JLARC
JOINT LEGISLATIVE AUDIT AND REVIEW COMMISSION

Review of Disaster Preparedness Planning in Virginia

March 4, 2014

The Honorable John M. O'Bannon III, Chair
Joint Legislative Audit and Review Commission
General Assembly Building
Richmond, Virginia 23219

Dear Delegate O'Bannon:

House Joint Resolution 132 (2012) directed the Joint Legislative Audit and Review Commission (JLARC) to study the ongoing planning and preparedness efforts throughout the Commonwealth with regard to homeland security and emergency management.

The final report was briefed to the Commission and authorized for printing on October 15, 2013. On behalf of the Commission staff, I would like to thank the staff of the Office of the Secretary of Veterans Affairs and Homeland Security, the Office of the Secretary of Public Safety, and the Virginia Department of Emergency Management for their assistance during this review. I would also like to acknowledge the staff for all the agencies with responsibilities under the Commonwealth of Virginia Emergency Operations Plan, who have been very accommodating to our research team.

Sincerely,

Hal E. Greer
Director

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Acronyms

Automated Critical Asset Management System	ACAMS
Centers for Disease Control and Prevention	CDC
Commonwealth's Link to Interoperable Communications	COMLINC
Commonwealth of Virginia Emergency Operations Plan	COVEOP
United States Department of Homeland Security	DHS
Virginia Department of Mines, Minerals, and Energy	DMME
Virginia Department of Social Services	DSS
Emergency Support Function	ESF
Emergency Management Assistance Compact	EMAC
Federal Emergency Management Agency	FEMA
Full-time Equivalent	FTE
Fiscal Year	FY
Homeland Secure Data Network	HSDN
Homeland Security Grant Program	HSGP
Government Accountability Office	GAO
Local Capabilities Assessment for Readiness	LCAR
Memorandum of Understanding	MOU
National Terrorism Advisory System	NTAS
Office of Commonwealth Preparedness	OCP
Office of the Secretary of Veterans Affairs and Homeland Security	secretary's office
Planning District Commission	PDC
Public Health Emergency Preparedness Program	PHEP
Statewide Mutual Aid	SMA
Statewide Agencies Radio System	STARS
Threat and Hazard Identification and Risk Assessment	THIRA
Traffic Incident Management	TIM
Urban Areas Security Initiative	UASI
Virginia Department of Emergency Management	VDEM
Virginia Department of Health	VDH
Virginia Department of Transportation	VDOT
Virginia Modeling, Analysis, and Simulation Center	VMASC
Virginia State Police	VSP

JLARC Report Summary:

Review of Disaster Preparedness Planning in Virginia

Key Findings

- The State's primary strategic plan has not followed some desirable planning practices, which may have undermined the State's ability to direct grant funds toward the highest preparedness priorities. (Chapter 2)

- Virginia generally has strong disaster response plans in place, but the State should ensure that agency supporting plans are in place and corrective actions are addressed to facilitate the plan's successful execution during a disaster. (Chapter 3)

- State and local shelter and evacuation plans have deficiencies that could undermine Virginia's ability to respond to catastrophic disasters and compromise the safety of Hampton Roads residents. (Chapter 4)

- Federal grant programs have provided substantial support for preparedness activities in Virginia but funding levels are declining. The processes in place to manage these grants have improved but could be further refined. (Chapters 6,7)

- For preparedness initiatives to be implemented efficiently and effectively, the homeland security structure should be reorganized by assigning preparedness coordination and homeland security responsibilities to the Secretary of Public Safety, reorganized as the Office of the Secretary of Homeland Security and Public Safety. (Chapter 8)

The 2012 General Assembly approved House Joint Resolution (HJR) 132 requiring JLARC staff to "study the ongoing planning and preparedness efforts throughout the Commonwealth with regard to homeland security and emergency management" (Appendix A). The mandate requires JLARC to review a broad array of homeland security and emergency management areas. Specific items in the mandate direct JLARC to

- determine the status and quality of state and local homeland security and emergency management planning;

- review several aspects of Virginia's use and management of federal grants;

- determine whether the organization and management of homeland security within the Office of the Secretary of Veterans Affairs and Homeland Security is appropriate or would be better coordinated within another structure; and

- determine whether preparedness activities throughout the State are effectively improving state and local capabilities for prevention, protection, mitigation, response, and recovery.

To address the study mandate, JLARC staff interviewed State agency staff with responsibilities under the Commonwealth of Virginia Emergency Operations Plan; conducted site visits and phone surveys with local emergency management staff throughout the State; analyzed data on federal homeland security and emergency management grants awarded to Virginia; and reviewed federal guidance and academic literature on homeland security and emergency management. More detailed information about this study's research methods appears in Appendix B.

STATE AND LOCAL ENTITIES CONDUCT DISASTER PREPAREDNESS PLANNING

Virginia faces a broad range of potential disasters that include flooding, hurricanes, winter weather, technological failures such as hazardous materials spills, contagious disease outbreaks, and terrorist attacks. In recent decades, significant disasters in Virginia have included hurricanes, floods in Central and Southwest Virginia, and the terrorist attacks of September 11, 2001. More than a decade after 9/11, Virginia remains at risk for terrorist attacks involving methods such as improvised explosive devices, mass shootings, anthrax releases, and multiple coordinated attacks. The nature and potential impact of the disasters facing Virginia are evolving, as rising sea levels could result in more frequent and more severe flooding in coastal areas, and the threat of terrorism has evolved to also include U.S. born extremists and lone actors loosely affiliated with or inspired by al Qaeda.

Disaster preparedness efforts are undertaken to address all potential disasters through prevention, protection, mitigation, response, and recovery (table). All levels of government as well as private organizations and citizens share responsibility for disaster preparedness and play a role in responding to and recovering from disasters. Preparedness planning is a continuous process that involves developing plans, monitoring their status and quality, and revising plans to ensure they remain timely and accurate. Extensive coordination is required among many federal, State, local, and private entities to ensure they are appropriately involved in preparedness planning.

A broad range of strategic and operational plans guide preparedness efforts in Virginia. The Secure Commonwealth Strategic Plan establishes Virginia's preparedness priorities and guides the use of federal preparedness grant funds by State agencies and localities.

Disaster Preparedness Builds Capabilities to Support Five Categories of Preparedness

Preparedness Category	Example of Preparedness Capability
Prevention: Preventing a threatened or actual act of terrorism	• Sharing of intelligence among federal, state, local, and private entities • Screening, search, and detection of terrorist threats
Protection: Protecting individuals and infrastructure against the highest threats and disasters	• Physical protective measures to safeguard critical infrastructure and systems • Cybersecurity efforts to protect electronic communications systems and services
Mitigation: Mitigating the loss of life and property by lessening the impact of future disasters	• Identification of hazards and their incorporation into preparedness plans • Long-term reduction of vulnerability by building resilient communities
Response: Responding to a disaster to save lives, protect property and the environment, and meet basic human needs	• Mass care such as food, water, and shelter for affected individuals by a disaster • Transportation to support evacuation efforts and the delivery of personnel and resources
Recovery: Recovering from a disaster by restoring infrastructure, housing, and the economic health of communities	• Temporary and long-term housing solutions for individuals displaced by a disaster • Economic recovery that returns economic and business activities to a healthy state

Source: National Preparedness Goal, September 2011, U.S. Department of Homeland Security.

The Statewide Communications Interoperability Plan is the State's plan for improving interoperable communications. Prevention plans are largely maintained by the Virginia Fusion Center, which is the State's primary entity focused on terrorism prevention, and a protection plan exists to safeguard critical infrastructure in the State. The Commonwealth of Virginia Emergency Operations Plan (COVEOP) contains the State's plans for responding to and recovering from statewide disasters, and requires State agencies to develop supporting plans. Virginia's Standard Hazard Mitigation Plan, a companion plan to the COVEOP, guides State and local hazard mitigation efforts. Localities are required to maintain plans to support their disaster response, recovery, and mitigation efforts.

Multiple State and local entities are responsible for facilitating and coordinating preparedness planning in Virginia. The Secretary of Veterans Affairs and Homeland Security (secretary) serves as the State's homeland security advisor and has primary responsibility for coordinating Virginia's preparedness efforts among federal, State, local, and private entities. The secretary's office is also responsible for maintaining strategic and protection plans. The Virginia Department of Emergency Management (VDEM) has primary responsibility for planning the State's response, recovery, and mitigation efforts. To safeguard the lives and property of their citizens in the event of a disaster, localities develop plans to guide their response, recovery, and mitigation efforts.

STRATEGIC PLANS VARY IN USE OF DESIRABLE PLANNING PRACTICES

Virginia has a strategic preparedness framework in place, but the Secure Commonwealth Strategic Plan has been maintained without using some desirable planning practices, possibly undermining the State's ability to direct grant funds toward the highest preparedness priorities. The plan was developed from federal preparedness priorities, a reasonable methodology was used for assessing risks and capabilities, and input was solicited from most relevant stakeholders. However, the plan does not follow desirable planning practices needed to effectively monitor progress toward completing its goals. The report includes recommendations that the State follow all desirable practices when revising the strategic plan in 2013 and in future years.

The Statewide Communications Interoperability Plan generally follows desirable practices for strategic planning. The plan is developed from federal interoperability guidance, and substantial input from localities is solicited through regional meetings. The interoperability plan follows desirable planning practices for monitoring progress, but could be improved by measuring whether localities meet the Code of Virginia's requirement to achieve consistency with the interoperability plan by 2015.

STATE RESPONSE PLANS ARE GENERALLY STRONG BUT COULD BE FURTHER ENHANCED

The COVEOP is regarded as a strong and exemplary disaster response and recovery plan that follows federally-recommended planning practices. However, while most key State agencies have fully-developed supporting response and recovery plans, others do not, and the State lacks a system for monitoring the status and quality of these plans. The Code of Virginia currently does not give VDEM or the Secretary of Veterans Affairs and Homeland Security the authority to compel State agencies to maintain plans in support of the COVEOP. The report recommends requiring all State agencies with COVEOP roles to maintain supporting response and recovery plans and annually submit them to VDEM for review. The report also recommends that VDEM provide planning guidance to State agencies and review plans to ensure their accuracy. Additional VDEM resources may be required to develop planning guidance for State agencies and to perform reviews of these plans. VDEM follows most federal guidelines for testing the COVEOP through exercises, and documents lessons learned from exercises and disasters. However, the agency's mechanisms for tracking corrective actions do not provide timely information about progress made toward their completion.

SHELTER AND EVACUATION PLAN DEFICIENCIES MAY COMPROMISE SAFETY OF HAMPTON ROADS POPULATION DURING CATASTROPHIC DISASTER

State evacuation plans for the Hampton Roads region support evacuations for category 3 hurricanes if key assumptions are met, but traffic congestion could hinder timely exits and compromise the safety of residents.

State evacuation plans for the Hampton Roads region (figure) support evacuations for category 3 hurricanes if key assumptions are met, but potential traffic congestion could hinder timely exits out of the region and compromise the safety of residents. These assumptions are: (1) only residents in storm surge zones will evacuate, (2) these residents will obey a mandatory evacuation order and evacuate their jurisdictions without delay, (3) localities have traffic management plans that direct these residents to designated evacuation routes in a timely manner, and (4) evacuation routes have sufficient transportation capacity to support all evacuating citizens and vehicles.

Breakdowns in any of these assumptions could cause substantial traffic congestion along regional evacuation routes, preventing citizens from leaving before the storm hits. Individuals not living in storm surge zones may evacuate unnecessarily if they do not fully

State Plans Designate Ten Evacuation Routes For Hampton Roads Residents
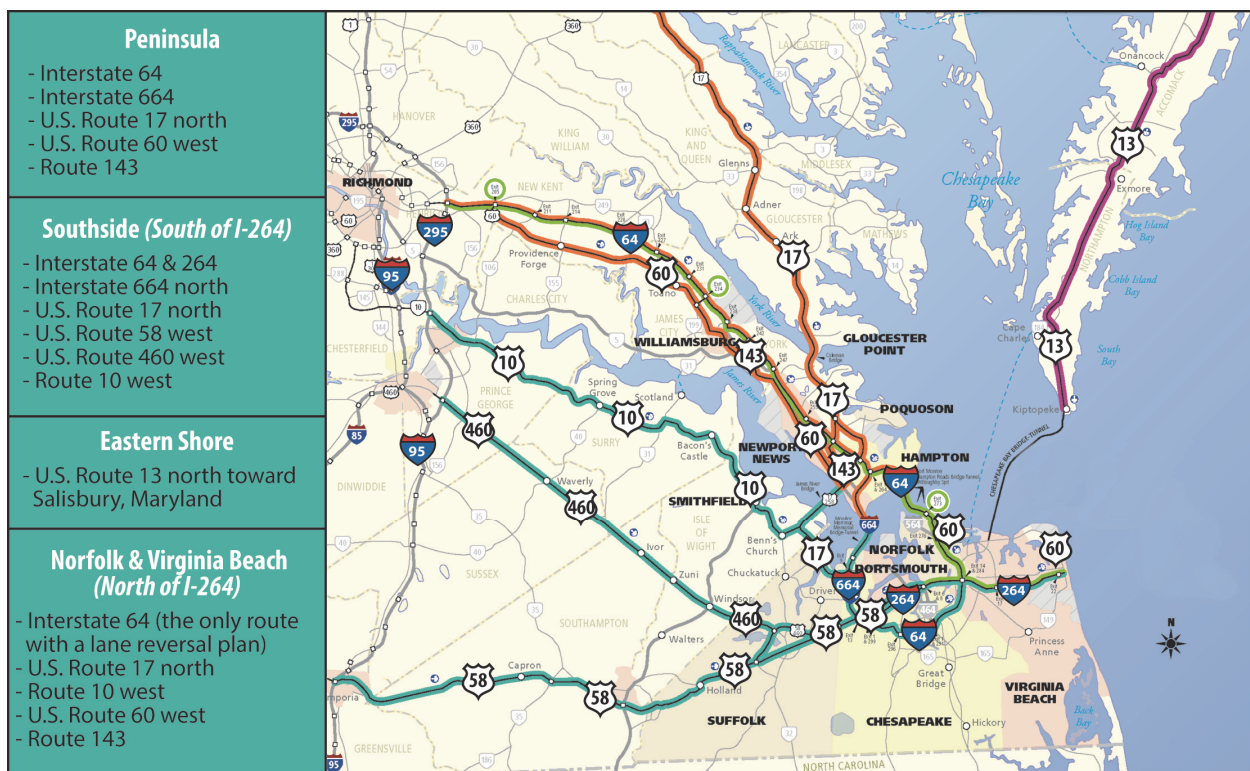
Peninsula
- Interstate 64
- Interstate 664
- U.S. Route 17 north
- U.S. Route 60 west
- Route 143

Southside *(South of I-264)*
- Interstate 64 & 264
- Interstate 664 north
- U.S. Route 17 north
- U.S. Route 58 west
- U.S. Route 460 west
- Route 10 west

Eastern Shore
- U.S. Route 13 north toward Salisbury, Maryland

Norfolk & Virginia Beach *(North of I-264)*
- Interstate 64 (the only route with a lane reversal plan)
- U.S. Route 17 north
- Route 10 west
- U.S. Route 60 west
- Route 143

Note: Chesapeake Bay Bridge Tunnel is not a hurricane evacuation route.

Source: Virginia Department of Transportation Hurricane Evacuation Guide, 2013.

understand evacuation orders. Other individuals may not obey evacuation orders and delay evacuating until a few hours before a storm hits. Localities in the Hampton Roads region may not have traffic management plans that direct individuals to one of ten evacuation routes. Those evacuation routes may not have sufficient capacity to support all evacuating vehicles. As a result of traffic congestion, temporary shelters—or *refuges of last resort*—would likely be needed for stranded evacuees, but not all localities in the region have identified potential sites or shared this information with the State.

This report makes four recommendations to improve evacuation planning for catastrophic disasters. First, localities should be required by the Code of Virginia to develop traffic management plans that direct their residents to designated evacuation routes. Second, VDEM and the Virginia Department of Transportation (VDOT), in consultation with the Virginia State Police (VSP), should assist localities in developing local traffic management plans. Third, VDEM and VDOT, in consultation with VSP, should periodically review these plans to ensure they direct residents to designated routes. Finally, VDEM should require localities to submit an annual list of sites that could serve as refuges of last resort. VDEM may require additional resources to assist localities with traffic management planning and review local traffic management plans, and the Secretary of Public Safety should make a budget request to secure any additional resources needed.

State planning for shelters is not sufficient to respond to catastrophic disasters. State and local shelters do not have the collective capacity to support evacuations for hurricanes designated as category 3 or higher, or to shelter approximately half of evacuees during a category 3 hurricane (table). Unaffected localities could provide supplemental shelter during a disaster, but only three localities have signed written agreements to host evacuees from Hampton Roads. VDEM cannot compel localities to designate shelters, develop shelter plans, or agree to shelter residents from other jurisdictions. Insufficient staffing could further limit shelter availability during a catastrophic disaster: current State shelter staffing plans can only support opening six of the 16 State shelters simultaneously, and some localities in the Hampton Roads region may lack sufficient staff to open local shelters.

Although State plans for operating shelters have been in progress for approximately seven years, some plans have not been completed and there is no clear strategy for when and where State shelters would be used. Plans for how evacuees would re-enter the region after a disaster remain incomplete and require additional planning. It is recommended that VDEM coordinate with the Virginia

Current State and Local Shelters Lack the Capacity to Shelter Approximately Half of Evacuees During a Category 3 Hurricane

Category Hurricane	Within Hampton Roads			Outside Hampton Roads[b]			Evacuees Without Shelter	
	Number of evacuees	Shelter capacity	Evacuees without shelter	Number of evacuees	Shelter capacity	Evacuees without shelter	Number	Percent of all evacuees
2	36,000	80,000	0	30,000	19,405	10,595	**10,595[c]**	**16[c]**
3[a]	103,000	58,000	45,000	50,000	15,694	34,306	**79,306**	**52**
4	127,000	31,000	96,000	90,000	15,694	74,306	**170,306**	**78**

[a] Represents the worst-case hurricane scenario for the Hampton Roads region.
[b] Represents State shelter capacities and does not include three local host shelters outside of Hampton Roads.
[c] Represents evacuees without shelter using worst-case planning assumptions. Virginia has not experienced shelter deficits during past category 2 hurricanes because evacuees have generally not left the Hampton Roads region.

Source: JLARC staff analysis of 2011 Regional Catastrophic Planning Grant data and 2013 DSS State Managed Shelter data.

Department of Social Services and the Office of the Secretary responsible for disaster preparedness coordination to develop a comprehensive strategy for when and where State shelters would be used. To ensure that a single State entity has responsibility and sufficient authority to coordinate shelter and evacuation planning, the report recommends giving the Secretary responsible for disaster preparedness coordination specific responsibility in statute.

PREVENTION AND MITIGATION PLANS ARE IN PLACE, BUT STATE ADDRESSES INFRASTRUCTURE PROTECTION DIFFERENTLY

While the Virginia Fusion Center has received high marks for developing all federally-recommended plans, policies, and procedures to perform critical intelligence activities, the Center acknowledges opportunities to improve its intelligence sharing with the private sector. In addition, the Secretary of Veterans Affairs and Homeland Security should collaborate with VDEM and Fusion Center staff to review the State's current terrorism prevention plans to ensure their alignment with federal prevention planning guidelines released in mid-2013.

The State and most localities in Virginia have current mitigation plans in place. The State's plan was updated in 2013, allowing Virginia to remain eligible for federal mitigation grants. Due to past issues with the mitigation grants management process, the plan has not currently received an "enhanced" status that would qualify Virginia for additional grant funds. However, VDEM reports having made improvements and has requested that the current plan be granted enhanced status. As of August 2013, eight of 26 regional mitigation plans (30 percent) had expired, though just one plan remains expired as of October 2013 and this plan has received funding for an update. VDEM staff indicated that no federal grant

opportunities have been missed as a result of expired mitigation plans.

State plans have been developed for protecting critical infrastructure, but they were largely not implemented due to a lack of buy-in from stakeholders, State staffing limitations, and evolving federal guidance. However, the State has addressed critical infrastructure planning in other ways, including the use of an automated system to collect and analyze critical infrastructure information and a regional resiliency assessment.

FEDERAL GRANTS ARE SUBSTANTIAL FUNDING SOURCE FOR PREPAREDNESS AND FUNDING LEVELS ARE DECLINING

Federal grant programs have provided nearly $1 billion in preparedness grants for State agencies, localities, and regional bodies over the last decade. Homeland security, public health, and hospital preparedness grant programs have provided approximately $798 million, or more than 80 percent of federal preparedness grants awarded in Virginia over the last ten years. Over three-fourths of Homeland Security Grant Program funds ($256 million) awarded to Virginia and administered by VDEM since FY 2004 have been used to purchase equipment such as personal protective equipment for hazardous materials response teams and communications equipment (figure). However, a decreasing share of grant funds has been spent on equipment over time. About 57 percent of public health emergency grant funds ($187 million) has been used to hire laboratory staff as well as planners, epidemiologists, trainers, and public information officers at the State, regional, and local levels, and about 14 percent has been spent on equipment.

GRANT MANAGEMENT HAS IMPROVED AND WOULD BENEFIT FROM FURTHER STRENGTHENING

The State has improved the Homeland Security Grant Program allocation process to help ensure that funds are directed to the State's highest preparedness priorities. VDEM and the Office of the Secretary of Veterans Affairs and Homeland Security have improved the allocation process by considering the level of risk addressed by a project to help prioritize funding decisions, using the Secure Commonwealth Strategic Plan to determine which initiatives will be funded with grants, and requiring all grant-funded projects to be submitted collaboratively on a regional basis.

The State could further enhance the grant management process by refining the way risk is incorporated into the grant evaluation process and strengthening regional requirements to ensure meaningful collaboration among localities. This report also recommends that VDEM and the Office of the Secretary responsible for disaster

Over Three-Fourths of Homeland Security Grants Since 2004 Have Been Used for Equipment
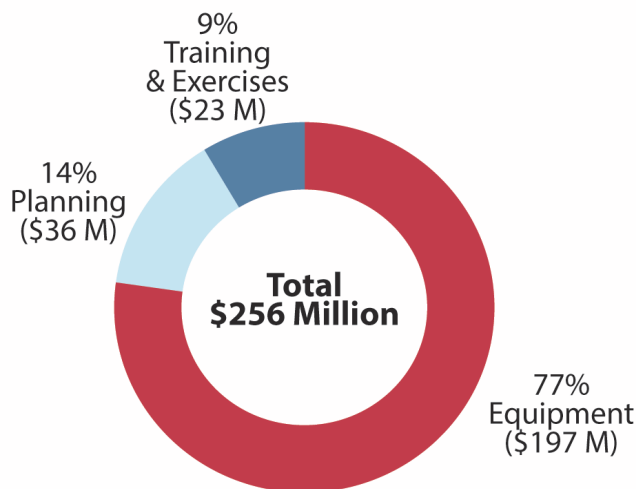
9%
Training
& Exercises
($23 M)

14%
Planning
($36 M)

**Total
$256 Million**

77%
Equipment
($197 M)

Note: Total is less than the $530 million in Homeland Security Grant Program funds awarded in Virginia between FY 2003 and FY 2012 because the FY 2003 grant was federally required to be used to purchase equipment.

Total also does not include Homeland Security Grant Program funds awarded to Northern Virginia localities through the National Capital Region Urban Areas Security Initiative. These grants are administered by the District of Columbia.

Source: JLARC staff analysis of data from the Virginia Department of Emergency Management.

preparedness coordination use findings from ongoing preparedness assessments in Virginia when evaluating Homeland Security Grant Program applications.

RESTRUCTURING OF HOMELAND SECURITY ORGANIZATION IS NEEDED TO IMPROVE PREPAREDNESS COORDINATION

Virginia's current homeland security structure impedes the State's ability to coordinate preparedness and implement initiatives effectively and efficiently. The Office of the Secretary of Veterans Affairs and Homeland Security has broad responsibilities for coordinating disaster preparedness in Virginia. However, the Office lacks sufficient authority to coordinate preparedness because it does not have statutory authority over VDEM and must rely on resources from the Secretary of Public Safety to carry out its duties and implement improvements.

As a result of the current structure, the State has had difficulty addressing in a timely manner deficiencies such as those affecting shelter and evacuation planning for catastrophic disasters, especially hurricanes in the Hampton Roads region. The Secretary of Veterans Affairs and Homeland Security can release reports that

document concerns and recommend improvements, but it cannot direct VDEM staff to implement those recommendations. For example, recommendations to improve shelter and evacuation planning were developed by VDEM staff in April 2013, but took approximately 3-4 months to be approved by the Secretary of Veterans Affairs and Homeland Security and the Secretary of Public Safety. Future preparedness efforts could also be undermined because the current structure is vulnerable to unnecessary disagreements. The current structure requires a high level of cooperation between the Secretary of Veterans Affairs and Homeland Security and the Secretary of Public Safety. While the secretaries have been able to reach agreement over a division of responsibilities in these areas, staff with State agencies and both secretaries' offices expressed concern that future secretaries may not be able to reach such agreements.

JLARC staff recommend transferring the preparedness functions of the Office of the Secretary of Veterans Affairs and Homeland Security to the Office of the Secretary of Public Safety, whose responsibilities would be broadened to encompass homeland security and disaster preparedness.

There is broad agreement among State staff that the entity with preparedness responsibilities must have statutory authority over VDEM. To accomplish this, the report recommends transferring the preparedness functions of the Office of the Secretary of Veterans Affairs and Homeland Security to the Office of the Secretary of Public Safety, whose responsibilities would be broadened to encompass homeland security and disaster preparedness. The reorganized Office of the Secretary of Homeland Security and Public Safety should have a Deputy Secretary of Homeland Security with operational responsibilities for coordinating disaster preparedness planning in Virginia.

A reorganized Office of the Secretary of Homeland Security and Public Safety would improve the coordination of disaster preparedness planning in Virginia for four reasons. First, it would support a high degree of coordination among VDEM, the Virginia State Police, and the Virginia National Guard, which play critical roles in preparing for and responding to disasters. Second, it would support a unified approach to coordinating disaster response operations while involving the homeland security advisor during response operations. Third, it would ensure that the Secretary responsible for coordinating disaster preparedness and serving as the Governor's homeland security advisor would have direct access to terrorism intelligence from the Virginia Fusion Center. Fourth, a reorganized homeland security and public safety secretariat would be easier to implement and likely cause less disruption to existing coordination between State agencies.

Placing VDEM under the Secretary of Veterans Affairs and Homeland Security was presented as an alternative, but does not appear viable because it would disrupt coordination between VDEM, VSP, and the National Guard, potentially hindering preparedness planning and response. For example, this alternative could disrupt co-

ordination of the State's terrorism prevention efforts because two secretariats would need to reach agreement on operation of the Virginia Fusion Center, which is jointly operated by VDEM and VSP. Placing VDEM under the Secretary of Veterans Affairs and Homeland Security could also undermine a unified approach to coordinating disaster response operations because both the Secretary of Veterans Affairs and Homeland Security and the Secretary of Public Safety would have operational responsibilities during a disaster. The agencies with primary responsibilities for disaster response would then be divided between two secretariats, creating greater coordination challenges and increasing the potential for disagreements during a disaster that could hinder a response.

Preparedness Is Directed at All Potential Disasters

In Summary

Virginia faces a broad and evolving set of potential disasters that include flooding, hurricanes, winter weather, technological failures such as hazardous materials spills, contagious disease outbreaks, and terrorist attacks. Disaster preparedness efforts are undertaken to address all types of potential disasters through prevention, protection, mitigation, response, and recovery. All levels of government as well as private organizations and citizens share responsibility for disaster preparedness and play a role in responding to disasters. Substantial coordination is needed among this broad array of stakeholders who must work together to protect lives and property. Preparedness planning is a continuous process that entails developing plans, monitoring their status and quality, and revising plans to reflect changes and lessons learned. In Virginia, the Secretary of Veterans Affairs and Homeland Security, the Virginia Department of Emergency Management, and localities have lead responsibilities for disaster preparedness and planning. Over the past decade, disaster preparedness efforts have been heavily funded by federal grant programs.

The 2012 General Assembly approved House Joint Resolution (HJR) 132 requiring JLARC staff to "study the ongoing planning and preparedness efforts throughout the Commonwealth with regard to homeland security and emergency management." The mandate requires JLARC to review a broad array of homeland security and emergency management areas. Specific items in the mandate direct JLARC to:

- determine the status and quality of state and local homeland security and emergency management planning, including whether there is effective integration of planning between federal, state, and local entities;

- identify IT solutions that can assist state and local preparedness efforts;

- review several aspects of Virginia's use and management of federal grants, including whether there is effective oversight of grants, whether grants are being used for plan development or other purposes, whether there is any effort to regionalize grant requests, and whether there is an effective process for identifying and applying for grants; and

- determine whether the organization and management of homeland security within the Office of the Secretary of Veterans Affairs and Homeland Security is appropriate or would be better coordinated within another structure.

The mandate directs JLARC staff to determine more broadly "whether preparedness activities throughout the Commonwealth are effectively improving state and local capabilities for prevention, protection, mitigation, response, and recovery." The full text of HJR 132 is provided in Appendix A.

To address the study mandate, JLARC staff interviewed State agency staff with responsibilities under the Commonwealth of Virginia Emergency Operations Plan; conducted site visits and phone surveys with local emergency management staff throughout the Commonwealth; analyzed data on federal homeland security and emergency management grants awarded to Virginia; and reviewed federal guidance and academic literature on homeland security and emergency management. More detailed information about this study's research methods appears in Appendix B.

DISASTER PREPAREDNESS IS A CRITICAL PRIORITY AS VIRGINIA FACES A BROAD RANGE OF POTENTIAL DISASTERS

Use of "Preparedness" in This Report

Consistent with federal guidance, this report uses the term 'preparedness' broadly to refer to homeland security and emergency management efforts including prevention, protection, mitigation, response, and recovery.

Although communities have been conducting preparedness efforts for many years, preparedness has received renewed emphasis in recent years, both nationwide and in Virginia. The terrorist attacks of September 11, 2001 and the ineffectual response to Hurricane Katrina along the Gulf coast in 2005 demonstrated the impact of catastrophic disasters in the U.S. and the need for greater coordination of preparedness activities among federal, state, local, and private entities. Nearly 3,000 individuals died in the September 11 terrorist attacks, 189 of whom were killed in Virginia when hijackers crashed a civilian airliner into the Pentagon. Approximately 1,800 individuals died as a result of Hurricane Katrina.

Virginia Faces a Range of Potential Disasters, Including Hurricanes, Floods, Winter Weather, and Terrorist Attacks

Virginia faces a broad range of potential disasters, including:

- *natural disasters*, such as hurricanes, tropical storms, tornados, floods, winter weather such as snow and ice, earthquakes, and outbreaks of contagious disease such as influenza;

- *man-made disasters*, such as terrorist attacks; and

- *technological disasters*, such as radiological disasters, hazardous materials spills, and dam failures.

Each of these disasters can have varying levels of impact on people and property. The potential impact of a disaster ranges from localized disasters with relatively limited effects to catastrophic disasters that occur on a regional scale and cause large numbers of injuries and fatalities and substantial property damage.

In recent decades, significant disasters in Virginia have included hurricanes, floods in Central and Southwest Virginia, and the terrorist attacks of September 11, 2001 (Figure 1). According to VDEM, the highest-risk natural disasters facing Virginia are flooding, non-rotational winds, and winter weather events. These natural disasters have had substantial impacts on Virginia in recent decades. For example, between 1993 and 2008, approximately 4,000 instances of flooding resulted in 42 deaths and more than $700 million (2007 dollars) in property and crop damage. More than 10,000 separate winter weather events occurred between 1993 to 2008, causing over $65 million in property and crop damages, injuring 66 people, and killing 12. Virginia's Hazard Identification and Risk Assessment estimates that the annualized losses, including agricultural losses, from all disasters in Virginia is approximately $200 million. In addition to flooding, wind, and winter weather, Virginia is at risk for wildfires, landslides, and earthquakes.

Virginia faces a range of threats from man-made, technological, and public health disasters. More than a decade after 9/11, Virginia remains at risk for terrorist attacks involving methods such as improvised explosive devices, mass shootings, anthrax releases, and multiple coordinated attacks over an extended period. Technological failures involve critical infrastructure that fails or malfunctions, causing substantial impacts on lives and property. Potential disasters resulting from technological failures include hazardous materials spills along Interstate highways and rail lines throughout the State, dam failures resulting in localized flooding, and the release of radiological material from the North Anna or Surry nuclear power stations. Like other states, Virginia also faces potential public health disasters, including contagious disease outbreaks such as a pandemic flu.

Nature and Potential Impact of Disasters Are Changing

The nature and potential impact of the disasters facing Virginia are evolving. According to a 2012 report by the Virginia Institute of Marine Science, sea levels in Virginia can be expected to rise by approximately 1.5 feet over the next 20 to 50 years, resulting in more frequent and more severe flooding in coastal areas. Rising sea levels are likely to result in larger storm surge during hurricanes and tropical storms. There is also belief among scientists that climate change—regardless of the cause—is likely to increase the frequency and intensity of storms such as hurricanes, tropical storms, and tornados in the future. The potential for more frequent and severe storms in Virginia is a growing concern for many State and local emergency management officials.

Figure 1: Significant Disasters in Virginia Have Included Hurricanes, Floods, Winter Weather, and Terrorist Attacks

1969

Hurricane Camille
August 1969 - More than 27 inches of rain triggered landslides and flooding killing more than 150 people and injuring 100. Damage was estimated at over $113 million.

1973

Blizzard/Flooding
1996 - Heavy snowfall with ensuing warm weather led to flooding. This event caused $30 million in damages.

Northern VA Tornado
1973 - F3 Tornado struck Prince William, Fairfax City, and the City of Falls Church injuring 37 people and causing $25 million in damages.

1996

Hurricane Fran
Sept. 1996 - Record numbers of power outages across the state and record flooding in the Shenandoah Valley. 100 people needed to be rescued from floodwaters and caused more than $350 million.

9/11 Terrorist Attacks
The attacks on Sept. 11 caused approximately 3,000 civilian and military deaths, including 189 in Virginia.

2001

Hurricane Isabel
Sept. 2003 - Widespread flooding, electrical outages, debris, and damaged homes and buildings. 36 confirmed deaths reported and $590 million in estimated losses .

2003

Great Dismal Swamp Fire
Aug. 2008 - Lightening started a fire in the Great Dismal Swamp NWR, burning over 5,700 acres and negatively impacting air quality as far as Central Virginia.

2008

2011

Earthquake
Aug. 2011 - A magnitude 5.8 earthquake led to significant property damage and an emergency shut-down of Dominion's North Anna Nuclear Power Plant.

Hurricane Sandy
Sept. 2012 - Sandy was a category 2 hurricane that resulted in two deaths, emergency declarations in 63 localities.

2012

Note: Damage estimates not adjusted for inflation.

Source: JLARC staff analysis of information from the Commonwealth of Virginia Standard Hazard Mitigation Plan.

The threat of terrorism is also evolving. The terrorist attacks of 9/11 focused attention on international terrorist networks and led to the development of fusion centers across the country to gather, synthesize, and disseminate intelligence among law enforcement agencies and private organizations. Over the past decade, the threat of terrorism has evolved to also include U.S. born extremists and lone actors loosely affiliated with or inspired by al Qaeda. These terrorist actors and networks are difficult to trace and predict. Recent examples in the U.S. and Virginia include:

- a failed attempt to detonate a vehicle-borne explosive device in New York City in May 2010;

- a disrupted attempt to detonate an improvised explosive device aboard a U.S. passenger flight on December 25, 2009; and

- a thwarted effort in 2001 by a group of individuals from Northern Virginia to acquire training from a Pakistani militant group.

In 2013, a terrorist bombing occurred at the Boston Marathon. It is not yet known whether the two alleged perpetrators of the bombing were affiliated with known terrorist organizations.

Different types of disasters can interact or happen simultaneously. For example, an earthquake-induced tsunami off the coast of Japan in 2010 led to flooding and the loss of backup generators at the Fukushima Daiichi nuclear power plant, resulting in the release of radiological material. In April 2011, a tornado struck the Surry nuclear power Station in Surry, Virginia resulting in a loss of power, and four months later in August, a magnitude-5.8 earthquake struck near Louisa and Mineral, Virginia causing an emergency shut-down of the North Anna nuclear power station. While neither event resulted in a radiological release in Virginia, the risk of natural and man-made disasters happening simultaneously remains real.

DISASTER PREPAREDNESS ADDRESSES DISASTERS THROUGH PREVENTION, PROTECTION, MITIGATION, RESPONSE, AND RECOVERY

Preparedness efforts encompass a range of homeland security and emergency management activities aimed at building and sustaining the capabilities to prevent, protect against, mitigate the future impacts of, respond to, and recover from the disasters that threaten a community. These efforts are undertaken to manage the risks associated with all types of potential disasters—whether natural, man-made, or technological—and to safeguard lives and property when disasters occur. Common preparedness activities include as-

sessing the risk posed by potential disasters, developing plans to prepare for these threats, acquiring and maintaining equipment, training staff to respond to threats, testing response plans through exercises, and revising plans to reflect changes and lessons learned.

Disaster Preparedness Addresses Disasters Before, During, and After They Occur

There are five categories of disaster preparedness efforts that can be undertaken before, during, and after a disaster occurs (Table 1). Prevention, protection, and mitigation activities help prepare communities before disasters, while response efforts are carried out as disasters occur, and recovery efforts help affected areas and residents after disasters. The U.S. Department of Homeland Security (DHS) has identified 35 capabilities needed to support these five preparedness categories, which are considered essential to a secure and resilient nation. For example, in order for a disaster response effort to safeguard individuals, governments must be able to provide basic care such as food, water, and shelter for those affected by a disaster. Under an all-hazards approach to preparedness, the capabilities identified by DHS are developed to prepare for all disasters a community faces.

Table 1: Disaster Preparedness Builds Capabilities to Support Five Categories of Preparedness

Preparedness Category	Examples of Preparedness Capability
Prevention: Preventing a threatened or actual act of terrorism	• Sharing of intelligence among federal, state, local, and private entities • Screening, search, and detection of terrorist threats
Protection: Protecting individuals and infrastructure against the highest threats and disasters	• Physical protective measures to safeguard critical infrastructure and systems • Cybersecurity efforts to protect electronic communications systems and services
Mitigation: Mitigating the loss of life and property by lessening the impact of future disasters	• Identification of hazards and their incorporation into preparedness plans • Long-term reduction of vulnerability by building resilient communities
Response: Responding to a disaster to save lives, protect property and the environment, and meet basic human needs	• Mass care such as food, water, and shelter for individuals affected by a disaster • Transportation to support evacuation efforts and the delivery of personnel and resources
Recovery: Recovering from a disaster by restoring infrastructure, housing, and the economic health of communities	• Temporary and long-term housing solutions for individuals displaced by a disaster • Recovery that restores economic and business activities to a healthy state

Source: National Preparedness Goal, September 2011, U.S. Department of Homeland Security.

Government and Private Entities Share Responsibility for Disaster Preparedness
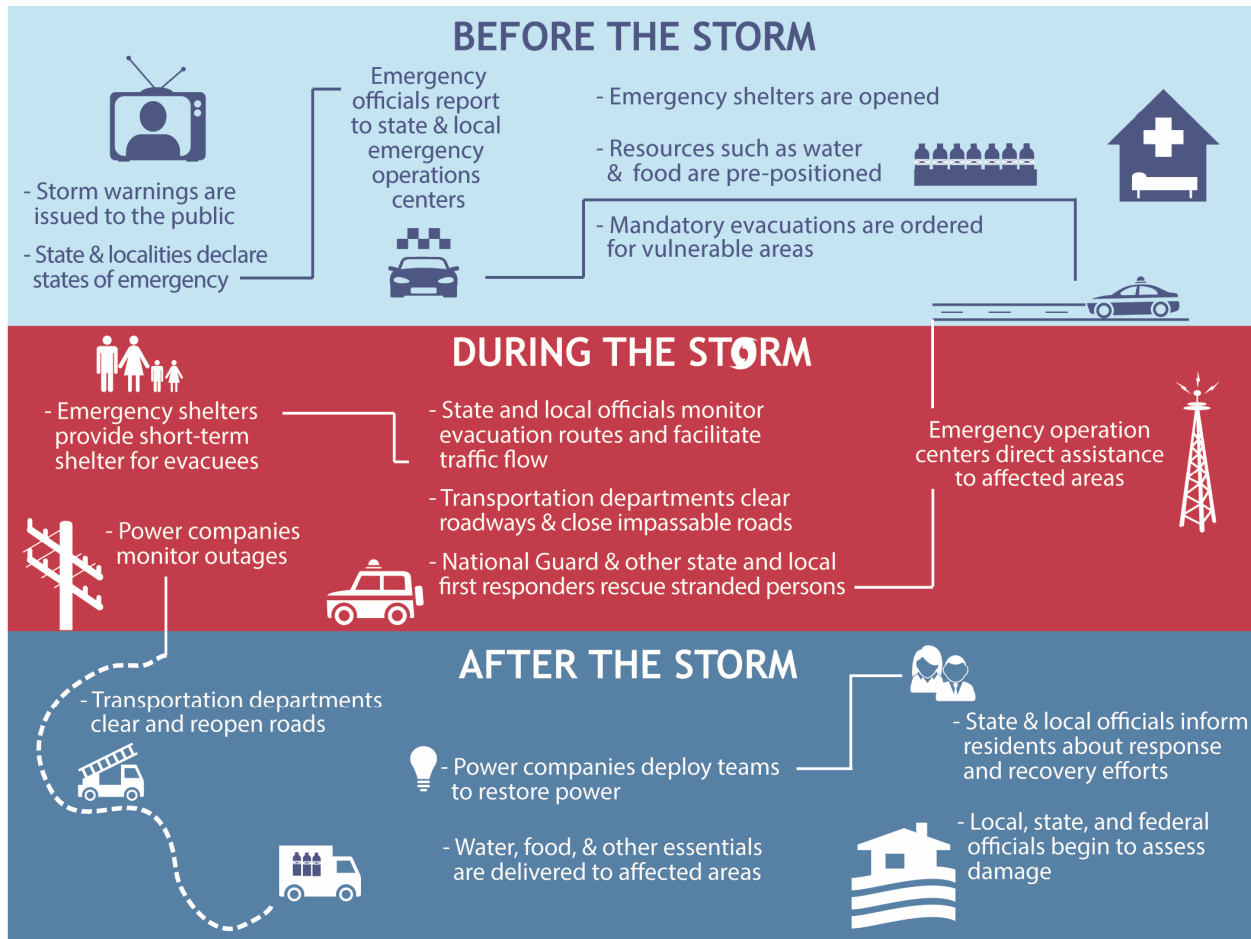
Preparing for disasters is a responsibility of federal, state, and local governments as well as private entities. Governments undertake disaster preparedness efforts in order to fulfill their responsibility for the public's safety and welfare. Private-sector organizations engage in preparedness efforts to protect their employees, facilities, and continuity of operations from potential disasters. Private relief organizations also play an important role in assisting governments when disasters occur. Private citizens have a responsibility to prepare for disasters by assembling emergency supply kits, monitoring emergency communications from state and local governments, and following recommended or mandatory instructions.

Because preparedness responsibilities are shared across the public and private sectors, no one entity is required to develop every preparedness capability identified by DHS. Preparedness activities often must be undertaken jointly and coordinated among federal, state, local, and private entities. For example, preventing a terrorist attack is likely to require sharing intelligence among federal, state and local law enforcement agencies, as well as coordinating efforts to disrupt a planned attack. Similarly, protection efforts involve federal, state, and local governments identifying critical infrastructure such as power plants and telecommunications systems, and then assisting private owners of this infrastructure to improve its resilience to withstand a disaster.

While every category of preparedness requires coordination among multiple entities, responding to and recovering from a disaster can require substantial coordination to synchronize the efforts of public and private organizations. Figure 2 illustrates the types of response and recovery activities that federal, state, local, and private entities are likely to undertake for a hurricane or tropical storm that has substantial impacts across a large area. Coordination between these entities is necessary because each entity's mission will likely depend on the other entities. For example, governments and private relief organizations are responsible for operating shelters for affected persons, but will depend on state and local law enforcement to provide security at each shelter. Utilities are responsible for restoring power and telecommunications services as quickly as possible, particularly for hospitals and other facilities that provide critical support services for individuals. However, utility crews cannot access and repair damaged infrastructure until transportation agencies ensure roads are passable.

To help ensure the coordination of response and recovery efforts

Figure 2: Response and Recovery Operations Require Substantial Coordination Among Federal, State, Local, and Private Entities

BEFORE THE STORM

- Storm warnings are issued to the public
- State & localities declare states of emergency

Emergency officials report to state & local emergency operations centers

- Emergency shelters are opened
- Resources such as water & food are pre-positioned
- Mandatory evacuations are ordered for vulnerable areas

DURING THE STORM

- Emergency shelters provide short-term shelter for evacuees
- Power companies monitor outages
- State and local officials monitor evacuation routes and facilitate traffic flow
- Transportation departments clear roadways & close impassable roads
- National Guard & other state and local first responders rescue stranded persons

Emergency operation centers direct assistance to affected areas

AFTER THE STORM

- Transportation departments clear and reopen roads
- Power companies deploy teams to restore power
- Water, food, & other essentials are delivered to affected areas
- State & local officials inform residents about response and recovery efforts
- Local, state, and federal officials begin to assess damage

Source: JLARC staff analysis of federal guidance and academic literature on preparedness.

Emergency Support Functions (ESF)

ESFs are used to group and describe the resources and activities that may be needed during disaster response operations. The National Response Framework identifies 15 ESFs, including firefighting, mass care, public health and medical services, and public safety and security.

when disasters occur, DHS has developed preparedness guidelines for federal, state, local, and private entities. The National Response Framework describes the roles and responsibilities of public and private organizations during disasters of varying size and severity. Under the framework, response and recovery responsibilities belong first to local governments, with state and federal assistance if necessary. The framework provides a standardized structure and terminology for plans, including emergency support functions that may be needed during a disaster. DHS has developed the National Incident Management System, which provides concepts and organizational processes to help federal, state, local, and private entities work together seamlessly when responding to a disaster. A critical goal of this system is establishing a unified approach for coordinating response and recovery efforts.

DISASTER PREPAREDNESS IS GUIDED BY PLANS THAT REQUIRE ONGOING REVIEW AND COORDINATION

Planning is critical to ensuring that communities can manage the risks associated with potential disasters. Successful preparedness efforts require plans to guide the disaster prevention, protection, mitigation, response, and recovery actions of public and private entities. Preparedness requires two kinds of plans: strategic plans that identify priorities for maintaining and improving a community's preparedness for all potential disasters, and operational plans for carrying out activities in the five preparedness categories.

Strategic and Operational Plans Guide Disaster Preparedness Efforts

A broad range of strategic and operational plans guide preparedness efforts in Virginia (Figure 3). The State maintains two strategic plans for preparedness. The Secure Commonwealth Strategic Plan establishes Virginia's preparedness priorities through 15 broad goals that are supported by specific objectives and implementation steps (Exhibit 1). While the 15 goals identify the preparedness capabilities the State will maintain and improve, their corresponding objectives and implementation steps provide more detailed information on the actions the State will take to support these goals. The objectives and implementation steps supporting each goal cover the five main types of preparedness activities:

Figure 3: Strategic and Operational Plans Guide Virginia's Preparedness Efforts
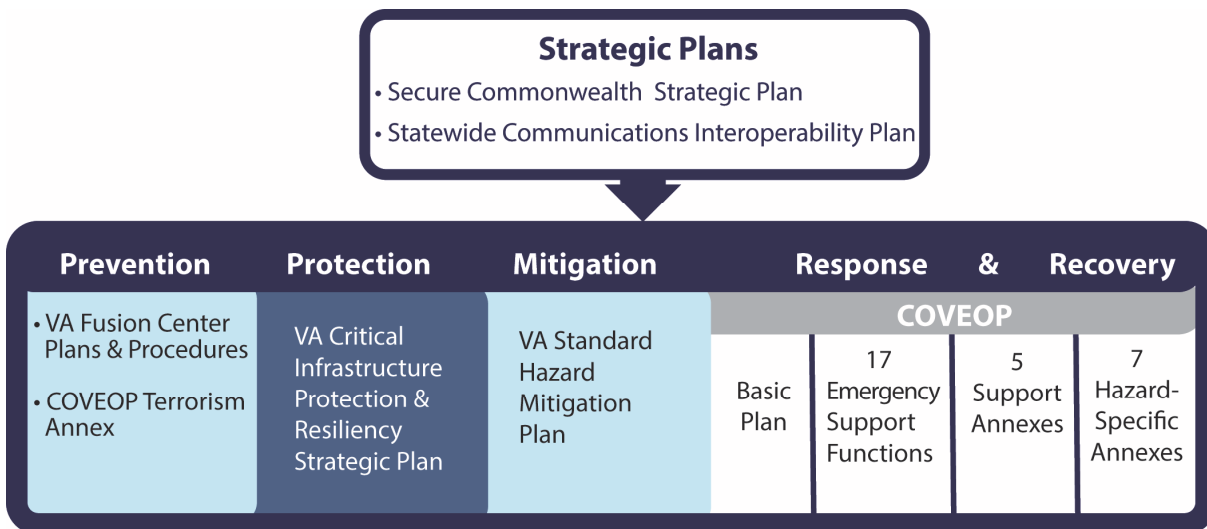
Source: JLARC staff analysis.

Exhibit 1: Secure Commonwealth Strategic Plan Sets Virginia's Preparedness Priorities Through 15 Broad Goals

Goal 1: Strengthen medical surge capability for situations that overwhelm local resources (and situations where external resources are not yet available).

Goal 2: Enhance capability to effectively respond to Chemical, Biological, Radiological, Nuclear and Explosive in a coordinated effort to protect the public.

Goal 3: Improve communications (operable and interoperable) to align with the State Communications Interoperability Plan and ensure active participation by all relevant stakeholders.

Goal 4: Develop an information sharing system that includes federal, state, local, volunteer and private partners in support of a comprehensive Common Operating Picture for emergency management applications.

Goal 5: Take all actions possible to prevent terrorist acts against the people and infrastructure of the Commonwealth.

Goal 6: Develop an intelligence-driven policing model that incorporates local, state, federal, private and public stakeholders.

Goal 7: Support Virginia institutions of learning as they undertake an all-hazards approach to disaster management.

Goal 8: Increase the number of Virginians who are prepared for natural and human-caused emergencies.

Goal 9: Provide homeland security (Homeland Security Exercise and Evaluation Program) compliant training, education, exercises and professional development opportunities for responders.

Goal 10: Enhance Critical Infrastructure and Key Resources protection and resiliency to ensure that government missions, state services and economic functions are maintained.

Goal 11: Continue promoting National Incident Management System compliance for homeland security initiatives in the Commonwealth of Virginia.

Goal 12: Continue development and enhancements of mass care capability to facilitate statewide preparedness and response for all-hazard events.

Goal 13: Continue to enhance catastrophic evacuation and reentry planning (leveraging and continuing the efforts of Hampton Roads and the National Capital Region).

Goal 14: Enhance ability to inform citizens prior to and during times of emergency.

Goal 15: Enhance inter- and intra-state collaboration to respond to natural and human-caused emergencies.

Source: Virginia Secure Commonwealth Strategic Plan, 2009.

planning, organizing, equipping, training, and exercising. The Secure Commonwealth Strategic Plan also guides the use of federal preparedness grant funds by State agencies and localities in Virginia.

The Statewide Communications Interoperability Plan (interoperability plan) is the State's plan for improving interoperable communications in Virginia. The plan is required by the Code of Virginia (§2.2-232), and provides strategies and goals for improving interoperability. The Code requires State agencies and localities to achieve consistency with the plan's strategies and goals by July 1,

2015 to remain eligible for State and federal communications grants.

The State also maintains operational plans describing how response, recovery, mitigation, prevention, and protection efforts will be carried out. The Commonwealth of Virginia Emergency Operations Plan (COVEOP) serves as the State's primary response and recovery plan and provides for the management of statewide disasters. The COVEOP has four major components:

- *the basic plan*, which includes general concepts for how State, local, and private entities will support Virginia's response and recovery efforts;

- *17 emergency support functions*, which describe response and recovery activities that may be needed during a disaster, such as public health and medical services, or search and rescue efforts;

- *five support annexes*, which describe processes and administrative functions required to support disaster response, such as finance and administration; and

- *seven hazard-specific annexes*, which define the capabilities needed to respond to specific types of disasters, such as a hurricane or a hazardous materials spill.

While the COVEOP contains plans for responding to and recovering from disasters, it requires State agencies with COVEOP responsibilities to develop supporting plans detailing the specific steps and actions that must be taken when a disaster occurs. Virginia's Standard Hazard Mitigation Plan, a companion plan to the COVEOP, provides strategies and concepts to guide State and local mitigation efforts. The hazard mitigation plan includes an evaluation of the probability and impact of each potential natural disaster to determine the risk it poses to Virginia.

Virginia's terrorism prevention plans are maintained largely through the Virginia Fusion Center, which was established in 2005 to serve as a central site for the collection, analysis, and dissemination of intelligence regarding potential terrorist and criminal acts. The policies and plans for operating the fusion center constitute the State's overall terrorism prevention plan. In addition, some terrorism prevention planning information is contained in a terrorism response annex to the COVEOP. The focus of this annex is on how Virginia will respond to terrorist attacks to minimize the impact on lives and property, but it also describes the roles and responsibilities of State agencies and localities in preventing terrorist attacks, including law enforcement activities undertaken in re-

Interoperable Communications

DHS defines interoperable communications as "the ability of public safety agencies to talk across disciplines and jurisdictions via radio communications systems, exchanging voice and/or data with one another on demand in real time, when needed, and as authorized." Interoperability is critical to effective response operations. A lack of interoperability contributed to major deficiencies in the responses to the 9/11 terrorist attacks and Hurricane Katrina.

sponse to an attack for the purpose of preventing additional terrorist acts.

The Critical Infrastructure Protection and Resiliency Strategic Plan is the primary plan for protecting critical infrastructure and key resources in Virginia. The plan requires secretariats and State agencies to develop supporting protection plans that will guide collaboration between public and private entities in various infrastructure sectors, such as energy or health. According to some estimates, as much as 90 percent of the nation's critical infrastructure and resources is privately owned.

Planning Requires Ongoing Coordination Among Federal, State, Local, and Private Entities

Whole-Community Approach

A whole-community approach to response planning requires actively including in the planning process all stakeholders that are involved in, or impacted by, the response plan. These entities include government agencies, private sector companies, and non-profit organizations.

Preparedness planning is a continuous process that requires coordination among the many federal, state, local, and private entities involved in preparedness efforts (Figure 4). The first step in this process is developing a wide range of plans to guide preparedness efforts. Because preparedness is a shared responsibility of federal, state, local, and private entities, a critical part of developing plans is taking a whole-community approach and involving all relevant public and private stakeholders in the planning process. This inclusive approach to planning helps ensure that plans developed by federal, state, local, and private entities can be successfully implemented.

The second step in the preparedness planning process is monitoring the status and quality of plans to ensure they have been developed by all required entities and include appropriate content. Monitoring is particularly important for disaster response and recovery planning, which must be undertaken by all entities with response and recovery responsibilities. For example, a state must ensure that state agencies develop plans to carry out their responsibilities under the state's emergency operations plan, and that localities have disaster response and recovery plans that align with the state plan.

The third step in the preparedness process involves revising preparedness plans to ensure they remain timely and accurate. Progress toward strategic priorities should be regularly monitored, and strategic plans should be periodically revised to reflect this progress. Plans that support response and recovery operations should be regularly reviewed and tested to identify deficiencies and incorporate lessons learned. These plans can either be tested by planned exercises or drills, or they can be evaluated after real disasters. All plans should be regularly updated to reflect the

Figure 4: Preparedness Planning Is a Continuous Process of Developing, Monitoring, and Revising Plans

Develop Plans
- Strategic plans
- Prevention, protection, mitigation, response, & recovery plans
- Agency supporting plans

Monitor Plans
- Ensuring that plans
  - Are developed
  - Are regularly updated
  - Include appropriate content

Revise Plans
- Plan revisions to reflect
  - Changing priorities
  - Emerging threats & hazards
  - Changes in the community (i.e. demographic)
  - Findings from exercises or plans reviews

Source: JLARC staff analysis of preparedness literature from the U.S. Department of Homeland Security.

changing nature of potential disasters, changes to the community such as population growth, and changes in the community's preparedness capabilities.

The process of developing, monitoring, and revising preparedness plans requires extensive coordination to ensure that federal, State, local, and private entities are appropriately involved. Just as a whole-community approach is critical to developing preparedness plans, relevant public and private stakeholders should be involved in efforts to review and revise these plans. In addition, coordination is critical to ensure that available resources—State or local funds, or federal preparedness grants—are used in the most cost-effective manner to support the implementation of plans through training, exercises, and other preparedness activities. Without such coordination, it may be difficult to correct planning deficien-

cies, maintain their accuracy and ensure they can be successfully implemented. As a result, it is critical that governments designate a position or entity with sufficient authority to coordinate the preparedness planning efforts within their jurisdiction and with other jurisdictions.

STATE AND LOCAL ENTITIES CONDUCT DISASTER PREPAREDNESS PLANNING

Under the Code of Virginia, multiple State and local entities are required to conduct preparedness planning. At the State level, the Secretary of Veterans Affairs and Homeland Security is responsible for overall disaster preparedness coordination in Virginia, serves as the Governor's homeland security advisor, and has statutory responsibility for strategic planning. The Secretary also conducts planning for the protection of critical infrastructure. The Virginia Department of Emergency Management (VDEM) is responsible for planning in support of disaster response, recovery, and mitigation efforts. The Governor is required to appoint a Coordinator of Emergency Management, who serves as the director of VDEM and the State's preparedness planning director.

At the local level, the Code directs localities to conduct disaster response and recovery planning. Localities are required to maintain a department of emergency management and designate a director of emergency management who then is required to designate an emergency management coordinator responsible for preparedness planning. To support response and recovery operations when disasters occur, VDEM and localities have established emergency operations centers that are activated when a state of emergency is declared.

Homeland Security Secretary Is Responsible for Coordinating Disaster Preparedness Efforts and Conducting Strategic Planning

Every state is required to have a homeland security advisor by the federal government in order to serve as a liaison between the governor and DHS and advise the governor on homeland security issues. This function can be fulfilled by anyone the governor chooses, and is currently assigned to the Secretary of Veterans Affairs and Homeland Security. In addition, the Secretary has primary responsibility for coordinating Virginia's preparedness efforts among federal, State, local, and private entities. The Code of Virginia requires the secretary's office to "develop a seamless, coordinated security and preparedness strategy and implementation plan" to guide Virginia's preparedness efforts (§2.2-231.1). The secretary's office has other Code responsibilities for coordinating Virginia's preparedness efforts, including:

- providing oversight, coordination, and review of all State preparedness plans in cooperation with VDEM;

- working with federal officials to obtain federal resources and coordinate policy development and information exchange;

- working with State agencies and secretariats to ensure that available federal and State resources are directed toward preparedness efforts and that regional working groups address regional initiatives for responding to catastrophic disasters; and

- serving as the Governor's representative to regional preparedness entities and localities.

The secretary's office undertakes a range of preparedness planning initiatives. The office maintains and monitors implementation of the Secure Commonwealth Strategic Plan and the Virginia Statewide Communications Interoperability Plan.

The Secretary chairs the Secure Commonwealth Panel, an advisory board with broad preparedness responsibilities under the Code of Virginia (§2.2-233). The panel is responsible for monitoring the implementation of statewide preparedness initiatives, making preparedness recommendations at all levels of government, and facilitating cabinet-level coordination among State agencies and with the private sector. In addition to its preparedness responsibilities, the secretary's office performs a range of functions related to veterans and military affairs.

VDEM Is Responsible for Planning State Response, Recovery, and Mitigation Efforts

VDEM has primary responsibility for planning in support of the State's response, recovery, and mitigation efforts. As the State's emergency planning director, the director of VDEM has broad responsibility to undertake preparedness planning in Virginia. The Code of Virginia (§44-146.18) requires the coordinator to promulgate plans and programs for disaster mitigation, preparedness, response, and recovery, and maintain a State emergency operations plan for response and recovery operations. Under this authority, VDEM maintains the COVEOP, which describes the roles and responsibilities of State agencies in responding to and recovering from statewide disasters, as described earlier in this chapter.

The Code of Virginia assigns VDEM other responsibilities for coordinating and reviewing preparedness planning in Virginia (§ 44-146.18). VDEM is required to:

- coordinate with localities and state agencies to ensure up-to-date assessments and preparedness plans to prevent, respond to, and recover from all disasters;

- conduct an annual statewide emergency management assessment in cooperation with political subdivisions, private industry and other entities, including a review of emergency response plans;

- provide guidance, assistance, and standards for state agencies and localities in developing and maintaining emergency management plans; and

- coordinate and administer disaster mitigation, preparedness, response, and recovery plans and programs with the federal, state, and local governments and related groups.

Localities Are Responsible for Planning Their Response, Recovery, and Mitigation Efforts

To safeguard the lives and property of their citizens in the event of a disaster, localities develop plans to guide their response, recovery, and mitigation efforts. As part of their public safety responsibilities, local law enforcement agencies may be involved in preventing a planned or impending terrorist attack.

The Code of Virginia requires localities to maintain an emergency response plan for their jurisdiction. Like the COVEOP at the State level, local response plans outline the responsibilities of local agencies during a disaster. Each locality must also conduct a comprehensive review and revision of its plan every four years, with the revised plan formally re-adopted by the governing body. In addition, localities may develop regional emergency operations plans and other inter-jurisdictional arrangements if collaboration results in better preparedness (§44-146.19-20).

Localities are responsible for maintaining mitigation plans that address how the impact of future disasters can be reduced. Under the federal Disaster Mitigation Act of 2000, localities are required to maintain mitigation plans to be eligible for federal mitigation grant funds. Localities may engage in strategic, prevention, and protection planning as part of their preparedness efforts.

DISASTER PREPAREDNESS EFFORTS ARE HEAVILY FUNDED BY FEDERAL PREPAREDNESS GRANTS

Federal grant programs have provided nearly $1 billion in preparedness grants for State agencies, localities, and regional bodies in Virginia over the past decade. Federal grants have been used to support a wide range of preparedness activities in Virginia, including buying equipment, training personnel, conducting disaster re-

sponse exercises, and developing preparedness plans. Although many federal grant programs are designated for terrorism and public health preparedness efforts, much of this grant funding supports preparedness for all potential disasters.

Over the past 10 years, the Homeland Security, Public Health and Emergency Preparedness, and Hospital Preparedness programs have been the largest sources of federal preparedness grants for Virginia (Table 2). Together, these programs account for more than 80 percent of preparedness grants awarded to Virginia in the past 10 years. Ten other programs have provided smaller amounts of grant funds for Virginia since 2003, most of which focused on specific preparedness initiatives such as interoperable communications among State and local first responders, port security, and hazardous materials response efforts.

The Homeland Security Grant Program has been Virginia's primary source of federal grants over the past decade, providing $530 million during this period. The program supports the five preparedness categories of prevention, protection, mitigation, response, and recovery. Homeland security grants are available to State agencies, local governments, and regional bodies through two components: the State Homeland Security Program and the Urban Areas Security Initiative (UASI). Federal allocations to the state homeland security program are determined by Congressional minimum amounts, risk levels, and the anticipated strength of states' proposed allocation plans. DHS requires states to pass 80 percent of state homeland security funding to localities and the remaining 20 percent to state agencies. UASI grants are available only for high-density urban areas identified by DHS as at risk of future terrorist attacks. Virginia is included in one designated UASI region, the National Capital Region, which includes five Northern Virginia localities, the District of Columbia, and localities in Maryland. Of the $530 million awarded in Virginia through the Homeland Security Grant Program over the past decade, $224 million was to these five Northern Virginia localities through the National Capital Region UASI.

The Public Health Emergency Preparedness program and the Hospital Preparedness program have been the primary sources of federal grants for health and medical preparedness over the past decade. Virginia was awarded nearly $290 million through these programs during this period. These funds have been used to hire State, regional, and local public health staff for the overall purpose of sustaining public health preparedness through 15 public health preparedness capabilities, which include monitoring disease outbreaks, managing fatalities and mass care during a disaster, and developing a system for distributing vaccines and other medical

Table 2: Homeland Security, Public Health, and Hospital Preparedness Grant Programs Have Been the Largest Sources of Federal Preparedness Grants Over the Last Decade

Program	Description	Cumulative Amount Awarded (millions) [a]
Homeland Security Grant Program	Assists State and local governments in developing "core capabilities" identified in state strategies.	$530.0 [b]
Public Health and Emergency Preparedness Grant Program	Supports the development of public health emergency preparedness capabilities at the State, regional and local level. Includes support to the State laboratory.	187.7
Hospital Preparedness Program	Supports the development of public health emergency preparedness capabilities for hospitals and other health system facilities.	97.0
Emergency Management Performance Grant Program	Assists state and local, tribal and territorial governments in preparing for all disasters.	57.4
Pandemic Influenza and H1N1 Emergency Grants	Assisted state and local governments in planning for a pandemic influenza event and provided two-year emergency funding for responding to the H1N1 flu pandemic.	48.2
Port Security Grant Program	Funds developing core capabilities at U.S. ports.	23.7
Public Safety Interoperable Communications Grant Program	Provided one-time funding to public safety agencies to acquire, deploy, and train for interoperable communications systems usage.	25.0
Regional Catastrophic Preparedness Grant Program	Supports integrated planning for regional all-hazards planning.	10.4
Buffer Zone Protection Grant Program	Provides funds for securing and protecting critical infrastructure.	5.2
Interoperable Emergency Communications Grant Program	Funds governance planning, training, and exercise efforts supporting State Communications Interoperability Plans (SCIPs).	3.6
Hazardous Materials Emergency Preparedness	Supports the safe and efficient handling of hazardous materials during disasters.	3.1
Emergency Operations Center Grant Program	Supports development of adequate and fully interoperable emergency operations centers.	2.4
Transit Security Grant Program	Provides funds to protect critical surface transportation infrastructure and the traveling public.	2.2
Non-Profit Security Grant Program	Provides funding support for securing nonprofit organizations at a high-risk of terrorist attack.	0.5
Total		**$996.5**

[a] Data does not include federal preparedness grants awarded from the U.S. Department of Education to higher education and K-12 institutions in Virginia, law enforcement grants administered by the Virginia Department of Criminal Justice Services, or the Assistance to Firefighters Grant program.
[b] The cumulative award for the Homeland Security Grant Program includes $224 million awarded to Northern Virginia localities within the National Capital Region Urban Areas Security Initiative.

Source: JLARC staff analysis of data from the Virginia Departments of Emergency Management and Health.

countermeasures in the event of a public health disaster such as a contagious disease outbreak, release of radiological material, or a terrorist attack involving chemical, biological, or radiological

weapons. Hospital Preparedness Program funds have also been used to improve emergency preparedness among hospitals and health systems in Virginia.

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2 Strategic Plans Vary In Use of Desirable Planning Practices

Chapter

In Summary

Virginia has a strategic preparedness framework in place, but the current Secure Commonwealth Strategic Plan has been maintained without using some desirable strategic planning practices, possibly undermining the State's ability to direct grant funds toward the highest preparedness priorities. The Secure Commonwealth Strategic Plan reflects national preparedness priorities identified by the federal government, a reasonable methodology for assessing risks and capabilities was used, and input was solicited from most relevant stakeholders. However, the plan lacks quantifiable metrics and a process for monitoring progress toward implementing its goals. Because Virginia's strategic plan guides how federal grant funds are used, the State should follow desirable practices when revising the strategic plan in 2013 and future years to help ensure that grants are directed to the State's highest priorities. The Statewide Communications Interoperability Plan is a more narrowly focused strategic plan that generally follows desirable practices for strategic planning. The plan is developed from federal interoperability guidance and regional meetings with localities, and includes metrics for measuring implementation. In contrast, most localities do not have strategic plans to guide their preparedness efforts, potentially limiting their ability to direct resources toward their highest priorities. The State could support strategic planning at the local and regional levels by conducting re-gional assessments of preparedness capabilities throughout Virginia.

The study mandate directs JLARC staff to determine the "status and quality of state and local homeland security and emergency management planning throughout the Commonwealth." Strategic plans play a critical role in maintaining and improving preparedness by setting long-term preparedness priorities and guiding the use of available resources towards these priorities. Without these plans, a jurisdiction may have little ability to ensure that available resources, including federal grant funds, are used for the highest priorities to maintain and improve preparedness levels. Federal preparedness guidelines recommend that strategic plans should be maintained at the State, regional, and local levels to guide preparedness efforts.

As mentioned in Chapter 1, there are two State strategic plans for preparedness used in Virginia: the Secure Commonwealth Strategic Plan, which sets the State's overarching preparedness priorities, and the Statewide Communications Interoperability Plan, which helps support the development of interoperable communications throughout the State. Local governments may also develop strategic plans.

The literature identifies desirable planning practices for each phase of the strategic planning process (Table 3). The strategic planning process has three main phases, each of which is essential to creating effective preparedness strategic plans: (1) plan development, (2) plan monitoring, and (3) plan revision and update. Deficiencies in any aspect of this process can have detrimental effects on a jurisdiction's preparedness program. During the plan development phase, following desirable practices helps to ensure that the plan reflects federal, state, and local priorities and capabilities. For example, one practice is to define strategic priorities based, in part, on the results of assessments of state and local risks and capabilities. This step can help ensure that the plan focuses on current gaps in state and local capabilities rather than capabilities that are already fully-developed. Including cost estimates for each goal can help to prioritize the goals and determine whether goals can be implemented in the short-term or the long-term.

The monitoring phase of the strategic planning process is a key phase because it is the only way to determine whether goals are being achieved and resources are being directed toward the highest-priority goals. If a plan lacks quantifiable metrics to monitor progress, it is difficult to know which goals have been achieved, and which may need additional funding to be fully realized. Further, not assigning owners to track the progress of each goal can lead to a lack of accountability and failed implementation.

Table 3: Literature Identifies Desirable Practices for Each Phase of the Strategic Planning Process

Phase	Desirable Strategic Planning Practices
Development	• Goals and objectives should be based on federal guidance documents to reflect national preparedness initiatives • Plan should incorporate results of state and local assessments of risks and capabilities • All relevant stakeholders should be involved to ensure that all perspectives are considered and incorporated into the plan • Cost estimates to complete each goal and objective, as well as the resources needed to cover such costs, should be developed and included in the plan to ensure that the goals and objectives are realistic and achievable
Monitoring	• Plan should identify the entity with overall responsibility for the entire plan, as well as the roles and responsibilities of the agencies, departments, or offices in implementing the specific goals and objectives in the plan • Plan should include outcome-related quantifiable metrics for each goal and objective to allow the plan's owners to quantitatively measure progress made
Revision and update	• Review process should include annual reviews of goals and objectives • Comprehensive review and revision of the entire plan should be conducted at the end of its established lifetime, which is typically three to five years

Source: JLARC staff analysis of various GAO reports (including GAO-12-276T and GAO-04-408T) and other federal planning documents, such as Comprehensive Preparedness Guide 101.

The review and update phase is the final stage of the strategic planning process. The literature notes that the success of a strategic plan ultimately depends on updating its priorities to reflect progress made in completing goals. Periodic reviews of strategic plan components allow entities to determine whether goals are still current and attainable given progress made towards their completion. It also allows new information to be incorporated into the plan, such as lessons learned from responses to real or simulated incidents and changing risks facing a jurisdiction.

SECURE COMMONWEALTH PLAN DOES NOT INCORPORATE SOME DESIRABLE PLANNING PRACTICES

The State has followed some desirable strategic planning practices when developing and maintaining the current Secure Commonwealth Strategic Plan, but omissions may have hindered the State's ability to direct grant funds to the highest preparedness priorities. The Secure Commonwealth Plan appears to meet the statutory requirement that the Secretary of Veterans Affairs and Homeland Security (secretary's office) "develop a seamless, coordinated security and preparedness strategy and implementation plan" (§2.2-231). However, statute does not provide further direction on practices for developing and maintaining the plan. The secretary's office is in the process of conducting a comprehensive review and update of the plan (projected to be released in late 2013 or early 2014), and staff indicate that these issues will be addressed in the new version.

Office of Commonwealth Preparedness (OCP)

OCP was the predecessor to the Office of the Secretary of Veterans Affairs and Homeland Security. OCP reported to the governor and had broad responsibilities under the Code of Virginia for the coordination and oversight of preparedness efforts.

The current version of the Secure Commonwealth Strategic Plan, developed in 2009 by the Office of Commonwealth Preparedness, sets overarching preparedness priorities for Virginia and is used to prioritize how the grants from the federal State Homeland Security Grant Program will be distributed (discussed in more detail in Chapter 7). The plan addresses Virginia's preparedness for all potential disasters in the areas of prevention, protection, and response. The Secretary of Veterans Affairs and Homeland Security is responsible under the Code of Virginia for developing and coordinating implementation of the plan.

Plan Development Process Incorporated Federal Preparedness Priorities and Used Most Other Desirable Practices

The 2009 Secure Commonwealth Plan used federal guidance to develop the plan's goals and objectives, and followed most other desirable practices for developing strategic plans. A reasonable methodology was used for assessing risks and capabilities, and input was solicited from most but not all relevant stakeholders. When developing future versions of the Secure Commonwealth Plan, the Secretary responsible for coordinating disaster preparedness should use the more rigorous assessments of risks and ca-

pabilities now available, and ensure that input is solicited from all relevant stakeholders.

Secure Commonwealth Plan Incorporated Federal Preparedness Priorities. According to a JLARC staff analysis, the goals in the Secure Commonwealth Strategic Plan were based on the federal preparedness guidelines available when the plan was developed in 2009. A comparison of the strategic plan with federal guidance documents showed that the plan integrated goals and objectives from the Federal Emergency Management Agency's (FEMA) National Preparedness Guidelines and supporting Target Capabilities List, which together set national preparedness goals and priorities. The plan addresses all of the national priorities and 16 of the 37 national target capabilities that existed at the time. Each goal in the current strategic plan is directly linked to one or more national priorities and target capabilities to ensure alignment with federal priorities. For example, the strategic plan goal to "enhance the ability to inform citizens prior to and during times of emergency" aligns with the national priority of strengthening communications capabilities, and with the target capabilities of "emergency public information and warning" and "community preparedness and participation."

Risks and Capabilities Were Assessed Using a Reasonable Methodology. A reasonable methodology for assessing risks and capabilities appears to have been used during development of the 2009 Secure Commonwealth Plan. The Office of Commonwealth Preparedness assessed the risks facing Virginia by considering the State's Hazard Identification and Risk Assessment as well as disasters that had occurred in Virginia in recent years. Capabilities from the federal Target Capabilities List were used to facilitate discussions with localities regarding their preparedness capabilities and their priorities for improving preparedness. Information from these risk and capabilities assessments was subsequently used to develop the goals and objectives in the 2009 Secure Commonwealth Plan.

Two more rigorous assessments of risks and capabilities are now being performed that could be used in developing the 2013 plan. In 2012, the State conducted its first Threat and Hazard Identification Risk Assessment (THIRA), which evaluates the hazards facing Virginia, the State's current capabilities to address these hazards, and the need to improve those capabilities. For example, during the THIRA process, the Virginia Department of Transportation identified 58,000 lane miles that would need to be cleared of motorists during a mass evacuation. The THIRA results indicate that although the State's goal is to ensure that all motorists are safely evacuated and off the roads in two days, it would currently take

seven days to complete this task. As required by the federal government, the assessment will be conducted annually by the State.

In addition to the THIRA, the secretary's office coordinated with localities in the Hampton Roads region (VDEM Region 5; Appendix C) to conduct a capabilities assessment called the Virginia Regional Preparedness Measure. Localities in Region 5 indicated that the assessment was a useful tool for documenting current capabilities and gaps, and identifying priorities for future grant projects. The goal of the assessment was to identify shortfalls or deficiencies in preparedness, and assess the risks that these deficiencies pose. For example, one goal is to establish, staff, and equip emergency shelters and other temporary housing options for the individuals affected by a disaster. The assessment identified gaps in the region's sheltering capacity (44,000 person shortfall) and staffing for the shelters (less than half of the shelters have staff for 72 hours).

Secure Commonwealth Plan Was Developed With Input From Most But Not All Relevant Stakeholders. The plan development phase in 2009 included a process to obtain input from most, but not all, relevant stakeholders, which may have hindered the State's ability to identify specific preparedness priorities for Virginia. To begin the development process, a two-day workshop was held with approximately 80 participants, including local emergency managers and first responders. According to VDEM staff involved in the 2009 planning process, one to two representatives from localities in each VDEM region participated in stakeholder meetings, and all localities had the opportunity to provide written input as well as review a draft of the plan. State agencies were identified for involvement in the planning process based on their lead responsibilities under the Commonwealth of Virginia Emergency Operations Plan. All but one of these agencies participated in the process of developing the strategic plan. However, VDEM staff indicated that not all relevant private entities were included in plan development activities. For example, some larger utilities were not included in the process.

Desirable Planning Practices Should Be Used in Developing Future Secure Commonwealth Strategic Plans. Using the more rigorous assessments of risks and capabilities now available would improve the State's ability to identify Virginia's highest-priority needs. Specifically, the results from the Threat and Hazard Identification and Risk Assessment, the Virginia Regional Preparedness Measure for Hampton Roads—as well as the State's current Hazard Identification and Risk Assessment—should be considered by the Secretary responsible for disaster preparedness coordination during the development of the new strategic plan for Virginia. In addition, the inclusion of input from all relevant State, local, and private stakeholders would improve the State's ability to identify

Virginia's highest preparedness priorities, and would help ensure that the plan's priorities reflect the needs of these stakeholders. Staff with the secretary's office indicated these processes will be used to develop the new strategic plan. During this process the Office of the Secretary responsible for disaster preparedness coordination should ensure that input is solicited from all relevant stakeholders. This could be done through regional meetings with State, local, regional, and private stakeholders throughout the State. These meetings could be supplemented by a survey that provides relevant stakeholders with an additional opportunity to suggest preparedness priorities for Virginia.

Recommendation (1). The Office of the Secretary responsible for disaster preparedness coordination should (1) incorporate the results from Virginia's Hazard Identification and Risk Assessment, Threat and Hazard Identification and Risk Assessment, the Virginia Regional Preparedness Measure for Hampton Roads, and other related assessments, and (2) solicit and incorporate input on State and local preparedness priorities from relevant State, local, and private stakeholders, when developing the 2013 Secure Commonwealth Strategic Plan and subsequent revisions.

Secure Commonwealth Plan Does Not Follow Desirable Practices for Monitoring Progress

Virginia Conducts Two Preparedness Assessments

The State conducts an annual State Preparedness Assessment, required by DHS, which assesses the State's current level of preparedness compared to State-defined targets. The State also conducts an annual assessment of executive branch agencies' and higher education institutions' disaster preparedness. This assessment focuses on the preparedness of individual agencies (not the agency's role in State-level disaster preparedness) and covers issues such as physical security and continuity of operations planning.

With some exceptions, the Secure Commonwealth Plan does not follow the desirable planning practices needed to effectively monitor progress toward completing its goals, and to identify what remains to be done. The plan generally lacks quantifiable metrics that would allow progress to be measured. In recent years, the State has conducted two types of annual assessments that monitor progress in improving Virginia's level of preparedness and identify opportunities for further improvement. However, neither of these assessments allows the State to directly measure progress toward goals in the Secure Commonwealth Plan.

While each objective in the 2009 plan has specific implementation steps to achieve the objective, most of these implementation steps lack enough detail to monitor progress toward meeting the plan's goals and objectives. For example, one of the implementation steps for the objective to increase the number of trained public information officers is to "continue providing effective public information officer training to support state and local efforts." The implementation step does not indicate a quantifiable target for the number of officers to train or a timeframe for achieving this goal. A recent audit of the State's management of homeland security grants by the U.S. Department of Homeland Security also cited the lack of quantifiable metrics in the State's strategic plan. The audit concluded that

Without goals and objectives against which it can measure progress, the Commonwealth cannot evaluate the effect of grant expenditures on its preparedness and response capabilities.

In addition to the lack of quantifiable metrics, the Secure Commonwealth Plan does not clearly assign a specific agency or individual responsibility for monitoring the progress made toward achieving each goal and objective. The secretary's office is responsible for monitoring the progress of the overall plan, and the plan states that monitoring is "incorporated into the daily workflow and routines for state employees with a responsibility for all-hazard preparedness." However, staff from the secretary's office and State agencies indicated that no entity was assigned to, or claimed responsibility for, tracking completion of specific goals and associated objectives.

Adhering to desirable strategic planning practices can be challenging, but it has been done in Virginia. For example, the 2006 strategic plan for the National Capitol Region included elements that allow progress toward goals to be measured. Each initiative in the 2006 plan contained the following:

- Key tasks to implement the initiative, and specific milestones and dates to complete each task;

- Cost estimates, and the assumptions used to develop the estimates;

- Types of resources and investments needed to implement the initiative, such as the number of employees;

- Overall timeframe for completion of each initiative, and the lead entity responsible for each initiative; and

- A process for assessing the performance of the initiative that includes quantifiable measures and targets.

The lack of quantifiable metrics in the Secure Commonwealth Plan makes it difficult to determine whether the State has distributed grant funds in an effective manner.

The lack of quantifiable metrics and the absence of processes to monitor Virginia's plan make it difficult to determine the work that has been done and, importantly, what capabilities need to be developed in order to achieve the plan's goals. It also makes it difficult to determine whether the State has distributed grant funds among the goals in an effective manner. Using quantifiable metrics to track progress toward the completion of strategic plan goals would give the State greater insight into which goals need additional funding to reach completion. It would improve the State's ability to quantify preparedness improvements and accomplishments that have been achieved using grant funds, and provide a mechanism to hold the Secretary responsible for disaster prepar-

edness coordination accountable for achieving the plan's goals and objectives.

The Office of the Secretary responsible for disaster preparedness coordination should incorporate elements and practices for monitoring strategic plans in the new version of the Secure Commonwealth Plan. Each goal and objective in the plan should have a quantifiable metric, an expected completion date, and a State agency responsible for monitoring implementation. In addition, the Office should develop a process for annually evaluating progress made toward each goal and objective in the plan.

Recommendation (2). The Office of the Secretary responsible for disaster preparedness coordination should include quantifiable metrics and expected completion dates and designate the State agency responsible for monitoring each goal and objective in the 2013 Secure Commonwealth Strategic Plan and subsequent revisions. The Office should develop a process for annually evaluating and reviewing progress toward each goal and objective.

Secure Commonwealth Plan Does Not Follow Desirable Practices for Annual Review and Update

The Secure Commonwealth Plan is not reviewed annually to ensure its content remains current. While the Code of Virginia does not require the plan to be reviewed and updated annually, an annual update and review is a desirable planning practice that helps ensure a plan's priorities reflect progress made in completing goals. Staff with the secretary's office stated that it is important to review the strategic plan before the annual grant cycle to ensure that the capabilities listed in the plan match the capabilities needed in the State's current preparedness environment, but the plan's content has not been updated since its creation in 2009. There is no process to update the plan annually to reflect progress in implementing goals, lessons learned from incidents and exercises, and the changing nature of disasters facing the State.

Without annual reviews of the Secure Commonwealth Plan, it may be difficult to ensure that grant funds are being used for the highest-priority preparedness needs.

Annual reviews of the Secure Commonwealth Plan are important to identify goals that have been completed and to show what still remains to be done. This information can be used to prioritize strategic plan goals toward which insufficient progress has been made. Without this type of annual review, it may be difficult to ensure that grant funds are being used for the highest-priority preparedness needs each year. Annual reviews are also important to ensure that new and emerging issues and threats are addressed by the plan in a timely manner.

The Office of the Secretary responsible for disaster preparedness coordination should review the strategic plan on an annual basis

and update the plan based on progress made toward achieving goals, lessons learned from exercises, and new and emerging threats and risks. As a point of comparison, the 2010-2015 National Capital Region plan outlines a timeline for reviewing the plan, which includes a review of goals, objectives, and initiatives each year, followed by a comprehensive review of all plan components in 2015.

> *Recommendation (3).* The Office of the Secretary responsible for disaster preparedness coordination should update the Secure Commonwealth Strategic Plan annually to reflect progress made toward plan goals, incorporate lessons learned from exercises and incidents, and include emerging potential disasters facing Virginia.

COMMUNICATIONS INTEROPERABILITY PLAN FOLLOWS DESIRABLE PLANNING PRACTICES

The Statewide Communications Interoperability Plan follows most of the desirable practices for developing and maintaining strategic plans. The plan is based on federal interoperability guidance and incorporates substantial input from its relevant stakeholders—local governments—which helps to ensure that the plan reflects the needs of those who are most affected by it. The 2013 plan includes elements and processes for monitoring progress, including completion timeframes and quantifiable measures, although a quantifiable measure to monitor progress in achieving interoperability statewide is not included and should be added to the 2014 plan.

Plan Development Process Generally Follows Federal Guidance and Desirable Practices

Regional Preparedness Advisory Committees for Interoperability

These regional committees assist the interoperability coordinator in developing and implementing the initiatives in the interoperability plan. They "serve as the basis from which all ideas, proposals, and guidance flow," according to the interoperability plan. Representatives from each of the seven regional committees serve on the Statewide Interoperability Executive Committee where they "provide regional perspective and input into the statewide decision-making process."

The Statewide Interoperability Coordinator, who is charged with leading the strategic planning process for the interoperability plan, has used the DHS interoperability continuum to guide the State's interoperability efforts, which includes the development of a strategic plan. The interoperability continuum is a framework to help states and localities plan for, implement, and measure progress towards achieving interoperability. States and localities can use the continuum to determine what they must accomplish to achieve interoperability, and then incorporate this information into their interoperability strategic plans.

The State interoperability coordinator has solicited substantial input from localities during the development of the statewide interoperability plan, which is particularly important because the Code of Virginia requires that localities achieve interoperable communications by 2015. Most local input is obtained through the seven Regional Preparedness Advisory Committees for Interoperability (see grey box on previous page), whose members are typically

local public safety communications directors. For the 2013 interoperability plan, a workshop was conducted to gain input from the advisory committee chairs and others on updates to the initiatives and programs outlined in the plan. The committee chairs and others also had many opportunities to provide input into the draft plan after this workshop, and their input was used to update the communications initiatives and programs in the interoperability plan. Most of the 13 local emergency managers who participated in a JLARC staff phone survey indicated that they have participated in the annual review and update of the interoperability plan. However, one local government representative responding to the survey stated that the regional advisory committee in his area of the State is not active.

Interoperability Plan Follows Desirable Practices for Monitoring Progress

The 2013 version of the interoperability plan improves the way progress is monitored by including quantifiable metrics, owners, and completion timeframes that were previously not part of the plan. The 2013 version includes "measures of success" for the plan's goals, which will be "utilized to monitor progress and are indicative of Virginia's accomplishments that will lead the Commonwealth along the path towards achieving the vision for interoperable and emergency communications." Whereas the Code of Virginia (§2.2-232) designates the interoperability coordinator as the overall owner of the plan, the plan now assigns owners to each of the initiatives that support the plan's 11 goals. Each initiative is also assigned a completion timeframe: short-term (defined as one year), mid-term (two to three years), or long-term (three or more years). All of these elements should help the State measure its progress and ultimately achieve the plan's goals.

While the interoperability plan includes quantifiable metrics to monitor progress toward implementing the plan's goals, it does not include a metric that tracks the localities' progress toward meeting the Code's requirement that localities achieve consistency with the interoperability plan by 2015. There are different ways that localities can meet the mandate, including the development of regional radio systems, which can be prohibitively expensive for some localities. To assist localities in meeting the Code mandate and allow them to maintain eligibility for grant funds, the secretary's office has recently decided that localities should implement COMLINC to meet the Code's mandate.

The 2013 interoperability plan does not state directly that localities should implement COMLINC to meet the Code's interoperability mandate, nor does it include a quantifiable metric that tracks the implementation of COMLINC in each locality. While the 2012

and 2013 plans state that "The Commonwealth… supports the system as the path to interoperable communications across the state," it may not be clear to localities that implementing COMLINC meets the Code mandate. Given the importance of COMLINC to the State's interoperability strategy, the interoperability plan should clearly state that implementing COMLINC will meet the Code mandate, and a quantifiable metric should be added to the plan to track the localities' progress in implementing COMLINC.

Recommendation (4). The Office of the Secretary responsible for disaster preparedness coordination should indicate in the 2014 Statewide Communications Interoperability Plan that implementing COMLINC will meet the requirements of the Code of Virginia (§2.2-232), and should include a quantifiable metric tracking the implementation of COMLINC.

Communications Interoperability Plan Follows Desirable Practices for Annual Review and Update

The Code of Virginia (§2.2-232) mandates that the interoperability plan be reviewed annually, and a process is in place to review and update the plan to comply with this Code requirement. The plan was first developed in 2005 and has since been updated annually. According to interviews with staff from the secretary's office and VDEM, the plan undergoes an annual evaluation process to ensure that goals in the plan are germane to the constantly evolving technology for interoperable communications. This process allows relevant stakeholders to review current goals and identify difficulties in achieving goals, so that content can be updated accordingly. For example, the 2013 update to the interoperability plan included the development of an annex aimed at improving information sharing during disaster response operations in light of concerns recently voiced. The annex outlines a series of steps aimed at allowing State agencies and localities to share information in real time during disaster response operations. According to the interoperability coordinator, Virginia is the only state to update its interoperability plan on an annual basis.

MOST LOCALITIES LACK PREPAREDNESS STRATEGIC PLANS

Federal guidelines recommend that preparedness strategic plans be developed and maintained at the local and regional levels, and federal grant requirements mandate that regions designated as a Urban Areas Security Initiative (UASI) maintain regional preparedness strategic plans. Localities appear to make limited use of strategic plans to guide their preparedness efforts, but the National Capital Region UASI does maintain a regional plan as required by the federal government. Two-thirds of the 13 local emergency management coordinators responding to a JLARC staff phone survey said their localities do not maintain strategic plans specific to

preparedness, but some include preparedness goals in their locality's overall strategic plan. Of the five localities that reported having a regional strategic plan, three are, or were, part of a UASI region.

As federal grant funding levels have declined, it has become more important for localities and regions to identify and prioritize their preparedness goals through a strategic planning process. One local emergency manager interviewed by JLARC staff indicated that a new emphasis on strategic planning will be an important way to deal with declining grant funds. The emergency manager indicated that a strategic planning process will allow the locality to consider both the financial and practical implications of developing certain capabilities. For example, developing the ability to respond to hazardous materials spills requires ongoing funding for equipment and personnel, which a locality may be unable to support by itself.

The State could support strategic planning at the local and regional levels by conducting regional assessments of preparedness capabilities. While many localities lack the resources and staff to develop and maintain strategic preparedness plans, regional strategic planning could be more cost-effective, particularly if federal homeland security grant funds are used. As discussed earlier in this chapter, Virginia recently conducted a regional preparedness assessment for the Hampton Roads region. By identifying areas in which preparedness capabilities are insufficient, such an assessment could allow localities and regions to identify their preparedness priorities and document them in strategic plans. To facilitate local and regional strategic planning, the Office of the Secretary responsible for disaster preparedness coordination should conduct regional preparedness assessments in areas of the State where assessments have not yet taken place. The Office should evaluate the feasibility of using federal grants to fund these assessments.

Recommendation (5). The Office of the Secretary responsible for disaster preparedness coordination should conduct regional preparedness assessments in the regions of the State where local assessments have not been conducted.

3

Response Plans Are Generally Strong But Could Be Further Enhanced

In Summary

The Commonwealth of Virginia Emergency Operations Plan (COVEOP) and local response plans are strong and follow federally recommended development, review, and exercise processes, but more State planning and monitoring could help ensure successful execution during a disaster. Most key State agencies have fully developed supporting response and recovery plans detailing how to fulfill their assigned COVEOP responsibilities, but the State lacks a process to monitor the status and quality of these plans. The General Assembly could require all State agencies with lead COVEOP roles to maintain supporting response and recovery plans and annually submit them to the Virginia Department of Emergency Management (VDEM) for review. To facilitate this requirement, VDEM could provide planning guidance to assist State agencies in developing supporting response and recovery plans, and begin reviewing submitted plans to ensure their accuracy. VDEM follows most federal guidelines to test the COVEOP through exercises and document lessons learned from exercises and disasters. However, the agency's mechanisms for tracking corrective actions do not ensure timely information about progress made toward their completion due to a lack of regular updates. Local disaster response plans generally follow federal and State guidelines, but wide variation in the use of well-accepted planning practices exists among localities.

The study mandate directs JLARC staff to determine the status and quality of State and local homeland security and emergency management planning throughout the Commonwealth. While Chapter 2 addresses the status and quality of preparedness strategic planning in Virginia, this chapter focuses on planning for State and local response and recovery efforts once disasters have occurred. Effective disaster response and recovery efforts are critical to protecting lives and property when a disaster occurs. As discussed in Chapter 1, disaster response operations require substantial coordination among federal, State, local, and private entities. As a result, a strong and well-coordinated planning process is critical to ensuring quality response plans.

A three-step planning process is critical to ensuring that State and local response plans can be successfully implemented when disasters occur:

- *Plan development and review*, or developing the structure and content of response plans and periodically reviewing plans to ensure that content remains applicable to the current risk environment

- *Plan monitoring*, or monitoring that all government entities develop and maintain supporting response plans

- *Plan testing and revision*, or testing developed plans through exercises, and revising and updating the content of response plans based on lessons learned from such exercises

Effective *plan development and review* requires disaster response plans to be created by all relevant stakeholders through a collaborative process, and to be aligned at all levels of government and with the private sector to ensure that plans can be successfully implemented together, according to federal planning guidelines. Response plans that are aligned use a similar structure and terminology, typically derived from federal guidelines. Aligned plans also include disaster response activities that complement one another and allow multiple entities to carry out a synchronized response operation.

Plan monitoring ensures that disaster response plans have been developed by all required entities and include appropriate content. State and local governments must develop overarching response plans for their jurisdictions that assign response roles and responsibilities to agencies. State and local agencies must develop supporting response plans that describe how they will accomplish their assigned responsibilities under State and local response plans.

The last phase in the planning process, *plan testing and revision*, ensures that plans remain current and accurate once developed. Federal preparedness guidelines state that response plans should be tested through exercises to determine whether plan assumptions and stakeholder roles and responsibilities will work in practice. Exercises are an effective tool to measure the quality of response plans by allowing entities to implement plans in a safe, simulated environment. To this end, plans should be tested through exercises prior to being used for a disaster, and they should be periodically revised to reflect lessons learned from exercises and disasters.

VDEM MAINTAINS WELL-REGARDED DISASTER RESPONSE PLAN AND FOLLOWS WELL-ACCEPTED PLANNING PRACTICES

The Commonwealth of Virginia Emergency Operations Plan (COVEOP) is developed and reviewed in accordance with federal guidelines and is a high-quality response plan. The Virginia Department of Emergency Management (VDEM) follows the federally recommended plan structure, conducts regular reviews of the plan, and solicits and incorporates input from relevant stakeholders. Further, federal and State emergency management officials regard

the COVEOP as a high-quality response plan that is well-constructed and clearly identifies roles and responsibilities for entities.

The COVEOP is essential to ensure a seamless, well-executed response to and recovery from disasters that require State-level assistance. As described in Chapter 1, the COVEOP includes a basic plan, which is always activated, as well as detailed supporting plans that are activated only when applicable to the disaster occurring. Through these components, the COVEOP defines what tasks must be accomplished and which State agencies or private entities will accomplish them to successfully respond to and recover from disasters. For example, if a hurricane threatens to make landfall on the Virginia coast, VDEM will activate both the basic plan and the hurricane-specific response plan, thereby signaling to State agencies with responsibilities for this plan to begin executing their individual actions and tasks.

COVEOP Is Aligned with Federal Guidance and Is Regarded as Exemplary by Emergency Management Officials

The COVEOP is aligned with current federal guidelines for disaster response plans. The COVEOP follows federal guidance by including recommended components, such as a basic plan, emergency support functions (such as transportation and communications), and support and hazard-specific annexes (such as a radiological response plan) tailored to the potential disasters the State faces. For example, the COVEOP includes two extra emergency support functions related to military affairs and volunteer and donations management due to their importance in supporting response and recovery efforts in Virginia. The COVEOP also follows federal guidelines in developing structures to manage disasters. For example, the COVEOP notes that responses to disasters will be coordinated through the incident command system established in the federal National Incident Management System, which creates a common hierarchy under which federal, State, and local agencies can work together to respond to a disaster.

During interviews with JLARC staff, federal and State emergency management staff indicated that they regard the COVEOP as a high-quality response plan. Staff with State agencies generally agreed that the COVEOP components in which they play a lead role encompass response planning fundamentals established by the Federal Emergency Management Agency (FEMA). State agencies generally believed that the COVEOP clearly lays out relevant stakeholder roles and responsibilities in a manner that allows the State to effectively respond to and recover from all potential disasters.

The COVEOP is also highly rated by federal emergency management staff with FEMA's Region III headquarters. During interviews with JLARC staff, FEMA Region III staff described the COVEOP as a mature response plan that is well tested and reviewed. FEMA Region III staff further noted that Virginia's emergency management program serves as a model for other states in Region III, which includes Delaware, Maryland, Pennsylvania, West Virginia, and the District of Columbia.

Emergency Management Accreditation Program

The Emergency Management Accreditation Program is an industry tool to measure the quality of State and local emergency management programs. The program includes a six-step accreditation process that assesses State and local emergency management programs against 63 industry standards.

Virginia's emergency management program is also one of 30 states to be accredited by the Emergency Management Accreditation Program. Virginia was first accredited in 2005 and was re-accredited in 2010 against more stringent standards than in 2005. According to the 2010 assessment, Virginia's emergency management program was found to be compliant with all 63 standards, and the COVEOP itself was found to be compliant with all six standards specifically related to planning.

COVEOP Undergoes a Comprehensive Review Every Four Years and Periodic Review as Risks Change

The COVEOP undergoes a comprehensive review and update once every four years and periodic interim reviews to ensure that plan content remains current and applicable to changing potential disasters facing Virginia. While comprehensive reviews involve going through all components of the COVEOP to verify their accuracy, interim reviews involve changing certain plan components to reflect lessons learned from disasters and exercises, changes in federal or State disaster laws, or emerging threats facing the State. For example, VDEM released updated versions of all COVEOP components in August 2012 following a comprehensive review, but developed and released a new hazard-specific annex for responding to earthquakes in November 2012, when earthquakes were identified as a risk to Virginia after the State experienced one in August 2011.

VDEM Appropriately Engages All Relevant Stakeholders in Developing and Maintaining COVEOP Plans

Based on JLARC staff interviews with State agencies, localities, and private entities, VDEM appropriately engages relevant stakeholders when developing and maintaining COVEOP plans by following a process the agency has designed to ensure that relevant stakeholders are properly involved. More extensive changes to content require approval from a wider group of relevant stakeholders. For example, modifying the terminology within a component of the plan would be categorized as a level 1 change and would not require relevant stakeholder approval outside of VDEM staff. Adding a new hazard-specific annex to the COVEOP would be categorized as a level 3 change and would require approval from plan stake-

holders, the Office of the Secretary of Veterans Affairs and Homeland Security (secretary's office), and the Office of the Secretary of Public Safety.

All eight State agencies interviewed by JLARC staff confirmed receiving sufficient opportunity to participate in developing, reviewing, and updating COVEOP components. State agency emergency management staff noted the ability to review and comment on proposed changes to plan components in which they have a role. State agency staff noted that their proposed changes were often incorporated into the final versions of these components. For example, VDEM actively involved the Department of Mines, Minerals, and Energy (DMME) in planning activities when developing the new earthquake annex of the COVEOP. DMME staff indicated having the opportunity to share their expertise on earthquakes by both providing a point of contact to VDEM to share geologic information related to earthquakes, and presenting background research on earthquakes in Virginia during an initial development meeting. DMME staff indicated that the agency reviewed multiple drafts of the earthquake annex sent by VDEM to validate, amend, or add to DMME's listed roles and responsibilities.

VDEM staff appropriately involve private entities in COVEOP planning processes. A representative from Virginia Volunteer Organizations Active in Disasters noted the ability to review and comment on changes to the response plans for which they have a supporting role. Representatives from Dominion Virginia Power and Appalachian Power Company reported minimal involvement in planning activities for COVEOP plans in which they play a supporting role, but they did not perceive a need to be more involved in COVEOP planning activities. Staff from both utility companies expressed satisfaction with current mechanisms of coordinating with the State during disasters.

VDEM does not regularly solicit input from localities when developing and maintaining COVEOP plans. However, with some exceptions, this does not appear to negatively impact the quality of the COVEOP or the State's ability to respond to and recover from disasters. Interviews with VDEM and local emergency management staff indicated that localities do not typically review or comment on drafts of COVEOP updates, and instead receive final versions of COVEOP plans after reviews and updates are completed. Only six of the 20 local emergency managers interviewed by JLARC staff through site visits and phone surveys expressed concern with their current level of involvement in COVEOP planning processes. Unrelated to the COVEOP planning process itself, these concerns were about such matters as coordination with the private sector, State and local coordination regarding the request and use of resources during disasters, and sharing information and best

practices regionally and statewide. One exception concerns local involvement in State mass evacuation and sheltering plans, which is discussed in Chapter 4.

SUPPORTING RESPONSE PLAN DEVELOPMENT IS UNEVEN AND NOT MONITORED BY STATE

Some State agencies do not have fully developed supporting response and recovery plans to implement the COVEOP, and the State lacks a system to monitor their status and quality. According to the 2012 COVEOP, all State agencies with assigned responsibilities under emergency support functions, support annexes, or hazard-specific annexes are required to develop and maintain supporting plans that allow them to successfully fulfill their assigned roles and responsibilities. However, three of eight interviewed State agencies with lead COVEOP responsibilities reported having supporting response and recovery plans that were either in progress or not yet begun.

The State lacks a monitoring system to determine whether agency response and recovery plans have been developed or the quality of existing plans. The Code of Virginia currently does not give VDEM or the Secretary of Veterans Affairs and Homeland Security the authority to compel State agencies to maintain plans in support of the COVEOP. Because agency response plans are essential to successfully implementing the COVEOP, State agencies should be required to develop supporting response and recovery plans under the Code of Virginia, and VDEM could develop documents to assist State agencies. Further, VDEM should begin to monitor the development and content of agency supporting plans to ensure that State agencies can fulfill their COVEOP responsibilities.

Most Key State Agencies Have Fully Developed Supporting Response Plans, And Others Do Not

Based on JLARC staff interviews, most key State agencies with lead responsibilities under the COVEOP maintain fully developed response and recovery plans. Six of nine State agencies (including VDEM) with lead COVEOP responsibilities that were interviewed by JLARC staff indicated maintaining fully developed response and recovery plans that define specific tasks and actions in support of their COVEOP responsibilities. For example, to fulfill its lead role in the COVEOP pandemic influenza annex, the Virginia Department of Health maintains a pandemic influenza annex that outlines specific actions the agency will take regarding the distribution of vaccines to affected citizens, non-pharmaceutical interventions, antiviral medication management, continuity of operations, and other response functions. The Departments of Transportation and Military Affairs and the Virginia State Police

also have well-developed response plans, according to interviews with State emergency management officials.

In contrast, staff from the Department of Social Services, the Department of Housing and Community Development, and DMME said response plans supporting their lead COVEOP responsibilities were either in progress or had not yet begun. DSS has completed several supporting response plans to fulfill its lead responsibility in State shelter planning, which is discussed in more detail in Chapter 4. Staff with VDEM and the secretary's office indicated that agency response plans are critical to ensuring well-executed response operations, and that the lack of such plans could hinder the State's response to catastrophic disasters. For example, staff with the secretary's office said the lack of agency response plans would have created significant challenges in response and recovery efforts for Hurricane Sandy if it had directly impacted Virginia's coast. Without fully developed supporting agency response plans, the State may also lose critical institutional knowledge about disaster response and recovery operations as the State's workforce ages and experienced staff retire.

The lack of supporting response and recovery plans by some State agencies may reflect a lack of expertise or resources to develop such plans. All three State agencies reporting partially developed or incomplete supporting plans have not traditionally been involved in disaster response, and therefore may not be as familiar with why such plans are needed or how to properly construct them. One State agency did not see the need to create written response plans for their lead COVEOP role, as they saw themselves playing more of a coordinating rather than an implementing role. Another State agency did not know what content to include in their existing response plan and was unaware of any guidelines to assist in further constructing the plan.

VDEM staff acknowledged the need for all State agencies with responsibilities under the COVEOP to maintain supporting response and recovery plans. In response to a 2013 report produced by the secretary's office evaluating sheltering and evacuation planning in Virginia (see gray box), VDEM staff recommended developing a policy or executive order that requires State agencies with lead or supporting COVEOP roles to submit their response plans to VDEM for review. Executive orders have been successful in addressing other preparedness initiatives in recent years. However, given the integral role agency response plans play in supporting successful response and recovery operations, a requirement to develop and maintain such plans should be codified through legislation. If such a requirement were added to the Code of Virginia, some State agencies may require additional staff to develop and maintain supporting disaster response and recovery plans.

Shelter and Evacuation Gap Report

The Office of the Secretary of Veterans Affairs and Homeland Security led a study in 2013 that reviewed the State's preparedness planning efforts, including shelter and evacuation planning, State planning processes for the COVEOP, and planning assistance for State agencies and localities. VDEM staff developed recommendations to address shortcomings identified in these areas through the Gap Report. These recommendations are pending approval from the secretaries of homeland security and veterans affairs and public safety.

Recommendation (6). The General Assembly may wish to consider amending the Code of Virginia to require State agencies with lead or supporting responsibilities under the Commonwealth of Virginia Emergency Operations Plan to maintain supporting response and recovery plans and annually submit them to the Virginia Department of Emergency Management for review.

VDEM staff have acknowledged that State agencies may not have the knowledge or resources to develop supporting response and recovery plans for their COVEOP responsibilities. VDEM staff asserted that the agency will develop standard planning guidance to provide technical assistance to State agencies with lead and supporting COVEOP responsibilities. The purpose of such guidance would be to ensure that agencies understand their assigned roles and responsibilities and how such roles relate to, or are affected by, other emergency support functions and supporting agency response plans. Additional VDEM resources may be required to develop planning guidance for State agencies with COVEOP responsibilities. VDEM should evaluate whether additional resources are needed to perform this function, and if necessary, the Secretary of Public Safety should make a budget request to secure these resources.

Recommendation (7). The Virginia Department of Emergency Management should develop standard planning guidance to assist State agencies in developing supporting response and recovery plans for their responsibilities under the Commonwealth of Virginia Emergency Operations Plan.

State Lacks a System for Monitoring Agency Response Plans

The State does not have a system for monitoring the development, maintenance, and content of supporting response and recovery plans by State agencies with responsibilities under the COVEOP. Neither VDEM nor the secretary's office performs this oversight. During JLARC staff interviews, staff with VDEM and the secretary's office offered limited insight into whether agencies had developed supporting response plans. VDEM staff said the agency does not have access to such plans and can only identify problems with them during after-action reviews following disasters and exercises. As a result, the status of supporting response plans for the 52 State agencies and private entities that were not interviewed by JLARC and have lead or supporting COVEOP roles is currently unknown. Even when plans are known to exist, staff from VDEM or the secretary's office do not review them to ensure that plan content addresses how agencies will successfully fulfill their COVEOP responsibilities.

The lack of a monitoring process for agency supporting response and recovery plans also makes it difficult to predict whether the State's plans will collectively guide efficient and effective responses to potential disasters. Staff with the secretary's office raised concerns that the COVEOP may task some State agencies with more responsibilities than their resources can support. For example, the Virginia National Guard holds one lead role for the military affairs plan and supporting roles for 13 other COVEOP components. Staff with the secretary's office expressed concern that the National Guard's resources could be strained if most of these roles were activated simultaneously, especially if supporting response plans developed by other State agencies with COVEOP responsibilities also assume the use of National Guard resources.

The lack of a system to monitor supporting agency response and recovery plans reflects the lack of express statutory authority for VDEM to review such plans or to compel State agencies to maintain them. During JLARC staff interviews with State staff, there was confusion and disagreement over whether the Code of Virginia provides sufficient authority for VDEM or the secretary's office to review State agency plans. Some VDEM staff said that VDEM and the secretary's office share this responsibility under current statute, while other VDEM staff indicated that the Code gives neither VDEM nor the secretary's office authority to assess supporting agency plans. Staff in the secretary's office reported that the Code of Virginia gives this responsibility to VDEM, not the secretary's office. VDEM staff also emphasized that the agency does not have statutory authority to compel State agencies to develop and maintain plans.

Staff from both VDEM and the secretary's office agree that a process for monitoring the status and quality of agency response and recovery plans would strengthen the State's preparedness for disasters. In response to the 2013 Shelter and Evacuation Gap Report, VDEM staff recommended a policy or executive order requiring State agencies to submit their supporting plans to VDEM for "review and coordination." Recommendations stated that VDEM would determine the number of additional staff needed to perform these reviews and assist State agencies with maintaining supporting plans. However, these recommendations do not expressly state that a standard process will be developed for ongoing review. To ensure that all State agencies maintain response and recovery plans to fulfill their lead and supporting responsibilities under the COVEOP, VDEM staff should develop a process and begin to monitor and review these plans. VDEM should determine the additional resources needed to perform these reviews, and the Secretary of Public Safety should make a budget request.

Recommendation (8). The Virginia Department of Emergency Management should begin to monitor the status and quality of State agency response and recovery plans. The monitoring process should include a review of plans to ensure they sufficiently address the actions and tasks necessary to complete assigned responsibilities under the Commonwealth of Virginia Emergency Operations Plan, and that excessive demands are not placed on State agencies.

VDEM TESTING OF RESPONSE PLANS MEETS MOST FEDERAL EXERCISE GUIDELINES

The State's exercise program adheres to federal guidelines, but the resolution of corrective actions is not tracked on a timely basis. VDEM develops and maintains a multi-year exercise plan, and holds an annual training and exercise workshop to select exercises that test appropriate preparedness priorities using the federal building-block methodology. VDEM documents lessons learned from all exercises and past disasters in after-action reviews and corrective actions. However, VDEM's methods for tracking the implementation of corrective actions do not ensure that relevant stakeholders regularly update progress made towards their completion. VDEM should continue to track localities' exercise corrective actions but ensure that progress is regularly updated to ensure that deficiencies in response plans and procedures are resolved.

Federal guidelines provide a useful framework for developing, implementing, and evaluating Virginia's exercises. The State must follow these guidelines to receive federal grant funds, which are used to finance the development and implementation of the majority of State-run exercises. Some of the major guidelines require the State to: (1) develop and maintain a multi-year training and exercise plan; (2) conduct an annual training and exercise plan workshop to determine exercises that test preparedness capabilities according to federally recommended methodologies; (3) evaluate exercises through after-action reviews that include improvement recommendations; and (4) develop and track corrective actions to resolve problems identified in after-action reviews.

VDEM Maintains a Multi-Year Exercise Plan That Undergoes Periodic Review and Update

VDEM develops and maintains the Commonwealth Multi-Year Training and Exercise Plan, which serves as the State's exercise plan and guides the development, implementation, and evaluation of emergency exercises in Virginia. The plan includes recommended components outlined in the U.S. Department of Homeland Security's (DHS) multi-year training and exercise plan template by setting exercise goals for three years and including an annual schedule of regional and State-level exercises during this period.

For example, the current plan sets exercise goals from 2011-2013 and schedules State-level exercises for each of the three years.

The State adheres to federal requirements for reviewing and updating its exercise plan. The plan undergoes a comprehensive review every three years and interim annual reviews to remain current. Comprehensive reviews are used to develop new three-year plans with new exercises, while annual reviews are used to ensure that scheduled exercises within the existing plan still test the appropriate preparedness priorities given recent disasters or emerging risks in Virginia. For example, VDEM added a wildfire exercise in VDEM Region 2 to the FY 2010 exercise schedule, which was prompted by problems in coordinating responses to a large wildfire in 2009 (see Appendix C for a description of VDEM regions). VDEM is currently developing the new 2013-2015 training and exercise plan.

VDEM Conducts Annual Workshops to Develop Disaster Response Exercises

VDEM follows a federally compliant process for determining State and local preparedness capabilities to test through exercises, the types of exercises to conduct, and the disaster scenarios for each exercise. For example, VDEM staff conducted regional and State training and exercise workshops to determine what preparedness capabilities required testing through exercises for the 2011-2013 period. VDEM staff used lessons learned from past exercises and preparedness priorities from the 2009 Secure Commonwealth Strategic Plan to determine which capabilities should be tested through regional and State exercises.

Building-Block Methodology

The federal building-block approach to exercises involves first testing a capability through discussion-based exercises to develop new, or familiarize relevant stakeholders with current, preparedness policies and procedures. Operations-based exercises can then be used to validate these policies and procedures through a simulated disaster.

VDEM follows the "building-block methodology" to determine what types of exercises should be used to test State and local preparedness capabilities (Exhibit 2). According to interviews with VDEM staff, the agency tracks the types of exercises that have been used to test preparedness capabilities through a comprehensive matrix to determine whether a given capability should be tested through a discussion-based or operations-based exercise. For example, VDEM staff concluded that the agency's plan for assisting families during incidents involving mass casualties or fatalities should be tested through a less intensive, discussion-based exercise, rather than a full-scale exercise, in order to validate recently revised policies and procedures within the plan.

Once exercise types have been determined, VDEM follows federal guidelines by selecting scenarios for each exercise based on potential disasters identified through State and local risk assessments. In order to test the limits of local and State response capabilities, the scenarios selected typically involve the worst-case, catastrophic

events that could impact the area. For example, the 2011 exercise in VDEM Region 5 (which encompasses Hampton Roads) included region, and based on Virginia's Threat and Hazard Identification a category 3 hurricane scenario. Hurricanes are a high risk for the region, and based on Virginia's Threat and Hazard Identification and Risk Assessment, the strongest potential hurricane in Virginia is expected to be a category 3.

Table 4 reflects selected exercises from the State's Exercise Plan that were conducted in FY 2012, each of which tested preparedness priorities through different types of exercises and scenarios. For example, the State conducted a two-day, full-scale exercise in VDEM Region 6 (Roanoke area) that tested State and local responses to five active shooters on a college campus, which involved 398 participants from 34 State, local, and private entities. The active shooter scenario was selected for Region 6 in light of school shooting disasters that have occurred across the nation over the past decade and localities' desire to test certain preparedness priorities, such as delivering quick and reliable information to the community and effectively providing medical treatment to injured citizens.

State agencies, private entities, and localities are sufficiently involved in developing, conducting, and evaluating State-run exercises. According to interviews with JLARC staff, all eight State agencies and two of three private entities have been invited to participate in annual State-level exercises. For example, one agency

Full-Scale Exercise

A full-scale exercise represents the most complex exercise type in the building-block methodology. The exercise includes "boots on the ground" response operations by multiple agencies across multiple jurisdictions.

Table 4: Four State-Run Exercises Tested Ten Preparedness Priorities Through Different Disaster Scenarios in FY 2012

Preparedness Priority Tested	Selected Exercise*			
	VERTEX Series Drill (Statewide)	TRICEPS Drill/TTX (Region 1)	Epic Freeze FE (Region 2)	Active Shooter FSE (Region 6)
Critical Transportation	✓			
Fatality Management Services				✓
On-scene Security and Protection				✓
Operational Communications	✓	✓	✓	
Operational Coordination	✓	✓	✓	✓
Planning	✓			
Public Health and Medical Services				✓
Public Information and Warning				✓
Public and Private Services and Resources	✓			
Situational Assessment		✓		

*Types of exercises include: Tabletop (TTX), Functional (FE), Full-Scale (FSE).

Source: 2011-2013 Commonwealth Training and Exercise Plan and 2009-2012 VDEM After-Action Reviews.

noted having the ability to suggest scenarios and preparedness capabilities to test, as well as relevant stakeholders to involve. Localities also are sufficiently involved in State-run exercises. Interviews with VDEM staff indicated that all 139 jurisdictions with independent local emergency management programs (now 138 following the City of Bedford's reversion to town status) have been invited to participate in two State-run regional exercises each year. Additionally, VDEM has begun inviting localities to participate in some State-level exercises that were previously limited to State agencies.

VDEM Conducts After-Action Reviews, But Tracking of Corrective Actions Is Not Timely

As required by DHS, VDEM develops after-action reviews and corrective actions after every State-run exercise that is federally funded. The State Emergency Coordinator also requires VDEM staff to develop after-action reviews and corrective actions for real-world disasters. In these written reviews, the State must document lessons learned from exercises and disasters to highlight major response strengths and areas in need of improvement. Additionally, the State must develop and track corrective actions for each problem identified within an after-action review to ensure that appropriate improvements are made to response plans and procedures. To comply with these requirements, VDEM utilizes two separate, but parallel, processes for disasters and exercises.

Development of After-Action Reviews and Corrective Actions for Exercises and Disasters Are Consistent with Federal Guidelines. Af-

ter-action reviews for State-run exercises conform to DHS exercise review structures. The reviews for disasters closely resemble those for exercises, although federal guidelines do not require them to follow a specific structure. State after-action reviews for both exercises and disasters include an executive summary that outlines the disaster scenario and entities involved in the response, an analysis of capabilities detailing major strengths and weaknesses in response operations, and improvement recommendations to address problems identified during response operations.

The State develops corrective actions for problems identified during disasters and exercises in accordance with federal and State standards. According to interviews with VDEM staff, recommendations from both disaster and exercise after-action reviews are transformed into resolvable corrective actions by assigning primary owners to complete each action and entering actions into a database to track their completion. While exercise corrective actions are entered into a DHS database in accordance with federal requirements, disaster corrective actions are housed in a series of spreadsheets managed by VDEM (Exhibit 3). Only corrective actions pertaining to exercises include start and completion dates.

Opportunities Exist to Better Track the Implementation of Corrective Actions for Exercises and Disasters. VDEM's process for tracking corrective actions pertaining to exercises does not ensure that localities complete their assigned corrective actions on time or that they regularly update progress made towards completion. According to VDEM data, 27 percent of corrective actions following exercises were incomplete and overdue as of June 2013. However, VDEM staff asserted that this percentage did not accurately

Exhibit 3: Corrective Actions Pertaining to Exercises Are Documented and Tracked Through Improvement Matrices

Improvement Plan										
Event	2011 Hurricane Irene									
Dates	August 25, 2011 - September 29, 2011									
Project Code	00155 / 00160									
FEMA Code	4024 / 3359									
Item	**Capability**	**Observation**	**Recommendation**	**Cost Involved**	**Primary Organization Assigned**	**Organization POC**	**Start Date**	**Completion Date**	**Status**
1	Organization and Leadership	VDEM requested a FEMA IMAT. However, when the IMAT team arrived, several unsolicited federal agency partners accompanied them. These staff members then proceeded to communicate directly with VERT staff instead of through their FEMA IMAT Section Chief causing undue communication issues.	VDEM should provide feedback to FEMA on the communication issues caused by the overstaffed FEMA IMAT. Federal agency partners outside of the IMAT should be located at an external site. Additionally, all communication from on-site federal partners should be coordinated through the appropriate FEMA IMAT Section Chief.	No	VDEM	Michael Cline or Designee	07-Oct-11	1-Oct-11	**COMPLETE:** Worked with FEMA Region III IMAT to develop a FEMA book for incoming IMATs. There are procedures in place for integrating the IMAT with the VEOC staff. This procedure was successfully utilized during Hurricane Sandy which struck in October 2012

Source: Virginia Department of Emergency Management Hurricane Irene Improvement Plan Matrix, 2011.

reflect the number of completed corrective actions because many localities do not regularly update the database to reflect implementation progress.

VDEM staff developed a reasonable strategy for improving how the agency tracks the status of corrective actions from exercises. According to staff, while the agency has previously been successful in ensuring that localities complete their corrective actions on time and regularly update the DHS database to reflect these completions, recent staffing reductions have limited its capacity to continue such monitoring activities. While VDEM does not have statutory authority to require that localities address corrective actions, to address outstanding corrective actions and database discrepancies, VDEM staff have begun tracking exercise participation for groups of localities to determine the status of corrective actions. VDEM then collaborates with these localities to update the database with accurate information on corrective actions. VDEM has also started to consolidate similar after-action review recommendations into larger, more comprehensive corrective actions to eliminate duplicative efforts and reduce the number of individual actions that must be tracked.

VDEM's process for tracking corrective actions for disasters appears to result in their timely completion, but the process could be more efficient. According to interviews with VDEM staff, the agency monitors entities' progress towards completing corrective actions by tracking spreadsheets on a weekly basis, identifying incomplete corrective actions, and following up with appropriate State agencies to determine the status of each action. However, owners of corrective actions do not have access to the database and cannot regularly update progress made towards their completion, thereby slowing the process of updating the spreadsheet.

WebEOC

WebEOC is the State's web-based system for local emergency operations centers to communicate with the State emergency operations center in Richmond. The system allows requests for assistance to be submitted and monitored during a disaster.

VDEM staff acknowledged that this process could be made more efficient by allowing corrective action owners to access the spreadsheets directly and update their progress towards completing goals. To achieve this efficiency, VDEM is modifying WebEOC to include a tracking tool that corrective action owners can access directly to regularly update. Although corrective action owners will be responsible for updating the action status, VDEM staff noted that they intend to continue monitoring WebEOC to ensure that corrective actions are resolved in a timely manner. VDEM should evaluate whether additional resources are needed to adequately monitor corrective actions given their importance for improving the quality of disaster response plans. If the agency determines additional resources are needed, the Secretary of Public Safety should make a budget request to secure these resources.

LOCAL DISASTER RESPONSE PLANS GENERALLY FOLLOW WELL-ACCEPTED PLANNING PRACTICES

Local response plans generally follow federal and State guidelines, but wide variation exists and larger localities appear to utilize more systematic processes. Most localities appear to follow the plan structures recommended by VDEM, maintain current plans by conducting regular reviews, and solicit and incorporate input from relevant stakeholders. Most localities regularly evaluate their response plans through exercises and document lessons learned from exercises and past disasters in after-action reviews.

The Code of Virginia requires all local response plans to undergo a comprehensive review and revision every four years and be formally adopted by the locality's governing body. Nearly 30 percent of localities have not maintained up-to-date response plans in past years. This may reflect limited staff time and resources that some localities can devote to preparedness planning. Additionally, less than half of local agencies and relevant stakeholders have fully developed response plans to support the implementation of their jurisdictions' response plan. VDEM does not review local response plans to ensure that their content remains current. This reflects the lack of express authority in the Code of Virginia enabling VDEM to conduct such reviews, as well as limited staff resources.

Most Localities Conduct Response Plan Reviews and Involve Relevant Stakeholders

Since 2012, all 139 jurisdictions with independent local emergency management programs have maintained current response plans.

Most, but not all, localities consistently meet statutory requirements for maintaining up-to-date emergency response plans. Since 2005, the percentage of localities with up-to-date response plans in a given year has exceeded 70 percent. Since 2012, all 139 jurisdictions with independent local emergency management programs have maintained current response plans. This improvement in the number of up-to-date local response plans reflects the Governor's initiative to ensure that localities are reviewing and re-adopting their plans every four years. According to VDEM staff, localities receive periodic notices in the year leading up to the expiration of their plan and a joint letter from the Secretary of Public Safety and the State Emergency Management Coordinator. According to JLARC staff interviews with local emergency managers, localities generally review all plan components during comprehensive plan reviews to ensure their content remains accurate and applicable to the current risks and threats facing the jurisdiction. Approximately half of local response plans appear to undergo interim reviews to address changes in the emergency management environment that require modifications to plans. Ten of 19 localities interviewed by JLARC staff through site visits and phone surveys regarding reviews of their response plans reported conducting interim reviews and revising certain response plan components to address lessons

learned from disasters and emergency exercises, changes in federal or State disaster policies or laws, or new and emerging threats facing the jurisdiction.

State agencies and localities indicated that a shortage of staff and time that localities can dedicate to preparedness planning can create difficulty for developing and maintaining local response plans. According to data from the 2012 Local Capabilities Assessment for Readiness (LCAR), roughly two-thirds of local emergency managers reported devoting one-half or less of their time to emergency management, and 41 percent reported devoting a quarter or less of their time to these responsibilities. Given that many local emergency managers hold other responsibilities in addition to overseeing preparedness planning, it may be difficult for them to focus on developing and maintaining response plans. For example, staff with one locality reported that its emergency manager had to focus all his time on issues related to the locality's radio system.

Localities report involving relevant State, local, and private stakeholders in comprehensive and interim reviews of local response plans. During JLARC staff site visits and phone surveys, all 20 localities interviewed indicated soliciting input from local departments within their jurisdictions that hold responsibilities for, or may be impacted by, the response plan. Eighteen of 20 localities also reported involving private entities or non-profit organizations in plan development and maintenance, and data from the 2012 LCAR found that nearly 99 percent of all Virginia localities have regular communications with power companies within their jurisdictions. Localities generally involve relevant stakeholders by holding periodic planning meetings and circulating drafts of plan components for departments to review and revise. Localities involve higher education institutions and surrounding localities in response planning, but to a lesser extent than local and private entities. According to data from the 2012 LCAR, 68 percent of all Virginia localities integrated their response plans with response plans of colleges and universities within their jurisdiction. While most localities do not appear to actively involve surrounding jurisdictions in developing and maintaining response plans, 2012 LCAR data indicated that nearly 90 percent of localities hold mutual aid agreements with neighboring localities.

State Monitoring of Local Response Plans Ensures Currency but Not Sufficiency of Local Response Plans

State mechanisms ensure that local response plans are re-adopted every four years in accordance with the Code of Virginia, but they do not ensure that plan content is also revised to remain applicable to the current risk environment. VDEM tracks plan adoption dates for all localities and periodically notifies localities to review and re-

Local Capabilities Assessment for Readiness (LCAR)

The LCAR is a self-administered survey that all localities are required to complete annually. The LCAR is used by VDEM to assess localities' preparedness strength by measuring capabilities across ten different areas of emergency management, one section of which focuses on response planning.

Mutual Aid Agreements

Mutual aid agreements are written agreements between localities to provide emergency assistance to each other in the event of a disaster that overwhelms individual response resources, such as equipment or personnel.

adopt their plans a year before such plans expire. However, VDEM staff noted that the agency only receives signed re-adoption forms from localities, not copies of the actual plan, and therefore does not know whether comprehensive reviews and updates have taken place unless VDEM staff were actively involved in the plan review and update process. For example, VDEM staff indicated that the agency provided direct assistance for local response plans to 15 of 139 jurisdictions with independent emergency management programs in 2012. VDEM uses the LCAR to monitor the strength and quality of local response plans, but this tool does not include questions that would comprise a comprehensive review of all plan components, and the tool does not require localities to submit their plans to VDEM for such a review.

Limited State monitoring of local response plans reflects the lack of express authority in the Code of Virginia and constrained staff resources at VDEM. While the Code requires VDEM to annually conduct a statewide emergency management assessment that includes a review of local emergency operations plans, statute generally does not give VDEM express authority, nor does it require the department, to specify the content of local plans or to evaluate the quality of local response plans through comprehensive reviews of their content. Rather, VDEM staff report having the authority only to provide technical assistance to localities that request help with response planning because it plays a coordinating rather than a regulatory role in preparedness. The agency also indicated it lacks sufficient staff to perform comprehensive reviews of local emergency operations plans.

VDEM appears to offer sufficient technical assistance to localities in developing and maintaining current response plans. VDEM uses annual LCAR results to determine which preparedness areas localities can improve upon and offers training and assistance in these areas to resolve any gaps or weaknesses. For example, VDEM will offer training and assistance to localities for hazard mitigation if the agency identifies low LCAR scores in that area. Most localities appear satisfied with VDEM's level and methods of technical assistance for response planning. In JLARC staff phone surveys, 8 of 10 localities that have requested assistance from VDEM reported receiving sufficient technical assistance to develop and maintain response plans that can be successfully implemented during disasters.

Local Response Plans Generally Follow State and Federal Guidance, but Supporting Plans Are Incomplete

Local response plans appear to align with federal and State guidelines by using VDEM response planning templates. VDEM planning templates foster alignment with COVEOP and federal re-

sponse plans because they use the emergency support function format, which is used in the COVEOP and federal response plans. All 13 localities responding to a JLARC phone survey reported using VDEM templates to develop their response plans, and many adapted these templates to fit their planning needs.

However, less than half of local agencies have fully developed agency response plans to support the implementation of their local response plans, and 42 percent of localities are in the process of developing additional agency response plans, according to 2012 data from the LCAR. Most localities lack comprehensive information on the status of local agency response plans, and wide variation exists across localities regarding how they monitor such plans. While three of 13 local emergency managers responding to a JLARC phone survey knew that all agencies within their jurisdictions had developed response plans, five had no information at all, and the remaining five respondents knew about some, but not all, agency plans.

More heavily populated localities appear to have more systematic monitoring processes, which enable emergency managers to have more complete information about the status of supporting agency response plans. However, most emergency managers responding to the JLARC staff phone survey reported using various informal mechanisms to determine whether local agency response plans have been developed. For example, one larger locality indicated that these plans are often presented to the jurisdiction's emergency management executive committee for approval.

Localities Test Response Plans Through Exercises and Develop After-Action Reviews

Localities routinely test their preparedness capabilities and plans through emergency exercises. According to data from the 2012 LCAR data, 82 percent of localities tested their response plans through real-world disasters or exercises in 2011, and over two-thirds of localities participated in a State-run exercise within their VDEM region in 2011. All 20 localities interviewed by JLARC staff through site visits and phone surveys reported either conducting or participating in at least one exercise in the past two years. Some larger, more densely populated localities appear to conduct multiple emergency exercises each year. For example, VDEM Region 7 included over 30 exercises on its 2011-2013 exercise schedule, nearly half of which occurred in 2011, according to the State's 2011-2013 Exercise Plan.

Localities evaluate exercises and disasters through after-action reviews, but the frequency and standardization of these reviews varies. Phone surveys revealed that all 13 localities responding to

questions about after-action reviews for exercises developed, or participated in the development of, after-action reviews following some exercises in the past two years, and eight produced a review after every exercise. Similarly, all 12 localities surveyed by phone that have responded to real disasters in the past two years developed after-action reviews for some disasters, and eight produced a review after every disaster. Larger, more densely populated localities appear to follow more standardized and systematic processes to produce after-action reviews that include corrective actions. For example, one locality indicated producing after-action reviews following every disaster and exercise, as well as a corrective action plan for each review. Corrective actions are then entered into a WebEOC board that the locality built to track progress towards completion.

Shelter and Evacuation Plan Deficiencies May Compromise Safety of Population During Catastrophic Disaster

In Summary

State and local shelter and evacuation plans have deficiencies that could compromise Virginia's response to catastrophic disasters and put the safety of Virginians at risk, especially in the Hampton Roads region. State evacuation plans are designed to support evacuations for category 3 hurricanes, but depend on overly optimistic assumptions, and likely traffic congestion along evacuation routes could hinder timely exits out of the region. As a result, refuges of last resort would likely be needed for stranded evacuees, but not all localities have identified potential sites or shared this information with the State. State and local shelters could shelter only about half of the evacuees expected in the event of a category 3 hurricane in the Hampton Roads region. Shelter capacity may even be less adequate because staffing limitations are expected to allow the opening of only six of the 16 State shelters, and only three localities outside Hampton Roads have signed written agreements to supplement capacity. Although State plans for operating shelters have been in progress for approximately seven years, some plans have not been completed and there is no clear strategy for when and where State shelters would be used. Plans for how evacuees would re-enter the region after a disaster remain incomplete and require additional planning. Multiple steps could be taken to improve shelter and evacuation planning in Virginia, including requiring localities to develop traffic management plans and providing assistance for these local planning efforts, performing periodic reviews of local evacuation plans, requiring localities to annually provide shelter information to the Virginia Department of Emergency Management, and developing a strategy for re-entry and the use of State shelters. The Secretary responsible for disaster preparedness coordination should also be given specific statutory responsibility for coordinating shelter and evacuation planning in Virginia.

Catastrophic Disaster

A catastrophic disaster is defined as "any natural disaster, act of terrorism, or other man-made disaster that results in extraordinary levels of casualties or damage or disruption severely affecting the population (including mass evacuations), infrastructure, environment, economy, national morale, or government functions in an area."

While Chapter 3 addressed the status and quality of State and local response plans in general, Chapter 4 addresses the status and quality of State and local plans for catastrophic disasters that would involve the need for shelter and evacuation. The focus on shelter and evacuation planning is due to the high frequency with which State and local entities raised issues about the State's readiness for disasters involving these capabilities. Deficiencies in Virginia's preparedness would become most apparent and jeopardize the most lives and property in catastrophic disasters. The two most likely catastrophic disaster scenarios in Virginia appear to be a category 3 hurricane making landfall in the Hampton Roads region or a terrorist attack impacting the Northern Virginia, Hampton Roads, or Central Virginia region. Chapter 4 focuses primarily on evacuation, shelter, and re-entry planning for a catastrophic hurricane in the Hampton Roads region, as such an event would

require a mass evacuation of the region, as well as the sheltering of a portion of Hampton Roads residents. The chapter does not address planning for a catastrophic terrorist attack in the Northern Virginia region because State and local stakeholders primarily expressed concern about planning for hurricanes in Hampton Roads rather than terrorist attacks.

A wide range of State and local entities are responsible for shelter, re-entry, and evacuation planning in Virginia. The Virginia Department of Emergency Management (VDEM) is responsible for maintaining the Commonwealth of Virginia Emergency Operations Plan (COVEOP), which contains specific supporting plans for shelter, re-entry, evacuation, and hurricane response. However, these supporting plans are developed and maintained by other State agencies, which must describe the actions they will take to fulfill their COVEOP responsibilities during a disaster. The Virginia Department of Social Services (DSS) is the lead agency responsible for planning in support of State shelters, while the Virginia State Police (VSP) and the Virginia Department of Transportation (VDOT) must develop plans to support State evacuation operations. COVEOP plans also assume that localities will develop plans to support evacuation, re-entry, and local shelter operations during a disaster. While giving VDEM primary responsibility for disaster response planning through the COVEOP, the Code of Virginia provides the agency only limited authority to compel State and local entities to develop response and recovery plans or specify their content.

Evacuation, re-entry, and sheltering response plans are among the most complex to develop because these operations can involve dozens of State and local agencies that must respond within a highly compressed timeframe. These response plans also present the added challenge of requiring continual reviews and revisions to account for changes in population, transportation networks, weather development patterns, and vulnerability to potential disasters (such as rising sea levels that widen storm surge zones) to ensure that plans remain current and can be successfully implemented. For example, an increase in a jurisdiction's population requires planners to recalculate how many residents might require shelter during an evacuation and whether existing shelters have the capacities to shelter this increased population.

Virginia's infrastructure and disaster history also present unique challenges to successfully planning evacuation and sheltering responses. The Hampton Roads region is vulnerable to tropical storms and hurricanes and therefore is at risk of sustaining substantial damage during storms, especially if they become catastrophic. It would be especially difficult to evacuate a half million residents out of the Hampton Roads region before a catastrophic

storm because there is a limited number of outgoing routes, and evacuation challenges would likely be exacerbated by significant traffic congestion the area faces. The State has yet to experience a catastrophic disaster that has required evacuating and sheltering citizens on a mass scale, making it difficult to confirm planning assumptions and determine whether plans will be successful. However, catastrophic hurricanes that would likely require sheltering and evacuation have threatened to make landfall on Virginia's coastline in the past, such as Hurricane Sandy in 2012. Given these threats, along with the significant damage that catastrophic hurricanes can inflict on Virginia's communities and to citizen life and safety, strong planning for sheltering and evacuation in Virginia is critical.

ADDITIONAL EVACUATION PLANNING AND COORDINATION IS NEEDED TO ADDRESS TRAFFIC CONGESTION

The State's evacuation plans provide sufficient time to exit the Hampton Roads region for up to a category 3 hurricane, but potential traffic congestion may hinder timely evacuations. If key assumptions hold, the existing plan would allow residents to evacuate Hampton Roads before dangerous weather conditions arrive. However, delayed or unnecessary citizen decisions to evacuate and undeveloped traffic management plans could cause substantial traffic congestion along regional evacuation routes, which may prevent citizens from exiting the region before the storm hits. Further, the State is unaware of potential sites where stranded evacuees could seek refuge during the storm. To ensure that local traffic management plans direct citizens to evacuation routes, localities should be required to develop these plans. The State should also provide localities with templates and technical assistance to develop traffic management plans, and monitor these plans. Localities should also submit a list of potential sites that could shelter stranded motorists along evacuation routes.

A variety of State and local entities are responsible for planning to support an evacuation in Hampton Roads before a hurricane. Through the COVEOP, VDEM maintains evacuation plans for potential disasters facing Virginia, including a hurricane in Hampton Roads. The COVEOP requires all relevant entities to maintain supporting evacuation plans, although VDEM has limited statutory authority to ensure these plans are developed. VDOT maintains a supporting plan for reversing the east-bound lanes on I-64, and VSP maintains plans for assisting with a lane reversal and providing security along evacuation routes. The COVEOP evacuation plans also assume there will be local evacuation plans that support and synchronize with the COVEOP.

The timelines in the State's hurricane evacuation plans do not account for any traffic congestion that may impact the completion of a mandatory evacuation within the allotted 38-hour timeframe.

State mass evacuation planning began in 2001 following Hurricane Floyd in 1999, during which many states were unprepared for citizens to evacuate and experienced major traffic congestion along the east coast. As a result of these uncoordinated evacuations, Virginia's governor directed State agencies to develop a State mass evacuation plan that addressed reversing the lanes on I-64. According to the Code of Virginia, the governor has sole authority to order a mandatory evacuation of the Hampton Roads region and reverse the lanes on I-64. The purpose of the hurricane evacuation plan is to support a mass evacuation of the Hampton Roads region in the event of a catastrophic hurricane. In Virginia, hurricane evacuation planning is designed for up to a category 3 hurricane. Virginia's Threat and Hazard Identification and Risk Assessment identifies a category 3 as the most severe hurricane Virginia would likely experience.

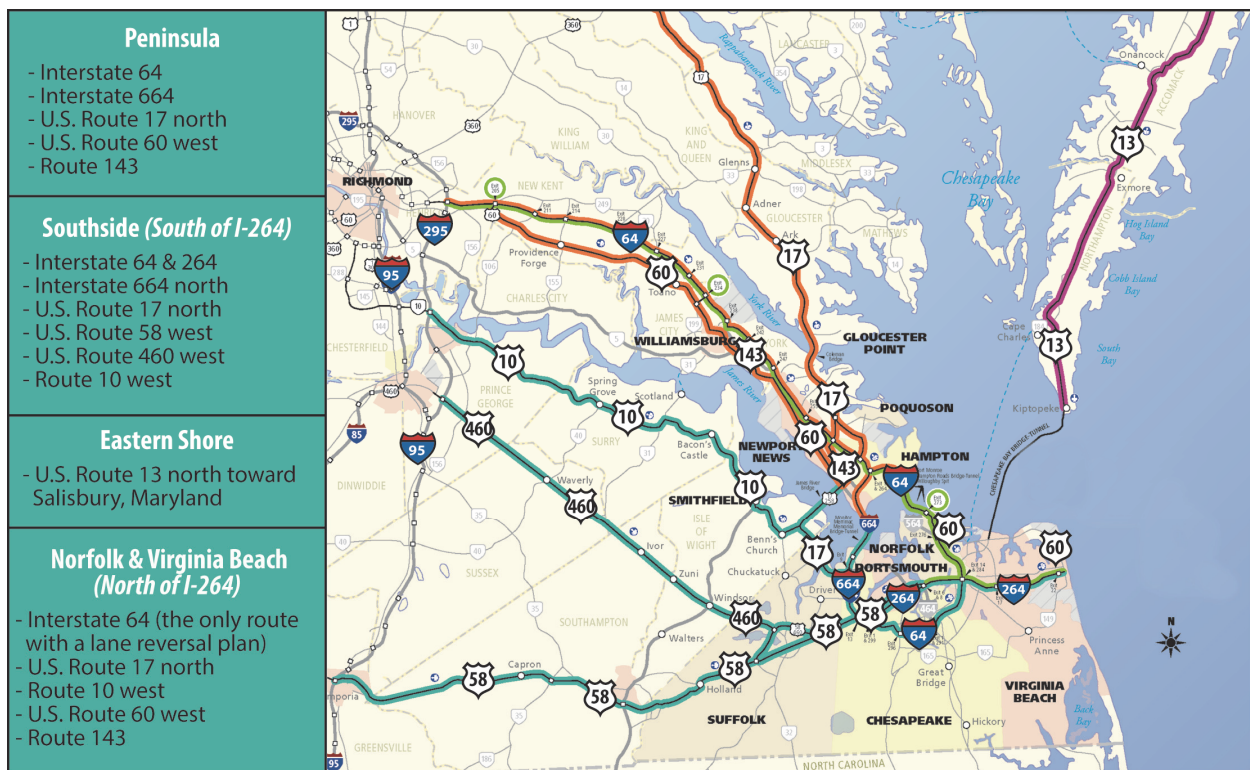### Four Factors Could Hinder Timely Evacuation

The State's hurricane evacuation plan is generally well developed and, if four key assumptions hold, provides sufficient time for Hampton Roads residents to evacuate in response to a hurricane of category 3 or lower intensity. However, these assumptions are overly optimistic. The assumptions are: (1) only residents in storm-surge zones will evacuate, (2) these residents will obey a mandatory evacuation order and begin evacuating their jurisdictions without delay, (3) localities have traffic management plans that direct these residents to recommended evacuation routes in a timely manner, and (4) evacuation routes have sufficient transportation capacity to support all evacuating citizens and vehicles.

Successful completion of a mandatory evacuation of the Hampton Roads region within the established 38-hour timeframe hinges on these four key assumptions. According to JLARC staff interviews with State agency staff, breakdowns in any of these four assumptions can increase traffic volume and congestion on evacuation routes that may prevent citizens from exiting the region before the storm arrives. Traffic accidents also have the potential to increase congestion and delay an evacuation from the region. However, an ongoing initiative aimed at improving traffic incident management in Virginia may improve the ability of first-responders to quickly and safely clear traffic accidents during an evacuation. Traffic congestion can ultimately lead to stranded motorists in Hampton Roads that are exposed to flooding and dangerous winds. VDEM staff indicated that the timelines in the State's hurricane evacuation plans do not account for any traffic congestion or other delays that may impact the completion of a mandatory evacuation within the allotted 38-hour timeframe.

The State's hurricane evacuation plan identifies ten evacuation routes for citizens to use during a mandatory evacuation of Hampton Roads, three of which serve as the primary evacuation routes for the majority of evacuating citizens (Figure 5). Citizens are directed to use certain routes depending on their location within the region to ensure an even distribution of traffic. For example, Virginia Beach residents are directed to use I-64, while residents in the City of Suffolk are directed to use Routes 58 and 460. According to the hurricane evacuation timeline, the governor must order a mandatory evacuation at least 38 hours prior to the projected arrival of tropical storm force winds (see Appendix D for the State's hurricane evacuation timeline). This deadline for ordering a mandatory evacuation is aligned with data from a 2009 Federal Emergency Management Agency hurricane evacuation study, which estimates a minimum of 38 hours needed to move the predicted number of evacuees out of the Hampton Roads region (Table 5).

Individuals Not Living in Storm Surge Zones May Evacuate Unnecessarily. During a mandatory evacuation, not all Hampton Roads

Figure 5: State Plans Designate Ten Evacuation Routes for Hampton Roads Residents

Peninsula
- Interstate 64
- Interstate 664
- U.S. Route 17 north
- U.S. Route 60 west
- Route 143

Southside *(South of I-264)*
- Interstate 64 & 264
- Interstate 664 north
- U.S. Route 17 north
- U.S. Route 58 west
- U.S. Route 460 west
- Route 10 west

Eastern Shore
- U.S. Route 13 north toward Salisbury, Maryland

Norfolk & Virginia Beach *(North of I-264)*
- Interstate 64 (the only route with a lane reversal plan)
- U.S. Route 17 north
- Route 10 west
- U.S. Route 60 west
- Route 143

Note: Chesapeake Bay Bridge Tunnel is not a hurricane evacuation route.

Source: Virginia Department of Transportation Hurricane Evacuation Guide, 2013.

Table 5: State's 38-Hour Evacuation Timeframe Provides Sufficient Time to Successfully Evacuate Citizens Out of Hampton Roads Before a Category 3 Hurricane

	Projected Impact		Projected Minimum Evacuation Timeline (hours)	
Hurricane Category	Number of evacuees	Number of evacuating vehicles	Evacuees directed to use I-64 (with lane reversal)	Evacuees directed to use Route 58/460 (Bowers Hill)*
2	300,000	132,000	16	23
3	500,000	230,000	22	38
4	900,000	400,000	38	61

*Bower's Hill is located in the City of Chesapeake.

Source: Virginia Department of Emergency Management evacuation data, 2013; FEMA Hurricane Evacuation Study, 2009.

Storm Surge Zone

According to Virginia's 2013 Hurricane Evacuation Guide, a storm surge is an "abnormal and dangerous rise of water pushed to the shore by strong winds." Residents living in areas subject to storm surge are at risk of being exposed to substantial flooding during hurricanes.

Additional communication to the public is needed to ensure that individuals have a full understanding of evacuation information, including the conditions under which to evacuate.

residents are required to leave their jurisdictions. Only residents living in areas subject to storm surge would be required to evacuate their homes, including residents in immediate coastal areas, low-lying areas prone to flooding, and mobile homes. The remaining citizens would be strongly encouraged to remain in their homes. As a result, a critical part of planning for hurricanes is identifying areas from which residents would have to evacuate, and ensuring these residents are notified of their need to evacuate. VDEM and VDOT staff expressed concern that individuals may not fully understand that an order to evacuate only applies if they reside in a storm surge zone. As a result, some individuals that should remain in their homes may still evacuate. In addition, VDEM staff asserted that a percentage of the population will always choose to evacuate the region regardless of the type or severity of the disaster threatening the region.

VDEM currently encourages public awareness of disaster preparedness through its Ready Virginia initiative, which includes a hurricane evacuation guide and a variety of internet, social media, and cell phone applications. However, while the decision to evacuate is ultimately made by individual citizens, additional public outreach is needed to ensure that individuals understand the purpose and implementation of the State's evacuation plan. The Secretary of Veterans Affairs and Homeland Security told JLARC staff that while State evacuation plans are strong and well-exercised, additional communication to the public is needed to ensure that individuals have a full understanding of evacuation information, including the conditions under which to evacuate. The State is taking steps to increase public awareness of the evacuation plan. According to the Hurricane Irene after-action report, VDEM staff are working with Hampton Roads localities to simplify storm surge maps. Additionally, funding from the Regional Catastrophic Grant Program is being used to fund a pilot program to develop a computerized mapping tool that will allow individuals to enter their address and determine whether their residence would be subject to flooding during hurricanes.

Some Individuals May Not Obey Mandatory Evacuation Orders and Delay Evacuating. According to State evacuation plans, it is imperative that citizens in storm surge zones leave immediately following a mandatory evacuation order to allow enough time to safely exit the region before storm conditions arrive. However, State agency staff expressed concern that some citizens in storm surge zones may delay their decision to evacuate until a few hours before the storm hits, even if they know they should leave immediately following an evacuation order. Obeying an order and evacuating immediately remains a decision made by individual residents, and previous disaster experiences indicate that some individuals will not obey mandatory evacuation orders.

Failing to obey a mandatory evacuation order may also result from confusion among residents. For example, during Hurricane Irene in 2011, citizens had difficulty understanding storm surge maps and did not realize they lived in a storm surge zone. Such confusion over storm surge zones could have resulted in citizens not evacuating when ordered, according to the Hurricane Irene after-action report. Additional public outreach is needed to ensure that citizens understand the importance of following orders to evacuate or remain in their homes depending on their location. As mentioned previously, the State is taking steps to bolster their public outreach regarding evacuation information.

Localities May Not Have Local Traffic Management Plans That Direct Citizens to Recommended Regional Evacuation Routes. Traffic congestion along evacuation routes could also be exacerbated if localities do not have local traffic management plans that direct residents to regional evacuation routes and support efficient flow of traffic on local roads to these routes. During an evacuation, localities are responsible for directing their residents to recommended regional evacuation routes, and must develop plans for efficiently managing traffic flow to these routes. However, the State lacks clarity regarding the extent to which localities in the Hampton Roads region have developed such plans for their jurisdictions and whether these plans appropriately and efficiently direct citizens to designated evacuation routes, according to interviews with State agency staff. VDEM staff stated that they knew of only two localities in Hampton Roads that have developed traffic management plans that guide citizens to access points on designated evacuation routes.

Localities should be required to develop local traffic management plans to ensure that citizens are directed to evacuation routes in an efficient manner. To ensure these local plans are consistent with State evacuation plans, VDEM, VSP, and VDOT should collaborate to provide technical assistance for localities and review plans once developed. VDEM has recognized that localities may

need assistance in developing local traffic management plans and has recommended that VDOT develop planning templates to assist localities in developing local transportation plans that align with the State's evacuation plan. In addition, neither VDEM nor VDOT conducts reviews to assess the quality or currency of local traffic management plans in support of a Hampton Roads evacuation. These agencies should develop and implement a process to periodically review local traffic management plans to ensure that plans direct residents to entry points of designated evacuation routes. Because VSP has critical responsibilities for managing evacuations, the agency should be consulted during the development of planning templates, technical assistance, and a process for reviewing local plans.

The State has established goals to better ensure that traffic management plans properly direct citizens to designated evacuation routes. According to Shelter and Evacuation Gap Report findings, VDEM and VDOT have developed traffic management plans for three VDEM regions and will continue to develop these plans for the remaining four VDEM regions, including Hampton Roads. These *regional* traffic management plans are intended to supplement existing *local* traffic management plans by providing easily readable evacuation information, such as how many evacuees to expect at each entry ramp onto I-64. However, these actions do not ensure that localities have local traffic management plans for their jurisdictions.

Recommendation (9). The General Assembly may wish to amend the Code of Virginia to require localities to develop local traffic management plans that direct citizens to designated evacuation routes in an efficient and effective manner.

Recommendation (10). The Virginia Department of Emergency Management and the Virginia Department of Transportation, in consultation with the Virginia State Police, should collaborate to develop planning templates and provide technical assistance to support the development of traffic management plans by localities.

Recommendation (11). The Virginia Department of Emergency Management and the Virginia Department of Transportation, in consultation with the Virginia State Police, should collaborate to develop and implement a process for periodically reviewing local traffic management plans to ensure that plans direct residents to entry points of designated evacuation routes.

VDEM may require additional resources to assist localities with traffic management planning and review local traffic management

plans. The agency should evaluate whether additional resources are needed to perform these functions, and if there is a need, the Secretary of Public Safety should make a budget request to secure these resources.

Regional Evacuation Routes May Not Have Sufficient Transportation Capacity to Support All Evacuating Citizens and Vehicles. There is concern that regional evacuation routes may be unable to accommodate the amount of traffic resulting from a mandatory evacuation, especially if citizens delay their decision to evacuate or evacuate unnecessarily. VDOT and VSP are responsible for managing an evacuation along State highways, which provide most of the regional evacuation routes out of Hampton Roads. According to interviews with VDEM staff, the State has identified six "choke" points along these evacuation routes that may be vulnerable to substantial traffic congestion during a mandatory evacuation of Hampton Roads, particularly for a category 3 hurricane. The Bowers Hill area, which lies in the City of Chesapeake, appears to have the potential to experience some of the heaviest congestion and cause considerable delays during an evacuation because four evacuation routes converge at this point. Three of these routes are major evacuation routes that the majority of citizens will use (Figure 6).

The State is currently exploring the feasibility of reversing the eastbound lanes on Route 58 to relieve traffic congestion at

Figure 6: Bower's Hill Has the Potential for Heavy Congestion Because Four Evacuation Routes Converge
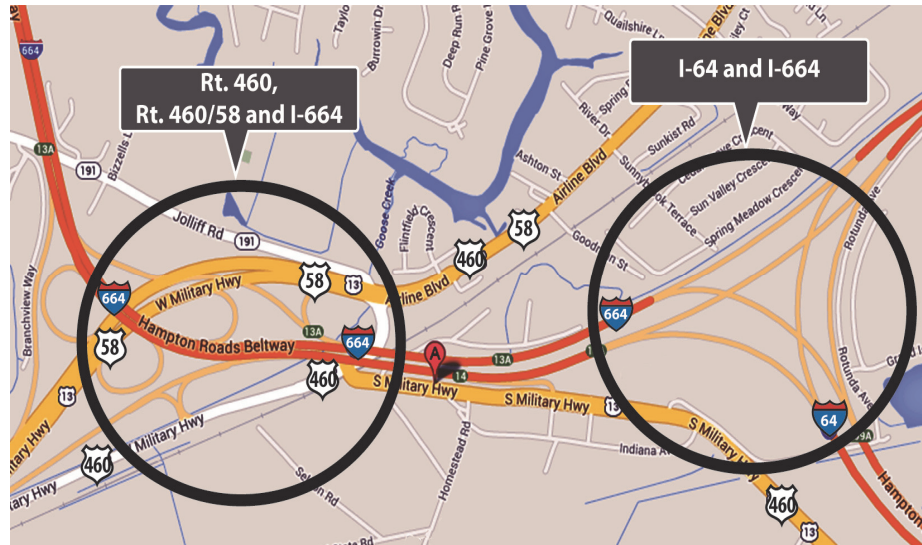
Source: JLARC staff analysis of hurricane evacuation routes, 2013.

identified choke points along evacuation routes, particularly in the Bowers Hill area. However, a recent study by a consulting group concluded that Route 58 would need structural and operational improvements costing nearly $9.2 million to support the execution of a lane reversal. For example, the route would need to be equipped with traffic gates to limit entry and exit points on the road. In addition, the lane reversal of Route 58 would place a significant strain on VSP, VDOT, and Virginia National Guard staff given their standing duties to assist with the I-64 lane reversal, according to interviews with VSP and VDOT staff.

The State should continue exploring the feasibility of reversing the lanes on Route 58, and VDOT, in collaboration with VSP and the Department of Military Affairs (DMA), should evaluate the staffing needs for implementing the Route 58 lane reversal. VDOT staff reported sharing the lane reversal feasibility study with the cities of Chesapeake and Suffolk and should continue to involve impacted localities in determining the feasibility of reversing the eastbound lanes on Route 58.

Not All Refuges of Last Resort Have Been Identified

Refuges of Last Resort

The COVEOP defines refuges of last resort as a "safe haven for evacuees unable to clear the area." These sites are not meant to be true shelters and therefore may not have basic provisions, such as food, water, sleeping accommodations, or first aid kits.

The State's hurricane evacuation plan states that evacuations involving large populations, limited timeframe, and limited road network capacities may have to be terminated before all residents have exited the region. In these cases, evacuees unable to leave the region would be directed to temporary facilities known as *refuges of last resort* until weather conditions are safe for travel. According to the COVEOP, localities are responsible for establishing and opening refuges of last resort. However, VDEM has no statutory authority to ensure that localities identify such facilities or share their location and capacity with the State.

The State does not know the extent to which localities have identified buildings that could serve as refuges of last resort within the Hampton Roads region or whether sufficient capacity exists to accommodate stranded motorists, according to VDEM staff. According to corrective actions from a 2010 Region 5 exercise and JLARC staff phone surveys, eight of 14 Hampton Roads localities tasked with identifying refuges of last resort have completed such identification.

State agencies and Hampton Roads localities have acknowledged the importance of identifying refuges of last resort. VDOT staff stated that knowing the location of potential refuges of last resort in advance of a disaster would allow the agency to place signs along evacuation routes directing citizens to these buildings. According to interviews with VDEM staff, a Hampton Roads regional planning group is currently developing a common definition of ref-

uges of last resort, determining the capacity of existing facilities, and identifying additional facilities that could perform this function.

Once potential refuges of last resort sites have been identified, localities should be required to provide VDEM with a list of these sites, along with their locations and capacities, updated annually through the Local Capabilities Assessment for Readiness (LCAR) survey, which does not currently include such questions. Utilizing the LCAR would allow VDEM to obtain needed information without creating a new tracking mechanism.

Recommendation (12). As part of the annual Local Capabilities Assessment for Readiness survey, the Virginia Department of Emergency Management should require localities to submit a list of sites that could serve as refuges of last resort, including the location and capacity of identified sites.

Additional Exercises Are Needed to Test Assumptions Underlying Evacuation Plans

The State conducts annual exercises to test components of State evacuation plans, but more are needed to test the impact of potential contributing factors to traffic congestion along evacuation routes. VDEM and VDOT staff reported that the State has tested the I-64 lane reversal portion of the State evacuation plan through functional exercises each year since 2007. These exercises have involved physically reversing the eastbound lanes for portions of the highway and having VSP staff drive on the reversed lanes to check for debris or other problems on the route, as well as tests of other various capabilities depending on the exercise.

However, annual evacuation exercises have not allowed citizens to drive on reversed lanes, which makes it difficult to predict how evacuees will react to the reversed lanes, limited exit points, and lack of road signs and mile markers, according to interviews with VDOT staff. VDOT staff expressed concern that the absence of these reference points may disorient evacuees and disrupt the flow of traffic. Annual evacuation exercises have also yet to test whether local traffic management plans successfully direct their citizens to I-64 lane reversal entry points in a timely manner, according to interviews with State agency staff. While the State has no documented plans to allow motorists on the reversed I-64 lanes during annual exercises, VDEM staff noted that the State plans to test the impact of localities' evacuation decision points and traffic management plans on the implementation of the I-64 lane reversal plan during the 2014 evacuation exercise.

PLANNING FOR RE-ENTRY OF CITIZENS INTO DISASTER AREAS IS INCOMPLETE

The State and localities do not appear to have re-entry plans to bring evacuated citizens back into their individual jurisdictions after hurricane conditions subside. The absence of sound re-entry plans can result in congestion and the premature return of evacuated citizens to jurisdictions that have not been deemed safe. For example, evacuated citizens from Sandbridge prematurely re-entered the jurisdiction following flooding damage from Hurricane Sandy. This early re-entry created substantial traffic congestion that hindered recovery personnel from re-starting the city's pump system.

Re-entry planning is conducted primarily by VDEM and localities. VDEM maintains re-entry plans as part of the COVEOP, and these plans assume that localities will develop plans for the re-entry of their residents to affected areas following a disaster. However, as with other types of disaster planning, VDEM has no authority under the Code of Virginia to require localities to maintain re-entry plans.

The State does not have an overarching re-entry strategy that effectively guides local efforts to usher evacuated citizens back into impacted jurisdictions. The COVEOP assigns the responsibility of establishing re-entry plans and processes to localities, but appears to provide limited information and guidance on how to develop such plans and processes. Further, during JLARC staff site visits and phone surveys, none of the four localities asked about re-entry planning reported having written plans to bring their citizens back into their homes following an evacuation.

State agencies and localities identified the need for State-level guidelines and standards to support the development and coordination of local re-entry plans. For example, VDEM staff noted that the State could coordinate with Hampton Roads localities to agree upon primary points of re-entry back into the region. VDEM staff recognized the importance of possessing an overarching re-entry strategy and recommend the development of a statewide re-entry strategy to support the development of local re-entry plans. This strategy should be developed by VDEM in collaboration with VDOT, VSP, and DMA, each of which would play a critical role during a re-entry operation.

Recommendation (13). The Virginia Department of Emergency Management, in collaboration with the Virginia Department of Transportation, the Virginia State Police, and the Virginia Department of Military Affairs, should develop a statewide re-entry strategy to support the development of local plans.

STATE PLANNING FOR SHELTERS IS INSUFFICIENT FOR CATASTROPHIC DISASTERS

State and local shelters lack the capacity and staffing necessary to shelter the number of evacuees expected to need shelter during hurricanes of category 3 intensity or higher, and the State has yet to complete planning for State shelter sites or develop a comprehensive strategy for their use. Approximately 80,000 to 170,000 people could be without shelter given current State and local shelter capacities and depending on hurricane severity. An even greater number of Virginians could lack shelter due to shelter staffing shortfalls that could prevent almost half of identified State and some local shelter sites from opening. Only three localities have signed written agreements to host evacuees from Hampton Roads to supplement shelter capacity. State shelter sites still require additional planning before they can be operated, and there is no comprehensive strategy to determine when and where to use State shelters. Given the importance of State shelters in supplementing the capacity of local shelters and securing the life and safety of citizens, a comprehensive strategy for the use of State shelters is needed.

There is no comprehensive strategy to determine when and where to use State shelters.

Emergency shelters

Emergency shelters are public sites that shelter individuals displaced from their homes as a result of a disaster. Shelters provide short-term accommodations and basic necessities to displaced individuals, such as food, water, medicine, and bedding. Operating shelters requires a substantial amount of planning and coordination between multiple public and private entities to ensure that citizens receive the basic necessities they need in a safe environment.

While VDEM is responsible for maintaining the COVEOP, planning for State shelter operations is conducted primarily by other State and local entities. As the lead agency responsible for State shelters, DSS is required under the COVEOP to maintain plans for staffing and operating State shelters. Other State agencies are also required to maintain plans to carry out their State shelter responsibilities, including VSP and the Virginia Department of Health. Local shelters are the responsibility of localities, according to the COVEOP, and all localities should have a shelter plan as part of their emergency operations plan. However, VDEM cannot compel localities to designate shelters or develop shelter plans, nor can it dictate the content of those plans.

Planning to support State shelter operations in Virginia has been in progress for approximately seven years. Historically, localities were solely responsible for opening and managing shelters within their own jurisdictions to shelter displaced citizens. However, in 2006, the State identified the need to operate its own State-level shelters to augment local sheltering capabilities following Hurricane Katrina in 2005, at which time the Governor initiated the development of a State shelter program. According to VDEM staff, this decision followed repeated unsuccessful efforts dating back to 1996 for localities to engage in regional sheltering with State support. The impetus for creating such a program appears to have stemmed from both local sheltering shortfalls and State preparedness goals. Following Hurricane Katrina, localities in the Hampton Roads region expressed concerns regarding their ability to ade-
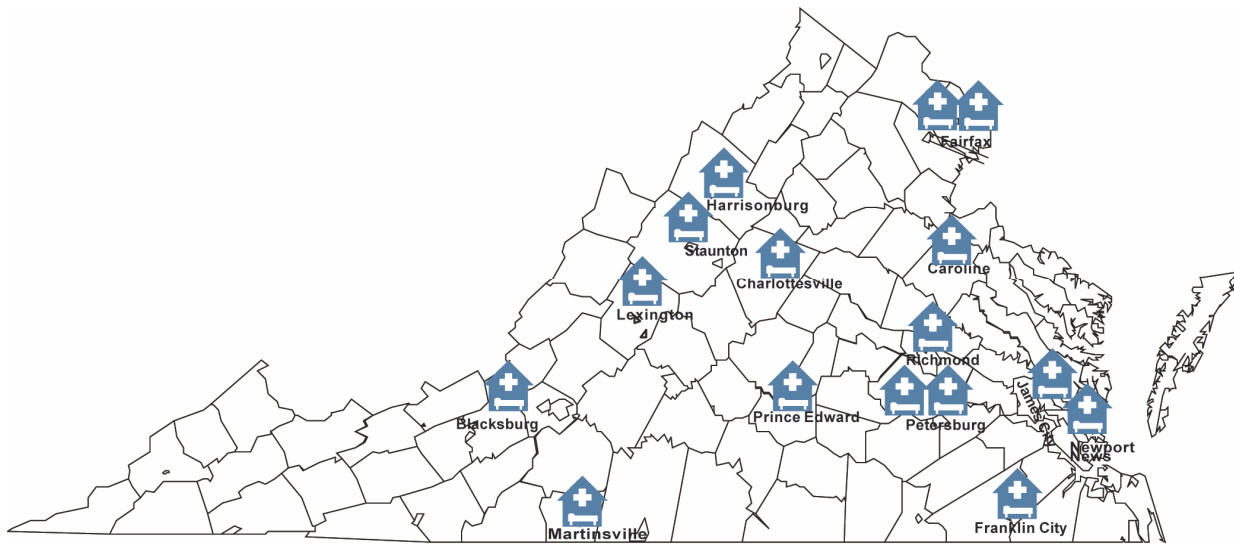
quately shelter citizens in the event of a catastrophic hurricane and requested State support for mass care and shelter efforts. At the same time, the State expressed wanting to shelter evacuees within Virginia rather than sending citizens to shelters outside the State.

Shelter Capacity Is Insufficient to Support Evacuations for Hurricanes of Category 3 or Higher

Virginia's sheltering system includes both local and State shelters. While local shelters are meant to serve as the primary facilities for displaced citizens, State shelters are meant to serve as a last resort when local shelters are overwhelmed. The State has identified buildings on 16 college and university campuses that can be transformed into shelters and has entered into memoranda of understanding with these 16 sites to initiate this transformation during catastrophic disasters. The decisions by colleges and universities to sign memoranda of understanding were voluntary because the Code of Virginia does not require them to provide shelter space. The majority of these shelter sites are located in areas further west and north of the Hampton Roads region where they are less likely to be impacted by a hurricane (Figure 7).

State evacuation plans assume that the majority of people expected to evacuate (see Table 5 above) will not seek public shelter. However, identified State and local shelters do not have the collective capacity necessary to shelter all the evacuees who have been

Figure 7: Sixteen State Shelter Sites Have Been Identified Throughout Virginia

Source: JLARC staff analysis of DSS shelter data, 2013.

Chapter 4: Shelter and Evacuation Plan Deficiencies May Compromise
Safety of Population During Catastrophic Disaster

estimated to need sheltering during severe hurricanes based on projections that reflect worst-case storm scenarios (Table 6). Local shelter capacity in Hampton Roads can meet the demand of evacuees for lower level hurricanes. Virginia has experienced category 2 hurricanes in the past, and while data in Table 6 projects that up to 16 percent of evacuees may not have shelter during a category 2 hurricane, VDEM staff indicated that no citizens have lacked shelter during these disasters. This is because evacuees expected to leave the region under worst-case planning assumptions have in fact remained in Hampton Roads and used local public shelters.

However, both State and local shelters quickly become overwhelmed during catastrophic hurricanes (i.e., category 3 or higher) due to more citizens needing shelter and the inability to open some shelter sites lying in storm surge zones. Even with the combined use of local shelters within the Hampton Roads region and State shelters outside the region, it is estimated that 52 to 78 percent of the evacuated population could lack sheltering, depending on hurricane severity. In the event of a category 3 hurricane, nearly 80,000 people (half of evacuees) could be without shelter if all State and local shelters were fully staffed and operational. Because Virginia has not experienced a category 3 hurricane, the precise number of residents who will evacuate is not knowable. However, according to VDEM staff, a larger share of residents will evacuate the Hampton Roads region—and therefore need shelter outside the region—as the severity of the hurricane increases.

During a disaster, the State may be able to draw on Statewide Mutual Aid and Emergency Management Assistance Compact agreements to arrange shelter for these individuals (see grey box on next page). However, activating these agreements, identifying additional shelter space, and directing evacuees to these shelters

In the event of a category 3 hurricane, nearly 80,000 people (half of evacuees) could lack sheltering if all State and local shelters were fully staffed and operational.

Table 6: Current State and Local Shelters Lack the Capacity to Shelter Approximately Half of Evacuees During a Category 3 Hurricane

Category Hurricane	Within Hampton Roads			Outside Hampton Roads[b]			Evacuees Without Shelter	
	Number of evacuees	Shelter capacity	Evacuees without shelter	Number of evacuees	Shelter capacity	Evacuees without shelter	Number	Percent of all evacuees
2	36,000	80,000	0	30,000	19,405	10,595	10,595[c]	16[c]
3[a]	103,000	58,000	45,000	50,000	15,694	34,306	79,306	52
4	127,000	31,000	96,000	90,000	15,694	74,306	170,306	78

[a] Represents the worst-case hurricane scenario for the Hampton Roads region.
[b] Represents State shelter capacities and does not include three local host shelters outside of Hampton Roads.
[c] Represents evacuees without shelter using worst-case planning assumptions. Virginia has not experienced shelter deficits during past category 2 hurricanes because evacuees have generally not left the Hampton Roads region.

Source: JLARC staff analysis of 2011 Regional Catastrophic Planning Grant data and 2013 DSS State Managed Shelter data.

would require additional time during which evacuees without shelter would likely be exposed to dangerous storm conditions.

The lack of sufficient shelter capacity in Virginia reflects several factors. State shelter capacity is limited primarily by a lack of sufficient staff to operate shelters. Although DSS is the lead agency responsible for State shelter planning, it relies on other State agencies to identify staff. Local shelter capacity may also be limited by a lack of staffing as well as the absence of suitable structures, and VDEM does not have statutory authority to require localities to designate shelters. According to VDEM staff, many local shelters are school buildings that were not constructed to meet building codes for withstanding hurricane-force winds. The cost of retrofitting buildings to withstand such winds has been a challenge for some localities.

Insufficient Staffing Could Further Limit Shelter Availability in Emergencies

State and local shelters that have been identified to shelter evacuees during disasters require a myriad of personnel from multiple disciplines to successfully open and provide citizens with appropriate accommodations. For example, operating a shelter generally requires social service staff and private volunteers to assist individuals with basic needs, medical personnel to care for individuals with health conditions, and law enforcement personnel to provide security and maintain order. Shortages in any of the personnel assigned with shelter responsibilities can prevent shelter sites from opening and ultimately increase the capacity deficits for both the Hampton Roads region and the rest of the State.

Some Localities May Lack Sufficient Staff to Use All Available Shelters. Some localities may lack the staff to open identified local shelter sites within the Hampton Roads region, which may create even higher capacity deficits than those estimated in Table 6. Interviews with State agencies indicated that localities may not have the staff to successfully open and run these identified shelter sites. For example, a locality may identify eight facilities that can serve as local shelters, but only have the staff to open four of them during a disaster, according to interviews with VDEM staff.

State Staffing Plans Provide Sufficient Staff for Only Six of the 16 State Shelters. Current State shelter staffing plans can only support opening six State shelter sites simultaneously. According to shelter plans and interviews with DSS staff, State shelters will be staffed primarily by six State agencies, and DSS projected that the minimum number of dedicated staff from these agencies can only support the opening of six shelter sites at once. However, DSS staff said the agency does not have access to any shelter staffing plans developed by these agencies, and the Code of Virginia does not

provide DSS authority to review these staffing plans. According to the 2013 Hurricane Preparedness Report, an additional 1,603 personnel are needed to adequately staff all 16 shelter sites. Although the total capacity of these six shelters will vary depending on which sites are opened during a disaster, the overall capacity will be substantially less than estimates in Table 6.

State shelters can receive additional staff from the Emergency Management Assistance Compact, Statewide Mutual Aid, and the Commonwealth Adjunct Emergency Workforce if the Governor decides to open more than six shelter sites simultaneously, according to interviews with DSS staff. However, the use of these agreements may lengthen the amount of time needed to open a State shelter while additional staff travel from another region of Virginia or another state.

State Shelters May Be Relying on Staff Designated for Local Shelters. Staff with State agencies and localities expressed concern that, because the State lacks sufficient staff to operate State shelters, it may be forced to rely on State and local staff already involved in local response operations to operate State shelters. The over-commitment of State and local staff and resources could lead to staffing shortfalls at State or local shelters and ultimately disrupt response operations. While DSS staffing plans do not task local DSS employees with State shelter responsibilities, State agencies reported that State shelters intend to utilize staff from local health district offices that local response plans may have already assigned to local shelters. In addition, local emergency managers interviewed by JLARC staff cited examples of how the State would likely require the use of local staff already deployed in local response operations to provide desired services at State shelter sites. For example, one locality with a State shelter site in its jurisdiction reported attending a meeting during which the State discussed using local hospital employees to staff the medical needs portion of the State shelter. Another locality with a State shelter site in its jurisdiction told JLARC staff that the locality's police force was asked by the State to assist in shelter security services.

According to interviews with DSS staff, State shelter plans delegate responsibilities to specific State agencies and do not specify what personnel these agencies will use to fulfill their responsibilities at State shelters. However, it appears that no single entity is actively monitoring and coordinating State agency staffing plans for fulfilling their State shelter responsibilities. As a result, it is not known whether or to what extent State agencies' staffing plans assume the use of local staff to assist in fulfilling their responsibilities within State shelters.

Shelter Plans Need Additional Testing Through Exercises to Determine the Impact of Staffing Limitations. The State has conducted increasingly complex exercises to test components of State shelter plans, but more are needed to test the potential for overcommitted staff and resources at State and local shelters. VDEM staff reported that exercises of State shelters have matured and successfully progressed from discussion-based to operations-based exercises over the past five years. For example, the State conducted its second full-scale exercise of State shelters in 2013, which involved physically opening two shelter sites for registration and intake of citizens. However, no exercises have simultaneously opened State and local shelters to determine if State shelters rely on staff that will already be involved in local response operations, according to after-action reviews of State shelter exercises and interviews with VDEM staff. While the 2014 exercise will include simultaneous openings of local shelters in neighboring localities to test strains on local staff and resources, it is unclear if a State shelter will also be opened during the exercise to test its impact on local staff and resources.

Unaffected Localities Could Provide Supplemental Shelter, But Planning Has Been Limited

Estimated shelter capacity deficits both within and outside the Hampton Roads region will require the use of additional local shelters to fill the shortfalls, according to the 2013 Hurricane Preparedness Report. These additional shelters, known as *host shelters*, include local shelters throughout the State that are not impacted by the storm and can shelter evacuees that need temporary accommodations. While these unaffected facilities stand to offset shelter deficits, localities are not required to offer such facilities as host shelters to evacuees. To encourage host sheltering, the State developed the inland host sheltering program, which guarantees reimbursement for costs incurred to open a host shelter for those localities that sign written agreements with the State to shelter evacuees from Hampton Roads. However, VDEM does not have statutory authority to require that localities sign agreements and participate in the host sheltering program.

In order for host sheltering to be a viable option during an evacuation, the State needs (1) written agreements from localities to shelter evacuees from the Hampton Roads region during disasters, and (2) up-to-date information on local shelters, including their location and capacity. State agencies noted that both of these are essential to developing an effective shelter strategy that coordinates the use of both State and local shelters, as they allow the State to determine the number of evacuees that can be sheltered locally, the remaining evacuees that must be absorbed by State shelters,

and any remaining deficits after both State and local shelters reach capacity.

Insufficient participation in the inland host sheltering program, combined with a lack of current and easily accessible information on local host shelter capacities, can complicate decisions regarding the use of State shelters—with potentially costly financial implications. For example, the Governor considered opening a State shelter during evacuations for Hurricane Irene in 2011. According to staff from the secretary's office, the Governor lacked data to determine if local shelters could absorb all evacuees from the Hampton Roads region and had difficulty obtaining such data. The Governor eventually received local shelter capacity information from the State Coordinator, who determined that a State shelter was not needed. Staff from the secretary's office estimated that opening the State shelter would have cost the State approximately $3 million to operate.

Only Three Localities Have Signed Written Host Sheltering Agreements to Shelter Hampton Roads Evacuees. According to the 2013 Hurricane Preparedness Report, only three localities have established memoranda of agreement to shelter evacuees from three Hampton Roads jurisdictions during disasters that require evacuation: 1) Richmond City, 2) James City County, and 3) Greensville County. While the first two agreements can only be activated by the localities, the State can activate the latter agreement and request that Greensville County open local shelters during certain disasters. While other localities indicated a willingness to accept evacuees from the Hampton Roads region, they have not entered into any written host sheltering agreements.

Interviews with VDEM staff and phone surveys with local emergency managers suggest at least two reasons why participation in the host sheltering program remains limited. Many localities have not entered into written host sheltering agreements because they lack shelter capacity to absorb evacuees from outside their jurisdiction. In addition, there remains concern among localities over whether and how they would be reimbursed by the State for the cost of operating their shelter, especially if it is determined that the host shelter is no longer needed after it has been opened.

To encourage participation in the State's inland host sheltering program, VDEM staff have conducted outreach efforts such as direct mailings to local emergency managers. Staff also developed an itemized sheet of expenses that would be reimbursed and stated that entering into a written shelter agreement places the financial burden of shelters on the State, even if the shelter is not needed during a disaster. Despite these efforts, VDEM staff cited difficulty in getting localities to participate in the host sheltering program.

According to VDEM staff, at least one state—Florida—mandates that some inland localities provide host sheltering for evacuees during a disaster. To be viable in Virginia, such a mandate would need to exempt a locality from providing host sheltering during a disaster if its shelters are already at full capacity. Such a mandate may also require State funds to assist localities with the cost of retrofitting potential shelters.

State Lacks Up-to-Date Information on Local Shelter Capacities to Assist in Sheltering Evacuees from Hampton Roads. The State lacks comprehensive, up-to-date data on the location and capacity of local shelter sites that could be used to shelter evacuees from Hampton Roads, according to interviews with State agency staff. As illustrated in Table 6 above, the most recent shelter data calculates the total number of evacuees that shelters within Hampton Roads can absorb during hurricanes, but does not include information on the location or capacity of specific shelter facilities that comprise this regional shelter capacity. The State has comprehensive information on individual shelters within Hampton Roads through a hurricane evacuation study conducted by the Federal Emergency Management Agency in 2009, but this data has not been updated since then, and State agencies reported lacking data for shelters in localities outside of the Hampton Roads region. Just over one-third of localities in Hampton Roads tasked with assessing their shelter capabilities following a 2010 regional exercise have completed this assessment.

Local Advisory Work Group

The Group will include State agencies with significant roles in sheltering and evacuation, as well as one local emergency manager from each of the seven VDEM regions.

Steps have been taken to obtain information on additional local shelters that can be used to offset shelter deficits created by catastrophic hurricanes. DSS has developed a shelter survey that will be released in three stages to all 138 jurisdictions with independent local emergency management programs to determine the total number of shelters that can open with current staff and resources, where these shelters are located, and their capacity. As of August 2013, 21 localities in the Hampton Roads have received the survey; however, DSS staff reported that only 13 of these localities have responded. In response to the Shelter and Evacuation Gap Report, VDEM staff proposes to establish a Local Advisory Working Group that will create a local shelter assessment tool to determine local shelter capabilities. Given the importance of host shelters in alleviating capacity deficits during catastrophic disasters, VDEM should require localities to identify all local shelters and their associated capacity annually through the LCAR survey. By requiring this information on the LCAR, the State can also determine which localities have adequate facilities and staff to offer host shelters and could potentially sign a written agreement to host evacuees from Hampton Roads.

> **Recommendation (14).** As part of the annual Local Capabilities Assessment for Readiness survey, the Virginia Department of Emergency Management should require localities to submit a list of sites that could or do serve as local shelters, including the locations and capacities of identified sites.

Planning and Equipping of State Shelters Are Incomplete

While the State has made substantial progress in developing plans and procedures to execute the State shelter program, the planning and equipping of State shelters remains incomplete. In addition to developing memoranda of understanding with 16 colleges and universities for shelter sites, the State has developed pre-scripted resource requests to pre-stock goods (such as food and cots) at all shelter sites. The State has also developed basic plans specific to each identified shelter site, which are high-level frameworks that describe overall shelter layout and operations, as well as roles and responsibilities for entities involved in such operations. According to DSS staff, these plans have been completed for each State shelter and undergo annual updates. However, while the registration and intake procedural plan for bringing in evacuees is complete, plans addressing logistics and finance issues are currently under development, according to interviews with DSS staff.

The State is also continuing efforts to ensure that State shelter sites have sufficient electrical power and internet and voice connectivity. To date, 10 of 16 State shelters have been retrofitted for backup generators to ensure that sites retain power if the area in which they reside loses electricity. Loss of power at shelter sites could create a potentially unsafe and unlivable environment for citizens, and insufficient connectivity can hinder shelter staff's ability to request necessary resources. DSS staff are currently collaborating with the Virginia Information Technologies Agency to hardwire all State shelters for connectivity; however, during JLARC staff interviews, DSS staff cited challenges in determining which agency is responsible for financing and completing connectivity projects. Although the State plans to retrofit the remaining six sites for backup generators, DSS staff expressed concern that declining federal grant funds may prevent the State from completing these retrofit projects.

State Has Not Developed a Comprehensive Strategy for Using Shelters

To date, the State has not developed a comprehensive strategy to guide *when* and *which* State shelters would be used during a disaster. During Hurricane Irene in 2011, stakeholders noted that State shelter plans did not clearly define the circumstances that would trigger the use of State shelters. While plans indicate that State shelters will only open as a result of a Governor's emergency

declaration, it is unclear as to what circumstances or decision points lead up to such a declaration. According to the 2013 Hurricane Preparedness Report, there is a need for standard criteria and protocols for opening State shelters. The COVEOP states that the Governor may open State shelters if local shelters (including host shelters) are overwhelmed. However, it is not clear under what circumstances State shelters versus local host shelters would be used if localities did not have sufficient capacity to shelter their own residents.

During JLARC staff interviews with local emergency managers, considerable confusion was expressed regarding what circumstances would trigger the use of State shelters. Without a clear strategy for *when* State shelters would be opened, localities may have difficulty anticipating when their own shelters would be needed during a disaster. This increases the potential for a locality to begin opening its own shelters while evacuees are being directed to State shelters, or delaying the opening of local shelters in anticipation that a State shelter will open. The State also lacks standard criteria for *which* State shelters would be opened once the need for such shelters has been determined. State agencies and localities expressed confusion as to which State shelter sites would be opened and where citizens should be directed to evacuate once the Governor decides to utilize State shelters. During Hurricane Irene in 2011, the State did not have a way to prioritize which shelter site to open first, and after-action reports indicate that this has yet to be resolved. While interviews with DSS staff indicated that a process exists to determine which State shelter sites would open given the hurricane's intensity, this process does not address under what circumstances State shelters versus local host shelters would be opened if localities lacked sufficient capacity to shelter their residents.

The lack of planning around when and where State shelters should open may be undermining the State's efforts to coordinate State and local planning for responses to a catastrophic hurricane. Localities expressed confusion regarding the role of local host shelters versus State shelters in sheltering evacuated citizens. Although the COVEOP and State shelter plans indicate that State shelters will only be used as a last resort after local host shelter capacity has been exhausted, some localities believe that State shelters are intended to replace the need for local host shelters, according to interviews with one State agency. To the extent that this misperception exists among localities, it may limit localities' participation in the State host sheltering program.

The State has recognized the lack of a comprehensive strategy for using State shelters and has taken steps to create such a strategy. In response to the Shelter and Evacuation Gap Report, VDEM

staff recommended that the proposed Local Advisory Work Group develop an overarching shelter management strategy based on a category 3 hurricane. This strategy should include standard criteria to identify which shelters to open based on the size and scope of the disaster and local shelter capacities. The development of this strategy should be coordinated with the four existing working groups that are currently addressing sheltering and evacuation issues, as well as the secretary's office, as well as with DSS and the secretary responsible for disaster preparedness. Such coordination between these relevant stakeholders will ensure that existing data and information on State and local shelters is integrated into the new comprehensive strategy for State shelters.

Recommendation (15). The Virginia Department of Emergency Management should coordinate with the Virginia Department of Social Services and the Office of the Secretary responsible for disaster preparedness coordination to develop a comprehensive strategy for the use of State shelters, including a documented process for opening State shelters and standard criteria for determining which shelter locations to open first.

PLAN DEFICIENCIES RESULT FROM INSUFFICIENT COORDINATION AND AMBIGUOUS ACCOUNTABILITY

Certain relevant stakeholders have been excluded from some State shelter and evacuation planning efforts, and no single State entity is held accountable for coordinating State and local sheltering and evacuation planning. Localities were excluded from the initial development of State hurricane evacuation and shelter plans and DSS reported not being involved in key sheltering decisions, but planning has become more inclusive. No single entity has yet been tasked with coordinating individual shelter and evacuation planning efforts by State agencies and localities, and VDOT and DSS do not appear to have sufficient authority to do so. The lack of a single coordinating entity for sheltering and evacuation appears to reflect confusion over which entity has the statutory authority to fulfill such a role.

State Shelter and Evacuation Planning Has Only Recently Begun to Involve All Relevant Stakeholders

Shelter and evacuation planning requires a high degree of coordination to ensure that State and local plans are aligned to support a synchronized response effort. Because shelter and evacuation *operations* often must be coordinated among multiple State, local, and private entities, it is critical that all relevant stakeholders are involved in the planning process.

Some key State agencies have been excluded from some planning efforts for State shelters. Staff with State agencies cited instances in which DSS was excluded from key decisions regarding State shelters, despite being the designated leader of the shelter program under the COVEOP. For example, two State agencies indicated that DSS staff were not invited to participate in the executive committee formed by the secretary's office to study sheltering and evacuation efforts in Virginia. DSS staff also told JLARC staff that it was excluded from the decision to reduce the presence of pet shelters to nine from all 16 State shelter sites.

Historically, localities were excluded from participating in the development of State shelter and evacuation plans, according to interviews with State agency staff. All four localities with a State shelter in their jurisdictions that participated in JLARC phone surveys and site visits reported that shelter plans did not sufficiently involve local staff and were developed in a "vacuum" by the State. For example, one locality with a State shelter site in its jurisdiction tried to offer input into the State shelter plan, but was repeatedly told that it was a State responsibility. In addition to localities being excluded from State evacuation plan development, localities from the Greater Richmond region participating in a JLARC phone survey expressed concern that plans are primarily focused on getting people out of Hampton Roads and do not adequately address how to manage the large influx of evacuees entering Central Virginia.

State agencies and localities indicated that the State has taken steps to include State agencies and localities in State shelter and evacuation planning in recent years. State agencies reported that State-level collaboration for sheltering and evacuation has increased and now includes participation from all key State agencies. For example, DSS now leads a working group for State shelters that includes participants from all State entities with key shelter roles and responsibilities. State agencies and localities also indicated that the State has improved the coordination of shelter and evacuation efforts with localities. The State currently leads, or participates in, three separate working groups that engage localities in addressing shelter and evacuation issues, and localities have cited increased opportunities to participate in such working groups. For example, staff from Richmond City indicated being invited to participate in planning meetings with localities from Hampton Roads to coordinate evacuation planning. Further, in response to the Gap Report, VDEM staff recommended that the State Coordinator and Secretaries of Public Safety, Veterans Affairs and Homeland Security, and Health and Human Resources meet with the chief administrative officers from VDEM Regions 1 and 5 to discuss hurricane evacuation decision points and re-entry plans.

Shelter and Evacuation Planning Lacks a Single State Entity with Responsibility and Sufficient Authority to Coordinate Planning

Substantial State outreach and consensus-building with localities is needed for shelter and evacuation planning because the Code of Virginia does not mandate that localities identify refuges of last resort, develop traffic management plans, or provide host sheltering for residents from outside their jurisdiction. Under the Code of Virginia, both VDEM and the secretary's office are responsible for the coordination and oversight of State and local disaster response planning. As a result, no single State entity appears to have overarching responsibility and sufficient authority for coordinating State and local shelter and evacuation planning. State shelter and evacuation plans are led by multiple State entities. The Secretary of Veterans Affairs and Homeland Security told JLARC staff that no single entity "owns" shelter and evacuation efforts at the State level. As the State agencies with lead or key responsibilities for shelter and evacuation plans under the COVEOP, VDEM, DSS, and VDOT have been the primary entities responsible for this planning in recent years. At various times, VDEM and the secretary's office appear to have assumed a greater role in coordinating State and local shelter and evacuation planning. The secretary's office authored a report that evaluated the coordination of State and local shelter and evacuation planning in 2012, and VDEM staff subsequently developed recommendations to address planning deficiencies.

The involvement of VDEM and the secretary's office in shelter issues has been necessary at times because DSS appears to have lacked sufficient authority to coordinate State and local sheltering efforts. According to DSS staff, the agency has had difficulty ensuring coordination with other entities that play a significant role in the State shelter program. Staff with DSS and the secretary's office cited instances in which the agency was unable to resolve sheltering issues alone. For example, for more than a year DSS staff had difficulty securing agreement from one university to serve as a State shelter site. Reaching an agreement with the university to allow their facilities to be used as a State shelter ultimately required a personal meeting between the Secretary of Veterans Affairs and Homeland Security, the State Coordinator, and the university's president.

The lack of a single State entity responsible for coordinating shelter and evacuation planning may stem from a lack of clarity in the COVEOP and the Code of Virginia. The COVEOP designates DSS with managing the State shelter program and VDOT with developing and coordinating the hurricane evacuation plan. However, the Code of Virginia charges VDEM with ultimate responsibility for developing and maintaining the COVEOP, including its shelter

and evacuation plans. Furthermore, Sections 44-146.18 and 2.2-231 of the Code of Virginia task VDEM and the secretary's office, respectively, with coordinating State and local response plans.

According to the Secretary of Veterans Affairs and Homeland Security, the lack of clearly defined shelter and evacuation roles and responsibilities within the COVEOP and Code of Virginia results in confusion about which entity is ultimately responsible for coordinating this planning. Both VDEM and the secretary's office asserted that they do not have the statutory authority to ensure such coordination. State agencies expressed conflicting opinions over whether DSS, VDEM, or the secretary's office holds primary responsibility for coordinating shelter planning. The majority of State agencies agreed that no State entity with direct responsibility currently exists and that shelter responsibilities are jointly held by DSS, VDEM, and the secretary's office. For example, VDEM staff said that DSS is responsible for gathering local shelter data, VDEM is responsible for coordinating shelter and evacuation plans, and the secretary's office is charged with overseeing all preparedness activities, including State and local coordination of shelter and evacuation planning.

The Secretary of Veterans Affairs and Homeland Security told JLARC staff that responsibility for shelter and evacuation planning should be elevated to the secretariat level and made a statewide initiative. As the Governor's homeland security advisor, the Secretary responsible for coordinating disaster preparedness planning could speak directly for the Governor regarding shelter and evacuation planning. To ensure that a single State entity with sufficient authority is ultimately responsible and accountable for Virginia's shelter and evacuation planning, the Secretary responsible for coordinating disaster preparedness planning should be given specific responsibility in the Code of Virginia for the ongoing coordination and oversight of shelter and evacuation planning. Under this new authority, VDEM and other agencies with existing roles in shelter and evacuation planning would retain such responsibilities.

Recommendation (16). The General Assembly may wish to amend the Code of Virginia to make the Office of the Secretary responsible for disaster preparedness coordination responsible for ongoing coordination and oversight of State and local shelter and evacuation planning.

Prevention and Mitigation Plans Are in Place, But State Addresses Infrastructure Protection Differently

In Summary

The State has prevention, protection, and mitigation plans that follow federal guidelines, but the strength of each plan varies. Prevention, protection, and mitigation play a critical role in helping communities reduce the impact of disasters or avoid them altogether. The Virginia Fusion Center, which is the State's primary entity focused on terrorism prevention, has received high marks for the federally recommended policies and procedures it developed to perform critical intelligence activities. The State also has a current hazard mitigation plan, but due to past issues with the grants management process, it did not receive an "enhanced" status that would have qualified Virginia for additional grant funds. Localities are also required to maintain current hazard mitigation plans to receive federal mitigation grants, and while eight regional mitigation plans have expired, staff from the Virginia Department of Emergency Management indicated that no federal grant opportunities have been missed. State plans have also been developed for protecting critical infrastructure, but they were largely not implemented due to a lack of buy-in from relevant stakeholders, State staffing limitations, and evolving federal guidance. However, the State has addressed critical infrastructure planning in other ways, including the use of an automated system to collect and analyze critical infrastructure information, and a regional resiliency assessment.

The study mandate requires JLARC staff to determine the status and quality of State and local preparedness planning in Virginia. While Chapters 3 and 4 addressed the status and quality of State and local response and recovery planning, Chapter 5 focuses on planning for the prevention, protection, and mitigation aspects of disaster preparedness. Each of these aspects plays a critical role in ensuring that communities are prepared for all potential disasters.

STATE MAINTAINS HIGHLY RATED TERRORISM PREVENTION PLANS

Unlike the all-hazards approach that characterizes protection, mitigation, response, and recovery efforts; disaster *prevention* consists primarily of preventing suspected or impending acts of terrorism. The analysis and sharing of intelligence information between federal, state, and local law enforcement agencies and the general public are key to preventing terrorist attacks. A lack of intelligence sharing was cited by the 9/11 Commission as a factor that contributed to the 9/11 attacks, and the Commission's final report recommended improving intelligence sharing.

Fusion centers play a critical role in improving the flow of terrorism-related information by providing a facility where federal, state, and local intelligence staff can work in close proximity to collect, analyze, and disseminate intelligence information. There are 78 fusion centers nationwide, including at least one located in nearly every state and most major urban areas. The Virginia Fusion Center, the State's main terrorism prevention entity, has plans for analyzing and sharing intelligence information recommended by the U.S. Department of Homeland Security (DHS), but acknowledged that there are opportunities to better share information with some private sector entities. The newly released National Prevention Framework strongly encourages states to develop a prevention plan in support of the framework, and the Office of the Secretary responsible for disaster preparedness coordination should collaborate with the Virginia Department of Emergency Management (VDEM) and fusion center staff to ensure that the fusion center plans and the Commonwealth of Virginia Emergency Operations Plan's terrorism response annex collectively meet the intent and guidelines of the framework.

Virginia Fusion Center Facilitates Flow of Critical Intelligence

The Virginia Fusion Center is co-located with VDEM's emergency operations center in Richmond and is jointly operated by VDEM and the Virginia State Police. Staff also include both law enforcement officers and civilian employees from federal agencies such as DHS and the Federal Bureau of Investigation, as well as State agencies such as the Department of Military Affairs, and the Department of Fire Programs.

The Fusion Center undertakes a variety of activities aimed at sharing intelligence and preventing terrorist attacks. These include:

- conducting monthly security briefings with key State agency staff;
- conducting analytical research on various types of criminal activities in Virginia, including gang and drug activity;
- receiving and analyzing suspicious activity reports from localities and the public; and
- conducting threat assessments for events being held in Virginia, such as NASCAR races.

Fusion Center Has Developed Operational Plans, Policies, and Procedures As Recommended by DHS

To guide the maturation of individual fusion centers and the development of the nationwide network, DHS identified four intelli-

gence activities critical to effectively sharing and analyzing intelligence information (Table 7). Virginia's fusion center has developed the plans, policies, and procedures to perform the critical intelligence activities identified by DHS. Annual assessments of the nation's fusion centers are conducted by DHS to determine the extent to which centers have policies and procedures in place to carry out intelligence activities. The Virginia Fusion Center received the highest possible score (100) in its 2012 assessment, indicating that the center has developed policies and procedures for the intelligence activities and core functions identified by DHS. By comparison, the national average on the assessment was 88.2. In addition to the plans to support the DHS intelligence activities, the fusion center maintains other policies and plans to guide the center's operation, including a drug hotline protocol and a critical infrastructure and key resources plan.

Fusion Center Acknowledges Opportunity to Improve Intelligence Sharing With Private Organizations

While Virginia's fusion center has developed plans for performing critical intelligence functions, the center has acknowledged that opportunities exist to improve its intelligence sharing with the private sector. Fusion centers must receive information from private entities and conduct outreach to make them aware of the center and educate them about the types of information they should be sharing. For example, large private sector entities that own critical infrastructure, such as utility companies, must be kept informed of potential terrorist threats aimed at utility infrastructure. Smaller

Table 7: Four Intelligence Activities Are Critical to the Operation of Fusion Centers

Intelligence Activity	Definition	Examples of Key Attributes
Receive	Ability to receive classified and unclassified information from federal partners	Plan to receive and handle National Terrorism Advisory System (NTAS) alerts Access to Homeland Secure Data Network (HSDN) and/or Federal Bureau of Investigation Network
Analyze	Ability to assess the local implications of threat information through a formal risk assessment process	Plan for assessing the local implications of time-sensitive and emerging threat information Contributing to or conducting a statewide risk assessment
Disseminate	Ability to disseminate threat information to other state, local, tribal, and territorial entities	Mechanism for disseminating NTAS alerts Process for verifying the delivery of products to intended customers
Gather	Ability to gather locally-generated information, aggregate it, analyze it, and share it with federal partners	Plan for gathering of locally-generated information

Source: JLARC staff analysis of *2012 Fusion Center Assessment Individual Report, Virginia Fusion Center*, November 2012, U.S. Department of Homeland Security.

businesses, such as hardware stores, should be educated about when and how to notify the fusion center of suspicious behavior, such as an individual purchasing large quantities of fertilizer or other materials that could be used in a terrorist attack.

The Virginia Fusion Center regularly shares information with larger private entities. For example, staff with Dominion Virginia Power and Appalachian Power Company told JLARC staff they regularly receive intelligence information from Virginia's fusion center. In addition, utility and railway companies have signed up to receive terrorism-related notifications, according to Fusion Center staff. The Fusion Center also maintains an outreach plan to support the sharing of intelligence information with State, local, and federal agencies, as well as the private sector, and has relationships with business organizations such as the Retail Merchants Association. However, Fusion Center staff acknowledged opportunities to improve their outreach efforts to smaller entities such as "mom and pop" shops on issues such as cigarette smuggling, for example. Staff said their ability to conduct more extensive outreach with these smaller entities is limited by a lack of resources, including budget and staffing limitations.

Prevention Plans May Need Revision to Align With New Federal Terrorism Prevention Guidance

In May 2013, DHS released the National Prevention Framework, which covers the capabilities necessary to avoid, prevent, or stop a threatened or actual act of terrorism. The framework provides new guidance for state and local terrorism prevention planning, and it strongly encourages states to develop a prevention plan in support of the framework. The framework recommends that planning efforts include, among other things, a detailed concept of operations that explains how prevention operations during an imminent threat will be executed in a coordinated fashion, and specific provisions for the rapid integration of resources and personnel. Terrorism prevention plans should also account for multiple, geographically dispersed attacks of an extended nature, such as improvised explosive devices that are detonated at multiple locations over an extended period of time. To ensure that the State's terrorism prevention policies and plans—including the Virginia Fusion Center's plans and the Commonwealth of Virginia Emergency Operations Plan's terrorism response annex—collectively meet the intent and guidelines of the new framework, the Secretary responsible for disaster preparedness coordination should collaborate with VDEM and Fusion Center staff to review the new framework and the State's current terrorism prevention plans.

STATE AND MOST LOCALITIES HAVE CURRENT MITIGATION PLANS

The mitigation component of preparedness is intended to reduce the impact of disasters on life and property. Virginia has an updated State Hazard Mitigation Plan in accordance with federal requirements, but the plan has not received an "enhanced" status due to past issues with the State's mitigation grants management process. An "enhanced" plan would qualify the State for additional federal mitigation grants. All localities also maintain individual mitigation plans or participate in regional plans, and although some of these plans are currently expired, VDEM staff indicate that no federal grant opportunities have been missed.

Federal guidance for mitigation planning is largely contained in federal statutes and regulations. This guidance requires states and localities to maintain mitigation plans approved by the Federal Emergency Management Agency (FEMA) to be eligible for federal mitigation grant funding. State hazard mitigation plans must be revised and reapproved by FEMA at least every three years, while local plans must be revised and reapproved at least every five years. Examples of mitigation projects that states and localities may undertake using mitigation grant funds include developing warning and detection systems (such as weather radios, security cameras, or gauges) to track rain, river, and tidal levels, and elevating or relocating flood-prone property.

State Mitigation Plan Was Updated in 2013

Virginia's current Standard Hazard Mitigation Plan was approved in March 2013, within the three-year timeframe required by FEMA. State mitigation plans can receive either a standard or enhanced status, depending on the quality of the state's mitigation plan and grants management processes. Although Virginia had received enhanced status for its 2008 plan (which enabled the State to obtain an additional $3.2 million in federal grant funds, or six percent of federal disaster assistance awarded in Virginia for three federally declared disasters that occurred in 2009 and 2010), the 2010 plan did not receive enhanced status and the 2013 version has not yet received this status. VDEM staff indicated that the 2010 plan did not receive enhanced status because of grants management problems involving three properties that used mitigation grant funds. VDEM staff indicated that, even though these properties represented less than one percent of all Virginia properties receiving hazard mitigation funds, FEMA's requirements for enhanced status are very stringent, and even this small number of grants management issues can jeopardize enhanced status. Since then, VDEM staff worked to improve the grants management process, including the development of a grants management toolkit for local project managers. Because of these changes and the quality of

Virginia's mitigation plan, VDEM has requested that FEMA return the 2013 plan to enhanced status.

Most Local Mitigation Plans Are Updated on Time

Most local mitigation plans are being updated on time to maintain eligibility for federal mitigation grant funding. Local mitigation planning in Virginia has occurred largely at the regional level through the Commonwealth's planning district commissions (PDC). As of August 2013, a total of 26 local and regional hazard mitigation plans had been developed in Virginia, covering all localities in the State. Eighteen of these plans—or nearly 70 percent— had an approved status from DHS, but the remaining eight had an expired status. As of October 2013, only one of these eight plans was expired, and this plan had received funding to accomplish an update.

There is no requirement in the Code of Virginia for localities to maintain mitigation plans. As a result, VDEM has no statutory authority to require localities to update their plans on a timely basis. However, VDEM staff indicated that they reach out to PDCs and localities two years before their plans expire and encourage them to begin the update process. In addition, they have supported the mitigation planning process by explaining to localities and PDCs the importance of maintaining current plans, participating in PDC and local planning meetings, assisting in procuring funding for plan updates, and providing technical reviews.

Not maintaining updated and approved mitigation plans may result from two factors. VDEM staff stated that staffing limitations at PDCs may be one reason plans are not updated on a timely basis. In addition, planning for response and recovery operations may often take precedence over mitigation planning because these present more immediate public safety needs for localities.

Delays in updating local mitigation plans have had no impact on Virginia's ability to secure federal mitigation grant funding. VDEM staff indicated that, although DHS requires localities to have a current hazard mitigation plan to be eligible for federal mitigation grants, there is an exception written into the Code of Federal Regulations for grant funding should a disaster occur. The exception states that if a community has an expired plan, an updated plan must be in place and approved prior to the FEMA obligation of funds or within 12 months after obligation if the exception is granted.

STATE DEVELOPED CRITICAL INFRASTRUCTURE PROTECTION PLANS BUT IMPLEMENTED DIFFERENT PROTECTION MECHANISMS INSTEAD

Virginia has developed critical infrastructure protection plans, but the implementation of these plans has been on hold. However, the State is continuing to address critical infrastructure protection in various ways, including the use of an automated system and infrastructure assessments. Protection efforts are designed to reduce the risks posed by disasters to a wide range of public and private infrastructure and resources that are considered essential to national security, public health and safety, or the economy. Damage to these assets can disrupt the functioning of government and the economy, with potentially significant impacts on individuals and property. Government facilities such as office buildings, military bases, and national monuments, as well as private infrastructure such as banking and finance centers, have previously been targeted by terrorists. Both natural and man-made disasters could impact a variety of other types of infrastructure, including water treatment plants, transportation infrastructure such as bridges and railways, nuclear facilities, or electric transmission lines.

Protection efforts are undertaken to help prevent a disaster from occurring, or minimize the impact on lives and property if one does occur. Protective measures can include "hardening" facilities, such as constructing bollards or security walls that prevent terrorists from accessing the facility; incorporating hazard resistance into building design standards, such as construction designed to withstand a certain wind speed or blast impact; and building resiliency into power and telecommunications (through redundant networks, for example).

State Has Developed But Not Implemented Critical Infrastructure Protection Plans

Virginia developed a state-level critical infrastructure plan in 2007—the Virginia Critical Infrastructure Protection and Resiliency Strategic Plan—that laid out a protection framework. In accordance with DHS's National Infrastructure Protection Plan, the State protection plan supported collaboration between government and private entities by requiring secretariats and State agencies to collaborate with the owners of private infrastructure on the development of supporting protection plans that would define the roles and responsibilities of State and private entities for implementing the statewide framework. To facilitate this collaboration, supporting plans were divided into 18 sectors as recommended by DHS. According to staff from the Office of the Secretary of Veterans Affairs and Homeland Security (secretary's office), all 18 sector-specific plans were subsequently developed. Sector-specific plans were supposed to, among other things:

- provide a profile of the sector, including critical assets, systems, networks, and functions;

- assess the risks to critical infrastructure and prioritize it for protective efforts;

- develop protective programs; and

- measure progress in protecting critical infrastructure.

Virginia's critical infrastructure plan also called for the creation of coordinating councils, similar to the councils described in federal guidance. For example, the plan encouraged the formation of coordinating committees for each infrastructure sector, composed of private sector infrastructure owners and operators, to coordinate with the State on critical infrastructure protection activities and issues.

While all sector-specific plans required under the State plan were developed, most were not approved by their corresponding cabinet secretary or implemented. Of the 18 sector-specific plans developed, only plans for the transportation, agriculture, and health sectors were approved by their respective State secretaries. These also were the only three plans for which protective measures were implemented. In addition, coordinating committees were not developed, and as a result, the public-private partnerships for implementing protective efforts never emerged.

There are three primary reasons why most plans were not implemented. First, staff with the secretary's office indicated that when the sector-specific plans were being developed, there was limited participation from the private sector and confusion among State agencies about what should be included in the plans. Second, resources to implement the sector-specific plans, including State agency staff, also were limited. Finally, the secretary's office indicated that the national guidance on critical infrastructure protection, including the National Infrastructure Protection Plan, is undergoing substantial changes, and the State is waiting to learn what the new guidance will entail.

State Uses Automated Risk Management System for Critical Infrastructure Protection

While the sector-specific plans have not been implemented, the secretary's office is taking other steps to support infrastructure protection in Virginia. The office has begun using an automated system, known as the Automated Critical Asset Management System (ACAMS), to implement the federal risk management framework. ACAMS is a web-based database and analytical tool that allows users to carry out many of the actions recommended in the national protection framework: identifying critical assets, as-

sessing the risks and vulnerabilities of these assets, and identifying recommended strategies to reduce vulnerabilities to these assets. ACAMS also provides useful information to emergency personnel when they respond to a disaster (such as a fire or hostage situation) within a facility listed in ACAMS. First responders can quickly access important information about the facility online, including floor plans and locations of hazardous materials. ACAMS is available from DHS at no cost for states and localities and is used in over 36 states nationwide.

Initially, the primary users of ACAMS in Virginia were staff from the secretary's office and DHS Protective Security Advisors, who conduct voluntary assessments of critical infrastructure around the State. More recently, the State has made the system available to local governments and is encouraging its use among local first responders, who are typically the main users of ACAMS at the local level. The secretary's office is also using a "train the trainer" approach to facilitate ACAMS training for local users. To date, localities in the most densely populated regions of Virginia are using ACAMS, including Hampton Roads, Northern Virginia, and Central Virginia. According to the secretary's office, there are more than 3,900 assets in Virginia captured in ACAMS.

State Recently Obtained Federal Assessment of Critical Infrastructure in Hampton Roads

In addition to ACAMS, the secretary's office is supporting critical infrastructure protection planning in Virginia by facilitating regional infrastructure assessments. The secretary's office and the Virginia Department of Transportation recently worked with DHS's Office of Infrastructure Protection to conduct a resiliency assessment of the Hampton Roads area. The assessment focused on the impacts of disruption to surface transportation infrastructure such as bridges and tunnels, and identified options for mitigating corresponding large-scale impacts. It also examined the ability of the region's critical transportation facilities—including the electric power and communications infrastructure on which they depend—to withstand and recover from natural and man-made disasters. The goal of the assessment was to provide the State and the Hampton Roads region with "actionable analysis that can lead to opportunities for improved resilience at critical transportation facilities and within the regional's overall surface transportation system." The findings and options identified in the assessment cannot be disclosed in this report because they are considered protected information by the federal government.

Federal Grants Are Substantial Funding Source for Disaster Preparedness And Funding Levels Are Declining

In Summary

Federal grant programs have supported a wide range of preparedness activities in Virginia; however, sharp declines in funding that began in recent years may impact the Commonwealth's ability to maintain these activities. Most funds from the Homeland Security Grant Program have been used to purchase equipment, while public health emergency grants have been used primarily for hiring public health staff and maintaining hospital emergency preparedness. A decreasing share of grant funds has been used to purchase equipment over time. To date, a 50 percent decline in federal preparedness grant funding between FY 2010 and FY 2012 has led to reductions in State and regional public health preparedness staff in Virginia, and effects in other areas are expected to become noticeable in 2014. Because Virginia has not yet assessed what capabilities funded through the Homeland Security Grant Program must be maintained and the extent to which remaining grant funds will support them, it is difficult to determine the impact of continued funding declines and the loss of given capabilities.

The mandate for this study requires JLARC staff to determine the extent to which homeland security grants have supported plan development, equipment purchases, and personnel. Over the past decade, the Commonwealth has come to rely heavily on federal preparedness grants, and the recent declines in federal support for preparedness may affect Virginia's ability to respond to disasters in the future. Chapter 7 will discuss Virginia's management of federal homeland security grants and the processes for allocating grants to State agencies and localities, as well as processes for monitoring the use of grants.

FEDERAL GRANTS SUPPORT A RANGE OF PREPAREDNESS INITIATIVES IN VIRGINIA

As noted in Chapter 1, the Homeland Security Grant Program, the Public Health Emergency Preparedness Program, and the Hospital Preparedness Program are the three largest federal grant programs supporting preparedness efforts in Virginia. These three programs have provided approximately $798 million, or more than 80 percent of federal preparedness grants awarded in Virginia over the past 10 years. The Homeland Security Grant Program, the largest source of funds ($530 million), was used in large part to purchase equipment. However, equipment purchases slowed down considerably over the past 10 years. The second and third largest sources of preparedness grant funds to Virginia were the Public Health Emergency Preparedness Program ($188 million) and the

Hospital Preparedness Program ($97 million), which were used primarily to build capabilities to address public health emergencies.

Over Three-Fourths of Homeland Security Grant Funds Have Been Used to Purchase Equipment

The Homeland Security Grant Program can be used to support planning efforts, to purchase equipment, and to conduct training and exercises. Federal law requires that these funds be used for projects that reduce the risk of terrorism. Over three-fourths of Homeland Security Grant Program funds awarded to Virginia and administered by the Virginia Department of Emergency Management (VDEM) from FY 2004 to FY 2012 were used to purchase equipment such as personal protective equipment for hazardous materials response teams or communications equipment (Figure 8). Approximately 14 percent of the program's grant funds were used for planning efforts such as developing disaster response plans or improving interoperable communications, and the remaining funds were spent primarily on training and exercises.

Although most of the Homeland Security Grant funds awarded in

Figure 8: Over Three-Fourths of Homeland Security Grants Since 2004 Have Been Used for Equipment
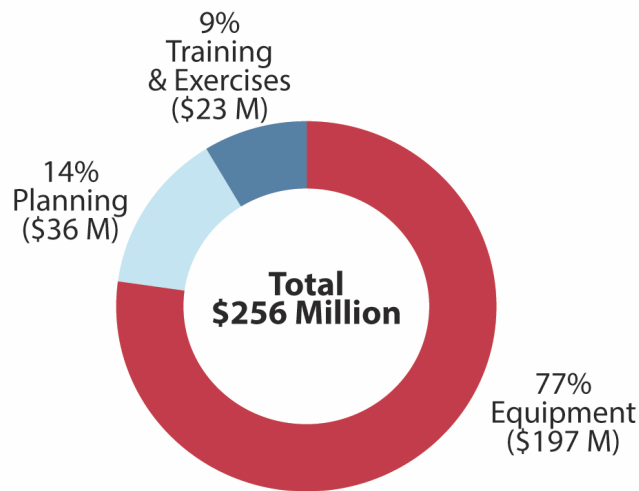

9% Training & Exercises ($23 M)

14% Planning ($36 M)

Total $256 Million

77% Equipment ($197 M)

Note: Total is less than the $530 million in Homeland Security Grant Program funds awarded in Virginia between FY 2003 and FY 2012 because the FY 2003 grant was federally required to be used to purchase equipment.

Total also does not include Homeland Security Grant Program funds awarded to Northern Virginia localities through the National Capital Region Urban Areas Security Initiative. These grants are administered by the District of Columbia.

Source: JLARC staff analysis of data from the Virginia Department of Emergency Management.

Chapter 6: Federal Grants Are Substantial Funding Source for Disaster Preparedness And Funding Levels Are Declining

Virginia between FY 2004 and FY 2012 have been used for equipment, a decreasing share of grant funds has been spent on equipment over time (Figure 9). During FY 2004, nearly 90 percent ($50 million) of the Homeland Security Grant Program funds awarded to the State supported equipment purchases and four percent supported training and exercises ($2 million). In contrast, only 39 percent ($2 million) of funds awarded in FY 2012 were spent on equipment purchases, and 41 percent ($2.2 million) were spent on training and exercises. The reduction in equipment purchases and steady spending on planning and training may be explained by changes in priority and by changes to the allocation method. A minimum amount of planning and training funding is required for preparedness, while the need for new equipment may have decreased over time. Prior to FY 2004, Homeland Security Grant funds in Virginia were allocated among localities on a per capita basis and localities were required to purchase equipment from an approved list. Beginning in FY 2004, Homeland Security Grant funds could be used for non-equipment purposes as well. In FY 2006, funding began to be allocated according to strategic initiatives and on a competitive rather than a per capita basis, which may have changed how funds were used.

Figure 9: Proportion and Amount of Homeland Security Funds Used for Equipment Declined Substantially Since 2004
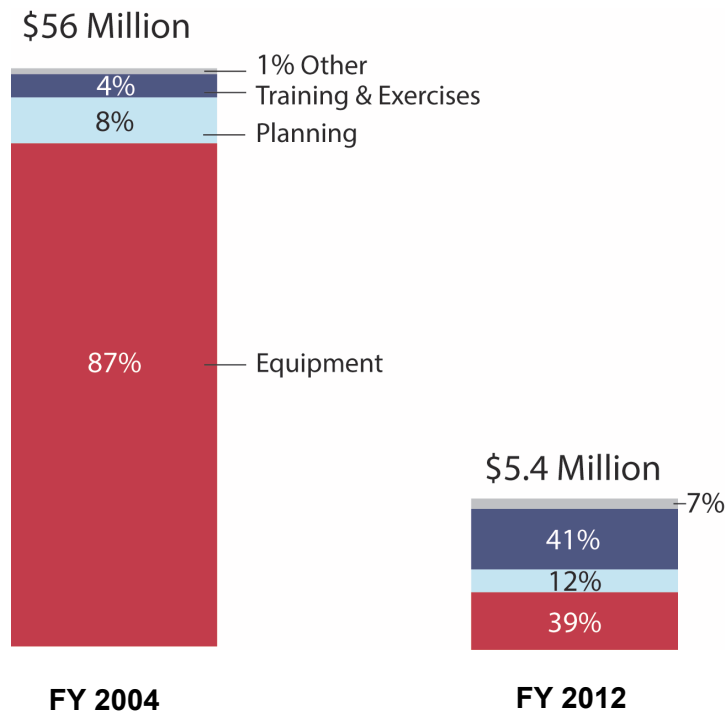
Source: JLARC staff analysis of data from the Virginia Department of Emergency Management.

Grants are generally awarded to specific projects that may include spending on equipment, planning, and training. Over the past decade, the largest amounts of Homeland Security Grant funding were awarded to projects intended to improve (1) chemical, biological, radiological, nuclear, and explosive detection and response ($80 million), and (2) interoperable communications ($70 million). These two types of projects are illustrated in the following case studies.

Case Study: Central Virginia Urban Areas Security Initiative (UASI) Grant – Chemical, Biological, Radiological, Nuclear and Explosive Response Equipment for the City of Hopewell (FY 2009)

The City of Hopewell used an $80,000 grant from the Central Virginia UASI program (which is a part of the Homeland Security Grant Program) to develop the ability to detect, monitor, and assess a chemical, biological, radiological, nuclear or explosive event. Equipment such as air monitors, the technology to connect them, and a laptop with the necessary operating software allow remote perimeter monitoring and assist with real-time modeling through sensors linked via radio transmitter. A thermal imaging camera assists with scene assessment, and a trailer allows the hazmat team to easily transport this and other hazmat equipment already owned by the city. According to Hopewell emergency management staff, the improved sensor and modeling technology gives Hopewell's hazmat responders the information they need to protect themselves and the public during hazmat spills. Hopewell shares this capability regionally through their involvement in the regional hazmat response teams.

Case Study: State Homeland Security Grant Program – Interoperable Communications for Northampton and Accomack Counties (FY 2009)

Northampton County was awarded a $1.4 million grant to improve communications interoperability between its public safety radio systems and those in Accomack County. Even though some desired upgrades and features could not be implemented, the system is expected to improve emergency communications within and between the two counties. The funds primarily supported the purchase of vehicle-based (mobile) and handheld (portable) radios for fire, EMS, law enforcement, and the school systems of both counties along with upgrades to radio infrastructure at numerous tower sites in both counties. Additional funds supported the procurement of professional consulting services that facilitated inter-agency and cross-county project planning. Project planning helped determine how to connect and upgrade tow-

er sites and the regional 9-1-1 Center. According to North-
ampton County emergency management staff, this regional
project has improved public safety communications in both
Northampton and Accomack Counties.

Over the past decade Virginia has also awarded $20 million in Homeland Security Grant funds—or about six percent of funds—to projects that support the State's emergency and homeland security planning initiative, such as updating emergency operations plans, conducting capabilities assessments, or developing strategic plans.

Public Health and Hospital Preparedness Grants Have Been Used Primarily for Staffing and Equipment

Between FY 2003 and FY 2012, $334 million in grants supporting public health and hospital preparedness were awarded to Virginia to support the development of emergency preparedness capabilities in local health departments as well as hospitals and health systems. Together, these federal grants are the primary sources of funding for Virginia's public health emergency preparedness efforts. Public Health Emergency Preparedness grants support resources such as disease surveillance systems, epidemiologists, trainers, and planners. The Hospital Preparedness Program grants support regional coordination and emergency preparedness for hospitals and health systems.

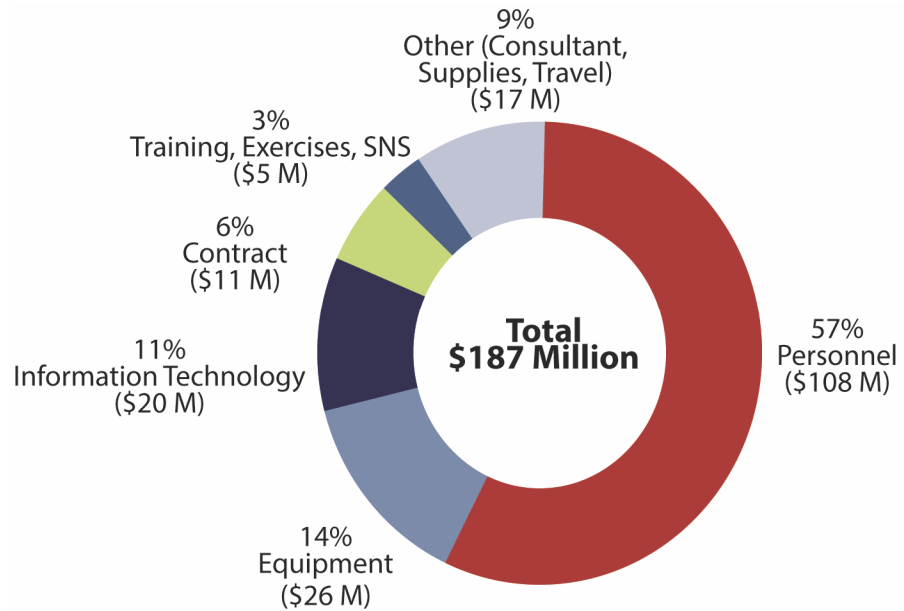**Public Health Emergency Preparedness Program (PHEP)**

The PHEP program supports preparing for public health emergencies such as a contagious disease outbreak, accidental release of radiological material, or act of bioterrorism such as a release of anthrax. Virginia's PHEP award consists of three components: (1) a **base amount** for local, regional and State emergency preparedness staff; (2) a **Cities Readiness Initiative award** to support 48-hour medication or other countermeasure distribution in urban areas such as Northern Virginia, Hampton Roads, and the City of Richmond; and (3) a grant to the **State laboratory** to fund equipment and personnel for laboratory testing.

Public Health Emergency Preparedness Grants Have Been Used Primarily for State, Regional, and Local Staffing. Over the past 10 years, the Virginia Department of Health (VDH) has received nearly $190 million from the Public Health Emergency Preparedness grant program. About 57 percent ($108 million) of public health funds has been used to hire laboratory staff as well as personnel at the State, local, and regional levels, and about 14 percent ($26 million) has been spent on equipment (Figure 10). In addition, these funds support training and exercise activities as well as developing and maintaining IT systems and equipment.

While over half of the recurring Public Health Emergency Preparedness awards have been used for personnel, spending evolved between FY 2003 and FY 2012. In FY 2003, about 41 percent of these funds supported personnel and 39 percent supported equipment. In FY 2012, 70 percent of these funds supported personnel and only about two percent supported equipment. This change in distribution has accompanied a recent decline in funds awarded to Virginia from the Centers for Disease Control and Prevention (CDC).

Recurring Public Health Emergency Preparedness grants fund epidemiologist and emergency planner positions in every local health district. These positions help localities with public health

Figure 10: Over Half of Public Health Emergency Preparedness Funds Supports State, Local, and Regional Health Staff

9%
Other (Consultant, Supplies, Travel) ($17 M)

3%
Training, Exercises, SNS ($5 M)

6%
Contract ($11 M)

11%
Information Technology ($20 M)

Total $187 Million

57%
Personnel ($108 M)

14%
Equipment ($26 M)

Source: JLARC staff analysis of data from VDH staff.

emergency preparedness and response functions such as coordinating a public health response during an emergency, or monitoring emerging diseases or suspected outbreaks of illness. These local staff issue recommendations to the public for evacuating, sheltering in place, or distributing and administering vaccines, medications or other antidotes.

These funds are also used to hire regional staff including planners, epidemiologists, trainers, and public information officers. While regional staff perform some of the same functions as local staff, they also play a coordinating role between local health districts, the State, and the CDC. For example, local epidemiologists investigating a disease outbreak would provide data to regional epidemiologists who communicate their region's needs and current health status to State and federal authorities. Other regional staff, such as trainers and planners, provide training and guidance to local health district planners responsible for developing each local health district's emergency response plans. At the State level, these grants fund epidemiologists who analyze State-level data and trends and monitor national or international disease outbreaks. These funds also support other State staff who provide oversight, training, and administrative support to health regions and local health districts.

Public Health Emergency Preparedness grants also fund laboratory analysis of biological agents and chemical analysis. The Division of Consolidated Laboratory Services within the Virginia Department of General Services has received about $40 million from this program to pay for personnel and equipment, including laboratory supplies. The equipment, personnel, and systems developed by this division allow for the State laboratory to communicate test results with hospitals and the CDC. For example, samples of suspicious white powder collected from across the State are routinely sent to the State lab for analysis. The information furnished by the lab about whether this powder contains infectious pathogens can help epidemiologists and health emergency planners track and predict the progression of a public health emergency and give planners the information they need to prepare a response.

Some Public Health Emergency Preparedness program funds also support the development of Virginia's Strategic National Stockpile program. The Strategic National Stockpile is a system to distribute and dispense medical supplies in response to a public health emergency, such as a radiological release at a nuclear power plant or a pandemic influenza outbreak that would require the administration of medication, vaccines, or antidotes to the public. State and local health planners and epidemiologists would need to distribute medical supplies such as vaccines to local health districts where they would be administered at designated sites to members of the general public. In the past, VDH staff has administered influenza vaccines during the H1N1 pandemic, and VDH and Medical Reserve Corps personnel have administered tetanus, diphtheria, and pertussis vaccines to citizens in tornado-stricken areas. Virginia has received a "top rating" from the CDC for nine consecutive years for planning and management of the Strategic National Stockpile.

Public Health Emergency Preparedness grants have been supplemented with non-recurring grants for infectious disease outbreaks. Approximately $48 million in supplemental grant funds were awarded to assist Virginia in preparing for a pandemic influenza outbreak. These funds included two grants for $18.6 million and $16.4 million that Virginia received in FY 2010 and FY 2011 to execute preparedness plans in response to the H1N1 influenza pandemic.

Hospital Preparedness Grants Have Been Used to Support Hospital Readiness for Disasters Involving Mass Casualties. In partnership with the Virginia Hospital and Healthcare Association and the Hospital Emergency Management Committee, VDH has administered over $97 million from the Hospital Preparedness Program to hospitals and health care providers in the Commonwealth. Projects undertaken with these funds include retrofitting hospitals

and other facilities to allow for water and generator hook-ups so that these facilities can function if local infrastructure becomes unavailable. Hospitals have also used funds to develop radio communication systems, improve electrical systems, and acquire tents or beds for increasing their capacity during a mass fatality or casualty event. Recently, the federal government has been encouraging States to make these funds available to non-hospital facilities such as nursing homes, day care centers, and other sensitive health care centers in order to avoid overwhelming hospitals during disasters.

VDH also uses these funds to support the salaries of regional hospital coordinators who help decide how to spend grant funds and are involved in the response to health emergencies. During a large-scale or statewide emergency, coordinators gather information that decision-makers may need about the status of various hospitals or trauma centers. This information includes the number of beds available, the maximum capacity of a facility, and the quantity of available medication needed to manage illnesses or injuries. If a hospital is full or at risk of being overwhelmed, victims would be redirected to another hospital and assistance would be provided to the overwhelmed facility.

GRANT FUNDING REDUCTIONS MAY AFFECT PREPAREDNESS

While the effects of declining federal emergency preparedness funds have been limited to date, continued declines may impact the Commonwealth's preparedness efforts in the future. Funding declines have translated into staff reductions for health planning efforts, and other effects may not become apparent until 2014. As grant funds continue to decline, some local and State emergency management officials are concerned about their ability to maintain the capabilities they have developed during the past decade because they rely heavily on grant funding. While the impact of declines in funding for public health and hospital preparedness has been more apparent, the impact of future reductions in Homeland Security Grant funding on Virginia's preparedness is not known because most localities have not assessed their critical needs or costs.

Federal grant funding was not intended to be the sole source of funding for state and local preparedness efforts. In 2004, the 9/11 Commission warned that states and localities should not rely solely on federal homeland security grants to maintain their disaster response infrastructure, but that such assistance "should supplement state and local resources based on the risks and vulnerabilities that merit additional support." Going forward, states and localities may need to rely more on their own funding to sustain the

preparedness capabilities developed through the post-9/11 infusion of federal homeland security grant funds.

Homeland Security, Public Health, and Other Emergency Preparedness Grant Funding Has Declined Substantially

Although annual federal grant funding for preparedness in Virginia has fluctuated widely over the past decade, funding levels have declined sharply over the past three years. According to a JLARC staff analysis of federal preparedness grants awarded to Virginia, homeland security, public health, and other emergency preparedness grant funding declined by 50 percent between FY 2010 and FY 2012, from $116 million to $58 million (Figure 11). The amount received in FY 2012 was the lowest in the past 10 years, and far below the average annual amount of $100 million received during this period.

Recent funding declines have occurred in each of the three largest federal preparedness grants, but the Homeland Security Grant Program experienced the largest decrease—more than 50 percent—between FY 2010 and FY 2012, from $55 million to $26 million. Funding from the Public Health Emergency Preparedness program has fallen by nearly 15 percent between FY 2010 and FY 2012, from over $16 million to $14 million, while the Hospital Preparedness Program funding to hospitals has not changed substantially during the period.

Figure 11: Virginia Has Experienced a Sharp Decline in Federal Preparedness Grant Funding Over the Past Three Years (millions)

Note: Data do not include federal preparedness grants awarded from the U.S. Department of Education to higher education and K-12 institutions in Virginia, law enforcement grants administered by the Virginia Department of Criminal Justice Services, direct federal grants to localities or non-profits not administered by VDEM, or the Assistance to Firefighters Grant program.

Source: JLARC staff analysis of data from VDEM and VDH.

As funding levels for the three largest sources of grant funds continue to decline, other federal preparedness grant programs are also being scaled back or consolidated. Since FY 2011, Virginia has lost funding for Central Virginia and Hampton Roads through the Urban Areas Security Initiative program, which provides homeland security grant funds to be administered by urban metropolitan areas and has provided more than $49 million to these regions as of FY 2012. At least three federal grant programs have been eliminated and consolidated into the Homeland Security Grant Program. According to FEMA, the agency intends to further consolidate grant programs if Congress passes authorizing legislation.

Funding Reductions Already Affect Health Planning, And Further Reductions May Affect Preparedness

Reductions in federal preparedness grant funding have primarily impacted health planning staffing levels to date, and major effects on other preparedness efforts may not occur until 2014. Grant funding declines in both health preparedness programs have led to a 5.5 percent reduction in the number of public health staff with preparedness responsibilities in recent years because VDH depends solely on grant funds to support State, regional, and local preparedness efforts (Figure 12). In FY 2010, this program helped fund about 143 positions, but today the grants fund 134 positions.

Staffing levels have decreased, but according to VDH staff, these reductions have not yet adversely affected Virginia's ability to respond to disasters. To minimize the impact of staffing reductions, VDH has consolidated State and local preparedness planning positions and teams. Virginia's five regional response teams have been reduced to four. All teams lost funding for the physician consultant positions, and the two teams that had an industrial hygienist no longer have the funds for that position. VDH has also consolidated the emergency planning and epidemiology positions for two local health districts, resulting in one planner and one epidemiologist supporting two districts rather than a planner and an epidemiologist assigned to each district. As Figure 12 shows, declines in grant-funded staffing have occurred at the regional and State levels rather than at the local level.

VDH staff expressed concern that further declines in grant funding for public health staff could impact Virginia's preparedness for public health emergencies. According to VDH staff, reductions of as little as five percent could hinder the agency's response to a massive public health emergency, such as a pandemic flu outbreak. To respond to a public health emergency requiring the administration of a vaccine, medication, or any other kind of antidote across the State, VDH would need to rapidly increase the hiring of nurses and other staff to administer vaccines, quickly activate con-

Figure 12: Number of Grant-Funded Staff at State and Regional Levels Has Declined in Recent Years (FTEs)

	FY 2010		FY 2012
State	56		49
Regional	22		17
Local	65		69
	Total 143		134
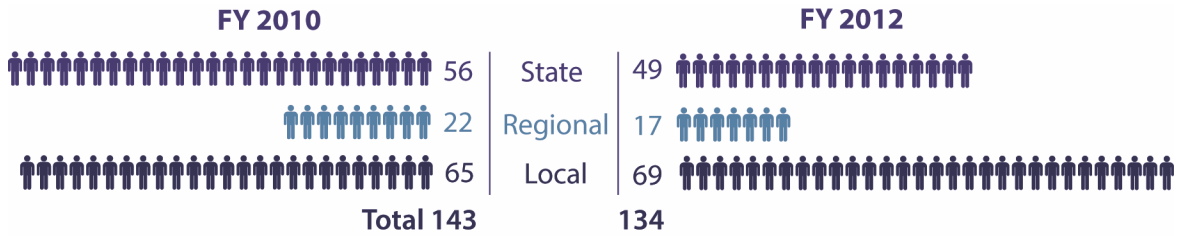
Note: These figures include only staff supported by the Public Health Emergency Preparedness Program. Numbers may not add due to rounding.

Source: VDH staff.

tracts with suppliers, and coordinate the travel of personnel to deliver and administer supplies. If further cuts necessitate the loss of critical staff, there may not be enough planners, epidemiologists, and administrative staff to manage this type of response.

Further cuts to the federal health preparedness grant programs could necessitate cuts to the Medical Reserve Corps program, which could harm the Commonwealth's ability to respond to a widespread health emergency. VDH staff identified the Corps as a valuable resource because it allows the agency to expand its capabilities through the use of medical volunteers. These volunteers have played a critical role during events such as the Boston Marathon bombing, where they were first on the scene because they had been pre-positioned to treat injured or dehydrated runners. In Virginia, there are over 13,000 volunteers in 31 Medical Reserve Corps units. These volunteers have assisted in the administration of flu shots during flu season as well as tetanus, diphtheria, and pertussis vaccines in tornado-stricken areas. Volunteers have also been involved in events such as presidential inaugurations, a Civil War battle reenactment, and an outbreak of tuberculosis in the City of Chesapeake.

Although the Homeland Security Grant Program has experienced the largest decrease in funding since FY 2010, there does not appear to have been a major impact on State and local preparedness programs yet, because funds from previous cycles are still being spent. According to VDEM staff, the full impact of declining homeland security and emergency preparedness funds will likely not be felt until FY 2014, when funds awarded in FY 2010 and FY 2011 will have been spent.

Further declines in Homeland Security grants or continued funding at the program's FY 2012 levels could affect State and local preparedness for all potential disasters. Some jurisdictions may

face difficulty replacing equipment purchased with grant funds or providing funding for training, exercises, or planning. Other localities have expressed concerns that further declines may take Virginia back to pre-9/11 preparedness levels. However, localities have not yet identified their critical priorities, what they cost, and the amount of funding available to support them. Therefore, it is not possible to determine which critical capabilities may not be funded due to declines in grants and the impact that losing these capabilities could have on Virginia's preparedness. The State could consider making funds available to address a funding shortfall if one is identified after localities have completed an assessment of their preparedness needs, capabilities, and costs.

Grant Management Has Improved and Would Benefit From Further Strengthening

In Summary

The State has improved the homeland security grants process to help ensure that funds are directed to projects that address the State's highest preparedness priorities, but the State's grant management would benefit from further strengthening. The Virginia Department of Emergency Management (VDEM) and the Office of the Secretary of Veterans Affairs and Homeland Security have improved the grant allocation process by considering the level of risk addressed by a project to help prioritize funding decisions, using the State strategic plan to determine the initiatives that will be funded with grants, and requiring all grant-funded projects to be submitted collaboratively on a regional basis. The State could continue to improve the allocation process by refining the way risk is incorporated, improving the strategic planning process, and strengthening regional collaboration requirements. These changes will provide State leaders with more assurance that federal grants are used for Virginia's highest preparedness priorities. The grants administration process has also improved and appears to meet the needs of localities. VDEM is working to improve its processes for monitoring grants, based on recommendations made in a federal audit.

The study mandate directs JLARC to address several issues related to the management of homeland security grants, specifically (1) the grant allocation process, including the use of State and local plans to guide funding decisions, the process for identifying and applying for grants, and the State's efforts to regionalize grant requests; (2) grants administration, including whether localities and regional advisory councils are informed of grant opportunities in a timely manner and are trained in the development of successful grant requests; and (3) the monitoring of grants, including whether there is effective oversight of funding and grants by the State and whether a system exists to audit or monitor the use of homeland security grants.

Chapter 7 focuses primarily on the State Homeland Security Grant Program, which has been the largest federal program providing homeland security grants to State agencies and localities. Although Virginia has also received substantial grant funding for public health preparedness, concerns over Virginia's grant administration process appear to stem from issues with the State Homeland Security Grant Program that were raised in the 2005 JLARC report entitled *Review of Homeland Security Funding and Preparedness in Virginia.* In the 2005 report, JLARC found that homeland security grant funds for State agencies were allocated without considering

the State's strategic priorities or scoring criteria, and grant funds for localities were allocated by population rather than risk.

GRANT ALLOCATION PROCESS HAS ADVANCED AND COULD BE FURTHER IMPROVED

The Virginia Department of Emergency Management (VDEM) and the Office of the Secretary of Veterans Affairs and Homeland Security (secretary's office) have worked together to improve the grant allocation process, which is critical to ensuring that funds are directed toward the highest-priority projects. Additional improvements could still be made, including strengthening regional requirements to ensure projects are truly collaborative and using capabilities assessments to prioritize project funding. VDEM is the designated State administrative agency for federal homeland security grants and is responsible for administering federal grant programs, including allocating homeland security grant funds to localities and State agencies and monitoring the use of funds. Under the Code of Virginia, the secretary's office is ultimately responsible for ensuring that "available federal and state resources are directed toward safeguarding Virginia and its citizens" (§2.2-231-5).

Improved Allocation Process Has Helped State Better Direct Federal Grants Toward Preparedness Priorities

The substantial changes made to Virginia's grant allocation process since 2006 have improved the State's ability to allocate grants to the highest State and local priorities. JLARC's 2005 study of homeland security, entitled *Review of Homeland Security Funding and Preparedness in Virginia*, identified two main concerns with the grants allocation process used prior to 2006: (1) homeland security grant funds for State agencies were allocated without considering the State's strategic priorities or scoring criteria, and (2) grant funds for localities were allocated by population rather than risk, potentially resulting in higher-risk localities being underfunded and lower-risk localities being overfunded.

To address these concerns, the 2005 JLARC report recommended that the State consider the goals of the statewide preparedness strategy when allocating homeland security grants to State agencies, and develop a formula for allocating homeland security grants to localities based on risk factors such as population density, identified targets, and local capabilities. The current process for allocating homeland security grants largely addresses these recommendations by using the State's strategic plan to allocate funds for Statewide preparedness initiatives and a competitive application process that incorporates risk.

Current Grant Process Selects Annual Investment Initiatives Primarily From the Secure Commonwealth Strategic Plan. Consistent with

JLARC's 2005 recommendation, the planned uses of grant funds are now based primarily on the goals and priorities in the 2009 Secure Commonwealth Strategic Plan. For example, one initiative to be funded during the FY 2012 grants cycle was statewide shelter planning, which directly supported the strategic plan goals for mass care (goal 12) and enhancing inter- and intra-state collaboration to respond to emergencies (goal 15). Other factors are also considered when determining how to allocate grant funds. For example, funds are typically allocated for priorities set by the Governor (such as mass care and evacuation), or U.S. Department of Homeland Security (DHS) requirements that must be addressed (such as supporting the State's fusion center).

The initiatives toward which the State has recently allocated grant funds appear to meet the preparedness priorities of localities. All 13 localities responding to the JLARC phone survey stated that the initiatives selected by the State during the last two years have matched their local preparedness priorities. Some local emergency managers noted that the initiatives are sufficiently broad that any project they propose would have supported at least one of them.

VDEM and the Secretary of Veterans Affairs and Homeland Security Evaluate Grant Proposals Using Defined Criteria That Include Risk.

The substantial changes made to the way grant proposals are evaluated have improved the State's ability to ensure federal grants are used for the highest preparedness priorities. In FY 2012, VDEM and the secretary's office worked with the Virginia Modeling, Analysis and Simulation Center (VMASC) at Old Dominion University to develop a model to rank grant applications based on weights and scores assigned to eight factors (Table 8). The information required on the FY 2012 grant application corresponds to the eight evaluation factors, which are used by an evaluation team to score each proposal. Under a policy developed by the secretary's office, each applicant is also given the opportunity to discuss its proposal during an interview with the evaluation team. Scores for all proposals are entered into the VMASC model, which ranks the proposals based on weighted scores.

While the State has taken positive steps toward including risk in the grants evaluation process, and different methods have been explored, the process continues to evolve in search of the best way to incorporate risk. For the FY 2013 grants cycle, VDEM staff and the secretary's office are asking applicants to "describe the capability gap in terms of the threat, associated vulnerability, and consequence related to the project's purpose." Staff with VDEM and the secretary's office believe this change will make it easier for applicants to provide information on risk and help the evaluation team improve its risk evaluation. After the FY 2013 cycle, VDEM and

Table 8: Eight Factors Were Used to Evaluate Grant Proposals for the FY 2012 Grant Process

Evaluation Factors	Description	Weight
Necessity of project	How well does the proposal make the case for the necessity of the project?	.2128
Results evaluation	How well does the proposal explain results evaluation?	.1915
Evaluation of risk	How well does the proposal evaluate the risk?	.1702
Project management control means	How well does the proposal explain the project management plan?	.1277
Viability of long-term sustainment plan	How viable is the long-term sustainment for the project proposal?	.1277
Mitigation efficacy	How well does the proposal make the case for mitigation efficacy?	.0851
Viability of project management plan	How viable are the specifics of the project plan?	.0051
Support for declared State priorities	How well does the proposal support the declared State priorities?	NA[a]

[a] Support for declared State priorities has a weight of zero. It is included in the evaluation model to track the number and dollar value of projects that support the various initiatives.

Source: JLARC staff analysis of descriptive information provided by VDEM and VMASC staff.

the Secretary responsible for coordinating disaster preparedness should evaluate the process used and determine if further changes are needed for FY 2014.

Strengthening Grant Requirements Could Better Support Regional Collaboration

Beginning with the FY 2006 grants cycle, DHS made expanded regional collaboration a priority for grant projects, and the State began requiring all grant projects to be regional in nature. Expanded regional collaboration is also one of the seven national priorities in the National Preparedness Goal developed by DHS. Regional grant projects can create efficiencies and improve regional preparedness coordination. For instance, localities that face similar potential disasters and have similar preparedness needs may benefit from working together to develop a shared capability, such as a mobile emergency operations center. Some local emergency managers told JLARC staff that regional projects will become a more attractive way for localities to develop capabilities as federal grant funding levels decline.

VDEM has defined regional projects as those involving more than one locality, although a single locality could receive funds if its project has a regional benefit. Examples of projects that VDEM would consider to be regional include:

- multiple localities working together to develop a regional radio system,

- a single locality purchasing radio equipment that allows it to be interoperable with neighboring localities, or

- a single locality purchasing a pet shelter trailer that it will share with other localities when needed (through memoranda of understanding).

However, VDEM's current means of ensuring that projects are truly regional are limited. The one question on the current grant application that most directly addresses the regional nature of projects asks the applicant to:

> name the localities, agencies, partners, etc. to include population, square miles, population density, any population influx due to tourism, education, or other attractions, regional governance, and other facts of note.

This question does not require applicants to explain how the project addresses regional cooperation or effectively shares resources. VDEM staff indicated that applicants often proactively discuss the regional nature of a project when responding to other questions on the form or during interviews, but it is not clear how often this occurs.

There is also no way to ensure that approved projects meet the regional requirement once funded and implemented. VDEM does not require localities that receive grant funds for a regional project to develop documentation to verify the regional requirement has been met, such as memoranda of understanding (MOUs) or other agreements. VDEM staff said they strongly encourage localities to develop MOUs for regional projects, but these are not required. If an MOU is developed, however, VDEM requires it to be submitted.

One exception is for interoperable communications projects, which go through a slightly different grants evaluation process and have more stringent regional requirements. The application form used for communications grants in FY 2012 required applicants to address specific questions about regional collaboration. For example, applicants were required to: (1) list and document the support from each of the primary jurisdictions receiving equipment and/or services as part of the project and a point of contact, and (2) provide and list any documents (MOUs, letters of intent, etc.) that clarify the governance structure that exists or will be established to ensure the project's success. In addition, the 2013 Statewide Communications Interoperability Plan states that grant applicants must "clearly define how the project promotes regional cooperation and addresses mutual aid."

Because efficiencies reaped through regional projects may help mitigate the impact of declining federal grant funds, the regional

requirements for homeland security grant projects should be strengthened to provide greater assurance that funded projects are truly regional in nature. Additional requirements should include:

- Modifying the grant application form to require applicants to more clearly describe how their project is regional in nature. The types of questions asked on the communications grant application form could provide guidance as to the type of information that could be required.

- Adding regional collaboration as one of the evaluation criteria in the VMASC proposal evaluation model.

- Requiring grant recipients to submit documentation of their regional project (such as an MOU) before the project expenditures are reimbursed.

Recommendation (17). The Virginia Department of Emergency Management should strengthen the requirements for regional projects by (1) including specific questions about the regional nature of the project on the grant application form, (2) including regional collaboration as one of the proposal evaluation criteria, and (3) requiring the development and submission of memoranda of understanding or other agreements that formalize the regional nature of the project.

State Lacks Mechanism for Evaluating the Need for Proposed Projects

Although the State's process for awarding homeland security grants to localities and State agencies has improved since 2006, the State lacks a rigorous method for evaluating the extent to which a proposed grant project is truly needed. Currently, the grant application requires applicants to explain the necessity for a project, and the applicant's response is scored based on the quality of their answer. However, this process does not include a rigorous assessment of whether the capability a grant applicant is seeking to develop has already been sufficiently developed—either by the applying jurisdiction or by a neighboring locality. Staff with VDEM and the secretary's office said subject-matter experts with State agencies have a working knowledge of current capabilities in the State's regions, and that their input is considered when grant applications are assessed. However, while these subject-matter experts may have developed considerable knowledge of local and regional capabilities, it is unlikely that they would have a comprehensive understanding of current capabilities in every region and locality of the State.

The lack of a rigorous process for evaluating the need for proposed grant projects makes it difficult for the State to ensure that grants are awarded only when a capability is truly needed. For example, a

locality could apply for homeland security grant funds to develop the capability for water rescues, including the equipment and training to undertake such operations during a disaster. If that locality's region already has water rescue teams, the locality may not need its own team and could instead enter into a mutual aid agreement with nearby localities. However, without a comprehensive, documented assessment of local and regional capabilities throughout Virginia, such grant projects may nonetheless be funded. According to staff with the secretary's office, homeland security grant funds may have been used to develop duplicative or unnecessary capabilities in the past. For example, staff said that, for a time, many localities wanted their own armored personnel carriers, and at another point many localities wanted to purchase mobile emergency operations centers.

JLARC's 2005 report on homeland security recommended that VDEM conduct a "statewide assessment of local and regional capabilities, including equipment, training, personnel, response times, and other factors." However, no such assessment has occurred to date. As already discussed, VDEM administers an annual survey of localities, known as the Local Capabilities Assessment for Readiness (LCAR), to measure the strength of localities' preparedness, but this assessment does not identify specific resources or equipment in each locality that could potentially be used by neighboring localities.

As federal funding for preparedness declines, continuing to improve the award process for homeland security grants can help lessen the impact of these declines. Identifying gaps in local and regional capabilities, and then using this information to prioritize grant projects that address these gaps, is critical to ensuring that the State's limited homeland security grant funds are going to Virginia's highest-priority needs. The grant award process could be improved by using the results of ongoing capabilities assessments in Virginia to evaluate proposed grant projects. These assessments include the annual Threat and Hazard Identification and Risk Assessment and the Virginia Regional Preparedness Measure recently conducted in the Hampton Roads region (discussed in greater detail in Chapter 2).

To date, the State has not conducted a statewide assessment of local and regional capabilities.

Recommendation (18). The Office of the Secretary responsible for disaster preparedness coordination and the Virginia Department of Emergency Management should use findings from the annual Threat and Hazard Identification and Risk Assessment, the Virginia Regional Preparedness Measure, or other regional capabilities assessments to evaluate applications for grants from the Homeland Security Grant Program.

VDEM'S GRANTS ADMINISTRATION PROCESS HAS IMPROVED AND GENERALLY MEETS THE NEEDS OF LOCALITIES

VDEM has made recent changes to the grants administration process to address concerns raised by localities in the past. Important aspects of administering grant programs include providing applicants with timely notification of grant opportunities and sufficient time and technical assistance to develop competitive project proposals. If these activities are not carried out properly, opportunities for State agencies, localities, and regional entities to obtain homeland security grant funds may be missed, and Virginia could lose opportunities to maintain and improve its preparedness.

VDEM Now Provides Better Notification of Grant Opportunities and Sufficient Time to Develop Proposals

VDEM staff appear to have addressed past concerns about the grant notification process and the amount of time grant applicants have to develop project proposals. In past years, staff in some localities reported not being notified of all grant opportunities and not having adequate time to develop and submit proposals. Localities are now generally satisfied with notifications of grant opportunities from VDEM. Seventy-five percent of the 13 localities responding to a JLARC staff phone survey said that all relevant individuals in their locality were notified of homeland security grant opportunities over the last two years. VDEM's primary means of notifying potential applicants is through a listserv for which anyone can sign up, including State and local government staff and vendors. VDEM also sends out separate notifications to emergency managers in each locality and to local grants staff who are not in the emergency management field.

VDEM also appears to have addressed concerns with grant notifications for local law enforcement agencies. In the past, some local law enforcement officials expressed concern that they were not receiving all grant notices in a timely manner. VDEM staff indicated that this was because the Virginia Department of Criminal Justice Services used to handle the grants process for law enforcement grants, and when VDEM took over, they did not have all the law enforcement contacts in their listserv. VDEM staff indicated that they have since added these contacts to the listserv.

Grant applicants also appear to have sufficient time to develop project proposals, mainly because of changes made to the grants process. Applicants used to have to wait until the Federal Emergency Management Agency (FEMA) had approved the State's plan for allocating funds among priorities before they could begin developing grant proposals. In FY 2012, grant applicants were allowed to develop proposals while the allocation plan was being reviewed by FEMA. This change allowed VDEM to extend the proposal peri-

od from 30 to 60 days for the FY 2012 grant cycle. During a JLARC staff phone survey of localities, 85 percent of local emergency managers interviewed indicated they had sufficient time to develop competitive grant proposals in the last two years.

Localities Are Mostly Satisfied with Technical Assistance from VDEM

Local emergency managers appear generally satisfied with the technical assistance VDEM provides during the grant process. Almost all localities (12 out of 13) interviewed for this study (through site visits and phone surveys) that requested technical assistance from VDEM indicated that the assistance provided during the grants development process was sufficient. Much of the technical assistance VDEM staff provides to localities takes place after projects have been approved, and often involves responding to questions from project managers on various grants management topics. VDEM staff also provided training to localities on how to manage their grant funds and use a new grants management system.

During the proposal development phase of the grants cycle, VDEM staff does not provide grant writing assistance or assistance in developing competitive proposals, but they will answer technical questions about developing proposals. In addition, while VDEM does not conduct training on grant writing, they will notify localities of grants development training conducted by other organizations. As discussed above, all grant applicants also have the opportunity to present their proposals orally during the evaluation process, giving localities that do not have professional grant writers on staff the opportunity to explain their proposals and answer questions.

VDEM IS WORKING TO IMPROVE GRANT MONITORING PROCESS, FOLLOWING FEDERAL AUDIT RECOMMENDATIONS

VDEM staff are currently in the process of making changes to the grants monitoring process based on recommendations made in a recent federal audit. Federal laws and regulations require that federal grant programs administered by states include monitoring and auditing processes to help ensure grant funds are used for stated purposes and in compliance with all federal requirements. Without these processes, the State may not be able to ensure that grant projects support State and local preparedness priorities. Failing to comply with federal requirements may also jeopardize future preparedness grant funding to the State. As the administrative agency for homeland security grants, VDEM has responsibility to ensure that the federal funds it awards are used in compliance with federal requirements.

VDEM must ensure that localities receiving homeland security grants comply with four primary federal requirements: (1) do not replace existing funding sources, (2) use funds consistent with federal, State, and local procurement laws and regulations, (3) procure equipment that is on DHS's authorized equipment list and is an allowable expense, and (4) use funds consistent with the purposes stated in the approved application.

Concerns with VDEM's oversight of homeland security grants were identified in a November 2012 audit conducted by the DHS Office of Inspector General. The audit covered grants awarded to the State from FY 2008 through FY 2010. Key findings were that:

- VDEM's policies and procedures to monitor grant recipients throughout the grant performance period were insufficient to provide the required oversight.

- Some grant recipients' procurement procedures, as well as their financial and property management, did not comply with federal, State, or local requirements.

- The State did not award funds to grant recipients in the federally required timeframe.

- Not all grant funds were expended within the grant performance period.

VDEM is in the process of addressing the audit's recommendations for improving its grant monitoring processes. VDEM concurred with all of the recommendations and developed a corrective action plan to implement the recommendations (Table 9). For example, VDEM is updating and enhancing its policies and procedures, developing a sampling method to perform on-site monitoring with grant recipients, implementing a new grants management system, and conducting grants management training for grant recipients. To help ensure that grant funds are spent during the performance period, VDEM is requiring grant recipients to submit quarterly progress reports and working to ensure that grant recipients are aware that FEMA is no longer granting extensions to the performance period. In addition, the new grants management system includes performance measurement tools to help monitor progress and ensure that funds are spent before the end of the performance period.

Table 9: VDEM Has Identified Corrective Actions to Address DHS Recommendations

Key DHS Audit Recommendations	Key Corrective Actions Identified by VDEM
VDEM should develop a comprehensive performance measurement system for its strategic plan.	State's strategic plan will be revised to include measureable outcomes.
VDEM should revise its policies and procedures for monitoring sub-grantees to provide reasonable assurance that they are complying with federal laws and regulations.	Grant administration policies and procedures are being revised and updated. Training is being provided to all open grant recipients.
VDEM should develop and implement policies and procedures for selecting open and closed sub-grantee projects for audits.	Audits will include open grants to ensure that recovered funds can be awarded to another recipient. A sample method will be used to select localities for on-site monitoring visits.
VDEM should assess its current processes and procedures for awarding homeland security funds.	Beginning with the FY 2011 grants cycle, VDEM changed its processes to ensure that funds are obligated to local governments within 45 days of receipt of the federal award.
VDEM should assess its current processes and identify ways to improve sub-grantees' performance in meeting established grant performance deadlines.	A new electronic grants management system will allow for better monitoring of project progress. Grant recipients will be required to submit quarterly progress reports. All grant recipients are being made aware that DHS is no longer extending performance deadlines

Source: JLARC staff analysis of Commonwealth of Virginia Corrective Action Plan (November 14, 2012), in response to DHS-OIG 12-101-AUD-FEMA.

Chapter **8**

Restructuring of Homeland Security Organization Is Needed to Improve Preparedness Coordination

In Summary

While responsibilities for disaster preparedness in Virginia have expanded, the entity responsible for coordinating preparedness still lacks sufficient authority to ensure initiatives can be implemented effectively and efficiently. Because the current structure requires the Secretary of Veterans Affairs and Homeland Security to rely on resources from the Secretary of Public Safety to carry out its duties and implement improvements, the State has had difficulty addressing deficiencies, such as those affecting shelter and evacuation planning, in a timely manner. Aligning the responsibilities for coordinating disaster preparedness planning with authority over the Virginia Department of Emergency Management (VDEM) would improve the State's ability to coordinate planning and address deficiencies in evacuation, re-entry, and shelter planning for catastrophic disasters such as a hurricane in Hampton Roads. Transferring the preparedness functions of the Office of the Secretary of Veterans Affairs and Homeland Security to a reorganized Office of the Secretary of Public Safety is most likely to improve the coordination of disaster preparedness planning because it would support a high degree of coordination among VDEM, the Virginia State Police, and the National Guard, which play critical roles before and during disasters. Although placing VDEM under the Secretary of Veterans Affairs and Homeland Security was presented as an alternative, this structure does not appear viable because it would disrupt coordination between these agencies and potentially hinder preparedness planning and response. JLARC staff recommends establishing a reorganized Office of the Secretary of Homeland Security and Public Safety with responsibility for coordinating preparedness planning in Virginia.

The study mandate directs JLARC staff to determine whether the organization and management of homeland security within the Office of the Secretary of Veterans Affairs and Homeland Security (secretary's office) is appropriate or would be better coordinated through another structure. Previous chapters have identified areas where preparedness should be strengthened to ensure that Virginia is prepared for all potential disasters. For example, Chapter 3 described that Virginia lacks a process to monitor the status and quality of State agency response plans, and Chapter 4 identified deficiencies in shelter and evacuation plans that may compromise the safety of the Hampton Roads population during a catastrophic disaster. To address these concerns and support continued improvement in Virginia's level of preparedness, the State needs an organizational structure for homeland security that can effectively and efficiently coordinate preparedness efforts.

PREPAREDNESS RESPONSIBILITIES HAVE INCREASED OVER TIME, BUT AUTHORITY REMAINS INSUFFICIENT

In the aftermath of the September 11 terrorist attacks, the President asked each state to create a homeland security organization and to designate a homeland security advisor to coordinate state efforts with federal and local efforts. In Virginia, the governor chose to designate an assistant to the governor for commonwealth preparedness as the homeland security advisor. Today, the role of homeland security advisor has been assigned to the Secretary of Veterans Affairs and Homeland Security, who also assumes broad preparedness responsibilities.

Responsibilities for Disaster Preparedness in Virginia Have Expanded Beyond Acting as Homeland Security Advisor

Over time, the entity responsible for disaster preparedness in Virginia has acquired a broad array of statutory responsibilities for coordinating and overseeing preparedness efforts in Virginia. When first established more than ten years ago, the position of Assistant to the Governor for Commonwealth Preparedness was created by executive order and funded by grants. Today, the position has evolved into a secretariat also responsible for veterans affairs. The position has never had direct control over State agencies involved in disaster preparedness in order to coordinate preparedness efforts without allegiance to any one State agency or secretariat. The functions of Virginia's homeland security advisor have taken the all-hazards approach common to the field of preparedness, including terrorism prevention efforts as well as preparedness for the full range of disasters facing the Commonwealth.

When the cabinet-level position of Assistant to the Governor for Commonwealth Preparedness was created in 2002, it had three responsibilities:

- serve as the State's single point of contact with federal homeland security entities,

- coordinate the use of federal grants across secretariats, and

- serve as chair of the Secure Virginia Panel.

The responsibilities of the assistant for commonwealth preparedness were broadened substantially when the position was given a statutory basis in 2006. Legislation creating the Office of Commonwealth Preparedness expanded the office's role to include primary responsibility for coordinating preparedness efforts in Virginia. Additional statutory responsibilities included oversight, coordination, and review of all emergency and terrorism management plans, oversight of the Virginia Department of Emergency Management (VDEM) annual statewide assessment of local and

regional capabilities, coordinating regional preparedness initiatives, and serving as the Governor's liaison with localities on all-hazards preparedness.
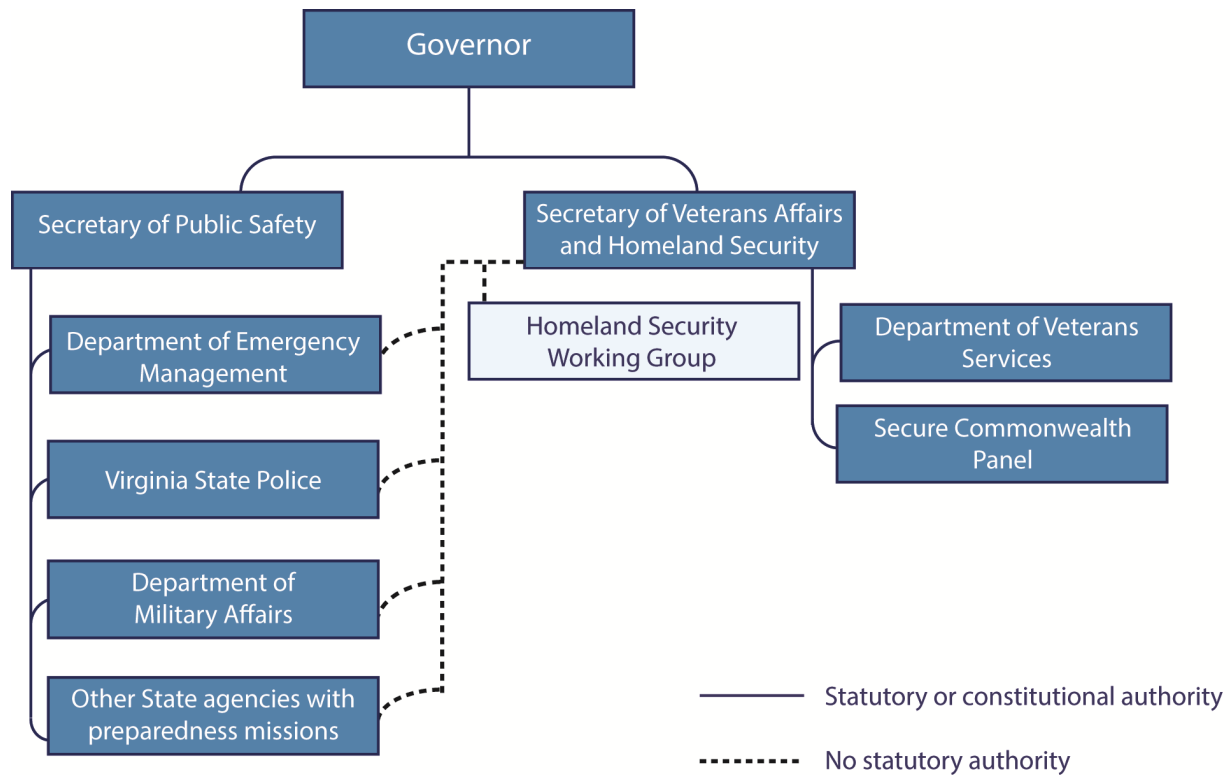
The Office of Commonwealth Preparedness was elevated to a secretariat in 2011 when the General Assembly approved legislation creating the Office of the Secretary of Veterans Affairs and Homeland Security. According to the secretary's office, the position was elevated to a secretariat because it lacked sufficient authority to coordinate preparedness efforts across State agencies and secretariats. Staff with the secretary's office also said the position was combined with veterans affairs because the former Office of Commonwealth Preparedness had been overseeing federal military base realignment and other military matters in Virginia.

Office of the Secretary of Veterans Affairs and Homeland Security Has Limited Authority to Coordinate Preparedness

While the secretary's office has primary responsibility for coordinating and overseeing preparedness in Virginia, the Secretary has limited authority and staff to carry out these statutory responsibilities. The secretary's office does not have statutory authority over VDEM (Figure 13), which under the Code of Virginia has similar responsibilities as the secretary's office for the coordination and oversight of preparedness in Virginia. Staff with the secretary's office said VDEM is the primary State agency on which they rely to implement preparedness initiatives. However, the secretary's office has had difficulty assigning VDEM staff to specific policy initiatives because these initiatives may conflict with their regular duties, which are assigned by the Secretary of Public Safety and may take precedence. During JLARC staff interviews, both current and former State staff said the secretary's office has had difficulty implementing preparedness initiatives as a result of insufficient authority over VDEM staff.

The entities under the authority of the secretary's office provide the office only limited ability to implement preparedness initiatives. The secretary's office has express statutory authority over just one entity whose primary mission is preparedness: the Secure Commonwealth Panel, an advisory panel with broad oversight responsibilities. According to State preparedness plans, the Secretary can implement preparedness initiatives through staff from the Homeland Security Working Group, an informal collection of State agencies with responsibilities under the COVEOP. However, the working group has no basis in statute, and no executive orders issued in the last decade have given the Secretary authority over the group.

Figure 13: Secretary of Veterans Affairs and Homeland Security Has Limited Statutory Authority Over State Entities with Critical Preparedness Responsibilities

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                        │     Governor     │
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    ┌───────────────────┐              ┌──────────────────────────┐
    │ Secretary of      │              │ Secretary of Veterans    │
    │ Public Safety     │              │ Affairs and Homeland     │
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      ├─│ Department of Emergency │  │ Homeland Security    │  │ Department of Veterans   │
      │ │ Management              │  │ Working Group        │  │ Services                 │
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      │ ┌─────────────────────────┐                            ┌──────────────────────────┐
      ├─│ Virginia State Police   │                            │ Secure Commonwealth      │
      │ └─────────────────────────┘                            │ Panel                    │
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      ├─│ Department of           │
      │ │ Military Affairs        │
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      │ ┌─────────────────────────┐
      └─│ Other State agencies    │
        │ with preparedness       │
        │ missions                │
        └─────────────────────────┘
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─────── Statutory or constitutional authority

- - - - - No statutory authority

Note: The Secretary of Veterans Affairs and Homeland Security also has statutory authority over the Veterans Services Foundation and the Virginia Military Advisory Council.

Source: JLARC analysis of the Code of Virginia, interviews with State agency staff, and reviews of State preparedness plans.

Because the secretary's office has limited statutory authority, the position depends heavily on clear guidance from the governor instructing State agencies and secretaries to provide assistance. However, clear guidance on the authority of the secretary may not always be provided by the governor. One former assistant for commonwealth preparedness told JLARC staff he had sufficient authority to coordinate preparedness efforts across State agencies and secretariats because the governor's chief of staff issued clear guidance to cabinet members describing the role of the position. However, if such guidance is not provided by the governor, the position will likely lack sufficient authority to coordinate Virginia's preparedness efforts.

In contrast to the Secretary of Veterans Affairs and Homeland Security, the Secretary of Public Safety has statutory authority over three State agencies with some of the most critical responsibilities under the Commonwealth of Virginia Emergency Operations Plan (COVEOP): VDEM, the Virginia State Police (VSP), and the Virginia Department of Military Affairs, which includes the Virginia

National Guard (Figure 13). Because VDEM has broad responsibilities for the coordination of preparedness efforts and the use of federal grants, the Secretary of Public Safety—like the Secretary of Veterans Affairs and Homeland Security—has authority over how preparedness initiatives are implemented and how federal grant funds are used in Virginia.

Current Homeland Security Structure Impedes State's Ability to Coordinate Preparedness

The current organizational structure for homeland security is hindering the State's ability to effectively and efficiently coordinate preparedness efforts. Because the secretary's office does not have statutory authority over VDEM, the office has had limited authority to address deficiencies in shelter and evacuation plans for catastrophic disasters such as a hurricane in Hampton Roads. Instead of working with VDEM directly to address challenges, the secretary's office reported having to commission an external report that would garner attention. The Secretary told JLARC staff the office can release reports that document concerns and recommend improvements, but it cannot direct VDEM staff to implement those recommendations. The secretary's office issued the report on shelter and evacuation planning in December 2012, and in April 2013 VDEM staff developed recommendations to improve this planning. However, these recommendations took approximately 3-4 months to be approved by the Secretary of Veterans Affairs and Homeland Security and the Secretary of Public Safety. Both secretaries told JLARC staff the recommendations could have been approved and implementation begun sooner if they had not required approval from two secretariats.

Other concerns with the coordination of preparedness planning in Virginia have also been difficult to address under the State's current organizational structure for homeland security. Staff from VDEM and the Office of the Secretary of Veterans Affairs and Homeland Security agree that the status and quality of State agency disaster response plans should be monitored, and VDEM staff have recommended that a monitoring process be developed. However, like recommendations to address deficiencies in shelter and evacuation planning, this recommendation also took several months to be approved by the Secretary of Veterans Affairs and Homeland Security and the Secretary of Public Safety.

The current structure for homeland security was described as "set up" or "destined" to fail.

The current structure is vulnerable to unnecessary disagreements that could undermine preparedness efforts in the future. Staff with the Secretary of Veterans Affairs and Homeland Security and one State agency described the current structure as "set up" or "destined" to fail because it requires a high level of cooperation between the homeland security and public safety secretariats. Two

preparedness functions require agreement between the Secretary of Veterans Affairs and Homeland Security and the Secretary of Public Safety: the use of federal homeland security grants, and the coordination and oversight of Virginia's preparedness efforts. While the secretaries have been able to reach agreement over a division of responsibilities in these areas, staff with State agencies and both secretaries' offices expressed concern that future secretaries may not be able to reach such agreements, and that Virginia's preparedness efforts could be hindered as a result.

ALIGNMENT OF PREPAREDNESS RESPONSIBILITIES WITH AUTHORITY OVER VDEM WOULD IMPROVE PREPAREDNESS COORDINATION

Giving the entity with preparedness responsibilities authority over VDEM would improve coordination and ensure that deficiencies in Virginia's preparedness planning are addressed in a timely manner. As described in previous chapters, JLARC staff identified concerns with the coordination of preparedness planning, including:

- Some State agencies lack fully-developed disaster response plans to fulfill their responsibilities under the COVEOP, and no system exists to monitor these plans.

- Deficiencies in shelter and evacuation planning may compromise the safety of the Hampton Roads population during a catastrophic disaster such as a hurricane in the region.

There was broad agreement among the many State stakeholders interviewed for this study that the current structure should be changed such that VDEM staff report directly to the entity responsible for coordinating preparedness efforts. This would allow for greater ability to ensure that preparedness policies and initiatives are implemented. For example, with authority over VDEM, the recommendations developed by VDEM staff to address deficiencies in shelter and evacuation planning, could have been implemented immediately. There would no longer be a need for agreements between secretaries on how to share overlapping statutory responsibilities, such as oversight of preparedness planning, or prioritizing the work of VDEM staff between regular duties and preparedness initiatives. As a result, the State would be less vulnerable to unnecessary disagreements that could delay efforts to improve Virginia's preparedness.

However, with authority over VDEM, the entity responsible for coordinating preparedness efforts would no longer be independent of the State's agency-secretariat structure. This independence was provided to allow those with preparedness responsibilities to operate with a certain degree of impartiality because they are not vested in any particular agency or secretariat. For example, it could al-

low such an entity to identify deficiencies in the State's preparedness efforts much like an independent auditor, or allow it to act as a neutral referee in the allocation of federal homeland security grants. Yet, that independence comes at a cost—namely, limited authority to ensure preparedness initiatives and policies can be implemented.

PREPAREDNESS RESPONSIBILITIES SHOULD BE ASSIGNED TO SECRETARY OF PUBLIC SAFETY

Current and former State staff identified two alternative structures for aligning the responsibilities for coordinating preparedness with authority over VDEM. The first was for the preparedness functions of the Office of the Secretary of Veterans Affairs and Homeland Security to be transferred to the Office of the Secretary of Public Safety whose responsibilities would be broadened to encompass homeland security and disaster preparedness. The second would be for VDEM to be placed under the Office of the Secretary of Veterans Affairs and Homeland Security. Other options for restructuring the State's homeland security organizational structure were suggested by State staff, including placing the National Guard with VDEM under the Secretary of Veterans Affairs and Homeland Security, or transferring the preparedness functions of VDEM to the Secretary of Veterans Affairs and Homeland Security but leaving other functions of VDEM, such as training and exercise and grants administration, under the Secretary of Public Safety. However, these options were not widely supported by staff with State agencies and secretariats.

Transferring the preparedness functions of the Homeland Security secretariat to a reorganized Office of the Secretary of Homeland Security and Public Safety is most likely to improve the coordination of disaster preparedness planning in Virginia and least likely to disrupt response operations.

While the two primary alternative structures cited present benefits, transferring the preparedness functions of the Office of the Secretary of Veterans Affairs and Homeland Security to a reorganized Office of the Secretary of Homeland Security and Public Safety is most likely to improve the coordination of disaster preparedness planning in Virginia and least likely to disrupt response operations. Creating a homeland security and public safety secretariat, with the secretary designated as the State's homeland security advisor, would support a high degree of coordination among agencies, such as VDEM, VSP, and National Guard, which play critical roles both *before* and *during* disasters.

Changing the State's organizational structure for homeland security carries risk, regardless of the structure implemented. As preparedness functions, staff, and agencies are reorganized, there is potential for disrupting existing relationships and coordination in the short-term as the reorganization occurs. However, the most appropriate structure should ultimately provide for improved coordination of preparedness efforts even if there are challenges associated with the transition.

Any organizational structure for homeland security will require substantial cooperation between State agencies and secretariats. More than 50 State agencies, representing nearly every secretariat in State government, have disaster responsibilities under the COVEOP. As a result, preparedness planning and operations must occur across the "stovepipe" structure of agencies and secretariats. However, certain organizational structures can better facilitate this coordination.

Secretariat of Homeland Security and Public Safety Should Be Established With a Deputy Secretary for Homeland Security

A reorganized Office of the Secretary of Homeland Security and Public Safety would consist of the current public safety secretariat and the preparedness functions currently performed by the Secretary of Veterans Affairs and Homeland Security. The Secretary of Homeland Security and Public Safety would have overall responsibility for the homeland security and preparedness functions described in Section 2.2-231.1-15 of the Code of Virginia. The Secretary would also serve as the Governor's homeland security advisor, and represent the Governor before federal agencies such as the U.S. Department of Homeland Security.

A Secretary of Homeland Security and Public Safety would likely need additional staff to carry out its homeland security and preparedness functions. As a result, the staff currently in the Office of the Secretary of Veterans Affairs and Public Safety would likely need to be reassigned to the reorganized secretariat. The secretary's office has eight full-time equivalents (FTEs), including two deputy secretaries and six staff responsible for initiatives involving critical infrastructure protection, development of a statewide credentialing system, and interoperable communications.

Given the size of the current public safety secretariat, a Deputy Secretary of Homeland Security would likely be needed to assume day-to-day responsibility for preparedness coordination and oversight functions. These could include:

- developing a seamless, coordinated security and preparedness strategy and implementation plan (§2.2-231.1);

- providing oversight, coordination, and review of all disaster, emergency management, and terrorism management plans for the State and its agencies (§2.2-231.3); and

- providing oversight and review of VDEM's annual statewide assessment of local and regional capabilities (§2.2-231.15).

Under this option, Virginia could retain a separate Secretary of Veterans Affairs to carry out statutory responsibilities for support-

ing veterans and current members of the military. These and other military and veterans affairs responsibilities are contained in Section 2.2-231.16-22 of the Code of Virginia. The Secretary could also retain statutory authority over the Department of Veterans Services, the Veterans Services Foundation, and the Virginia Military Advisory Council.

Reorganized Secretariat Would Have Authority Over Key State Agencies and Ensure a Unified Approach During Response Operations. There are four main advantages to creating a homeland security and public safety secretariat. First, the entity responsible for coordinating preparedness would have operational control over two more State agencies with critical responsibilities for responding to disasters. In addition to VDEM, a homeland security and public safety secretary would have authority over VSP and the National Guard. Although a large number of State agencies have responsibilities under the COVEOP, VDEM, VSP, and the National Guard play especially important roles during a disaster. VDEM is responsible for coordinating State response and recovery efforts. VSP and the National Guard account for a substantial number of State personnel that perform operational missions during disasters and both agencies are routinely involved in responding to disasters. Because of their integral involvement in disaster response, these three agencies also play key roles in developing plans and ensuring the State is prepared for all potential disasters. With VDEM, VSP, and the National Guard under the authority of the entity responsible for preparedness coordination, the State's ability to effectively and efficiently implement preparedness initiatives would be significantly increased.

With VDEM, VSP, and the National Guard under the authority of the entity responsible for preparedness coordination, the State's ability to effectively and efficiently implement preparedness initiatives would be significantly increased.

Second, a reorganized homeland security and public safety secretariat would support a unified approach to coordinating disaster response operations while involving the homeland security advisor. During a governor declared state of emergency, the State emergency management coordinator (who is also the VDEM director) and the Secretary of Public Safety play critical roles. Both advise the governor on key decisions such as declaring a mandatory evacuation or reversing the east-bound lanes on I-64, and then coordinate those operations as they are carried out. The Secretary of Veterans Affairs and Homeland Security is not involved in response operations, despite being the State's homeland security advisor. Under a reorganized homeland security and public safety secretariat, the entity responsible for coordinating disaster preparedness could be involved in disaster response operations and apply this experience to preparedness activities. A reorganization would also support a unified approach to disaster response because the governor's homeland security advisor would be the secretary of public safety.

Third, under a homeland security and public safety secretariat, the homeland security advisor would have direct access to terrorism intelligence from the Virginia Fusion Center. As discussed in Chapter 5, Virginia's fusion center is jointly operated by VDEM and VSP, both of which report to the Secretary of Public Safety. Because the Office of the Secretary of Veterans Affairs and Homeland Security exists outside this structure, the office has experienced difficulty consistently receiving intelligence from the fusion center. With operational authority over both VDEM and VSP, the entity responsible for coordinating disaster preparedness and serving as the Governor's homeland security advisor would have no issues accessing terrorism intelligence.

Ensuring that intelligence from the Virginia Fusion Center is shared with the governor's homeland security advisor is critical to Virginia's preparedness for potential terrorist attacks. According to staff with the secretary's office, this intelligence is used to help determine how federal homeland security grant funds are used in Virginia. Intelligence from the fusion center is also used to nominate infrastructure to the National Infrastructure List, and the amount of a state's infrastructure on the list partly determines the amount of funding the state receives through the Homeland Security Grant Program.

Fourth, a reorganized homeland security and public safety secretariat would be easier to implement and likely cause less disruption to existing coordination between State agencies. Because there are strong sentiments for and against each option among State staff, both options have the potential to disrupt coordination between agencies and secretariats in the short-term as a restructuring is implemented. However, transferring the State's preparedness functions to a reorganized homeland security and public safety secretariat would likely be less disruptive because fewer functions and staff would be reassigned. It would also likely be less disruptive because a reorganized homeland security and public safety secretariat is generally supported by State agency staff.

Some Coordination Functions Would Likely Be Performed by a Deputy Secretary, but the Impact on Preparedness Coordination Is Uncertain. One concern expressed during JLARC staff interviews was that Virginia's preparedness efforts might not receive sufficient attention under a reorganized homeland security and public safety secretariat. Current and former State staff said that homeland security, as well as preparedness more generally, deserve the attention of a cabinet secretary because they are among the State's highest priorities. It was argued that it would be challenging for a secretary to perform the preparedness functions of the governor's homeland security advisor while also overseeing the 11 State agencies that currently comprise the public safety secretariat. To

address this concern, the position's coordination and oversight functions could be performed by a deputy secretary, who may be perceived as having less authority to coordinate preparedness efforts among multiple entities than a cabinet secretary. It was argued that this could diminish Virginia's ability to effectively coordinate State preparedness efforts with federal, local, and private entities.

It appears likely that, on a day-to-day basis, there would be less leadership provided directly by the cabinet secretary due to other public safety responsibilities. As a result, some preparedness functions of the entity responsible for coordinating preparedness would likely be performed at the deputy secretary level. The extent to which this might impact the State's ability to coordinate preparedness efforts is difficult to predict. It is possible that a deputy secretary could be less effective than a secretary in carrying out the functions of the State's preparedness coordinator. However, a Secretary of Homeland Security and Public Safety could be actively involved in the more critical functions that may require greater stature. These functions are likely to include:

- representing the governor before federal entities, such as the U.S. Department of Homeland Security and the Federal Emergency Management Agency;

- representing the governor before the National Capital Region;

- setting overall policies and priorities to guide Virginia's preparedness efforts; and

- reaching consensus with other State secretaries and local officials in situations where a deputy secretary is unable to do so.

In addition, a Secretary of Homeland Security and Public Safety could help ensure that a deputy secretary can effectively and efficiently implement preparedness initiatives by making it clear this person has the full support of—and speaks for—the Secretary and the Governor. Similar guidance could also be provided by the Governor's chief of staff.

Concern Exists That a Consolidated Secretariat Would Diminish Virginia's Emphasis on Homeland Security, but Consolidation Would Likely Strengthen Homeland Security Efforts. Another concern expressed by current and former State staff is that a reorganized homeland security and public safety secretariat would diminish the emphasis Virginia places on homeland security efforts. While terrorism remains a significant threat to Virginia, the State would devote less attention to preparing for and preventing terrorist attacks under a secretary of homeland security and public

safety. It was argued that transferring the preparedness functions of the Office of the Secretary of Veterans Affairs and Homeland Security to a reorganized public safety secretariat would make homeland security efforts a lower priority. The public safety secretariat is focused on emergency management and law enforcement, it was argued, while the homeland security advisor is more focused on homeland security.

However, a reorganized homeland security and public safety secretariat could actually strengthen Virginia's homeland security efforts. Under this structure, the homeland security advisor would have significantly greater authority to implement homeland security initiatives aimed at preventing and protecting against terrorist attacks. According to the Superintendent of the Virginia State Police, a single secretariat with homeland security and public safety responsibilities provides more accountability for ensuring homeland security initiatives are implemented. As discussed above, a reorganized homeland security and public safety secretariat would also provide the entity responsible for coordinating preparedness increased ability to implement preparedness initiatives because the position would have statutory authority over two more State agencies with critical responsibilities for responding to disasters.

If a reorganized homeland security and public safety secretariat were created, two steps could be taken to ensure that Virginia's emphasis on homeland security is maintained. First, statutory language could task the secretariat—or one of its agencies—with certain homeland security functions, such as protecting Virginia's critical infrastructure from a terrorist attack or other potential disasters. In fact, the public safety secretariat already has homeland security responsibilities through the Virginia Fusion Center, which performs homeland security functions such as collecting, analyzing, and sharing intelligence regarding possible or actual terrorist attacks. The fusion center also undertakes efforts to protect critical infrastructure from all potential disasters, including terrorist attacks. Second, State statute could also require that a secretary of homeland security and public safety have a background in military affairs and terrorism prevention, as well as law enforcement, public safety, and emergency management. Similar statutory language already describes the qualifications of a secretary of veterans affairs and homeland security (§2.2-230).

To ensure the State can effectively and efficiently coordinate preparedness efforts, the preparedness functions of the Office of the Secretary of Veterans Affairs and Homeland Security should be transferred to a reorganized Office of the Secretary of Homeland Security and Public Safety. The reorganized Office should have a Deputy Secretary of Homeland Security with operational responsibilities for coordinating disaster preparedness planning in Virgin-

ia. This recommendation is not intended to alter the Governor's authority under Section 2.2-221 of the Code of Virginia to assign any State agency to the public safety secretariat, or to assign an agency currently under the Secretary of Public Safety to another Secretary.

Recommendation (19). The General Assembly may wish to consider amending the Code of Virginia to assign the preparedness functions of the Office of the Secretary of Veterans Affairs and Homeland Security to the Office of the Secretary of Public Safety, reorganized as the Office of the Secretary of Homeland Security and Public Safety, and to direct the Secretary of Public Safety to designate a Deputy Secretary of Homeland Security with operational responsibilities for coordinating disaster preparedness planning.

Placing VDEM Under Secretary of Veterans Affairs and Homeland Security Was Presented as Option But Does Not Appear Viable

During JLARC staff interviews, State staff suggested transferring all of VDEM's divisions to the homeland security secretariat. VDEM includes divisions that perform preparedness functions *before* a disaster occurs and operational functions *during* a disaster (Table 10). For example, the preparedness division is responsible for maintaining the COVEOP, including plans for hurricanes, radiological incidents, and terrorist attacks. The operations division manages the State's response to a disaster in coordination with federal, local, and private response efforts. While VDEM operations staff are generally not active in the field during a disaster, they perform critical operational functions such as responding to requests for assistance from localities, committing State resources such as the National Guard and VSP, and reviewing local situational assessments to determine if a disaster exceeds State capabilities.

Secretary of Veterans Affairs and Homeland Security Could Personally Devote the Time Necessary to Coordinate and Oversee Preparedness. One potential advantage of placing VDEM under the Office of the Secretary of Veterans Affairs and Homeland Security is that preparedness would be one of a limited number of responsibilities under a cabinet secretary. Other than statutory responsibilities for preparedness, the Secretary has a relatively limited number of responsibilities related to veterans affairs and military base realignment. The Department of Veterans Services is the only State agency in the secretariat. As a result, the Secretary could likely devote the necessary time and attention to coordinating and

Table 10: Primary VDEM Divisions Have Operational and Preparedness Functions

Division / Office	Primary Function(s)
Preparedness	Response planning (COVEOP); local planning assistance
Operations	Coordinating State response efforts
Training and exercise	Planning and conducting exercises; developing training programs
Recovery and mitigation	Coordinating State recovery efforts; mitigation planning
Grants administration	Administering federal grant programs

Source: JLARC staff analysis of materials from the Virginia Department of Emergency Management.

overseeing preparedness efforts, and fewer functions would need to be performed by a deputy secretary. Current and former State staff said that, because preparedness efforts would receive greater attention from a cabinet secretary, these efforts would be more effective at preparing Virginia for the disasters it faces.

Having a secretary who can personally devote the necessary time to preparedness efforts could be beneficial, though the precise benefit to preparedness in Virginia is difficult to determine. Addressing concerns regarding State and local shelter and evacuation planning will likely require substantial attention from the entity responsible for coordinating preparedness. As discussed in Chapter 4, the State has yet to develop critical policies for shelter and evacuation operations. Developing these policies will require extensive outreach and consensus-building, including meetings with local executives and emergency managers throughout the Virginia. However, it is not clear that these efforts must be conducted by a cabinet secretary in order to be successful.

Placing VDEM Under the Secretary of Veterans Affairs and Homeland Security Could Hinder Coordination Before and During a Disaster. The primary disadvantage to placing VDEM under the Office of the Secretary of Veterans Affairs and Homeland Security is that it would likely hinder coordination among State agencies with critical preparedness responsibilities. During JLARC staff interviews, concern was expressed that removing VDEM from the public safety secretariat could hinder its ability to coordinate preparedness efforts with VSP and the National Guard. For example, staff with VSP said the agency has a close working relationship with VDEM, and expressed concern that moving VDEM to the homeland security secretariat could hinder that coordination because it would require agreement among two secretariats. Because the Virginia Fusion Center is jointly operated by VDEM and VSP, moving VDEM to the veterans affairs and homeland security secretariat would require that the two secretariats reach agreement on the Center's

VSP and VDEM have a close working relationship, and moving VDEM to the homeland security secretariat could hinder that coordination.

Chapter 8: Restructuring of Homeland Security Organization Is Needed to Improve Preparedness Coordination

Coordination between VDEM and VSP and the National Guard may be particularly disrupted in the short-term if VDEM were placed under the Secretary of Veterans Affairs and Homeland Security. Because this option involves assigning a full agency to a different secretariat, there could be greater disruption to preparedness coordination as VDEM's functions and staff are reassigned. As described in Table 10 above, VDEM includes five programmatic entities that would be assigned to the veterans affairs and homeland security secretariat. By contrast, transferring the preparedness functions of the Office of the Secretary of Veterans Affairs and Homeland Security to the public safety secretariat involves reassigning substantially fewer functions and staff and would likely result in less disruption to coordination between agencies and secretariats.

A second disadvantage to placing VDEM under the Secretary of Veterans Affairs and Homeland Security is that it could undermine a unified approach to coordinating disaster response operations. During JLARC staff interviews, State staff expressed concern because VDEM is responsible for coordinating the State's response to a disaster, and a reorganization would give the Office of the Secretary of Veterans Affairs and Homeland Security operational responsibilities during a disaster. As discussed above, the Secretary of Public Safety consistently plays an operational role during disasters because three agencies with critical operational responsibilities are in the public safety secretariat: VDEM, VSP, and the National Guard. Moving VDEM to the homeland security secretariat would likely give the Office of the Secretary of Veterans Affairs and Homeland Security operational responsibilities as well. The agencies with primary responsibilities for disaster response would then be divided between two secretariats, creating greater coordination challenges and increasing the potential for disagreements during a disaster. Disagreement over the proper response during an incident could delay the decision-making process and hinder the response.

JLARC Recommendations:
Review of Disaster Preparedness Planning in Virginia

1. The Office of the Secretary responsible for disaster preparedness coordination should (1) incorporate the results from Virginia's Hazard Identification and Risk Assessment, Threat and Hazard Identification and Risk Assessment, the Virginia Regional Preparedness Measure for Hampton Roads, and other related assessments, and (2) solicit and incorporate input on State and local preparedness priorities from relevant State, local, and private stakeholders, when developing the 2013 Secure Commonwealth Strategic Plan and subsequent revisions. (p. 26)

2. The Office of the Secretary responsible for disaster preparedness coordination should include quantifiable metrics and expected completion dates and designate the State agency responsible for monitoring each goal and objective in the 2013 Secure Commonwealth Strategic Plan and subsequent revisions. The Office should develop a process for annually evaluating and reviewing progress toward each goal and objective. (p. 28)

3. The Office of the Secretary responsible for disaster preparedness coordination should update the Secure Commonwealth Strategic Plan annually to reflect progress made toward plan goals, incorporate lessons learned from exercises and incidents, and include emerging potential disasters facing Virginia. (p. 29)

4. The Office of the Secretary responsible for disaster preparedness coordination should indicate in the 2014 Statewide Communications Interoperability Plan that implementing COMLINC will meet the requirements of the Code of Virginia (§2.2-232), and should include a quantifiable metric tracking the implementation of COMLINC. (p. 31)

5. The Office of the Secretary responsible for disaster preparedness coordination should conduct regional preparedness assessments in the regions of the State where local assessments have not been conducted. (p. 32)

6. The General Assembly may wish to consider amending the Code of Virginia to require State agencies with lead or supporting responsibilities under the Commonwealth of Virginia Emergency Operations Plan to maintain supporting response

and recovery plans and annually submit them to the Virginia Department of Emergency Management for review. (p. 40)

7. The Virginia Department of Emergency Management should develop standard planning guidance to assist State agencies in developing supporting response and recovery plans for their responsibilities under the Commonwealth of Virginia Emergency Operations Plan. (p. 40)

8. The Virginia Department of Emergency Management should begin to monitor the status and quality of State agency response and recovery plans. The monitoring process should include a review of plans to ensure they sufficiently address the actions and tasks necessary to complete assigned responsibilities under the Commonwealth of Virginia Emergency Operations Plan, and that excessive demands are not placed on State agencies. (p. 42)

9. The General Assembly may wish to amend the Code of Virginia to require localities to develop local traffic management plans that direct citizens to designated evacuation routes in an efficient and effective manner. (p.60)

10. The Virginia Department of Emergency Management and the Virginia Department of Transportation, in consultation with the Virginia State Police, should collaborate to develop planning templates and provide technical assistance to support the development of traffic management plans by localities. (p. 60)

11. The Virginia Department of Emergency Management and the Virginia Department of Transportation, in consultation with the Virginia State Police, should collaborate to develop and implement a process for periodically reviewing local traffic management plans to ensure that plans direct residents to entry points of designated evacuation routes. (p. 60)

12. As part of the annual Local Capabilities Assessment for Readiness survey, the Virginia Department of Emergency Management should require localities to submit a list of sites that could serve as refuges of last resort, including the location and capacity of identified sites. (p. 63)

13. The Virginia Department of Emergency Management, in collaboration with the Virginia Department of Transportation, the Virginia State Police, and the Virginia Department of Military Affairs, should develop a statewide re-entry strategy to support the development of local plans. (p. 64)

14. As part of the annual Local Capabilities Assessment for Readiness survey, the Virginia Department of Emergency Management should require localities to submit a list of sites that could or do serve as local shelters, including the locations and capacities of identified sites. (p. 73)

15. The Virginia Department of Emergency Management should coordinate with the Virginia Department of Social Services and the Office of the Secretary responsible for disaster preparedness coordination to develop a comprehensive strategy for the use of State shelters, including a documented process for opening State shelters and standard criteria for determining which shelter locations to open first. (p. 75)

16. The General Assembly may wish to amend the Code of Virginia to make the Office of the Secretary responsible for disaster preparedness coordination responsible for ongoing coordination and oversight of State and local shelter and evacuation planning. (p. 78)

17. The Virginia Department of Emergency Management should strengthen the requirements for regional projects by (1) including specific questions about the regional nature of the project on the grant application form, (2) including regional collaboration as one of the proposal evaluation criteria, and (3) requiring the development and submission of memoranda of understanding or other agreements that formalize the regional nature of the project. (p. 106)

18. The Office of the Secretary responsible for disaster preparedness coordination and the Virginia Department of Emergency Management should use findings from the annual Threat and Hazard Identification and Risk Assessment, the Virginia Regional Preparedness Measure, or other regional capabilities assessments to evaluate applications for grants from the Homeland Security Grant Program. (p. 107)

19. The General Assembly may wish to consider amending the Code of Virginia to assign the preparedness functions of the Office of the Secretary of Veterans Affairs and Homeland Security to the Office of the Secretary of Public Safety, reorganized as the Office of the Secretary of Homeland Security and Public Safety, and to direct the Secretary of Public Safety to designate a Deputy Secretary of Homeland Security with operational responsibilities for coordinating disaster preparedness planning. (p. 125)

A

Study Mandate

HOUSE JOINT RESOLUTION NO. 132

Directing the Joint Legislative Audit and Review Commission to study the ongoing planning and preparedness efforts throughout the Commonwealth with regard to homeland security and emergency management. Report.

Agreed to by the House of Delegates, February 10, 2012
Agreed to by the Senate, February 28, 2012

WHEREAS, in 2005, the Joint Legislative Audit and Review Commission completed a review of homeland security funding and preparedness; and

WHEREAS, the findings of the study by the Joint Legislative Audit and Review Commission led to the designation of a Commonwealth Interoperability Coordinator in 2008; and

WHEREAS, the findings of the Joint Legislative Audit and Review Commission's study also led the Secretary of Veterans Affairs and Homeland Security to adopt the U.S. Department of Homeland Security's risk-based methodology for allocating federal homeland security funds to localities; and

WHEREAS, no follow-up study has yet been conducted to test interoperability of preparedness planning; now, therefore, be it

RESOLVED by the House of Delegates, the Senate concurring, That the Joint Legislative Audit and Review Commission be directed to study the ongoing planning and preparedness efforts throughout the Commonwealth with regard to homeland security and emergency management.

In conducting its study, the Joint Legislative Audit and Review Commission shall determine (i) whether the organization and management of homeland security within the Office of Veterans Affairs and Homeland Security is appropriate or would be better coordinated within another structure or as a stand-alone agency; (ii) whether there is effective integration of planning both vertically between state and federal government entities and horizontally among states and localities; (iii) whether there is effective coordination of programs or activities that require federal, state, and local interagency cooperation; (iv) the status and quality of state and local homeland security and emergency management planning throughout the Commonwealth; (v) whether such planning is aligned with appropriate statewide and regional plans; (vi) whether the Commonwealth has a system in place to monitor local and regional homeland security planning for sufficiency and currency; (vii) whether state and regional plans guide the use of funding decisions and grant requests and awards; (viii) whether there is effective oversight of funding and grants by the administration and General Assembly to ensure taxpayer funds are used for improvement and enhancement of capabilities and not as a replacement for existing funding sources; (ix) whether a system exists to audit or monitor the use of homeland security and emergency management grants; (x) whether funds are being used to promote homeland security plan development or for other purposes such as equipment and personnel; (xi) whether there is any effort to regionalize grant requests to align with re-

gional solutions and coordination; (xii) whether there is an effective process for identifying and applying for homeland security grants; (xiii) whether localities and regional advisory councils are informed in a timely manner of grant opportunities and trained in the development of successful grant requests; (xiv) whether preparedness activities throughout the Commonwealth are effectively improving state and local capabilities for prevention, protection, mitigation, response, and recovery; (xv) what information technology solutions can assist state and local entities in the key areas of situational awareness, intelligence and critical information, planning, training of key personnel, development of exercises, and consequence-based modeling and simulation; and (xvi) whether such a system, if found to be lacking, would help enhance comprehensive homeland security and emergency management in the Commonwealth.

All agencies of the Commonwealth shall provide assistance to the Joint Legislative Audit and Review Commission for this study, upon request. The Joint Legislative Audit and Review Commission shall complete its meetings for the first year by November 30, 2012, and for the second year by November 30, 2013, and the Chairman shall submit to the Division of Legislative Automated Systems an executive summary of its findings and recommendations no later than the first day of the next Regular Session of the General Assembly for each year. Each executive summary shall state whether the Joint Legislative Audit and Review Commission intends to submit to the General Assembly and the Governor a report of its findings and recommendations for publication as a House or Senate document. The executive summaries and reports shall be submitted as provided in the procedures of the Division of Legislative Automated Systems for the processing of legislative documents and reports and shall be posted on the General Assembly's website.

B

Research Activities and Methods

JLARC staff conducted the following primary research activities for this review:

- structured interviews with staff from State agencies, secretariats, federal emergency management agencies, and private entities;

- site visits and phone surveys with localities;

- quantitative analysis of data on federal preparedness grants awarded in Virginia between FY 2003 and FY 2012;

- case studies of selected preparedness projects funded with federal grant funds; and

- review of State and federal preparedness plans, guidance materials, and academic research literature.

STRUCTURED INTERVIEWS

To obtain information about preparedness efforts in Virginia, JLARC staff conducted structured interviews with staff at State agencies, the Federal Emergency Management Agency (FEMA), local governments, and private entities. These interviews provided background information on homeland security and emergency management activities in Virginia, and they also provided an opportunity for JLARC staff to obtain information about ongoing preparedness efforts and challenges in Virginia. In total, JLARC staff conducted more than 30 structured interviews.

State and Federal Staff

JLARC staff conducted numerous structured interviews with staff from the Virginia Department of Emergency Management (VDEM) to understand the agency's preparedness programs and activities. JLARC staff interviewed VDEM staff responsible for developing and maintaining the Commonwealth of Virginia Emergency Operations Plan (COVEOP), providing assistance to local emergency management staff, managing State preparedness exercises and trainings, managing State mitigation and recovery programs, administering federal preparedness grant programs, and coordinating response and recovery operations when a disaster occurs.

JLARC staff conducted 15 structured interviews with staff from eight State agencies that have lead and supporting roles under the (COVEOP):

- Department of Health

- Department of Housing and Community Development

- Department of Military Affairs, including the Virginia National Guard

- Department of Mines, Minerals, and Energy

- Department of State Police

- Department of Social Services

- Department of Transportation

- Virginia Information Technology Agency

JLARC staff selected State agencies for interviews based on their lead and supporting roles under the COVEOP. A key purpose of these interviews was to determine the extent to which agencies are involved in preparedness activities such as developing and revising State plans and participating in training exercises. JLARC staff used these interviews to address a wide range of other topics, including whether and how agencies maintain disaster response plans in support of the COVEOP, their use of federal homeland security and emergency management grants, the impact of recent declines in federal grant funding levels, IT solutions that could assist State and local preparedness efforts, and whether the State's current organizational structure for homeland security effectively and efficiently coordinates preparedness efforts in Virginia.

JLARC staff also conducted structured interviews with staff from the Office of the Secretary of Veterans Affairs and Homeland Security. The purpose of these interviews was to understand the office's role in coordinating preparedness efforts in Virginia, as well as activities in the following areas:

- planning related to the Secure Commonwealth Strategic Plan, the Statewide Communications Interoperability Plan, and the Virginia Critical Infrastructure Protection and Resiliency Strategic Plan;

- critical infrastructure protection;

- interoperable communications; and

- allocation and awarding of grants from the Homeland Security Grant Program.

JLARC staff also conducted structured interviews with staff from the Office of the Secretary of Veterans Affairs and Homeland Secu-

rity and the Office of the Secretary of Public Safety regarding the State's current organizational structure for homeland security and alternatives to this structure.

In addition, JLARC staff interviewed FEMA Region III staff to solicit feedback on preparedness planning in Virginia, including the quality of the COVEOP as a disaster response and recovery plan and how emergency operations planning in Virginia compares to planning in neighboring states. Finally, JLARC staff conducted a structured interview with staff at the Virginia Fusion Center to understand the center's terrorism prevention planning activities and intelligence operations.

Private Stakeholders in Virginia

JLARC staff conducted structured interviews with staff from private entities that have responsibilities under the COVEOP. The purpose of these interviews was to understand the role of private organizations in disaster response and recovery operations, and obtain their perspective on how the State coordinates preparedness planning and exercise activities with private entities. JLARC staff interviewed staff from the Virginia Volunteer Organizations Active in Disasters, an umbrella organization for non-profit entities that assist with the response to and recovery from disasters in Virginia. JLARC staff also conducted structured interviews with staff from Dominion Virginia Power and Appalachian Power Company.

SITE VISITS AND PHONE SURVEYS

JLARC staff conducted site visits and phone surveys with emergency managers and first responders from localities throughout the Commonwealth. Site visits and phone surveys were used to gain insight into local preparedness planning practices and the coordination of planning activities between the State and localities. JLARC staff also observed exercises at the Virginia Emergency Operations Center and toured the Virginia Fusion Center. Information gathered from local site visits and the observation of State facilities helped JLARC staff understand how emergency response is coordinated and managed.

Localities Were Selected for Site Visits and Phone Surveys Based on Several Factors

JLARC staff conducted 7 site visits and 13 phone surveys with localities from across the State (Figure B-1). To ensure a geographic mix of localities, staff selected localities from each VDEM region.

Figure B-1: JLARC Staff Conducted a Total of 20 Site Visits and Phone Surveys with Localities Throughout the State
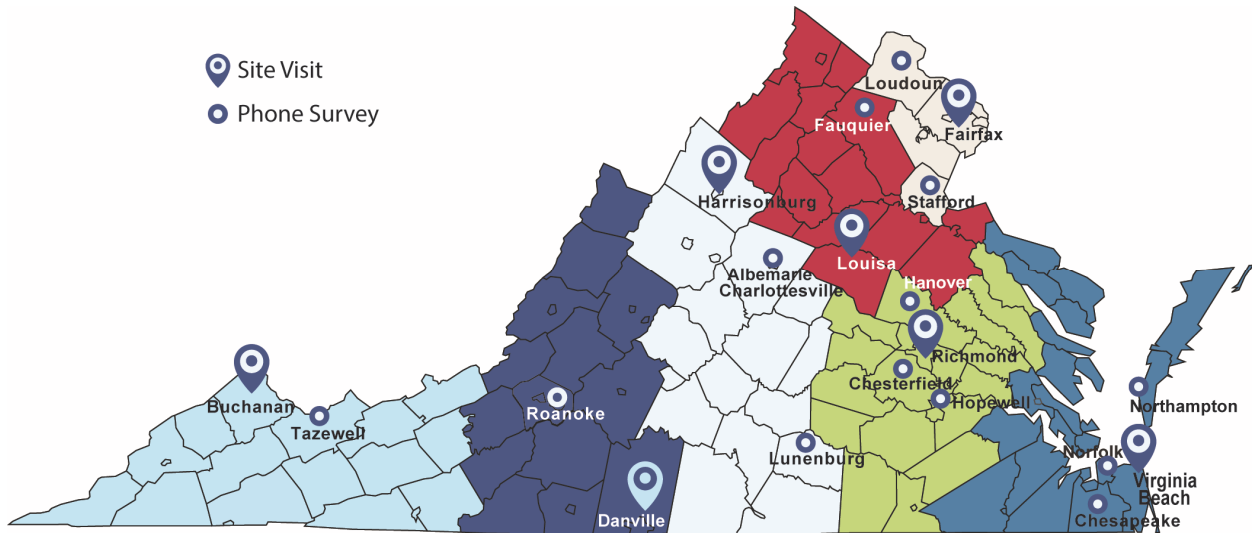
Note: Shaded regions correspond with VDEM regions 1-7.

Source: JLARC staff analysis of data provided by VDEM.

JLARC staff conducted one site visit and 1-3 phone surveys from each of the seven VDEM regions in Virginia. Localities were also chosen to ensure a mix of localities based on four additional factors:

- Risk of flooding, winter weather, non-rotational wind, tornados, and wildfires, as described in the 2009 State Hazard Mitigation Plan

- 2012 population, including total population and population density

- Cumulative preparedness grant funds awarded between FY 2003 and FY 2012

- Proximity to a nuclear power facility.

In order to gain insight into terrorism preparedness and issues related to shelter, evacuation, and re-entry planning, JLARC staff selected a proportionally larger number of localities in the Hampton Roads, Central Virginia, and Northern Virginia regions.

During site visits and phone surveys, JLARC staff conducted structured interviews with the locality's designated emergency management coordinator. Most interviews during site visits also included other local emergency management staff, such as the locality's sheriff, police chief, and emergency management staff from

the local public health and social services departments. During both site visits and phone surveys, JLARC staff used structured questions to address a wide range of issues, including:

- Local planning practices for developing, exercising, and revising emergency operations plans,

- Coordination of State and local preparedness planning, particularly regarding shelter, evacuation, and re-entry planning

- Access to federal preparedness grant funds, including timely notification of grant opportunities

- Planning and grant assistance from VDEM

- Interoperable communications

- IT solutions to assist local preparedness efforts

JLARC Staff Observed Two State Disaster Response Exercises

To better understand how State, local, and private entities implement preparedness plans during a disaster, JLARC staff observed two State-run disaster exercises. JLARC staff observed the State's 2013 Virginia Emergency Response Team Exercise, which involved the activation of two State shelters. Staff also observed the 2013 Virginia Operations Plan Exercise, which tested the State's response to a radiological release at the Surry nuclear power station. JLARC staff observed both exercises from the Virginia Emergency Operations Center in Richmond.

QUANTITATIVE ANALYSIS

JLARC staff analyzed data from a variety of sources regarding federal homeland security and emergency management grants awarded in Virginia between FY 2003 and FY 2012. JLARC staff aggregated data from VDEM, the Virginia Department of Health, and FEMA to determine the total amount of federal preparedness grant funds awarded in Virginia over this period. JLARC staff also analyzed grants data to determine the proportion of funds used for various preparedness purposes, such as equipment, personnel, planning, exercises, and training, and measure the decline in federal preparedness grants awarded in Virginia. Staff also used data collected through FEMA's Biannual Strategy Implementation Report to analyze individual State Homeland Security Grant awards to localities. Finally, to gain insight into localities' preparedness capabilities and planning practices, JLARC staff analyzed data from VDEM's annual Local Capabilities Assessment for Readiness survey.

CASE STUDIES

To supplement its analysis of data on federal grants awarded in Virginia, JLARC staff asked localities chosen for site visits and phone surveys to provide information about a selected grant project. Grant projects were selected by JLARC staff to reflect a range of award amounts, types of grant projects, and grant programs. Localities were asked to provide written descriptions that included the purpose and status of the grant project, the preparedness capabilities supported by the project, and how the project improved preparedness for the locality or region.

REVIEW OF PREPAREDNESS PLANS, FEDERAL GUIDANCE, RESEARCH LITERATURE, AND AFTER-ACTION REVIEWS

To understand the roles and responsibilities of State agencies before, during, and after a disaster, JLARC staff reviewed selected components of the COVEOP, including the basic plan, emergency support functions, support annexes, and hazard-specific annexes. JLARC staff also reviewed selected plans developed by State agencies with lead responsibilities under the COVEOP, particularly in the areas of shelter and evacuation planning.

JLARC staff also reviewed the following State preparedness plans:

- Secure Commonwealth Strategic Plan

- Statewide Communications Interoperability Plan

- Commonwealth of Virginia Standard Hazard Mitigation Plan

- Virginia Critical Infrastructure Protection and Resiliency Strategic Plan

- Commonwealth of Virginia Multi-Year Training and Exercise Plan

In addition, JLARC staff reviewed policies and procedures developed by the Virginia Fusion Center for conducting intelligence activities. JLARC staff also reviewed executive orders that have addressed preparedness planning in Virginia.

JLARC staff reviewed a wide range of federal guidance and academic literature to identify recommended or well-accepted preparedness planning practices. JLARC staff reviewed federal guidance for states, localities, and territories for prevention, protection, mitigation, response, and recovery planning. Key federal guidance materials reviewed included the

- Homeland Security Exercise and Evaluation Program,

- National Preparedness Goal,

- National Incident Management System,

- National Prevention Framework,

- National Response Framework,

- Comprehensive Preparedness Guide 101,

- National Infrastructure Protection Plan, and

- Presidential Policy Directives 8 and 21.

JLARC staff also reviewed federal guidance materials regarding fusion centers and federal law regarding hazard mitigation planning. To supplement this analysis of federal guidance, JLARC staff reviewed academic literature and reports from the U.S. Government Accountability Office to identify best practices and desirable characteristics of preparedness planning. Additionally, JLARC staff reviewed the Code of Virginia to understand the preparedness authorities and responsibilities of State entities and localities.

JLARC staff also reviewed after-action reviews of selected disasters in Virginia in recent years. This review enabled JLARC staff to evaluate the State's preparedness planning process and identify strengths and weaknesses of the State's response to recent disasters. JLARC staff also attended one Secure Commonwealth Panel meeting to gather information on current and emerging preparedness issues and initiatives across Virginia.

Virginia Department of Emergency Management Administrative Regions

The Virginia Department of Emergency Management divides localities into seven administrative regions (Figure C-1). The regions are used to provide assistance to localities in the areas of planning, grants, exercises, and trainings. All seven regions have a regional coordinator responsible for providing assistance and technical support to local emergency managers.

Figure C-1: VDEM Divides Localities into Seven Administrative Regions
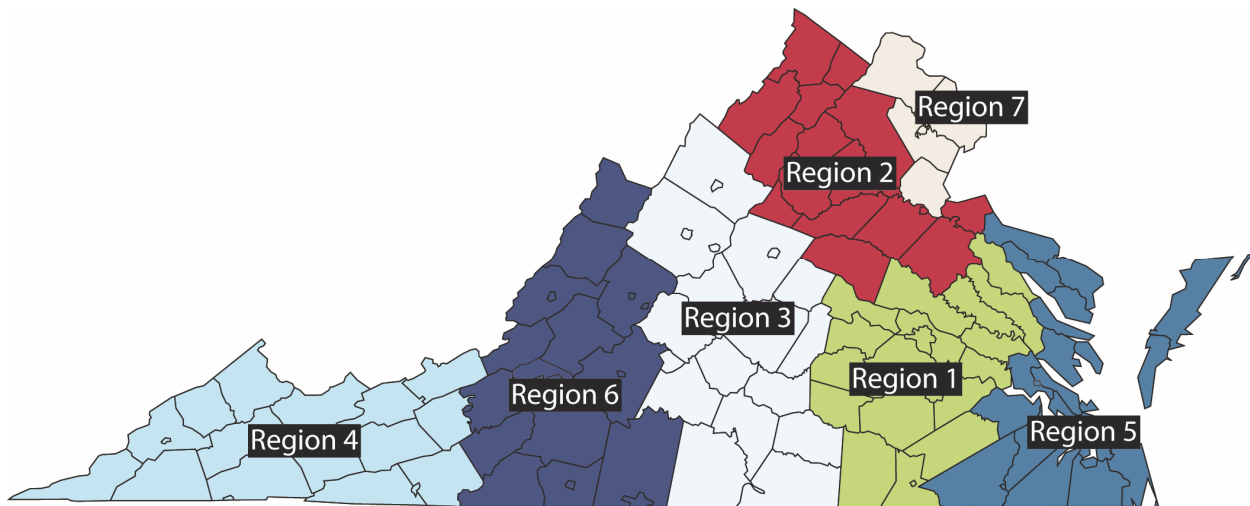
Source: VDEM staff.

Appendix D

D Virginia Hurricane Evacuation Action Timeline

The Virginia Hurricane Evacuation Action Timeline (Figure D-1) contains a timeline and key decisions to make when ordering a mandatory evacuation in the Hampton Roads region in response to a hurricane. The timeline identifies the latest times at which key decisions can be made before the arrival of tropical storm force winds. These decisions include issuing a State emergency declaration, ordering a mandatory evacuation of the region, reversing the eastbound lanes on I-64 to support a regional evacuation, and terminating a lane reversal. The timeline is maintained as part of the Commonwealth of Virginia Emergency Operations Plan (COVE-OP).

Figure D-1: Hurricane Evacuation Action Timeline Includes Key Decisions to Make in Response to a Hurricane in the Hampton Roads Region
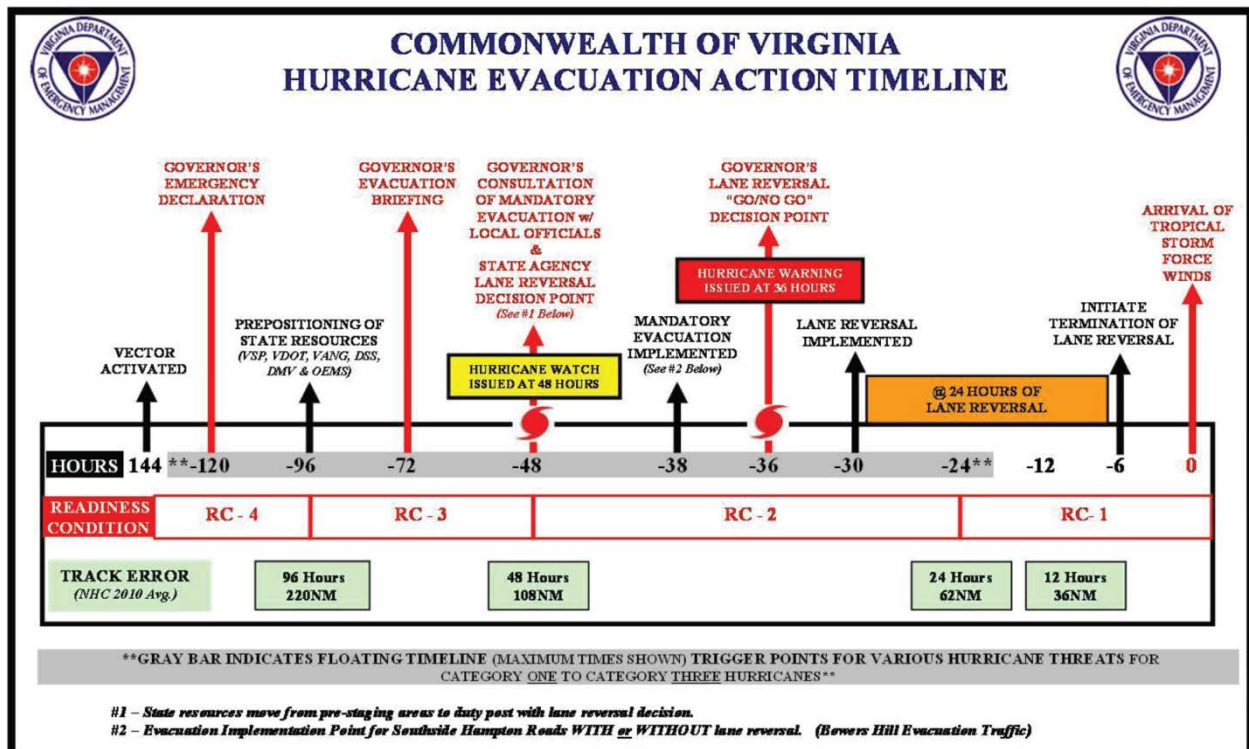
Source: Hurricane Response Annex from the 2013 COVEOP.

Agency Responses

As part of an extensive validation process, State agencies and other entities involved in a JLARC assessment are given the opportunity to comment on an exposure draft of the report. JLARC staff provided an exposure draft of this report to the following State agencies and entities:

- Office of the Governor,
- Office of the Secretary of Veterans Affairs and Homeland Security,
- Office of the Secretary of Public Safety,
- Virginia Department of Emergency Management,
- Virginia Department of Health,
- Virginia Department of Housing and Community Development,
- Virginia Department of Military Affairs,
- Virginia Department of Mines, Minerals and Energy
- Virginia Department of Social Services,
- Virginia Department of Transportation, and
- Virginia State Police.

Appropriate technical corrections resulting from their comments have been made in this version of the report. This appendix includes written response letters provided by the Office of the Governor, the Department of Emergency Management, the Department of Health, the Department of Housing and Community Development, the Department of Military Affairs, the Department of Social Services, the Department of Transportation, and the Virginia State Police.

COMMONWEALTH of VIRGINIA

Office of the Governor

Robert F. McDonnell
Governor

October 7, 2013

Joint Legislative Audit and Review Commission
201 North 9th Street
General Assembly Building
Suite 1100
Richmond, VA 23219

Dear Members of the Joint Legislative Audit and Review Commission:

My office is in receipt of the Joint Legislative Audit and Review Commission's (JLARC) exposure draft of the *Review of Disaster Preparedness Planning in Virginia* (the Review), prepared pursuant to House Joint Resolution No. 132 (HJR 132). As part of the process before the final report is presented to the Commission, my office has been invited to make comments, technical corrections or suggestions by October 4, 2013.

The JLARC team assigned to this project has produced a report containing important and relevant information on how the Commonwealth prepares for disasters. I commend the JLARC team for their efforts, and thank them for their quick and complete response to my staff's technical corrections and suggestions. My comments are limited to the broader policy implications of the Review in its response to the charge that it determine, "whether the organization and management of homeland security within the Office of Veterans Affairs and Homeland Security is appropriate or would be better coordinated within another structure or as a stand-alone agency."

I share the General Assembly's desire to continually improve upon disaster preparedness planning in the Commonwealth. In attempting to answer the above question, however, I have concerns about the depth and breadth of the recommendations made regarding the structure and functioning of the Governor's cabinet. The Governor's constitutional obligation is to serve as the Commonwealth's chief executive and commander-in-chief, and to ensure public safety during times of disaster. It is one of the Governor's most serious responsibilities. As such, the configuration of the Governor's cabinet and executive agencies has always been, and should remain, a Governor's prerogative. Every Governor should have the flexibility to arrange the executive branch according to his needs, priorities, and leadership style. Such discretion is critical to disaster preparedness, response and recovery. I have had that freedom and it has been invaluable. I sincerely hope my successors are provided the same opportunity to establish and work with a cabinet of their choosing and organization. As such, I respectfully request that the General Assembly consult with the incoming governor before taking any action based on the opinions contained in this report.

Sincerely,

Robert F. McDonnell

Patrick Henry Building • 1111 East Broad Street • Richmond, Virginia 23219
(804) 786-2211 • TTY (800) 828-1120
www.governor.virginia.gov

Appendix E: Agency Responses   145

COMMONWEALTH of VIRGINIA

Department of Emergency Management

MICHAEL M. CLINE
State Coordinator

JACK E. KING
Chief Deputy Coordinator

BRETT A. BURDICK
Deputy Coordinator

10501 Trade Court
Richmond, Virginia 23236-3713
(804) 897-6500
(TDD) 674-2417
FAX (804) 897-6506

October 4, 2013

Mr. Hal E. Greer, Director
Joint Legislative Audit and Review Commission
209 North 9th Street
General Assembly Building, Suite 1100
Richmond, VA 23219

RE: **VDEM Response to the JLARC Report,** *Review of Disaster Preparedness Planning in Virginia*

Dear Mr. Greer:

Thank you for affording the Virginia Department of Emergency Management (VDEM) the opportunity to review the above-referenced JLARC Report. I appreciate the professionalism and thoroughness demonstrated by your staff in the information gathering and preparation of this document.

VDEM staff members have reviewed this Report and have provided comments under separate cover. The agency is in substantial agreement with the conclusions and Recommendations contained in the Report.

I appreciate the opportunity to work with JLARC in this important matter. If I can be of any additional assistance, please let me know.

Sincerely,

Michael M. Cline

MMC/bab

cc: Jamie Bitz, Principal Legislative Analyst, JLARC
        Marla Decker, Secretary of Public Safety
        Bryan Rhode, Deputy Secretary of Public Safety
        Brett Burdick, Deputy State Coordinator

"Working to Protect People, Property and Our Communities"

COMMONWEALTH of VIRGINIA

Department of Health

Cynthia C. Romero, MD, FAAFP
State Health Commissioner

P O BOX 2448
RICHMOND, VA 23218

October 3, 2013

TTY 7-1-1 OR
1-800-828-1120

Hal E. Greer, Director
Joint Legislative Audit and Review Commission
201 North 9th Street, General Assembly Building, Suite 1100
Richmond, Virginia 23219

Dear Mr. Greer:

Thank you for the opportunity to review and comment on portions of the exposure draft of the report: *Review of Disaster Preparedness Planning in Virginia* dated September 16, 2013. We have provided several technical comments and corrections to your staff by e-mail on the portions that we were given to review. The staff at the Virginia Department of Health (VDH) believes the report sections we reviewed are overall well done and reflective of the significant amount of progress made conducting preparedness activities by VDH and the many partner response agencies and organizations throughout the Commonwealth. We can never be too prepared, however.

The Commonwealth of Virginia has been recognized at the national level for our preparedness efforts and is frequently offered up as a resource to other states by our federal preparedness grant funding partners. This report shows that a significant amount of federal funding has been received by the Commonwealth over the past 10 years that has allowed us to build the public health infrastructure to its current state and attain national recognition status. The struggle now is to maintain systems, equipment and skills put in place that are being negatively impacted by the more recent years' downward federal funding trend. While this report states it is not clear which critical capabilities may not be funded due to declines in grants, we offer that it is clear without funding at current or increased levels, we will continue to lose personnel, equipment will become non-functional or obsolete, and corresponding partnerships with other public and private sector organizations will diminish. In addition, the technical networks and systems that have been put in place will no longer be able to be maintained, i.e. patient bed tracking, communications, mapping, alerting, and credentialing systems to name a few.

We greatly appreciate JLARC recognizing and recommending that the State consider making funds available to address federal funding shortfalls. If there is anything I or my staff can do to be of assistance as the Study is completed, please let me know. Thank you again for the opportunity to comment. I look forward to reviewing the complete study report prepared by JLARC as called for under HJR 132.

Sincerely,

Cynthia C. Romero, MD, FAAFP
State Health Commissioner

VDH VIRGINIA DEPARTMENT OF HEALTH

Protecting You and Your Environment
www.vdh.virginia.gov

COMMONWEALTH of VIRGINIA

DEPARTMENT OF
HOUSING AND COMMUNITY DEVELOPMENT

October 2, 2013

Mr. Hal E. Greer, Director
Joint Legislative Audit and Review Commission
201 North Ninth Street
General Assembly Building, Suite 1100
Richmond, Virginia 23219

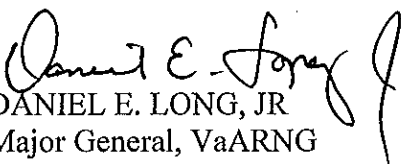Dear Mr. Greer:

Thank you for the opportunity to review portions of the draft report *Review of Disaster Preparedness Planning in Virginia.* The Virginia Department of Housing and Community Development (DHCD) offers the following comments on the exposure draft relative to DHCD relevant portions.

DHCD has developed Standard Operating Procedures (SOPs) to support its joint lead role in long-term community recovery under Emergency Support Function (ESF) 14. However, DHCD recognizes that its SOP is not as comprehensive as it could be. Additional work needs to be completed in coordination with its co-lead agency partner the Virginia Department of Emergency Management (VDEM), which to date has not yet finalized its own SOP for ESF 14. DHCD has also been working with VDEM and other state agencies to develop a comprehensive housing recovery plan. Completion of a plan to deal with disaster housing should be a priority. DHCD has also spent a significant amount of effort in developing its own Continuity Plan, which has received repeated recognition from the State.

One difficulty in preparing disaster response and recovery plans is envisioning the variety of different disasters (floods, tornadoes, agricultural disasters) and their differing impacts (damaged or destroyed housing, economic disruptions or crop damage) that could lead to the activation of Emergency Support Function 14. A real challenge is the coordination and development across all State agencies of coherent, realistic disaster response and recovery plans. A coordinated response and recovery plan will require the significant commitment of resources by multiple State agencies depending on the nature of the disaster impact, not just the lead agencies.

Mr. Hal E. Greer, JLARC
October 2, 2013
Page Two

      Again, thank you for the opportunity to comment on this exposure draft. Please let me know if you have any questions or concerns.

                                  Sincerely,

                                  Bill Shelton

wcs\ljm

COMMONWEALTH of VIRGINIA

DANIEL E. LONG, JR.
THE ADJUTANT GENERAL

DEPARTMENT OF MILITARY AFFAIRS
Adjutant General's Office
Virginia National Guard
5901 Beulah Road

SANDSTON, VIRGINIA 23150

27 August 2013

Joint Legislative Audit and Review Commission
Hal E. Greer, Director
201 North 9th Street, General Assembly Building,
Suite 1100
Richmond, VA 23219

Dear Mr. Greer,

Thank you for the opportunity to review and respond to the draft report of *Review of Disaster Preparedness Planning in Virginia.*

In chapter 3 of the report, the Commission states, "It is not clear that the Virginia National Guard would have enough resources to fulfill their assigned responsibilities if most of these roles were activated simultaneously." The Commission may consider that the simultaneous employment of the Virginia National Guard in all 14 assigned COVEOP roles is a very low probability. If a catastrophic event requires National Guard employment beyond its current emergency response capability of 7,000 Soldiers, Airmen and Virginia Defense Force personnel, Emergency Management Assistance Compact (EMAC) agreements would facilitate rapid mobilization of additional National Guard forces from adjacent or regional states. The Virginia National Guard can respond to all anticipated state emergencies as currently assigned in the COVEOP.

Should the Commission require further information from the Virginia National Guard, you may contact COL Paul Griffin, Director of the Joint Staff, at 804-236-7881 or paul.f.griffin.mil@mail.mil.

Sincerely,

DANIEL E. LONG, JR
Major General, VaARNG
The Adjutant General

COMMONWEALTH *of* VIRGINIA

DEPARTMENT OF SOCIAL SERVICES

October 4, 2013

Hal E. Greer, Director
Joint Legislative Audit and Review Commission
201 North 9th Street
General Assembly Building, Suite 1100
Richmond VA 23219

Dear Mr. Greer:

This is in reply to your letter regarding the draft report, *Review of Disaster Preparedness Planning in Virginia.* Thank you for the opportunity to review and comment on the chapters applicable to the Department of Social Services. The Department's Emergency Management staff have worked closely with your staff to offer technical revisions to the draft report.

We appreciate your consideration of our comments as the report is finalized.

Sincerely,

Margaret Ross Schultze
Commissioner

MRS/pfs

Colonel W. S. (Steve) Flaherty
Superintendent

(804) 674-2000

COMMONWEALTH of VIRGINIA

DEPARTMENT OF STATE POLICE

Lt. Col. Robert B. Northern
Deputy Superintendent

P. O. BOX 27472, RICHMOND, VA 23261-7472

October 7, 2013

Mr. Hal E. Greer
Director, Joint Legislative Audit and Review Commission
201 North 9th Street
General Assembly Building, Suite 1100
Richmond, Virginia 23219

Dear Mr. Greer:

Thank you for the opportunity to review the Joint Legislative Audit and Review Commission (JLARC) draft report on the "Review of Disaster Preparedness Planning in Virginia." I also want to express my appreciation for the two visits your staff made to our headquarters that allowed me, as well as the executive staff, to share views from the perspective of our agency in the area of emergency preparedness.

Overall, the report was found to be well prepared and comprehensive. I had only two technical or editorial comments that were forwarded to Mr. Jamie Bitz by email on October 2, 2013 as requested. These comments were related to inclusion of the Virginia State Police (VSP) and the Virginia Department of Transportation (VDOT) in localities development of traffic management plans during disasters.

Our agency strongly supports the JLARC recommendation that the reorganization of Veterans Affairs and Homeland Security be undertaken to transfer the functions related to homeland security under a new Homeland Security and Public Safety secretariat. We believe that this is necessary to improve preparedness coordination between agencies that now have critical missions in responding to and handling disasters.

If you have questions or need additional information, please do not hesitate to give me a call. Again, I appreciate the opportunity for being allowed to share input on such an important project.

Sincerely,

Superintendent

WSF/GLDjr/lw

COMMONWEALTH of VIRGINIA

DEPARTMENT OF TRANSPORTATION
1401 EAST BROAD STREET
RICHMOND, VIRGINIA 23219 2000

Gregory A. Whirley
Commissioner

October 3, 2013

Mr. Hal E. Greer
Director
Joint Legislative Audit and Review Commission
201 North 9th Street
General Assembly Building, Suite 1100
Richmond, Virginia 23219

Dear Mr. Greer:

The Virginia Department of Transportation has reviewed the Exposure Draft of the report, *Review of Disaster Preparedness Planning in Virginia,* and our comments are below:

Recommendation (6). The General Assembly may wish to consider amending the Code of Virginia to require State agencies with lead or supporting responsibilities under the COVEOP to maintain supporting response and recovery plans and annually submit them to VDEM for review.
VDOT supports that state agencies with lead or supporting responsibilities under the COVEOP maintain response and recovery plans. Once an agency develops a plan, it should be up to the agency head to determine if the plan is appropriate.

Recommendation (7). VDEM should develop standard planning guidance to assist State agencies in developing supporting response and recovery plans for their responsibilities under the COVEOP.
VDOT supports that standard planning guidance be developed and shared with the relevant state agencies. It should be up to each agency to develop their own plans based on the agency responsibilities and needs.

Recommendation (8). VDEM should begin to monitor the status and quality of State agency response and recovery plans. The monitoring process should include a review of plans to ensure they sufficiently address the actions and tasks necessary to complete assigned COVEOP responsibilities, and that excessive demands are not placed on State agencies.
VDOT supports that VDEM monitor the plans to ensure they sufficiently address the actions and tasks necessary to complete COVEOP responsibilities.

Recommendation (9). The General Assembly may wish to amend the Code of Virginia to require localities to develop traffic management plans that direct citizens to designated evacuation routes in an efficient and effective manner.
VDOT supports that localities develop traffic management plans that communicate with and direct citizens to the designated evacuation routes.

Recommendation (10). VDEM and VDOT should collaborate to develop planning templates and provide technical assistance to support development of traffic management plans by localities.
VDOT supports the development of traffic management plans and for providing technical assistance for the hurricane prone areas of the state but not for every locality statewide.

Mr. Hal E. Greer
Page Two
October 3, 2013

Recommendation (11). VDEM and VDOT should collaborate to develop and implement a process for periodically reviewing local traffic management plans to ensure that the plans direct residents to entry points of designated evacuation routes.
VDOT recommends that JLARC modify this requirement to the state once a traffic management plan is approved by VDEM/VDOT; the localities are required to notify VDEM and VDOT when there is any change to the road network leading to the entry point of designated evacuation routes.

Recommendation (12). As part of the annual Local Capabilities Assessment for Readiness survey, VDEM should require localities to submit a list of sites that could serve as refuges of last resort, including the location and capacity of identified sites.
VDOT concurs with this recommendation.

Recommendation (13). VDEM in collaboration with VDOT should develop a statewide re-entry strategy to support the development of local plans.
VDOT believes that this recommendation should be between VDEM and the Virginia State Police.

Recommendation (14). As part of the annual Local Capabilities Assessment for Readiness survey, VDEM should require localities to submit a list of sites that could or do serve as local shelters, including the location and capacity of identified sites.
VDOT concurs with this recommendation.

Recommendation (15). VDEM should coordinate with OHSVA to develop a comprehensive strategy for the use of state shelters, including documented decision-making process for opening State shelters and standard criteria for determining which shelter locations to open first.
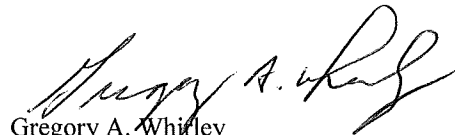VDOT concurs with this recommendation.

Recommendation (16). The General Assembly may wish to amend the Code of Virginia to make the OVAHS responsible for ongoing coordination and oversight of State and local shelter and evacuation planning.
VDOT has no comment on this recommendation.

If you have any questions concerning VDOT's response, please contact Perry Cogburn at 786-2848.

Sincerely,

Gregory A. Whitley
Commissioner of Highways

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