# CHAPTER 7

## SECURITY

The security of the regional transportation system is an ever increasing priority. It is critical to ensure that the highest levels of security are provided for the users of our regional transportation system and that appropriate measures are taken to restrict access to our critical transportation infrastructure.

### A. EXISTING CONDITIONS

Over the past few years, the region has concentrated on improving the security of the transportation system. This includes participation with the Massachusetts Executive Office of Public Safety (EOPS) and the Massachusetts Emergency Management Agency (MEMA). In cooperation with both agencies a number of changes have been made to increase both existing security measures and public awareness of potential threats to security. The following sections provide additional information on the topic of security for the Pioneer Valley Metropolitan Planning Organization.

### 1. Homeland Security

The Pioneer Valley Metropolitan Planning organization is part of the Western Massachusetts Homeland Security Region. The Western Region Homeland Security Advisory Council provides planning, financial and technical resources to all 101 communities within Hampden, Hampshire, Franklin, and Berkshire counties of Massachusetts.

The focus of this organization is to support the following activities:

- Identification of Threats and Vulnerabilities within the Region
- Plan Regionally to Protect Critical Infrastructure and Key Assets
- Training First Responders and Local Officials
- Improve Interoperability
- Multi-jurisdiction Exercises
- Intelligence Gathering & Information Sharing

One of the products of the Western Region Homeland Security Advisory Council (WRHSAC) was the development of a website to increase public awareness and provide the general public with information on the role of the council. This website is located at www.westernmassprepares.org. The Pioneer Valley MPO has also assisted in improving Homeland Security by providing planning assistance in the following areas:

- Assisting in the development of Mutual Aid Agreements between the state and local communities.
- Updating maps for critical infrastructure such as bridges and Tier II Haz-Mat locations.
- Providing technical assistance as needed for use in local and regional evacuation planning efforts.

Western Mass Ready (http://www.westernmassready.org/) was created by the WRHSAC and provides resources for individuals in the Pioneer Valley to prepare for emergency events. A marketing campaign for Western Mass Ready was conducted in conjunction with the Pioneer Valley Transit Authority (PVTA). Western Mass Ready ads were placed on the exterior of the buses as well as brochures being placed near the schedule racks on the interior of the buses. Translated brochures were provided by the Individuals Requiring Additional Assistance Preparedness Project. Billboard and movie theater advertising was also utilized to provide public outreach.

## a) Western Region Homeland Security Plan

This plan seeks to enhance the region's capabilities to support homeland security-related public safety efforts, and is guided by the principles established by the Commonwealth in the Massachusetts State Homeland Security Strategy. The Plan identifies and prioritizes key vulnerabilities that exist in the region and develops steps to mitigate these potential threats.

Regional solutions were developed in order to strengthen core functions and provide all public safety agencies the tools required to effectively prevent, provided early response, and recover from terrorist events or other high profile events that threaten security. The Plan also defines funding levels to address the identified priorities and improve interoperable communications and overall emergency preparedness through focused training exercises and upgraded equipment.

PVPC has conducted evacuation planning studies using the regional transportation model and dynamic traffic assignment. The TransCAD modeling software was used to analyze the evacuation scenarios at the macro level. The network used in this study excludes local roads; only major arterials and highways are considered. Dynamic Traffic assignment was utilized because it is more responsive to operational factors, route changes, and produces more realistic results for modeling unexpected results than traditional travel demand models. PVPC has conducted analysis on the following four evacuation scenarios using this methodology.

- Hurricane evacuation for Hampden, Hampshire, Franklin and Berkshire- Under this scenario, a hurricane forces a full evacuation of all four of the Western Massachusetts counties. The hurricane splits the region in two, sending people to the east and west.

- UMass Campus Evacuation - A severe snowstorm occurs, necessitating the evacuation of the University of Massachusetts Amherst campus. A phased evacuation is modeled using current university vehicle and housing data.
- Flooding Scenarios - 3 flooding scenarios were created for the City of Springfield which established the identification of site specific challenges and sensitive receptors.  Changes in traffic flow were estimated for each scenario based on the identification of roadways that would not be accessible due to flooding.  The effectiveness of existing detour routes was analyzed and recommendations were made on additional resources that may be required during an actual evacuation.
- I-91 Chemical Spill - A chemical spill occurring in the afternoon peak hours on Interstate 91 in the vicinity of Exit 12 results in the closure of the highway in both directions.  This scenario identifies the impact of the unanticipated closure of I-91 on downtown Springfield and the regional roadway network.

## 2. Transit Security

The Pioneer Valley Transit Authority (PVTA) has undertaken extensive efforts in order to increase the security of the regional transit system.  This includes the development of an emergency operations plan for the agency and the placement of security cameras on their entire fleet of buses.  PVTA has also installed security cameras and audio alert equipment in passenger terminals, vehicle storage and maintenance facilities.  Most importantly, the PVTA has committed transit vehicles for use in situations that may require the evacuation of residents.

The PVTA has participated in ongoing regional emergency drills and has also provided extensive emergency training for their staff.  To make this training more widely available to first responders PVTA requested the PVPC to create 3 videos documenting response protocol.  The three videos involved: a simulation of a bus rollover, a simulation of a hostage situation on a bus, and a technical walkthrough of PVTA's newest Gillig buses, offering tips to first responder teams on how to access the bus and how to deal with systems during an emergency response. PVPC is currently developing a new video to provide emergency responders information related to PVTA's articulated buses.

## 3. Rail Security

Similar to rail service itself, rail security is usually defined by both passenger and freight rail services, separated into two parts: passenger rail and freight rail. Unlike air travel, neither passenger or freight rail transportation services lend themselves to the increased security measures utilized at airports. While each type of rail service has its own security concerns, they must not be separated because they often share the same track.  Passenger rail stations are often located in densely populated areas, and freight rail transports nearly half of the nation's hazardous waste materials.  As a result, the Pioneer Valley Metropolitan Planning Organization has continually integrated both passenger and freight rail security concerns into its

regional planning efforts.  Representatives from the region's rail providers are invited to participate in monthly Joint Transportation Committee meetings.  In addition, all planning studies approved by the MPO include a rail component when appropriate.

## a) Pedestrian Rail Access

Trespassing by local residents within the rail yard, across railroad bridges and along railroad tracks is not only a safety problem but also is frequently a security problem that involves theft and vandalism. Because of the hazardous materials, dangerous equipment, and unsafe settings found within the rail yard, this unhindered trespass is significant and needs to be addressed.

As part of the Merrick and Memorial Neighborhood Study in West Springfield, PVPC proposed a series of safety and security improvements to address hazardous materials procedures, existing vulnerabilities, and overall security at the CSX Rail Yard.  It is important that security planning be implemented in advance of an incident, rather than in response to an incident as mitigation. CSX implemented a series of security improvements as part of a recent upgrade to their rail yard. These improvements include:

- Physical barriers;
- Secure access gates at portals;
- Closed circuit television system;
- Conspicuously located signage;
- Surveillance patrols utilizing two-way radio communications; and,
- Sensors, alarms and detectors with audible/visual alerts.

New security fencing was added along the Knowledge Corridor rail line prior to the return of passenger rail service at the end of 2014.  Many pedestrians and bicyclists cross this rail line between King Street and Woodmont Road to access the Norwottuck Rail Trail and businesses along King Street.  This section also is missing a connection to a bike path to the village of Florence and a bike path through the downtown area. A pedestrian underpass, proposed to be constructed in the summer of 2015, could eliminate the need for pedestrians to illegally cross this rail line.

## B. WESTERN MASSACHUSETTS EVACUATION PLAN

Completed in January of 2013, the Western Massachusetts Evacuation Plan provides emergency responders on the local, state, and federal levels with the resources necessary for conducting a regional evacuation in as efficient and effective a manner as possible. The plan provides maps and lists of evacuation routes, population centers, infrastructure, and other critical assets. Contact information for municipal and state officials, as well as major employers, schools, and hospitals is also provided.

This plan pertains to the counties of Berkshire County, Franklin County, Hampshire County, and Hampden County. Contact information for municipalities in Worcester County that border Franklin County, Hampshire County, and Hampden County is also provided, as these towns and cities would potentially be active in any evacuation from western Massachusetts. Information for state resources applicable to the region is also provided. The plan was completed in conjunction with other emergency plans that have been developed for western Massachusetts, including a regional sheltering plan and regional communications plan. Data and recommendations from these plans have been integrated into the evacuation plan to the extent possible.

Evacuation routes were developed based on an analysis of the transportation network, considering factors such as capacity, congestion, and road destinations to develop a hierarchy of primary, secondary, and tertiary routes. Definitions of these routes are as follows:

- Primary – state designated highways that carry the largest capacity and provide the most direct route out of the region.
- Secondary – main arterial roads through towns that carry traffic where primary routes do not exist or provide an alternate route to the primary route.
- Tertiary – local main roads, used to channel traffic towards secondary and primary evacuation routes.

Evacuation routes with regional water hazards are shown by county in Figures 7-1 and 7-2. Complete copies of the Western Massachusetts Evacuation Plan are available upon request.

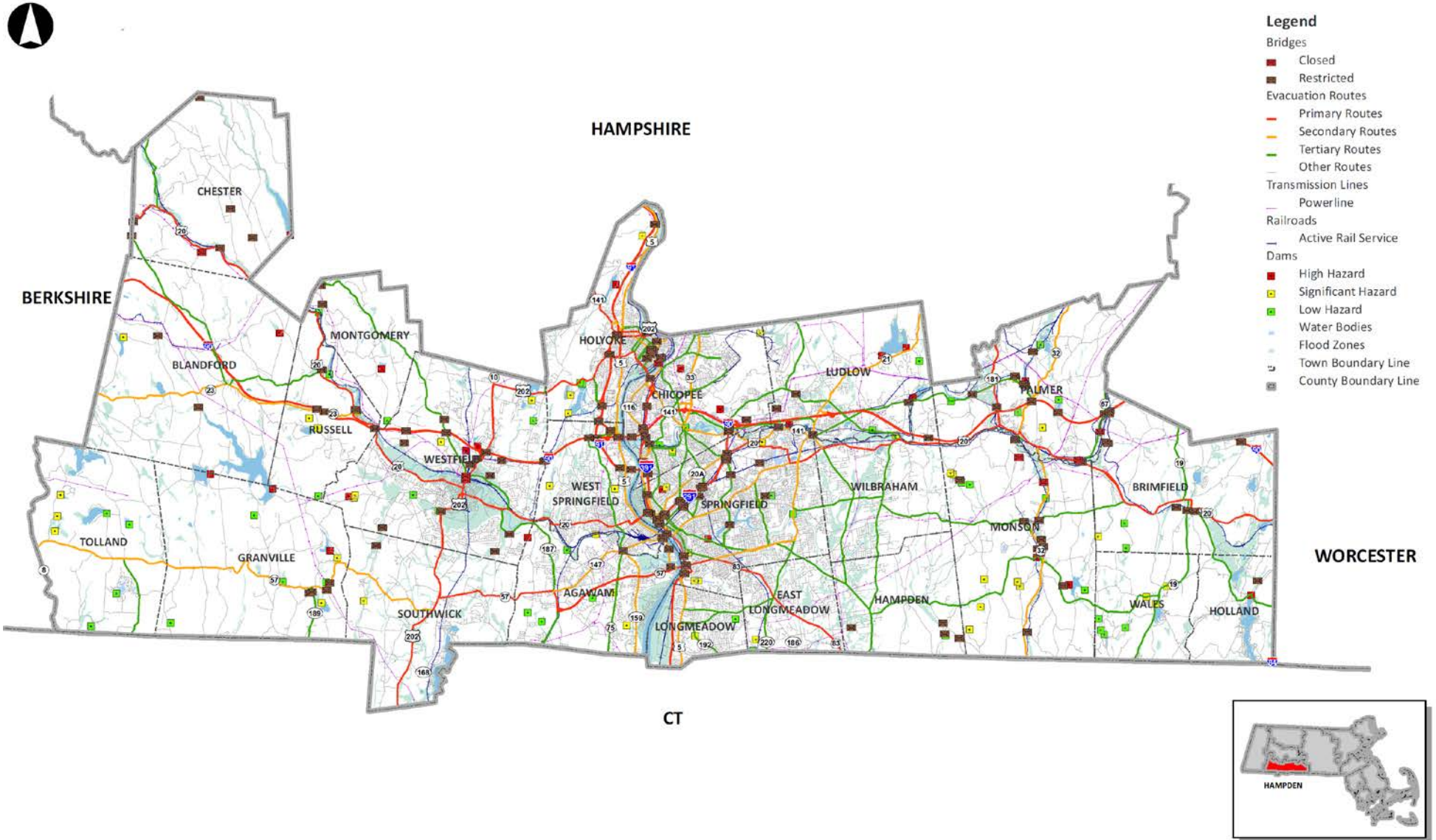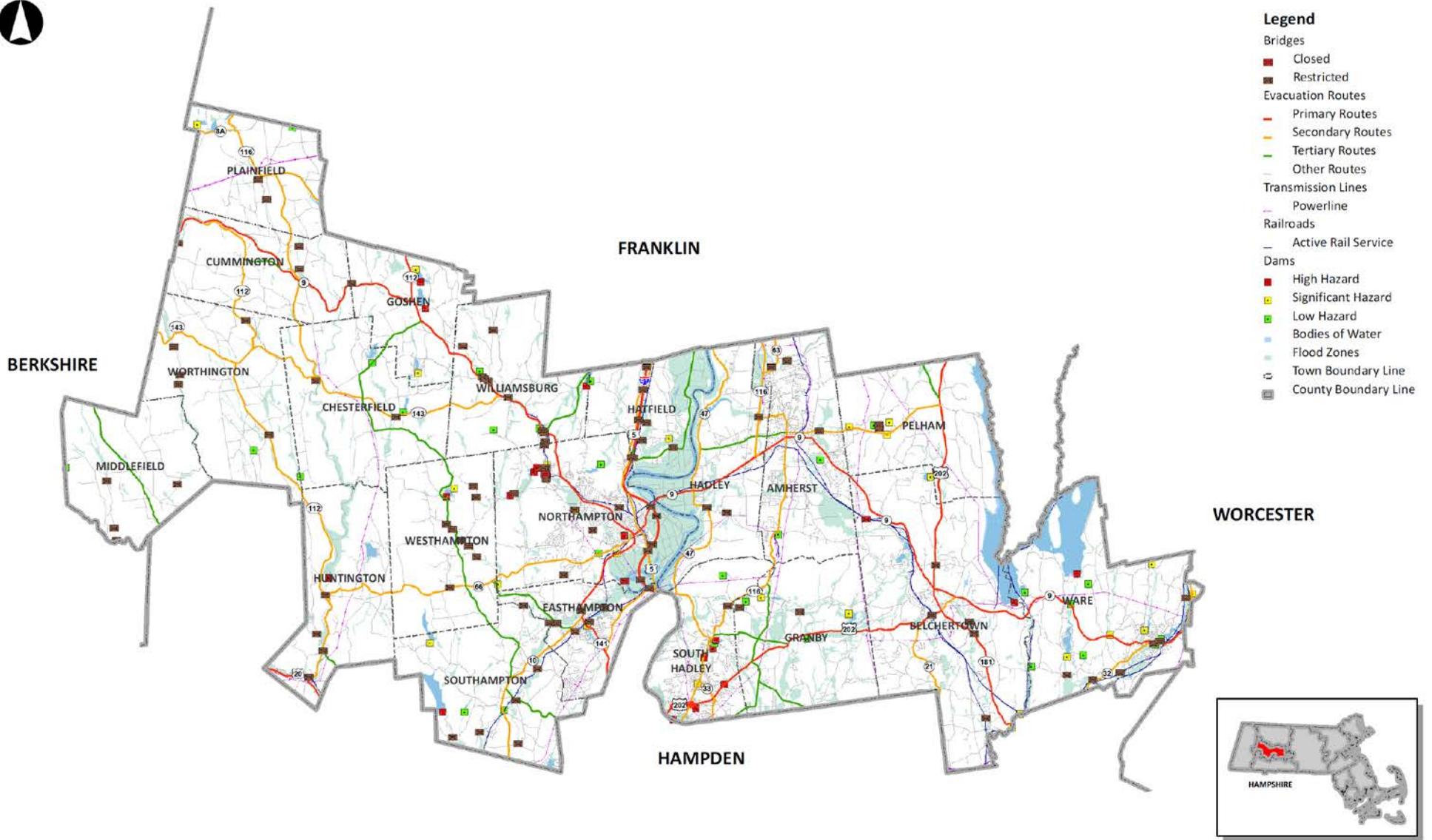# Figure 7-1 – Evacuation Routes and Water Hazards in Hampden County

**Figure 7-2 – Evacuation Routes and Water Hazards in Hampshire County**

## C. MASSACHUSETTS COMPREHENSIVE EMERGENCY MANAGEMENT PLAN

The Massachusetts Comprehensive Emergency Management Plan (CEMP) outlines the system that will be used to prevent, prepare for, respond to, and recover from emergencies and disasters. The Transportation Chapter of the CEMP specifically outlines the responsibilities of state agencies and the protocol to be followed in supporting the transportation activities related to an event, emergency, or disaster. Last updated in May of 2013, the CEMP is maintained by the Massachusetts Emergency Management Agency (MEMA).

### 1. eCEMP

The eCEMP, or the Electronic Comprehensive Emergency Management Plan is an online web application designed to provide community emergency management officials with the ability to directly view and update their respective CEMP information. It is a login/password protected website that allows the end user to navigate through menus to add, update or edit information and GIS data, as well as to generate copies of the CEMP, GIS maps and inventory reports.

## D. IMPROVING REGIONAL SECURITY

Although the region has made great strides in identifying and addressing potential threats to transportation security, additional deficiencies remain that must be addressed. The following sections summarize the regional needs and strategies that should be considered by the Pioneer Valley MPO to increase transportation security in the region.

A key component of homeland security is the ability to work with federal, regional, local, and private partners to identify the critical infrastructure that is at the greatest risk and take the necessary steps to mitigate these risks. This begins through the identification of our critical links in the transportation infrastructure and the agencies responsible for the maintenance and security of these areas. This is an ongoing process that is defined in the State Homeland Security Strategy (SHSS) for the Commonwealth of Massachusetts. The following needs have been identified as part of the SHSS.

- Continue to establish a prioritized list of potential targets and potential methodologies of attack.
- Share target lists with key officials.
- Identify conditions that may facilitate the ability of a terrorist to carry out an attack.
- Disseminate important information to key entities and support the development and implementation of risk mitigation efforts.
- Develop and track defined performance metrics that will allow for performance based management of risk mitigation efforts.