Redevelopment Housing Authority was not generally supported due to the need to hold 6 local public referendums to establish an Authority. This requirement, at this time would face significant local political challenges. Therefore, only option 2 remains. It is the recommendation of this report that the MPPDC direct staff to explore and exercise all reasonable options, including legislative solutions that will allow for Commission staff to develop solutions and programs necessary to address housing issues across the region. This recommendation includes exploration of modifying the Land Bank statute (15.2-7500), as recommended by MPPDC legal counsel (Appendix page 120). The Commission would continue to work towards building capacity to provide housing related solutions at the regional and local scale as approved by the Commission and or requested by member localities.

V. APPENDICES

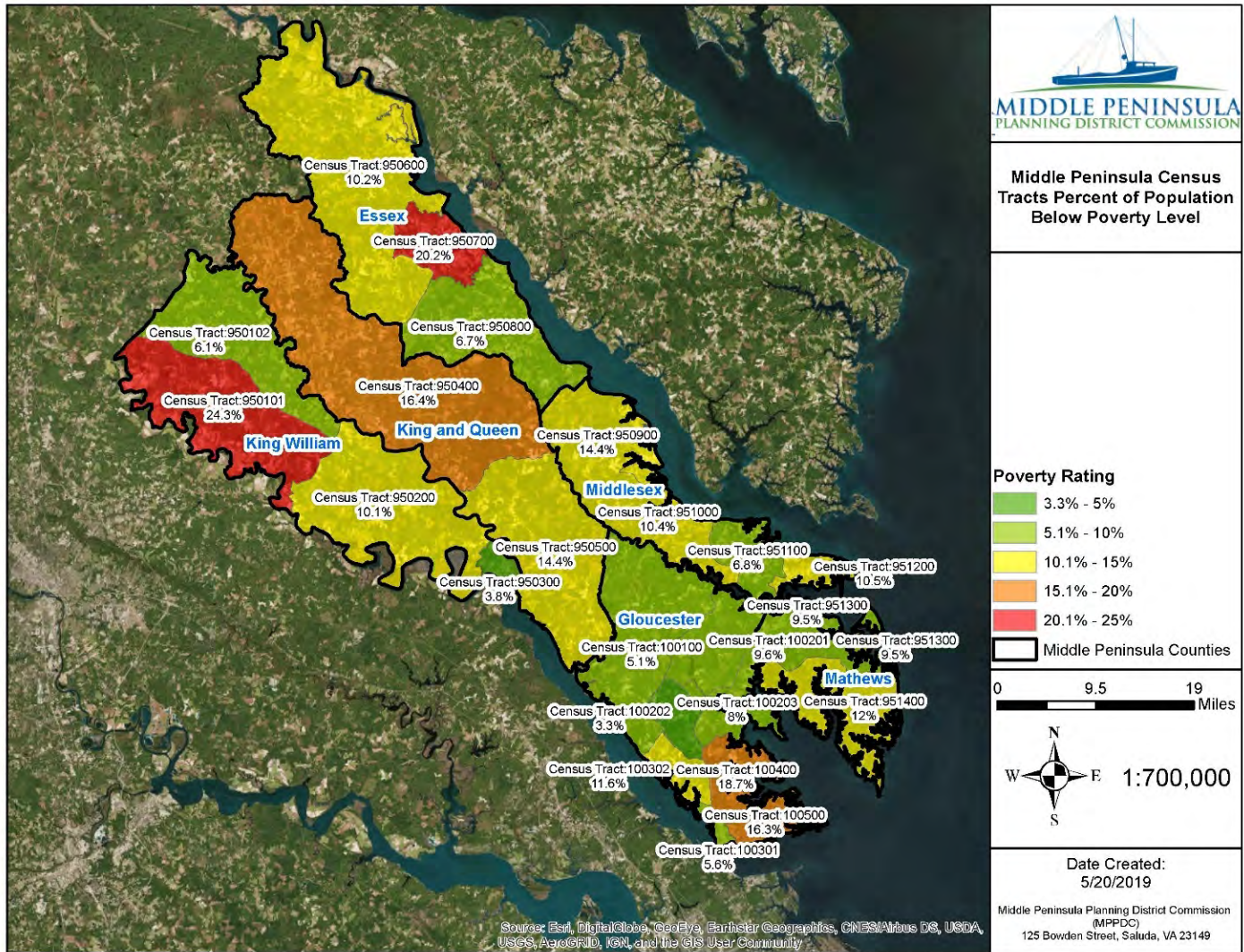
This first map displays all the census tracts in the Middle Peninsula that may be eligible to be objectively designated as a housing revitalization area. MPPDC staff has inquired with VHDA as to eligibility requirements and qualifications. The below maps illustrate baseline assumptions to qualify. In all likelihood some, none or all of the areas could qualify.



This next map shows the average median household income level for every census tract within the Middle Peninsula. More specifically, the red and orange areas display the census tracts with median household income levels that are dangerous low and represent impoverished areas. All of the areas that are red and orange may qualify for a housing revitalization area. Staff has requested assistance from VHDA to determine eligibility areas. The yellow areas represent the average for the median household income levels. The green areas display those census tracts with the high median household income rate.



Finally, this map represents the poverty level for each census tract in the Middle Peninsula. The red and orange areas show the highest levels of poverty and are, therefore, possibly eligible as a housing revitalization area. The yellow areas represent the average poverty rate for the Middle Peninsula. Finally, the green areas have the lowest poverty ratings in the Middle Peninsula.



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VOL. 124, No. 10

URBANNA, VIRGINIA 23175 • JUNE 6, 2019

TWO SECTIONS • 75 CENTS

Board discusses 'unsafe property' in Middlesex

by Larry Chowning

The Middlesex County Board of Supervisors has authorized county attorney Heather Lewis to review the county's nuisance ordinances concerning unsafe properties. The board wants Lewis to review the impact that derelict buildings have on the way properties are taxed, and provide the board with a memo as to how the entire process of enforcing the nuisance ordinance works.

Last year supervisors allocated \$40,000 to go toward demolition of unsafe properties that owners would not improve. None of the funding has been used, it was indicated at a May 7 Board of Supervisors meeting.

Hartfield District supervisor John Koontz said he knew where there were several properties in Hartfield District where the funds could be used, but he was unclear of the process.

When Koontz asked, "What legally can we do to use this (\$40,000)?"

Lewis responded that a formal complaint is needed and most likely it will require court action against the property owner. "What I'm hearing is that you need a short memo as to how the process works," she said.

Jamaica District supervisor Wayne Jessie reminded the board the nuisance ordinance deals with structures that are "unsafe." He said that just because the structure appears to be abandoned does not mean it is unsafe. "If the windows and doors are boarded up, that structure by our code is not unsafe and not a nuisance," he said.

Jessie also gave the board a history lesson on African-American ownership of land in Middlesex County. He said that some of "the older minority families" who own land are absentee owners. "There is land here that has been in the same family for generations and generations. Usually,

there is one person paying taxes, but it is owned by many people who live far away," he said. "The old homeplace is sitting there with no one looking after it but they still consider it their home."

Koontz said he understands that what may look like a dilapidated old building could appear to be a fixer-upper to someone else.

Saluda District supervisor Pete Mansfield said doors and windows boarded up is one thing, but if a tree is growing through the roof "our code does not say that's a bad thing. There is no ordinance that says you can or can't have a tree growing through the roof and we all know that's not safe," he said.

Board chair Chip Holt said it is a nuisance when it is so dangerous children can go in there and get hurt. "There are plenty of structures in the county that are falling in and very unsafe and that's what this \$40,000 fund is for," he said.

Harmony Village District supervisor Kathleen Swinehart asked how do real estate tax values treat these properties. This led to her and other board members requesting that Lewis talk with the county commissioner of the revenue and county treasurer concerning how they value dilapidated structures.

Koontz said that one reason so many old houses are "untouched" is because it doesn't cost the owners additional funds to have a dangerous house on their property.

Mansfield said this is about concern for your neighbors. "They have a right not to be living next to a house that is dangerous to the community," he said.

The \$40,000 can be used to remove dangerous structures, but the landowner ultimately must pay the funds back and, if not paid back, a lien can be taken on the property by the county.



JUN 10 2019

Andrew R. McRoberts
Attorney

Direct: (804) 783-7211
E-mail: AMcRoberts@SandsAnderson.com

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Main: (804) 648-1636
Fax: (804) 783-7291

June 6, 2019

Mr. Lewis L. Lawrence
Acting Executive Director
Middle Peninsula Planning District Commission
Post Office Box 286
Saluda, Virginia 23149

RE: MPPDC Designation As Land Bank Entity

Dear Lewie:

Per your request, we researched the issue of whether or not the Middle Peninsula Planning District Commission (MPPDC) could be designated to be the Land Bank Entity for the localities which make up the MPPDC pursuant to the Land Bank Entities Act, Virginia Code section 15.2-7500, et seq. In my opinion, for the reasons stated below, the authority is not clear and given this, likely does not exist under the Dillon Rule. As a result, we recommend that the statute be amended, if possible, before designating the MPPDC as a Land Bank Entity.

Land Bank Entity. A Land Bank Entity may be an "authority." 15.2-7500 (definition of "Land Bank Entity"). The MPPDC has not been created as a Land Bank Entity by the localities of the MPPDC, so presumably you are wondering whether it may be "designated" as such by the localities.

Existing Non-Profit Entity. Unfortunately, the only thing that may be "designated" as a Land Bank Entity is an "existing non-profit entity." The definition of "existing non-profit entity" requires two things. One, the entity must be able to receive donations from localities pursuant to Virginia Code section 15.2-953. Pursuant to 15.2-953, the MPPDC is able to receive gifts from localities as a governmental entity. Two, the entity must be exempt from taxation under 501(c)(3) of the Internal Revenue Code. Unfortunately, while the MPPDC is exempt from taxation, it is NOT exempt under 501(c)(3) of the Internal Revenue Code and cannot be.

Letter to Lewis L. Lawrence
Middle Peninsula Planning District Commission
June 6, 2019
Page 2

As a result, in our opinion, the MPPDC cannot be designated to be a Land Bank Entity for the localities of the MPPDC. We recommend that an amendment of the Land Bank Entities Act (15.2-7500, et seq.) be requested to clearly allow authorities to be designated by localities as a Land Bank Entity. This would entail amendments of Sections 15.2-7502, 15.2-7512 and perhaps others sections of the Act to clearly allow designation of an "authority," as defined.

Please let me know if you have any questions or require anything further.

Very truly yours,



Andrew R. McRoberts

ARM/ct

MEMORANDUM

TO: Board of Supervisors

CC: Matt Walker, County Administrator
Betty Muncy, Assistant County Administrator
David Selph, Building Inspector
Bonnie Davenport, Commissioner of the Revenue
Betty Bray, Treasurer

FROM: Heather Lewis, County Attorney

DATE: May 30, 2019 (Memo to be included in BOS's June 4, 2019 meeting packet)

RE: Unsafe Structures & Assessment of Unsafe Structures

At the Board's May 7, 2019 meeting, the Board requested that I prepare a Memo explaining the County's procedure for dealing with unsafe structures, how the Commissioner of the Revenue assesses said structures, and how the taxes are collected on said structures.

County's Process:

Unsafe structures are regulated by Virginia's Uniform Statewide Building Code (USBC) and such regulations are enforced by the local Building Official. The County revised its Building Code Ordinance in 2017 and adopted Chapters 1, 2, and 3 of Part III (Maintenance), of the USBC (attached). The County's Building Code requires that the unsafe structure be unoccupied; however, structures with tenants are regulated by Part II, Existing Structures, of the USBC.

The process begins with the Code Official receiving a written complaint about an unoccupied structure that is alleged to be unsafe. Upon receiving the complaint, the Code Official inspects the structure. The Code Official determines if the structure is unsafe as defined by the USBC. The USBC defines unsafe structures as "an existing structure (i) determined by the code official to be dangerous to the health, safety and welfare of the occupants of the structure or the public, (ii) that contains unsafe equipment, or (iii) that is so damaged, decayed, dilapidated, structurally unsafe or of such faulty construction or unstable foundation that partial or complete collapse is likely. A vacant existing structure unsecured or open shall be deemed to be an unsafe structure." See USBC, Part III, Section 202, Definitions (attached).

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If the structure is unsafe (as defined by the USBC), then the Code Official sends a written Notice of Violation to the property owner. The Code Official must first attempt to personally serve the property owner with the written Notice of Violation. If he is unable to locate the property owner, then he can send the written notice via certified or registered mail and post the written notice on the structure. *See* USBC, Part III, Section 106.4 and 106.5 (attached).

The property owner has fourteen (14) calendar days from receipt of the Notice of Violation to appeal the Code Official's determination to the Local Board of Building Code Appeals.

If the property owner does not appeal the Code Official's decision and the property owner remedies the violation, then the matter is resolved.

If the property owner does not appeal and does not comply, then the Code Official may consider doing the following:

1. Cite the property owner with a violation of the USBC (i.e. take the property owner to Court); or

2. The County can remove, repair or secure the structure after giving reasonable notice. Reasonable notice is defined in Virginia Code Section 15.2-906 (attached) as sending written notice via certified or registered mail and published once a week for two successive weeks in the local paper. No action can be taken for additional thirty (30) days after the publication except the County can take action to prevent unauthorized access to the structure within seven (7) days of such notice when the structure is deemed to pose a significant threat to public safety and such fact is stated in the notice. The costs of repairs or demolition can be billed to the property owner and if such costs remain unpaid, constitute a lien against the property.

3. Do nothing.

It is important to note that the Virginia Supreme Court and the Attorney General have pointed out that a locality may not condemn a building simply because it is an eyesore. Roanoke v. Bolling, 101 Va. 182; 1993 Op. Va. Atty Gen. 79.

Commissioner of the Revenue's Process:

I received the following response from the Commissioner of the Revenue, Bonnie Davenport:

"My office values unsafe and dilapidated structures when the permit dept. (David Selph) gives my office the demo permit. We then prepare an abatement and forward the same to the Treasurer's office. She then removes the structure from the system. Normally the value is [minimal]."

Treasurer's Process: The Treasurer, Betty Bray, concurs with Mrs. Davenport's explanation.

Please contact me if I may be of further assistance.

At a meeting of the Middlesex County Board of Supervisors held on June 6, 2017 at 7:00 p.m. in the Board Room of the Historic Courthouse, Saluda, Virginia: On a motion duly made by Mr. Mansfield and seconded by Mr. Holt, the following Ordinance was adopted by the following vote:

John D. Miller, Jr., absent
Wayne H. Jessie, Sr., nay
Robert LeBoeuf, aye
Mark E. "Chip" Holt, III., aye
Peter W. Mansfield, aye

AN ORDINANCE REPEALING AN ORDINANCE TO PROVIDE FOR ADMINISTRATION AND ENFORCEMENT WITHIN MIDDLESEX COUNTY, VIRGINIA, OF THE VIRGINIA UNIFORM STATEWIDE BUILDING CODE AND FOR SERVICES PERFORMED INCIDENT THERETO, ADOPTED AUGUST 4, 1981, AND SUBSEQUENTLY AMENDED, AND ENACTING AN ORDINANCE ENTITLED AN ORDINANCE ADOPTING PORTIONS OF THE VIRGINIA UNIFORM STATEWIDE BUILDING CODE, AND ADDRESSING SWIMMING POOLS.

WHEREAS, at its regular held August 4, 1981, the Middlesex County of Board of Supervisors adopted an Ordinance to Provide for Administration and Enforcement within Middlesex County, Virginia, of the Virginia Uniform Statewide Building Code and for Services Performed Incident Thereto and subsequently amended; and

WHEREAS, staff has drafted the following new ordinance entitled An Ordinance Adopting Portions Of The Virginia Uniform Statewide Building Code, and Addressing Swimming Pools which will replace in its entirety the Ordinance to Provide for Administration and Enforcement within Middlesex County, Virginia, of the Virginia Uniform Statewide Building Code and for Services Performed Incident Thereto, adopted August 4, 1981 and subsequently amended; and,

WHEREAS, the Board of Supervisors of Middlesex County held a duly advertised public hearing concerning the ordinance on June 6, 2017.

NOW, THEREFORE, BE IT ORDAINED by the Middlesex County Board of Supervisors this 6th day of June, 2017 that the Ordinance to Provide for Administration and Enforcement within Middlesex County, Virginia, of the Virginia Uniform Statewide Building Code and for Services Performed Incident Thereto, adopted August 4, 1981 and subsequently amended, be repealed in its entirety.

BE IT FURTHER ORDAINED by the Middlesex County Board of Supervisors this 6th day of June, 2017, that an ordinance entitled An Ordinance Adopting Portions Of The Virginia Uniform Statewide Building Code, and Addressing Swimming Pools is hereby enacted as follows:

1. Short Title

This ordinance may be known and referred to as the Middlesex County Building Code.

2. Adoption

(a) The Virginia Uniform Statewide Building Code, Part I and Part II, and future revisions or amendments thereof, are hereby adopted and incorporated, as a part hereof to the same extent as if set out herein at length, and shall control all matters concerning the construction, rehabilitation or repair of new or existing structures;

(b) Chapters 1, 2, and 3 of Part III of the Virginia Uniform Statewide Building Code, and future revisions or amendments thereof, are hereby adopted and incorporated as a part hereof, to the same extent as if set out herein at length, and shall be adopted for the following purposes:

- (1) the maintenance or razing of unoccupied, unsafe buildings and structures when the Code Official receives a complaint that alleges a violation of the Middlesex County Building Code; and
- (2) the procedures for the administration and enforcement of the provisions adopted herein; provided, the Code Official shall only enforce the provisions of Chapters 1, 2, and 3 of Part III, of the Virginia Uniform Statewide Building Code, concerning buildings and structures deemed by the Code Official to be unoccupied and unsafe, except as provided in Section Four of this ordinance.

(c) Section 15.2-906 of the Virginia Code, and any future revisions or amendments thereof, is hereby adopted and incorporated as a part hereof, to the same extent as if set out herein at length.

3. Enforcement

(a) The Building Department is hereby designated to act as the enforcing agency for the enforcement of the provisions of the Virginia Uniform Statewide Building Code, Parts I, II, and Chapters 1, 2, and 3 of Part III, as promulgated by the Virginia Board of Housing and Community Development under authority of §§ 36-99, 36-103 and 36-105 of the Code of Virginia, and any future revisions or amendments thereof.

(b) A copy of the Virginia Uniform Statewide Building Code shall be maintained on file in the Department of Planning and Community Development.

4. General Requirements

In addition to adopting the Virginia Uniform Statewide Building Code, Part III, as cited in SECTION TWO above, the following provision is hereby adopted and incorporated as part of this ordinance:

SWIMMING POOLS

SWIMMING POOLS. Swimming pools shall be maintained in a clean and sanitary condition, and in good repair. All swimming pools, reported to the Code Official, shall be subject to the barrier maintenance requirements of Section 303 of Chapter 3 of Part III of the Virginia Uniform Statewide Building Code, regardless of property occupancy. Improperly maintained barriers shall be cited as *unsafe* as cited in this Code.

5. Appeals

The Local Board of Building Code Appeals is hereby designated as the appeals board to hear appeals arising from the application of the provisions of the ordinance.

6. Administrative Practices

The Building Official shall establish such procedures or requirements as may be necessary for administration and enforcement of this ordinance.

7. Severability

Should any provision of this ordinance be declared by the courts unconstitutional or invalid, such decision shall not affect the validity of the ordinance as a whole, or any part thereof other than the part so declared to be unconstitutional or invalid.

Adopted: June 6, 2017

CHAPTER 1 ADMINISTRATION

SECTION 101 GENERAL

101.1 Short title. The *Virginia Uniform Statewide Building Code*, Part III, Maintenance, may be cited as the "*Virginia Maintenance Code*," or as the "VMC."

101.2 Incorporation by reference. Chapters 2-8 of the 2015 *International Property Maintenance Code*, published by the International Code Council, Inc., are adopted and incorporated by reference to be an enforceable part of the VMC. The term "IPMC" means the 2015 *International Property Maintenance Code*, published by the International Code Council, Inc. Any codes and standards referenced in the IPMC are also considered to be part of the incorporation by reference, except that such codes and standards are used only to the prescribed extent of each such reference.

101.3 Numbering system. A dual numbering system is used in the VMC to correlate the numbering system of the *Virginia Administrative Code* with the numbering system of the IPMC. IPMC numbering system designations are provided in the catchlines of the *Virginia Administrative Code* sections, and cross references between sections or chapters of the *Virginia Maintenance Code* use only the IPMC numbering system designations. The term "chapter" is used in the context of the numbering system of the IPMC and may mean a chapter in the VMC, a chapter in the IPMC or a chapter in a referenced code or standard, depending on the context of the use of the term. The term "chapter" is not used to designate a chapter of the *Virginia Administrative Code*, unless clearly indicated.

101.4 Arrangement of code provisions. The VMC is comprised of the combination of (i) the provisions of Chapter 1, Administration, which are established herein; (ii) Chapters 2-8 of the IPMC, which are incorporated by reference in Section 101.2; and (iii) the changes to the text of the incorporated chapters of the IPMC which are specifically identified. The terminology "changes to the text of the incorporated chapters of the IPMC which are specifically identified" shall also be referred to as the "state amendments to the IPMC." Such state amendments to the IPMC are set out using corresponding chapter and section numbers of the IPMC numbering system.

101.5 Use of terminology and notes. The term "this code," or "the code," where used in the provisions of Chapter 1, in Chapters 2-8 of the IPMC, or in the state amendments to the IPMC, means the VMC, unless the context clearly indicates otherwise. The term "this code," or "the code," where used in a code or standard referenced in the IPMC, means that code or standard, unless the context clearly indicates otherwise. The term "USBC" where used in this code means the VCC unless the context clearly indicates otherwise. In addition, the use of notes in Chapter 1 is to provide information only and shall not be construed as changing the meaning of any code provision. Notes in the IPMC, in the codes and standards ref-

erenced in the IPMC, and in the state amendments to the IPMC, may modify the content of a related provision and shall be considered to be a valid part of the provision, unless the context clearly indicates otherwise.

101.6 Order of precedence. The provisions of this code shall be used as follows:

1. The provisions of Chapter 1 of this code supersede any provisions of Chapters 2-8 of the IPMC that address the same subject matter and impose differing requirements.
2. The provisions of Chapter 1 of this code supersede any provisions of the codes and standards referenced in the IPMC that address the same subject matter and impose differing requirements.
3. The state amendments to the IPMC supersede any provisions of Chapters 2-8 of the IPMC that address the same subject matter and impose differing requirements.
4. The state amendments to the IPMC supersede any provisions of the codes and standards referenced in the IPMC that address the same subject matter and impose differing requirements.
5. The provisions of Chapters 2-8 of the IPMC supersede any provisions of the codes and standards referenced in the IPMC that address the same subject matter and impose differing requirements.

101.7 Definitions. The definitions of terms used in this code are contained in Chapter 2 along with specific provisions addressing the use of definitions. Terms may be defined in other chapters or provisions of the code and such definitions are also valid.

SECTION 102 PURPOSE AND SCOPE

102.1 Purpose. In accordance with Section 36-103 of the Code of Virginia, the Virginia Board of Housing and Community Development may adopt and promulgate as part of the *Virginia Uniform Statewide Building Code*, building regulations that facilitate the maintenance, rehabilitation, development and reuse of existing buildings at the least possible cost to ensure the protection of the public health, safety and welfare. Further, in accordance with Section 36-99 of the Code of Virginia, the purpose of this code is to protect the health, safety and welfare of the residents of the Commonwealth of Virginia, provided that buildings and structures should be permitted to be *maintained* at the least possible cost consistent with recognized standards of health, safety, energy conservation and water conservation, including provisions necessary to prevent overcrowding, rodent or insect infestation, and garbage accumulation; and barrier-free provisions for the physically handicapped and aged.

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ADMINISTRATION

102.2 Scope. In accordance with Section 36-98 of the Code of Virginia, the VMC shall supersede the building codes and regulations of the counties, municipalities and other political subdivisions and state agencies.

102.3 Exemptions. This code shall not regulate those buildings and structures specifically exempt from the VCC, except that existing industrialized buildings and manufactured homes shall not be exempt from this code.

SECTION 103 APPLICATION OF CODE

103.1 General. This code prescribes regulations for the maintenance of all existing buildings and structures and associated equipment, including regulations for unsafe buildings and structures.

103.2 Maintenance requirements. Buildings, structures and systems shall be *maintained* and kept in good repair in accordance with the requirements of this code and when applicable in accordance with the USBC under which such building or structure was constructed. No provision of this code shall require alterations to be made to an existing building or structure or to equipment unless conditions are present which meet the definition of an *unsafe structure* or a *structure unfit for human occupancy*.

103.2.1 Maintenance of nonrequired fire protection systems. Nonrequired fire protection systems shall be *maintained* to function as originally installed. If any such systems are to be reduced in function or discontinued, approval shall be obtained from the building official in accordance with Section 103.8.1 of the VCC.

103.2.2 Maintenance of nonrequired components and systems. Nonrequired components and systems may be discontinued in use provided that no hazard results from such discontinuance of use.

103.2.3 Responsibility. The owner of a structure shall provide and maintain all buildings, structures, systems, facilities and associated equipment in compliance with this code unless it is specifically expressed or implied that it is the responsibility of the tenant or occupant.

103.3 Continued approval. Notwithstanding any provision of this code to the contrary, alterations shall not be required to be made to existing buildings or structures which are occupied in accordance with a certificate of occupancy issued under any edition of the USBC.

103.4 Rental inspections. In accordance with § 36-105.1:1 of the Code of Virginia, these provisions are applicable to rental inspection programs. For purposes of this section:

"Dwelling unit" means a building or structure or part thereof that is used for a home or residence by one or more persons who maintain a household.

"Owner" means the person shown on the current real estate assessment books or current real estate assessment records.

"Residential rental dwelling unit" means a dwelling unit that is leased or rented to one or more tenants. However, a

dwelling unit occupied in part by the owner thereof shall not be construed to be a residential rental dwelling unit unless a tenant occupies a part of the dwelling unit that has its own cooking and sleeping areas, and a bathroom, unless otherwise provided in the zoning ordinance by the local governing body.

The local governing body may adopt an ordinance to inspect residential rental dwelling units for compliance with this code and to promote safe, decent and sanitary housing for its citizens, in accordance with the following:

1. Except as provided for in subdivision 3 of this subsection, the dwelling units shall be located in a rental inspection district established by the local governing body in accordance with this section; and
2. The rental inspection district is based upon a finding by the local governing body that (i) there is a need to protect the public health, safety and welfare of the occupants of dwelling units inside the designated rental inspection district; (ii) the residential rental dwelling units within the designated rental inspection district are either (a) blighted or in the process of deteriorating or (b) the residential rental dwelling units are in the need of inspection by the building department to prevent deterioration, taking into account the number, age and condition of residential dwelling rental units inside the proposed rental inspection district; and (iii) the inspection of residential rental dwelling units inside the proposed rental inspection district is necessary to maintain safe, decent and sanitary living conditions for tenants and other residents living in the proposed rental inspection district. Nothing in this section shall be construed to authorize one or more locality-wide rental inspection districts and a local governing body shall limit the boundaries of the proposed rental inspection districts to such areas of the locality that meet the criteria set out in this subsection; or
3. An individual residential rental dwelling unit outside of a designated rental inspection district is made subject to the rental inspection ordinance based upon a separate finding for each individual dwelling unit by the local governing body that (i) there is a need to protect the public health, welfare and safety of the occupants of that individual dwelling unit; (ii) the individual dwelling unit is either (a) blighted or (b) in the process of deteriorating; or (iii) there is evidence of violations of this code that affect the safe, decent and sanitary living conditions for tenants living in such individual dwelling unit.

For purposes of this section, the local governing body may designate a local government agency other than the building department to perform all or part of the duties contained in the enforcement authority granted to the building department by this section.

Before adopting a rental inspection ordinance and establishing a rental inspection district or an amendment to either, the governing body of the locality shall hold a public hearing on the proposed ordinance. Notice of the hearing shall be published once a week for two successive weeks in a newspaper published or having general circulation in the locality.

Upon adoption by the local governing body of a rental inspection ordinance, the building department shall make reasonable efforts to notify owners of residential rental dwelling units in the designated rental inspection district, or their designated managing agents, and to any individual dwelling units subject to the rental inspection ordinance, not located in a rental inspection district, of the adoption of such ordinance, and provide information and an explanation of the rental inspection ordinance and the responsibilities of the owner thereunder.

The rental inspection ordinance may include a provision that requires the owners of dwelling units in a rental inspection district to notify the building department in writing if the dwelling unit of the owner is used for residential rental purposes. The building department may develop a form for such purposes. The rental inspection ordinance shall not include a registration requirement or a fee of any kind associated with the written notification pursuant to this subdivision. A rental inspection ordinance may not require that the written notification from the owner of a dwelling unit subject to a rental inspection ordinance be provided to the building department in less than 60 days after the adoption of a rental inspection ordinance. However, there shall be no penalty for the failure of an owner of a residential rental dwelling unit to comply with the provisions of this subsection, unless and until the building department provides personal or written notice to the property owner, as provided in this section. In any event, the sole penalty for the willful failure of an owner of a dwelling unit who is using the dwelling unit for residential rental purposes to comply with the written notification requirement shall be a civil penalty of up to \$50. For purposes of this subsection, notice sent by regular first-class mail to the last known address of the owner as shown on the current real estate tax assessment books or current real estate tax assessment records shall be deemed compliance with this requirement.

Upon establishment of a rental inspection district in accordance with this section, the building department may, in conjunction with the written notifications as provided for above, proceed to inspect dwelling units in the designated rental inspection district to determine if the dwelling units are being used as a residential rental property and for compliance with the provisions of this code that affect the safe, decent and sanitary living conditions for the tenants of such property.

If a multifamily development has more than 10 dwelling units, in the initial and periodic inspections, the building department shall inspect only a sampling of dwelling units, of not less than two and not more than 10 percent of the dwelling units, of a multifamily development, that includes all of the multifamily buildings that are part of that multifamily development. In no event, however, shall the building department charge a fee authorized by this section for inspection of more than 10 dwelling units. If the building department determines upon inspection of the sampling of dwelling units that there are violations of this code that affect the safe, decent and sanitary living conditions for the tenants of such multifamily development, the building department may inspect as many dwelling units as necessary to enforce these provisions, in which case, the fee shall be based upon a charge per dwell-

ing unit inspected, as otherwise provided in the fee schedule established pursuant to this section.

Upon the initial or periodic inspection of a residential rental dwelling unit subject to a rental inspection ordinance, the building department has the authority under these provisions to require the owner of the dwelling unit to submit to such follow-up inspections of the dwelling unit as the building department deems necessary, until such time as the dwelling unit is brought into compliance with the provisions of this code that affect the safe, decent and sanitary living conditions for the tenants.

Except as provided for above, following the initial inspection of a residential rental dwelling unit subject to a rental inspection ordinance, the building department may inspect any residential rental dwelling unit in a rental inspection district, that is not otherwise exempted in accordance with this section, no more than once each calendar year.

Upon the initial or periodic inspection of a residential rental dwelling unit subject to a rental inspection ordinance for compliance with these provisions, provided that there are no violations of this code that affect the safe, decent and sanitary living conditions for the tenants of such residential rental dwelling unit, the building department shall provide, to the owner of such residential rental dwelling unit, an exemption from the rental inspection ordinance for a minimum of 4 years. Upon the sale of a residential rental dwelling unit, the building department may perform a periodic inspection as provided above, subsequent to such sale. If a residential rental dwelling unit has been issued a certificate of occupancy within the last 4 years, an exemption shall be granted for a minimum period of 4 years from the date of the issuance of the certificate of occupancy by the building department. If the residential rental dwelling unit becomes in violation of this code during the exemption period, the building department may revoke the exemption previously granted under this section.

A local governing body may establish a fee schedule for enforcement of these provisions, which includes a per dwelling unit fee for the initial inspections, follow-up inspections and periodic inspections under this section.

The provisions of this section shall not in any way alter the rights and obligations of landlords and tenants pursuant to the applicable provisions of Chapter 13 (§ 55-217 et seq.) or Chapter 13.2 (§ 55-248.2 et seq.) of Title 55 of the Code of Virginia.

The provisions of this section shall not alter the duties or responsibilities of the local building department under § 36-105 of the Code of Virginia to enforce the USBC.

Unless otherwise provided for in § 36-105.1:1 of the Code of Virginia, penalties for violation of this section shall be the same as the penalties provided for violations of other sections of the USBC.

SECTION 104 ENFORCEMENT, GENERALLY

104.1 Scope of enforcement. This section establishes the requirements for enforcement of this code in accordance with

subdivision C 1 of § 36-105 of the Code of Virginia. The local governing body may also inspect and enforce the provisions of the USBC for existing buildings and structures, whether occupied or not. Such inspection and enforcement shall be carried out by an agency or department designated by the local governing body.

In accordance with subdivision C 3 of § 36-105 of the Code of Virginia, if the local building department receives a complaint that a violation of this code exists that is an immediate and imminent threat to the health or safety of the owner, tenant, or occupants of any building or structure, or the owner, occupant, or tenant of any nearby building or structure, and the owner, occupant, or tenant of the building or structure that is the subject of the complaint has refused to allow the code official or his agent to have access to the subject building or structure, the code official or his agent may make an affidavit under oath before a magistrate or a court of competent jurisdiction and request that the magistrate or court grant the code official or his agent an inspection warrant to enable the code official or his agent to enter the subject building or structure for the purpose of determining whether violations of this code exist. After issuing a warrant under this section, the magistrate or judge shall file the affidavit in a manner prescribed by § 19.2-54 of the Code of Virginia. After executing the warrant, the code official or his agents shall return the warrant to the clerk of the circuit court of the city or county wherein the inspection was made. The code official or his agent shall make a reasonable effort to obtain consent from the owner, occupant, or tenant of the subject building or structure prior to seeking the issuance of an inspection warrant under this section.

Note: Generally, official action must be taken by the local government to enforce the VMC. Consultation with the legal counsel of the jurisdiction when initiating or changing such action is advised.

104.1.1 Transfer of ownership. In accordance with subdivision C 4 of § 36-105 of the Code of Virginia, if the local building department has initiated an enforcement action against the owner of a building or structure and such owner subsequently transfers the ownership of the building or structure to an entity in which the owner holds an ownership interest greater than 50 percent, the pending enforcement action shall continue to be enforced against the owner.

104.2 Fees. In accordance with subdivision C 7 of § 36-105 of the Code of Virginia, fees may be levied by the local governing body in order to defray the cost of enforcement and appeals. For the purposes of this section, "defray the cost" may include the fair and reasonable costs incurred for such enforcement during normal business hours, but shall not include overtime costs unless conducted outside of the normal working hours established by the locality. A schedule of such costs shall be adopted by the local governing body in a local ordinance. A locality shall not charge overtime rate for inspections conducted during the normal business hours established by the locality. Nothing in this provision shall be construed to prohibit a private entity from conducting such inspections, provided the private entity has been approved to

perform such inspections in accordance with the written policy of the code official for the locality.

104.3 State buildings. In accordance with § 36-98.1 of the Code of Virginia, this code shall be applicable to state-owned buildings and structures. Acting through the Division of Engineering and Buildings, the Department of General Services shall function as the building official for state-owned buildings.

104.3.1 Certification of state enforcement personnel. State enforcement personnel shall comply with the applicable requirements of Sections 104.4.2 and 104.4.3 for certification.

Note: Continuing education and periodic training requirements for DHCD certifications are set out in the VCS.

104.4 Local enforcing agency. In jurisdictions enforcing this code, the local governing body shall designate the agency within the local government responsible for such enforcement and appoint a code official. The local governing body may also utilize technical assistants to assist the code official in the enforcement of this code. A permanently appointed code official shall not be removed from office except for cause after having been afforded a full opportunity to be heard on specific and relevant charges by and before the appointing authority. DHCD shall be notified by the appointing authority within 30 days of the appointment or release of a permanent or acting code official and within 60 days after retaining or terminating a technical assistant.

Note: Code officials and technical assistants are subject to sanctions in accordance with the VCS.

104.4.1 Qualifications of code official and technical assistants. The code official shall have at least 5 years of building experience as a licensed professional engineer or architect, building, fire or trade inspector, contractor, housing inspector or superintendent of building, fire or trade construction or at least 5 years of building experience after obtaining a degree in architecture or engineering, with at least 3 years in responsible charge of work. Any combination of education and experience that would confer equivalent knowledge and ability shall be deemed to satisfy this requirement. The code official shall have general knowledge of sound engineering practice in respect to the design and construction of structures, the basic principles of fire prevention, the accepted requirements for means of egress and the installation of elevators and other service equipment necessary for the health, safety and general welfare of the occupants and the public. The local governing body may establish additional qualification requirements.

A technical assistant shall have at least 3 years of experience and general knowledge in at least one of the following areas: building construction, building, fire or housing inspections, plumbing, electrical or mechanical trades, fire protection, elevators or property maintenance work. Any combination of education and experience which would confer equivalent knowledge and ability shall be deemed

to satisfy this requirement. The locality may establish additional certification requirements.

104.4.2 Certification of code official and technical assistants. An acting or permanent code official shall be certified as a code official in accordance with the VCS within 1 year after being appointed as acting or permanent code official. A technical assistant shall be certified in the appropriate subject area within 18 months after becoming a technical assistant. When required by a locality to have two or more certifications, a technical assistant shall obtain the additional certifications within 3 years from the date of such requirement.

Exception: A code official or technical assistant in place prior to April 1, 1995, shall not be required to meet the certification requirements in this section while continuing to serve in the same capacity in the same locality.

104.4.3 Noncertified code official. Except for a code official exempt from certification under the exception to Section 104.4.2, any acting or permanent code official who is not certified as a code official in accordance with the VCS shall attend the core module of the Virginia Building Code Academy or an equivalent course in an individual or regional code academy accredited by DHCD within 180 days of appointment. This requirement is in addition to meeting the certification requirement in Section 104.4.2.

Note: Continuing education and periodic training requirements for DHCD certifications are set out in the VCS.

104.4.4 Conflict of interest. The standards of conduct for code officials and technical assistants shall be in accordance with the provisions of the State and Local Government Conflict of Interests Act, Chapter 31 (§ 2.2-3100 et seq.) of Title 2.2 of the Code of Virginia.

104.4.5 Records. The local enforcing agency shall retain a record of applications received, permits, certificates, notices and orders issued, fees collected and reports of inspections in accordance with The Library of Virginia's General Schedule Number Six.

104.5 Powers and duties, generally. The code official shall enforce this code as set out herein and as interpreted by the State Review Board and shall issue all necessary notices or orders to ensure compliance with the code.

104.5.1 Delegation of authority. The code official may delegate powers and duties except where such authority is limited by the local government. When such delegations are made, the code official shall be responsible for assuring that they are carried out in accordance with the provisions of this code.

104.5.2 Issuance of modifications. Upon written application by an owner or an owner's agent, the code official may approve a modification of any provision of this code provided the spirit and intent of the code are observed and public health, welfare and safety are assured. The decision of the code official concerning a modification shall be made in writing and the application for a modification and the decision of the code official concerning such modifica-

tion shall be retained in the permanent records of the local enforcing agency.

104.5.2.1 Substantiation of modification. The code official may require or may consider a statement from a professional engineer, architect or other person competent in the subject area of the application as to the equivalency of the proposed modification.

104.5.3 Inspections. The code official may inspect buildings or structures to determine compliance with this code and shall carry proper credentials when performing such inspections. The code official is authorized to engage such expert opinion as deemed necessary to report upon unusual, detailed, or complex technical issues in accordance with local policies.

104.5.3.1 Observations. When, during an inspection, the code official or authorized representative observes an apparent or actual violation of another law, ordinance, or code not within the official's authority to enforce, such official shall report the findings to the official having jurisdiction in order that such official may institute the necessary measures.

104.5.3.2 Approved inspection agencies and individuals. The code official may accept reports of inspections or tests from individuals or inspection agencies approved in accordance with the code official's written policy required by Section 104.5.3.3. The individual or inspection agency shall meet the qualifications and reliability requirements established by the written policy. Reports of inspections by approved individuals or agencies shall be in writing, shall indicate if compliance with the applicable provisions of this code have been met, and shall be certified by the individual inspector or by the responsible officer when the report is from an agency. The code official shall review and approve the report unless there is cause to reject it. Failure to approve a report shall be in writing within 5 working days of receiving it, stating the reasons for rejection.

104.5.3.3 Third-party inspectors. Each code official charged with the enforcement of this code and who accepts third-party reports shall have a written policy establishing the minimum acceptable qualifications for third-party inspectors. The policy shall include the format and time frame required for submission of reports, any prequalification or preapproval requirements before conducting a third-party inspection, and any other requirements and procedures established by the code official.

104.5.3.4 Qualifications. In determining third-party qualifications, the code official may consider such items as DHCD inspector certification, other state or national certifications, state professional registrations, related experience, education, and any other factors that would demonstrate competency and reliability to conduct inspections.

104.5.4 Manufactured home park tenant notification. If a notice of violation is issued to a manufactured home park

owner for violations of this code that jeopardize the health or safety of tenants of the park, a copy of the notice shall be provided to each affected tenant of the manufactured home park. The terms, "manufactured home park" and "owner," as used in this section, shall be as defined in the Manufactured Home Lot Rental Act (Chapter 13.3 (§ 55-248.41 et seq.) of Title 55 of the Code of Virginia).

**SECTION 105
VIOLATIONS**

105.1 Violation a misdemeanor; civil penalty. In accordance with Section 36-106 of the Code of Virginia, it shall be unlawful for any owner or any other person, firm or corporation, on or after the effective date of any code provisions, to violate any such provisions. Any locality may adopt an ordinance that establishes a uniform schedule of civil penalties for violations of specified provisions of the code that are not abated or remedied promptly after receipt of a notice of violation from the local enforcement officer.

Note: See the full text of Section 36-106 of the Code of Virginia for additional requirements and criteria pertaining to legal action relative to violations of the code.

105.2 Notices, reports and orders. Upon findings by the code official that violations of this code exist, the code official shall issue a correction notice or notice of violation to the owner or the person responsible for the maintenance of the structure. Work done to correct violations of this code subject to the permit, inspection and approval provisions of the VCC shall not be construed as authorization to extend the time limits established for compliance with this code.

105.3 Correction notice. The correction notice shall be a written notice of the defective conditions. The correction notice shall require correction of the violation or violations within a reasonable time unless an emergency condition exists as provided under the unsafe building provisions of Section 106. Upon request, the correction notice shall reference the code section that serves as the basis for the defects and shall state that such defects shall be corrected and re-inspected in a reasonable time designated by the code official.

105.4 Notice of violation. If the code official determines there are violations of this code a written notice of violation may be issued to the owner or the person responsible for the maintenance or use of the building or structure in lieu of a correction notice as provided for in Section 105.3. In addition, the code official shall issue a notice of violation for any uncorrected violation remaining from a correction notice established in Section 105.3. The code official shall provide the section numbers to the owner for any code provisions cited in the notice of violation. The notice shall require correction of the violation or violations within a reasonable time. The owner or person to whom the notice of violation has been issued shall be responsible for contacting the code official within the time frame established for any re-inspections to assure the violations have been corrected. The code official will be responsible for making such inspection and verifying the violations have been corrected. In addition, the notice of violation shall indicate the right of appeal by referencing the appeals section of this code.

Exceptions:

1. Notices issued, and legal proceedings or emergency actions taken, under Section 106 for *unsafe structures, unsafe equipment or structures unfit for human occupancy.*
2. Notices issued for failing to maintain buildings and structures as required by Section 103.2, as evidenced by multiple or repeated violations on the same property, are not required to include a compliance deadline for correcting defects.

105.5 Coordination of inspections. The code official shall coordinate inspections and administrative orders with any other state or local agencies having related inspection authority and shall coordinate those inspections required by the *Virginia Statewide Fire Prevention Code (13VAC5-51)* for maintenance of fire protection devices, equipment and assemblies so that the owners and occupants will not be subjected to numerous inspections or conflicting orders.

Note: The Fire Prevention Code requires the fire official to coordinate such inspections with the code official.

105.6 Further action when violation not corrected. If the responsible party has not complied with the notice of violation, the code official may request the legal counsel of the locality to institute the appropriate legal proceedings to restrain, correct or abate the violation or to require the removal or termination of the use of the building or structure involved. In cases where the locality or legal counsel so authorizes, the code official may issue or obtain a summons or warrant.

105.6.1 Further action for corrected violations. Compliance with a notice of violation notwithstanding, the code official may request legal proceedings be instituted for prosecution when a responsible party is served with three or more separate notices of violation for the same property within any 5 consecutive years. Legal proceedings shall not be instituted under this section for violation notices issued pursuant to the initial inspection of the property. Legal proceedings for violations that have been abated in residential rental dwelling units within a multifamily apartment development may only be instituted for such violations that affect safe, decent or sanitary living conditions.

Exception: Legal proceedings shall not be instituted for violations that have been abated on owner-occupied single-family dwellings.

105.7 Penalties and abatement. Penalties for violations of this code shall be as set out in § 36-106 of the Code of Virginia. The successful prosecution of a violation of the code shall not preclude the institution of appropriate legal action to require correction or abatement of a violation.

**SECTION 106
UNSAFE STRUCTURES OR STRUCTURES
UNFIT FOR HUMAN OCCUPANCY**

106.1 General. This section shall apply to existing structures which are classified as unsafe or unfit for human occupancy. All conditions causing such structures to be classified as

unsafe or unfit for human occupancy shall be remedied or as an alternative to correcting such conditions, the structure may be vacated and secured against public entry or razed and removed. Vacant and secured structures shall still be subject to other applicable requirements of this code. Notwithstanding the above, when the code official determines that an *unsafe structure* or a *structure unfit for human occupancy* constitutes such a hazard that it should be razed or removed, then the code official shall be permitted to order the demolition of such structures in accordance with applicable requirements of this code.

Note: Structures which become unsafe during construction are regulated under the VCC.

106.2 Inspection of unsafe or unfit structures. The code official shall inspect any structure reported or discovered as unsafe or unfit for human habitation and shall prepare a report to be filed in the records of the local enforcing agency and a copy issued to the owner. The report shall include the use of the structure and a description of the nature and extent of any conditions found.

106.3 Unsafe conditions not related to maintenance. When the code official finds a condition that constitutes a serious and dangerous hazard to life or health in a structure constructed prior to the initial edition of the USBC and when that condition is of a cause other than improper maintenance or failure to comply with state or local building codes that were in effect when the structure was constructed, then the code official shall be permitted to order those minimum changes to the design or construction of the structure to remedy the condition.

106.3.1 Limitation to requirements for retrofitting. In accordance with Section 103.2, this code does not generally provide for requiring the retrofitting of any structure. However, conditions may exist in structures constructed prior to the initial edition of the USBC because of faulty design or equipment that constitute a danger to life or health or a serious hazard. Any changes to the design or construction required by the code official under this section shall be only to remedy the serious hazard or danger to life or health and such changes shall not be required to fully comply with the requirements of the VCC applicable to newly constructed buildings or structures.

106.4 Notice of unsafe structure or structure unfit for human occupancy. When a structure is determined to be unsafe or unfit for human occupancy by the code official, a written notice of *unsafe structure* or *structure unfit for human occupancy* shall be issued by personal service to the owner, the owner's agent or the person in control of such structure. The notice shall specify the corrections necessary to comply with this code, or if the structure is required to be demolished, the notice shall specify the time period within which the demolition must occur. Requirements in Section 105.2 for notices of violation are also applicable to notices issued under this section to the extent that any such requirements are not in conflict with the requirements of this section.

Note: Whenever possible, the notice should also be given to any tenants of the affected structure.

106.4.1 Vacating unsafe structure. If the code official determines there is actual and immediate danger to the occupants or public, or when life is endangered by the occupancy of an *unsafe structure*, the code official shall be authorized to order the occupants to immediately vacate the *unsafe structure*. When an *unsafe structure* is ordered to be vacated, the code official shall post a notice with the following wording at each entrance: "THIS STRUCTURE IS UNSAFE AND ITS OCCUPANCY (OR USE) IS PROHIBITED BY THE CODE OFFICIAL." After posting, occupancy or use of the *unsafe structure* shall be prohibited except when authorized to enter to conduct inspections, make required repairs or as necessary to demolish the structure.

106.5 Posting of notice. If the notice is unable to be issued by personal service as required by Section 106.4, then the notice shall be sent by registered or certified mail to the last known address of the responsible party and a copy of the notice shall be posted in a conspicuous place on the premises.

106.6 Posting of placard. In the case of a structure unfit for human habitation, at the time the notice is issued, a placard with the following wording shall be posted at the entrance to the structure: "THIS STRUCTURE IS UNFIT FOR HABITATION AND ITS USE OR OCCUPANCY HAS BEEN PROHIBITED BY THE CODE OFFICIAL." In the case of an *unsafe structure*, if the notice is not complied with, a placard with the above wording shall be posted at the entrance to the structure. After a structure is placarded, entering the structure shall be prohibited except as authorized by the code official to make inspections, to perform required repairs or to demolish the structure. In addition, the placard shall not be removed until the structure is determined by the code official to be safe to occupy, nor shall the placard be defaced.

106.7 Revocation of certificate of occupancy. If a notice of *unsafe structure* or structure unfit for human habitation is not complied with within the time period stipulated on the notice, the code official shall be permitted to request the local building department to revoke the certificate of occupancy issued under the VCC.

106.8 Vacant and open structures. When an *unsafe structure* or a structure unfit for human habitation is open for public entry at the time a placard is issued under Section 106.6, the code official shall be permitted to authorize the necessary work to make such structure secure against public entry whether or not legal action to compel compliance has been instituted.

106.9 Emergency repairs and demolition. To the extent permitted by the locality, the code official may authorize emergency repairs to *unsafe structures* or structures unfit for human habitation when it is determined that there is an immediate danger of any portion of the *unsafe structure* or structure unfit for human habitation collapsing or falling and when life is endangered. Emergency repairs may also be authorized where there is a code violation resulting in the immediate serious and imminent threat to the life and safety of the occupants. The code official shall be permitted to authorize the necessary work to make the structure temporarily safe whether or not legal action to compel compliance has been

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instituted. In addition, whenever an owner of an *unsafe structure* or structure unfit for human habitation fails to comply with a notice to demolish issued under Section 106.4 in the time period stipulated, the code official shall be permitted to cause the structure to be demolished. In accordance with §§ 15.2-906 and 15.2-1115 of the Code of Virginia, the legal counsel of the locality may be requested to institute appropriate action against the property owner to recover the costs associated with any such emergency repairs or demolition and every such charge that remains unpaid shall constitute a lien against the property on which the emergency repairs or demolition were made and shall be enforceable in the same manner as provided in Articles 3 (§ 58.1-3490 et seq.) (§ 58.1-3940 et seq.) and 4 (§ 58.1-3965 et seq.) of Chapter 39 of Title 58.1 of the Code of Virginia.

Note: Code officials and local governing bodies should be aware that other statutes and court decisions may impact on matters relating to demolition, in particular whether newspaper publication is required if the owner cannot be located and whether the demolition order must be delayed until the owner has been given the opportunity for a hearing. In addition, historic building demolition may be prevented by authority granted to local historic review boards in accordance with § 15.2-2306 of the Code of Virginia unless determined necessary by the code official.

106.10 Closing of streets. When necessary for public safety, the code official shall be permitted to order the temporary closing of sidewalks, streets, public ways or premises adjacent to unsafe or unfit structures and prohibit the use of such spaces.

SECTION 107 APPEALS

107.1 Establishment of appeals board. In accordance with § 36-105 of the Code of Virginia, there shall be established within each local enforcing agency a LBBCA. Whenever a county or a municipality does not have such a LBBCA, the local governing body shall enter into an agreement with the local governing body of another county or municipality or with some other agency, or a state agency approved by DHCD for such appeals resulting therefrom. Fees may be levied by the local governing body in order to defray the cost of such appeals. The LBBCA for hearing appeals under the VCC shall be permitted to serve as the appeals board required by this section. The locality is responsible for maintaining a duly constituted LBBCA prepared to hear appeals within the time limits established in this section. The LBBCA shall meet as necessary to assure a duly constituted board, appoint officers as necessary, and receive such training on the code as may be appropriate or necessary from staff of the locality.

107.2 Membership of board. The LBBCA shall consist of at least five members appointed by the locality for a specific term of office established by written policy. Alternate members may be appointed to serve in the absence of any regular members and as such, shall have the full power and authority of the regular members. Regular and alternate members may be reappointed. Written records of current membership, including a record of the current chairman and secretary shall be *main-*

tained in the office of the locality. In order to provide continuity, the terms of the members may be of different length so that less than half will expire in any 1-year period.

107.3 Officers and qualifications of members. The LBBCA shall annually select one of its regular members to serve as chairman. When the chairman is not present at an appeal hearing, the members present shall select an acting chairman. The locality or the chief executive officer of the locality shall appoint a secretary to the LBBCA to maintain a detailed record of all proceedings. Members of the LBBCA shall be selected by the locality on the basis of their ability to render fair and competent decisions regarding application of the USBC and shall to the extent possible, represent different occupational or professional fields relating to the construction industry. At least one member should be an experienced builder; at least one member should be an RDP, and at least one member should be an experienced property manager. Employees or officials of the locality shall not serve as members of the LBBCA.

107.4 Conduct of members. No member shall hear an appeal in which that member has a conflict of interest in accordance with the State and Local Government Conflict of Interests Act (§ 2.2-3100 et seq. of the Code of Virginia). Members shall not discuss the substance of an appeal with any other party or their representatives prior to any hearings.

107.5 Right of appeal; filing of appeal application. Any person aggrieved by the local enforcing agency's application of this code or the refusal to grant a modification to the provisions of this code may appeal to the LBBCA. The applicant shall submit a written request for appeal to the LBBCA within 14 calendar days of the receipt of the decision being appealed. The application shall contain the name and address of the owner of the building or structure and, in addition, the name and address of the person appealing, when the applicant is not the owner. A copy of the code official's decision shall be submitted along with the application for appeal and *maintained* as part of the record. The application shall be marked by the LBBCA to indicate the date received. Failure to submit an application for appeal within the time limit established by this section shall constitute acceptance of a code official's decision.

107.6 Meetings and postponements. The LBBCA shall meet within 30 calendar days after the date of receipt of the application for appeal, except that a period of up to 45 calendar days shall be permitted where the LBBCA has regularly scheduled monthly meetings. A longer time period shall be permitted if agreed to by all the parties involved in the appeal. A notice indicating the time and place of the hearing shall be sent to the parties in writing to the addresses listed on the application at least 14 calendar days prior to the date of the hearing, except that a lesser time period shall be permitted if agreed to by all the parties involved in the appeal. When a quorum of the LBBCA is not present at a hearing to hear an appeal, any party involved in the appeal shall have the right to request a postponement of the hearing. The LBBCA shall reschedule the appeal within 30 calendar days of the postponement, except that a longer time period shall be permitted if agreed to by all the parties involved in the appeal.

107.7 Hearings and decision. All hearings before the LBBCA shall be open meetings and the appellant, the appellant's representative, the locality's representative and any person whose interests are affected by the code official's decision in question shall be given an opportunity to be heard. The chairman shall have the power and duty to direct the hearing, rule upon the acceptance of evidence and oversee the

"Any person who was a party to the appeal may appeal to the State Review Board by submitting an application to such Board within 21 calendar days upon receipt by certified mail of this decision. Application forms are available from the Office of the State Review Board, 600 East Main Street, Richmond, Virginia 23219, (804) 371-7150."

record of all proceedings. The LBBCA shall have the power to uphold, reverse or modify the decision of the official by a concurring vote of a majority of those present. Decisions of the LBBCA shall be final if no further appeal is made. The decision of the LBBCA shall be explained in writing, signed by the chairman and retained as part of the record of the appeal. Copies of the written decision shall be sent to all parties by certified mail. In addition, the written decision shall contain the following wording:

107.8 Appeals to the State Review Board. After final determination by the LBBCA in an appeal, any person who was a party to the appeal may further appeal to the State Review Board. In accordance with § 36-98.2 of the Code of Virginia for state-owned buildings and structures, appeals by an involved state agency from the decision of the code official for state-owned buildings or structures shall be made directly to the State Review Board. The application for appeal shall be made to the State Review Board within 21 calendar days of the receipt of the decision to be appealed. Failure to submit an application within that time limit shall constitute an acceptance of the code official's decision. For appeals from a LBBCA, a copy of the code official's decision and the written decision of the LBBCA shall be submitted with the application for appeal to the State Review Board. Upon request by the Office of the State Review Board, the LBBCA shall submit a copy of all pertinent information from the record of the appeal. In the case of appeals involving state-owned buildings or structures, the involved state agency shall submit a copy of the code official's decision and other relevant information with the application for appeal to the State Review Board. Procedures of the State Review Board are in accordance with Article 2 (§ 36-108 et seq.) of Chapter 6 of Title 36 of the Code of Virginia. Decisions of the State Review Board shall be final if no further appeal is made.

CHAPTER 2 DEFINITIONS

SECTION 201 GENERAL

201.1 Scope. Unless otherwise expressly stated, the following terms shall, for the purposes of this code, have the meanings shown in this chapter.

201.2 Interchangeability. Words stated in the present tense include the future; words stated in the masculine gender include the feminine and neuter; the singular number includes the plural and the plural, the singular.

201.3 Terms defined in other codes. Where terms are not defined in this code and are defined in the IBC, IFC, IFGC, IPC, IMC, *International Existing Building Code*, IRC, *International Zoning Code* or NFPA 70, such terms shall have the meanings ascribed to them as stated in those codes, except that terms defined in the VCC shall be used for this code and shall take precedence over other definitions.

201.4 Terms not defined. Where terms are not defined through the methods authorized by this section, such terms shall have ordinarily accepted meanings such as the context implies.

201.5 Parts. Whenever the words "dwelling unit," "dwelling," "premises," "building," "rooming unit," "housekeeping unit," or "story" are stated in this code, they shall be construed as though they were followed by the words "or part thereof."

SECTION 202 GENERAL DEFINITIONS

ANCHORED. Secured in a manner that provides positive connection.

APPLICABLE BUILDING CODE. The local or statewide building code and referenced standards in effect at the time the building or portion thereof was constructed, altered, renovated or underwent a change of occupancy. See Section 103 for the application of the code.

[A] APPROVED. Acceptable to the *code official*.

BASEMENT. That portion of a building which is partly or completely below grade.

BATHROOM. A room containing plumbing fixtures including a bathtub or shower.

BEDROOM. Any room or space used or intended to be used for sleeping purposes in either a dwelling or *sleeping unit*.

[A] CODE OFFICIAL. The official who is charged with the administration and enforcement of this code, or any duly authorized representative.

CONDEMN. (Definition deleted.)

COST OF SUCH DEMOLITION OR EMERGENCY

REPAIRS. (Definition deleted.)

DETACHED. When a structural element is physically disconnected from another and that connection is necessary to provide a positive connection.

DETERIORATION. To weaken, disintegrate, corrode, rust or decay and lose effectiveness.

[BG] DWELLING UNIT. A single unit providing complete, independent living facilities for one or more persons, including permanent provisions for living, sleeping, eating, cooking and sanitation.

[Z] EASEMENT. That portion of land or property reserved for present or future use by a person or agency other than the legal fee owner(s) of the property. The *easement* shall be permitted to be for use under, on or above a said lot or lots.

EQUIPMENT SUPPORT. (Definition deleted.)

EXTERIOR PROPERTY. The open space on the *premises* and on adjoining property under the control of owners or operators of such *premises*.

GARBAGE. The animal or vegetable waste resulting from the handling, preparation, cooking and consumption of food.

[BE] GUARD. A building component or a system of building components located at or near the open sides of elevated walking surfaces that minimizes the possibility of a fall from the walking surface to a lower level.

[BG] HABITABLE SPACE. Space in a structure for living, sleeping, eating or cooking. *Bathrooms, toilet rooms, closets, halls, storage or utility spaces, and similar areas* are not considered *habitable spaces*.

HISTORIC BUILDING. Any building or structure that is one or more of the following:

1. Listed or certified as eligible for listing, by the State Historic Preservation Officer or the Keeper of the National Register of Historic Places, in the National Register of Historic Places.
2. Designated as historic under an applicable state or local law.
3. Certified as a contributing resource within a National Register or state or locally designated historic district.

HOUSEKEEPING UNIT. A room or group of rooms forming a single *habitable space* equipped and intended to be used for living, sleeping, cooking and eating which does not contain, within such a unit, a toilet, lavatory and bathtub or shower.

IMMINENT DANGER. A condition which could cause serious or life-threatening injury or death at any time.

INFESTATION. The presence, within or contiguous to, a structure or *premises* of insects, rodents, vermin or other pests.

INOPERABLE MOTOR VEHICLE. (Definition deleted.)

[A] LABELED. (Definition deleted.)

DEFINITIONS

LET FOR OCCUPANCY or LET. To permit, provide or offer possession or *occupancy* of a dwelling, *dwelling unit*, *rooming unit*, building, premise or structure by a person who is or is not the legal *owner* of record thereof, pursuant to a written or unwritten lease, agreement or license, or pursuant to a recorded or unrecorded agreement of contract for the sale of land.

MAINTAINED. To keep unimpaired in an appropriate condition, operation, and continuance as installed in accordance with the *applicable building code*, or as previously approved, and in accordance with the applicable operational and maintenance provisions of this code.

NEGLECT. (Definition deleted.)

[A] OCCUPANCY. The purpose for which a building or portion thereof is utilized or occupied.

OCCUPANT. Any individual living or sleeping in a building, or having possession of a space within a building.

OPENABLE AREA. (Definition deleted.)

OPERATOR. Any person who has charge, care or control of a structure or *premises* which is let or offered for *occupancy*.

[A] OWNER. Any person, agent, *operator*, firm or corporation having legal or equitable interest in the property; or recorded in the official records of the state, county or municipality as holding title to the property; or otherwise having control of the property, including the guardian of the estate of any such person, and the executor or administrator of the estate of such person if ordered to take possession of real property by a court.

PERSON. An individual, corporation, partnership or any other group acting as a unit.

PEST ELIMINATION. (Definition deleted.)

[A] PREMISES. A lot, plot or parcel of land, *easement* or *public way*, including any structures thereon.

[A] PUBLIC WAY. Any street, alley or similar parcel of land essentially unobstructed from the ground to the sky, which is deeded, dedicated or otherwise permanently appropriated to the public for public use.

ROOMING HOUSE. A building arranged or occupied for lodging, with or without meals, for compensation and not occupied as a one- or two-family dwelling.

ROOMING UNIT. Any room or group of rooms forming a single habitable unit occupied or intended to be occupied for sleeping or living, but not for cooking purposes.

RUBBISH. Combustible and noncombustible waste materials, except garbage; the term shall include the residue from the burning of wood, coal, coke and other combustible materials, paper, rags, cartons, boxes, wood, excelsior, rubber, leather, tree branches, *yard trimmings*, tin cans, metals, mineral matter, glass, crockery and dust and other similar materials.

[BG] SLEEPING UNIT. A room or space in which people sleep, which can also include permanent provisions for living, eating and either sanitation or kitchen facilities, but not both. Such rooms and spaces that are also part of a *dwelling unit* are not *sleeping units*.

STRICT LIABILITY OFFENSE. (Definition deleted.)

[A] STRUCTURE. That which is built or constructed or a portion thereof.

STRUCTURE UNFIT FOR HUMAN OCCUPANCY. An existing structure determined by the code official to be dangerous to the health, safety and welfare of the occupants of the structure or the public because (i) of the degree to which the structure is in disrepair or lacks maintenance, ventilation, illumination, sanitary or heating facilities or other essential equipment, or (ii) the required plumbing and sanitary facilities are inoperable.

TENANT. A person, corporation, partnership or group, whether or not the legal *owner* of record, occupying a building or portion thereof as a unit.

TOILET ROOM. A room containing a water closet or urinal but not a bathtub or shower.

ULTIMATE DEFORMATION. (Definition deleted.)

UNSAFE EQUIPMENT. *Unsafe equipment* includes any boiler, heating equipment, elevator, moving stairway, electrical wiring or device, flammable liquid containers or other equipment that is in such disrepair or condition that such equipment is determined by the code official to be dangerous to the health, safety and welfare of the occupants of a structure or the public.

UNSAFE STRUCTURE. An existing structure (i) determined by the code official to be dangerous to the health, safety and welfare of the occupants of the structure or the public; (ii) that contains *unsafe equipment*; or (iii) that is so damaged, decayed, dilapidated, structurally unsafe or of such faulty construction or unstable foundation that partial or complete collapse is likely. A vacant existing structure unsecured or open shall be deemed to be an *unsafe structure*.

[M] VENTILATION. The natural or mechanical process of supplying conditioned or unconditioned air to, or removing such air from, any space.

WORKMANLIKE. (Definition deleted.)

[Z] YARD. An open space on the same lot with a structure.

CHAPTER 3
GENERAL REQUIREMENTS

SECTION 301
GENERAL

301.1 Scope. The provisions of this chapter shall govern the minimum conditions for the maintenance of structures and equipment and for the maintenance of exterior property to the extent that this code is applicable.

301.2 Responsibility. (Section deleted.)

301.3 Vacant structures. Vacant structures shall be *maintained* in a clean, safe, secure, and sanitary condition as provided for in this code.

SECTION 302
EXTERIOR PROPERTY AREAS

302.1 Sanitation. (Section deleted.)

302.2 Grading and drainage. All premises shall be graded and *maintained* to protect the foundation walls or slab of the structure from the accumulation and drainage of surface or stagnant water in accordance with the *applicable building code*.

302.3 Sidewalks and driveways. All sidewalks, walkways, stairs, driveways, parking spaces, and similar spaces regulated under the VCC shall be kept in a proper state of repair and *maintained* free from hazardous conditions.

302.4 Weeds. (Section deleted.)

302.5 Rodent harborage. All structures and adjacent premises shall be kept free from rodent harborage and infestation where such harborage or infestation adversely affects the structures.

302.6 Exhaust vents. (Section deleted.)

302.7 Accessory structures. Accessory structures, including detached garages, fences and walls, shall be maintained structurally sound and in good repair.

302.8 Motor vehicles. (Section deleted.)

302.9 Defacement of property. (Section deleted.)

SECTION 303
SWIMMING POOLS, SPAS AND HOT TUBS

303.1 Swimming pools. Swimming pools shall be maintained in a clean and sanitary condition, and in good repair.

303.2 Enclosures. Swimming pool, hot tub, and spa barriers shall be *maintained* as required by the code or ordinance under which such barriers were constructed.

SECTION 304
EXTERIOR STRUCTURE

304.1 General. The exterior of a structure shall be *maintained* in good repair, structurally sound, and sanitary so as not to pose a threat to the health, safety, or welfare.

304.1.1 Unsafe conditions. (Section deleted.)

304.2 Protective treatment. Exterior surfaces, including but not limited to, doors, door and window frames, cornices, porches, trim, balconies, decks and fences, shall be maintained in good condition. Exterior wood surfaces, other than decay-resistant woods, shall be protected from the elements and decay by painting or other protective covering or treatment. Peeling, flaking and chipped paint shall be eliminated and surfaces repainted. Siding and masonry joints, as well as those between the building envelope and the perimeter of windows, doors and skylights, shall be maintained weather resistant and water tight. Metal surfaces subject to rust or corrosion shall be coated to inhibit such rust and corrosion, and surfaces with rust or corrosion shall be stabilized and coated to inhibit future rust and corrosion. Oxidation stains shall be removed from exterior surfaces. Surfaces designed for stabilization by oxidation are exempt from this requirement.

[F] 304.3 Premises identification. Address numbers of buildings shall be *maintained* when required by the *applicable building code* or when required by ordinance.

304.4 Structural members. Structural members shall be maintained free from *deterioration*, and shall be capable of safely supporting the imposed dead and live loads.

304.5 Foundation walls. Foundation walls shall be maintained plumb and free from open cracks and breaks and shall be kept in such condition so as to prevent the entry of rodents and other pests.

304.6 Exterior walls. Exterior walls shall be free from holes, breaks, and loose or rotting materials; and maintained weatherproof and properly surface coated where required to prevent *deterioration*.

304.7 Roofs and drainage. The roof and flashing shall be sound, tight, and not have defects that admit rain. Roof drainage shall be adequate to prevent dampness or deterioration in the walls or interior portion of the structure. Roof water shall be discharged in a manner to protect the foundation or slab of buildings and structures from the accumulation of roof drainage.

304.8 Decorative features. Cornices, belt courses, corbels, terra cotta trim, wall facings and similar decorative features shall be maintained in good repair with proper anchorage and in a safe condition.

304.9 Overhang extensions. Overhang extensions including, but not limited to, canopies, marquees, signs, metal awnings, fire escapes, standpipes and exhaust ducts shall be maintained in good repair and be properly *anchored* so as to be kept in a sound condition. Where required, all exposed surfaces of metal or wood shall be protected from the elements and against decay or rust by periodic application of weather-coating materials, such as paint or similar surface treatment.

304.10 Stairways, decks, porches and balconies. Every exterior stairway, deck, porch and balcony, and all appurte-

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ances attached thereto, shall be maintained structurally sound, in good repair, with proper anchorage and capable of supporting the imposed loads.

304.11 Chimneys and towers. Chimneys, cooling towers, smoke stacks, and similar appurtenances shall be maintained structurally safe and sound, and in good repair. Exposed surfaces of metal or wood shall be protected from the elements and against decay or rust by periodic application of weather-coating materials, such as paint or similar surface treatment.

304.12 Handrails and guards. Every handrail and *guard* shall be firmly fastened and capable of supporting normally imposed loads and shall be maintained in good condition.

304.13 Window, skylight and door frames. Every window, skylight, door and frame shall be kept in sound condition, good repair and weather tight.

304.13.1 Glazing. Glazing materials shall be maintained free from cracks and holes.

304.13.2 Openable windows. Every window, other than a fixed window, shall be easily openable and capable of being held in position by window hardware.

304.14 Insect screens. During the period from April 1 to December 1, every door, window, and other outside opening required for ventilation of habitable rooms, food preparation areas, food service areas, or any areas where products to be included or utilized in food for human consumption are processed, manufactured, packaged, or stored shall be supplied with an approved tightly fitting screens of not less than 16 mesh per inch (16 mesh per 25 mm) and every screen door used for insect control shall have a self-closing device in good working condition.

Exception: Screens shall not be required where other approved means, such as mechanical ventilation, air curtains, or insect repellent fans, are used.

304.15 Doors. Exterior doors, door assemblies, operator systems if provided, and hardware shall be maintained in good condition. Locks at all entrances to dwelling units and sleeping units shall tightly secure the door. Locks on means of egress doors shall be in accordance with Section 702.3.

304.16 Basement hatchways. Every *basement* hatchway shall be maintained to prevent the entrance of rodents, rain and surface drainage water.

304.17 Guards for basement windows. Every *basement* window that is openable shall be supplied with rodent shields, storm windows or other *approved* protection against the entry of rodents.

304.18 Building security. Devices designed to provide security for the occupants and property within, when required by the *applicable building code*, or when provided, shall be *maintained* unless their removal is approved by the building official under the VCC.

304.18.1 Doors. (Section deleted.)

304.18.2 Windows. (Section deleted.)

304.18.3 Basement hatchways. (Section deleted.)

304.19 Gates. To the extent required by the *applicable building code* or to the extent provided when constructed, exterior

gates, gate assemblies, operator systems if provided, and hardware shall be *maintained* in good condition. Latches at all entrances shall tightly secure the gates.

SECTION 305 INTERIOR STRUCTURE

305.1 General. The interior of a structure and equipment therein shall be *maintained* in good repair, structurally sound, and in a sanitary condition.

305.1.1 Unsafe conditions. (Section deleted.)

305.2 Structural members. Structural members shall be maintained structurally sound, and be capable of supporting the imposed loads.

305.3 Interior surfaces. Interior surfaces, including windows and doors, shall be maintained in good, clean and sanitary condition. Peeling, chipping, flaking or abraded paint shall be repaired, removed or covered. Cracked or loose plaster, decayed wood and other defective surface conditions shall be corrected.

305.4 Stairs and walking surfaces. Every stair, ramp, landing, balcony, porch, deck or other walking surface shall be maintained in sound condition and good repair.

305.5 Handrails and guards. Every handrail and *guard* shall be firmly fastened and capable of supporting normally imposed loads and shall be maintained in good condition.

305.6 Interior doors. Every interior door shall fit reasonably well within its frame and shall be capable of being opened and closed by being properly and securely attached to jambs, headers or tracks as intended by the manufacturer of the attachment hardware.

305.7 Carbon monoxide alarms. Carbon monoxide alarms shall be *maintained* as approved.

SECTION 306 COMPONENT SERVICEABILITY Deleted

SECTION 307 HANDRAILS AND GUARDRAILS

307.1 General. Handrails and guards required by the *applicable building code* or which were provided when a building was constructed shall be *maintained*.

SECTION 308 RUBBISH AND GARBAGE

308.1 Accumulation of rubbish or garbage. The interior of every structure shall be free from excessive accumulation of rubbish or garbage.

308.2 Disposal of rubbish. (Section deleted.)

308.2.1 Rubbish storage facilities. (Section deleted.)

308.2.2 Refrigerators. (Section deleted.)

- 308.3 Disposal of garbage. (Section deleted.)
- 308.3.1 Garbage facilities. (Section deleted.)
- 308.3.2 Containers. (Section deleted.)

**SECTION 309
PEST INFESTATION AND EXTERMINATION**

- 309.1 Infestation. This section shall apply to the extent that insect and rodent infestation adversely affects a structure. All structures shall be kept free from insect and rodent infestation. Structures in which insects or rodents are found shall be promptly exterminated by approved processes that will not be injurious to human health. After extermination, proper precautions shall be taken to prevent reinfestation.
- 309.2 Owner. (Section deleted.)
- 309.3 Single occupant. (Section deleted.)
- 309.4 Multiple occupancy. (Section deleted.)
- 309.5 Occupant. (Section deleted.)

**SECTION 310
LEAD-BASED PAINT**

310.1 General. Interior and exterior painted surfaces of dwellings and child care facilities, including fences and out-buildings, that contain lead levels equal to or greater than 1.0 milligram per square centimeter or in excess of 0.50-percent lead by weight shall be *maintained* in a condition free from peeling, chipping, and flaking paint or removed or covered in an approved manner. Any surface to be covered shall first be identified by an approved warning as to the lead content of such surface.

**SECTION 311
ABOVEGROUND LIQUID
FERTILIZER STORAGE TANKS (ALFST)**

311.1 General. ALFSTs shall be *maintained* in accordance with the requirements of Section 1101.16 of the VEBC and the requirements of the VCC applicable to such ALFSTs when newly constructed and the requirements of the VEBC when undergoing a change of occupancy to an ALFST and when repaired, altered, or reconstructed, including the requirements for inspections and for a secondary containment system.

§ 15.2-906. Authority to require removal, repair, etc., of buildings and other structures

Any locality may, by ordinance, provide that:

1. The owners of property therein, shall at such time or times as the governing body may prescribe, remove, repair or secure any building, wall or any other structure that might endanger the public health or safety of other residents of such locality;
2. The locality through its own agents or employees may remove, repair or secure any building, wall or any other structure that might endanger the public health or safety of other residents of such locality, if the owner and lienholder of such property, after reasonable notice and a reasonable time to do so, has failed to remove, repair, or secure the building, wall or other structure. For purposes of this section, repair may include maintenance work to the exterior of a building to prevent deterioration of the building or adjacent buildings. For purposes of this section, reasonable notice includes a written notice (i) mailed by certified or registered mail, return receipt requested, sent to the last known address of the property owner and (ii) published once a week for two successive weeks in a newspaper having general circulation in the locality. No action shall be taken by the locality to remove, repair, or secure any building, wall, or other structure for at least 30 days following the later of the return of the receipt or newspaper publication, except that the locality may take action to prevent unauthorized access to the building within seven days of such notice if the structure is deemed to pose a significant threat to public safety and such fact is stated in the notice;
3. In the event that the locality, through its own agents or employees, removes, repairs, or secures any building, wall, or any other structure after complying with the notice provisions of this section or as otherwise permitted under the Virginia Uniform Statewide Building Code in the event of an emergency, the cost or expenses thereof shall be chargeable to and paid by the owners of such property and may be collected by the locality as taxes are collected;
4. Every charge authorized by this section or § 15.2-900 with which the owner of any such property has been assessed and that remains unpaid shall constitute a lien against such property ranking on a parity with liens for unpaid local real estate taxes and enforceable in the same manner as provided in Articles 3 (§ 58.1-3940 et seq.) and 4 (§ 58.1-3965 et seq.) of Chapter 39 of Title 58.1. A locality may waive such liens in order to facilitate the sale of the property. Such liens may be waived only as to a purchaser who is unrelated by blood or marriage to the owner and who has no business association with the owner. All such liens shall remain a personal obligation of the owner of the property at the time the liens were imposed;
5. Notwithstanding the foregoing, with the written consent of the property owner, a locality may, through its agents or employees, demolish or remove a derelict nonresidential building or structure provided that such building or structure is neither located within or determined to be a contributing property within a state or local historic district nor individually designated in the Virginia Landmarks Register. The property owner's written consent shall identify whether the property is subject to a first lien evidenced by a recorded deed of trust or mortgage and, if so, shall document the property owner's best reasonable efforts to obtain the consent of the first

lienholder or the first lienholder's authorized agent. The costs of such demolition or removal shall constitute a lien against such property. In the event the consent of the first lienholder or the first lienholder's authorized agent is obtained, such lien shall rank on a parity with liens for unpaid local taxes and be enforceable in the same manner as provided in subdivision 4. In the event the consent of the first lienholder or the first lienholder's authorized agent is not obtained, such lien shall be subordinate to that first lien but shall otherwise be subject to subdivision 4; and

6. A locality may prescribe civil penalties, not to exceed a total of \$1,000, for violations of any ordinance adopted pursuant to this section.

1968, c. 423, § 15.1-11.2; 1992, c. 372; 1994, c. 505; 1995, c. 651; 1996, c. 235; 1997, c. 587; 1999, c. 174; 2003, c. 207; 2004, c. 968; 2006, c. 460; 2013, cc. 734, 770; 2017, cc. 118, 400, 610.

The chapters of the acts of assembly referenced in the historical citation at the end of this section may not constitute a comprehensive list of such chapters and may exclude chapters whose provisions have expired.