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**APPENDIX E – LUNENBURG COUNTY, TOWNS OF KENBRIDGE AND VICTORIA**

Hazard Rankings

Status of Mitigation Actions

Building Permit Data

Land Use Cover Map

Future Land Use Maps

Critical Facilities Maps

Flood Zone Map

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## **Hazard Rankings – Lunenburg Co. (From Qualitative Assessment and Local Input)**

Hazard	Likelihood	Spatial Extent	Potential Impact	HAZARD RATING
Severe Thunderstorms and Tornadoes	2	3	2	7
Hurricanes and Tropical Storms	1	3	2	6
Winter Storms	1	3	2	6
Drought	2	3	1	6
Flood	1	1	1	3
Wildfire	1	1	1	3
Erosion	1	1	1	3
Earthquakes	0	1	1	2
Dam/Levee Failure	0	1	1	2
Landslides	0	1	1	2
Sinkholes	0	1	1	2

Hazard rankings are based on a qualitative assessment, as described below. The values assigned for each option chosen are added together for each hazard to arrive at a total score.

	Assigned Value	Definition
<b>Likelihood of Occurrence</b>		
Highly Likely	3	Near 100% annual probability
Likely	2	Between 10 and 100% annual probability
Possible	1	Between 1 and 10% annual probability
Unlikely	0	Less than 1% annual probability
<b>Spatial Extent</b>		
Large	3	More than 50% of area affected
Moderate	2	Between 10 and 50% of area affected
Small	1	Less than 10% of area affected
<b>Potential Impact</b>		
Catastrophic	4	High number of deaths/injuries possible. More than 50% of property in affected area damaged or destroyed. Complete shutdown of facilities for 30 days or more.
Critical	3	Multiple deaths/injuries possible. More than 25% of property in affected area damaged or destroyed. Complete shutdown of facilities for more than one week.
Limited	2	Minor injuries only. More than 10% of property in affected area damaged or destroyed. Complete shutdown of facilities for more than one day.
Minor	1	Very few injuries, if any. Only minor property damage and minimal disruption on quality of life. Temporary shutdown of facilities.

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## Detailed Information/Status of Local Mitigation Actions (includes detailed data for each action, as requested by FEMA)

### Lunenburg County

<b>Lunenburg County Mitigation Action 1</b>	<b>Conduct a cumulative impact analysis/studies for flood-prone property and roads within the watershed.</b>
<b>Category:</b>	Prevention
<b>Hazard(s) Addressed:</b>	Flood
<b>Priority (High, Moderate, Low):</b>	Moderate
<b>Estimated Cost:</b>	\$30,000
<b>Potential Funding Sources:</b>	County would likely seek grant funding
<b>Lead Agency/Department Responsible:</b>	County Administration, possibly with help from CRC/VDOT
<b>Implementation Schedule:</b>	Dependant on availability of funding
<b>Status: No action taken – lack of funding/staff resources</b>	

<b>Lunenburg County Mitigation Action 2</b>	<b>Designate and prepare safety shelter in several locations in the County.</b>
<b>Category:</b>	Prevention
<b>Hazard(s) Addressed:</b>	Multiple
<b>Priority (High, Moderate, Low):</b>	High/Moderate
<b>Estimated Cost:</b>	\$100,000
<b>Potential Funding Sources:</b>	County would likely seek FEMA, VDEM grants
<b>Lead Agency/Department Responsible:</b>	County Administration, possibly in conjunction with local fire departments and rescue squads
<b>Implementation Schedule:</b>	Dependant on availability of funding
<b>Status: Ongoing. One shelter ready in Kenbridge (Emergency Squad – generator installed with the help of a USDA grant). Meherrin Fire Department and Victoria Fire Department also designated as shelters. County is working on setting up Lunenburg Middle School and Kenbridge Fire Department as shelters.</b>	

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<b>Lunenburg County Mitigation Action 3</b>		<b>Encourage or require burial of electrical, phone and cable lines.</b>
<b>Category:</b>	Prevention, Structural Project	
<b>Hazard(s) Addressed:</b>	Multiple	
<b>Priority (High, Moderate, Low):</b>	Moderate	
<b>Estimated Cost:</b>	Could be minimal if only changing codes, offering incentives	
<b>Potential Funding Sources:</b>	N/A if cost minimal	
<b>Lead Agency/Department Responsible:</b>	County Administration/Board of Supervisors	
<b>Implementation Schedule:</b>	Short term (if little or no cost)	
<b>Status: No action taken – lack of staff resources. The County may investigate zoning or building code changes to address this.</b>		

<b>Lunenburg County Mitigation Action 4</b>		<b>Require construction of "safe rooms" in new schools, day care and rest homes.</b>
<b>Category:</b>	Prevention, Structural Projects	
<b>Hazard(s) Addressed:</b>	Tornado	
<b>Priority (High, Moderate, Low):</b>	High/Moderate	
<b>Estimated Cost:</b>	Minimal or none – change to codes	
<b>Potential Funding Sources:</b>	N/a	
<b>Lead Agency/Department Responsible:</b>	County PC, BOS, Building Official	
<b>Implementation Schedule:</b>	Short term	
<b>Status: No action taken – lack of staff resources. The County may investigate zoning or building code changes to address this.</b>		

<b>Lunenburg County Mitigation Action 5</b>		<b>Identify and clear fuel loads evented by downed trees.</b>
<b>Category:</b>	Property Protection	
<b>Hazard(s) Addressed:</b>	Multiple	
<b>Priority (High, Moderate, Low):</b>	Moderate	
<b>Estimated Cost:</b>	If done by fire departments, minimal or none	
<b>Potential Funding Sources:</b>	N/A if done by fire departments	
<b>Lead Agency/Department Responsible:</b>	County Administration, possibly with local fire departments/ Virginia Department of Forestry	
<b>Implementation Schedule:</b>	Dependant on availability of funding	
<b>Status: No action taken – lack of staff resources. The County may investigate working with the Virginia Department of Forestry to address this.</b>		

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<b>Lunenburg County Mitigation Action 6</b>	<b>Develop/update water management/emergency response plan.</b>	
<b>Category:</b>	Emergency Services, Prevention	
<b>Hazard(s) Addressed:</b>	Drought	
<b>Priority (High, Moderate, Low):</b>	High/Moderate	
<b>Estimated Cost:</b>	Cost of planning	
<b>Potential Funding Sources:</b>	If any significant cost, County would likely seek grant funding	
<b>Lead Agency/Department Responsible:</b>	County Administration	
<b>Implementation Schedule:</b>	Dependant on availability of funding	
<b>Status: Underway, as part of regional Plan (with help from CRC)</b>		

<b>Lunenburg County Mitigation Action 7</b>	<b>Establish a "hazard awareness week" in coordination with the media to promote hazard awareness (seasonal).</b>	
<b>Category:</b>	Public Education and Outreach	
<b>Hazard(s) Addressed:</b>	Multiple	
<b>Priority (High, Moderate, Low):</b>	Moderate	
<b>Estimated Cost:</b>	None	
<b>Potential Funding Sources:</b>	N/a	
<b>Lead Agency/Department Responsible:</b>	County Administration, local VDEM office	
<b>Implementation Schedule:</b>	Short term	
<b>Status: Ongoing. The County participates in Tornado Preparedness day each March.</b>		

Lunenburg County has added one (1) mitigation action, as seen below.

<b>Lunenburg County New Mitigation Action</b>	<b>Prohibit or limit floodplain development through regulatory and/or incentive-based measures.</b>	
<b>Category:</b>	Prevention/Property Protection	
<b>Hazard(s) Addressed:</b>	Flood	
<b>Priority (High, Moderate, Low):</b>	Moderate	
<b>Estimated Cost:</b>	None – would only involve changes to ordinances	
<b>Potential Funding Sources:</b>	N/A	
<b>Lead Agency/Department Responsible:</b>	County Planning Department	
<b>Implementation Schedule:</b>	Short/near term	
<b>Status: Ongoing – enforced through the County's Zoning Ordinance (has a section on flood hazard areas).</b>		

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## Town of Kenbridge

<b>Kenbridge Mitigation Action 1</b>	<b>Develop plan to better control storm water drainage and inflow into sewer lines that constantly cause flooding problems to our wastewater treatment plant.</b>
<b>Category:</b>	Prevention
<b>Hazard(s) Addressed:</b>	Flood
<b>Priority (High, Moderate, Low):</b>	High
<b>Estimated Cost:</b>	Planning plus any required construction
<b>Potential Funding Sources:</b>	Town would likely seek grant funding
<b>Lead Agency/Department Responsible:</b>	Town staff
<b>Implementation Schedule:</b>	Dependant on availability of funding
<b>Status: No action taken – lack of funding/staff resources</b>	

## Town of Victoria

<b>Victoria Mitigation Action 1</b>	<b>Purchase generators for critical facilities and shelter to provide emergency power during a blackout (i.e. medical centers).</b>
<b>Category:</b>	Emergency Services
<b>Hazard(s) Addressed:</b>	Multiple
<b>Priority (High, Moderate, Low):</b>	High
<b>Estimated Cost:</b>	\$50,000 - \$75,000
<b>Potential Funding Sources:</b>	Town would seek grant funds to help offset costs
<b>Lead Agency/Department Responsible:</b>	Town staff
<b>Implementation Schedule:</b>	Dependant on availability of funding
<b>Status: Ongoing. One generator was donated by the County. However, it was not compatible with the equipment it needed to run. The Town is pursuing grant funding to purchase generators for water filtration plant and pumping station at Nottoway Falls, as well as three portable generators.</b>	

The Town of Victoria added one (1) new mitigation action, as seen below.

<b>Victoria New Mitigation Action</b>	<b>Install/replace storm water drainage system to prevent flooding of houses/buildings</b>
<b>Category:</b>	Prevention/Property Protection
<b>Hazard(s) Addressed:</b>	Flood
<b>Priority (High, Moderate, Low):</b>	High
<b>Estimated Cost:</b>	Depends on size of project and areas to be served – could range from Approx. \$100,000 to \$500,000
<b>Potential Funding Sources:</b>	FEMA grant, with local funding match
<b>Lead Agency/Department Responsible:</b>	Town staff
<b>Implementation Schedule:</b>	Dependant on availability of funding
<b>Status: No action taken – awaiting funding</b>	

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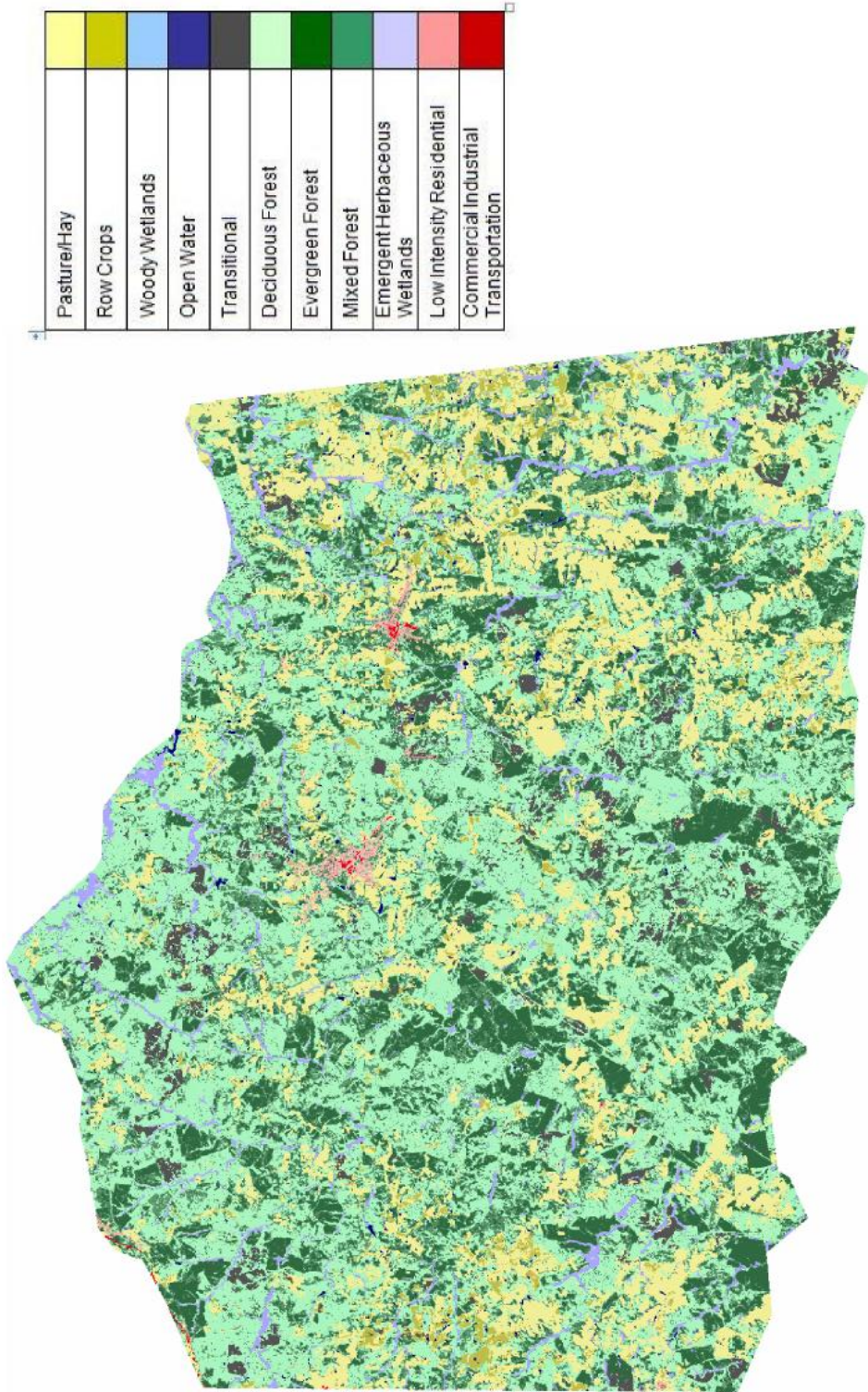
## **Building Permit Data – Lunenburg County**

Year	Residential Permits Issued	Commercial Permits Issued
2004	105	4
2005	112	4
2006	108	5
2007	93	3
2008	75	4
2009	64	3

NOTE: Building permits for the Towns of Kenbridge and Victoria are handled through the Lunenburg County Building Inspector's Office.

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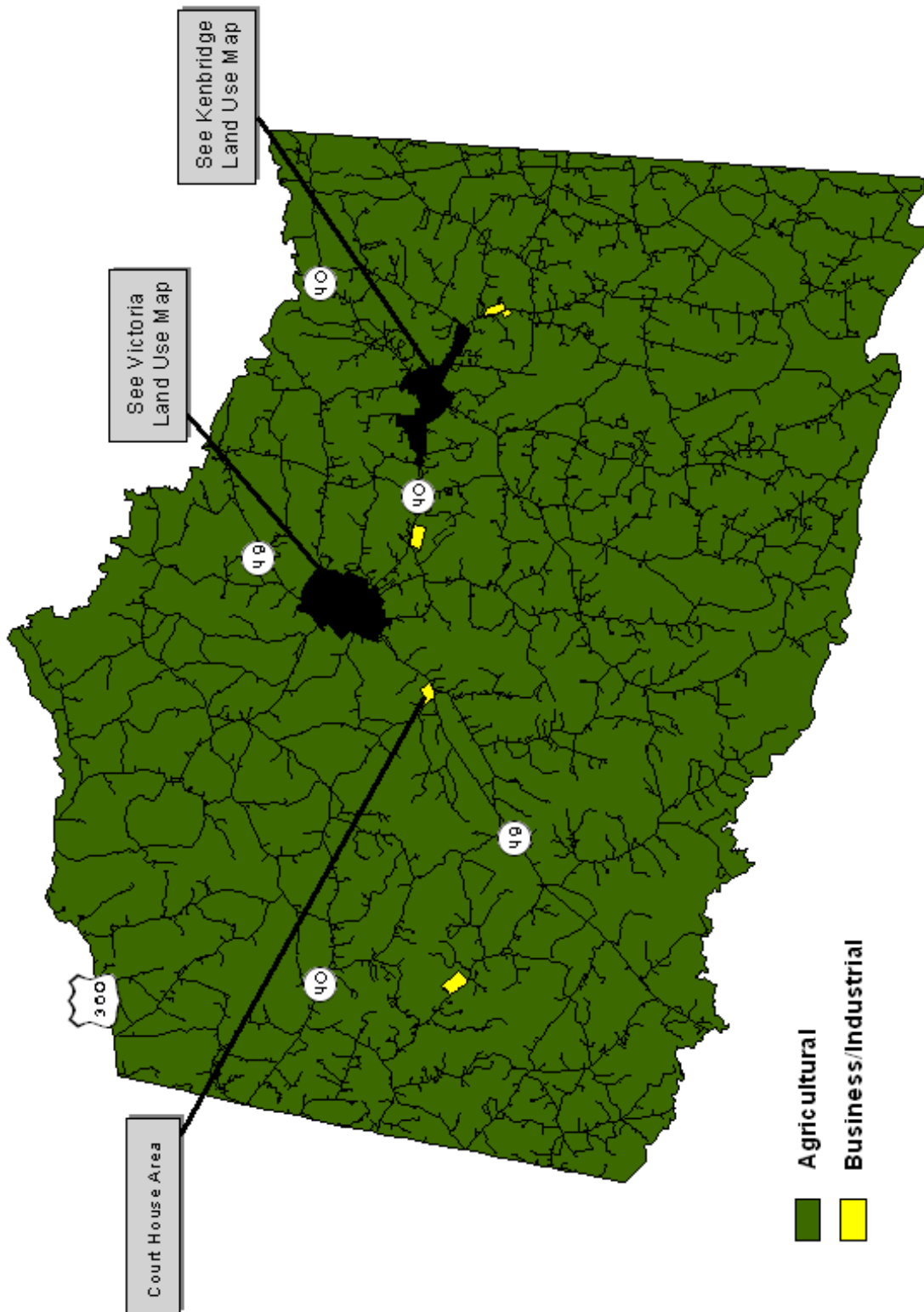
**Lunenburg County Land Use Cover Map**



Created by CRC - August 2010  
Source: National Land Cover Dataset, UVA Geostat Center

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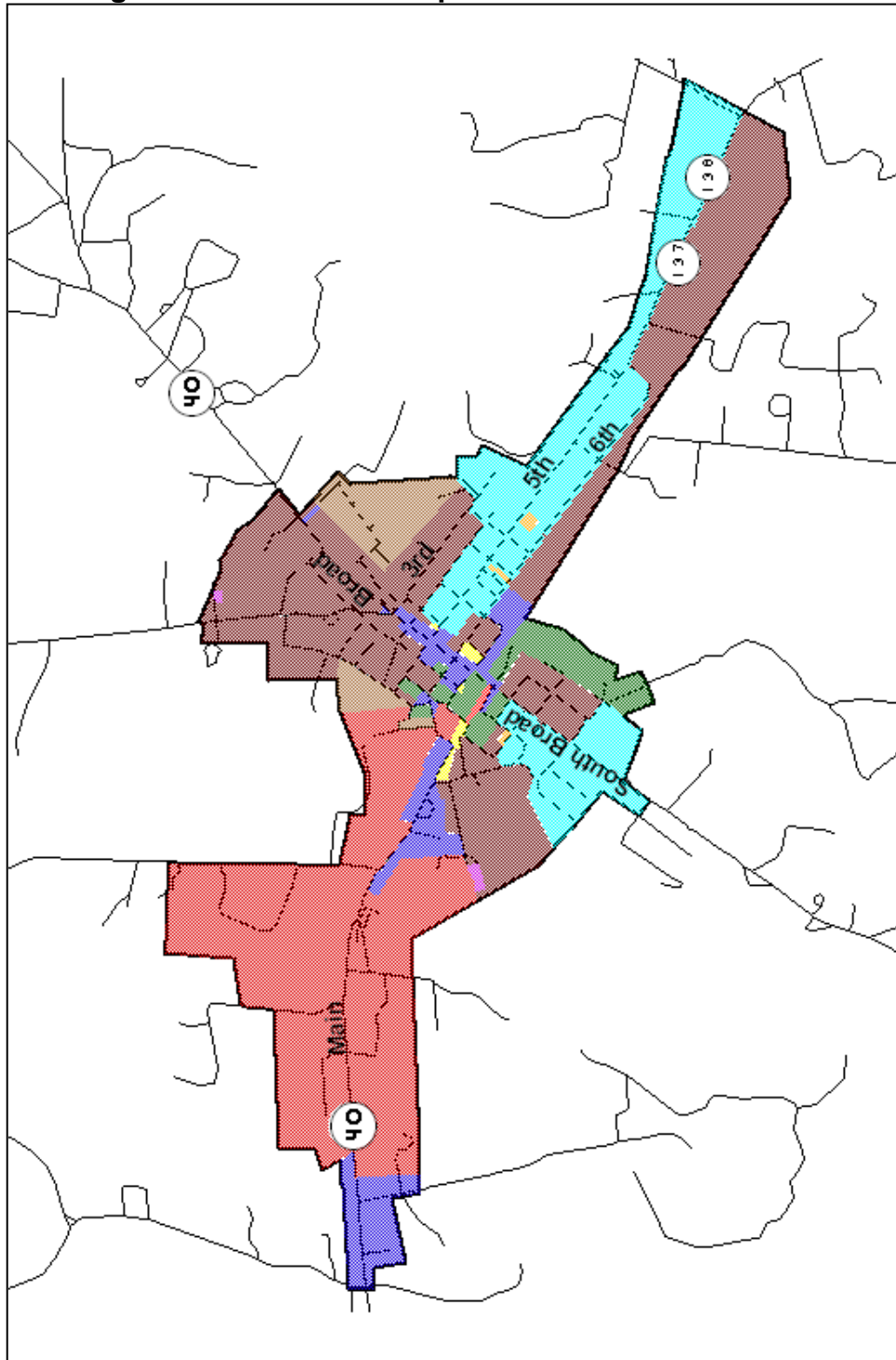
**Lunenburg County Future Land Use Map**












Map created by CRC – May 2006

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## Town of Kenbridge Future Land Use Map

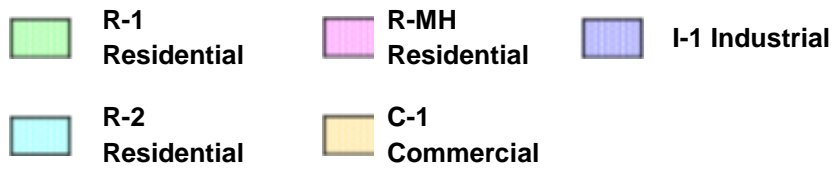
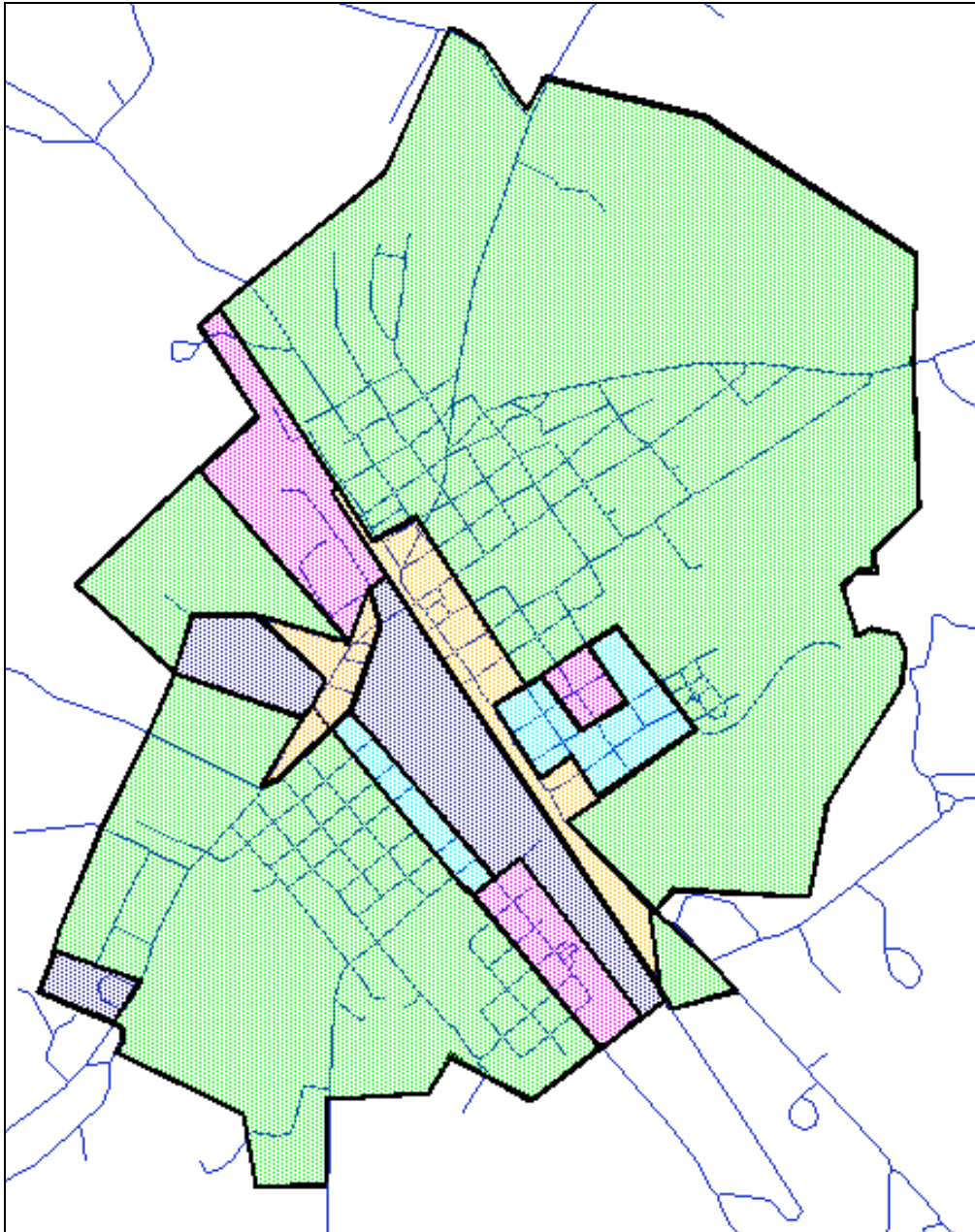


- |   |                  |   |                  |  |              |   |                |   |                |
|---|------------------|---|------------------|--|--------------|---|----------------|---|----------------|
|  | R-20 Residential |  | R-6 Residential  |   | Cemetery     |   | B-1 Business   |  | M-1 Industrial |
|  | R-10 Residential |  | R-6 Multi-Family |  | B-2 Business |  | M-2 Industrial |   |                |

Map created by CRC – May 2006

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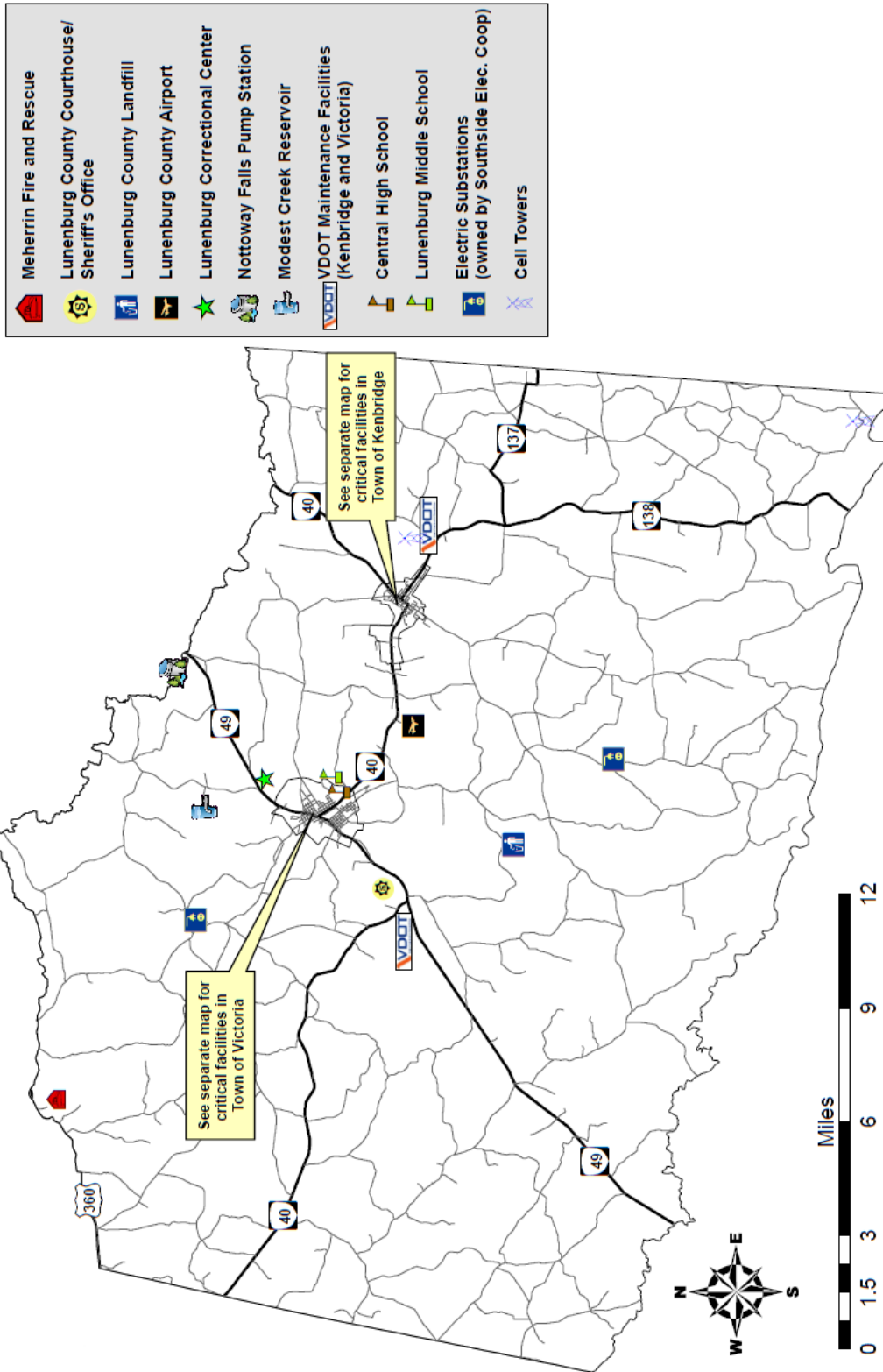
**Town of Victoria Future Land Use Map**



Map created by CRC – April 2006

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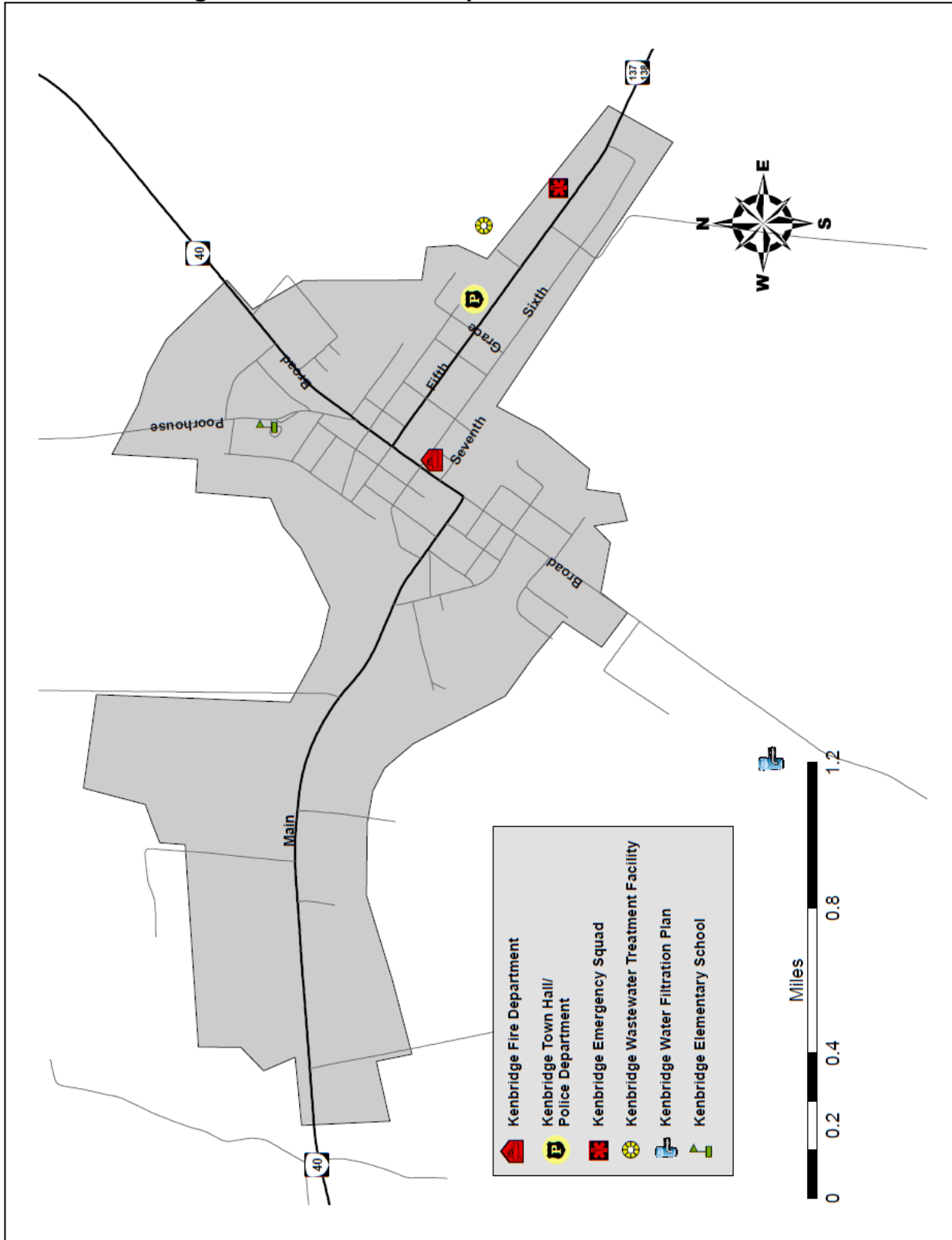
**Lunenburg County Critical Facilities Map**



Map created by CRC – February 2011

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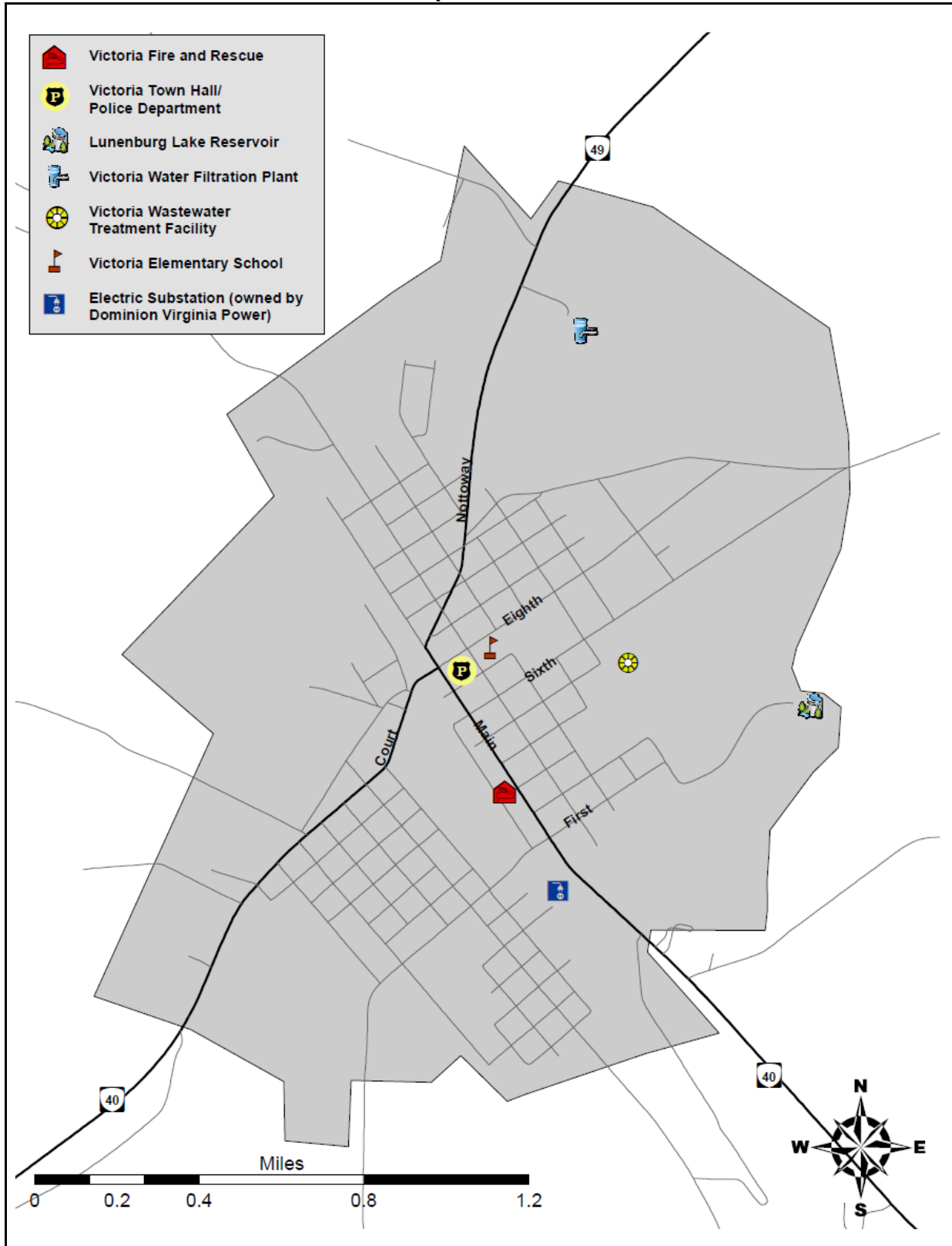
**Town of Kenbridge Critical Facilities Map**



Map created by CRC – February 2011

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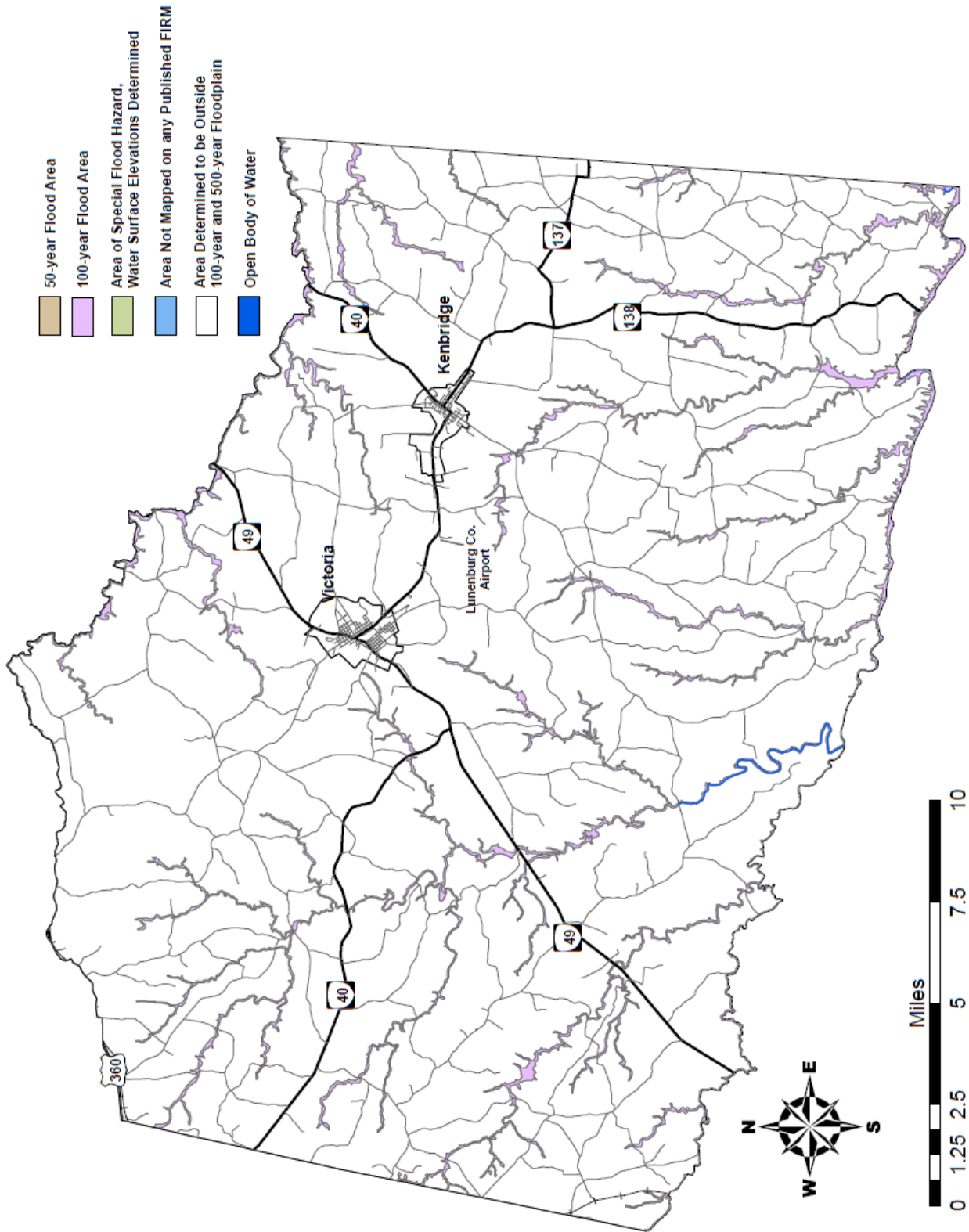
**Town of Victoria Critical Facilities Map**



Map created by CRC – February 2011

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**Lunenburg County Flood Zone Map**



Map created by CRC – February 2011