

Economic Recovery Planning Framework

JULY 2022

Prepared for:
Tompkins County, New York



Prepared by:



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I. INTRODUCTION

According to the Federal Emergency Management Agency (FEMA), the challenges posed by climate change, such as more intense storms, frequent heavy precipitation, heat waves, drought, and extreme flooding could significantly alter the types and magnitudes of hazards faced by communities. It is vital that emergency management professionals adapt to the impacts of climate change (FEMA 2022).

Understanding that these disaster events can have profound and lasting effects on the economies of impacted communities, Tompkins County is working to proactively develop a roadmap to ensure economic recovery within the community should disaster strike. The purpose of this document is to provide a framework by which the County can establish its economic recovery organization/management, define its impact identification process, undertake economic recovery action prioritization, and implement economic recovery activities.

This document is intended to be an instrument to encourage the integration of disaster recovery preparedness concepts into related plans and policies and to identify pathways to support resilient recovery. Through the development of pre-disaster plans, communities can balance recovering quickly with recovering to a stronger and more sustainable economy based on building back equitably, safer, and smarter.

The process of defining disaster recovery operations and developing disaster recovery materials is guided by national policy under

ECONOMIC RECOVERY IS INCLUDED AS A RECOVERY CORE CAPABILITY IN THE NATIONAL DISASTER RECOVERY FRAMEWORK

The **National Preparedness Goal** defines **eight Core Capabilities** that apply to the Recovery Mission Area. The efforts of the whole community – not any one level of government – are required to build, sustain, and deliver the Core Capabilities.

1. **Planning** – Conduct a systematic process engaging the whole community as appropriate in the development of executable strategic, operational, and/or tactical approaches to meet defined objectives.
2. **Public Information and Warning** – Deliver coordinated, prompt, reliable, and actionable information to the whole community through the use of clear, consistent, accessible, and culturally and linguistically appropriate methods to effectively relay information regarding any threat or hazard and, as appropriate, the actions being taken and the assistance being made available.
3. **Operational Coordination** – Establish and maintain a unified and coordinated operational structure and process that appropriately integrates all critical stakeholders and supports the execution of core capabilities.
4. **Economic Recovery – Return economic and business activities (including food and agriculture) to a healthy state and develop new business and employment opportunities that result in a sustainable and economically viable community.**
5. **Health and Social Services** – Restore and improve health and social services capabilities and networks to promote the resilience, independence, health (including behavioral health), and well-being of the whole community.
6. **Housing** – Implement housing solutions that effectively support the needs of the whole community and contribute to its sustainability and resilience.
7. **Infrastructure Systems** – Stabilize critical infrastructure functions, minimize health and safety threats, and efficiently restore and revitalize systems and services to support a viable, resilient community.
8. **Natural and Cultural Resources** – Protect natural and cultural resources and historic properties through appropriate planning, mitigation, response, and recovery actions to preserve, conserve, rehabilitate, and restore them consistent with post-disaster community priorities and best practices and in compliance with appropriate environmental and historic preservation laws and Executive Orders.

Figure 1. Recovery Core Capabilities

the National Disaster Recovery Framework (NDRF) (FEMA 2016). This framework provides the basis for effective pre-disaster planning and recovery. The NDRF consists of eight recovery Core Capabilities, including economic recovery, as shown in Figure 1. Similarly, economic recovery organization, policies, and activities are a subset of the overall County and local disaster recovery operations. The NDRF has established a recovery timeline recognized as the *recovery continuum* (see Figure 2). The recovery continuum is best described as a sequence of interdependent activities that advance a community toward the reestablishment or improvement of normal operations (FEMA 2016). This continuum is broken into three recovery periods as shown in **Error! Reference source not found..**

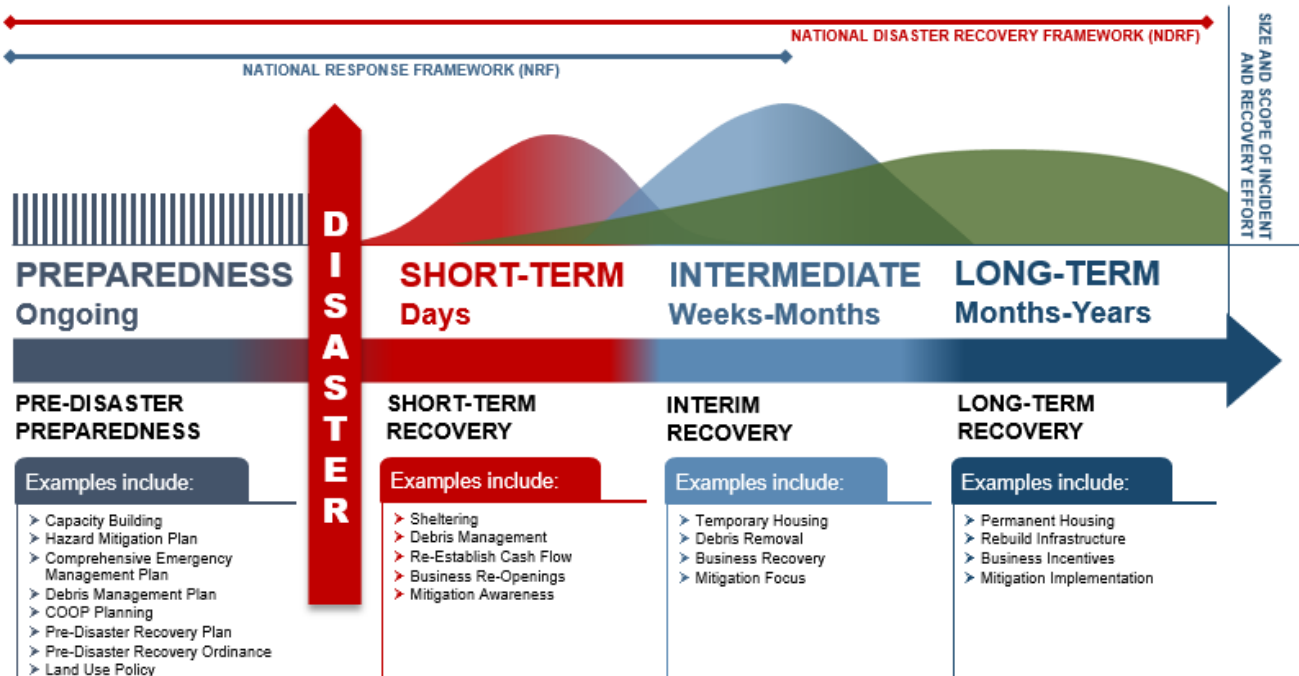


Figure 2. Recovery Continuum

The NDRF also acknowledges that successful recovery depends heavily on local planning, local leadership, and the whole community of stakeholders with an interest in recovery. The NDRF emphasizes principles of preparedness, sustainability, resilience, and mitigation as integral to successful recovery outcomes (FEMA, Pre-Disaster Recovery Planning Guide for Local Governments 2017). The relationship of recovery efforts indicates that preparedness and mitigation planning should facilitate recovery to minimize negative effects on the economy.

The content of this planning framework will provide guidance on the Economic Recovery Core Capability and pre-disaster economic recovery activities and will also include resiliency suggestions to increase future efficiencies and help mitigate economic impacts. This document includes the steps and considerations that will need to be undertaken in the development of a comprehensive post-disaster economic recovery plan for the County as well as guidance on plan development for local governments and economic development and emergency management agencies. Recommendations and actions within these economic recovery plans will

need to be limited to the actions those entities developing the plans have the authority and capability of implementing such as county and local governments. The economic recovery planning components these entities should consider developing are shown in Figure 3, below.



Figure 3. Economic Recovery Planning Components

II. COUNTY PROFILE

A baseline of key socioeconomic, demographic, and economic is provided below to provide a better understanding of the context in which this plan was developed, and the recommendations provided. This information provides a basis for decision-makers to focus resources on the areas needed to provide effective and efficient post disaster economic recovery.

A. Socioeconomic/Demographic Profile

The socioeconomic and demographic information in this section can provide insight into those populations that may be most substantially impacted by a hazard event. This information can assist the County in identifying potential funding sources or, in cases where reporting on socioeconomic and demographic data are required, to obtain access to recovery funding, including some Federal disaster recovery funding. A summary of key data taken from the 5-year American Community Survey estimates for Tompkins County is provided below (United States Census Bureau 2022):

Population:

- 2020 population – 105,740
- Population change between 2010 and 2020 – 4% (similar to the State’s overall population increase during that time)
- Number of households – 40,817

- Average household size – 2.18 people

Age and Sex:

- Median age - 31.3
- County’s median age is approximately 8 years younger than the State’s median age.
- Percent of County population over 18 years of age - 85.3%
- County’s percent of population over 18 years of age is approximately 6 percentage points higher than the State’s.

Race and Hispanic Ethnicity:

- White 72.6%
- Asian alone 9.9%
- Black or African American alone 4.0%
- Two or more races (not Hispanic or Latino) 5.9%
- Hispanic or Latino 6.7%

The Diversity Index measures “...the probability that two people chosen at random will be from different racial and ethnic groups.” The US Census notes that the concept of “diversity” refers to “...the representation and relative size of different racial and ethnic groups within a population and is maximized when all groups are represented in an area and have equal shares of the population.”

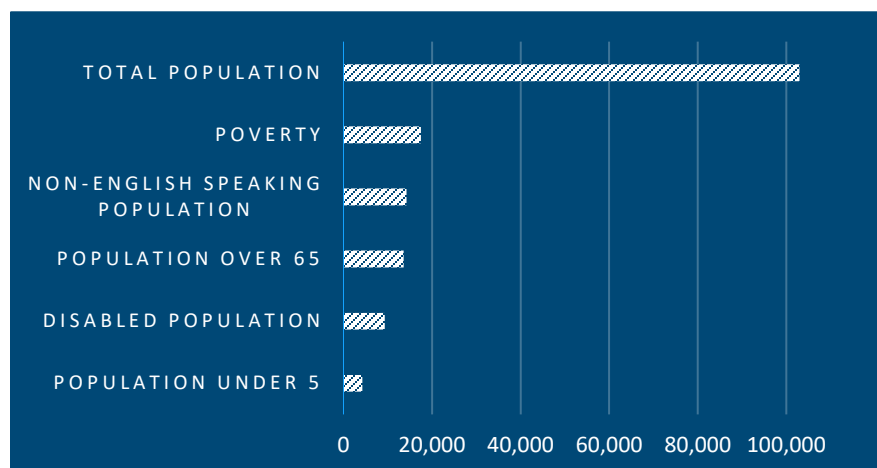
- County Diversity Index is 45.4%, ranking the County 17th out of 62 New York State Counties

Educational attainment:

- The educational attainment of the population over 25 years of age
 - 53.12% - bachelor’s degree or higher
 - 23.4% - bachelor’s degree
 - 13.4% - some college but no degree
 - 9.5% - associate degree,
 - 18.5% - high school degree or equivalent
- County’s percent having a bachelor’s degree or higher (53.12%) is 15 percentage points higher than the State’s.
- Nearly 1/3 of the of the County’s population (29.6%) has the highest educational attainment level – Graduate or professional degree.

1. SOCIAL VULNERABILITY

In considering economic impacts to the County in the wake of a disaster event, it is important to acknowledge that socially vulnerable populations can be more susceptible to hazard events. This is based on many factors, including their physical and financial ability to react or respond during a hazard and the location and construction quality of their housing (Tompkins County 2021a).



Source: Tompkins County Hazard Mitigation Plan 2021 Update
Figure 4. Vulnerable Population Statistics in Tompkins County, New York

As considered in the Tompkins County Hazard Mitigation Plan 2021 Update, vulnerable populations are defined as the elderly (persons aged 65 and over), those living in low-income households, youth (populations under 5 years old), the physically or mentally disabled, and non-English speaking populations. Identifying concentrations of vulnerable populations can assist communities in advancing preparedness, response, and mitigation actions. Vulnerable populations have unique needs to be considered by public officials to help ensure the safety of demographics with a higher level of risk. Figure 4 provides Tompkins County Vulnerable Population Statistics.

Utilizing socio-economic and demographic information, the Centers for Disease Control and Prevention (CDC) creates a Social Vulnerability Index (SVI). The map in provides a snapshot of the social vulnerability of communities within Tompkins County. The SVI is developed from fifteen census-derived factors. These factors are reflected in four themes that summarize the extent to which the area is socially vulnerable to disaster. Categories assessed include economic, data, education, family characteristics, housing, language ability, ethnicity, and vehicle access.

The SVI map indicates that portions of the County fall into each of the four levels of vulnerability. The highest vulnerability area, shown in dark blue, includes the smallest area but also some of the highest population density. This area is located in the central-southwestern portion of the County and includes portions of the City of Ithaca, the Town of Ithaca, the Town of Enfield, Town of Newfield, and Town of Danby. Being aware of the County's overall ranking can help inform how vulnerable a community generally is, how the communities may need to plan to react to a natural disaster, and how to assess the potential impact and need should an emergency situation arise.

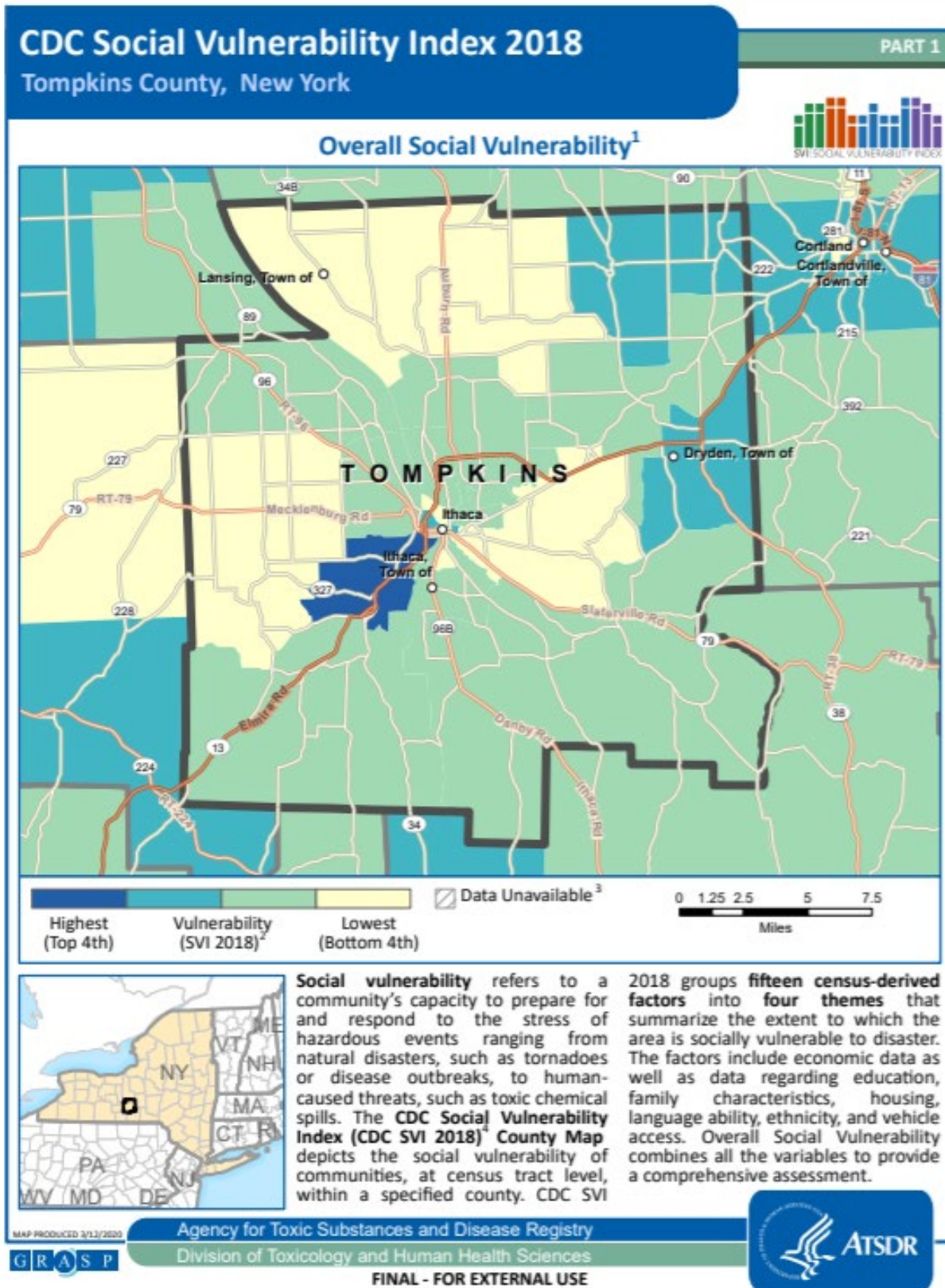


Figure 5 CDC Social Vulnerability Index 2018

2. ECONOMIC VULNERABILITY

Socio-economic and demographic data are important to resiliency planning. The Ithaca Area Economic Development's (2020) Tompkins County Economic Development Strategy 2.0 (2020-2024) includes several key statistics:

- The County was home to over 2,600 businesses and 65,000 jobs in 2019
- The number of private sector jobs has increased from 17,000 in 1960 to 65,000 in 2018
- Approximately 40% of jobs are in the education sector, 7% in high-tech sector, and 6% in manufacturing
- Job growth has been around 10% per decade but population growth has been slower
- Approximately 15,000 people commuted into the County in 2014
- Large businesses are often better able to recover from a disaster due to the larger network of resources available to the business and its thorough disaster preparation.

There has been growth from 2010 to 2020 when examining demographic numbers for the County in the 2020 US Census and 2020 ACS 5-Year Estimates. Other documents reviewed noted the same likely trend – population increases of several thousand people over the last decade and expected similar trends into the next decade. It is important to note that for the purposes of the US Census numbers, students are counted toward the population. The number of students is thus a factor in some of the statistics below, most easily seen in the average age statistic, which is much lower than New York State as a whole.

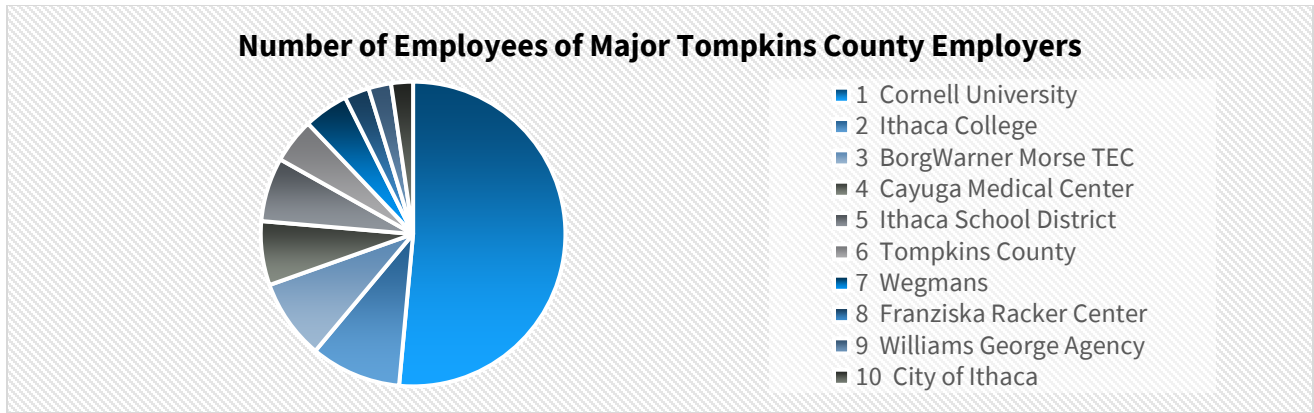
In 2019 Tompkins County supported over 2,600 businesses and 65,000 jobs

Median Household Income & Poverty:

- Median household income - \$61,361 (Approximately 16% less than the State median household income)
- Population in poverty - 17.5% (3.9 percentage points higher than State poverty rate)

Major Employers & Employment:

The Tompkins County Chamber of Commerce produced a list of the “Top 10” employers in the County, with Cornell University making up more than half of the total number of employees, Figure 5.



Source: <https://www.tompkinschamber.org/tompkins-county/business-development/>

Figure 5. Top 10 Tompkins County Employers by Size

As noted in the 2020-2024 Tompkins County Economic Development Strategy 2.0, by 2019 there were over 2,600 businesses in Tompkins County employing approximately 65,000 people. Service sector jobs account for 93% of these jobs with 51,700 being in the private sector and 8,600 being in the public sector, including approximately 3,400 in the public-school system. Approximately 45% of private sector jobs (40% of all jobs) are in higher education. Scientific and technology services, transportation, professional services, and other business and personal services make up about 20% of service sector jobs. Retail, food service and hospitality have steadily accounted for approximately 16% of private sector jobs.

The U.S. Census summarizes workers into five classes. According to the U.S. Census 2020 ACS 5-Year Estimates, in Tompkins County, employees of private companies make up 49.5% of the civilian employed population ages 16 and over. Private not-for-profit wage and salary workers account for 26.6% of these workers; local, state, and federal government workers account for 14.2% of this population; self-employed in their own unincorporated business and unpaid family workers account for 6.5% of workers; and those who are self-employed in their own incorporated business account for 3.2% of this population.

The Bureau of Labor Statistics also produces data on employment at the County level. Based on the March 2022 update of the Ithaca Area Economic Summary, the unemployment rate in the Ithaca Area (Tompkins County) in January 2022 was 2.8%, a decrease from 5.5% a year prior. Total non-farm employment increased 4.9% from January 2021 to January 2022, with the largest increase by far taking place in leisure and hospitality (45.8%), as would be expected as the area “opened up” like the rest of the Country from COVID-related economic changes.

Jobs are classified within certain Industries, identified utilizing National American Industry Classification System (NAICS) codes as detailed in the 2020 Census Economic Survey (ECNSVY) Business Patterns County Business Patterns survey data. Industries and associated number of employees for the County from the Economic Survey are noted in Figure 6.

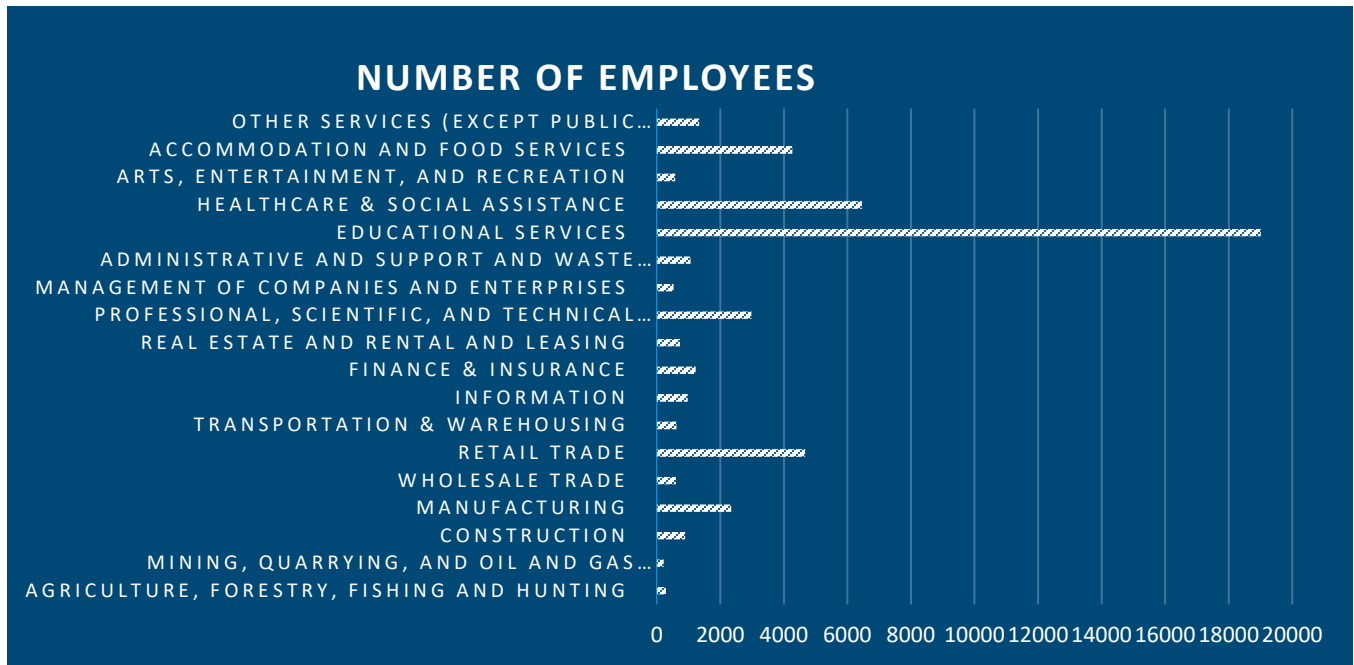


Figure 6. Tompkins County Employees by NAICS Category

Transportation and Commuting:

The ability of people to access their job is a vital component of a functional economic region. The U.S. Census 2020 ACS 5-Year Estimates reported the following:

- Workers 16 years and over that worked in Tompkins County - 90.8%
- Average travel time to work - 19.8 minutes (significantly less than the 33.5-minute State average)
- Means of transportation to work:
 - Drive a vehicle - 58%
 - Walk - 13%
 - Work at home - 11%
 - Carpool - 10%
 - Public transportation - 6%
 - Other means - 2%
- Nearly 8% (~3,700) of workers in Tompkins County do not have a vehicle

Housing:

While the population only increased by 4% (4,167 people) as noted above, the U.S. Census 2020 ACS 5-Year Estimates also determined that the number of housing units in the County increased by 12%. From 2010 to 2020, the number of housing units in the County increased from 41,674 to 46,884 – an increase of 5,210 units. This means that there were more housing units constructed during the decade than new individuals moving

into, or being born in, Tompkins County. Summary Census housing data for Tompkins County are provided below:

- Median gross rent - \$1,144 (\$171 less than State median gross rent)
- Median value of an owner-occupied housing unit - \$218,700 (\$106,300 less than median State value)
- Homeownership rate - 54.0%
- Occupied housing Units - 42,273
 - Owner occupied housing units - 22,025
 - Renter occupied - 18,792
- Housing units with a mortgage - 12,995
- Median housing costs for housing unit with a mortgage - \$1,691 per month
- Occupied rental units paying rent - 18,087

Cost Burdening: An issue that has been occurring for generations across the U.S. is how to address cost burdened households. Cost burdened households spend more than 30% of their income on housing costs. Information regarding cost burdening according to ACS 2020 5-Year Estimates is provided below:

- Percent of households cost burdened - 33.6%
- Percent of cost burdened homes with mortgages – 22.2%
- Percent of cost burdened homes without mortgages – 7.9%
- Percent of renter occupied units where gross rent results in cost burdening - 58.7%

Computer and Internet Use: Just over 95% of households had a computer according to the ACS, but a smaller percentage of households, 86.1, had a broadband internet subscription.

III. PROCESS FOR IDENTIFICATION OF ECONOMIC IMPACTS

One of the most significant components of the economic recovery plan will be the identification of impacts based on specific disaster types.

Action #1 – Conduct an Economic Vulnerability Analysis in conformance with FEMA guidance.

An important action to be undertaken by the County is to conduct a comprehensive review of impacts that may be suffered based on each hazard of concern or type of disaster identified in the County’s Hazard Mitigation Plan (HMP). Associated impacts from historic disasters are included in the HMP and support the identification of related economic impacts. For example, flooding caused by heavy rain may impact roads and transportation, resulting in potential lack of access to businesses for customers and employees.

Threats and hazards identified through this process could result in the need for recovery operations in Tompkins County and require the activation of a pre-disaster recovery plan in whole, or in part, through the recovery planning to minimize the duration and magnitude of economic impacts. To effectively coordinate recovery efforts, FEMA developed a structure to address key functional areas of assistance or Emergency Support Functions (ESFs) and Recovery Support Functions (RSFs) which inform emergency response and recovery. These structures were established to facilitate problem solving, improve access to resources, and

integrate sustainability across all levels of government, private stakeholders, and nonprofit partners. Timing of the transition from ESF to RSF depends on the nature of the activity and may vary considerably for each RSF. During response and in the early stages of recovery, RSFs may be established while ESFs are still operational, with the two coexisting until full demobilization of ESF operations. Typically, ESFs are expected to operate within a time span of weeks and months, whereas the RSFs may be active for months or years. Neither ESFs nor RSFs have a predetermined point at which they demobilize.

The example of the connection between National ESFs and RSFs for economic recovery is shown on the next page and lists those ESF tasks likely to transition to RSF tasks for economic recovery during the short-term and intermediate recovery phases. A task associated with an ESF may transition to one or more RSFs as a recovery task. The example lists ESF tasks that would likely, but not necessarily, be transferred to a particular RSF for economic recovery.

In development of the economic recovery plan, the County should utilize information in the Continuity of Operations Plan (COOP) to help identify what, if any, impacts may be mitigated and if so, to what extent. Any mitigation activities, which may be implemented as recommended through the COOP, should be taken into consideration when identifying potential economic impacts. Figure 7 illustrates the transition from response to recovery by indicating the alignment of ESF and RSF activities.

Priority actions are noted throughout the document and are summarized in Section IX of this document.

The Connection Between National ESFs and RSFs for Economic Recovery

ESF	Function	Roles & Responsibilities	Assigned Tasks for ESF	ESF to RSF Transition	Assigned Tasks for RSF
ESF 1	Transportation	<ul style="list-style-type: none"> Aviation/Airspace Control Transportation Safety Restoration of Trans. Infras. 	<ul style="list-style-type: none"> Monitoring & reporting damage to the transportation system Identifying temporary alternative transportation solutions Clearing transportation routes 	IS ECON	<ul style="list-style-type: none"> Coordinating the restoration of transportation systems and infrastructure Rebuilding severely-damaged transportation routes, airports and ports
ESF 2	Communications	<ul style="list-style-type: none"> Infras. Repair & Restoration Construction Management Emergency Contracting 	<ul style="list-style-type: none"> Supporting the restoration of communications infrastructure Coordinating communications Providing communications support to impacted governments 	IS ECON	<ul style="list-style-type: none"> Rebuilding communications infrastructure Providing technical assistance to facilitate the development of integrated emergency communications infrastructure
ESF 3	Public Works & Engineering	<ul style="list-style-type: none"> Infras. Repair & Restoration Construction Management Emergency Contracting 	<ul style="list-style-type: none"> Constructing emergency access routes Providing temporary emergency power to critical facilities Conducting debris clearing, removal, and disposal 	IS ECON	<ul style="list-style-type: none"> Supporting the rebuilding of public works infrastructure Supporting the development of infrastructure that facilitates redevelopment of the impacted economy
ESF 5	Information/ Planning	<ul style="list-style-type: none"> Coord. of Response Efforts Issuance of Mission Assigns. Incident Action Planning 	<ul style="list-style-type: none"> Providing firefighting resources pressing fire Providing technical assistance to support capacity building 	ALL RSFs	<i>While there is no direct relationship between this ESF and the RSFs, the critical activities of this ESF facilitate the implementation of some RSF activities</i>
ESF 6	Mass Care	<ul style="list-style-type: none"> Mass Care Emergency Assistance Distr. Housing & Human Svcs. 	<ul style="list-style-type: none"> Providing mass care services to displaced individuals Providing consolidated reports on mass care, emergency assistance, housing, and human services activities 	H HSS ECON	<ul style="list-style-type: none"> Providing interim and permanent housing solutions Ensuring the continuity of care during the intermediate and long-term stages of recovery
ESF 7	Logistics	<ul style="list-style-type: none"> Logistics Planning & Mgmt. Resource Support (incl. facil., supplies & contracting svcs. 	<ul style="list-style-type: none"> Providing an integrated process to implement logistics capabilities Providing emergency relief supplies, facility space, equipment, telecommunications, transportations services, and personnel 	ALL RSFs	<ul style="list-style-type: none"> Determining facility needs for deployed resources Determining contract support needs Determining supply needs that support recovery efforts
ESF 8	Public Health & Medical Svcs.	<ul style="list-style-type: none"> Public Health Med. & Mental Health Svcs. Mass Fatality Mgmt. 	<ul style="list-style-type: none"> Provide public health and medical assistance Assisting & supporting the delivery of needed services Assuring the safety & security of food 	HSS IS ECON	<ul style="list-style-type: none"> Reestablishing permanent health and social services Determining long-term community needs with respect to services and supplies
ESF 11	Agriculture & Natural Resources	<ul style="list-style-type: none"> Nutrition Assistance Food Safety & Security Natural & Cultural Resources 	<ul style="list-style-type: none"> Supporting the delivery of nutrition assistance and ensuring food safety Responding to plant and animal diseases Protecting natural and cultural resources, including historic properties 	HSS NCR ECON	<ul style="list-style-type: none"> Supporting the rehabilitation of natural resources Providing technical assistance for the restoration of cultural resources such as museums and historic properties
ESF 12	Energy	<ul style="list-style-type: none"> Energy Infras. Restoration Energy Utilities Coord. Energy Forecast 	<ul style="list-style-type: none"> Collecting, evaluation, and sharing information on energy system damage Providing information concerning the energy restoration process Providing technical expertise to utility operators, conducting assessments 	IS ECON	<ul style="list-style-type: none"> Supporting the reestablishment or rebuilding of energy infrastructure Developing sustainable, cost-efficient energy solutions
ESF 14	Long-Term Recovery	ESF-14 no longer exists at the national level. It was replaced by the national Recovery Support Functions when the <i>National Disaster Recovery Framework</i> was adopted in September 2011			
ESF 15	External Affairs	<ul style="list-style-type: none"> Infras. Repair & Restoration Construction Management Emergency Contracting 	<ul style="list-style-type: none"> Providing accurate and timely information to affected audiences Gathering information on the incident Serving as a liaison between response and the impacted area 	ALL RSFs	<ul style="list-style-type: none"> Gathering and providing information about recovery Serving as liaison between partners and impacted states or localities
NA	Education	<ul style="list-style-type: none"> Primary, secondary, and higher education 	<ul style="list-style-type: none"> Close schools Provide facilities to support response activities 	EDU ECON	<ul style="list-style-type: none"> Supporting the reestablishment or rebuilding of education infrastructure Provide interim schooling solutions

Figure 7. Transition from Response to Recovery – Support Functions

A. Identification of Economic Impacts

A number of factors contribute to the economic impacts of disaster events and are important to evaluate and consider prior to an event. Economic impacts related to hazard events include the following:

- **Direct Costs** – These costs include immediate expenses to residents, businesses, and other entities due to direct impacts from an event that reduces financial resources or ability to contribute to the local economy. Direct costs include impacts such as damages to homes and facilities requiring an investment in capital to repair or replace the facility.
- **Functional Costs** - These are costs or reductions in revenues/finances incurred because businesses are limited or prevented from functioning efficiently and/or at their greatest capacity. These types of costs may result in placing local businesses at risk of failure, job loss, and ultimately reduced local or even regional economic investment and capacity. These negative impacts most often result from businesses not being able to open or open fully but can be caused by many other factors as well. Issues that may result in functional costs being incurred, such as businesses not being able to open or function efficiently, include:
 - Lack of utility services
 - Lack of customers or workers
 - Road closures
 - Unsafe environment
 - Resident displacement
 - Facility repair or replacement time
- **Market Costs** – These are costs or reductions in revenues and financial investment that occur on a larger scale. These may appear similar to functional costs in some cases but are measured more by their regional or market-wide impact. Market costs include impacts such as the following:
 - Destruction or damage to natural features or assets, which were large tourist attractions
 - Destruction of agricultural resources
 - Bad press or perception of an area as unsafe or not generally open and functioning properly.

While the identification of economic impacts can be daunting, those with the greatest impact and the highest likelihood of occurrence should be prioritized. To estimate or project economic impacts the County should begin by collecting and reviewing the disasters and their potential impacts as described in the HMP. This work

CONSIDERATIONS

When identifying potential economic impacts there are a variety of considerations to take into account.

Key considerations when identifying impacts should include:

- Displacement or loss of labor market
- Reductions in consumers and sales of goods and services
 - Infrastructure accessibility
 - Functional utilities
 - Supply chain disruption
- Reduction or elimination of tourism
 - Lack of accessibility for tourists
 - Reduced tourism due to health/safety concerns
 - Loss of tourist attractions or draws
- Costs to businesses
 - Physical damage to businesses
 - Clean-up and recovery
- Business being forced to close
 - Length of closure
- Agricultural loss and long-term damage

includes identification of direct impacts, such as physical damage to a business facility, as well as indirect impacts, such as local flooding of roads that may prevent access to businesses.

Next, the County would identify its economic assets. Other disaster recovery/mitigation and general planning documents, such as the HMP, would be referenced as they already identify many of the County's existing assets. Identifying these assets will allow the County to anticipate those facilities that may receive direct impacts, such as facility damage, as well as indirect impacts by identifying their location within the County and their potential threat exposure.

There is a need to conduct an Economic Vulnerability Analysis or, at the minimum, to identify economic areas that may be most vulnerable to disaster impacts. The first step in this work will be identifying the County's economic assets and evaluating their locations for disaster risk. The analysis would then seek to identify and measure the following factors for each asset contributing to vulnerability:

- Exposure – this factor involves identifying how likely it may be for an asset to suffer impacts from disaster events due to the nature of its location or physical orientation exposing it to a hazard risk.
- Sensitivity – this factor evaluates the magnitude of impact the asset may suffer from the effects of a hazard due to a variety of factors such as building construction, electric and water system redundancies, and resilience and mitigations features.
- Adaptability – this factor is a measure of the asset's ability to adapt in the face of a hazard. Assets that can continue to function while mobile or that can more easily be established in temporary facilities have greater adaptability than those that cannot.

Analyzing the exposure risk and sensitivity of the asset will help gauge the potential impact that is then compared against its adaptability to find its ultimate level of vulnerability. As these assets are measured for their vulnerability, they can be evaluated cumulatively to help identify how the economy could be impacted after a disaster. Identifying the potential types of economic vulnerabilities of the County will support the identification or prioritization of additional mitigation factors specific to those vulnerabilities. This identification will inform an estimate of the level of economic impact based on a disaster by cross-referencing the physical impacts with the economic vulnerabilities. Additionally, this will support the estimates of the level of economic impact and severity of an event based upon the vulnerability of assets relative to a specific event.

Additional economic vulnerability information may be sought regarding business dependency on specific utility services, access, and availability of support businesses, or business reliance on access to materials and goods and the maintenance of inventory. This information may best be obtained by surveying County businesses or conducting additional business analysis to estimate this information. As more global economic vulnerabilities are identified, additional steps should be taken to consider what disaster impacts may most severely affect the identified vulnerabilities and how.

The Economic Vulnerability Analysis, when conducted, would also provide a comprehensive list of economic assets to be considered when estimating and evaluating economic impacts. As not all economic assets may be recorded in planning documents, the County would make sure to capture the interest of smaller businesses, home run businesses, and other such local assets that cumulatively may play a significant role in the local economy. It will be important to engage local businesses and stakeholders to fully identify and completely understand the scale and scope of economic impacts that may be suffered by a hazardous event.

Once the County's hazards and hazard impacts are collected from the HMP, and the County's economic assets and those asset vulnerabilities are identified, the information can be cross-referenced to help identify potential economic impacts. This would involve estimating economic impacts based on both direct impacts to assets, as well as indirect impacts to other County assets or features, such as roadways. This cross-referencing and estimating work will allow the County to identify the economic impacts that may result from a specific hazard event, such as road closures due to flooding.

B. Identification of Secondary or Indirect Economic Impacts

In addition to the direct and most recognizable impacts typically associated with disaster events, there are indirect, secondary, and unintended impacts that may occur from the disaster itself or result from the response and recovery activities. It will be important to identify these issues, and how they occur, to the greatest extent possible. "Secondary" impacts may have negative effects that last much longer than the direct disaster impacts themselves. These often result in the functional and market costs previously described.

Due to the number of factors that impact the local economy, there are a variety of issues and impacts from disasters that, while not directly related to impacts on businesses, still have a substantial effect on recovery. One of the most significant impacts is the loss of labor and customers due to impacts on local housing. Accessibility can also be a major issue as limited access, long travel times due to traffic or construction delays, and limited mass transit availability can hinder business recovery. One other factor that can impact the local economy is public perception. If an area is perceived as being unsafe, inaccessible, unprepared for a return to business, or still in a general state of disarray, then businesses, tourists, and residents may be delayed in returning or not return at all. It will be important to ensure that clear lines of communication over a variety of outreach methods, particularly social media, to keep the public and stakeholders aware of the exact status of recovery within the region. Below are some of the key secondary or indirect impacts that can contribute to or exacerbate negative economic impacts facing businesses and the whole community.

- Recovery activities that limit access to businesses
- Permanent impacts on geography or tourist attractions (agriculture, tourism, outdoor recreation)
- Traffic routing away from a local business

CONSIDERATIONS

Other questions to ask when trying to identify economic vulnerabilities might include:

- What industry/businesses does the local work force rely on the most?
- How significant is the tourism to the local economy?
- What percentage of local businesses are small businesses?
- What are the primary industries in the County?
- How significant is agriculture or agritourism?
- What percentage and types of businesses are located in a flood risk area?

- Financial domino effect - impacted businesses cannot pay wages that residents spend in the local economy, thereby impacting more businesses or compounding impacts
- Recovery activities displacing the local workforce
- Temporary increases in utility costs
- Lack of housing or displaced residents no longer having access to jobs and services.

IV. PLANNING: COUNTY LEVEL ACTIVITIES

As part of the County's efforts to update and improve hazard mitigation and recovery effectiveness, the County has developed several documents to inform its Resiliency and Recovery Plan to minimize future disruptions due to natural hazards. The Resiliency and Recovery Plan includes the following components:

- Tompkins County Hazard Mitigation Plan: 2021 Update
- Water Supply Drought Resilience Technical Memorandum
- Critical Assets Floodplain Inventory
- Debris Management Plan
- Community Rating System Baseline Assessment and Potential Impact Report (Town of Lansing)
- Recommended Floodplain Practices for Tompkins County Communities
- Local Government Continuity of Operations Plan (COOP) Training
- Business COOP Training

These documents are intended to support improved disaster mitigation and recovery effectiveness. In addition to these documents, departments and agencies in the County develop and maintain a variety of planning, land use management, and development documents. These core planning documents include the Tompkins County Comprehensive Plan, Agricultural and Farmland Protection Plan, and Economic Development Strategy. Planning documents should provide consistent and supportive messages that allow for ease of implementation of recovery efforts. Such consistency will help to mitigate impacts from disasters before those events ever occur and as a disaster event is unfolding.

Furthermore, the integration of strategies to address economic recovery into local plans, codes, and ordinances will provide improved and shortened economic recovery. This plan provides the guidance for the County and local governments to establish policies and planning processes for recovery *before* a disaster occurs. Existing general and community plans, hazard mitigation plans, and rules, codes, and ordinances will inform the process of preparing for disaster recovery. Updates or revisions to these policies, plans, and ordinances may be needed to support more resilient disaster recovery and reconstruction. After a disaster event occurs, the development of a post-disaster recovery plan will help identify new recovery policies and specific recovery projects based on damage assessments and conditions on the ground.

A. Planning Consistency - Department of Emergency Response and Department of Planning and Sustainability

Action #2 – Review current planning material to ensure consistency across documents.

The first step in developing a recovery plan is an analysis of existing planning documents and confirmation of consistency and concurrence across documents. Among County documents, where there may be a divergence due to changing objectives over time, or fundamental changes to the economic, social, or demographic character of the County, these differences or changes in purpose or goals should be recorded in the more recent planning document. This is a way to memorialize these changes and help track and clarify these transitions for future planning endeavors.

Consistency amongst the County’s core planning documents and likewise across County government, is critical when trying to develop a recovery plan that may utilize data from these documents or that seeks to support the processes, goals, and objectives identified in these key planning documents. Without consistency across the County’s core planning documents, it may be difficult to clearly develop a recovery plan that actively supports the larger planning and development goals and objectives established for the County through these core documents.

CONSIDERATIONS

Other questions to ask when trying to identify economic vulnerabilities might include:

- When reviewing and updating County documents and in developing the economic recovery plan, ensure that local government planning documents are taken into consideration to avoid inconsistencies or direct conflicts in recovery efforts.
- As documents are updated in the future ensure that relevant changes are incorporated across documents.

B. Incorporation of Recovery Information

Action #3– Review current planning material and incorporate recommendations or processes described in disaster recovery and mitigation documents.

A critical step toward resiliency is to incorporate the information and recommendations from disaster mitigation and recovery documents into the County’s core planning documents.

C. Integration of Response and Recovery – Department of Emergency Response

Integration of response and recovery activities provides a strong foundation for economic recovery on both the county and local levels. Tompkins County Department of Emergency Response (DoER) is planning to update the County Comprehensive Emergency Management Plan (CEMP) in the near future. Under the scope of this project, general recommendations to ensure the integration of resilient recovery to minimize economic impacts are provided below.

D. Department of Emergency Response (DoER) Recovery Annex Recommendations

Action #4 – Review and update the current Comprehensive Emergency Management Plan (CEMP) to recognize and include actions to increase resilience during recovery and to specifically include county- and local-level economic recovery annexes to provide a framework for economic recovery.

As part of the Resiliency and Recovery Plan, the consultant and planning team explored the integration of recovery and resiliency by identifying critical gaps in the community recovery support between the time of disaster initiation and long term community economic recovery through a review of the Tompkins County Department of Emergency Response’s CEMP Recovery Annex (Recovery Annex).

The Recovery Annex, current at the time of the planning process, was reviewed for alignment with FEMA’s National Disaster Recovery Framework, which includes criteria for the economic recovery core capability. The core capability includes critical tasks such as sharing, aggregating, and integrating economic impact data to assess economic issues and identify potential inhibitors to fostering stabilization of affected communities.

In order to identify opportunities to better address resiliency in post-disaster activities, it is necessary to review the current emergency management plans in place that support the activation of staff to: first, provide response activities to stabilize critical facilities, functions, and services; and next, to ensure that recovery activities are informed by the most recent mitigation and resiliency recommendations. In this manner, rather than rebuilding in kind, the County will improve infrastructure and services to reduce the potential for future impacts and minimize future economic disruptions. As recovery activities are initiated and implemented by the Tompkins County Department of Emergency Response, review of the current Recovery Annex of the Tompkins County CEMP included input from the Tompkins County Department of Planning and Sustainability and the Tompkins County Department of Emergency Response. The gap analysis provides the basis for the recommendations presented herein.

The following items identify the legal authorities and references used to develop a recovery plan and were referenced in the performance of the gap analysis. They do not supersede the plans, policies, or procedures of Tompkins County, or its partner agencies and organizations.

- Presidential Policy Directive-5 Management of Domestic Incidents
- Presidential Policy Directive-8 National Disaster Recovery Framework (NDRF)
- National Disaster Recovery Framework, 2nd Edition
- Public Law 93-288, The Robert T. Stafford Disaster Relief and Emergency Assistance Act, as amended
- New York State (NYS) Executive Law Article 2-B

The NDRF includes an implementation strategy, which comprises of recovery capacity-building actions categorized as immediate and short term actions. Immediate actions are priority actions to be addressed as soon as possible and are critical in having key actions, processes, and resources in place in preparation for recovery for the next hazard event. Short term actions are those that are not as critical for recovery or should be implemented within a two-to five-year period. These provide steps to be taken in order to move forward with the development of a comprehensive post-disaster economic recovery plan. The review and comparison

identified a number of opportunities to enhance recovery leadership, and to provide plans, procedures, protocols to support an efficient transition from response to recovery operations and integrate mitigation and resilience into post-disaster activities.

General recommended activities based on gaps or omissions to the current annex are provided below. More specific recommendations are offered for consideration for the update of the Tompkins County Comprehensive Emergency Management Plan and Recovery Annex in Appendix B.

1. GENERAL RECOMMENDATIONS

The following general recommendations are provided as a basis for the comprehensive update of the Recovery Annex and to guide the development of a document to better define responsibilities in the crucial transition phase from response to recovery. Specific recommendations, based on a review of the current DoER Recovery Annex, are provided in Appendix B.

- Develop a Pre-Disaster Recovery Plan (PDRP) that includes Recovery Support Functions (RSFs) to assist DoER in managing recovery operations and efforts to address the economic impact on the communities in Tompkins County, as well as the County operations. The PDRP will provide high-level objectives and coordination strategies to support decision-making during post-disaster recovery operations.
- Adopt local-level pre-disaster recovery plans and ordinances. These ordinances will establish a recovery organization, authorize the PDRPs, and grant emergency powers for staff actions that can ensure timely and expeditious post-disaster recovery
- Gaps identified concerning economic recovery include:
 - Ensure that the Pre-Disaster Recovery Plan include a supplement or annex addressing the Economic Recovery Support Function (RSF-2). Within this supplement, provide for the establishment of a County Economic Recovery Team to be activated as provided by the CEMP and to provide guidance for coordinating and supporting agencies to aid in restoring economic stability to the county.
 - Establish local-level Economic Recovery Support Functions to address municipality-specific staffing and other supports needed.
 - Define economic recovery for Tompkins County to establish the criteria for the creation of an Economic Recovery Team, as well as the responsibilities of its members. This will support the identification of economic opportunities needed to engage the private sector and non-traditional partners/stakeholders to restore jobs, services, and revenue generation for the County.
 - Develop a mission and guiding principles for economic recovery. This identifies those principles Tompkins County feels are needed for economic recovery post-disaster, such as recovering, maintaining the County tax base, partnerships between the public sector, private sector, and institutions of higher education.
 - Provide linkages between Emergency Support Functions (ESFs) and RSFs for an efficient and effective transition from response to recovery, i.e., for RSF 2 Economic Recovery, what ESFs for Tompkins County would they rely on to ensure economic stability.

- Identify roles and responsibilities for coordinating and supporting agencies for economic recovery. A lot of agencies/organizations have subject matter expertise in economic recovery and can provide that support for economic recovery in the County. This would include local, regional, state, and federal partners, as well as non-profits and NGOs that are traditionally relied on in economic recovery.
- Establish economic recovery priorities, i.e., focus on reducing unemployment and assisting those that cannot recover on their own, identify and coordinate with the top employers in the community (healthcare, tourism/hospitality, manufacturing).
- Develop metrics for tracking economic recovery progress, i.e., identification of the number of businesses reopened and how quickly it occurred, funding needs and gaps closed for local businesses, etc.
- Develop economic recovery methods and templates for outreach and engagement with public, private, and nonprofit partners/stakeholders as well as members of the whole community, i.e., leverage existing small business community groups, establish Business Recovery Centers, hold a public meeting, etc.
- Identify essential elements of information for economic recovery to determine priority actions during recovery, i.e., impacts on economic drivers in the community, impacts on the local tax base, names and types of businesses closed, and the amount of time they are expected to be closed, etc.
- Identify economic resources for existing local, regional, state, and federal programs that may be leveraged for funding, SMEs, or other resources that can aid in a quick economic recovery.
- Identify anticipated challenges the County may expect during the recovery process for economic recovery, i.e., timing of federal programs and insurance claims, transportation impacts, communications network to gather information from impacted businesses, distribution of information to impacted businesses, etc.

The intent of all pre-disaster recovery activities is to improve the community's ability for more efficient, immediate, and resilient recovery. The economic recovery plan is most effective as a countywide multi-jurisdictional plan providing for coordinated short-term, intermediate, and long-term resilient recovery implementation across jurisdictional boundaries. Ensuring that each jurisdiction within Tompkins County is responsible for the implementation of their community economic recovery plan, as well as coordinating and collaborating on implementation that crosses jurisdictional boundaries, is essential to a robust community recovery.

V. COUNTY ECONOMIC RECOVERY TEAM ROLES AND RESPONSIBILITIES

The establishment of an Economic Recovery Team (ERT) is critical to the development of any economic recovery plan. The ERT would work to fulfill the recommendations of the County Comprehensive Emergency Management Plan (CEMP) under the purview of the Tompkins County Department of Emergency Response (DoER). As the County transitions from the response to the recovery phase after a disaster, the ERT will be activated to address the assessment of needs, communication, and mobilization of resources to speed up recovery and minimize the magnitude of impact on the economy.

The CEMP indicates the manager of economic recovery responsibilities in both the response and recovery phases of emergency management to provide seamless support for economic recovery. The economic recovery plan shall describe the structure and responsibilities of the team, the limits of its power, and when it is to be “activated” and “deactivated.” The ERT may be a separately defined group of individuals consisting of county and local level representatives, as well as members of the business community. As such, it may function as an independent entity or under the umbrella of a more comprehensive disaster recovery unit or department. Figure 8 Figure 8. Relationship between County and Local Recovery Plans below indicates the relationship between the County-level and local-level recovery teams.

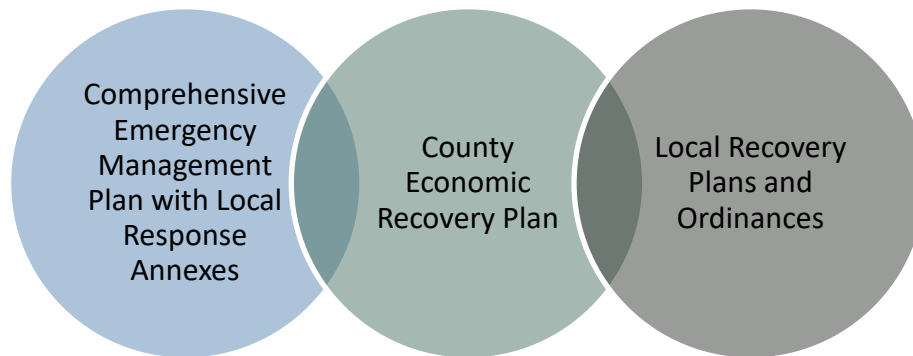


Figure 8. Relationship between County and Local Recovery Plans

A. County and Recovery Team Roles

Action #5 - Identify County’s general role and responsibilities in post-disaster economic recovery support and define what “economic recovery” means for the County.

As a foundation for the plan, the County must clearly define its role in post-disaster economic recovery. Critical elements include:

- Coordinate, implement, and support the protection and recovery of County assets and facilities that are necessary for, and directly support, the regional and local economies.

- Provide active economic recovery support, assistance, and guidance to local municipalities, businesses, non-profit organizations, local stakeholders, and residents.
- Function as a coordination center and source of information for state, regional, and local government agencies. This element may include acting as a funding source or pass-through for state and federal recovery funding.

The County may decide to include more detailed or expanded definitions of its role, but it should keep the three general roles listed above as guiding principles.

To better understand its role in economic recovery and to help define the roles, responsibilities, and boundaries of the ERT, the County must define what economic recovery means for Tompkins County.

The National Disaster Recovery Framework (NDRF) defines the Economic Recovery Core Capability as the “*return of economic and business activities (including food and agriculture) to a healthy state and develops new business and employment opportunities that result in a sustainable and economically viable community.*” (FEMA, 2017). The County will need to expand upon this definition to define what a “healthy state” means and what sorts of goals the County has set as benchmarks for economic recovery.

This includes defining what the County’s responsibilities are for reestablishing economic opportunities in the wake of a disaster. It is important to define what role the County will play in engaging with traditional recovery service providers, and also its role with the private sector and non-traditional partners/stakeholders, to restore jobs, services, and revenue generation for the County.

The County must define the extent to which the ERT will take a proactive or passive stance on economic recovery. For example, will the County merely be a clearinghouse for recovery information, or will it actively engage businesses and local communities in identifying needs, supporting recovery programs, and seeking and managing disaster recovery funding? The County will also need to identify agencies and organizations with subject matter expertise in economic recovery, which can provide the necessary support for economic recovery, to the extent the County seeks to actively engage in recovery efforts. This would include identifying and securing connections with local, regional, state, and federal partners as well as non-profits and NGOs that are traditionally relied upon in support of economic recovery.

It is important roles and responsibilities are well defined before a disaster, to ensure a smooth transition from response to recovery.

CONSIDERATIONS

When the County is defining what economic recovery means for the County in its role as an economic recovery support provider, there are a wide variety of factors it can take into account. Does economic recovery mean:

- Short term support as defined by some increment of time
- Return of a certain percentage of businesses
- Return of a local employment percentage
- Recovery limited to the full expenditure of local, state, and federal financial resources
- Return of critical businesses such as grocery stores, banks, gas stations, health providers, daycares?

B. Identify Responsibilities

Once the County has defined its role in post-disaster economic recovery support and the meaning of post-disaster economic recovery, it is critical to identify the roles and responsibilities of its disaster recovery team and its staff. Identifying roles and positions clearly prior to a disaster event is important so that these individuals can be “activated” quickly, as an event occurs or immediately after the event. Team members should already be aware and up-to-date/ prepped as to their roles and responsibilities well before experiencing a disaster event. Additionally, in advance of an event, the extent and authority of powers, and emergency powers for the Economic Recovery Team should be determined. This is critical in ensuring timely and expeditious post-disaster recovery for the County. The extent of the Economic Recovery Team’s power may vary depending on the hierarchy of the recovery team in the County recovery organization.

Action #6 – Define the extent of powers for the Economic Recovery Team and whether those powers include “emergency” powers. The exact limits of power may take time to agree upon and formal adoption of these powers for the Economic Recovery Team by the County may be required.

1. IDENTIFICATION OF LEAD AGENCY OR DEPARTMENT

In creating a stand-alone Economic Recovery Team, several key components need to be established pre-disaster to allow for the most effective and unencumbered transition from response to recovery. These components include identifying which lead agency or department the Economic Recovery Team would be established under, the recovery responsibilities of that team, and its rules of empowerment.

Action #7 – Identify the agency or department under which the Economic Recovery Team will be established.

Lead Agency/Department

The first step in forming a formal Economic Recovery Team would be to establish under which agency or department the recovery team would be consolidated. Agencies or departments for consideration might include the Tompkins County Department of Emergency Response, County Administration, the Department of Planning and Sustainability, Ithaca Area Economic Development (IAED), and others.

Responsibilities

Another detail that will need to be addressed in the establishment of a recovery team will be identifying the specific responsibilities of the team regarding recovery activities. Some of these considerations include:

- Whether they engage in and conduct outreach
- Which, if any, local, state, and federal recovery programs they may be responsible for managing
- Delineating which entities may fall under their purview such as colleges. (Colleges certainly contribute to the economy, but they may not be best served by the ERT and its assets)
- Deciding what length of time the ERT may be responsible for identifying and developing recovery projects. Depending on the severity and type of disaster some recovery projects may end up being very large in scale

or require long periods to fully fund and complete. Because of these considerations, there should be some guidance provided regarding which projects the ERT may be responsible for and , if the ERT is responsible for identifying longer-term projects, what agency or department will the project be transferred to as the ERT is deactivated over time. The lengths of time listed below are roughly based on the availability of federal funding, which is often the largest source of recovery funding.

- Short Term/Critical Term (1-2 years) – This timeframe for projects is usually the time in which FEMA disaster recovery funds are available for recovery.
- Medium Term (2-5 years) – This timeframe for projects is usually the time period in which longer-term recovery funding programs such as CDBG-DR are active.
- Extended Term (5-10 years) – These projects usually require long-term financial investment, may involve substantial public or stakeholder input and support, and involve fundamental land-use changes or infrastructure investment.
- Legacy (10+ years) – These projects are similar to “Long Term” projects but may require even greater levels of investment, support, and construction. These projects are typically transformative projects within a community or the County.

Action #8 – Establish recovery team responsibilities, limits of power, and timelines for responsibilities for recovery activities.

Action #9– Establish when and how responsibilities transition from response teams to recovery teams. Establish how responsibilities will transition and to whom when the Economic Recovery Team is deactivated.

Rules of Empowerment

It will be key to clearly identify and describe what powers the Economic Recovery Team may have and the limits of that power. This may require a particular level of formality in the creation and adoption of such a recovery entity including the possible formal adoption of a county resolution establishing and/or empowering the entity.

Limits of Decision-Making Power

The County will need to designate what powers the recovery team, and specific individuals, have to identify and select projects, commit funding, direct and manage staff, and take on other necessary activities.

Transfer/Termination of Power/Responsibilities

There are two major transition periods that need to be accounted for regarding the ERT. The first is the transition from response to recovery. It is important to clearly define how any economic response activities transition over to the Economic Recovery Team. The second major transition will be after recovery has been in place, and the ERT is now being deactivated. As recovery progresses, duties may change. There may be ongoing economic support activities that are needed, or projects that need to be completed, however there may no longer be the need to keep the ERT as a stand-alone entity active. In these cases, there should be a transition of responsibility from the ERT to some other agency or department to continue or finalize the remaining activities and projects.

2. POSITION IN RECOVERY COMMAND STRUCTURE

Action #10 – Define the Economic Recovery Team’s position and responsibilities within the County’s overall organizational structure.

Part of the process of defining the responsibilities and powers of the ERT will also include identifying its location in the overall organizational layout within the County.

Identifying how the team will be managed and who will manage it will only be the first part of laying out the overall structure of the team. The County will need to define who the Economic Recovery Team reports to and what the command structure may be as the team conducts recovery efforts. Will the team function as an extension of an existing department, or will it have some level of increased autonomy reporting more directly to the County Legislature? Additionally, the teams' internal structure will also need to be defined based on the roles and responsibilities the team is expected to undertake.

Organizational System

Action #11– Define the functional areas of responsibility within the Economic Recovery Team.

The organizational layout or hierarchy for the recovery team should begin with areas of general responsibility. This will need to take into account those responsibilities the County intends the Economic Recovery Team to have. The functional areas of responsibility might include the following:

- Administration – responsible for general oversight and management responsibilities
- Communication – responsible for items such as public and stakeholder outreach and cross-agency communication
- Recovery funding – responsible for identifying and securing recovery funding. This area may also be responsible for ensuring compliance with rules and regulations associated with specific funding sources
- Recovery activities – responsible for direct program management including project identification and development, programmatic compliance, case management oversight, and project implementation.

Some of these areas may be combined or responsibilities may be shared across these functional areas. The formality of this structure can be decided and defined by the County as it sees fit based on organizational structure and staffing options.

3. IDENTIFICATION OF KEY RECOVERY STAFFING POSITIONS

Once the functional areas of responsibility are defined within the ERT, the necessary core staff positions will be further defined. Included in this task is to describe how the positions will be identified and adopted within the County’s organizational system. These core positions represent the essential staff that may be needed to manage economic recovery depending on the structure of the ERT developed by the County. It should be noted that specific positions may overlap with other Recovery Support Function staffing assignments and if so, responsibilities should be clearly defined to avoid potential conflict of interest issues or inefficiencies in recovery management due to lack of clarity on roles and responsibilities. Defining roles and responsibilities of economic recovery staff positions that overlap with other Recovery Support Function staffing assignments will

be critical in situations where federal or state funding may be involved. Defining these roles is critical to ensure clarity regarding who is responsible for compliance requirement oversight and management.

Positions for consideration

There are a variety of forms the ERT can take along with the positions needed to manage economic recovery and implement recovery projects and activities. General positions for consideration include:

- **Economic Recovery Lead**
 - Define their role along with what their responsibilities may be. Identify staff for which they are responsible to oversee
- **Communications Officer**
 - Define role. Could have multiple communication staff or one POC. Conversely, responsibility for communications based on the targeted audience may be distributed amongst staff. Groups to consider when conducting and managing ongoing communication include:
 - Business/Non-profits
 - Residents
 - Disaster response/recovery personnel
 - Other government agencies/department
- **Recovery Funding Coordinator**
 - Define their role along with what their responsibilities may be. Even in those cases where other County staff, such as those working in the Financial Department, may be responsible for identifying and securing recovery funding, it should still be noted in the Economic Recovery Plan.
- **Other necessary staff**
 - Other positions may need to be identified to assist in recovery, but these positions should be identified pre-disaster, to the greatest extent possible. In some cases, due to the unique nature, impacts, or characteristics of a disaster, economic recovery staffing positions may need to be identified during or immediately after the disaster, but should be done as quickly as possible.

Identify Staff Members

Action #12. Identify internal staff to fill recovery team positions and identify if supplemental staff is necessary.

Once the key positions on the Economic Recovery Team are identified, the County will then need to work with existing County staff or other outside agencies, if necessary, to identify the specific County staff members or other personnel who will fill these positions. This assignment of County staff will be indicated by the individual County staff personnel's title.

C. Economic Recovery Office

Action #13 – Identify Economic Recovery Office's physical location. This action may take longer since the identification of office needs and security of the space may take time and face several obstacles. Temporary locations can be defined in the short term.

Once the purpose, roles and responsibilities, and structure of the ERT are established, it is time to identify the physical location of an economic recovery office. This office's location should be cited to allow for activities to be coordinated and recovery projects and programs implemented and managed. Ideally, it would also provide space for applicants and disaster-impacted businesses and other individuals, or groups, to seek disaster recovery resources and assistance. This office can be temporary but should be able to be activated and made available, if necessary, based on the type, nature, and severity of the disaster. Clear definitions will be in place defining when and how the economic recovery office will be formally activated and closed.

1. LOCATION AND OFFICE REQUIREMENTS

While the physical location of the office may not be much more than a cubicle within an existing County department, it has to be generally accessible and available to the public. In some cases, there may need to be consideration of a shorter-term economic recovery office along with a longer-term economic recovery office. This should be at least considered in the County's economic recovery plan, though a longer-term recovery office may need to be identified on a case-by-case basis depending on the disaster event.

There are several key items that should be taken into consideration when seeking to identify a recovery office which include:

- **Accessibility** – The site must be easily accessible by vehicle, ADA compliant, and ideally located on available local mass transit routes. In some cases, temporary pop-up sites at business locations might need to be utilized to ensure small and neighborhood businesses are accounted for or in cases where local transportation or communication is limited due to the disaster.
- **Utilities (electric, water, internet)** – The site must have access to electricity, potable water, and broadband service.
- **Intake area** – The office needs to either have or have access to, an area where applicant intake, interviewing, and processing can take place. Ideally, the applicant intake area would provide a certain level of privacy to protect the confidentiality and personally identifiable information which may be shared as part of the intake.
- **Supplies** – Space for, or access to, an area to keep files and supplies, as well as access to items such as a copy machine, computer terminals, and related office equipment, is critical. In some cases, the office may need access to a generator (if access to electricity is inconsistent or unreliable) and temporary heating/cooling systems depending on the nature of disaster impacts, time of year, and local weather.

Managing communications into and out of the office is also an important consideration when deciding on location. Identifying whether the site has available and functional telephone land lines or if cell phones will need to be relied upon. Another consideration is whether dedicated email addresses or phone numbers need to be established to separate applicant lines of communication from those lines of communication with local

governments or disaster responders. These sorts of efficiency details are important to consider pre-disaster so that recovery can proceed as expeditiously as possible.

One additional item for consideration is the possible need to identify a backup or temporary office location depending on the impacts of the disaster. While this may not necessarily have to be decided as part of the economic recovery plan since the impacts of future events are unknown, having some sites in mind or a process established for identifying alternate sites should be considered.

Action #14 – Incorporate recommendations from Resilience Messaging Playbook into Economic Recovery Plan.

2. COMMUNICATION

During the post-disaster recovery period, communication will be critical. To ensure recovery progresses as effectively and efficiently as possible there are several key items to take into consideration described below.

Utilize Resilience Messaging Playbook

The Resilience Messaging Playbook is a toolkit that should be utilized to the greatest extent possible to provide guidance regarding communication in the economic recovery plan. This toolkit provides guidance on messaging and communication strategies before and during recovery.

Establish and Define Connections

The County should identify critical recovery contacts and their preferred lines of communication, especially during post-disaster recovery, ahead of disaster events.

VI. RECOMMENDATIONS TO IDENTIFY AND PRIORITIZE RECOVERY ACTIVITIES

When identifying, considering, and developing recovery activities, it is critical that the issues that need to be addressed, and the priority in addressing them, are clearly defined. There needs to be consistency and cooperation amongst recovery services to ensure that there is cross-functioning support so that all aspects of recovery are working in the same direction and addressing issues on the same prioritization scale. One of the most difficult aspects to manage in recovery is the fact that priorities may be influenced by the availability of resources to address impacts. The County should, to the greatest extent possible, try to estimate and anticipate recovery resources and the timeframes at which they become available. Taking actions such as working with local businesses and insurance providers to understand how quickly insurance may be made available to businesses would be a substantial proactive step as part of the development of the economic recovery plan. Additionally, understanding the order, methodology, and funding resources that may be available from state and federal agencies will greatly assist in the identification and prioritization of recovery projects based on the amount and purpose of each recovery funding source.

Applying the lens of the recovery continuum is vital in identifying and prioritizing recovery activities. Prioritization of activities begins by identifying the most prevalent or urgent needs within each of the timelines associated with the continuum and identifying and prioritizing recovery activities accordingly. Undergoing with process helps reinforce a recovery structure for the economic recovery that aligns with the other recovery support functions.

A. Impact Data Collection Process

One of the most important aspects of disaster recovery regarding identifying and prioritizing recovery activities is developing a reliable, accurate, and effective impact identification, recordation, and verification process. The damage identification process is critical to properly designing effective recovery programs, obtaining the necessary amounts of recovery funding, and properly managing and implementing recovery efforts effectively and efficiently. Some of the key questions that need to be answered when it comes to the impact identification process include:

- Who collects impact damage?
- How is impact data collected and recorded?
- How is it managed and used?

1.WHO

Action #15– Identify who will be responsible for collecting and consolidating hazard impact data as well as where the information will be maintained.

Disaster impact information will not only need to be actively sought out and gathered from across impacted portions of the County, but the information will also be available from resources collecting their own impact data. It will be critical for the County to identify who will be responsible for gathering this information. Collecting impact information may technically involve a variety of individuals but the County should set up a system to consolidate this information to have a single collection point for reference. Several items to take into consideration regarding collecting these data include:

- Recognizing and identifying the level of coordination that may be needed with other agencies and local resources to secure timely and accurate impact information. Identifying these resources should be conducted pre-disaster.
- Information management: Where and how will impact data be stored and managed over the long term. Much of this information may be crucial for state or federal funding eligibility and these funds may not become available until a year or more after a disaster event.

Photographic evidence

The County should make a conscious effort to secure photographic evidence of disaster impacts to the greatest extent possible. Assigning responsibility for recording impact data to specific response or recovery personnel during or immediately after a disaster event is critical.

2.How

Action #16 – Identify how impact data will be collected and maintained post-disaster. Identify the types on information being sought and develop a secure process for storing information.

Activities under this action include identifying impact data resources and setting up a process for systematically collecting impact information during and after a hazard event. This action will save significant amounts of time on data collection and help prevent impacts going unrecorded or documented during and immediately after a disaster event when capturing impact data is most critical.

Identify process

It will be important to establish a process for recording data. The County may want to consider creating a formal process for digitizing any non-digital information (photos, newspaper adds, insurance documents, field reports) immediately upon collection and storing it on a secure system. Defining a clear process will allow for easy reference and utilization.

Digital, paper, combination

Establishing a clear process for information collection and storage will significantly help expedite recovery activities as impact data can be analyzed, verified, and prioritized more easily with impact evidence and recordation. The County should decide how it will collect data, the type of data and how it will store the information, particularly when it comes to hard copies of information. Hard copies run the risk of being lost or misplaced, as well as damaged or destroyed during a disaster or in the confusion and chaos post-disaster.

B. Recovery Continuum Prioritization

The following information provides recovery activity considerations for the economic recovery plan based upon time periods established in the recovery continuum. The short term and early intermediate activities are usually the most critical as businesses need to reopen and reestablish their clientele quickly since many businesses, especially small businesses, don't have the capital to withstand longer term shutdowns. While these timeframes, shown previously in Figure 1, have similar terminology to the county action plan, they are described in greater detail below.

1.SHORT TERM RECOVERY PHASE

Short term recovery are those actions and activities that take place within several days to up to two weeks post-disaster. The actions and activities are those needed to get businesses back up and running as quickly as possible. Communication with the business community will help the County know what specific issues businesses are facing. This phase is the time to implement plans to provide temporary assistance as needed for businesses until more permanent solutions become available. One consideration during this time is that federal funding from agencies such as SBA, FEMA and HUD may not yet be fully available as damages are being assessed by these agencies.

Short term recovery activities often involve recovery of the fundamental elements and resources needed to get businesses running. Activities include the bare essentials and the necessary environment needed for a business to function and often include the following items:

- Access to electricity
- Access to potable water
- Access to food
- Safety (includes safety from both natural and manmade threats, such as rioting and looting)
- Physical access to business locations
 - Customers and employees need access to business
- Access to broadband/internet/cell phone
 - Many businesses can function partially, or even entirely, if they have adequate telecommunications services.

2. INTERMEDIATE RECOVERY PHASE

Intermediate recovery begins after the short term recovery phase ends, several days to up to two weeks post-disaster, and extends out to approximately twelve months after the disaster event. Many of the activities developed to address short term recovery needs continue to apply as the County transitions into the intermediate recovery phase. Since few disaster impacts can be fully addressed within several days of the disaster event, most of the short term recovery activities continue into the intermediate recovery phase. The focus of activities in this phase remain on getting the bare essentials functioning for businesses to provide some level of service. Similar to the short term phase, strategies should be developed to provide temporary assistance as needed for businesses until more permanent solutions become available.

3. LONG TERM RECOVERY PHASE

Long term recovery activities are those which take place over the course of months and years. Recovery activities for businesses usually don't extend out to the long term because if issues aren't addressed in a more immediate fashion the business runs the risk of failing. However, if a disaster results in severe impacts that permanently prevent recovery, such as landslides burying a region under dozens of feet of rock and soil, or make recovery so cost prohibitive that it is unreasonable for projects to be undertaken, then long-term economic recovery projects may extend into the long term.

C. Economic Recovery Activity Categories

Economic recovery activities can be broken up into a few larger categories for which specific projects can be developed. These general categories involve related services or business objectives and include factors such as: utilities; accessibility and mobility; labor; customers; facility improvements; financial recovery; and migration focus. Prioritization of projects can take place within each of these categories or more generally based on needs.

1. UTILITIES (POWER, WATER, TELECOMMUNICATIONS)

The first priority is identifying activities to get utility services up and running and available to as many people and businesses as possible. This may necessitate only providing utility service for limited periods of time or in specific geographic areas. The economic recovery plan should identify and prioritize these activities among the highest. Modern-day business reliance on broadband/internet access has made the reestablishment of these services almost as important as core utility services, such as water and power.

2. ACCESSIBILITY AND MOBILITY

Having physical access to businesses by both customers and employees will be critical in the days immediately following a disaster. Customers, employees, response and recovery personnel and service providers must be able to access and effectively move through a community in order for much of the local economy to begin recovery. Roads, bridges, levies, flood control facilities, airports, ports, and other general infrastructure, must be prioritized in order to get necessary physical and transportation connections reestablished as soon as possible. Communication may be non-functional or/and delivery services may be unable to access areas within the County. Local business access is critical and allows for businesses to begin earning revenue and paying wages as soon as possible. Additionally, establishing local access to businesses also allows businesses to potentially serve response and recovery personnel assisting with the disaster. In some cases, these emergency response personnel may become a substantial temporary, but much needed, customer base.

3. LABOR

Getting employees back to work, especially in cases where many of the employees are local residents, will greatly increase local economic stability and community resiliency. Recovery activities may vary greatly due to the variety of reasons the labor force may not be available after a disaster event. In development of the plan, some common factors influence the availability of labor force and should be considered when attempting to identify and prioritize recovery activities, including:

- Accessibility
 - Regional or local road closures
 - Regional transportation issues and barriers
- Displacement of residents (local labor force base)
- Availability of family care providers to enable work force continuity
- Availability of critical services, such as those industries providing food, fuel, etc.

CONSIDERATIONS

When looking to prioritize projects the County should consider the following issues:

- Which projects provide multiple benefits or assist the most diverse (i.e., residents, businesses, and local government) or greatest number of beneficiaries
- Which projects contribute to increasing or supporting health and safety efforts
- Which projects can be implemented quickly and/or easily
- Which projects help shorten business reopening timelines
- Which projects have funding currently available.

- Lack of information (customers don't know the business is open)

Evaluating the possible need for services is important when identifying and considering recovery activities, such as temporary transit systems (e.g., busing) to provide options for getting employees and customers to business centers. This may be able to be done in coordination with local ventures.

4. CUSTOMERS

The specific reasons why customers may not be patronizing local establishment may vary based on impacts from a disaster in addition to several other factors. Therefore, specific projects or programs may be difficult to plan for ahead of time and may need to be developed as recovery begins. However, some of the most common factors impacting customers include:

- Accessibility (see Labor above)
- Displacement of residents (local customer base)
- Lack of information (customers don't know that the business is open)
- Impacts to local attractions impacting tourism
- Fear of leaving homes for safety reasons

The County will also consider communication strategies to keep local customers informed in addition to addressing the immediate factors directly negatively impacting customers, such as access to businesses. Providing fundamental information like which stores or business areas are accessible and available to the public is crucial in reconnecting customers with local organizations. There is often a lot of confusion, disinformation, rumor or a substantial gap or lag in information immediately following a disaster, which should be anticipated and accounted for as part of recovery planning. By providing accurate and proper information, this can effectively lead to a more effective and comprehensive recovery process.

5. FACILITY IMPROVEMENTS

Direct physical impacts to businesses from disaster events must be addressed as part of the recovery process.

Business repairs and recovery

Consideration will need to be given to the recovery activities that provide direct assistance for repairs or replacement of damaged facilities. The County may want to consider prioritizing smaller businesses since they may not have the same financial and support resources the larger businesses may have. Coordination and communication with and among owners will be essential in obtaining a complete understanding of the needs and supplies deemed critical by the impacted entities for enabling them to get up and running once more.

Resupply stock/inventory

Many businesses may have lost stock due to the disaster event and the supply chain. Evaluating recovery activities that help business regain necessary stock to help get them up and running for a more extended period of time is crucial. Activities focused on quickly reestablishing all phases and stages of supplies and other stock are critical to recovery and rebuilding the local economy.

Temporary structures or sites

In some post-disaster situations, it may be best or most advantageous for the County to set up an area where businesses can locate temporarily or assist in providing temporary structures from which businesses can provide goods and services. This hub concept of centralizing potential services, food, materials, and other goods into one site will need to account for safety, accessibility of the community, and access to utilities in determining the exact temporary location.

Services from home

The County may also want to consider programs that support organizations being run from people's homes as a short term solution to get businesses running. Options to provide this support would have to be closely examined and properly designed if they are to be funded with state or federal funds. Regulations sometimes make these types of support projects a little bit more difficult to fund since it is more difficult to qualify and implement support tools.

6. FINANCIAL RECOVERY

As recovery occurs there may be many businesses that begin to suffer substantial debt either paying for recovery costs or using lines of credit to help pay for operating costs since patronage and the resulting revenues may have been decreased in the wake of the disaster. Identifying activities that could help businesses offset these debts and deferred costs to avoid having owners slide into financial ruin is important.

7. MITIGATION FOCUS

As time extends beyond the disaster event and the dire urgency of immediate recovery begins to subside, recovery efforts shift focus to be more through the lens of mitigation. This mitigation focus is simply a way of designing recovery programs and projects that have resilience features incorporated into them and helps reduce future impacts from disasters. Resources to inform improved resilience are the Hazard Mitigation Plan Mitigation Strategies (Tompkins County 2021b), as well as Appendix A - Resilience Land Use Mechanisms of the document.

Regarding land use, Appendix A details efforts that local governments can undertake to enhance their resiliency by reviewing their existing codes and ordinances and assessing whether those rules support the best practices outlined in this report. Additionally, all municipalities within Tompkins County are also encouraged to consider adopting the model Disaster Recovery Ordinance and Disaster Reconstruction Ordinance provided in this report, so that they are in place in the event of a future disaster. Additional resources and examples of ordinances to support these actions are included in Appendix A:

- Recommended next steps for Tompkins County municipalities
- Best practices for land use codes and building codes are discussed including moratoria and temporary restrictions, and expedited repair and reconstruction permitting
- A case study review of selected municipalities in Tompkins County undertaken to look at what types of regulations and plans are currently in place.

- Model Disaster Recovery Ordinance that local municipalities can adopt
- Model Disaster Reconstruction Ordinance that local municipalities can adopt
- Additional available resources for municipalities to review for further information when undertaking implementation actions to update land use regulations that will result in more resilient development practices.

VII. RECOVERY ACTIVITIES

Economic recovery efforts are conducted in coordination with other recovery activities defined in the Disaster Recovery Plan.

A. Communication

Communication may be the single most important component for local businesses during recovery. There must be adequate outreach in a variety of methods to ensure information, support, and guidance is getting to the business community.

B. Restoration of Utility Services

Restoration of utility services would include any activities to assist in the expeditious return of utility services. Activities include repair to water pumping stations, restoration of drinking water lines, repair/replacement of downed power/cable lines and, repair/replacement of cell phone towers.

1. TEMPORARY SERVICES

Identify types and sources of temporary services for the following necessities:

- Power – Establish a business recovery area. Electricity may only be able to be provided to limited geographic areas in the short term. Designate areas where businesses can temporarily relocate to have access to electricity and conduct business.
- Potable water
- Broadband
- Cellphone towers

C. Debris Removal/Clean-Up

Clean-up and debris removal after a disaster helps restore access to communities allowing supplies, patrons, delivery services, workers and response and recovery specialists to make their way to local businesses.

D. Utilization of Local Business

Identification of local businesses to assist with or benefit from debris management and clean-up supports timely recovery. It is important to work hand-in-hand with local businesses to identify needs and available support services.

E. Business Support

Work with local businesses, non-profits, stakeholders, and community groups to provide entities with support services and guidance on recovery. These services could include everything from funding for bricks and mortar facility improvements to legal services to assist in recovery.

1. FINANCIAL ASSISTANCE

Direct financial assistance may be provided in a variety of methods. These sources should be identified pre-disaster and recovery activities considered for including in the economic recovery plan based on the regulations and limitations imposed on each of those funding sources.

Sources of Recovery Funding

Public

Local, state, and federal funding sources. Some of these may include

- Governor's Office of Storm Recovery
- Chambers of Commerce
- FEMA
- SBA
- HUD

Private

- Insurance
- Loans

Non-Profit

- Red Cross
- Salvation Army
- Habitat for Humanity
- Churches and community groups (donated goods and supplies)
 - Donated goods and supplies
 - Donated construction materials and labor
 - Temporary shelter, food, water, and clothing.

F. Housing Recovery

Though it may not seem like an economic recovery activity at first glance, housing recovery projects are critical in restoring the local economy. By repairing and replacing housing, the County would assist in securing local customers who will then buy local goods and services. At the same time, the housing recovery activities would serve to ensure that local workers are available as they can live locally rather than being displaced, having

limited access to local employment. The third benefit is that the recovery activities themselves, such as housing rehabilitation and construction, can feed into the local economy by employing local contractors in the housing recovery activities.

VIII. LOCAL GOVERNMENT ROLES AND RESPONSIBILITIES

Similar to the activities undertaken by the County ERT, the local governments (villages, towns, and city) should plan for disaster recovery to allow for a more swift and efficient recovery. Planning also helps inform and support the County’s economic recovery plan organization and development process. While event-specific plans are needed after a disaster, the establishment of a pre-disaster plan and ordinance facilitates efficient recovery and can set the stage for resilient reconstruction and expeditious economic recovery. The State of New York requires local governments to develop their own post-disaster recovery and redevelopment plan under 2013 New York Consolidated Laws EXC – Executive Article 2-B - (20 - 29-J) STATE AND LOCAL NATURAL AND MAN-MADE DISASTER PREPAREDNESS; 28-A - Post disaster recovery planning. Universal Citation: NY Exec L § 28-A (2012). However, it is more efficient to develop a pre-disaster recovery plan when the stresses and strains of active disaster recovery are not burdening staff, and the time needed to properly develop a comprehensive and detailed recovery plan is available. Additionally, the development of a pre-disaster plan can function as the framework for the post-disaster plan allowing the post-disaster plan to be developed much more quickly and efficiently.

The suggested workflow/relationship for local economic recovery planning is indicated in **Error! Reference source not found.** below.

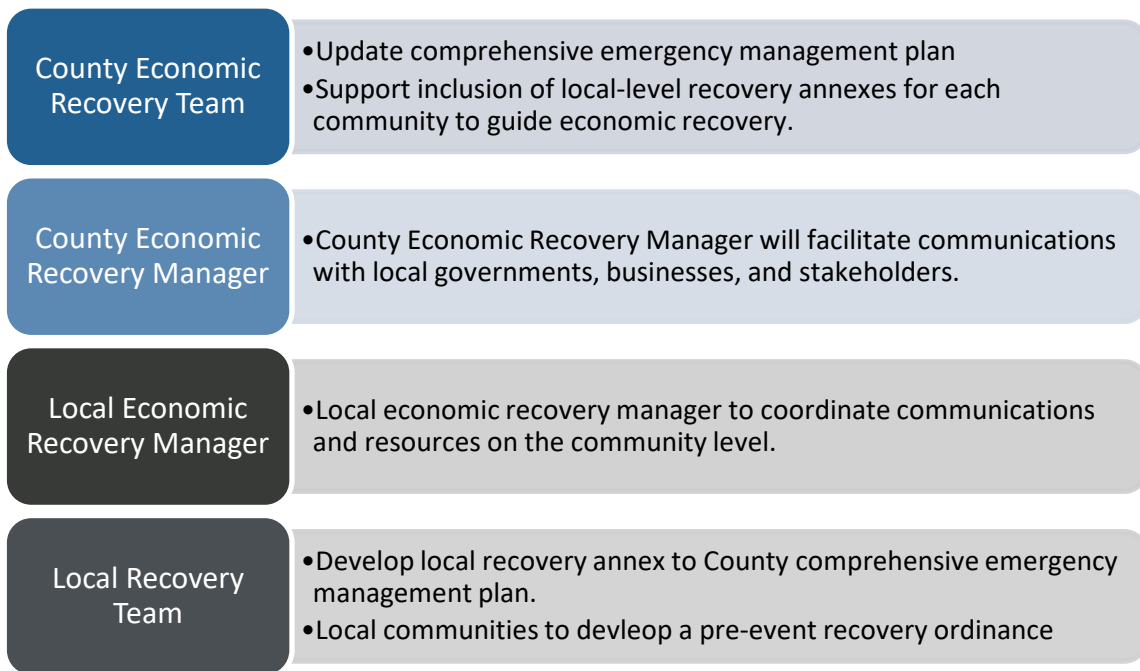


Figure 9. Local Government Recovery Relationship

In addition to ERT responsibilities, the intersection of local government planning and ordinances requires the integration of recovery principles into local land use policy and planning. For example, comprehensive planning should incorporate or reference delineated hazard areas to support the establishment of codes and ordinances designed to minimize damages or development in these areas. Other proactive activities include the establishment of a post-disaster recovery ordinance *prior to a disaster* to efficiently manage short and long term recovery. The purpose of such an ordinance is to establish local procedures and administrative activities to address specific post-disaster recovery actions.

Tompkins County villages, towns, and the City of Ithaca will be encouraged to first review existing codes and ordinances to assess whether resilient best practices fit their needs, and if so, which such best practices should be considered for adoption. All municipalities within Tompkins County are encouraged to add additional resiliency measures to their codes including adopting the Disaster Recovery Ordinance and Disaster Reconstruction Ordinance described in Appendix A so that those laws are in place in the event of a future disaster. Additional resources and examples of ordinances are also found in Appendix A.

Action #17 – Perform a land use analysis to support pre-disaster resilience and mitigation activities.

Action #18 – Consider development and adoption of pre-disaster recovery ordinance to facilitate efficient economic recovery.

Local government are encouraged to utilize the same processes outlined in this document for the County in the development of their own Economic Recovery Plan, which includes the following:

- **Pre-Plan Development Activities**
 - Update local other municipal planning documents for consistency
- **Economic Recovery Plan Development**
 - Introduction
 - Describe purpose of the document
 - Provide socioeconomic, demographic, and business summary data for jurisdiction
 - Best Practice: Ensure that Economic Recovery Plan aligns with other municipal planning documents.
 - Economic Development Team
 - Define purpose and authority
 - Identify how it will function
 - Define roles and responsibilities
 - Define recovery office details
 - Identification of Economic Impacts
 - Define economic impacts
 - Review local HMP for identification of impacts by hazard
 - Conduct Economic Vulnerability Analysis

- Identify economic impacts by hazard type (cross reference Economic Vulnerability Analysis with HMP impact data)
- Define process for Identification and Prioritization of Recovery Activities
 - Define process for identifying economic impacts post-disaster
 - Identify Recovery Activity Categories (this is recommended to help ease prioritization process)
 - Identify activity prioritization process
- Define Recovery Activities
 - Define process for identifying recovery activities post-disaster
 - Develop a series of general recovery activities to address the most common or substantial impacts from disasters by disaster type
- Perform a land use analysis to support pre-disaster resilience and mitigation activities
- Develop and adopt a pre-disaster recovery ordinance to facilitate efficient economic recovery.

IX. PRIORITIZED ACTIONS TO SUPPORT ECONOMIC RECOVERY

Table 1, below, summarizes the actions that appear throughout this document. They are provided as building blocks for the development of a county-wide recovery plan and associated local recovery plans. Actions to support economic recovery, taken by both county and local governments, improve recovery and enhance resiliency. Development and implementation of local recovery plans are the responsibility of local governments. Timeframes for these actions are considered to be either immediate term (to be implemented in less than two years) or short term (to be implemented in less than five years). Long term actions are more appropriately identified in the overarching pre-disaster recovery plan.

Table 1. Prioritized Actions to Support Economic Recovery

Implementation Entity	Action #	Action Name	Action Description	Timeline
County and Local Governments	ERP Action #1	Economic Vulnerability Analysis	Conduct an Economic Vulnerability Analysis in conformance with FEMA guidance.	Short
County and Local Governments	ERP Action #2	Planning Consistency	Review current planning material to ensure consistency across documents.	Short
County and Local Governments	ERP Action #3	Mitigation and Resilience Integration-Planning	Review current planning material and incorporate recommendations or processes described in disaster recovery and mitigation documents.	Immediate
County and Local Governments	ERP Action #4	Mitigation and Resilience Integration-Preparedness	Review and update the current Comprehensive Emergency Management Plan (CEMP) to recognize and include actions to increase resilience during recovery and to specifically include county- and local-level economic recovery annexes to provide a framework for economic recovery.	Immediate
County and Local Governments	ERP Action #5	Economic Recovery Definition	Identify County’s general role and responsibilities in post-disaster economic recovery support and define what “economic recovery” means for the County.	Immediate

County and Local Governments	ERP Action #6	Economic Recovery Team - Extent of Powers	Define the extent of powers for the Economic Recovery Team and whether this includes “emergency” powers. The exact limits of power may take time to agree upon and formal adoption of these powers for the Economic Recovery Team by the County may be required.	Immediate
County and Local Governments	ERP Action #7	Economic Recovery Team - Organization	Identify the agency or department under which the Economic Recovery Team will be established.	Immediate
County and Local Governments	ERP Action #8	Economic Recovery Team - Responsibilities	Establish recovery team responsibilities, limits of power, and timelines for responsibilities for recovery activities.	Immediate
County and Local Governments	ERP Action #9	Response to Recovery Transition Planning	Establish when and how responsibilities transition from response teams to recovery teams. Establish how responsibilities will transition and to whom when the Economic Recovery Team is deactivated.	Immediate
County and Local Governments	ERP Action #10	Economic Recovery Team - Position within County Command Structure	Define the Economic Recovery Team’s position and responsibilities within the County’s overall organizational structure.	Immediate
County and Local Governments	ERP Action #11	Economic Recovery Team - Member Roles and Responsibilities	Define the functional areas of responsibility within the Economic Recovery Team.	Immediate
County and Local Governments	ERP Action #12	Economic Recovery Team - County Staff Member Assignments to ERT	Identify internal staff to fill recovery team positions and identify if supplemental staff is necessary.	Immediate

County and Local Governments	ERP Action #13	Recovery Office Location	Identify Economic Recovery Office's physical location. This may take longer since the identification of office needs and security of the space may take time and face several obstacles. Temporary locations can be defined in the short term.	Immediate
County and Local Governments	ERP Action #14	Outreach Implementations	Incorporate recommendations from Resilience Messaging Playbook into Economic Recovery Plan.	Immediate
County and Local Governments	ERP Action #15	Impact Data Collection - Documentation	Identify who will be responsible for collecting and consolidating hazard impact data as well as where the information will be maintained.	Immediate
County and Local Governments	ERP Action #16	Impact Data Collection - Process	Identify how impact data will be collected and maintained post-disaster. Identify the types of information being sought and develop a secure process for storing information.	Immediate
Local Governments*	ERP Action #17	Land use analysis	Perform a land use analysis to support pre-disaster resilience and mitigation activities.	Short
Local Governments*	ERP Action #18	Pre-Disaster Recovery Ordinance	Consider development and adoption of pre-disaster recovery ordinance to facilitate efficient economic recovery.	Short

* These actions are unique to local governments as local governments are empowered to manage and regulate land use within their jurisdictions.

APPENDIX A. RESILIENT LAND USE MECHANISMS

A. Introduction

Municipalities have several options to ensure their land use regulations and permit processes are ready for a future disaster. This report includes:

- Recommended next steps for Tompkins County municipalities
- Best practices for land use codes and building codes are discussed including moratoria and temporary restrictions, and expedited repair and reconstruction permitting
- A case study review of selected municipalities in Tompkins County undertaken to look at what types of regulations and plans are currently in place.
- Model Disaster Recovery Ordinance that local municipalities can adopt
- Model Disaster Reconstruction Ordinance that local municipalities can adopt
- Additional available resources for municipalities to review for further information when undertaking implementation actions to update land use regulations that will result in more resilient development practices.

B. Recommended Next Steps for Tompkins County Municipalities

Upon completion of this resiliency and recovery planning effort, it is recommended that local governments review their existing codes and ordinances to assess whether those rules support the best practices outlined in this report. If there are aspects that are not currently included, municipalities should consider incorporating and adopting those practices into their land use codes. All municipalities within Tompkins County are also encouraged to consider adopting the model Disaster Recovery Ordinance and Disaster Reconstruction Ordinance provided in this report, so that they are in place in the event of a future disaster. Additional resources and examples of ordinances to support these actions are included in this report, as well.

1. BEST PRACTICES FOR LAND USE ORDINANCES AND BUILDING CODES

Municipalities have several options to ensure their land use regulations and permit processes are prepared for managing future disasters. For this report, the focus is on flooding, however these best practices support many of the critical hazards facing Tompkins County. This section also discusses best practices for land use codes and building codes, moratoria, and temporary restrictions, expedited repair and reconstruction permitting. Later in the report, two model best practice ordinances for disaster recovery and disaster reconstruction are included for consideration by municipalities.

Zoning Regulations

Zoning regulations can help protect the safety of a municipality from disasters by addressing flooding. Techniques for enhancing local codes can include adopting waterfront zones and waterbody setbacks, height, bulk, and area regulations, building elevations, transfer of development rights, natural features protections, and provisions in the nonconforming uses section. The intention of such provisions is to protect important environmental assets and increase community resiliency from the time of inception of a development proposal.

Height, Bulk, and Area Regulations

Height, bulk, and area regulations control the size, location, and placement of structures. These techniques can be used to control development and also make it more resilient related to flooding when certain provisions are added to zoning regulations. Higher minimum lot sizes and maximum lot coverage can provide more area for stormwater management and reduce flood risk. A lower maximum lot coverage reduces the amounts of impervious surfaces thereby reducing stormwater runoff. Related to building elevations (discussed below), maximum building height can be adjusted to permit an increase in building elevations in floodprone areas.

Building Elevations

Municipalities can include provisions in their ordinances to allow, or require, buildings to be elevated to provide protection for structures in floodprone areas. Zoning laws often have a maximum building height requirement, which is often measured from the ground. When homes are elevated, particularly if the surrounding land is not also raised, such action can create a circumstance where the building's maximum permitted height is exceeded. Even when the land is raised, it can create a situation where the raised structure is well above the height of surrounding structures and thus, appears to be out of place amongst neighboring properties. There are two ways to generally address this situation: 1) allow for taller building heights in floodprone areas, or 2) provide an exception to building height for areas within Special Flood Hazard Areas (SFHAs) such that a structure has to be a minimum height above the Base Flood Elevation (BFE) and total building height is measured from the BFE, not the ground.

Waterfront Zones

Zoning for waterfront areas could include waterfront or streamside zoning districts, waterfront overlay districts, and waterfront bluff overlay districts. Municipalities with New York State Local Waterfront Revitalization Programs (LWRPs) typically adopt such waterfront zoning, but an LWRP is not required for waterfront zoning to be adopted by the municipality. Municipalities need to be eligible for LWRPs. The LWRP process begins with a planning process that centers on developing a vision for the future of the waterfront and moves to a multi-level approval process. Once an LWRP is approved and in place, municipalities are eligible for implementation funds through the Local Waterfront Revitalization Program to begin to implement identified and prioritized projects.

Waterbody Setbacks (Riparian Buffers)

Municipalities often adopt setbacks from waterbodies (lakes, streams, and wetlands) to ensure that there is adequate protection from flooding and/or to reduce the potential for pollutants to enter the waterbody. Often the provisions of the riparian buffer require the preservation or planting of native trees and shrubs. The riparian buffers slow runoff, protect water quality, and in concert with plantings, stabilize soil and control erosion. In addition, a larger setback distance from a waterbody can help protect development from flooding, depending on topography. For more information on model ordinances, easements, protection agreements and stream buffer planting guides visit <https://www.tompkinscountyny.gov/planning/water-resources-stream-buffers>.

Natural Resource Protections

Natural Resource Protection Areas are regulated areas included in zoning regulations related to the protection of important areas such as along streams, forested land, floodplains, wetlands, steep slopes, areas where there are threatened or engaged species, etc. The development of these regulations requires a more detailed analysis of areas to be protected and may exclude these areas from development (such as steep slopes over 25% or more, SFHAs, etc.) or require minimum setbacks from these areas. The Tompkins County Unique Natural Areas Inventory could be used as a starting point for identifying areas for protection.

Nonconforming Uses or Lots

Nonconforming uses and nonconforming lots are regulated within a municipality's zoning law, which typically limits expansion or enlargement of the nonconforming use and prohibits substantial improvements on a nonconforming lot. Changes to the zoning language would prevent nonconforming uses or lots from expanding or substantially improving the nonconforming uses or structures within a floodplain. These types of regulations on nonconforming uses can help mitigate existing, and possibly longstanding, issues with uses or lots that are frequently flooded and that should not be expanded or substantially improved due to the likelihood of a future flood event resulting in direct adverse impacts.

Subdivision Regulations

Subdivision regulations can be adapted to include provisions that will help minimize flood damage. For example, there could be provisions to exclude the SFHAs and 0.2% Annual Chance Flood Areas, and possibly buffer these areas from the minimum buildable areas. Subdivision regulations can also encourage minimal land disturbance, avoid wetlands and flood-prone areas altogether, limit impervious surfaces, and minimize stormwater runoff. One technique is to remove land unsuitable for development to protect important natural features. Conservation subdivision or cluster development is another technique that requires more compact development to avoid the important natural resources.

Moratoria and Temporary Restrictions

Moratoria and temporary restrictions are enacted to allow time post-disaster to assess structural vulnerabilities, clean-up and stabilize any hazardous buildings, repair damaged infrastructure, and look at options for mitigation measures. It also allows time to bring in outside experts to assist, if needed, and secure funding for repairs and improvements following a disaster. The intent of the moratoria is to allow for a pause in building during the damage assessment and post-disaster recovery planning time period. Often municipal operations including building departments are closed following a major disaster event as it is or would have reduced hours.

Expedited Repair and Reconstruction Permitting

Emergency ordinances related to expedited repair and reconstruction permitting could also be adopted in lieu of the model ordinance described in Section 5. This type of ordinance would allow for reconstruction to proceed more quickly. An example emergency ordinance issued in 2018 is described in the [Hawai'i Disaster Recovery Preparedness Guidance](#). (Tertra Tech, Inc. 2019) The emergency ordinance included standards where the owner

declares that repairs will follow the code, there is written consent for entry of County and State officials to inspect work progress, and there is an agreement that all permits will be applied for within 30 days of submittal for a property owner who has been approved for expedited permitting.

C. Case Studies of Existing Plans & Codes within Tompkins County

In order to assess municipal resiliency regulations, a cross section of different sized municipalities in Tompkins County were examined. The Town of Caroline, Village of Cayuga Heights, City of Ithaca, and Town of Lansing were selected based on the size of the community and availability of documents, to examine their codes, plans, and studies for municipal resiliency regulations. Generally, the municipalities have some plans, studies, and codes that support resiliency; however, the analysis identifies further opportunities to introduce additional resilient best practices described below. The review focuses on documents that include specific resiliency elements focused on flooding.

While all the case study municipalities have resilient elements in some of their codes additional resilient land use practices could be added to the land use codes. Table 1 summarizes where resilient code or regulation language exists within case study communities. This table is intended as an overview to show that additional best practices inclusion in codes could be useful for the case study municipalities in Tompkins County.

Table 1. Resiliency Elements in Land Use Ordinances of Case Study Communities

	Town of Caroline	Village of Cayuga Heights	City of Ithaca	Town of Lansing
Waterfront Zones		NA	✓	✓
Waterbody Setbacks (Riparian Buffers)	✓	✓	✓	
Height, Bulk & Area Regulations			✓	
Building Elevations	✓			
Nonconforming Uses or Lots			✓	
Natural Resources Protection		✓	✓	
Subdivision Regulations	✓	✓	✓	
Moratoria & Temporary Restrictions				

Please note that because the Town of Caroline is currently considering a zoning regulation their resilient elements described in the Draft Zoning Law above description are not included - only final, adopted regulations are included in the table.

D. Model Disaster Recovery Ordinance

In order to provide a template for local governments to prepare for faster and more efficient recovery, the American Planning Association developed a model Disaster Recovery Ordinance. Planning before a disaster and memorializing a pre-disaster recovery ordinance allows communities to focus on expedient recovery to minimize disruptions to the community and its economy. In the absence of a pre-disaster recovery plan, the purpose of such an ordinance is to provide a foundation for initiation of post-disaster recovery activities such as damage assessment, permitting, inspections, temporary repairs, temporary business sites, redevelopment

management. The following model ordinance is adapted from the [American Planning Association Model Disaster Recovery Ordinance](#) to align to the form of government in the County

One substantial action a municipality can take to move toward better management of disaster mitigation, preparedness, response, and recovery is adopting an ordinance prior to a damaging event. Such an ordinance will help to efficiently manage short and long term recovery efforts and will reflect forethought related to the agencies, staff, policies, procedures, and communications needed to avoid delays in recovery and to minimize economic impacts. Although less ideal, a recovery ordinance could be adopted post-event as well.

The Model Recovery Ordinance provided in this section focuses on actions necessary to better facilitate recovery, provides a structured format for capturing essential recovery requirements, and offers prototypical language adaptable to unique local circumstances. Importantly the ordinance should establish a Recovery Management Organization having authority to exercise powers and procedures, including temporary regulations following a declaration of local emergency and while such declaration is in force.

The recovery ordinance should:

1. Be adopted by local governing body action, if possible, before a disaster happens, as well as periodically updated and amended, as needed.
2. Authorize establishment and maintenance of a local recovery management organization, coordinated closely with the local emergency management organization.
3. Direct the preparation of a pre-event short and long term recovery plan in concert with the local emergency management organization and community stakeholder organizations.
4. Establish emergency powers by which the local government staff can take extraordinary action to protect public health, safety, and welfare during post-disaster recovery.
5. Identify methods for local government to take cooperative action with other entities to assure full access to all external financing resources as well as to facilitate recovery.
6. Specify the means for consulting with and assisting citizens, businesses, and community stakeholder organizations during recovery planning and implementation.

The Model Recovery Ordinance is written to reflect a council manager form of government used by many cities and counties. In this form, executive as well as policy-making authority resides with an elected governing body, such as a county legislature, and administrative powers are delegated to staff through a town supervisor, mayor, or county administrative officer. Also in use is the mayor-council form of local government, characterized by a separately elected executive, such as a mayor or town supervisor. In this form, policy-making authority is shared by the elected executive and other governing body members in highly differentiated ways, depending upon location, with administrative powers delegated to staff through the executive. Although reflecting the mayor-council form, the Model Recovery Ordinance can be tailored to other forms of government.

The Model Recovery Ordinance emphasizes a recovery management process operated in conjunction with administrative powers of local government under the policy-making and/or executive powers of the governing body. It acknowledges the distinction between the bulk of more routine administrative actions reflected in short term recovery provisions and the policy process more common to long term recovery, directed through formal action by the governing body, and often marked by public hearings and controversy.

Model Recovery Ordinance

An ordinance establishing a recovery organization, authorizing the preparation of a recovery plan, and granting emergency powers for staff actions that can ensure timely and expeditious post-disaster recovery for the (insert City or equivalent) and amending Section(s) ___ of the Municipal Code (or equivalent).

Chapter __. Disaster Recovery

[Insert here: listing of all section and subsection titles]

WHEREAS, the Town [or equivalent] is vulnerable to various natural hazards such as earthquakes, flooding, landslides, wildfires, and severe storms causing substantial loss of life and property resulting in declared local, state, or federal level disasters;

WHEREAS, the Town [or equivalent] is authorized under state law to declare a state of local emergency and take actions necessary to ensure the public safety and well-being of its residents, visitors, the business community, and property during and after such disasters;

WHEREAS, it is essential to the well-being of the Town [or equivalent] after disasters to expedite recovery, mitigate hazardous conditions threatening public safety, and improve the community;

WHEREAS, disaster recovery can be facilitated by the establishment of an ongoing Recovery Management Organization within the town government to plan, coordinate, and expedite recovery activities;

WHEREAS, preparation of a pre-event Recovery Plan can help the city organize to expedite recovery in advance of a declared disaster and mitigate hazardous conditions before and after such a disaster;

WHEREAS, post-disaster recovery can be facilitated by the adoption of a pre-event ordinance authorizing certain extraordinary staff actions to be taken to expedite the implementation of recovery;

WHEREAS, it is mutually beneficial to identify in advance of a declared disaster the necessity to establish and maintain cooperative relationships with other local, regional, state, and federal government agencies to facilitate post-disaster recovery;

WHEREAS, it is informative, productive, and necessary to consult with representatives of business, industry, citizens, and community stakeholder organizations regarding the most suitable and helpful means to facilitate post-disaster recovery;

The Town Board [or equivalent] does hereby ordain:

Section

1. **Authority.** This ordinance is adopted by the Town Board [or equivalent] acting under the authority of the [authorizing legislation], [State Emergency Management Act or equivalent], and all applicable federal laws and regulations.
2. **Purposes.** It is the intent of the Town Board [or equivalent] under this chapter to:

- a. Authorize, in advance of a disaster, the establishment and maintenance of an ongoing Recovery Management Organization within the Town [or equivalent] to plan, prepare for, direct, and coordinate orderly and expeditious post-disaster recovery;
 - b. Direct, in advance of a declared disaster, the preparation of a pre-event Recovery Plan for short-term and long-term post-disaster recovery, to be adopted by the Town Board [or equivalent] and amended periodically, as necessary;
 - c. Establish, in advance of a disaster, powers to be implemented upon declaration of a local emergency by which staff of building, planning, public works, and other departments can take extraordinary action to reasonably assure safe and healthy post-disaster recovery;
 - d. Identify methods by which the Town [or equivalent] may take cooperative action with other governmental entities to facilitate recovery;
 - e. Specify means by which the Town [or equivalent] may consult with and assist citizens, businesses, and community organizations during the planning and implementation of recovery procedures.
3. **Definitions.** As used in this ordinance, the following definitions shall apply:
- 3.1 Development Moratorium** shall mean a temporary hold, for a defined period of time, on the issuance of building permits, approval of land-use applications, or other permits and entitlements related to the use, development, and occupancy of private property in the interests of protection of life and property.
- 3.2 Director** shall mean the Director of the Recovery Management Organization or an authorized representative. [This organization should preferably be established in advance of an event and memorialized in a pre-disaster recovery plan.]
- 3.3 Disaster** shall mean a locally declared emergency also proclaimed as a state of emergency by the Governor of New York and declared a disaster by the President of the United States.
- 3.4 Emergency** shall mean a local emergency, as defined by the Municipal Code, which has been declared by the City Council for a specific disaster and has not been terminated.
- 3.5 Flood Insurance Rate Map (FIRM)** shall mean an official map of a community on which the Federal Insurance Administrator has delineated both the special hazard areas and the risk premium zones applicable to the community. A FIRM that has been made available digitally is called a Digital Flood Insurance Rate Map (DFIRM).
- 3.6 Hazard Mitigation Grant Program.** A program for assistance to federal, state, and local agencies whereby a grant is provided by FEMA as an incentive for implementing mutually desired mitigation programs, as authorized by the Stafford Act and related federal regulations, plans, and policies.
- 3.7 Historic Building or Structure** shall mean any building or structure included on the national, state, or municipal register of historic places, and structures having historic significance within a recognized historic district.

3.8 Individual Assistance Program. A program for providing small grants to individuals and households affected by a disaster to offset the loss of equipment, damage to homes, or the cost of relocation to another home, as authorized under the Stafford Act and related federal regulations.

3.9 In-Kind shall mean the same as the prior building or structure in size, height and shape, type of construction, number of units, general location, and appearance.

3.10 Interim Recovery Strategy shall mean a post-disaster strategic program identifying major recovery initiatives and critical action priorities either in the Recovery Plan or necessitated by specific post-disaster conditions.

3.11 Local [and/or County] Hazard Mitigation Plan. A plan prepared for governing board adoption and FEMA approval, which, among other things, assesses the type, location, and extent of natural hazards affecting the Town [or County]; describes the vulnerability of people, structures, and infrastructure facilities to such hazards and estimates potential losses, and includes a mitigation strategy that provides the Town's [or County] blueprint for reducing potential losses identified.

3.12 Multi-Agency Hazard Mitigation Team. A team of representatives from FEMA, other federal agencies, state emergency management agencies, and related state and local agencies, formed to identify, evaluate, and report on post-disaster mitigation needs.

3.13 Natural Hazards/ Safety Element [or equivalent] shall mean an element of the comprehensive plan that addresses the protection of the community from unreasonable risks associated with earthquakes, landslides, flooding, wildland fires, wind, and coastal erosion, and other natural, technological, and human-caused hazards.

3.14 Public Assistance Program. A program for providing reimbursement to federal, state, and local agencies and non-profit organizations for repair and replacement of facilities lost or damaged in a disaster, as authorized under the Stafford Act, and related federal regulations, plans, and policies.

3.15 Redevelopment shall mean the rebuilding or replacement of permanent residential, commercial, or industrial facilities damaged or destroyed in a major disaster, as well as the construction of large-scale public or private infrastructure, the addition of community improvements, and/or restoration of a healthy economy.

3.16 Recovery shall mean the restoration of housing, transportation, public services, and/or economic activity to levels equal to or better than their pre-disaster states through a series of short-term, intermediate, and long-term strategies and actions.

3.17 Recovery Management Organization shall mean an interdepartmental organization that coordinates city staff actions in planning and implementing disaster recovery and reconstruction functions.

3.18 Recovery Plan shall mean a pre- or post-disaster plan for recovery, comprising policies, plans, implementation actions, and designated responsibilities related to expeditious and orderly post-disaster recovery and redevelopment, as well as long-term

mitigation.

3.19 "Stafford Act" shall mean the Robert T. Stafford Disaster Relief and Emergency Assistance Act (Public Law 93-288, as amended).

Commentary. The preceding definitions are based on terms frequently used in this Model Recovery Ordinance. As other language is added or substituted within specific sections of a local ordinance customized along the lines of this model ordinance, other definitions will need to be added. For example, the term "disaster" is defined to reflect the Stafford Act interpretation in which a local emergency leads to a state-proclaimed emergency and a federally declared disaster. However, in a customized local ordinance, the term might be applied to any level, including local or state-proclaimed emergency. In such cases, the application of the term in a local ordinance would need to be modified, as necessary, to reflect the differing meaning. Additionally, definitions are for the most part written in general terms to allow flexibility of local adaptation and interpretation. More specific definitions, however, can be found in a variety of existing sources. To avoid confusion, in this Model Recovery Ordinance the definition of Flood Insurance Rate Map reflects the specific definition found in 44 CFR 59.1. However, under Model Recovery Ordinance Section 3.7 the term Historic Building or Structure is defined in general language, although a more specific definition can be found in the previously mentioned federal code reference.

4. **Recovery Management Organization.** There is hereby created the Recovery Management Organization [or equivalent] for the purpose of planning, organizing, coordinating, and implementing pre-event and post-disaster disaster recovery actions.
 - a. *Commentary. This ordinance is written with a council-manager form of city government for a small to the medium-sized community in mind. The overall concept here is for the City Manager to run the recovery management organization on behalf of the City Council, reserving the presence of a Mayor for critical junctures following a disaster or for times when policy matters come up needing City Council involvement. In actuality, the City Manager inevitably becomes the pivotal party for informing and advising the City Council on recovery matters, interpreting Council policy, and coordinating staff functions.*
 - b. *In a big-city environment, the presence and availability of the Mayor or a Deputy Mayor may be important from a leadership standpoint, even though the recovery in many instances is largely a staff-driven process with the City Manager as the primary coordinator. Either way, the intent of the following language is to assure an ongoing communications connection between staff and the City Council.*

4.1 Powers and Duties. The Recovery Management Organization shall have such powers as needed to carry out the purposes, provisions, and procedures of this chapter.

4.2 Officers and Members. The Recovery Management Organization shall be comprised of the following officers and members:

- a. The Town Supervisor [or equivalent] who shall be Director;
- b. The Deputy Supervisor [or equivalent] who shall be Deputy Director in the absence of the Town Supervisor;

- c. The Town Attorney [or equivalent] who shall be Legal Adviser;
- d. Other members include [list titles or functions, such as chief building official, town engineer, director of community development or planning, fire chief, emergency management or disaster preparedness coordinator, general services director, historic preservation director, police chief, director of public works, director of utilities, floodplain manager, hazard mitigation specialist], and representatives from such other departments as deemed necessary by the Director for effective operations;

Commentary. The formal structure of a recovery organization will vary from community to community. Department manager and officer titles used locally vary widely. The important thing is the inclusion of the widest array of functions having a direct or indirect role in recovery.

4.3 Relation to Emergency Management Organization. The Recovery Management Organization shall include all members of the Emergency Management Organization [or equivalent] as follows: [list titles, such as emergency management coordinator, fire chief, police chief, etc.]

Commentary. A Recovery Management Organization should encompass all members of the Emergency Management Organization because of inherent interrelationships between hazard mitigation, emergency preparedness, response, and recovery functions.

A close formal relationship should be maintained before, during, and after the state of emergency. When the emergency formally ends, recovery management should continue under the umbrella of the Recovery Management Organization to coordinate short-term recovery operations. At this juncture, the Recovery Management Organization should continue as an important source of coordination of staff inputs on complex long-term recovery planning and redevelopment issues, community workshops that may involve controversy, and City Council hearings to determine preferred policy outcomes.

4.4 Operations and Meetings. The Director shall be responsible for overseeing Recovery Management Organization operations and for calling meetings, as needed. After a declaration of an emergency, and for the duration of the emergency period, the Recovery Management Organization shall meet daily, or as frequently as determined by the Director.

4.5 Succession. In the absence of the Director, the Deputy Director shall serve as Acting Director and shall be empowered to carry out the duties and responsibilities of the Director. The Director shall name a succession of department managers to carry on the duties of the Director and Deputy Director, and to serve as Acting Director in the event of the unavailability of the Director and Deputy Director.

4.6 Organization. The Recovery Management Organization may create such standing or ad hoc committees as determined necessary by the Director.

5. Recovery Plan. The Recovery Management Organization shall prepare a Recovery Plan addressing pre-event and post-disaster recovery policies, strategies, and actions; if possible, the Recovery Plan shall be adopted by the Town Board [or equivalent] before a disaster, and amended after a disaster, as needed.

5.1 Plan Content. The Pre-Disaster Recovery Plan shall be composed of pre- and post-event policies, strategies, and actions needed to facilitate post-disaster recovery. The Recovery Plan will designate lead and backup departmental action responsibilities to facilitate expeditious post-disaster recovery as well as hazard mitigation actions. The Recovery Plan shall address short-term and long-term recovery subjects, including but not limited to: business resumption, damage assessment, demolitions, debris removal, expedited repair permitting, hazards evaluation and mitigation, historical buildings, moratorium procedures, nonconforming buildings and uses, rebuilding plans, restoration of infrastructure, temporary and replacement housing, and such other subjects as may be appropriate to expeditious and wise recovery. To the extent possible, the Pre-Disaster Recovery Plan should reflect a holistic approach (where everyone in the Recovery Management Organization team is working toward common objectives, and roles are defined within a consensus regarding those roles); include language about constructing a mutually agreed-upon vision of community resilience; and also include language regarding local perspectives on sustainability and climate adaptation.

5.2 Coordination with Other Organizations. The Recovery Plan shall identify relationships of planned recovery actions with those of local, regional, state, federal, mutual aid, and nonprofit organizations involved with disaster recovery, including but not limited to: the Federal Emergency Management Agency (FEMA), the American Red Cross, the Department of Housing and Urban Development (HUD), the Small Business Administration (SBA), the Environmental Protection Agency (EPA), the Department of Transportation (DOT), the State Emergency Management Agency [or equivalent] and other organizations that may provide disaster assistance. Prior to adoption or amendment of the Recovery Plan by the Town Board [or equivalent], such organizations shall be notified of its proposed content, and comments shall be solicited in a timely manner.

Commentary. In contrast to most local emergency management organizations, FEMA has substantial recovery and reconstruction responsibilities. To provide direction for the handling of emergency response, relief, and recovery in relation to major disasters, Congress enacted in 1988 the Robert T. Stafford Disaster Relief and Emergency Assistance Act (a.k.a. the Stafford Act), Public Law 93-288, as amended. For most communities, this is an important source of external funding to compensate for certain disaster losses. Since FEMA is an important source of post-disaster infrastructure and other funding, it is important to solicit advice from that agency before the disaster on the Recovery Plan.

5.3 Consultation with Citizens. During the initial and intermediate stages of Recovery Plan formulation as well as prior to its adoption or amendment by the Town Board [or equivalent], the Recovery Management Organization shall conduct outreach to community stakeholder groups, organize and distribute public announcements, schedule and conduct community workshops, and meetings, and/or convene advisory committees composed of representatives of the homeowner, business, and community organizations, or implement other means to provide information and consult with members of the public regarding

preparation, adoption, or amendment of the Recovery Plan. Public comments shall be solicited in a timely manner during the Recovery Plan formulation, adoption, and amendment processes.

Commentary. Direct outreach to the community should be established in advance of a major disaster with the assistance of neighborhood safety or similar programs, such as local Community Emergency Response Team (CERT) organizations. Such outreach should ideally be conducted in conjunction with the preparation of the Recovery Plan. Following a major disaster, proactive outreach is critical to establishing a two-way flow of information, without which controversy inherent in post-disaster settings can become severe. A critically important mechanism in establishing a successful post-disaster relationship between local government, victims, and other community stakeholders has been conduct of weekly meetings between city staff and disaster victims in disaster impacted areas. As an example of such outreach, regular meetings were sponsored by the City of Oakland following the 1991 Oakland Hills Firestorm with beneficial results.

5.4 Adoption. Following preparation, update, or revision, the Recovery Plan shall be transmitted to the City Council [or equivalent] for review and approval. The Town Board shall hold at least one legally noticed public hearing to receive comments from the public on the Recovery Plan. Following a public hearing(s), the Town Board may adopt or amend the Recovery Plan by resolution or transmit the plan back to the Recovery Management Organization for further modification prior to final action.

Commentary. Town Board adoption of this ordinance in conjunction with a pre-event recovery plan is extremely important for successful post-disaster recovery. The Council needs to become comfortable with the concept of a pre-event plan and ordinance adoption in order to feel confident in staff during post-disaster recovery operations. If Council adoption is not possible immediately because of the press of other business, then timely opportunities should be sought for bringing the recovery plan and ordinance forward, such as when a catastrophic disaster has struck in another jurisdiction.

5.5 Amendments. The Recovery Management Organization shall address key issues, strategies, and information bearing on the orderly maintenance and periodic amendment of the plan. In preparing amendments, the Recovery Management Organization shall consult in a timely manner with the City Council [or equivalent], City departments, businesses, community organizations, and other government entities to obtain information pertinent to possible Recovery Plan amendments.

5.6 Implementation. Under policy direction from the [Mayor and/or] City Council [or equivalent], the Recovery Management Organization shall be responsible for Recovery Plan implementation. Before a declaration of emergency, the Director shall prepare and submit reports at least annually to fully advise the City Council [or equivalent] on the progress of preparation, update, or implementation of the Recovery Plan. After a declaration of emergency, the Director shall report to the City Council [or equivalent] as often as necessary on actions taken to implement the plan in the post-disaster setting, identify policy issues needing City Council [or equivalent] direction, and receive authorization to proceed with interim plan modifications necessitated by specific circumstances.

5.7 Training and Exercises. The Recovery Management Organization shall organize and conduct periodic training and exercises annually, or more often as necessary, in order to develop, communicate, and update

the contents of the Recovery Plan. Such training and exercises will be conducted in coordination with similar training and exercises related to the Emergency Operations Plan.

Commentary. Recovery training and exercises should happen on a joint, ongoing basis between the Recovery Management Organization and the Emergency Management Organization, as well as with community stakeholder groups such as Community Emergency Response Team (CERT) organizations. For the greatest value, recovery training and exercises should include careful attention to critical relationships between early post-disaster emergency response and recovery actions that condition long-term reconstruction, such as street closings and re-openings, demolitions, debris removal, and damage assessment, and hazards evaluation.

5.8 Coordination with Related Plans. The Recovery Plan shall be coordinated with the Comprehensive Plan, the Emergency Operations Plan, the Local Hazard Mitigation Plan, and such other related plans as may be pertinent, to avoid inconsistencies between plans. Such related plans shall be periodically amended by the Town Board to be consistent with key provisions of the Recovery Plan, and vice versa.

6. Interim Recovery Strategy. At the earliest possible time following a declaration of local emergency, the Recovery Management Organization shall prepare an Interim Recovery Strategy.

6.1 Content. The Interim Recovery Strategy shall identify and describe recovery initiatives and action priorities anticipated or underway that are necessitated by specific post-disaster circumstances.

6.2 Critical Action Priorities. The Interim Recovery Strategy shall identify critical action priorities, including but not limited to those actions identified under Section 9.0 Temporary Regulations of this chapter, describing for each action its objective, urgency, affected individuals and organizations, funding sources, the department responsible, and likely duration. The Interim Recovery Strategy shall separately identify those recovery initiatives and action priorities that are not covered or insufficiently covered by the adopted Recovery Plan, but which in the judgment of the Director are essential to expeditious fulfillment of victims' needs, hazard mitigation imperatives, critical infrastructure restoration, and rebuilding needs, and without which public health, safety, and welfare might otherwise be impeded.

6.3 Short-Term Hazard Mitigation Program. The Interim Recovery Strategy shall include a short-term hazard mitigation program comprised of high-priority actions. Such measures may include urgency ordinances dealing with mitigation and abatement priorities identified under Section 9. Temporary Regulations or requiring special land-use and development restrictions or structural measures in areas affected by flooding, urban/wildland fire, wind, seismic, or other natural hazards, or remediation of known human-induced or technological hazards such as toxic contamination.

6.4 Review and Consultation. The Interim Recovery Strategy shall be forwarded to the Town Board [or equivalent] for review and approval following consultation with FEMA, other governmental agencies, businesses, infrastructure operators, and other citizen and stakeholder representatives. The Director shall periodically report to the Town Board regarding Interim Recovery Strategy implementation and any adjustments that may be required by changing circumstances.

6.5 Coordination with Pre-Disaster Recovery Plan and Other Plans. The Interim Recovery Strategy shall form the basis for periodic amendments to the Recovery Plan, and such other related plans as may be pertinent. It shall identify needed post-disaster amendments to the Pre-Disaster Recovery, Comprehensive Plan, Emergency Operations Plan, or other plans, codes, or ordinances.

Commentary. The purpose of the Interim Recovery Strategy is to structure the flow of local post-disaster short- and long-term recovery actions around a unifying concept that:

1) acknowledges real damage and loss conditions experienced, 2) modifies scenarios underlying the Pre-Disaster Recovery Plan, and 3) translates the new reality into short-term actions pending revision of the Recovery Plan. This may be essential because damage conditions are often likely to be different from those anticipated in the Pre-Disaster Recovery Plan. Preparation of such an interim strategy in the early days of recovery has the benefit of incorporating a positive, proactive emphasis to counter what can be an overwhelmingly reactive and negative context. The Interim Recovery Strategy can be updated as recovery experience is gained, and new issues emerge. It also provides a source from which the Pre-Disaster Recovery Plan and related plans can be updated.

7. Hazard Mitigation Program. Prior to a major disaster, the Recovery Management Organization, with Town Board concurrence, shall establish a hazard mitigation program by which natural hazards, risks, and vulnerability are addressed for prioritized short-term and long-term mitigation actions leading to reduced disaster losses. The hazard mitigation program shall include preparation and adoption of the Local Hazard Mitigation Plan, amendment of the Comprehensive Plan to include a Natural Hazard/Safety Element [or equivalent], together with emergency actions dealing with immediate hazards abatement, including hazardous materials management.

7.1 Local Hazard Mitigation Plan. The Recovery Management Organization shall prepare for Town Board adoption and FEMA approval of a Local Hazard Mitigation Plan qualifying the City for receipt of the federal Hazard Mitigation Grant Program (HMGP), Flood Mitigation Assistance (FMA), Building Resilient Infrastructure and Communities (BRIC), and Severe Repetitive Loss (SRL) grants, under the provisions of the Stafford Act, National Flood Insurance Act, and Disaster Mitigation Act of 2000, as amended. The Local Hazard Mitigation Plan shall include, among other items specified in federal regulations (44 CFR 201.6): a risk assessment describing the type, location, and extent of all-natural hazards that can affect the Town, vulnerability to such hazards, the types and numbers of existing and future buildings, infrastructure, and critical facilities located in identified hazard areas, and an estimate of the potential dollar losses to vulnerable structures; and a mitigation strategy that provides the Town's blueprint for reducing the potential losses identified in the risk assessment. The Local Hazard Mitigation Plan, or its mitigation strategy and other contents, shall be adopted as part of the Natural Hazard/Safety Element [or equivalent] of the Comprehensive Plan.

7.2 Natural Hazard/Safety Element [or equivalent]. The Recovery Management Organization shall prepare for the Town Board's adoption of an amendment to the Comprehensive Plan known as the Natural Hazards/Safety Element [or equivalent] including proposed long- and short-term hazard mitigation goals, policies, and actions enhancing long-term safety against future disasters. The Natural Hazard/Safety

Element [or equivalent] shall determine and assess the community's vulnerability to known hazards, including climate change impacts, such as severe flooding; wildland fires; seismic hazards, such as ground shaking and deformation, fault rupture, liquefaction, and tsunamis; dam failure; slope instability, mudslides, landslides, and subsidence; sea-level rise, coastal surge and erosion; hurricanes, tornadoes, and other high winds; and human-induced or technological hazards, such as oil spills, natural gas leakage, and fires, hazardous and toxic materials contamination, and nuclear power plant and radiological accidents.

Commentary. About a dozen states require the inclusion of natural hazards as a mandated subject within their comprehensive plans. For example, a Natural Hazards Element is a required or suggested part of comprehensive plans in Colorado, Idaho, Illinois, and Iowa, and a Safety Element is a required part of comprehensive plans in Arizona, California, and Nevada. Such requirements may have encouraged disaster loss reduction. For example, per capita flood losses were found in one study to be lower for those states which required natural hazards as a subject of the comprehensive plan than for those without such a requirement. Moreover, such comprehensive plan elements provide a context into which communities can fit their Local Hazard Mitigation Plan (LHMP) required under the Disaster Mitigation Act of 2000 as a precondition for eligibility for federal hazard mitigation grants. California provides financial incentives to local jurisdictions that adopt their LHMP as part of the safety element. To the extent that hazard mitigation reduces disaster losses and facilitates recovery, communities stand to benefit from integrating such plans with the Pre-Disaster Recovery Plan.

7.3 New Information. As new information is obtained regarding the presence, location, extent, location, and severity of natural and human-induced or technological hazards, or regarding new mitigation techniques, such information shall be made available to the public and shall be incorporated as soon as possible as amendments to the Local Hazard Mitigation Plan and the Comprehensive Plan through Town Board action.

8. General Provisions. The following general provisions shall be applicable to the implementation of this chapter:

8.1 Emergency Powers and Procedures. Following a declaration of local emergency and while such declaration is in force, the Recovery Management Organization shall have authority to exercise powers and procedures authorized by this chapter, including temporary regulations identified below, subject to extension, modification, or replacement of all or portions of these provisions by separate ordinances adopted by the City Council [or equivalent].

8.2 Post-Disaster Operations. The Recovery Management Organization shall coordinate post-disaster recovery operations, including but not limited to: business resumption, damage assessment, demolitions, debris removal, expedited repair permitting, hazards evaluation and mitigation, historical buildings, moratorium procedures, nonconforming buildings and uses, rebuilding plans, restoration of infrastructure, temporary and replacement housing, and such other subjects as may be appropriate, as further specified below.

8.3 Coordination with FEMA and Other Agencies. The Recovery Management Organization shall coordinate recovery actions identified under this and the following sections with those of state, federal, local, or other mutual organizations involved in disaster recovery, including but not limited to the Federal

Emergency Management Agency (FEMA), the American Red Cross, the Department of Housing and Urban Development (HUD), the Small Business Administration (SBA), the New York State Department of Homeland Security and Emergency Services (DHSES), the Tompkins County Department of Emergency Response and other organizations that provide disaster assistance. Intergovernmental coordination tasks include but are not limited to the following: local compliance with all applicable federal and state laws and regulations; provision of information and logistical support; participation in the Multi-Agency Hazard Mitigation Team; cooperation in the joint establishment of one-stop service centers for victim support and assistance; and such other coordination tasks as may be required under the specific circumstances of the disaster.

Commentary. A substantial portion of the Stafford Act is devoted to how federal funds are distributed to persons, businesses, local governments, and state governments for disaster relief and recovery. For most communities, this is an important external source from which certain disaster losses can be compensated. Although insurance may be instrumental in personal, household, or business recovery, it has little value for compensating losses incurred from disasters for which insurance is too costly or difficult to obtain, such as earthquake insurance. In addition, some federal assistance is in the form of grants and loans, involving other federal agencies such as HUD and SBA.

The federal government has become increasingly interested in coordinating post-disaster victim services and mitigating hazards affecting land use and building construction. Consequently, federal assistance to localities in many instances is contingent upon the adjustment of local recovery and hazard mitigation policies and practices to conform to federal standards, such as elevation of rebuilt structures in floodplain areas.

9.0 Temporary Regulations. The Recovery Management Organization shall have the authority to administer the provisions of this section temporarily modifying provisions of the Municipal Code [or equivalent] dealing with building permits, demolition permits, and restrictions on the use, development, or occupancy of private property, provided that such action, in the opinion of the Director, is reasonably justifiable for protection of life and property, mitigation of hazardous conditions, avoidance of undue displacement of households or businesses, or prompt restoration of public infrastructure.

Commentary. The following temporary regulations are at the heart of the recovery process. Although state law or city ordinances may authorize some of these functions, it is preferable to have a source of locally adopted regulation that provides direct authority for staff actions taken on behalf of the City Council in line with the Recovery Plan and provides a rationale for intervention in matters dealing with private property.

Among these temporary regulations are provisions dealing with their duration, environmental clearances, debris clearance, and hazard abatement, damage assessment and placarding, development moratoria, temporary use permits, temporary repair permits, deferral of fees for repair and rebuilding permits, nonconforming buildings and uses, one-stop service centers, and demolition of damaged historic buildings. Each of these topics needs careful adaptation to local conditions. It is not possible to fully anticipate in advance the magnitude and distribution of disaster damages, but these preadopted temporary regulations provide a basis for more efficient action substantially less subject to uncertainties found in cities that have not prepared in this manner. Also, it is important to remember that although temporary regulatory modifications outlined here are associated with the municipal code, disaster assistance from federal agencies will be contingent upon compliance with requirements of federal

laws and programs, such as the National Flood Insurance Program (NFIP); the National Environmental Policy Act (NEPA), National Historic Preservation Act (NHPA), Endangered Species Act (ESA), and others as applicable. Changes in local ordinance/municipal code, though temporary, will not change these federal requirements.

9.1 Duration. The provisions of this section shall be in effect subject to review by the Town Board for a period of 90 days from the date of a local emergency declaration leading to a state-proclaimed emergency and federally declared disaster, or until the local emergency is extended, modified, replaced, or terminated in whole or in part by the action of the Town Board through a separate ordinance.

Commentary. This provision allows for flexibility in the duration of application of the temporary regulations so that any portion can be terminated, modified, or extended depending upon local circumstances. It also reflects a recognition that "temporary" regulations may be in effect for an extended period of time beyond either termination of the local state of emergency or the 90-day period. Depending upon the severity of disaster damage, it may be necessary for temporary provisions to remain in effect for several years after the disaster.

9.2 Environmental Clearances. The provisions of this section enable actions that in the judgment of the Director are justifiable for the protection of public health and safety and, therefore, can be reasonably declared to qualify under statutory exemptions of environmental regulations contained in other chapters of the Municipal Code, and within state and federal law. The Director shall provide ongoing monitoring reports to the Town Board on environmental issues arising in relation to the Interim Recovery Strategy, the Recovery Plan, and the statutory exemptions.

9.3 Debris Clearance and Hazard Abatement. The Director shall have the emergency authority to undertake the following actions:

- a. Debris Removal**—Remove from public rights-of-way and/or private property adjoining such rights-of-way any debris, rubble, trees, damaged or destroyed cars, trailers, equipment, or other items of private property, posing a threat to public health or safety;
- b. Hazardous Materials**—Remove and/or abate hazardous and toxic substances threatening public health and safety;
- c. Setbacks of Temporary Buildings**—Create and maintain such additional setbacks for temporary buildings as to assure emergency and through the movement of vehicles and pedestrians essential for recovery management;
- d. Prohibition of Access**—Prohibit public access to areas damaged and/or hazardous to public health;
- e. Other**—Take such other actions, which, in the judgment of the Director, are reasonably justified for the protection of public health and safety, provision of emergency ingress and egress, assurance of firefighting or ambulance access, restoration of infrastructure, and mitigation of hazardous conditions.

Commentary. Although clearance of privately owned debris is routinely considered a function of local government, it can become very controversial where owners take the position that such property is salvageable and has value (e.g., used brick after an earthquake). Pre-event adoption of such a provision reinforces the expectation that debris clearance functions will be carried out decisively, thus minimizing a problem otherwise compounded by hesitation or ambiguity of intention on the part of the town.

9.4 Damage Assessment and Placarding. The Director shall direct damage assessment teams having authority to conduct field surveys of damaged structures and post placards designating the condition and permitted occupancy of such structures as follows:

Commentary. Damage assessment and the placement of placards identifying whether buildings are safe or unsafe to occupy are two functions having perhaps more profound effects on life, property, and recovery than any other within the post-disaster decision sequence towards which provisions of these temporary regulations are directed.

Damage assessment is undertaken by various entities following a major disaster, usually the city and FEMA. There is at least a twofold purpose for these inspections. One purpose is to determine the degree of structural damage to each building and notify the public about the relative safety of entry and occupancy. This has been a long-standing duty under local government health and safety responsibilities with which building departments are familiar. The other purpose is to quickly estimate the approximate replacement costs of damaged buildings and other property in order to inform the state and federal governments of the dollar amounts needed for emergency legislative authorizations. The latter purpose is fraught with difficulty to the extent that hurriedly conducted damage assessments can miss substantial elements of damage and corresponding costs. Moreover, local expertise tends to be limited in the area of deploying common standards and procedures for determining structural damage to assess damage in a truly comparable manner.

*The most important element of all these concerns is the establishment of standard identification of structural damage both in gross general terms reflected in the red, yellow, and green tag placard systems. The placard language below is adapted from **Model Ordinances for Post-Disaster Recovery and Reconstruction** initially published by the California Governor's Office of Emergency Services. The procedures used to make these basic safety distinctions in the California model ordinance are based on detailed post-disaster inspection methods described by the Applied Technology Council in **ATC-20, Procedures for Post-earthquake Safety Evaluation of Buildings** and **ATC-20-2 Addendum**:*

a. Inspected—Lawful Occupancy Permitted is to be posted on any building in which no apparent structural hazard has been found. This does not mean other forms of damage that may not temporarily affect occupancy.

Commentary. This is commonly known as the "green tag" placard.

b. Restricted Use is to be posted on any building in which damage has resulted in some form of restriction to continued occupancy. The individual posting this placard shall note in general terms the type of damage encountered and shall clearly and concisely note the restrictions on continued occupancy.

Commentary. This is commonly known as the "yellow tag" placard.

c. Unsafe—Do Not Enter or Occupy is to be posted on any building that has been damaged to the extent that continued occupancy poses a threat to life safety. Buildings posted with this placard shall not be entered under any circumstances except as authorized in writing by the department that posted the building or by authorized members of damage assessment teams. The individual posting this

placard shall note in general terms the type of damage encountered. This placard is not to be considered a demolition order. This chapter and section number, the name of the department, its address, and phone number shall be permanently affixed to each placard. Once a placard has been attached to a building, it shall not be removed, altered, or covered until done so by an authorized representative of the department or upon written notification from the department. Failure to comply with this prohibition will be considered a misdemeanor punishable by a \$500 fine.

Commentary. This is commonly known as the "red tag" placard.

ATC-20 (atcouncil.org)

9.5 Development Moratorium. The Director shall have the authority to establish a moratorium on the issuance of building permits, approval of land use applications, or other permits and entitlements related to the use, development, and occupancy of private property authorized under other chapters and sections of the Municipal Code and related ordinances, provided that, in the opinion of the Director, such action is reasonably justifiable for protection of life and property and subject to the following:

a. Posting—Notice of the moratorium shall be posted in a public place and on the Internet, and shall clearly identify the boundaries of the area(s) in which moratorium provisions are in effect, and shall specify the exact nature of the development permits or entitlements that are temporarily held in abeyance;

b. Duration—The moratorium shall be in effect subject to review by the Town Board at the earliest possible time, but no later than 90 days, at which time the Board shall take action to extend, modify, replace, or terminate such moratorium through a separate ordinance.

Commentary. After disasters, a prevailing sentiment may often be to act quickly to replicate pre-disaster building patterns in an effort to “restore normalcy.” In many instances, this sentiment prevails as public policy despite the presence of a severe natural hazard condition, thereby reinforcing the chances of repetitive losses. Many examples exist of communities that have allowed rebuilding in a manner that ignored known hazardous conditions, whereas intervention was needed to create greater safety.

To prevent or reduce repetitive losses, a town may choose to interrupt and forestall rebuilding long enough to assess options for avoiding placing buildings and people back in harm’s way. This can be done by establishing an emergency moratorium on the issuance of repair and rebuilding permits or on land-use approvals in areas where severely hazardous conditions are identified. The hazard may be newly detected, as in a post-earthquake circumstance where the pattern of structural damage, recent flooding, fresh landslides, or ground subsidence may indicate the need for engineering studies to clearly identify hazards and determine proper solutions.

A moratorium on development may be important for a town to undertake from the standpoint of informed public policy. However, such actions tend to be controversial and unpopular, so it is important to lay the groundwork with the community in advance, if possible. This subsection provides prior authorization through the adoption of this ordinance before a major disaster, enabling city staff to act expeditiously in

a post-disaster setting to forestall premature issuance of permits in areas shown to be hazardous. Such action is necessarily subject to Council review, ratification, modification, or termination.

9.6 Temporary Use Permits. The Director shall have the authority to issue permits in any zone for the temporary use of property that will aid in the immediate restoration of an area adversely impacted by a major disaster, subject to the following provisions:

a. Critical Facilities--Any police, fire, emergency medical, or emergency communications facility that will aid in the immediate restoration of the area may be permitted in any zone for the duration of the declared emergency.

b. Other Temporary Uses--Temporary use permits may be issued in any zone, with conditions, as necessary, provided written findings are made establishing a factual basis that the proposed temporary use: 1) will not be detrimental to the immediate neighborhood; 2) will not adversely affect the Comprehensive General Plan or any applicable specific plan; and 3) will contribute in a positive fashion to the reconstruction and recovery of areas adversely impacted by the disaster. Temporary use permits may be issued for a period of one year following the declaration of local emergency and may be extended for an additional year, to a maximum of two years from the declaration of emergency, provided such findings are determined to be still applicable by the end of the first year. If during the first or the second year, substantial evidence contradicting one or more of the required findings comes to the attention of the Director, then the temporary use permit shall be revoked.

*Commentary. Most zoning ordinances have no provisions for temporary use of property following a disaster. A few allow temporary placement of mobile homes on residentially zoned sites pending reconstruction of a residence. Time limits vary but are usually for a two-year period. After a disaster, special latitude may be needed, however, to support various recovery needs. Care must be taken not to set precedents that will erode or destroy a pre-existing pattern of zoning that the city may wish to protect. The language within this section is modeled after provisions of the Los Angeles recovery ordinance adopted after the Northridge earthquake, titled **Temporary Regulations Relating to Land Use Approvals for Properties Damaged in a Local Emergency**. That ordinance was geared toward the needs of a large and diverse city. Smaller communities may wish to restrict temporary uses to those already allowed by existing zoning, limiting the provision to temporary structures such as tents, domes, or mobile units.*

9.7 Temporary Waiver of Repair Permit Requirements for Emergency Repairs. Following a disaster, temporary emergency repairs to secure structures and property damaged in the disaster against further damage or to protect adjoining structures or property may be made without fee or permit where such repairs are not already exempt under other chapters of the Municipal Code. The building official must be notified of such repairs within 10 working days, and regular permits with fees may then be required.

Commentary. This provision is specifically written for repairs that may not be exempt under standard building code permit exemptions, but which are justifiable from a public health and safety standpoint to avoid further damage to property after a disaster. It is modeled after a provision of a post-disaster rebuilding ordinance adopted in 1992 by the County of San Bernardino shortly after the Landers-Big Bear earthquake. Written

before the earthquake, the ordinance was based on a pre-event study titled **Post-Disaster Rebuilding Ordinance and Procedures**, which included a survey of top managers and elected officials regarding various post-disaster rebuilding provisions, such as for nonconforming buildings and uses. Because of the pre-event involvement of top managers and elected officials, it was adopted after the earthquake with no controversy.

9.8 Deferral of Fees for Repair and Rebuilding Permits. Except for temporary repairs issued under provisions of this chapter, all other repairs, restoration, and reconstruction of buildings damaged or destroyed in the disaster shall be approved through permit under the provisions of other chapters of this Code. Fees for such repair and reconstruction permits may be deferred until the issuance of certificates of occupancy.

Commentary. Pressure to waive processing fees frequently arises after a disaster when victims are unsure of their sources of financing for rebuilding. It may be inadvisable to succumb to pressures to waive fees due to the ongoing need for cost recovery for disaster-related services at a time revenue flows are uncertain. As an alternative, local governments can buy time by deferring fees to determine the degree to which funds will be found at a later time to help offset victims' fee costs. For example, sometimes the cost of processing fees may be covered by insurance or by federal funds. Deferral of fees until occupancy permit issuance buys time during which to ascertain possible alternate sources without injuring necessary revenue flows to the city treasury. This provision is modeled after similar language in the Los Angeles temporary regulations.

9.9 Nonconforming Buildings and Uses. Buildings damaged or destroyed in the disaster that are legally nonconforming as to use, yards, height, the number of stories, lot area, floor area, residential density, parking, or other provisions of the Municipal Code specified herein may be repaired and reconstructed in-kind, provided that:

- a. The building is damaged in such a manner that the structural strength or stability of the building is appreciably lessened by the disaster and is less than the minimum requirements of the Municipal Code for a new building;
- b. The cost of repair is greater than 50 percent of the replacement cost of the building;
- c. All structural, plumbing, electrical, and related requirements of the Municipal Code, as well as any rebuilding requirements imposed by a higher level of government, such as building elevation or basement removal if required under NFIP, are met at current standards;
- d. All-natural hazard mitigation requirements of the Municipal Code are met;
- e. Reestablishment of the use or building is in conformance with the National Flood Insurance Program requirements and procedures, or higher community standards;
- f. The building is reconstructed to the same configuration, floor area, height, and occupancy as the original building or structure;
- g. No portion of the building or structure encroaches into an area planned for widening or extension of existing or future streets as determined by the comprehensive general plan or applicable specific plan;

- h.** Repair or reconstruction shall commence within two years of the date of the declaration of local emergency in a major disaster and shall be completed within two years of the date on which permits are issued; damaged structures must be secured in accordance with the community's provisions for abandoned structures in order to ensure the health and safety of the public;
- i.** Nothing herein shall be interpreted as authorizing the continuation of a nonconforming use beyond the time limits set forth under other sections of the Municipal Code that were applicable to the site prior to the disaster.

Commentary. No recovery issue can be more vexing to planners than whether or not to encourage the reestablishment of nonconforming uses and buildings after a disaster. Planners have sought for decades to write strict provisions in zoning ordinances designed to gradually eliminate nonconforming uses or buildings as they were abandoned, changed owners, or were damaged by fire, wind, or water. Such provisions normally prohibit the reestablishment of nonconforming uses and buildings where damage exceeds a certain percentage of replacement cost, most often 50 percent. This approach is logical, orderly, and normally equitable when weighing community interests balanced with those of the property owner. However, the thinking behind such provisions has been geared to incremental adjustments or termination of such uses over time, not to sudden circumstances forcing the disposition of such uses as a class at a single point in time. In theory, disasters are seen as an opportunity to eliminate uses that conflict with the prevailing pattern in a neighborhood but that remain because of legal nonconforming status--for example, scattered industrial uses in a residentially zoned neighborhood. In reality, local governments are beset after a disaster by pressures from property owners and other interests to reestablish the previous development pattern, including nonconforming buildings and uses. Such pressures extend beyond the demand to reestablish nonconforming buildings or uses to include waiver of the current building, plumbing, and electrical code provisions to the standards in place at the time of construction.

From risk management, liability exposure, or public safety standpoint, acquiescence to the reduction of such basic health and safety standards in the face of a known hazard can be seen as unacceptable. However, zoning provisions hindering the reestablishment of nonconforming buildings or uses tend to be more arguable and are more likely to be modified by city councils under pressures of the moment to restore the status quo. In recognition of such pressures, this model ordinance language offers a straightforward tradeoff approach allowing the reestablishment of a nonconforming use or building in return for strict adherence to current structural, plumbing, and electrical code and hazard mitigation requirements. The language assumes the existence of a provision commonly found in the Municipal Code authorizing repair or reestablishment of a nonconforming use or building where damage is less than 50% of the replacement cost. It also assumes the building was substantially weakened by the disaster and is below code requirements.

This compromise approach recognizes that its application may require the unwelcome decision to accept the continuation of disorderly land-use patterns unless a solution can be found through redevelopment or rezoning. Instead, it places a high value on life safety.

It is important to note, however, that the language of these provisions includes the following important limitations on the economic incentive to reestablish the nonconforming use or building.

- 1) It does not extend any previously stipulated life of the nonconforming use—this is an important disincentive if the costs of replacement cannot be offset by insurance, FEMA assistance, SBA loans, or other sources of financial support.*
- 2) It does not allow the extent of nonconformance to be increased over that which existed prior to the disaster, thwarting another common pressure.*
- 3) It requires strict adherence to current structural, plumbing, electrical, and other requirements of the Municipal Code, any street setbacks stipulated within the comprehensive plan circulation element and related ordinances, as well as any rebuilding requirements imposed by a higher level of government, such as building elevations or basement removals where required by FEMA under the National Flood Insurance Program (NFIP). Note: within NFIP there is no grandfathering for substantially damaged structures (i.e., those damaged in excess of 50% of their pre-event value). Such local, state, or federal requirements, though potentially costly, are necessary from a public safety standpoint.*
- 4) It recognizes that compliance with more stringent hazard mitigation requirements may be needed, for example, moving a structure to a less hazardous area on the lot, especially in cases involving increased on-site hazards because of fault rupture, landslide, coastal erosion, or severe flooding where upgrading to current structural, plumbing, and electrical code requirements may not assure safe occupancy. Compliance with such provisions may reduce or eliminate the possibility of rebuilding or be sufficiently costly to discourage reestablishment of the use or other nonconforming feature.*

The relative importance of post-disaster reestablishment of nonconforming uses and buildings may vary from one jurisdiction to another. Therefore, the most useful time to assess this aspect of post-disaster recovery is before a major disaster, in the course of pre-event planning. Education of the city council in advance can help lessen post-disaster tendencies to compromise critical hazard mitigation and public safety requirements, notwithstanding the outcome of nonconforming use and building requirements.

10.0 One-Stop Service Center for Permit, Economic, and Housing Assistance. The Recovery Management Organization shall coordinate the establishment of a one-stop center, staffed by representatives of pertinent Town departments, and staff of cooperating organizations, for the purpose of providing coordinated services and assistance to disaster victims for purposes, including but not limited to: permit processing to expedite the repair of buildings, provision of housing assistance, and encouragement of business resumption and industrial recovery. The Director shall establish such centers and procedures in coordination with other governmental entities that may provide services and support, such as FEMA, SBA, HUD, or the State Emergency Management Agency (or equivalent).

Commentary. One-stop service centers have become more common with recent disasters, often combining the presence of multiple agencies to provide better coordination of information needed by disaster victims to obtain essential public and insurance services and to rebuild. A prime example was the Community Restoration and

Development Center established by the City of Oakland shortly after the 1991 Oakland Hills Firestorm and operated until mid-1994 with financial support from FEMA. Benefits to be gained from establishing a special one-stop center include accelerated information, integration of services, and expedited permitting. Setting up a specialist team working exclusively on repair and rebuilding permit issues has the added advantage of insulating normal development review from disruption by the recovery process and vice versa.

11.0 Emergency Contractor and Volunteer Certification. The Recovery Management Organization shall have the authority to establish a standard certification process for all contractors and volunteers seeking to provide clean-up, repair, or construction services within areas that have experienced disaster damage. In order to be eligible, contractors and volunteers must obtain the proper certification using the following process.

1. Application for Contractor Certification. Contractors must apply for Contractor Certification at a one-stop center with the location and hours identified by the City. An application processing fee of \$25.00 is required for each contractor firm and may be paid in cash or by check made payable to the City.

2. Application Requirements. Contractors seeking certification must meet the following minimum insurance and background check requirements.

r. Staff will verify that contractors are properly registered and/or licensed with the state contractors' licensing agency of the state within which their business is headquartered.

s. The Police Department will conduct a criminal background check on each worker that will be performing services for the contractor's firm.

t. Contractors must be licensed for their respective trades through the state contractors' licensing agency within which their business is headquartered and meet minimum insurance required by that state. All other contractor firms seeking to perform projects with a scope of work that exceeds a cost of \$2,000 must provide proof of a general liability insurance policy for an amount not less than \$1,000,000.

3. Certification Enforcement. Contractors are subject to the following certification enforcement requirements.

u. Proof of certification will be a City-issued photo identification badge for each worker performing clean-up, repair, or construction services within disaster-damaged areas. This must be displayed by each worker at all times within the designated area. Replacement badges will be issued at a cost of \$10.00.

v. Individuals without an identification badge will not be permitted to perform clean-up, repair, or construction services.

w. Contractors failing to register will be subject to a fine of \$100.00 per day or be subject to imprisonment for not more than 30 days. Each day a violation occurs will constitute a separate offense.

x. The City retains the right to suspend or revoke the Contractor Certification.

4. Volunteer Certification. Persons volunteering their efforts without compensation for disaster clean-up repair, or construction services must also apply for emergency certification as a volunteer at a one-

stop center and receive a photo identification badge. No application processing fee is required for a Volunteer Certification. However, volunteers certified to assist with clean-up, repair, or construction services must be affiliated with a charitable, non-profit organization meeting all preceding Contractor Certification insurance and enforcement requirements.

Commentary. The phenomenon of unscrupulous actions by contractors or persons posing as contractors after a disaster by which advantage is taken of helpless disaster victims is a widely recognized and repetitive problem for which there is little guidance in the professional recovery management literature. The preceding emergency contractor certification provisions have been adapted from a program established by the City of Cedar Rapids, Iowa, following a severe flood in 2008. Through implementation of this program, the City of Cedar Rapids turned down over 200 applications for emergency contractor certifications, and made over 30 arrests for program violations. Through notification of over 10,000 contractors, the program also had a substantial preventive effect, discouraging otherwise unscrupulous persons from attempting to take advantage of the post-flood recovery situation.

Although volunteers were certified and issued badges without charge by the City of Cedar Rapids, their program did not explicitly address volunteer certification. Therefore, language is included that addresses this need. Since many cities do not wish to discourage volunteer assistance by the imposition of a seemingly unnecessary requirement, it is a sensitive provision and should be thought through carefully as to how it might work without posing needless barriers to volunteer efforts before inclusion in a local ordinance.

12.0 Temporary and Permanent Housing. The Director shall assign staff to work with FEMA, SBA, HUD, the State Emergency Management Agency (or equivalent), and other appropriate governmental and private entities to identify special programs by which provisions can be made for temporary or permanent replacement housing which will help avoid undue displacement of people and businesses. Such programs may include deployment of mobile homes and mobile home parks under the temporary use permit procedures provided in Section 9.6 of this chapter, use of SBA loans and available Section 8 and Community Development Block Grant funds to offset repair and replacement housing costs, and other initiatives appropriate to the conditions found after a major disaster.

Commentary. The issue of post-disaster temporary and permanent replacement housing has grown to one of critical dimensions since Hurricane Katrina. After that event, thousands of households were temporarily housed in trailers for periods far longer than anticipated, under unhealthy conditions due to faulty mobile home design. Relatively little progress has been made since then in finding effective ways by which to handle this issue on a broad scale. This section is essentially a placeholder for language that preferably should be made more specific on the basis of a pre-event plan that anticipates the local levels of housing vulnerability and identifies potential solutions. A great deal more research is needed to find satisfactory solutions for prompt, efficient provision of both interim and replacement housing. With possible downsizing of federal budgets in future years, this issue will become more critical. Also needed is research on feasible incentives for retrofitting a substantial portion of the existing housing stock to reduce vulnerability and risk. This is true in western states susceptible to heightened earthquake risk and for Midwestern and southeastern states under continuing threats of hurricane, tornado, and severe storm damage.

13.0 Demolition of Damaged Historic Buildings. The Director shall have authority to order the condemnation and demolition of buildings and structures damaged in the disaster under the standard provisions of the Municipal Code, except as otherwise indicated below:

13.1 Condemnation and Demolition. Within XX days after the disaster, the building official [or equivalent] shall notify the State Historic Preservation Officer that one of the following actions will be taken with respect to any building or structure determined by the building official to represent an imminent hazard to public health and safety, or to pose an imminent threat to the public right of way:

y. Where possible, within reasonable limits as determined by the building official, the building or structure shall be braced or shored in such a manner as to mitigate the hazard to public health and safety or the hazard to the public right-of-way;

z. Whenever bracing or shoring is determined not to be reasonable, the building official shall cause the building or structure to be condemned and immediately demolished. Such condemnation and demolition shall be performed in the interest of public health and safety without a condemnation hearing as otherwise required by the Municipal Code. Prior to commencing demolition, the building official shall photographically record the entire building or structure.

13.2 Notice of Condemnation. If, after the specified time frame noted in Subsection 8.1 of this chapter and less than 30 days after the disaster, a historic building or structure is determined by the building official to represent a hazard to the health and safety of the public or to pose a threat to the public right of way, the building official shall duly notify the building owner of the intent to proceed with a condemnation hearing within

business days of the notice in accordance with Municipal Code Section; the building official shall also notify FEMA, in accordance with the National Historic Preservation Act of 1966, as amended, of the intent to hold a condemnation hearing.

13.3 Request to FEMA to Demolish. Within 30 days after the disaster, for any historic building or structure that the building official and the owner have agreed to demolish, the building official shall submit to FEMA, in accordance with the National Historic Preservation Act of 1966, as amended, a request to demolish. Such request shall include all substantiating data.

13.4 Historic Building Demolition Review. If after 30 days from the event, the building official and the owner of a historic building or structure agree that the building or structure should be demolished, such action will be subject to the review process established by the National Historic Preservation Act of 1966, as amended.

Commentary. A difficult aspect of recovery in older communities is dealing with damaged historic structures. Since these can be very old, measures needed to make them structurally sound may be more difficult and costly than normal. Because of the controversy frequently associated with this issue, vocal opposition may emerge when a

badly damaged historical structure is considered for demolition. Therefore, it is wise to have language already in place to guide planning and building officials who may be involved. The National Historic Preservation Act of 1966, as amended, identifies steps that must be taken by a jurisdiction or owner to mitigate public health and safety hazards resulting from disaster-caused damage. The intent is to establish predictable rules by which proposed demolitions, except in extreme cases of danger to the public, can be reviewed by state and federal officials in order to provide time to identify preservation options. The review process is intended to discourage hasty demolition action by local officials when such action may not be justified.

The preceding language is adapted from provisions of the Uniform Code for the Abatement of Dangerous Buildings. It provides specific time frames and actions for abatement of hazards created by damage to historic buildings. The important element of judgment here is the establishment of a specific time frame for declaring a structure an imminent hazard to public health and safety justifying immediate demolition without a condemnation hearing. Such time frames are generally from three to five days, though sometimes stretched to ten. After the established time frame, the threat may no longer be justified as imminent and, therefore, the remaining procedures kick in.

14.0 Severability. If any provision of this chapter is found to be unconstitutional or otherwise invalid by any court of competent jurisdiction, such invalidity shall not affect the remaining provisions, which can be implemented without the invalid provision, and, to this end, the provisions of this ordinance are declared to be severable.

E. Model Disaster Reconstruction Ordinance

In addition, and in conjunction with the pre-disaster recovery plan, local governments should adopt a disaster reconstruction ordinance. The ordinance will serve to guide the processes and procedures for the reconstruction of structures and other development damaged due to significant disaster event impacts. Adoption of a disaster reconstruction ordinance is subject to the authority for granting emergency powers for municipal staff actions, to ensure timely, expeditious, and resilient disaster reconstruction.

1. MODEL DISASTER RECONSTRUCTION ORDINANCE LANGUAGE

Chapter X. After the Disaster Reconstruction Procedures for Private Property Owners

[Insert listing of all section and subsection titles]

WHEREAS, the [Municipality] is vulnerable to various natural hazards such as flooding, severe storms, coastal erosion, landslides, earthquakes, and wildfires, causing substantial loss of life and property resulting in declared local, state, or federal level disasters;

WHEREAS, the [Municipality] is authorized under state law to declare a local emergency and take actions necessary to ensure the public safety and well-being of its residents, visitors, business community, and property during and after such disasters;

WHEREAS, after a disaster [insert name of building department(s)] will face enormous burdens related to permitting for reconstruction activities with necessary considerations for insurance obligations and liability concerns as well as the future vulnerability of reconstructed structures;

WHEREAS, it is essential to the well-being of the [Municipality] to balance expedited reconstruction with other considerations such as, mitigation of hazardous conditions threatening public safety, the appropriate deliberation of impacts to environmental conditions and ecosystems services from the disaster event and proposed reconstruction activities, and changing conditions resulting from global climate change to improve the community's level of hazard resilience;

WHEREAS, planning for the appropriate balance of these considerations is best conducted to the extent practical in advance of a disaster event;

WHEREAS, the [insert name of Department] within the [Municipality] government has been authorized to plan, coordinate, and expedite reconstruction activities, including expedited permitting procedures by [Municipality] permitting departments, for private development, repair, and reconstruction;

WHEREAS, reconstruction can be facilitated by adoption of a pre-disaster ordinance authorizing certain extraordinary staff actions and procedures to be taken to expedite implementation of reconstruction from damages to private property owners, which includes single family residences, hotels, condominiums, commercial businesses, and other private development, and to incorporate strategies to reduce risk and increase resilience wherever practical and feasible;

WHEREAS, coordination is needed between [Municipality] departments and State of New York agencies to ensure that proper deliberation is given to environmental considerations, such as changes in shoreline

conditions affecting more than one property, to best meet the needs and obligations of the people of the [Municipality];

WHEREAS, in the event of catastrophic damage appropriate deliberation is needed to ensure that reconstruction activities do not perpetuate or increase risk to public health and safety by rebuilding in a manner that does not consider the best available information regarding future conditions, such as sea level rise or other new information.

The [Municipal Governing Body] does hereby ordain:

1) **Authority.** This ordinance is adopted by the [Municipality Governing Body acting under authority of the [authorizing legislation], [State Emergency Management Act or equivalent]], and all applicable federal laws and regulations.

2) **Purposes.** It is the intent of the [Municipal Governing Body] under this chapter to:

a) Establish, in advance of a disaster, a standard protocol for damage assessments of private property to be conducted after a hazard event to determine the extent and location of damages and the reconstruction permit requirements;

b) Establish, in advance of a disaster, powers to be implemented by the [Municipality], upon official declaration of a local, county, state and/or federal declared disaster, by which staff of the [Municipality], [insert department charged with implementation], and other [Municipal] departments can take extraordinary action to reasonably assure safe and healthy post-disaster recovery, including expedited permitting;

c) Specify, in advance of a disaster, permitting procedures for post-disaster reconstruction of private property, including privately owned infrastructure and other development, that will assure a balanced approach to expedited and resilient reconstruction;

d) Establish, in advance of a disaster, a procedure by which pre-disaster development patterns and conditions can be reconsidered to reduce or alleviate future risk before reconstruction activities commence.

3) **Initiation of Procedures.** The following procedures shall go into effect upon initiation by the [Chief Elected Official of the Municipality], of XXXX via emergency declaration or supplementary declaration.

4) **Duration.** The procedures shall be in effect for the duration of the emergency period and will be extended by the [Chief Elected Official of the Municipality], upon the advice and recommendation of the [insert name of Department], until sufficient reconstruction and recovery, as determined by the Director of the [insert name of

Department], has occurred as to enable the return to standard permitting procedures. The procedures shall be in place for no more than [insert timeframe] from the date of their initiation and shall only be extended beyond [insert timeframe] in the event of subsequent disasters that occur while the procedures are in effect.

5) **Area of Impact.** Upon initiation, the procedures will be assumed to apply countywide. If the completion of initial damage assessments indicate that the area of impact should be reduced to a sub-area of the [Municipality], notice shall be given of the revised area of impact pursuant to the procedures outlined below section 7(b) and the procedures will no longer be in effect community wide.

6) **Definitions.**

a) **Accessory Structure.** [Insert municipal-specific definition].

b) **After the Disaster Permitting Procedures.** Post-disaster permitting procedures (the procedures) established by this ordinance and activated via local emergency declaration.

c) **After-the-Fact Permit.** Permits obtained retroactively after work or development has occurred.

d) **Area of Impact.** An area within the [Municipality], having designated boundaries within which the disaster occurred, and the procedures outlined in this ordinance shall apply.

e) **Catastrophic Level of Damage.** [Insert municipal-specific definition].

f) **Certified Shoreline.** The upper reaches of the wash of the waves, other than storm or seismic waves, at high tide during the season of the year in which the highest wash of the waves occur, usually evidenced by the edge of vegetation growth, or the upper limit of debris left by the wash of the waves.

g) **Damage Assessment Team.** Non-emergency management office staff, other personnel or volunteers who do not have responsibilities immediately following a disaster. These teams are trained to gather information and conduct rapid evaluation structural assessments using the rapid evaluation structural assessment placarding system described in 7(c).45

h) **Development.** Any man-made change to improved or unimproved real estate, including but not limited to buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations or storage of equipment or materials.

i) **Director.** The Director of the [insert name of Department] or an authorized representative.

j) **Disaster.** Any emergency, or imminent threat thereof, which results or may likely result in loss of life or property and requires, or may require, assistance from other counties or states or from the federal government.

- k) **Emergency Period.** The dates covered by a declaration issued by the [Chief Elected Official of the Municipality], declaring a local state of emergency.
- l) **Emergency.** Any occurrence, or imminent threat thereof, which results or may likely result in substantial injury or harm to the population or substantial damage to or loss of public or property.
- m) **In-kind.** The same as the prior (pre-damaged) building or structure in size, height and shape, type of construction, number of units, general location, appearance, and use.
- n) **Local State of Emergency.** The occurrence in any part of a county that requires efforts by the county government to save lives, and to protect property, public health, welfare, or safety in the event of an emergency or disaster, or to reduce the threat of an emergency or disaster. A Local State of Emergency is so declared by the [Chief Elected Official of the Municipality].
- o) **Moratorium.** A temporary hold, for a defined period of time, on the issuance of building permits, approval of land-use applications or other permits and entitlements related to the use, development, redevelopment, and occupancy of private property in the interests of protection of life and property.
- p) **Preliminary Damage Assessment.** Assessment of damages and impacts conducted immediately following an event by the [Municipality], in coordination with FEMA that aids in the decision-making process for a major disaster declaration.
- q) **Rapid Evaluation Structural Assessments.** Building evaluation and placarding protocol system to quickly determine which buildings are safe to enter and those that are unfit for occupancy.
- r) **Reconfiguration.** Removing portions of a building that are in erosion or flood prone areas as defined in [insert reference to where this standard is defined] and reconstructing them inland.
- s) **Disaster Recovery Framework.** A document prepared pre-disaster by the [Municipality], to help guide recovery, comprising policies, plans implementation actions, and designated responsibilities related to expeditious and orderly post-disaster recovery and redevelopment, as well as long-term mitigation.
- t) **Repair.** The reconstruction, replacement, or renewal of any part of an existing building for the purpose of its maintenance or to correct damage.
- u) **Fair Market Value.** The price that the seller is willing to accept, and the buyer is to pay on the open market and in an arm's length transaction.

v) **Special Flood Hazard Area.** The land area covered by the floodwaters of the base flood is the Special Flood Hazard Area on NFIP maps. The area where the NFIP's floodplain management regulations must be enforced and the area where the mandatory purchase of flood insurance applies.

w) **Structural Repair.** Repairs that involve replacing structural elements of a damaged building.

x) **Substantial Damage Assessments.** Post-event assessment by the [Municipality], of structures in the special flood hazard area that determines whether they have been substantially or non-substantially damaged.

y) **Substantial Damage.** [Insert municipal-specific definition]

z) **Substantial Improvement.** [Insert municipal-specific definition]

7) **Damage Assessments.** After a disaster event, the Director shall direct damage assessment teams having authority to conduct field surveys of damaged structures and other private development to conduct damage assessments.

a) **Damage Assessment Teams.** Damage assessment team members, procedures and protocols will be developed by the Director and made available to the public. These procedures shall require damage assessment team members to carry identification and an explanation of the assessment process in languages commonly spoken in the [Municipality] and shall outline required qualifications for consideration of a damage assessment team member.

b) **Designation of Area of Impact.** The area of impact will initially be assumed to be countywide. If, based on the results of the preliminary damage assessments conducted immediately following an event, the Director determines that the area of impact is less than the full extent of the [Municipality], the Director shall clearly delineate identifiable boundaries using commonly known and understood features, such as landmarks, street names, planning districts, etc., to delineate the area of impact. Upon determination of the area of impact, this information will be conveyed to the public via the [insert name of Department] website, social media, and other methods deemed appropriate by the Director.

c) **Rapid Evaluation Structural Assessments.** Rapid evaluation structural assessments of the area of impact will be conducted and damage assessment teams will post placards designating the condition and permitted occupancy of structures as follows:

i) **Inspected**—Lawful Occupancy Permitted is to be posted on any building in which no apparent structural hazard has been found. This does not mean that other forms of damage (non-structural) that may temporarily affect occupancy are absent. Such buildings will be designated using a green placard.

ii) **Restricted Use**—Restricted use is to be posted on any building in which damage has resulted in some form of restriction to continued occupancy. The individual posting this placard shall note in general

terms the type of damage encountered and shall clearly and concisely note the restrictions on continued occupancy. Such building will be designated with a yellow placard.

iii) **Unsafe**—Do Not Enter or Occupy is to be posted on any building that has been damaged to the extent that continued occupancy poses a threat to life safety. Buildings posted with this placard shall not be entered under any circumstances except as authorized in writing by the [insert name of Department] that posted the building or by authorized members of damage assessment teams. The individual posting of this placard shall note in general terms the type of damage encountered. This placard is not to be considered a demolition order. This chapter and section number, the name of the department, its address, and phone number shall be permanently affixed to each placard. Once a placard has been attached to a building, it shall not be removed, altered, or covered until done so by an authorized representative of the department or upon written notification from the department. Failure to comply with this prohibition will be considered a misdemeanor punishable by a \$X00 fine. Such building will be designated using a red placard.

iv) All placards or information affixed to placards (green, yellow, and red) will contain a simple explanation of the placarding system, resources for property owners to contact regarding questions, and a basic description of the After the Storm permitting system that will be deployed.

v) If rapid evaluation structural assessments are conducted under the direction of the Director, damage assessment teams shall capture perishable data, such as high-water marks and/or the location of emergency flood protection measures, during the rapid evaluation structural assessment process.

d) **Special Flood Hazard Area Substantial Damage Assessments.** Substantial damage assessments, conducted by the damage assessment teams, FEMA, and/or others contracted or otherwise arranged by the [Municipality], will commence immediately following the rapid evaluation structural assessment inspections, upon initiation by the Director.

i) Substantial damage assessments shall be conducted within all special flood hazard areas within the area of impact as defined by the Director. Any modification from the entirety of the special flood hazard area located within the area of impact shall be at the discretion of the Director, be widely publicized to the property owners through communication means described above and shall ensure that there is consistent application of the substantial damage assessment procedure.

ii) Substantial damage assessments and determinations shall be conducted using the assumptions and protocols outlined in the [Municipal] floodplain damage prevention ordinance and shall meet FEMA NFIP requirements for substantial damage.

iii) The [Municipality] shall make a reasonable effort to notify property owners of the results of the substantial damage determination within a reasonable time. Notifications will be sent via certified mail and/or hand delivered; further, a hotline or other means for communication will be established for property owners and renters to inquire on the status and implications of their assessment and will be widely publicized. All notifications of substantial damage or non-substantial damage determination shall outline the defined protocol for appeal.

8) **Designation of Areas of Catastrophic Levels of Damage.** After the rapid evaluation structural assessments, special flood hazard area substantial damage assessments, and shoreline damage assessments have been conducted, the Director shall make a recommendation to the [Municipal Governing Body], on areas that should be designated as having sustained catastrophic levels of damage. The [Municipal Governing Body] shall review and approve these designations and planning for comprehensive redevelopment, relocation or restoration options shall commence and a Recovery Plan shall be developed for these areas. The location of the areas of catastrophic levels of damage shall be widely publicized.

9) **After the Disaster Permitting Procedures.**

a) **Purposes.** After the disaster permitting procedures have been designed and shall be implemented to serve the following purposes:

- i) Expedite the permitting of minor repairs;
- ii) Allow sufficient time for substantial damage assessment for buildings located in the special flood hazard area;
- iii) Enact a moratorium on new development and subdivisions until there are sufficient resources on island to support rebuilding;
- iv) Prioritize housing repairs, so that residents can safely return to their homes; and
- v) Capture opportunities to rebuild resiliently, such as through rebuilding to current flood damage prevention ordinance, building codes, and shoreline setbacks; utilizing regulatory base flood elevations that reflect future conditions; rethinking development patterns in vulnerable areas, such as sea level rise exposure areas; and considering nature-based solutions for risk reduction.

b) **One-Stop Service Center.** Representatives of pertinent [Municipal] departments charged with permit processing shall be available in person at the one-stop service center(s) established by the [insert name of Department].

c) **Moratoria.** The Director shall have the authority to establish a moratorium on the issuance of building permits, approval of land use applications or other permits and entitlements related to the use, development, and occupancy of private property authorized under other chapters and sections of the [Municipal] Code and related ordinances, provided that, in the opinion of the Director, such action is reasonably justifiable for protection of life and property.

i) **Initial Moratorium.** A development moratorium shall be in effect for the entire area of impact for the time in which damage assessments are being conducted. This moratorium shall be subject to the following:

- (1) Duration—The initial moratoria shall last no longer than XX days unless an extension is reviewed and approved by the [Municipal Governing Body].
- (2) Posting—Notice of the moratorium shall be posted in a public place and on the Internet and shall clearly identify the boundaries of the area(s) in which moratorium provisions are in effect and shall specify the exact nature of the development permits or abeyance. Reference to the moratorium

shall also be explicit in the [Municipal Chief Elected Official]’s local emergency proclamation or supplementary proclamation.

ii) **Continued Moratoria.** Upon rescission or expiration of the initial moratorium, continued moratoria will be in effect for the following:

(1) Accessory structures; swimming pools and amenities; new sea walls; new construction (plans submitted or in process); new construction (plans approved; requires inspection); subdivision of land; and post disaster repair and reconstruction permits.

(a) Insert duration.

(2) Areas determined by the [insert name of Department] to have sustained catastrophic levels of damage to development or the shoreline whereby comprehensive redevelopment, relocation or restoration options should be considered to allow for time to develop such plans. (a) Insert duration

(3) Development in special flood hazard areas until substantial damage determinations have been completed.

Commentary: Please note that this is a generalized list of types of reconstruction that would be under a continued moratorium. Different communities may have different needs/desires that can be reflected in the ordinance.

iii) **Rescission of Moratoria.** The initial moratorium and/or continued moratoria can be rescinded by the natural expiration of the duration of the moratorium without extension or by an official action of the [Municipal Governing Body].

d) **After the Disaster Permit Requirements.** Permitting for repair and reconstruction will proceed in a manner that protects the health, safety, and welfare of the [Municipality], its residents, and natural environment with varying levels of review requirements based on location, level of damage, likelihood of future vulnerability, and other factors deemed relevant by the Director. The permit requirements outlined herein apply only to municipal-issued permits. Proper procedure and protocol must be followed for any state or federal issued permits. Municipal departments and agencies shall coordinate, to the extent practical, with other permitting agencies to ensure consistent messaging and procedures.

i) **Exceptions from Permit Requirements.** The [insert Municipality] building code contains exceptions from permit requirements for certain activities [insert municipal-specific exceptions or refer to listing in exiting code]. The After the Disaster permitting procedures expand these exceptions to include the following:

(1) Insert expanded exceptions

(2) These expanded exceptions do not apply to reconstruction activities in the municipal’s special flood hazard areas and areas of continued moratoria.

ii) **Special Flood Hazard Area Blanket Permit.** After substantial damage assessments have been completed, reconstruction activities consistent with exceptions to building permits outlined in Section 9.d.i may be completed for structures found to be non-substantially damaged. All such activities are required to be reported within XX days of completion via the online reporting system or via the One Stop Shop Permit Center. Failure to report could result in fines and penalties including [insert county-

specific penalties]. The [Municipality] will issue a blanket floodplain development permit for all reported reconstruction activities in special flood hazard areas conforming with these requirements.

iii) **Demolition.** The Director shall have authority to order the condemnation and demolition of buildings and structures damaged in the disaster under the standard provisions of the [Municipal] Code, except as otherwise indicated below:

(1) **Demolition of Damaged Historical Buildings.** The Director shall have authority to order the condemnation and demolition of buildings and structures damaged in the disaster under the standard provisions of the [Municipal] Code [insert citation], except as otherwise indicated below:

(i) Condemnation and Demolition. Within XX days after the disaster, the building official [or equivalent] shall notify the State Historic Preservation Office that one of the following actions will be taken with respect to any building or structure determined by the building official to represent an imminent hazard to public health and safety, or to pose an imminent threat to the public right of way:

1. Where possible, within reasonable limits as determined by the building official, the building or structure shall be braced or shored in such a manner as to mitigate the hazard to public health and safety or the hazard to the public right-of-way;
2. Whenever bracing or shoring is determined not to be reasonable, the building official shall cause the building or structure to be condemned and immediately demolished. Such condemnation and demolition shall be performed in the interest of public health and safety without a condemnation hearing as otherwise required by the [Municipal] Code. Prior to commencing demolition, the building official shall photographically record the entire building or structure.

(ii) Notice of Condemnation. If, after the specified time frame noted in Subsection 11.c.i(3a) of this chapter and less than 30 days after the disaster, a historic building or structure is determined by the building official to represent a hazard to the health and safety of the public or to pose a threat to the public right of way, the building official shall duly notify the building owner of the intent to proceed with a condemnation hearing within business days of the notice in accordance with [Municipal] Code Section [insert section] ; the building official shall also notify FEMA, in accordance with the National Historic Preservation Act of 1966, as amended, of the intent to hold a condemnation hearing.

(iii) Request to FEMA to Demolish. Within 30 days after the disaster, for any historic building or structure that the building official and the owner have agreed to demolish, the building official shall submit to FEMA, in accordance with the National Historic Preservation Act of 1966, as amended, a request to demolish. Such request shall include all substantiating data.

(iv) Historic Building Demolition Review. If after 30 days from the event, the building official and the owner of a historic building or structure agree that the building or structure should be demolished, such action will be subject to the review process established by the National Historic Preservation Act of 1966, as amended.

iv) **Temporary Waiver of Permit for Emergency Repair.** Following a disaster, temporary emergency repairs to secure structures and property damaged in the disaster against further damage or to protect

adjoining structures or property may be made without fee or permit where such repairs are not already exempt under other chapters of the [Municipal] Code. The building official must be notified of such repairs within XX working days, and regular permits or the disaster permits with fees may then be required.

v) **Deferral of Fees for Repair and Reconstruction Permits.** Except for temporary repairs issued under provisions of this chapter, all other repairs, restoration, and reconstruction of buildings damaged or destroyed in the disaster shall be approved through permit under the provisions of this ordinance or other chapters of State and [Municipal] code. Fees for such repair and reconstruction permits may be deferred until issuance of certificates of occupancy.

vi) **Nonconforming Buildings and Uses.** [Insert municipal-specific information]

vii) **Penalties for Noncompliance.** [The Municipality should insert explicit penalties for noncompliance with procedure. These are most likely to be the typical penalties associated with permit violations.]

10) **Severability.** If any provision of this chapter is found to be unconstitutional or otherwise invalid by any court of competent jurisdiction, such invalidity shall not affect the remaining provisions, which can be implemented without the invalid provision, and, to this end, the provisions of this ordinance are declared to be severable.

APPENDIX B. ADDRESSING RECOVERY THROUGH EMERGENCY MANAGEMENT: GAP ANALYSIS

As part of the Resiliency and Recovery Plan, the consultant and planning team explored the integration of recovery and resiliency by identifying critical gaps in community recovery support between the time of disaster initiation and long-term community economic recovery through a review the Tompkins County Department of Emergency Response’s Comprehensive Emergency Management Plan Recovery Annex. The review of the annex, current at the time of the planning process, identified a number of opportunities to identify recovery leadership, and to provide plans, procedures, protocols to support an efficient transition from response to recovery operations and to integrate mitigation and resilience into post-disaster activities.

The following items identify the legal authorities and references used to develop a recovery plan and as reference in the performance of the gap analysis. They do not supersede the plans, policies, or procedures of Tompkins County, or its partner agencies and organizations.

- Presidential Policy Directive-5 Management of Domestic Incidents
- Presidential Policy Directive-8 National Disaster Recovery Framework
- National Disaster Recovery Framework, 2nd Edition
- Public Law 93-288, The Robert T. Stafford Disaster Relief and Emergency Assistance Act, as amended
- New York State (NYS) Executive Law Article 2-B

Specific recommendations are provided by topic below for consideration during the update of the Tompkins County Department of Emergency Response’s Comprehensive Emergency Management Plan and development of a Pre-Disaster Recovery Plan.

Recovery Annex Gap Analysis	
Definition	Topic: Definition of Recovery Stage
	Gap: It is important to define Pre-Disaster Recovery, Short-Term Recovery, Intermediate Recovery, and Long-Term Recovery for Tompkins County.
	Recommendation: Use the Recovery Continuum as identified by FEMA in the NDRF and customize the phases and activities by phase for Tompkins County. There may be 4 or even 5 levels in short and mid-term recovery and planning take place. At a minimum it should be short and long-term recovery and planning. It is important to confirm the definition of short- and long-term recovery as the plan notes Immediate (0-2 weeks), Interim (2-52 weeks) and Permanent (52+ weeks) but the county RFP does not align as it refers to “long-term” to be defined be it 6 months post-disaster, or 3 years post-disaster
Definition	Topic: Response and Recovery Phase Definitions of Emergency Response
	Gap: The recovery annex is unclear on the timeline and transitions of short versus long-term recovery.

Recovery Annex Gap Analysis	
	Recommendation: Clearly define response and recovery phases to indicate both short and long-term recovery to delineate ending the response phase as a separate activity from short term recovery. Define terminology.
Roles	Topic: Recovery Point of Contact (POC)
	Gap: Primary POC for recovery is not indicated.
	Recommendation: Identify the recovery organization and note the primary POC.
Roles	Topic: Recovery Roles and Responsibilities
	Gap: Recovery organization including staff positions and roles/responsibilities are not indicated.
	Recommendation: DoER to be listed with roles and responsibilities indicated.
Roles	Topic: Private Sector Roles
	Gap: Private sector roles and resources are not included in the recovery plan. Identify what support of major businesses needed for effective recovery?
	Recommendation: Include a section on private-sector roles in post-disaster recovery as they are a key to economic stability and rebounding post-disaster to get the community on the path to normalcy and to help the local economy recover.
Roles	Topic: Delineation of Roles and Responsibilities
	Gap: The responsible party for disseminating the Recovery Annex to the public must be identified.
	Recommendation: Note who is responsible for informing public of the recovery annex document?
Transition	Topic: Transition from Emergency Support Functions (ESF) to Recovery Support Functions (RSF) Annex Reference
	Gap: There is no connection to Recovery Support Functions, how does this transition take place?
	Recommendation: Provide a transition of Emergency Support Functions (ESFs) to Recovery Support Functions (RSFs) as they transition from response to recovery. Provide annex to the document that identifies Response to Recovery Transition considerations to ensure transition from response to short-term and long-term activities to identify considerations for both situations and timing of transitions.
Transition	Topic: Transition of Emergency Response to Recovery
	Gap: Note the trigger to end the emergency response phase.
	Recommendation: Describe the trigger to end the emergency response phase and describe what this involves. This could include the return of water and electric service, and the re-opening of roads and critical businesses such as grocery stores, gas stations, and banks.
Organization	Topic: Identify Emergency Management and Recovery Organizational Structures
	Gap: An outline of an organizational structure and coordination process for recovery operations is not provided.
	Recommendation: Provide an outline of an organizational structure and coordination process for recovery operations is needed.
Communication	Topic: Communication Activation (mode and types)

Recovery Annex Gap Analysis	
	Gap: Communication Activation (mode and types) are not included.
	Recommendation: Add reference to Tompkins SIREN for alerts to community or staff to activate the EOC: need for all phases of an incident
Communication	Topic: County-wide Mass Notification System
	Gap: Communication needed to advise residents of key information.
	Recommendation: County to use Tompkins SIREN for not only alerts but for recovery info – where to secure food water etc.
Communication	Topic: Public Communication
	Gap: No protocol for informing public of alternate communication methods.
	Recommendation: Inform public of how to access alternative communication platforms.
Communication	Topic: Public Communication
	Gap: There is no guidance on methods and content of pre- and post-disaster communications with the public.
	Recommendation: Provide recommendations on how and when municipalities should communicate with the public and what information they should be providing based on the nature of the disaster.
Communication	Topic: Mass Notification
	Gap: Mass notification platform is not identified.
	Recommendation: Tompkins SIREN is excellent to use to alert county staff that needs to activate to the EOC.
Communication	Topic: Shelter in Place Process
	Gap: There is no guidance on how and when to implement a shelter in place order.
	Recommendation: Include a description of the role, responsible party, and process to evaluate and decide whether to shelter in place or evacuate depending on the nature and intensity of anticipated disaster.
Vulnerabilities	Topic: Economic Profile
	Gap: Vulnerable Economic Areas are not Identified.
	Recommendation: Based upon their economic profile, the County must identify their Economic Vulnerabilities, or how their economy could be impacted following a disaster. Key information includes the percentage of small businesses; primary business sectors; percentage of large businesses.
SoVi/DEI	Topic: Vulnerable Populations
	Gap: Types and location of vulnerable populations are not identified.
	Recommendation: List specific populations that communities may want to consider.
DEI	Topic: Diversity, Equity, and Inclusion
	Gap: Diversity, Equity, and Inclusion are not addressed.
	Recommendation: The document should address equity and diversity.
Resources	Topic: Recovery Resources
	Gap: Procedure to request staff augmentation and resources.

	Recovery Annex Gap Analysis
	Recommendation: It is important to include the procedure and means to request resources. Indicate both the method of request and the responsible person/position to request state resources.
Resources	Topic: Source of Recovery Resources[^]
	Gap: Annex does not provide information as to where municipalities can find information on resources and services
	Recommendation: Add guidance on where municipalities can find information on resources and services
Resources	Topic: Recovery Support and Services
	Gap: Recovery support and services must be prioritized for efficient and timely use of resources.
	Recommendation: Need prioritization of actions and needs to obtain and utilize recovery services and assets.
Resources	Topic: Requests for Supplementary Resources
	Gap: There is a lack of guidance to support community requests for timely and additional resources to support recovery.
	Recommendation: Include Identification of resources and assets to respond to and address impacts from disaster event. Need trigger for municipalities to request assistance: Communities should seek to obtain additional asset/resources BEFORE they are exhausted especially if there are difficulties, complexities, or delays in the availability of recovery funds or provision of assets/resources. Need to have defined method to request resources.
Resources	Topic: Private Sector Collaborative Support Not Addressed
	Gap: The method, type, and outreach to private sector entities to provide collaborative recovery support is not addressed.
	Recommendation: Add a section on private-sector roles in post-disaster recovery as they are one of the keys to economic stability and getting the community back up and running post-disaster. This puts the community on the path of normalcy and helping the local economy recovery.
Needs	Topic: Personal Emergency Kit
	Gap: There is no guidance to provide residents regarding preparation of emergency kits.
	Recommendation: Provide description of contents of emergency kit.
Needs	Topic: Recovery Needs Identification
	Gap: A detailed process for disaster impact analysis is not provided.
	Recommendation: The recovery annex should include a section describing a step-by-step process for disaster impact analysis, recovery need identification, recovery need prioritization, acquisition of funding (if necessary), etc. Additional information will still be fairly high level but should be somewhat more detailed and organized than the lists provided.
Needs/Issues	Topic: Local Issue Identification
	Gap: Localized issues need to be documented to address specific concerns.

	Recovery Annex Gap Analysis
	Recommendation: Obtain feedback from residents to identify specific issues or concerns that only local residents may know.
Impacts/Needs	Topic: Disaster Impact Analysis
	Gap: Guidance for disaster impact analysis including scope and location of damages and needs is not addressed.
	Recommendation: Include an entire section describing a step-by-step process for disaster impact analysis, recovery need identification, recovery need prioritization, funding acquisition (if necessary), etc. Additional information will still be fairly high level but should be somewhat more detailed and organized than the lists provided.
Impacts/Needs	Topic: Secondary Impacts Identification
	Gap: Secondary impacts such as what do you do during a disaster and often this is not considered, such as the Courts. If arrests are made there is a right to appear (within 24 hours) that must be made available.
	Recommendation: Identify secondary impacts and how procedures must be modified after a disaster.
Shared Services	Topic: Municipal Shared Services
	Gap: Municipal shared services should be identified and documented by MOUs.
	Recommendation: Local governments should conduct a self-analysis to know which MOUs may be needed (i.e., increased fire response services) and with whom (which communities have resources available to share).
Prioritization	Topic: Recovery Action Prioritization
	Gap: Methodology for prioritization of recovery of critical services is not addressed.
	Recommendation: This plan should instruct municipalities on identifying what the priority items may be for recovery of specific services such as: hospitals, schools, local business
Documentation	Topic: Cost Documentation
	Gap: Procedures for cost documentation are not provide.
	Recommendation: Develop County and local government procedures for tracking impact and costs related to disaster events to leverage recovery funds and resources for resilience or mitigation.
Documentation	Topic: Documentation of Information Transmittal
	Gap: The method of transmission and documentation of information provided to municipalities is not addressed.
	Recommendation: Note the method of communication with the ability to track each request and response (such as WebEOC).
Documentation	Topic: Disaster Event Documentation
	Gap: No guidance on how to document disaster or hazard event impacts or losses.
	Recommendation: Documenting event should be included for county, municipal and individual levels.
Inspections	Topic: Resilient Rebuilding

Recovery Annex Gap Analysis	
	Gap: Structure inspections to indicate if properties are substantially damaged (>50%) are not included.
	Recommendation: Note the need for substantial damage inspections and a substantial damage response plan.
Integration	Topic: Align Recovery Annex with Existing Plans
	Gap: The recovery annex does not reference the EOP or CEMP to avoid redundancy.
	Recommendation: When possible, they should refer the reader to the EOP/CEMP so as to avoid redundancy in more than one plan and then when it comes time to update the document, it only has to be updated in one plan and not multiple locations.
Integration	Topic: Debris Plan and Logistics
	Gap: Debris plan and on-call Services are not Integrated into recovery plan
	Recommendation: Note debris plan and on-call contracts.
Integration	Topic: Municipal Plan Updates
	Gap: Periodic or post-incident updates for municipal plans such as hazard mitigation, comprehensive, and response plans are not identified.
	Recommendation: Municipal plans: Update after an incident, annually, or no less than every 5 years.
Integration	Topic: Municipal Plan Reviews
	Gap: DoER must review local plans for content and consistency with county plan.
	Recommendation: Add formal process for submittal of plans and contact information to DoER and DoER reviews.

X. REFERENCES

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