



RECOVERING FROM DISASTERS: THE NATIONAL TRANSPORTATION RECOVERY STRATEGY



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Left image: “Cedar Rapids Railroad Bridge”: Cedar Rapids, IA, July 4, 2008 — Railroad officials attempted to prevent this bridge from being pulled off its pilings by weighing it down with train cars filled with gravel. In the face of the river's strength during the flood, the attempt was futile. Susie Shapira/FEMA News Photo

Center image: ‘Metrolink Temporary Station FEMA’: Northridge Earthquake, CA, January 17, 1994 — FEMA and local agencies provide a variety of emergency services to the disaster stricken area. Approximately 114,000 residential and commercial structures were damaged and 72 deaths were attributed to the earthquake. Damage costs were estimated at \$25 billion. FEMA News Photo

Right image: “Flooded Chesterfield Airport”: St. Louis, MO, July 9, 1993 — The depth of floodwaters shows the extent of the damage wreaked by the disaster. A total of 534 counties in nine states were declared for Federal disaster aid. As a result of the floods, 168,340 people registered for Federal assistance. Photo by Andrea Booher/FEMA News Photo

TABLE OF CONTENTS

1.0	Introduction.....	1
1.1	Purpose and Goal	1
1.2	Scope.....	2
	1.2.1 Recovery	3
	1.2.2 Resiliency in the Recovery Phase	3
	1.2.3 Transportation Network	4
1.3	Relationship between NTRS and Other Federal Guidelines.....	4
	1.3.1 Transportation System-Sector Specific Plan.....	5
	1.3.2 National Response Framework	5
1.4	Incident Management Overview	6
1.5	Outline of the NTRS	10
2.0	Managing Transportation Recovery	8
2.1	Transportation Industry Stakeholder.....	8
	2.1.1 Before an Incident.....	8
	2.1.2 During Recovery	11
2.2	Local Government	11
	2.2.1 Before an Incident.....	12
	2.2.2 During Recovery	14
2.3	State/Tribal Government.....	17
	2.3.1 Before an Incident.....	18
	2.3.2 During Recovery	18
3.0	Federal Government Involvement in Transportation Recovery	20
3.1	Role.....	20
3.2	Funding	20
4.0	Conclusion	22

APPENDICES

A.	Incident Management Overview	23
B.	Federal Funding Resources for Transportation Recovery	27
C.	Transportation Recovery Responsibilities of Federal Agencies.....	39
D.	U.S. Dot Emergency Transportation Regions Map	46
E.	Contact Information.....	47
F.	Acronyms.....	48

FIGURES

1.	Emergency Management Cycle	3
2.	Incident Management Overview	7

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THE NATIONAL TRANSPORTATION RECOVERY STRATEGY

1.0 Introduction

The U.S. transportation network includes more than 360 seaports,¹ 26,000 miles of navigable water channels, approximately 4 million miles of roads and highways, more than 140,000 miles of freight rail, about 4,450 miles of commuter rail, around 168,000 miles of bus lines, more than 5,200 public-use airports, and well over a million miles of gas and oil pipeline.² This network takes millions of people to and from work, school, and vacation destinations every day, and transports goods and services from one coast to the other and everywhere in between, including your own community.

The societal and economic impact of interrupting the flow of so many people, goods, and services around the country cannot be overstated. Transportation services contribute more significantly to the U.S. economy than ever measured previously, and the efficiency and dependability of the U.S. transportation network plays an important role in supporting the global competitiveness of U.S. products.³ Perhaps more importantly, the availability of an intermodal transportation network is an essential part the day to day lives of American citizens everywhere.

When a bridge collapses, a highway washes away, or a pipeline ruptures in your community during a disaster, it is therefore not just your infrastructure that is affected. Your local economy, your surrounding natural environment, your entire community, and even your surrounding region and the Nation as a whole can be impacted. Therefore, transportation recovery must remain one of the highest priorities following a disaster. The purpose of the *National Transportation Recovery Strategy (NTRS)* is to help you, as a transportation industry stakeholder or a local, tribal, or State⁴ government official, prepare for or manage the transportation recovery process following a major disaster.

1.1 Purpose and Goal

Communities hit hard by disaster face a variety of complex issues and choices during the disaster recovery process. When dealing with a multitude of demands for limited resources, the transition to recovery will be easier if the community takes the opportunity to convene those responsible for overseeing the recovery of various infrastructure networks together with residents to plan for the overall community recovery process. It is vital that all essential service providers in the community participate in this discussion (including education officials, sewage and water treatment officials, energy providers, communication officials, etc.). As

¹ U.S. Department of Justice, Office of the Inspector General, Audit Division, Audit Report 06-26, “The Federal Bureau of Investigation’s Efforts to Protect the Nation’s Seaports,” March 2006, p. i.

² U.S. Department of Transportation/Research & Innovative Technology Administration/Bureau of Transportation Statistics, “Pocket Guide to Transportation 2009,” Washington, D.C., January 2009, p. 2-3.

³ U.S. Department of Transportation/Research & Innovative Technology Administration/Bureau for Transportation Statistics, “National Transportation Statistics,” Washington, D.C., January 2000.

⁴ The NTRS’s discussion of the roles and recommendations to the States is also intended to incorporate those of U.S. territories. Tribes are included as a separate entity because of their unique emergency response structure.

a key public works provider, local transportation officials need to lead the integration of transportation recovery into the community’s overall restoration plans.

The *NTRS* is designed to help transportation industry stakeholders and local, tribal, and State government officials prepare for and manage the transportation recovery process following a major disaster. ***The overall goal of this Strategy is to promote a recovery process for transportation networks – and subsequently of communities in general – that results in a greater level of resilience.***

Under the “Implementing Recommendations of the 9/11 Commission Act of 2007” (Public Law 110-53)⁵ and the *Transportation Systems Sector-Specific Plan (SSP)* of the *National Infrastructure Protection Plan (NIPP)*,⁶ the *NTRS* begins a comprehensive national effort to promote community resiliency through effective transportation recovery planning and implementation. You are encouraged to use the *NTRS* as a resource to start planning for your role in the transportation and overall recovery process of your community following a disaster.

The U.S. Department of Transportation (DOT) and its Federal partners are firmly committed to enhancing the usefulness of this initial Strategy through the future development of additional tools and resources for industry stakeholders and local, tribal, and State authorities facing the difficult task of recovering a transportation network. DOT is leading a joint effort with the U.S. Department of Homeland Security (DHS) to produce the package of products that will enhance the *NTRS*.

These products will be made available via a web-based resource guide at www.dot.gov/disaster_recovery, which will also include a compilation of resource documents, such as Government Accountability Office (GAO) reports, best practice after-action reports from previous incidents, technical guidance documents, and how-to guides on recovery planning.

1.2 Scope

The *NTRS* takes an all hazards approach to multi-modal transportation. Thus, the Strategy does not address specific incidents, but can be used for all hazards and all modes of transportation in your community. Hazards include all natural, technological, or human-caused disasters (e.g., hurricanes, earthquakes, floods, terrorist attacks, hazardous material spills, etc.).

The *NTRS* should be a useful tool that supports transportation recovery planning and recovery management. The *NTRS* focuses on the *recovery* phase of a *transportation network*, with an emphasis on redeveloping with *resiliency*, all of which are defined below.

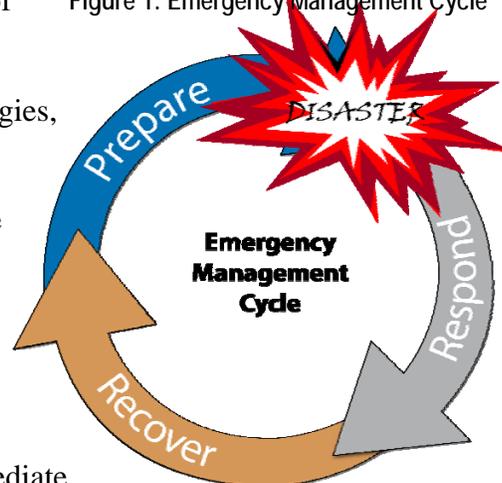
⁵ 110th Congress of the United States of America, “Implementing Recommendations of the 9/11 Commission Act of 2007” (Public Law 110-53), Washington, D.C., January 4, 2007, §1202, §1404, §1558.

⁶ U.S. Department of Homeland Security/Transportation Security Administration, “Transportation Systems: Critical Infrastructure and Key Resources Sector-Specific Plan as input to the National Infrastructure Protection Plan,” Washington, D.C., May 2007.

1.2.1 Recovery

As shown in Figure 1, recovery is one of the phases of emergency management. The planning, training, exercising, implementation of appropriate technologies, and creation and strengthening of vital partnerships involved in recovery are ongoing for communities. Each of these process steps is necessary for the development of viable recovery programs and initiatives in the preparedness phase of emergency management. However, direct recovery activities, such as actual rebuilding and construction, only begin when the immediate lifesaving activities of the response phase are completed.

Figure 1: Emergency Management Cycle



1.2.2 Resiliency in the Recovery Phase

Conventionally, the recovery of a transportation network results in the simple restoration of transportation infrastructure, assets, and systems to their conditions prior to the incident. However, recovery can and should involve rebuilding the network beyond its previous condition to a superior standard that is more resilient against future disasters. Resiliency in the recovery phase includes such efforts as improving materials and construction methods to increase the strength of infrastructure, establishing redundancies in the transportation network, using Intelligent Transportation Systems (ITS), and improving the common links between transportation modes and communities. Resiliency in the recovery phase should result in a network that has a vibrant ability to absorb damage from a future disaster and thereby bounce back rapidly following the incident.

Making Your Community Resilient and Sustainable

"Land use and transportation are intrinsically related. Land use patterns and population density dictate the nature and orientation of the transportation network. As transportation improvements are made, they can alter the land use pattern by attracting new residents and businesses. Land use plans that focus on sustainable development encourage compact and mixed-use strategies, along with policies to foster alternative transportation modes that help reduce reliance on the automobile. Advances in alternative transportation gradually reduce the high public cost of building, maintaining, and repairing roads, overpasses, and bridges—infrastructure that is often damaged in a natural disaster.

Communities should review transportation plans and policies before undertaking sustainable development or redevelopment plans. Transportation efficiency in land use planning is achieved by:

- Revising road standards and development to give people more transportation options, such as walking, riding the bus, or bicycling;
- Encouraging changes in development patterns, so that jobs, schools, housing, and shopping are closer together;
- Providing higher quality public transit in both urban and rural settings; and
- Identifying opportunities to encourage more sustainable transportation planning. For example:
 - A flooding disaster might provide the opportunity for adaptive reuse of an old railway right-of-way for a foot or bicycle path (National Park Service Rails-to-Trails Program);
 - A floodplain acquisition program might incorporate a stream corridor park with walking paths that link recreational parks with the downtown business district; and
 - Incorporating alternative transportation modes into redevelopment as part of a long-term disaster recovery plan."

Source: Federal Emergency Management Agency, "Rebuilding for a More Sustainable Future: An Operational Framework," Edition 1, November 1, 2000, p. 3.10.

Note: In certain "by-right development" States and localities, communities may have a lesser ability to review land use plans, and subsequent transportation plans, than in non-"by-right development" localities. However, the suggestions above remain advisable in all cases.

1.2.3 Transportation Network

The transportation network is diverse, and is made up of the following transportation systems: aviation, maritime, pipeline, and surface transportation (public transit, highways, commuter and freight rail, trucking and bus lines, and bicycle and pedestrian paths). Within any given community, all or some of these transportation systems will be part of a uniquely interdependent multi-modal transportation network.

1.3 Relationship Between NTRS and Other Federal Guidelines

The *NTRS* is a pioneering effort that is designed to complement the *National Response Framework (NRF)*, the *Transportation Systems SSP* of the *NIPP*, and State emergency operations plans. The *NTRS* addresses the purpose and goals of both the *Transportation Systems SSP* and *NRF*. General descriptions of the *Transportation Systems SSP* and *NRF* are below.

1.3.1 Transportation Systems Sector-Specific Plan

The *Transportation Systems SSP* outlines the management of security risks within and across transportation modes. As stated in the plan, the Transportation Systems Sector’s mission is to “continuously improve the risk posture of the Nation’s transportation system.”⁷

The three goals of the *Transportation Systems SSP* are to:

1. Prevent and deter acts of terrorism against the transportation system;
2. Enhance the resilience of the transportation system; and
3. Improve the cost-effective use of resources for transportation security.⁸

Although the primary focus of the *Transportation Systems SSP* is on risks associated with terrorist threats, it also applies to natural and manmade disasters. The plan notes that one of the challenges of the Transportation Systems Sector is the coordination of response and recovery planning and activities. The *Transportation Systems SSP* is one of the 18 sector-specific plans required as input to the *NIPP*, which provides “the unifying structure for the integration of existing and future critical infrastructure and key resources (CIKR) protection efforts and resiliency strategies into a single national program ...”⁹ The *NTRS* supports goals 2 and 3 of the *Transportation Systems SSP*.

1.3.2 National Response Framework

The *NRF* provides guidance on how the Nation conducts all hazards response. It presents a framework for aligning key roles and responsibilities at all levels of government, private industry, and nongovernmental organizations, into a unified national response to disasters.¹⁰ When an incident is so large that it exceeds the ability of local and State government to respond effectively, the Federal government uses the *NRF* to organize Federal assistance. The *NRF* is organized into a core document with numerous Emergency Support Function (ESF), Incident, and Support annexes.¹¹ The 15 ESF annexes cover functions that could be needed during an emergency (e.g., transportation, communications, public

⁷ U.S. Department of Homeland Security/Transportation Security Administration, “Transportation Systems: Critical Infrastructure and Key Resources Sector-Specific Plan as input to the National Infrastructure Protection Plan,” Washington, D.C., May 2007, p. 1.

⁸ *Ibid.*, p. 2.

⁹ U.S. Department of Homeland Security, “National Infrastructure Protection Plan: Partnering to Enhance Protection and Resiliency,” Washington, D.C., 2009, p. 1.

¹⁰ U.S. Department of Homeland Security/Federal Emergency Management Agency, “National Response Framework,” Washington, D.C., January 2008, www.fema.gov/emergency/nrf.

¹¹ U.S. Department of Homeland Security/Federal Emergency Management Agency, “National Response Framework,” Washington, D.C., January 2008, www.fema.gov/emergency/nrf.

works and engineering, search and rescue, etc.). In regards to transportation recovery, ESF #1—Transportation (led by DOT) and ESF #14—Long-Term Community Recovery (led by FEMA, with DOT as a support agency) are paramount. Additionally, ESF #3—Public Works and Engineering (led by U.S. Army Corps of Engineers), is an important resource for overall infrastructure recovery. The other 12 ESFs may also have responsibilities depending upon the recovery situation.

1.4 Incident Management Overview

Figure 2 on the next page depicts the general process for incident management across local, State, and Federal levels. While the *NTRS* is focused on transportation recovery, it is helpful to understand how local, tribal, State, and Federal governments respond to and manage an emergency incident, which eventually lays the foundation for the recovery effort.

States and local communities structure their governments in a number of different ways, so the information in Figure 2 may not completely apply to your situation. Thus, the following figure describes a “typical” incident management structure. For more detail on incident management, see Annex A.¹²

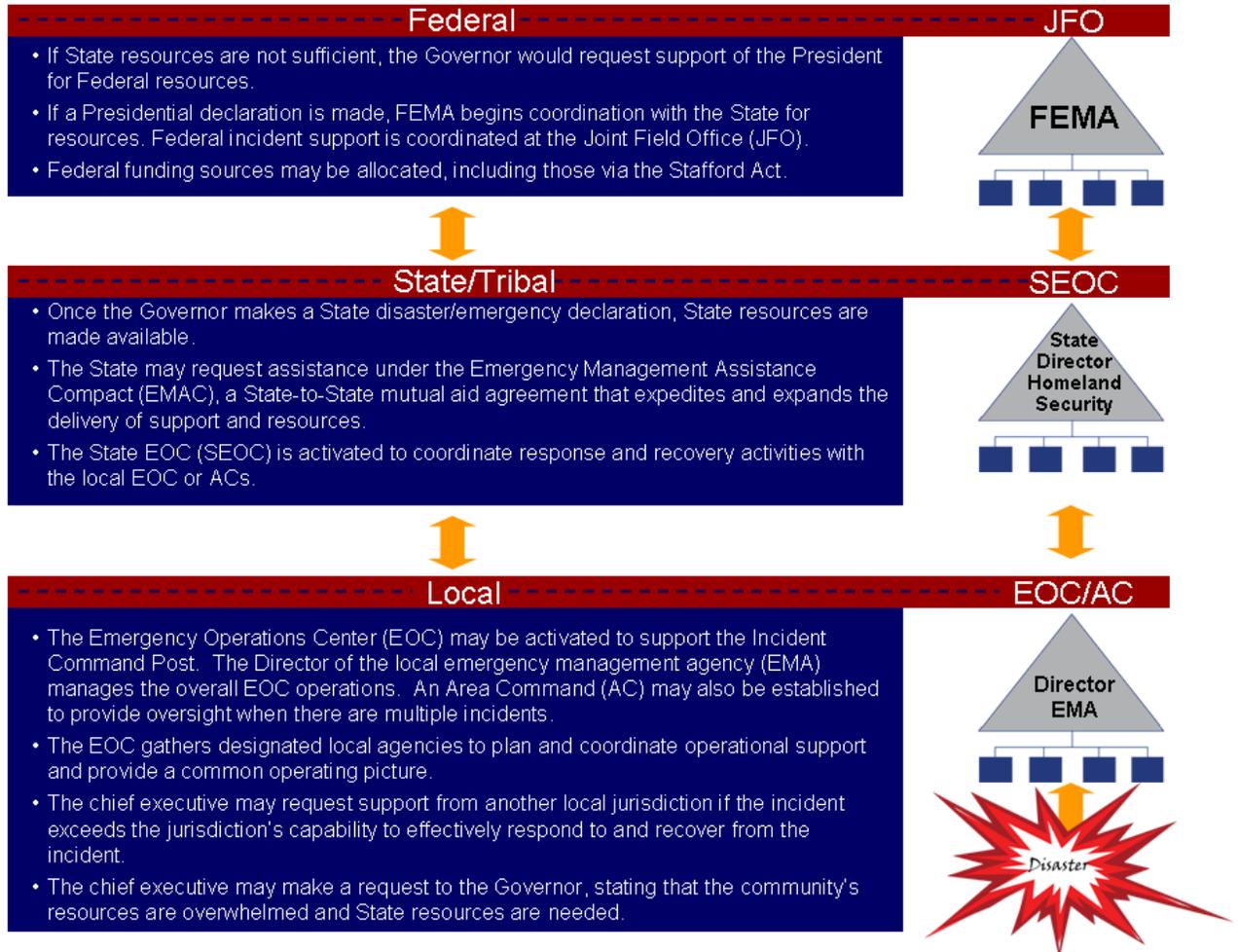
1.5 Outline of the *NTRS*

The *NTRS* aims to be an important and useful tool for you, as a transportation industry stakeholder or local, tribal, or State government official, in addressing transportation recovery (and resiliency) in your community. The following subjects are covered here:

- **Section 1.0: Introduction**, above, provides the purpose and scope of the *NTRS* and presents an overview of incident management;
- **Section 2.0: Managing Transportation Recovery** provides recommendations on how to prepare for and manage the transportation recovery process;
- **Section 3.0: Federal Government Involvement in Transportation Recovery** briefly explains the Federal Government’s role and funding mechanisms in transportation recovery;
- **Section 4.0: Conclusion**; and
- **Appendices** include a more expansive overview of incident management, a guide to Federal funding programs, transportation recovery roles and responsibilities of Federal agencies, a map of U.S. DOT Emergency Response Offices, contact information, and a list of acronyms.

¹² For even more comprehensive detail and information, please see <http://www.fema.gov/emergency/nims/>.

Figure 2: Incident Management Overview



2.0 Managing Transportation Recovery

Recovering from a transportation network disruption can be challenging, costly, and time-consuming. As either a transportation industry stakeholder or local, tribal, or State government official, you will have significant roles and responsibilities in a successful transportation recovery process. Careful planning for the recovery process ahead of potential incidents can reap significant rewards in efficiency and resiliency when a disaster strikes.

Because an incident that impacts one transportation mode can either directly or indirectly affect many other transportation modes, perhaps one of the most important things you can do now is to identify those transportation interdependencies by contacting and beginning to work with specialists from all transportation modes. Understanding those interdependencies will help you and the community better plan for recovering the overall network.

The following sections provide additional recommendations on how you can prepare for and manage the transportation recovery process. These recommendations are divided into sections for the private transportation industry stakeholder, local government, and State/tribal government. Because most recommendations given can apply to all parties involved, it is suggested that you consider all recommendations as you prepare for and manage the transportation recovery process. These recommendations are not intended to be all-inclusive and should not be considered a substitute for consulting with local subject-matter experts (SMEs) prior to or during the recovery phase.

2.1 Transportation Industry Stakeholder

If you are an owner or manager of a private company specializing in transportation services, assets, systems, or infrastructure, you play a critical role in transportation recovery after a disaster has struck your community.

Transportation industry stakeholders or special districts own a large percentage of America's transportation network assets¹³—airports, ports, pipelines, and surface transportation (public transit, highways, commuter and freight rail, trucking and bus lines, and bicycle and pedestrian paths)—so your resources, expertise, and planning will contribute significantly to the recovery process. While the government facilitates transportation recovery operations, your company is ultimately responsible for the recovery of your own transportation service, asset, system, or infrastructure.

2.1.1 Before an Incident

Your role is vital to the effective, safe, and timely recovery and restoration of the transportation system or infrastructure for which you are responsible, and your local community will be depending on you to deliver. Good planning and coordination now will lead to a faster and more efficient recovery later.

¹³ U.S. Department of Homeland Security, "National Infrastructure Protection Plan: Partnering to Enhance Protection and Resiliency," Washington, D.C., 2009, p. 24.

You can mitigate transportation recovery challenges through effective continuity of operations (COOP) planning and by collaborating with others involved in long-term transportation and community recovery. Here are some steps you should consider taking *before* a disaster hits to mitigate potential consequences:

- ***Develop a Business Impact Analysis:*** If you have not already done so, develop a business impact analysis (BIA) for your company to determine the financial losses that could incur if your company and the transportation system or infrastructure it owns or operates were to be damaged or destroyed. Consider the economic, logistical, and social impacts that the loss would inflict on the greater community at large.
- ***Develop a Continuity of Operations Plan:*** Using the results from your BIA, you are strongly encouraged to develop a business continuity and recovery plan for your transportation service, system, or infrastructure. Further, you are encouraged to review, exercise, and enhance your continuity of operations plans on a regular basis, in line with:
 - Department of Homeland Security, *Federal Continuity Directive 1 (FCD 1): Federal Executive Branch National Continuity Programs and Requirements* (www.fema.gov/pdf/about/offices/fcd1.pdf).
 - National Fire Protection Association *1600 Standard on Disaster/Emergency Management and Business Continuity Programs (NFPA 1600)* (www.nfpa.org/assets/files/pdf/nfpa1600.pdf).
- ***Enter Into Mutual Aid Agreements:*** To the extent permitted by law or in accordance with applicable laws and regulations, consider entering into mutual aid agreements and assistance networks with other transportation industry stakeholders.
- ***Coordinate with Government and Other Transportation Industry Stakeholders:*** Coordination efforts among all private companies or organizations and all levels of government involved in the transportation network recovery process are vital to ensuring that restoration occurs safely and quickly:
 - Join any State or local transportation management organizations where you can share best practices and lessons learned with other companies and organizations in your field, such as a local emergency preparedness committee. Be aware of and attend planning and information-gathering meetings and activities that are relevant to your organization. This could be a good place to develop mutual aid agreements as well.

- Consider holding regular meetings or tabletop exercises to discuss how all of you would communicate and coordinate after a disaster. Make sure any and all partners and vendors that you rely upon are included in your continuity plans. Ensure that everyone has the physical and human resources on hand now to respond effectively after an incident.
 - Meet with government officials in your community with whom you would be required to work after a disaster to ensure that you get to know each other now, rather than during the disaster. This should include your Regional Emergency Transportation Coordinating Officials (RETCO) and Regional Emergency Transportation Representative (RETREP). The RETCO and RETREP are the regional representatives for the U.S. Department of Transportation and can be a valuable resource in connecting you regionally and nationally with subject matter experts both before and during the transportation recovery process. For a regional map and contact information for the RETCO/RETREPs, see Appendix D.
 - Enhance information sharing with the government by providing your recovery plans to the National Infrastructure Coordination Center's (NICC) Protected Critical Infrastructure Information (PCII) Program.¹⁴ NICC will keep your plans confidential and safeguard your business information. On a Federal level, you may additionally want to reach out to the Transportation Sector Coordinating Council of the U.S. Department of Homeland Security, Office of Infrastructure Protection.¹⁵
- **Train:** Train your staff to serve as technical or subject-matter experts in the response and recovery phases and to coordinate with government officials. Pre-identify these essential employees for your transportation operation and set expectations and requirements so there is no confusion during the recovery process.
 - **Improve Materials and Construction Methods:** Before a disaster occurs, it is important that you review risk assessments for your transportation entity. Work with local emergency management officials to understand what those risks are and the probability of occurrence in your community and on your infrastructure. Consider making improvements to your materials and construction methods when building and maintaining your transportation asset or infrastructure to mitigate these risks.

¹⁴ For more on the PCII program, see: www.dhs.gov/xinfoshare/programs/editorial_0404.shtm.

¹⁵ For more on the Sector Coordinating Council, see: http://www.dhs.gov/xprevprot/partnerships/editorial_0206.shtm

- ***Evaluate Your Insurance Coverage:*** Evaluate the sufficiency of your insurance coverage for physical and financial losses. Consider as well the limitations of your liability insurance policies in situations where people may need to be evacuated or temporarily displaced from their homes due to a transportation disruption.

2.1.2 During Recovery

During the recovery period, you and your company should be fully involved in all means of information sharing in coordination with government and other private companies, such as joining a recovery task force or similar group. Such collaboration with others will help to build resiliency into the transportation network and will mitigate the impact of future incidents.

As a participant in the recovery process, you may be asked to:

- ***Identify and Provide Critical Transportation Resources:*** Your community may need assistance providing essential transportation services to critical facilities, such as hospitals, during the initial response and recovery phases. Be prepared to provide critical transportation resources for this essential activity.
- ***Conduct Damage Assessments:*** Be prepared to assess the impact of the incident on your transportation service, system, or infrastructure and the impact this damage has on the overall transportation network.
- ***Provide Subject-Matter Expertise:*** You and your employees may be asked to advise government decision-makers during the recovery phase with regards to your area of expertise. Participating in an advisory role will ensure your industry interests are considered in the recovery process.
- ***Implement Improved Materials and Construction Methods:*** As you recover your transportation asset or infrastructure, be aware that new, improved materials and construction methods may be strongly encouraged or required by regulators to prevent similar damage from occurring again.
- ***Provide Personal Protective Equipment (PPE) to Employees:*** Especially if the disaster involves radiation, biological hazards, or toxic chemicals, your employees may require additional protection in the recovery phase to ensure their safety. Be prepared to assume these costs as necessary.

2.2 Local Government

Local government jurisdictions include cities, towns, counties, special districts, parishes, and other sub-State political subdivisions such as a Metropolitan Planning Organization (MPO). If your community is part of a MPO, it is

especially important to involve this organization in all phases of transportation emergency management because it is the primary entity responsible for all transportation planning in the region.¹⁶

Most response and recovery actions begin and are managed at the local level, so your involvement in the recovery process is critical. Since it is your community at stake, remember that you are in charge from start to finish. As a leading government official, it will be crucial to coordinate, organize, and integrate the capabilities and resources of your own community with that of other jurisdictions, the private sector, and possibly higher levels of government. Be aware that when a disaster is too devastating for your community to handle alone, your State has a variety of resources that may be used to help you with local transportation recovery efforts. The State can also provide strategic guidance on recovery issues if requested. To access these resources, your local emergency manager would need to make requests for assistance through the SCO regarding transportation recovery issues. The State can also involve the Federal government as necessary.

2.2.1 Before an Incident

No amount of pre-incident recovery planning is too much. The recovery of each transportation service, asset, infrastructure, or system in your transportation network will have a distinct set of challenges that you are only likely to identify through proper planning:

- ***Create Extensive Contacts List:*** Develop an extensive list of contacts. Know how to contact:
 - Local and State EOCs;
 - Local, regional, or State Transportation Management Centers (TMCs); and
 - Regional Councils of Government (COGs) or Metropolitan Planning Organizations (MPOs).
 - Regional Emergency Transportation Coordinating Officials (RETCO) and Regional Emergency Transportation Representative (RETREP).
- ***Build Relationships:*** It is important that you continue developing and expanding collaboration and information-sharing efforts with other local, tribal, State, and Federal government officials, as well as transportation industry stakeholders, to promote situational awareness, manage recovery actions, and build resiliency into the transportation network. You may consider developing these relationships in a variety of ways, including creating and participating in advisory committees and task forces for

¹⁶ For more information on MPOs and their purpose, to find out if your community belongs to an MPO, and/or to learn more about the transportation planning process, see: <http://planning.dot.gov/>

transportation recovery. Additionally, you will want to include recovery segments in an established training and exercise program.

- ***Get To Know the Lead Decision Makers:*** Learn who controls and has decision-making authority for all transportation systems and infrastructure within the boundaries of interest. Given the complexity of any transportation network and the large percentage of assets owned privately, cataloguing the people/companies/agencies that have decision-making authority in a given area can be difficult. As a list of decision-making authorities develops, be sure to determine points-of-contact for emergency outreach following an incident.
- ***Understand Damage Assessment Responsibilities:*** Learn who is responsible for damage assessments of the transportation infrastructure. One of the earliest challenges to recovery is understanding the extent of damage and what is required for repair. Multiple organizations—from State and local DOTs to Federal regulatory agencies—are likely to be involved in this damage assessment, and each may have their own methodology and time-frame requirements. Familiarizing yourself with this process will give you a head start on the recovery process.
- ***Plan for Long-term Debris Removal:*** Develop a plan for long-term debris removal. Though typically considered an emergency response activity, long-term debris removal may take many months and inhibit accurate damage assessments. Subsequently, not being able to quickly remove large amounts of debris can significantly hinder the recovery process. Therefore, as with damage assessments, planning for debris removal will give you a head start on the recovery process.
- ***Know Your Vulnerabilities:*** Evaluate and map the current vulnerabilities of your transportation network to help predict aspects that will need recovery if and when an incident occurs:
 - Work with your Protective Security Advisor (PSA) to determine if parts of your transportation network are considered a Tier 1 or Tier 2 asset per the National CIKR Prioritization Program. This program identifies those assets and systems that are nationally significant and initiates steps to ensure their protection.¹⁷ Your PSA is your locally assigned DHS critical infrastructure security specialist who serves as a communication link between DHS and your local officials and private-sector owners and operators of critical infrastructure.

¹⁷ U.S. Department of Homeland Security, “National Infrastructure Protection Plan: Partnering to Enhance Protection and Security,” Washington, D.C., 2009, p. 41.

2.2.2 During Recovery

- **Establish Priorities:** Establish priorities for your recovery process. A recovery process can be overwhelming if too much is attempted immediately following the response phase:
 - Understand that transportation recovery priorities need to be aligned with the community’s recovery priorities. Like you, stakeholders and government officials from industries that provide other critical community needs, such as energy, water, education, and healthcare, will be developing their own recovery plans as part as the overall community recovery plan. Given that the transportation network’s primary value is in helping people and goods reach their desired destinations, always remain aware of where and how any new hospitals, schools, business districts, public utilities, etc., are being recovered and rebuilt. For instance, if you are a railroad or trucking company that supplies chlorine to a water treatment plant, you will want to be aware of that facility’s recovery plans. If a community makes expanding the size of the central business district a top priority, transportation officials should then ensure that there are robust transportation options to the new business district.
 - Re-evaluate pre-planned priorities for recovery based on the incident impact. Because each disaster will result in unique community needs, certain portions of your network that were overlooked in the planning process may now be the most critical. By prioritizing the most critical portions of your transportation service, asset, infrastructure, or network, you can effectively target limited initial resources to establish a “bare minimum” from which you can continue to recover and expand.
 - In your prioritization scheme, consider the needs of any continuing response effort (such as areas with temporary housing) or especially hard-hit populations. For instance, if there is only one hospital in town and many people still require medical attention post-disaster, the transportation systems that lead to that hospital need to be recovered as quickly as possible.
- **Build with Resiliency:** Consider the important conceptual difference between simply restoring your transportation service, asset, infrastructure, or network to “the old way” and true recovery. Anyone involved in a recovery process is likely to face considerable pressure to get things “up and running” and “back to normal” as soon as possible. At the same time, there will probably

be considerable pressure to recover “bigger and better” in all regards. However, especially after catastrophic damage has resulted, you likely are going to have to weigh the short-term gratification of your business or community constituents with the true long-term recovery needs. These are never easy decisions to make, but simple restoration may not be the best decision—you may need to scale down the size and scope, or even relocate, transportation services, assets, or infrastructure:

- Take a broad look at all the transportation modes in your community, and determine which ones are needed to provide a minimum level of emergency response and evacuation capacity. Then, map out truly critical paths, considering potential routes for evacuations, and identify the transportation modes and routes needed for access by emergency vehicles.
 - Identify opportunities to address long-term transportation network challenges as part of your designs for recovering and restoring your transportation infrastructure. This longer-term view could include addressing congestion, increasing accessibility, investigating environmental issues, installing ITS,¹⁸ strengthening security and safety protocols, and incorporating other hazard mitigation measures. The incremental additional costs during reconstruction are often inconsequential compared to the potential costs of repairing damage after another incident.
 - Work with recovery authorities in all transportation modes to develop an intermodal transportation network. An intermodal transportation network is important for establishing redundancies that allow people to choose from multiple travel methods in the event that one or more are restricted by future disasters.
- ***Consider Short-term Recovery Options:*** Consider developing temporary, short-term transportation recovery options to supplement longer time-frame projects. In line with your recovery priorities, it may be necessary to develop temporary solutions that alleviate part of the demand for your transportation service, asset, infrastructure, or overall network. Once long-term projects are complete, these short-term solutions may provide a built-in redundancy, thus increasing the resiliency of the transportation network going forward:
 - Work with local agencies, companies, and organizations to encourage telecommuting, flexible work hours, and

¹⁸ For more on ITS, see: www.its.dot.gov/index.htm.

teleconferences to help reduce demands on the various transportation systems in your community.

Short-term Recovery Solutions: LA Swift

Just two months after Hurricane Katrina struck the Gulf Coast and New Orleans was flooded, FEMA via ESF #1, in coordination with the Federal Transit Administration, State of Louisiana, and Regional Transit Services, sponsored and funded a free bus service that allowed displaced individuals in Baton Rouge to take a bus to their jobs in the New Orleans region, or to look for work there. Called LA Swift, the program helped the city recover economically by connecting hundreds of workers daily to their jobs or to companies with job vacancies.

See: Louisiana Department of Transportation and Development, "News in DOTD: LA Swift shuttle surpasses 200,000 riders: Free bus service helping hundreds daily get to work, look for jobs in N.O.," press release, October 16, 2006, www.dotd.state.la.us/press/pressrelease.asp?nRelease=713.

- ***Plan for Recovery After a Criminal Incident:*** If this is a criminal or terrorist-related incident, know how to initiate the recovery phase while the appropriate jurisdictional law enforcement authority continues to properly preserve the crime scene, and also while heightened security measures to prevent and/or protect against subsequent attacks are conducted.
- ***Understand Jurisdictional Border Issues:*** If the transportation infrastructure crosses jurisdictional borders (to include State and international borders), understand who is in charge of what transportation service, asset, infrastructure, or system, and how each is being recovered.
- ***Consider New Codes, Regulations, and Requirements:*** Consider creating and implementing new building codes, safety or environmental regulations, and public reporting requirements that will help prevent future disasters.
- ***Learn About Local Laws and Ordinances:*** There are some emergency conditions where local laws and ordinances may be changed or suspended to support recovery efforts.¹⁹ You should first verify your ability to do this with your State and local laws. Similarly, you may request temporary waivers from appropriate regulatory authorities, including the Federal government, to assist in the recovery process.
- ***Communicate in a Crisis:*** Communicate the goals of any plan, recovery activities, and progress effectively and honestly. Often called "crisis communications," it is perhaps the most challenging aspect of transportation recovery. Communicating regularly and honestly with the public about the progress of the recovery will

¹⁹ U.S. Department of Homeland Security/Federal Emergency Management Agency, "National Response Framework," Chapter 1: Roles and Responsibilities, Washington, D.C., January 2008, www.fema.gov/emergency/nrf.

help manage public expectations regarding the availability of transportation in the aftermath of an incident.

- ***Incorporate Lessons Learned:*** After a successful recovery, it is essential to re-evaluate response and recovery plans, and engage those in other levels of government and the transportation industry in a joint planning, training, and exercise effort at the State level to incorporate lessons learned and better prepare for possible future incidents. Transportation recovery involves improving plans and policies based on lessons learned and best practices of other agencies and organizations:
 - Consider reaching out to your local agencies and neighboring jurisdictions, the State, and transportation industry stakeholders to coordinate planning and training efforts, participate in emergency response and recovery exercises, and enter into mutual aid agreements. A collaborative, safe, and successful recovery process for a transportation network offers the opportunity to renew and improve the network in preparation for the next disaster.

I-35W Bridge: Collaboration at Work

The rebuilding of Interstate 35 West St. Anthony Falls Bridge, which collapsed in August 2007 at the Mississippi River crossing in Minnesota, is a best practice in transportation recovery. The winning bid was for \$233.7 million and the project was completed within budget and ahead of time. In the process, the community, including community residents, local businesses, civic groups, government representatives from all levels, Minnesota DOT, cultural institutions, educational interests, media, as well as a contract design team, was broadly involved in the design and rebuild of the bridge. They used the symbol of a “charrette” as the collaborative mascot, explaining that a charrette is an artisan cart used in the Middle Ages. When someone came pushing the charrette through a village, it aroused great interest, because it was a sure sign that a new project was under way and those interested could express an opinion quite openly about the shape and purpose of such a project. This collaborative approach rallied a positive response for the bridge rebuild.

See:

1. Minnesota Department of Transportation, www.dot.state.mn.us
2. Flatiron Constructors, “Community Participation in the Final Bridge Design and Public Participation throughout Construction,” News Release, 2007. <http://www.dot.state.mn.us/i35wbridge/rebuild/award/charette.pdf>

2.3 State/Tribal Government

As noted in the *NRF*, the roles and responsibilities of States, U.S. territories, and tribal governments are extremely similar,²⁰ thus the term “State” will be used here to encompass those entities, and any exceptions will be indicated. In addition to supporting the local governments in whatever way possible, below are general recommendations for State governmental officials.

²⁰ U.S. Department of Homeland Security/Federal Emergency Management Agency, “National Response Framework,” Chapter 1: Roles and Responsibilities, Washington, D.C., January 2008, www.fema.gov/emergency/nrf.

2.3.1 Before an Incident

Consider the following before an emergency occurs:

- **Create Extensive Contacts List:** Develop an extensive list of contacts. Know how to contact:
 - Local EOCs;
 - Local and regional TMCs; and
 - Regional COGs or MPOs.
- **Build Relationships:** Continue developing and expanding collaboration and information-sharing efforts with other local, tribal, and Federal government and industry stakeholders to promote situational awareness, manage recovery actions, and build resiliency into the transportation network. This may include participating in advisory committees and task forces for transportation recovery, as well as participating in training sessions and exercises with all local and tribal governments and transportation industry stakeholder groups.
- **Get To Know the Lead Decision Makers:** Learn and document who controls and has decision-making authority for all transportation systems and infrastructure within the boundaries of interest. As a list of decision-making authorities develops, be sure to determine points-of-contact for emergency outreach following an incident. If you already have a list, be sure to update it regularly.

2.3.2 During Recovery

States may receive a variety of requests from local communities for recovery assistance. In addition to monitoring the local situation throughout the response and recovery process, you may be asked to provide support to the process directly:

- **Coordinate State Resources:** As a State agency, you should have the ability to readily identify, coordinate, and provide State-owned resources to address recovery of the transportation network, as well as to provide strategic guidance on recovery programs and processes. The goal is to supplement the local recovery efforts as needed, whether that is through coordinating State resources, or requesting support from other States or the Federal government.
- **Arrange Mutual Aid Agreements:** Your State is also able to arrange mutual aid agreements, such as EMAC,²¹ with other States, tribes, and territories to facilitate recovery assistance.

²¹ National Emergency Management Association, “Emergency Management Assistance Compact,” Lexington, KY, www.emacweb.org/.

- **Coordinate with the Federal Government:** Your State will be able to request and coordinate support from the Federal government. The various agencies that may be able to assist you in transportation recovery are listed in Appendix C.
- **Assess State Regulations:** In certain emergency circumstances, a State may be able to create, ease, or suspend some State regulations if it is essential to quickly recover transportation systems or critical infrastructure.²² This course of action should be coordinated following the appropriate established mechanisms in your State.
- **Understand Consequence Management:** On the State level, you may also be involved in consequence management during the recovery process. This may entail:
 - Managing expectations by communicating regularly with the public and media on recovery status;
 - Assessing impacts on the community and State; and
 - Devising strategies for individuals and industries to manage and recover from the impact of a transportation network disruption and the subsequent effects of the recovery process.

If the incident is so large that it cannot be managed with State resources alone, the Governor may request a Presidential declaration.

Expectations

"In the cleanup, fix-up period early in the aftermath, expectations about a return to normalcy are typically bolstered by cooperation and mutual assistance. Neighbors help neighbors. We often heard, 'We've never seen anything like it. This disaster brought everyone together.' This sense of community is further enhanced by a swell of volunteers who come to the community to give comfort and to help with clearing debris and rebuilding. But except in New Orleans, where volunteers continued to arrive three years after the flood, volunteers usually begin to drift away after a few weeks or months, and residents may feel left largely to themselves.

"Later in the aftermath, individuals start to define, usually quite subconsciously, a 'new normal' to replace what they had defined as normal before the event. At the same time, individuals, organizations, and groups find that their concerns and agendas are not shared universally in the community. Other people have other interests, which sometimes conflict. Pre-event agendas for the city council and nongovernmental civic groups go by the board as the meetings are dominated by post-disaster problems and concerns. Traditional processes may be short-circuited. People who were rarely or never involved in political exchange join the fray in order to get their issue addressed.

"Early in the aftermath, community and local government expectations about State and Federal assistance are sometimes unrealistic. Funds are typically project based and designated for specific uses. Most of the grants are for brick-and-mortar projects. The Federal government does not provide grants to cover local government operating expenses; it provides loans for that purpose. Moreover, Federal programs are not particularly flexible; one size is usually expected to fit all, and every dollar spent must be accounted for."

Source:

Managing for Long-Term Community Recovery in the Aftermath of a Disaster, by Daniel J. Alesch, Lucy A. Arendt, and James N. Holly (Public Entity Risk Institute, 2009), p. 80-81.

²² U.S. Department of Homeland Security/Federal Emergency Management Agency, "National Response Framework," Chapter 1: Roles and Responsibilities, Washington, D.C., January 2008, www.fema.gov/emergency/nrf

3.0 Federal Government Involvement in Transportation Recovery

3.1 Role

Whether you are a local, tribal, or State official, or a transportation industry stakeholder engaged in transportation recovery, if your community has received a Presidential disaster declaration and Federal support has arrived, various Federal agencies have transportation recovery resources that may be helpful to you.

As described earlier, Federal support is generally sought only after your local and State resources are overwhelmed. Most Federal assistance will be provided through the *NRF* structure. However, there are Federal responsibilities, such as port security, terrorism investigations, and airspace management that are always under direct Federal control.

Also, some other general Federal responsibilities include, as necessary:

- Providing regulatory relief in support of emergency response and recovery;
- Offering Federal funding and grants;
- Resuming and restoring trade and commerce across jurisdictional boundaries;
- Coordinating with international allies;
- Setting priorities for national security and defense; and
- Offering planning and technical advice.

See Appendix C for an overview of the duties and responsibilities that key Federal agencies would likely fulfill should your community receive a Presidential disaster declaration.

3.2 Funding

One of the most difficult challenges in the recovery phase is the lack of funding for the array of expensive projects that need to be initiated in a short period of time. Due to a loss of tax or business revenue that often accompanies any major disaster,²³ as a transportation industry stakeholder company or local, tribal, or State government agency, you may not have all the resources you need to properly recover your transportation service, asset, infrastructure, or network. If the damage in your community meets certain eligibility requirements, the Federal government offers a set of funding mechanisms that can provide financial assistance to your community. Because of the quantity of programs and the different technical requirements and mechanisms, communities often benefit from expert assistance provided by a consultant or accounting firm with experience in the recovery process.²⁴

²³ Government Accountability Office, “Disaster Recovery: Past Experiences Offer Insights for Recovering from Hurricanes Ike and Gustav and Other Recent Natural Disasters,” GAO-08-1120, Washington, D.C., September 2008, p. 17, www.gao.gov/new.items/d081120.pdf.

²⁴ *Ibid.*, p. 19.

Also, before your company/government agency applies for Federal funding to repair and restore the local transportation infrastructure and facilities after a disaster, you need to understand that the majority of Federal funding for such projects can only be used to restore the network to pre-disaster conditions. You may, however, apply for and use other funds to supplement Federal resources to improve the impacted transportation network and mitigate damage from future disasters. See Appendix B for a list of Federal funding programs.

4.0 Conclusion

You already know how important transportation is to your community. Hopefully, you now have a better understanding of how to prepare for and manage the transportation recovery process, how incidents are managed across levels of government, and the Federal programs available that may help your community build resiliency into its transportation network.

Perhaps the most valuable piece of information any user can take away from this Strategy is the importance of getting to know and working with all members of your community who will have responsibilities in the overall community recovery process after a disaster has struck. Transportation is linked to almost every other sector in the community, and integrating transportation recovery plans with the overall community recovery is paramount and will result in a greater level of resiliency in the future.

DOT and DHS urge you to have your agency, organization, and community develop plans and work with your partners across government and the transportation industry to ensure that your community can recover as quickly and efficiently as possible for the sake of your economy, environment, and most of all, your citizens.

APPENDIX A

INCIDENT MANAGEMENT OVERVIEW

A.1 Incident Management at the Local Level

Local government jurisdictions include cities, towns, counties, special districts, parishes, and other sub-State political subdivisions such as a Metropolitan Planning Organization (MPO). If your community is part of a MPO, this organization is especially important in all phases of transportation emergency management because it is the entity primarily responsible for all transportation planning in the region.²⁵

If you are a local emergency management official or transportation specialist, you likely handle smaller-scale emergencies on a regular basis. In a larger emergency, your community may activate the Emergency Operations Center (EOC). The EOC is a physical location where staffs from all designated local agencies gather to monitor the situation, compile and share information, plan and coordinate operational support, and provide a common operating picture.

Depending on the severity of the situation, your local chief executive—in coordination with your local emergency manager—determines whether the incident exceeds your jurisdiction’s capability to effectively respond to and recover from the incident. If your community needs extra assistance, your chief executive may request support from another local jurisdiction or county by activating mutual aid agreements already in place. In addition, the chief executive may send a request to the Governor, stating that the community’s resources are overwhelmed and State resources are needed. Outside resources may include funding, emergency transportation assets, emergency response equipment, emergency response teams, transportation technical assistance, staff augmentation, and basic necessities, such as water, food, clothing, and shelter.

A.2 Incident Management at the State/Tribal Level

Once the Governor makes a State disaster/emergency declaration, State resources are made available. In addition, the State may request assistance under the Emergency Management Assistance Compact (EMAC) (www.emacweb.org),²⁶ a State-to-State mutual aid agreement that expedites and expands the delivery of support and resources.

Once the Governor authorizes State resources, a State Coordinating Officer (SCO) may be appointed to manage overall resource requirements at the State EOC (SEOC). The SCO works directly with your local emergency manager to coordinate the response and recovery, including recovery of transportation

²⁵ For more information on MPOs and their purpose, to find out if your community belongs to an MPO, and/or to learn more about the transportation planning process, see: <http://planning.dot.gov/>

²⁶ National Emergency Management Association, “Emergency Management Assistance Compact,” Lexington, KY, www.emacweb.org

infrastructure systems.²⁷ If State resources are not sufficient to respond to and recover from the disaster, the Governor would request support from the President for Federal resources.

In addition to a local or State EOC, your local, tribal, or State government may maintain a Transportation Management Center (TMC). TMCs are regional information management centers that gather and maintain transportation-related data and are responsible for a variety of functions that improve safety, efficiency, and traffic conditions on transportation infrastructure. In addition to personnel, TMC functions are supported by ITS technologies located at the TMC and embedded in the infrastructure, some serving to support multiple functions. Because each TMC has unique applications, resources, size, and functionality, the scope of a TMC involvement in any recovery operation will vary greatly.

Note: Tribal governments have almost the same responsibilities in transportation network recovery that all State governments have (described above). However, a key difference in the recovery assistance process is that when local tribal resources are exhausted and cannot manage the recovery of the transportation network infrastructure or operation, tribes are afforded the opportunity to coordinate resources and support through either the State or Federal government, depending on the incident and the Presidential declaration status.²⁸ For the purposes of this Strategy, the chief executive of a U.S. territory has the same roles and responsibilities as the Governor regarding incident management.²⁹

A.3 Incident Management at the Federal Level

If the President agrees to provide support to a State, a Presidential declaration is made, releasing the Federal Emergency Management Agency (FEMA) to begin coordination with the State to supply needed resources. One of the most encompassing Federal funding sources is the Robert T. Stafford Disaster Relief and Emergency Assistance Act (Stafford Act). (See Appendix A for more information on the Stafford Act.)

Once a Presidential disaster has been declared, a Federal Coordinating Officer (FCO) will be designated to manage the overall Federal coordination through the Joint Field Office (JFO). The FCO works directly with the SCO, who again, works with your local emergency manager. The FCO, SCO, and your local or tribal emergency manager will work together to make overall command-and-control decisions. The SCO will publicize in a special briefing the types and amounts of emergency assistance available to affected communities in the State.

²⁷ U.S. Department of Homeland Security/Federal Emergency Management Agency, “National Response Framework,” Chapter 1: Roles and Responsibilities, Washington, D.C., January 2008, www.fema.gov/emergency/nrf

²⁸ U.S. Department of Homeland Security/Federal Emergency Management Agency, “National Response Framework,” Chapter 1: Roles and Responsibilities, Washington, D.C., January 2008, www.fema.gov/emergency/nrf.

²⁹ Ibid.

Officials from local and tribal agencies and communities must contact State officials to seek that assistance.³⁰

Additionally, when an incident is so large that it exceeds the ability of local and State government to respond effectively, the Federal government uses the *NRF* to organize the Federal response. The *NRF* provides guidance on how the Nation conducts all hazards response. The *NRF* is organized into a core document with numerous Emergency Support Function (ESF), Incident, and Support annexes.³¹ The 15 ESF annexes cover functions that could be needed during an emergency (e.g., transportation, communications, public works and engineering, search and rescue, etc.). When it comes to transportation recovery, ESF #1—Transportation (led by DOT) and ESF #14—Long-Term Community Recovery (led by FEMA, with DOT as a support agency) are paramount. Additionally, ESF #3—Public Works and Engineering (led by U.S. Army Corps of Engineers), is an important resource for overall infrastructure and engineering recovery. The other 12 ESFs may also have responsibilities depending upon the recovery situation.

The *NTRS* helps bridge ESF #1 and ESF #14 by connecting transportation response and recovery to long-term community recovery. The purpose of ESF #1 is threefold:

1. “To assist Federal, State, tribal, and local governmental entities, voluntary organizations, nongovernmental organizations, and the private sector in the management of transportation systems and infrastructure during domestic threats or in response to incidents.” This includes identifying solutions for temporary alternative transportation when a community’s regular modes of transportation have been damaged, destroyed, disrupted, or overwhelmed.
2. “To participate in prevention, preparedness, response, recovery, and mitigation activities.”
3. “To carry out DOT’s statutory responsibilities, including regulation of transportation, management of the Nation’s airspace, and ensuring the safety and security of the national transportation system.”³²

The purpose of ESF #14 is to support all levels of government and the private sector “to enable community recovery from the long-term consequences of

³⁰ U.S. Department of Homeland Security/Federal Emergency Management Agency, “Public Assistance Grant Program: Applicants’ Briefing by Grantee,” Washington, D.C., March 2009, www.fema.gov/government/grant/pa/pr_briefing.shtm.

³¹ U.S. Department of Homeland Security/Federal Emergency Management Agency, “National Response Framework,” Washington, D.C., January 2008, www.fema.gov/emergency/nrf.

³² U.S. Department of Homeland Security/Federal Emergency Management Agency, “National Response Framework,” ESF #1, Washington, D.C., January 2008, p. 1 www.fema.gov/emergency/nrf.

extraordinary disasters.”³³ FEMA’s *Long-Term Community Recovery Planning Process: A Self-Help Guide* can assist communities with this goal.³⁴

ESF #1 and #14 generally receive support requests from FEMA or the ESF at the State level, which takes requests from your local or tribal ESF. Most, but not all, State and local emergency response plans follow the same ESF structure as the *NRF*, so in the instance that the ESF structure is not replicated, ESF #1 and #14 will take requests from other governmental organizations.

³³ U.S. Department of Homeland Security/Federal Emergency Management Agency, “National Response Framework,” ESF #14, Washington, D.C., January 2008, p. 1; www.fema.gov/emergency/nrf.

³⁴ For more on this Guide or to download a copy, see: www.fema.gov/pdf/rebuild/ltrc/selfhelp.pdf.

APPENDIX B

FEDERAL FUNDING RESOURCES FOR TRANSPORTATION RECOVERY

Before your company/government agency applies for Federal funding to repair and restore the local transportation infrastructure and facilities after a disaster, you need to understand that **the majority of Federal funding for such projects can only be used to restore the network to pre-disaster conditions**. You may, however, apply for and use other funds to supplement Federal resources to improve impacted transportation systems and mitigate damage from future disasters.

The Robert T. Stafford Disaster Relief and Emergency Assistance Act, also known as the Stafford Act, is one of the most encompassing Federal funding mechanisms to provide financial assistance to local, tribal, and State governments after a Presidential declaration has been made. As noted in the rest of Appendix B, the Stafford Act is **not** the only funding mechanism available to local, tribal, and State governments. Stafford Act assistance is provided by FEMA, which coordinates the funding in the form of the Individual Assistance (IA) and Public Assistance (PA) programs. The Stafford Act reads as follows:

All requests for a declaration by the President that a major disaster exists shall be made by the Governor of the affected State. Such a request shall be based on a finding that the disaster is of such severity and magnitude that effective response is beyond the capabilities of the State and the affected local governments and that Federal assistance is necessary. As part of such request, and as a prerequisite to major disaster assistance under this Act, the Governor shall take appropriate response action under State law and direct execution of the State's emergency plan. The Governor shall furnish information on the nature and amount of State and local resources which have been or will be committed to alleviating the results of the disaster, and shall certify that, for the current disaster, State and local government obligations and expenditures (of which State commitments must be a significant proportion) will comply with all applicable cost-sharing requirements of this Act. Based on the request of a Governor under this section, the President may declare under this Act that a major disaster or emergency exists.³⁵

The following sections describe government funding mechanisms that may be available to your agency or community for rebuilding and strengthening your transportation infrastructure and resources to better withstand future disasters. Some of these mechanisms may require that there be a declared disaster under the Stafford Act. If this is a requirement, it has been listed in the descriptions below.

³⁵ U.S. Department of Homeland Security/Federal Emergency Management Agency, "Robert T. Stafford Disaster Relief and Emergency Assistance Act, as amended, and Related Authorities, FEMA 592," Washington, D.C., June 2007, Title IV—Major Disaster Assistance Programs, Sec. 401, Procedure for Declaration (42 U.S.C. 5170), p. 26.

B.1 U.S. Department of Transportation (DOT)

B.1.1 Federal Highway Administration (FHWA)

B.1.1.1 Federal-aid Highway Emergency Relief Program³⁶

Congress authorized in Title 23, United States Code, Section 125, a special program from the Highway Trust Fund for the repair or reconstruction of Federal-aid highways and roads on Federal lands that have suffered serious damage as a result of (1) natural disasters or (2) catastrophic failures from an external cause. This program, commonly referred to as the emergency relief (ER) program and run by DOT's FHWA, supplements the commitment of resources by States, their political subdivisions, or other Federal agencies to help pay for unusually large expenses resulting from extraordinary conditions. Federal-aid highways are all the public roads not functionally classified as either local or rural minor collectors. As a result, Federal-aid highways include the more important State, county, and city roads. Based on the functional classifications, about one-quarter of the overall public road mileage has been designated as Federal-aid highways.

Examples of natural disasters include floods, hurricanes, earthquakes, volcanoes, tornadoes, tidal waves, severe storms, or landslides. A catastrophic failure is defined as the sudden and complete failure of a major element or segment of the highway system that causes a disastrous impact on transportation services. The failure must be catastrophic in nature. Additionally, in order to be eligible for ER, the cause of the failure must be determined to be external to the facility. Both conditions must be satisfied. A bridge suddenly collapsing after being struck by a barge is an example of a catastrophic failure.

ER does not require a Presidentially declared disaster. ER funds are not intended to cover all damage repair costs or interim emergency repair costs that will necessarily restore the facility to pre-disaster conditions. State and local highway agencies must expect additional expenditures, changes in project priorities, and some inconvenience to traffic as a result of emergency conditions. State and local governments are responsible for planning and providing for such extraordinary conditions. Economic hardship is not a factor in determining repair eligibility. Although there is no nationwide definitive monetary break point between what is considered routine and extraordinary repair expenses, the FHWA has determined that eligible ER repair activities in a State in the range of \$700,000 (Federal share) or more are usually significant enough to justify approval of ER funds.

³⁶ U.S. Department of Transportation/Federal Highway Administration, "Emergency Relief Manual: Federal-Aid Highways," Washington, D.C., Interim Update—August 2003, <http://www.fhwa.dot.gov/programadmin/erelief.cfm>

By law, the FHWA can provide up to \$100 million in ER funding to a State, or to Federal agencies, for each natural disaster or catastrophic failure event that is found eligible for funding under the ER program (commonly referred to as the \$100 million per State per disaster cap). Because of the limited amount of money authorized annually for the ER program and the likelihood that a number of States will experience ER events, funding for large events is likely to be provided over a two (or more)-year time period. Also, the total ER obligation for U.S. Territories (American Samoa, Commonwealth of Northern Mariana Islands, Guam, and Virgin Islands) is limited to \$20 million in any fiscal year. For a large disaster that exceeds the \$100 million per State per disaster cap, Congress may pass special legislation lifting the cap for that disaster.

The decision to seek ER financial assistance rests with the State. Local highway agencies do not deal with the FHWA directly but must make their application through the State. The State decides whether it will seek ER funding for repair of either State- or local agency-owned Federal-aid highways.

State and local transportation agencies are empowered to begin emergency repairs immediately to restore essential traffic service and to prevent further damage to Federal-aid highway facilities. Properly documented costs will later be reimbursed once the State formally requests ER funding, and the FHWA Division Administrator makes a finding that the disaster is eligible for ER funds.

There are three methods for developing and processing a State request for ER funding. Two of the methods are labeled as “traditional” in that they have been used for several years. The third method, Quick Release, has recently been used with increasing frequency, and employs a process to deliver ER assistance very quickly.

- ***Traditional:*** Requires a detailed damage inspection at many, if not all, sites. It generally takes 6 to 10 weeks to develop an application.
- ***Traditional (Expedited):*** Damage assessments are based on a “windshield” inspection at a sampling of sites. At least one site is visited in each county involved in the event. It generally takes 2 to 3 weeks to develop an application.
- ***Quick Release:*** For the purposes of an ER application, few, if any, on-site damage surveys are made. Instead, the disaster assessment is based on other readily available information, such as credible media reports or aerial surveys done by the State. The State then requests ER funding based on the preliminary assessment of the damage. The request is made in a brief letter to the FHWA Division office. This method is highly visible and use is controlled by the DOT Secretary/FHWA Administrator. No Damage Survey Summary Report is prepared to accompany the ER application.

Quick Release begins the Traditional method and the damage survey reports follow at a later time in the recovery.

For more information, visit: www.fhwa.dot.gov/programadmin/erelief.cfm

B.1.1.2 Emergency Relief for Federally Owned Roads³⁷

In addition to the *Federal-aid Highway* Emergency Relief Program (ER Program), FHWA administers the Emergency Relief for *Federally Owned Roads* (ERFO) Program. ERFO provides assistance to roads that have been defined as Federal roads. These are roads providing access to and within Federal and Tribal lands. They include Forest Highways, Forest Development Roads, Park Roads, Parkways, Indian Reservation Roads, Public Lands Highways (including Refuge Roads) and Public Lands Development Roads. The ERFO program also includes assistance to the following federal agencies having federal roads that are open to public travel for which title and maintenance responsibility is vested in the US government. They include Bureau of Reclamation roads, US Army Corps of Engineers roads, Department of Energy roads (previously under jurisdiction of the Bureau of Reclamation, r.e., owned by the Western Area Power Association), Department of Defense roads (Military Installation roads), Surface Deployment and Distribution Command roads (Defense Access roads), and Bureau of Land Management roads (Land Management roads).

The Federal share for the repair of Federal roads is 100 percent under the ERFO Program. Funds for the ERFO Program are provided from the Highway Trust Fund and the General Funds through the Emergency Relief Program for Federal-aid Highways. ERFO funds are not to duplicate assistance under another Federal program or compensation from insurance, cost share, or any other source.

The intent of the ERFO Program is to pay the unusually heavy expenses to agencies that manage road systems for the repair and reconstruction of Federal roads to pre-disaster conditions. These Federal roads were damaged by a natural disaster over a wide area or by a catastrophic failure from any external cause.

For more information, visit: <http://flh.fhwa.dot.gov/programs/erfo/>

³⁷ U.S. Department of Transportation/Federal Highway Administration, “Emergency Relief for Federally Owned Roads: Disaster Assistance Manual,” Washington, D.C., April 2004, <http://flh.fhwa.dot.gov/programs/erfo/>

B.1.2 Federal Transit Administration (FTA)³⁸

The FTA funds transit programs through grants to States, local governments, transit authorities, and other entities. FTA does not, however, dedicate funding or manage a special program to assist transit agencies in responding to or recovering from a major disaster, and thus, does not require a Presidentially declared disaster. In the past, FTA has provided emergency assistance when Congress has given supplemental appropriations to the agency for the purposes of responding to a disaster. FTA also has the authority to allow transit agencies to defer their matching local share contributions normally required to receive FTA grants, but this requires Congressional action and is only done on a case-by-case basis. FTA also allows transit agencies that serve fewer than 200,000 people to use FTA capital grant program funds for operations in response to a large emergency event.

More information can be found at FTA's Disaster Response and Recovery Resource for Transit Agencies, accessed at: www.fta.dot.gov.

B.1.3 Federal Railroad Administration (FRA)³⁹

The FRA's Railroad Rehabilitation & Improvement Financing (RRIF) Program offers direct Federal loans and loan guarantees to railroads, State and local governments, government-sponsored authorities and corporations, joint ventures that include at least one railroad, and limited option freight shippers who intend to construct a new rail connection.

According to the FRA, the RRIF program funding may be used to:

- Acquire, improve, or rehabilitate intermodal or rail equipment or facilities, including track, components of track, bridges, yards, buildings, and shops;
- Refinance outstanding debt incurred for the purposes listed above; and
- Develop or establish new intermodal or railroad facilities.

The direct loans and loan guarantees (up to \$35 billion) can be used to cover costs associated with development of railroad infrastructure. Up to \$7 billion is reserved for projects benefiting freight railroads other than Class I carriers. The loans can cover up to 100 percent of a railroad project with repayment periods of up to 35 years and interest rates equal to the

³⁸ U.S. Department of Transportation/Federal Transit Administration, "Disaster Response and Recovery Resource for Transit Agencies," Washington, D.C., August 21, 2006, www.transit-safety.volpe.dot.gov/publications/safety/DisasterResponse/HTML/DisasterResponse.htm.

³⁹ U.S. Department of Transportation/Federal Railroad Administration, "Railroad Rehabilitation & Improvement Financing," Washington, D.C., February 3, 2009, www.fra.dot.gov/us/content/177.

cost of borrowing to the government. Though not specifically designed for post-disaster or emergency recovery (nor does it require a Presidentially declared disaster), this program could be useful in such circumstances.

Applicants must pay a Credit Risk Premium (only if a loan is approved) plus an Investigation Fee regardless of loan approval.

For more information, visit: www.fra.dot.gov/us/content/177.

B.1.4 Federal Aviation Administration (FAA)⁴⁰

The Airport Improvement Program (AIP) gives grants to public agencies (and, in some cases, to private owners and entities) for planning and developing public-use airports. A public-use airport is an airport open to the public and is either publicly owned, privately owned but designated by the FAA as a reliever, or privately owned but having scheduled service and at least 2,500 annual enplanements. An airport must be part of the National Plan of Integrated Airport Systems (NPIAS) to qualify for a grant.

Grant funds may be used on projects related to improving or enhancing airport safety, capacity, security, and noise/environmental concerns. Grantees (referred to as sponsors) can use AIP funds on most airfield capital improvements except those for terminals, hangars, and non-aviation development.

The AIP does not require a Presidentially declared disaster. The FAA does not have dedicated funding for, nor does it manage, a special program to assist airports in responding to or recovering from a major disaster. In the past, the FAA has provided emergency assistance when Congress has given supplemental appropriations to the agency for the purposes of responding to a disaster.

For more information, visit: www.faa.gov/airports_airtraffic/airports/aip/.

B.2 U.S. Department of Homeland Security (DHS)/Federal Emergency Management Agency (FEMA)

B.2.1 Public Assistance Grant Program⁴¹

DHS/FEMA's PA Grant Program offers assistance to local, tribal, and State governments, as well as certain types of private nonprofit (PNP) organizations, so they can respond to and recover from major disasters or emergencies declared by the President.

⁴⁰ U.S. Department of Transportation/Federal Aviation Administration, "Airport Improvement Program: Funding for Airport Planning and Development," Washington, D.C., March 19, 2009, www.faa.gov/airports%5Fairtraffic/airports/aip/.

⁴¹ U.S. Department of Homeland Security/Federal Emergency Management Agency, "Public Assistance Guide," FEMA 322, Washington, D.C., June 2007, Ch. 1, www.fema.gov/government/grant/pa/pag07_1.shtm.

Grantees receive supplemental Federal disaster grant assistance for debris removal, emergency protective measures, and the repair, replacement, or restoration of disaster-damaged, publicly owned facilities and the facilities of qualifying PNP organizations. The PA program also promotes hazard mitigation measures by encouraging and funding protection of these damaged facilities from future disasters.

According to FEMA, the Federal share of assistance is not less than 75 percent of the eligible cost for emergency measures and permanent restoration. The grantee (usually the State) determines how the non-Federal share (up to 25 percent) is split with the subgrantees (eligible applicants). Other Federal grants cannot be used to meet the State or local cost-share requirement unless the legislation for the other grant allows such use, e.g., the U.S. Department of Housing and Urban Development's (HUD) Community Development Block Grants (CDBGs) (see Section B.3 below for more information on CDBGs).

With disasters that cause severe economic impacts, the President may authorize FEMA to waive some or all of the State's matching requirements (this was the case with Hurricane Katrina, which struck the Gulf Coast in 2005).

Expedited Contracting and Funding:⁴² Immediate needs funding (INF) is designated for the most urgent work in the initial aftermath of a disaster. The funds may be provided to any eligible applicant for eligible emergency work that must be performed immediately and paid for within the first 60 days following declaration. Eligible work typically includes debris removal, emergency protective measures, and removal of health and safety hazards, as well as urgent transportation needs for economic recovery. INF can be used for expenses resulting from this eligible work, such as temporary labor costs, overtime payroll, equipment, and material fees.

During the post-disaster damage assessment, immediate needs are noted for each area surveyed. If a disaster is declared, and the State thinks damage costs warrant the need for immediate cash flow, the State may expedite INF. Up to 50 percent of the Federal share estimate of emergency monies will then be placed in the State's account. Because this money can be made available in advance of normal procedures once a disaster has been declared, paperwork and processing times are reduced and local and tribal organizations can receive emergency funds sooner. Even though a county's or city's facilities may have been included in the preliminary disaster assessment, INF will not be available unless that county/city has been specifically included in the Presidential declaration.

⁴² U.S. Department of Homeland Security/Federal Emergency Management Agency, "Public Assistance Guide," FEMA 322, Washington, D.C., June 2007, Ch. 3, www.fema.gov/government/grant/pa/pag07_3.shtm.

Expedited Contracting: Innovative Tools Used After the Northridge Earthquake

When a strong earthquake struck the Los Angeles area in January 1994, several highways suffered major damage. Highways are the most used form of transportation in southern California, so the California Department of Transportation and the Federal Highway Administration wasted no time in starting the recovery process through the use of innovative contracting mechanisms. Both agencies used FHWA Emergency Relief funds and agreed to the following bidding procedures, which helped speed up the highway rebuilding process:

A+B bidding: This procedure awarded a contract based on the contract bid items (A) and the amount of time (B) needed to finish the project. It offered incentives, such as bonuses, to companies to finish the work before the deadline, and also pushed fines for not completing work on time.

Invitational bidding: This procedure was used on projects that had high user delay costs and needed to be finished quickly. The number of bidders was limited by creating a “short list” of contractors who were invited to bid based on internal criteria.

Design-build bidding: This procedure permitted initial construction to start before final drawings for design were approved. The California Department of Transportation had 70 design engineers in place and working on plans just after the earthquake hit. Companies submitted proposals for the construction work, and those proposals that met the minimum technical guidelines were permitted to be involved in the price proposal portion of the bidding.

See: U.S. Department of Transportation/ITS Joint Program Office, “Effects of Catastrophic Events on Transportation System Management and Operations: Northridge Earthquake—January 17, 1994,” April 22, 2002, pp. 31-34.

Improved Funding:⁴³ When restoring damaged infrastructure or facilities, the grantee may decide to make improvements. For example, a gravel road might be replaced with an asphalt road. As stated in FEMA’s PA Guide, “Funding for such projects is limited to the Federal share of the costs that would be associated with repairing or replacing the damaged facility to its pre-disaster design, or to the actual costs of completing the improved project, whichever is less.”

In-Lieu Contributions:⁴⁴ In a situation where a State or local government determines that repairing or rebuilding a public facility or infrastructure is not feasible or cost-effective, the State or local government may elect to receive, in lieu of a contribution for repairing or rebuilding, a contribution in an amount equal to 90 percent of the Federal share (75 percent for private nonprofit facilities) that they would have received for repairing or rebuilding the facility/infrastructure. The funds may be used to repair or expand other selected public facilities, to build new facilities, or to fund hazard mitigation measures. The same standard applies for use of funds for private nonprofit facilities.

⁴³ U.S. Department of Homeland Security/Federal Emergency Management Agency, “Public Assistance Guide,” FEMA 322, Washington, D.C., June 2007, Ch. 3, www.fema.gov/government/grant/pa/pag07_3.shtm.

⁴⁴ Ibid.

The Presidential disaster declaration designates the area eligible for assistance and makes a determination of the types of public assistance available. As the grantee, the State then holds a special briefing to notify potential subgrantees or applicants of the types of assistance being offered.

The State then must complete and submit the Request for Federal Assistance Core Form (SF 424) to seek funds. Subgrantees/applicants must submit “Pre-Applications” (formerly “Requests for Public Assistance”) through the State (grantee).

For more information, visit:

www.fema.gov/government/grant/pa/index.shtm

B.2.2 Hazard Mitigation Grant Program (HMGP)⁴⁵

FEMA provides grants to States and local governments to develop and enact long-term hazard mitigation steps both before and after a major disaster declaration through the HMGP. HMGP’s goal is to reduce the loss of life and property due to natural disasters and to enable mitigation measures to be implemented during the immediate recovery from a disaster, with the mission to reduce or eliminate threats from future disasters. The HMGP is authorized under Section 404 of the Stafford Act.

The States administer the HMGP. To receive a grant, all projects must offer a long-term solution to a specific risk. For example, retrofitting bridges to better withstand high winds, earthquakes, or floods is one way to minimize damage from future disasters that may qualify for a grant.

For more information, visit: www.fema.gov/government/grant/hmgp/.

B.3 U.S. Department of Housing and Urban Development (HUD)⁴⁶

HUD Disaster Recovery Assistance offers flexible CDBG Disaster Recovery grants to assist cities, counties, States, Indian tribes, and Insular areas (particularly in low-income areas) in recovering from Presidentially declared disasters, subject to the availability of, and purpose, eligibility, and other specifications within, supplemental appropriations. The grants are directed by statute, and usually take into consideration disaster recovery needs that are not met by other Federal disaster assistance programs.

According to CDBG Disaster Recovery Assistance, funds targeted for disaster recovery should be used for “long-term recovery needs, such as: rehabilitating residential and commercial buildings; homeownership assistance, including down-payment assistance and interest rate subsidies; building new replacement housing; code enforcement; acquiring, constructing or reconstructing public

⁴⁵ U.S. Department of Homeland Security/Federal Emergency Management Agency, “Hazard Mitigation Grant Program,” Washington, D.C., June 24, 2008, www.fema.gov/government/grant/hmgp/.

⁴⁶ U.S. Department of Housing and Urban Development, “CDBG Disaster Recovery Assistance,” Washington, D.C., October 23, 2008, www.hud.gov/offices/cpd/communitydevelopment/programs/drsi/index.cfm.

facilities and improvements, including streets, neighborhood centers, and water and sewer facilities; assistance to disaster-affected businesses for carrying out economic development activities to create and retain jobs; buying flood-prone properties and making other mitigation efforts to protect damaged properties from, and reduce the cost of, future disaster damage; and making relocation payments to displaced people and businesses, and other activities. Funds may also be used for emergency response activities, such as debris removal, clearance, and demolition not funded by other Federal disaster assistance; and extraordinary increases in the level of public services for disaster victims.”⁴⁷

Allocation of funds and submission requirements for Action Plans for Disaster Recovery are prescribed by notice in the *Federal Register* based on specific supplemental appropriations statutes. Action Plans for Disaster Recovery may be submitted, in part, via HUD’s web-based Disaster Recovery Grant Reporting (DRGR) system or to the applicable HUD field office. When a State or locality receives Congressionally appropriated CDBG Disaster Recovery Assistance, HUD provides access to the DRGR system for progress reporting and accessing funds. Any locality that receives a grant must submit quarterly performance progress reports through the DRGR system.

For more information, visit:

www.hud.gov/offices/cpd/communitydevelopment/programs/drsi/index.cfm.

B.4 U.S. Small Business Administration (SBA)⁴⁸

Businesses of any size and private, nonprofit organizations damaged in a disaster may be eligible for financial assistance from the SBA once the affected county has been declared a disaster. This could include businesses and organizations that provide transportation services or help build and operate transportation and transit infrastructure.

Business physical disaster loans and economic injury disaster loans are made available to businesses and private, nonprofit organizations after a disaster. Business physical disaster loans (which are limited to \$2 million) help these entities repair or replace real estate, inventories, supplies, machinery, and equipment damaged by the disaster. Economic injury disaster loans (which are also limited to \$2 million) are working capital loans designed to help small businesses and organizations meet their ordinary and necessary financial obligations that can no longer be met because of the disaster’s impact. Economic injury disaster loans are granted only to entities that cannot provide for their own recovery from nongovernment sources. Combined physical and economic injury disaster loans are limited to \$2 million.

⁴⁷ U.S. Department of Housing and Urban Development, “CDBG Disaster Recovery Assistance,” Washington, D.C., October 23, 2008, www.hud.gov/offices/cpd/communitydevelopment/programs/drsi/index.cfm.

⁴⁸ U.S. Small Business Administration, “Disaster Assistance,” Washington, D.C., www.sba.gov/services/disasterassistance.

If the SBA approves a loan application, that business/organization may qualify for additional funds to cover the cost of improvements that will protect its property against future damage. Examples of improvements include retaining walls, seawalls, sump pumps, etc.

In addition to loans to individuals, businesses, and nonprofit organizations, the SBA offers services to small businesses through its district offices to provide managerial, technical, and procurement assistance—including assistance and training relevant to recovering a business in a post-disaster environment.

For more information, visit: www.sba.gov/services/disasterassistance

B.5 U.S. Department of Commerce (DOC)

The Economic Development Administration (EDA) of DOC will provide funds to qualified applicants in areas that are economically distressed, provided those applicants can demonstrate that the funds can be used effectively to create jobs and build economic growth. Also, EDA grants are available to nonprofit organizations for qualified purposes, in addition to State governments and sub-State governments.

Two of EDA's seven programs may help communities with transportation improvements following a disaster.

B.5.1 Public Works and Economic Development Program⁴⁹

According to EDA, “Public Works and Economic Development investments help support the construction or rehabilitation of essential public infrastructure and facilities necessary to generate or retain private-sector jobs and investments, attract private-sector capital, and promote regional competitiveness, including investments that expand and upgrade infrastructure to attract new industry, support technology-led development, redevelop Brownfield sites, and provide eco-industrial development.”

Public Works and Economic Development funds can be used to:

- Acquire or develop land and improvements for use in a public works, public service, or other type of development facility; or
- Acquire, design and engineer, construct, rehabilitate, alter, expand, or improve such a facility, including related machinery and equipment.

The project must, either directly or indirectly, improve opportunities for the successful establishment or expansion of industrial or commercial plants or facilities in the designated area and help with creating additional long-term employment opportunities in the region. This program does not require a Presidentially declared disaster in the area.

For more information, visit: www.eda.gov/AboutEDA/Programs.xml

⁴⁹ U.S. Department of Commerce, “13 CFR Chapter III,” Washington, D.C., November 5, 2008, www.eda.gov/AboutEDA/Programs.xml.

B.5.2 Economic Adjustment Assistance Program⁵⁰

According to its website, the Economic Adjustment Assistance Program “provides a wide range of technical, planning, and infrastructure assistance in regions experiencing adverse economic changes that may occur suddenly or over time. This program is designed to respond flexibly to pressing economic recovery issues and is well suited to help address challenges faced by U.S. regions and communities.”

EDA does not offer grants for community planning. Its authority is limited to economic development planning. EDA grants are available to nonprofit organizations for qualified purposes, in addition to State governments and sub-State governments. These grants require a Presidentially declared disaster for the area applying for the grant.

For more information, visit: www.eda.gov/AboutEDA/Programs.xml

Note: The information in this section was summarized from the respective agencies’ websites.

B.6 State and Local Bond Initiatives

State and local bond initiatives are one of the major ways State and local governments, as well as special districts, can finance public projects—by borrowing from investors, usually (but not always) within their own jurisdictions.

State and local bond issues, as defined in the Tax Reform Act of 1986,⁵¹ are exempt from Federal income taxes, as well as State income taxes, in many States, as long as they provide no more than 10 percent benefit to private parties and no more than 5 percent of the proceeds or \$5 million are used for loans to private parties. Thus, they are a relatively popular vehicle, especially for project upgrades that are not eligible for FEMA’s PA Grant Program. These bonds do not require a Presidentially declared disaster.

They are legally termed *public activity*, *traditional government purpose*, and *essential purpose* bonds. These public purpose bonds are used for roads, streets, highways, sidewalks, libraries, and government buildings. Bond funding can be used by State and local entities to pay the match portion of public assistance projects, as well as upgrades. For more information, visit the Tax Foundation website at www.taxfoundation.org.

The funding programs described above may help your community recover your transportation network and increase its resiliency against future hazards. We encourage you to contact the agencies or visit their websites to learn more about their programs.

⁵⁰ U.S. Department of Commerce, “13 CFR Chapter III, Part 300—General Information,” Washington, D.C., November 5, 2008, www.eda.gov/AboutEDA/Programs.xml.

⁵¹ 99th Congress of the United States of America, “A bill to reform the internal revenue laws of the United States” (Public Law 99-514), Washington, D.C., October 22, 1986, [thomas.loc.gov/cgi-bin/bdquery/R?d099:FLD002:@1\(99+514\)](http://thomas.loc.gov/cgi-bin/bdquery/R?d099:FLD002:@1(99+514)).

APPENDIX C

TRANSPORTATION RECOVERY RESPONSIBILITIES OF FEDERAL AGENCIES

The following tables provide an overview of the duties and responsibilities that key Federal agencies would likely fulfill should your community receive a Presidential disaster declaration. Some Federal resources will only be made available through the *NRF* and after each ESF has been properly activated. Resources designated in the ESFs will be accessible only through the respective lead agencies of the ESF (for instance, DOT for ESF #1-related resources and FEMA for ESF #14 resources). So, after a disaster, you will need to contact your SCO to make requests and get more information regarding this process. The SCO and FCO will determine what assets are required, which Federal agencies can best provide them, and where they will be deployed.

U.S. DEPARTMENT OF TRANSPORTATION (DOT)

- In a declared disaster affecting your community, coordinates recovery and mitigation activities among transportation stakeholders within the authorities and resource limitations of ESF #1 agencies;
- Identifies temporary alternative transportation solutions that can be implemented by others when systems or infrastructure are damaged, unavailable, or overwhelmed;
- Helps assess damage to your community's multi-modal transportation network infrastructure;
- Participates in the economic impact assessment of a transportation network disruption or incident in your community;
- Coordinates actions and provides technical expertise and financial assistance for repair and restoration of transportation infrastructure and network operation in your jurisdiction; and
- Helps prioritize restoration efforts in your community based on needs identified from your local government agencies, your State government, and other Federal agencies during the response. One such technical resource is DOT's Research and Innovative Technology Administration/Volpe Center (www.volpe.dot.gov), which offers transit and community recovery planning on a fee-for-service basis.

Federal Aviation Administration (FAA):

- Coordinates recovery of the Aviation Transportation System with government and industry stakeholders at all levels, including in your community, to acquire resources for system continuity and infrastructure recovery;
- Implements continuity and contingency measures to ensure public safety and continuity of commerce;
- Provides funding to restore the air traffic control system, air navigation facilities, airspace management capabilities, key equipment, airports, and communications in your jurisdiction; and
- Enforces additional airspace restrictions as necessary.

Federal Highway Administration (FHWA):

- Depending on the amount of damage and the State request, may provide Emergency Relief Funding for Federal-Aid Highways and Federally Owned Roads;
- Supports States in the project development, planning, and approval process;
- Evaluates requests to deviate from environmental procedures during recovery; and
- Provides technical assistance throughout the recovery phase.

Federal Motor Carrier Safety Administration (FMCSA):

- Provides support to Federal, State, and local agencies in recovery operations pertaining to emergency declarations on the shipment and transport of emergency services, e.g., waiver of hours of service for drivers involved in time-sensitive recovery operations.
-

Federal Railroad Administration (FRA):

- Provides direct loans and guarantees to rehabilitate intermodal rail equipment or facilities (both freight railroading and passenger rail);
 - Provides quantitative analysis, environmental research, project reviews, research and development, and technical assistance for railroad infrastructure recovery; and
 - Provides an expedited process to handle requests to waive compliance with rules, regulations, or standards during emergency situations or events.
-

Federal Transit Administration (FTA):

- Provides financial, planning, and technical assistance for recovery of transit systems in your community; and
 - Evaluates requests to deviate from environmental procedures during recovery.
-

Maritime Administration (MARAD):

- In a national defense emergency, advises the Secretary of DHS whether there is sufficient U.S.-flag vessel capacity available to meet requirements; if not, the Secretary of DHS may waive compliance with coastwise law;
 - Following a disaster (depending on the location), may make vessels from the Ready Reserve Force (RRF) (government-owned vessels intended principally to deploy Department of Defense (DoD) forces) available to transport critical supplies and equipment, provide messing and berthing, and provide command and control facilities. In advance of anticipated emergency (e.g., hurricane), local government or emergency management organizations may request use of RRF vessels for temporary storage of vehicles, boats, skid-mounted helicopters, other emergency equipment, and personnel to ride out a storm or other natural disruption; and
 - Acting through its National Shipping Authority (NSA), can assist in damage assessment, provide technical expertise, and coordinate shore-side recovery of the Marine Transportation System (MTS).
-

Pipeline and Hazardous Materials Safety Administration (PHMSA):

- May authorize a variance from hazardous materials safety regulations, through a special permit, to facilitate emergency transportation of materials into your area, or to transport hazardous wastes from your area; and
 - May authorize a special permit to meet emergency requirements for pipeline operations.
-

Research and Innovative Technology Administration (RITA):

- The Volpe National Transportation Systems Center provides technical assistance in recovery and reconstitution of the transportation network modes in your community, promoting transportation technology that will improve newly rebuilt infrastructure or policies.
-

St. Lawrence Seaway Development Corporation (SLSDC):

- Coordinates transportation recovery operations on the St. Lawrence Seaway.
-

U.S. DEPARTMENT OF HOMELAND SECURITY (DHS)

- Coordinates Federal resources and private/public-sector partners with recovery operations within the United States; and
- Coordinates overall staffing of Federal emergency management recovery activities at multiagency coordination centers, including which ESFs are activated, the size and composition of the organizational structure, the level of staffing at the above facilities, and the key personnel required.

U.S. Coast Guard (USCG):

- Coordinates with support agencies and other maritime stakeholders through ESF #1, ESF #10, and ESF #13 to prioritize, evaluate, and support restoration of domestic ports, shipping, waterways, and related systems and infrastructure in your jurisdiction. Provides personnel, equipment, or other support as necessary;
- Executes authorities under ESFs #1 and #10 to monitor and ensure vessel salvage for vessels containing oil and/or hazardous materials (includes coordinating and/or providing resources, assessments, expertise, monitoring, and other appropriate support);
- Has the lead responsibility for re-opening port facilities;
- Provides on-scene resources to your community to help assess transportation infrastructure;
- In support of ESF #3 of the *NRF*, oversees marking of wrecks, hazards, and debris that obstruct navigation and informing the public of such markings, and cooperates with USACE for removal if necessary;
- In support of ESF #10 of the *NRF*, coordinates with the Environmental Protection Agency (EPA) to respond to pollution threats; and
- Executes authorities under ESF #13 for enhancement of security measures as appropriate during and after the recovery of the Marine Transportation System (MTS), including protection of CIKR MTS infrastructure, security of the supply chain, and establishment and enforcement of safety and security zones in your jurisdiction.

U.S. Customs and Border Protection (CBP):

- Identifies and provides transportation-related CBP assets and resources for recovery operations in your community, including personnel; equipment; air, surface, and marine assets; and other support resources when requested;
- Authorizes the redirection of conveyances to other border entry-points where your border entry-point infrastructure (if applicable) is being recovered post-incident;
- Considers temporary easement of enforcement of border trade regulations to facilitate commerce;
- In coordination with the U.S. Department of State, approaches foreign governments to make arrangements for diversion of U.S.-bound cargo and passengers as needed;
- Increases security measures as appropriate following a transportation incident; and
- Coordinates assets to complement temporarily degraded or disrupted DOT/FAA air navigation services capabilities, as requested.

Federal Emergency Management Agency (FEMA):

- Coordinates long-term recovery resources and support to local, tribal, and State governments (including yours after a declared disaster) for transportation network recovery through ESF #14;
- Manages long-term recovery Federal assistance processes in coordination with ESF agencies and the State(s);

- Provides emergency funding disaster assistance and financial aid, and validates State requests for assistance with funding related to transportation network recovery and accomplishing the ESF #1 mission (for your community’s needs, you must coordinate with your SCO, who coordinates with FEMA’s FCO);
- Coordinates recovery actions, program waivers, and funding with other Federal programs related to transportation network recovery;
- Advises on decision-making processes involving transportation network recovery;
- Identifies alternate transportation strategies while the mode(s) are undergoing recovery operations;
- Identifies and prioritizes projects for transportation recovery with local, tribal, and State local entities for quick implementation;
- Disseminates information on transportation network recovery strategies and status to the public in coordination with DOT and other agencies;
- Provides technical assistance for recovery planning and coordinates with stakeholders on updating infrastructure mitigation and recovery plans; and
- Provides ESF #3 recovery resources and support, to include assistance under the FEMA PA Program as authorized by the Stafford Act.

Office of Infrastructure Protection (IP):

- Provides information, assistance, and prioritized recommendations concerning the recovery and restoration of transportation critical infrastructure in your jurisdiction, as well as all other critical infrastructure and key resources impacted by transportation; and
- Provides Infrastructure Liaisons from the Protective Security Coordination Division to coordinate infrastructure recovery among the FCO, SCO, and CIKR owners/operators by leveraging existing local relationships against the impacted infrastructure and resources.

Transportation Security Administration (TSA):

- Enhances security measures as appropriate during and after the recovery of a transportation network;
- Coordinates collaborative effort with sector stakeholders and prepares for resiliency and recovery of transportation infrastructure from all hazards; and
- In coordination with other appropriate stakeholders and government agencies, recovers and maintains intermodal capacity, and takes steps to ensure the continuity of cargo and passenger flow.

U.S. DEPARTMENT OF AGRICULTURE (USDA)

- Provides engineering and contracting/procurement personnel and equipment to help remove debris and/or repair roads and bridges, as well as make temporary repairs to important public facilities in your community.

U.S. SMALL BUSINESS ADMINISTRATION (SBA)

- Provides disaster assistance loans to repair/replace disaster-related physical losses to businesses and private nonprofit organizations of any size;
- Provides economic injury disaster loans to small businesses and private nonprofits of any size to assist in economic recovery of the disaster-impacted area; and
- Offers physical and economic injury loans to entities that provide transportation-related goods and services and meet SBA’s eligibility criteria.

U.S. DEPARTMENT OF COMMERCE (DOC)

- Provides a variety of services and technical support through the following:

Economic Development Administration (EDA):

- Offers economic recovery planning and implementation assistance to qualified non-profits, and state, county, city, or town governments.

Economics and Statistics Administration (ESA):

- Through its Bureau of the Census and Bureau of Economic Analysis, provides the most recent demographic and economic data on areas affected by transportation emergencies; and
- Issues periodic economic impact reports of various disasters, on an ad hoc basis.

National Institute of Standards and Technology (NIST):

- Offers technical support and advice on procuring outside consulting services for evaluating and assessing structural and fire safety aspects of transportation-related buildings and infrastructure in your community (e.g., train stations, ferry terminals, etc.).

National Oceanic and Atmospheric Administration (NOAA) (maritime):

- In the aftermath of weather-related emergencies, provides timely weather forecasts to support emergency preparation as well as response and recovery efforts in your community prior to and in the aftermath of weather-related emergencies;
- Provides hydrographic survey assets and expertise to help respond to and restore important waterways, channels, and ports; and
- If you live and work in a coastal community, provides technical assistance on rebuilding your community, including transportation infrastructure, with resilience and sustainability in mind.

U.S. DEPARTMENT OF DEFENSE (DOD)

- Provides Defense Support of Civil Authorities (DSCA) in accordance with the NRF;
- Supports recovery activities with Federal, State, local, and tribal elements as requested and approved by the Secretary of Defense;
- Provides support under Immediate Response Authority by DoD directive and prior approval of the Secretary of Defense; and
- Provides assets to complement temporarily degraded or disrupted DOT/FAA air navigation services capabilities as requested by DOT/FAA and ESF #1 (aviation).

Office of the Special Assistant for Transportation Engineering (SATE):

- Executes the Highways for National Defense (HND) program to protect the Strategic Highway Network (STRAHNET) and ensure the defense readiness capability of public highway infrastructure in technical support of and coordination with military, State, and Federal agencies during the recovery process;

- Executes the Railroads for National Defense (RND) program to support and protect the Strategic Rail Corridor Network (STRACNET) and ensure the readiness and full capability of rail infrastructure in technical support of and coordination with military, industry, local, State, and Federal organizations during the recovery process; and
 - Executes the Ports for National Defense (PND) program to provide technical support and ensure the identification, adequacy, and responsiveness of port infrastructure during maritime domain recovery.
- (For additional information, visit: www2.tea.army.mil/DODProg/default.htm.)

U.S. Army Corps of Engineers (USACE):

- Serves as the primary agency for providing ESF #3 technical assistance, engineering, and construction management resources and support during response and recovery activities of any National Transportation System disruption;
- Assists transportation recovery operations by providing equipment, supplies, and technical assistance;
- Provides rapid dredging capability through contracting or from the Federal Dredging Fleet (maritime);
- Provides coordination and technical assistance (to include transportation network infrastructure assessments, engineering, construction management, debris removal, and environmental assessment) to aid in the rapid recovery and reconstitution of critical transportation systems;
- Provides coordination, technical assistance, and emergency repair of damaged public critical transportation infrastructure and facilities;
- Supports development of national strategies and plans for the restoration of transportation infrastructure; and
- In support of ESF #3 of the *NRF*, oversees removal of wrecks, hazards, and debris that obstruct navigation, and cooperates with USCG for marking the obstructions and notifying the public.

DEPARTMENT OF ENERGY (DOE)

- Addresses the impact that damage to an energy system in one geographic region may have on energy supplies, systems, and components in other regions relying on the same system—consequently, energy supply and transportation problems can be intrastate, interstate, and international; and
- Assists Federal departments and agencies by locating fuel for transportation, communications, emergency operations, and national defense.

DEPARTMENT OF INTERIOR (DOI)

Office of Wildland Fire Coordination:

- Provides (if available) engineering and contracting/procurement personnel and equipment to help your community with debris removal, demolition, and road and bridge repair, and temporary repair of critical public facilities, which could include transportation-related facilities.

DEPARTMENT OF STATE (DOS)

- Coordinates offers of transportation recovery assistance from foreign governments should the disaster your community has experienced is widespread and destructive enough to warrant such offers; and
- Coordinates national efforts in international trade and commerce.

GENERAL SERVICES ADMINISTRATION (GSA)

- Helps identify sources for and contracting transportation services needed in your community to expedite recovery of vital transportation systems. May also provide resources for inspecting and restoring transportation infrastructure in your community after a disaster.

U.S. POSTAL SERVICE (USPS)

- Collects and reports on additional surface transportation infrastructure disruption and damages in your community as information becomes available.

Note: The roles and responsibilities described in this table are derived from the *National Response Framework (NRF)*, January 2008, and supporting ESF annexes. Specifically, see:

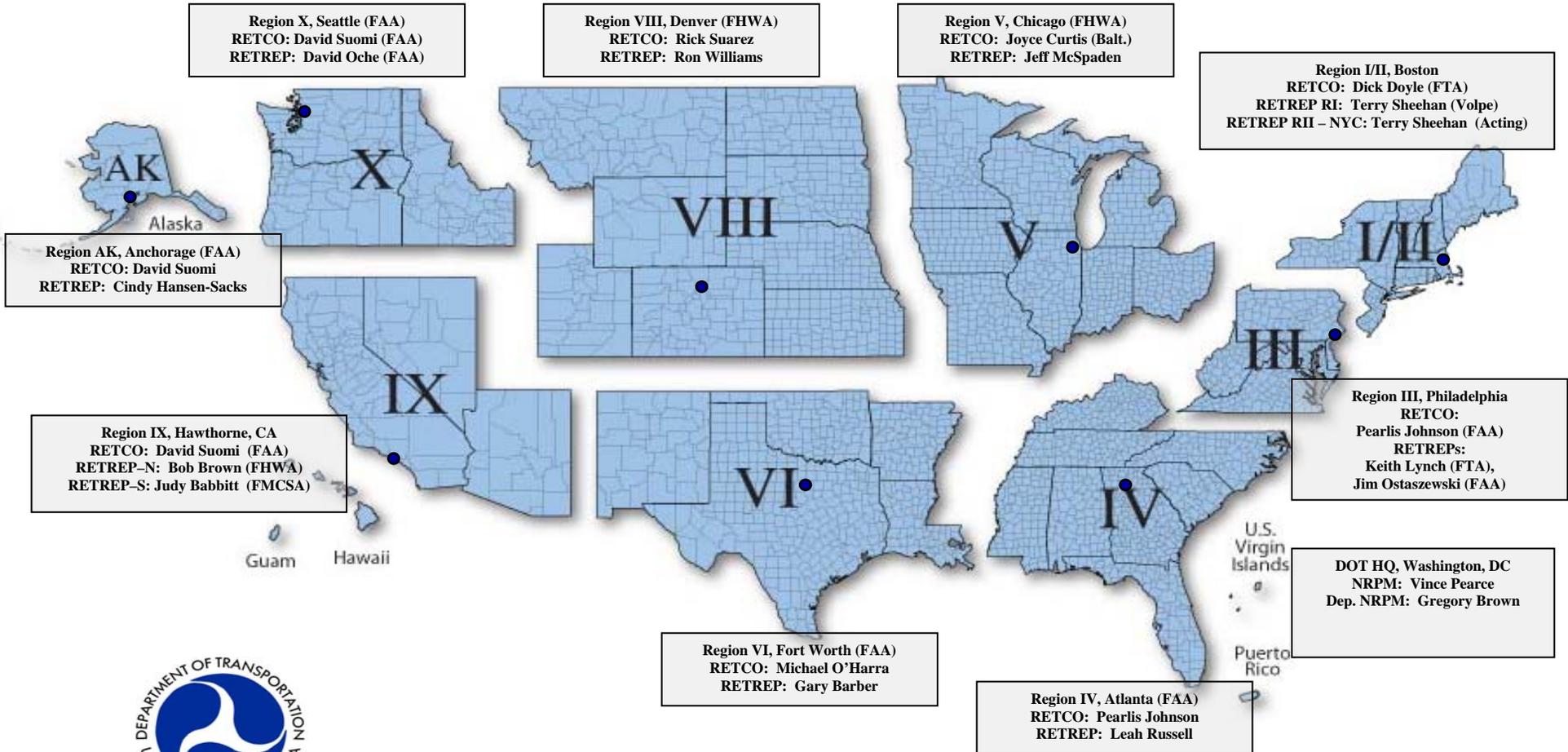
1. *Emergency Support Function #1 – Transportation Annex.*
2. *Emergency Support Function #3 – Public Works and Engineering Annex.*
3. *Emergency Support Function #5 – Emergency Management Annex.*
4. *Emergency Support Function #6 – Mass Care, Emergency Assistance, Housing, and Human Services Annex.*
5. *Emergency Support Function #14 – Long-Term Community Recovery Annex.*

Extensive information and resources for the *NRF* are available at: www.fema.gov/emergency/nrf/

APPENDIX D: U.S. DOT EMERGENCY TRANSPORTATION REGIONS MAP

UPDATED: JULY 21, 2009. For the most up-to-date contact information, please contact:

VINCE PEARCE; VINCE.PEARCE@DOT.GOV; (202) 366-3579 OR GREGORY D. BROWN; GREGORY.BROWN@DOT.DOV; (202) 366-1622.



APPENDIX E

CONTACT INFORMATION

If you have any questions regarding this Strategy or on the topic of transportation recovery, please visit www.dot.gov/disaster_recovery first. If your question is not resolved, then please feel free to contact:

Office of Intelligence, Security, and Emergency Response (S-60)

U.S. Department of Transportation

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APPENDIX F

ACRONYMS

AIP	Airport Improvement Program
AC	Area Command
BIA	Business Impact Analysis
CBP	Customs and Border Protection (DHS)
CDBG	Community Development Block Grant
CFR	Code of Federal Regulations
CIKR	Critical Infrastructure and Key Resources
COG	Council of Government
COOP	Continuity of Operations
DHS	U.S. Department of Homeland Security
DOC	U.S. Department of Commerce
DoD	U.S. Department of Defense
DOE	U.S. Department of Energy
DOI	U.S. Department of the Interior
DOS	U.S. Department of State
DOT	U.S. Department of Transportation
DRGR	Disaster Recovery Grant Reporting System
DSCA	Defense Support of Civil Authorities
EDA	Economic Development Administration
EMAC	Emergency Management Assistance Compact
EOC	Emergency Operations Center
EPA	Environmental Protection Agency
ER	Emergency Relief Program
ESA	Economics and Statistics Administration
ESF	Emergency Support Function
FAA	Federal Aviation Administration (DOT)
FCD	Federal Continuity Directive
FCO	Federal Coordinating Officer
FEMA	Federal Emergency Management Agency (DHS)
FHWA	Federal Highway Administration (DOT)
FMCSA	Federal Motor Carrier Safety Administration
FRA	Federal Railroad Administration (DOT)
FTA	Federal Transit Administration (DOT)
GAO	Government Accountability Office
GSA	General Services Administration
HMGPP	Hazard Mitigation Grant Program
HND	Highways for National Defense

HUD	U.S. Department of Housing and Urban Development
IA	Individual Assistance
INF	Immediate Needs Funding
IP	Office of Infrastructure Protection (DHS)
ITS	Intelligent Transportation Systems
JFO	Joint Field Office
LTCR	Long-Term Community Recovery
MARAD	Maritime Administration (DOT)
MPO	Metropolitan Planning Organization
MTS	Marine Transportation System
NFPA	National Fire Protection Association
NICC	National Infrastructure Coordination Center
NIPP	National Infrastructure Protection Plan
NIST	National Institute of Standards and Technology
NOAA	National Oceanic and Atmospheric Administration (DOC)
NPIAS	National Plan of Integrated Airport Systems
NRF	National Response Framework
NSA	National Shipping Authority (DOT/MARAD)
NTRS	National Transportation Recovery Strategy
PA	Public Assistance Grant Program
PCII	Protected Critical Infrastructure Information Program
PHMSA	Pipeline and Hazardous Materials Safety Administration (DOT)
PND	Ports for National Defense
PNP	Private Nonprofit
PPE	Personal Protective Equipment
PSA	Protective Security Advisor
RETCO	Regional Emergency Transportation Coordinator
RETREP	Regional Emergency Transportation Representative
RITA	Research and Innovative Technology Administration
RND	Railroads for National Defense
RRF	Ready Reserve Force
RRIF	Railroad Rehabilitation & Improvement Financing
SATE	Special Assistant for Transportation Engineering
SBA	Small Business Administration
SCO	State Coordinating Officer
SEOC	State Emergency Operations Center
SLSDC	St. Lawrence Seaway Development Corporation (DOT)
SME	Subject-Matter Expert
SCC	Sector Coordinating Council
SSP	Sector-Specific Plan
STRACNET	Strategic Rail Corridor Network

STRAHNET	Strategic Highway Network
TMC	Transportation Management Center
TSA	Transportation Security Administration (DHS)
U.S.	United States
USACE	U.S. Army Corps of Engineers (DoD)
USCG	U.S. Coast Guard (DHS)
USDA	U.S. Department of Agriculture
USPS	U.S. Postal Service