Community Forest Storm Mitigation Planning

A Guide for Virginia Communities

Template

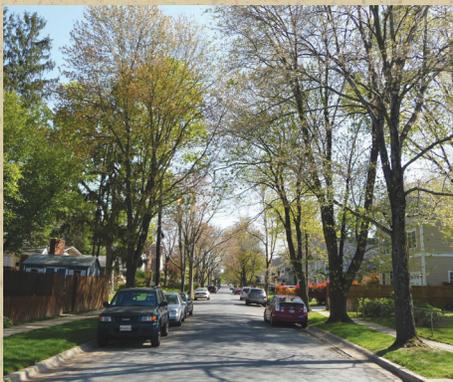# Community Forest Storm Mitigation Planning

Guide for Virginia Communities

Virginia Department of Forestry

www.dof.virginia.gov

Template

2016

GEORGIA FORESTRY
COMMISSION

**Plan template written by
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This template was originally developed by the Georgia Forestry Commission
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*For more information on this Template, contact:
Urban and Community Forestry Program Coordinator
Virginia Department of Forestry*

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HOW TO USE THIS TEMPLATE

This template is intended as a tool for guiding a community through the development of a *Community Forest Storm Mitigation Plan* and as a basic plan framework. The *Community Forest Storm Mitigation Planning Workbook* that accompanies this template includes step-by-step instructions for completing the template. Both the workbook and template are available on the Virginia Department of Forestry's website at www.dof.virginia.gov.

As you fill in the blanks, check off completed activities, and circle the appropriate selections within brackets, you will begin the assessment of your storm readiness and the development of your plan. You can address the gaps in information, activities and programs that become apparent as you go through the template and then begin to further develop your community forest management program with storm mitigation in mind.

After completing as much of the template as possible, you can either use it as is or use the Word document version of the template available on the VDOF website to write a final *Community Forest Storm Mitigation Plan*. Your completed template or plan should be distributed to and implemented by the storm mitigation team you've assembled during the process. As community forest and storm mitigation program elements are further developed and changes are made in programs and procedures, you can revise your plan to keep it up to date. An annual review is recommended. Visit www.dof.virginia.gov for a listing of program personnel and for more information on trees and community forests.

PART I. COMMUNITY SETTING

A. COMMUNITY GEOGRAPHY AND SIZE

This Storm Mitigation Plan has been developed for:

_____ , Virginia.

Date of Adoption: _____   Date of Last Update: _____

Our Community is located in this physiographic area of Virginia:

☐ Appalachian Plateau   ☐ Valley and Ridge   ☐ Blue Ridge

☐ Piedmont   ☐ Coastal Plain

Our jurisdiction encompasses an area of _____ square miles and has

_____ miles of public roadways.

Our community has a population of _____ as of the

last official census date _____ (date).

B. STORM HISTORY AND EXPOSURE

1. Potential Storms and Emergency Events

The primary weather and catastrophic events that have occurred or are likely to occur in our community that can affect trees include:

- ☐ Earthquake
- ☐ Flood
- ☐ Hail
- ☐ Hurricane
- ☐ Ice Storm
- ☐ Pest Infestation (list type)

- ☐ Salt Intrusion
- ☐ Snow
- ☐ Tornado
- ☐ Tropical Storm
- ☐ Wildfire
- ☐ Wind/Microburst
- ☐ Other (describe)

2. Snow and Ice Storms

Snow and ice storms are most likely to occur during the months where freezing temperatures are possible, including the following months in our area:

1. _____   4. _____

2. _____   5. _____

3. _____   6. _____

The largest snow amounts (single event snow totals) are most likely to occur during the following months in our area:

1. _____   3. _____

2. _____   4. _____

3. Rainfall and Flooding

The months of the year in our area with the highest average annual precipitation are:

1. _____   4. _____

2. _____   5. _____

3. _____   6. _____

The months of the year in our area with the lowest average annual precipitation are:

1. _____   4. _____

2. _____   5. _____

3. _____   6. _____

4. Droughts and Fires

The warmest months of the year in our area are:

1. _____   4. _____

2. _____   5. _____

3. _____   6. _____

The months of the year with the most frequent wildfire activity in our area are:

1. _____   4. _____

2. _____   5. _____

3. _____   6. _____

☐   Our community participates in the *Firewise Communities Program* through the National Fire Protection Association.

Note: **Virginia's 4:00 p.m. Burning Law** § 10.1-1142 is in effect from February 15 through April 30 of each year, no burning before 4:00 p.m. is permitted, if the fire is in, or within 300 feet of, woodland, brushland or fields containing dry grass or other flammable material.

5. Other Significant Conditions

Other significant geographic, climatological and meteorological conditions that predispose our community to storms or catastrophic events include:

1. _____

2. _____

3. _____

6. Storm History and Records

The severe storms and catastrophic events that have occurred over the last 30 years in our community are listed below. This chart is also used to record storm events as they occur.

YEAR	DATE	TYPE OF EVENT/STORM	SEVERITY*	DAMAGE**

YEAR	DATE	TYPE OF EVENT/STORM	SEVERITY*	DAMAGE**

*Severity of tornado, wind or hurricane is based on the Enhanced Fujita Scale or Saffir-Simpson Hurricane Scales; or low, medium or high for other events/storms.

**Include the number of injuries and fatalities; also include property damage in dollars.

C. COMMUNITY FOREST RESOURCE MANAGEMENT

1. Tree Care Manager

The primary tree care manager for the community is the:

☐ Community Arborist   ☐ Tree Board Chairperson

☐ Community Urban Forester   ☐ Tree Board Member

☐ Traffic Engineer   ☐ Citizen Volunteer

☐ Public Works Director   ☐ Other

☐ City Manager

☐ County Administrator

Name: _____   Radio #: _____

Title: _____

Department: _____

Primary Phone No.: _____   Alt. Phone No.: _____

E-mail Address: _____

Our tree care manager:

☐ Is an ISA Certified Arborist   ☐ Has Tree Risk Assessment Qualifications

2. Tree City USA

☐   Our community is designated a Tree City by the National Arbor Day Foundation.

Our community was first designated a Tree City USA in _____ (year).

Our community has been designated a Tree City USA for _____ year(s).

since _____ (year).

As a Tree City, our community has:

☐   A Public Tree Ordinance, OR   ☐   Private Tree Ordinance
         (include copy in the appendix)   (include copy in the appendix)

☐   Total Annual Tree Program Expenditures of $ _____

         in calendar year _____

☐   A Tree Board with _____ (number) Members (include list in the appendix).

☐   An Annual Arbor Day Celebration and Proclamation

         Our last Arbor Day celebration was held on _____ (date)

3. Management Plan

☐   We have a community forest management plan in place (include copy in the appendix).

Our community forest management plan was first adopted on _____ (date).

Our community forest management plan was last revised on _____ (date).

The person responsible for administering and updating our community forest management plan is:

Name: _____   Radio #: _____

Title: _____

Department: _____

Primary Phone No.: _____   Alt. Phone No.: _____

E-mail Address: _____

PART II. STORM PREPARATION

A. STORM MITIGATION TEAM

1. Emergency Management Personnel

Local Emergency Management Director

Name: Radio #:

Title:

Department:

Primary Phone No.:   Alt. Phone No.:

E-mail Address:

Virginia Department of Emergency Management (VDEM) Regional Coordinator

Name: Radio #:

Title:

Department:

Primary Phone No.:   Alt. Phone No.:

E-mail Address:

Federal Emergency Management Agency (FEMA) Region IV Regional Administrator

Name: Radio #:

Title:

Department:

Primary Phone No.:   Alt. Phone No.:

E-mail Address:

2. Government Staff

City Manager/County Administrator/Designee

Name: _____   Radio #: _____

Title: _____

Department: _____

Primary Phone No.: _____   Alt. Phone No.: _____

E-mail Address: _____

Public Information Officer

Name: _____   Radio #: _____

Title: _____

Department: _____

Primary Phone No.: _____   Alt. Phone No.: _____

E-mail Address: _____

Public Safety Officer (Police Chief/County Sheriff)

Name: _____   Radio #: _____

Title: _____

Department: _____

Primary Phone No.: _____   Alt. Phone No.: _____

E-mail Address: _____

Fire Chief

Name: _____   Radio #: _____

Title: _____

Department: _____

Primary Phone No.: _____   Alt. Phone No.: _____

E-mail Address: _____

Public Works Director

Name: _____   Radio #: _____

Title: _____

Department: _____

Primary Phone No.: _____   Alt. Phone No.: _____

E-mail Address: _____

Streets Superintendent/Traffic Engineer

Name: _____   Radio #: _____

Title: _____

Department: _____

Primary Phone No.: _____   Alt. Phone No.: _____

E-mail Address: _____

Tree Care Manager/Urban Forester/Arborist

Name: _____   Radio #: _____

Title: _____

Department: _____

Primary Phone No.: _____   Alt. Phone No.: _____

E-mail Address: _____

Parks and Recreation Director

Name: _____   Radio #: _____

Title: _____

Department: _____

Primary Phone No.: _____   Alt. Phone No.: _____

E-mail Address: _____

Planning Director

Name: _____   Radio #: _____

Title: _____

Department: _____

Primary Phone No.: _____   Alt. Phone No.: _____

E-mail Address: _____

GIS Manager

Name: _____   Radio #: _____

Title: _____

Department: _____

Primary Phone No.: _____   Alt. Phone No.: _____

E-mail Address: _____

Additional Government Staff

Title:

Name: Radio #:

Department:

Primary Phone No.:   Alt. Phone No.:

E-mail Address:

Title:

Name: Radio #:

Department:

Primary Phone No.:   Alt. Phone No.:

E-mail Address:

Title:

Name: Radio #:

Department:

Primary Phone No.:   Alt. Phone No.:

E-mail Address:

Title:

Name: Radio #:

Department:

Primary Phone No.:   Alt. Phone No.:

E-mail Address:

3. Utility Companies and Departments

Electric Utility

Name:
_____

Title:
_____

Company/Department:
_____

Primary Phone No.:
_____ Alt. Phone No.: _____

E-mail Address:
_____

Gas Utility

Name:
_____

Title:
_____

Company/Department:
_____

Primary Phone No.:
_____ Alt. Phone No.: _____

E-mail Address:
_____

Telephone/Cable/Fiber Optic Utilities

Name:
_____

Title:
_____

Company/Department:
_____

Primary Phone No.:
_____ Alt. Phone No.: _____

E-mail Address:
_____

Name:
_____

Title:
_____

Company/Department:
_____

Primary Phone No.:
_____ Alt. Phone No.: _____

E-mail Address:
_____

Water and Sewer Utility

Name:

Title:

Company/Department:

Primary Phone No.:   Alt. Phone No.:

E-mail Address:

Other Utility Companies

Name:

Title:

Company/Department:

Primary Phone No.:   Alt. Phone No.:

E-mail Address:

Name:

Title:

Company/Department:

Primary Phone No.:   Alt. Phone No.:

E-mail Address:

Name:

Title:

Company/Department:

Primary Phone No.:   Alt. Phone No.:

E-mail Address:

4. State Agencies

Virginia Department of Forestry

Name:

Title:

Primary Phone No.:   Alt. Phone No.:

E-mail Address:

Cooperative Extension Service

Name:

Title:

Primary Phone No.:   Alt. Phone No.:

E-mail Address:

Other State Agencies

Name:

Title:

Department:

Primary Phone No.:   Alt. Phone No.:

E-mail Address:

Name:

Title:

Department:

Primary Phone No.:   Alt. Phone No.:

E-mail Address:

5. Contractors

Debris Removal Contractors

Name:

Title:

Company:

Primary Phone No.:					Alt. Phone No.:

E-mail Address:

Name:

Title:

Company:

Primary Phone No.:					Alt. Phone No.:

E-mail Address:

Name:

Title:

Company:

Primary Phone No.:					Alt. Phone No.:

E-mail Address:

Name:

Title:

Company:

Primary Phone No.:					Alt. Phone No.:

E-mail Address:

Tree Service Contractors

Name:

Title:

Company:

Primary Phone No.:   Alt. Phone No.:

E-mail Address:

Name:

Title:

Company:

Primary Phone No.:   Alt. Phone No.:

E-mail Address:

Name:

Title:

Company:

Primary Phone No.:   Alt. Phone No.:

E-mail Address:

Name:

Title:

Company:

Primary Phone No.:   Alt. Phone No.:

E-mail Address:

Landscape Contractors

Name:

Title:

Company:

Primary Phone No.:   Alt. Phone No.:

E-mail Address:

Name:

Title:

Company:

Primary Phone No.:   Alt. Phone No.:

E-mail Address:

Name:

Title:

Company:

Primary Phone No.:   Alt. Phone No.:

E-mail Address:

Name:

Title:

Company:

Primary Phone No.:   Alt. Phone No.:

E-mail Address:

6. Equipment and Materials Vendors

Equipment Rental Vendor

Name:

Title:

Company:

Primary Phone No.:   Alt. Phone No.:

E-mail Address:

Tree Nursery Vendors

Name:

Title:

Company:

Primary Phone No.:   Alt. Phone No.:

E-mail Address:

Name:

Title:

Company:

Primary Phone No.:   Alt. Phone No.:

E-mail Address:

Name:

Title:

Company:

Primary Phone No.:   Alt. Phone No.:

E-mail Address:

7. Volunteer Organizations

Tree Board Chairperson

Name:

Organization:

Address:

Primary Phone No.: | Alt. Phone No.:

E-mail Address:

Local Agencies and Non-Profit Organizations

Name:

Title:

Organization:

Primary Phone No.: | Alt. Phone No.:

E-mail Address:

Name:

Title:

Organization:

Primary Phone No.: | Alt. Phone No.:

E-mail Address:

Name:

Title:

Organization:

Primary Phone No.: | Alt. Phone No.:

E-mail Address:

8. Community Forest Management Program Sponsors

Reforestation Sponsors

Name:

Title:

Organization/Company/Agency:

Primary Phone No.:   Alt. Phone No.:

E-mail Address:

Name:

Title:

Organization/Company/Agency:

Primary Phone No.:   Alt. Phone No.:

E-mail Address:

Name:

Title:

Organization/Company/Agency:

Primary Phone No.:   Alt. Phone No.:

E-mail Address:

Name:

Title:

Organization/Company/Agency:

Primary Phone No.:   Alt. Phone No.:

E-mail Address:

9. Additional Team Members and Emergency Contacts

Name:

Title:

Organization/Company/Agency:

Primary Phone No.:   Alt. Phone No.:

E-mail Address:

Name:

Title:

Organization/Company/Agency:

Primary Phone No.:   Alt. Phone No.:

E-mail Address:

Name:

Title:

Organization/Company/Agency:

Primary Phone No.:   Alt. Phone No.:

E-mail Address:

Name:

Title:

Organization/Company/Agency:

Primary Phone No.:   Alt. Phone No.:

E-mail Address:

B. COMMUNITY FOREST RESOURCE ASSESSMENTS

Our community has made the following assessments of the tree resource and has available the information indicated below for use in storm preparation, response, and mitigation. This information is available from the tree care manager.

1. Tree Canopy Assessment

☐   We have completed a tree canopy assessment, and

_____ % of our community is covered with tree canopy as of

_____ (year).

The method used for determining our tree canopy is described below:

_____

☐   Previous tree canopy assessments have been made.

_____ % in _____ (year)

_____ % in _____ (year)

_____ % in _____ (year)

Our tree canopy cover has   ☐ Increased   ☐ Decreased

Over the past _____ (number of years of measurement) years.

Additional changes in our tree canopy cover over time are described below:

_____

_____

☐   We have a community forest management plan with a tree canopy assessment goal of

_____ % set by the community.

2. Public Tree Inventory

☐ An inventory of public trees was last completed in _____ (year),

and the community has the number of public trees shown below growing on:

☐ Street Rights-of-Way _____ (number of trees).

☐ Public Parks _____ (number of trees).

☐ Public Cemeteries _____ (number of trees).

☐ Public School Campuses _____ (number of trees).

☐ Yards around Public Offices and Facilities _____ (number of trees).

☐ Other _____ _____ (number of trees).

_____ _____ (number of trees).

☐ We have _____ (number of trees) street trees 24 inches DBH and greater.

☐ Our tree inventory information is available from the tree care manager in an

☐ Excel Spreadsheet   ☐ GIS Shape File   ☐ Hard Copy Format

☐ Our inventory includes the location of all street trees determined using GPS and we have a GIS shape file of our street trees.

☐ Our public tree inventory is included as a layer on our community's geographic information system.

☐ A map of the locations of street trees 24 inches DBH and greater is available from the tree care manager.

3. Tree Risk Assessment

☐ Our community has on file in the tree care manager's office a copy of the ANSI A300 Part 9 standards and best management practices for tree risk assessment.

☐ Our community has a tree risk assessment program or plan.

A Level 1 tree risk assessment is conducted every _____ years.

The date of the most recent Level 1 tree risk assessment is _____ (date).

A Level 2 tree risk assessment is conducted every _____ years.

The date of the most recent Level 2 tree risk assessment is _____ (date).

4. Tree Benefits and Value

☐   We have information on the dollar value of the benefits that our tree canopy provides.

The amount and dollar value of the benefits our tree canopy provides include:

Amount	Value	Benefit
	$	Aesthetic and Other Benefits
	$	Air Quality Benefits
	$	Carbon Sequestration Benefits
	$	Energy Benefits
	$	Stormwater Interception Benefits

The total dollar value of the annual benefits provided by our community trees, based on our tree canopy assessment, is

$ _____ .

☐   We have information on the dollar value of the benefits that our street trees provide.

The amount and dollar value of the benefits our street trees provide include:

Amount	Value	Benefit
	$	Aesthetic and Other Benefits
	$	Air Quality Benefits
	$	Carbon Sequestration Benefits
	$	Energy Benefits
	$	Stormwater Interception Benefits

The total dollar value of the annual benefits provided by our public street trees, based on our tree inventory, is

$ _____ .

The average annual benefits per tree is $ _____ .

5. Community Forest Management Costs

☐   We have information on our annual community forest management costs.

☐   The total annual cost of managing our public areas includes costs for (check all that apply):

☐ Street   ☐ Park   ☐ Cemetery   ☐ School   ☐ Facility

☐   Other _____

$ _____   Tree Planting and Initial Care

$ _____   Tree Maintenance

$ _____   Tree Removals

$ _____   Management/Administration

$ _____   Equipment/Supplies

$ _____   Contractual

$ _____   Other costs (describe below)

_____

_____

_____

_____

Our annual community forestry program expenditures total $ _____ .

Street trees represent _____ % of our total public tree population.

The pro-rated cost of managing our street tree population is $ _____ .

> (multiply total annual community forestry program expenditures by the percentage of the tree population represented by street trees)

6. Benefit-to-Cost Ratio of Community Forestry Management

The total value of the benefits provided by our tree canopy is $ _____ (A).

The total value of the benefits provided by our street trees is $ _____ (B).

The total cost of our annual community forest management $ _____ (C).
program is

The total cost of our annual tree risk assessment program is $ _____ (D).

For every $1 our community spends on community forest management, we receive

$ _____   back in benefits from our tree canopy (A divided by C).

For every $1 our community spends for tree risk assessment, we receive

$ _____   back in benefits from our public street trees (B divided by D).

C. STORM MITIGATION MAP

☐   A storm mitigation map has been developed and is included as part of our plan.

☐   Copies of the storm mitigation plan are available in the office(s) of the:

   ☐   Emergency Response Manager

   ☐   Tree Care Manager

   ☐   Public Works Director/ Traffic Engineer

   ☐   Other _____

☐   The storm mitigation map can also be accessed online at:

_____

Our storm mitigation map includes the following information:

1. Critical Facilities

   ☐   Hospitals

   ☐   Other Critical Health Care Facilities (list below)

   _____

   _____

   _____

   _____

   ☐   Fire Stations

   ☐   Police Stations

   ☐   Communications Networks and Facilities

   ☐   Electric Utilities

   ☐   Other Utility Networks and Facilities (list below)

   _____

   _____

   _____

☐   Water System

☐   Sanitary Sewer System

2. Transportation Network

☐   Emergency Evacuation Routes

☐   Street Network

☐   Priority Streets to Critical Facilities (highlighted)

3. Trees

☐   All Public Trees

☐   Large Canopy Public Trees (highlighted)

☐   Tree Canopy Density

☐   Trees at Risk

4. Emergency Response Sites

☐   Emergency management centers

☐   Homeland Security offices

☐   Personnel and Equipment Staging Areas

☐   Debris Staging Areas

☐   Debris Storage Areas

The person responsible for developing and updating our storm mitigation map is:

Name: _____

Title: _____

Department: _____

Primary Phone No.: _____   Alt. Phone No.: _____

E-mail Address: _____

Date of last update: _____

D. TREE RISK MITIGATION

1. Short-term Tree Risk Mitigation

☐   We have a short-term tree risk mitigation program in place.

The number of trees identified during our tree risk assessment with partial or whole tree failure that require mitigation total

_____ , including:

_____ that require risk-reduction pruning

_____ that require supplemental support (cabling/bracing)

_____ that require lightning protection systems

_____ that require pest management

_____ that require removal

The number of trees scheduled to be pruned for risk mitigation each year is

_____ .

The number of trees scheduled to be cabled/braced for risk mitigation each year is

_____ .

The number of trees scheduled for lightning protection system installation each year is

_____ .

The number of trees scheduled for pest management each year is

_____ .

The number of trees scheduled to be removed for risk mitigation each year is

_____ .

The number of trees scheduled to be planted to replace trees removed for risk mitigation each year is

_____ .

2. Long-term Tree Risk Mitigation

The additional routine community forest management activities and program components that are in place in our community to further mitigate tree risk and storm damage on a long-term basis are:

☐   Tree Care Standards and Best Management Practices

☐   Tree Ordinance Updates

☐   Ongoing Training Program for Tree Care Personnel

☐   Established Tree-Care Budget

☐   Alternate Program Funding Mechanisms

☐   Tree Bank

☐   Routine Street-Tree Inspection Program

☐   Routine Large-Tree Inspection Program

☐   Routine Pruning Program

☐   Routine Tree Planting Program

☐   Routine Tree Mulching, Irrigation and Soil Aeration

☐   Recommended Tree Species List

☐   Species Selection Guidelines

☐   Site Selection Guidelines

☐   Tree Planting Guidelines

☐   Minimum Rooting Area and Soil Volume Requirements

☐   Growing-Space Protection Requirements

☐   Critical Root-Zone Protection Requirements

☐   Public Information and Education Program

☐   Program Analysis and Feedback

☐   Species to Avoid or Not Permitted List

E. EQUIPMENT AND SERVICES

The available equipment for storm mitigation, response and recovery along with the department or other source committed to supply the equipment (equipment rental vendor, contractor or another government entity) are:

EQUIPMENT DESCRIPTION	NUMBER OF UNITS NEEDED/AVAILABLE	DEPARTMENT/SOURCE OF SUPPLY
Supervisor Vehicles	/	
Crew Vehicles	/	
Aerial Lift Trucks	/	
Loaders	/	
Chippers	/	
Refuse Packers	/	
Dump Trucks	/	
Barricades	/	
Traffic Safety Cones	/	
Lighting Equipment	/	
Chain Saws	/	
Hand Saws	/	
Pole Pruners	/	
Cell Phones	/	
Portable Radios	/	
Computers/Tablets	/	
GPS Units	/	
Cameras	/	
Clipboards	/	
Data Sheets	/	
DBH Tapes	/	
Safety Vests	/	
Hardhats	/	
Chain Saw Chaps	/	

EQUIPMENT DESCRIPTION	NUMBER OF UNITS NEEDED/AVAILABLE	DEPARTMENT/SOURCE OF SUPPLY
Eye Protection	/	
Ear Protection	/	
First Aid Kits	/	
Other	/	
	/	
	/	
	/	
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F. MEMORANDA OF UNDERSTANDING AND ADVANCED READINESS CONTRACTS

1. Memoranda of Understanding

☐   Copies of existing MOUs are included in the template appendix.

Memoranda of understanding (MOUs) for storm preparation, response and recovery have been executed by the local government with the following communities, agencies, organizations, groups and individuals:

Neighboring Communities

☐ _____

☐ _____

☐ _____

☐ _____

☐ _____

Local Agencies

☐ _____

☐ _____

☐ _____

☐ _____

☐ _____

Non-Profit Organizations

☐ _____

☐ _____

☐ _____

☐ _____

☐ _____

Other Individuals and Groups

☐ _____

☐ _____

☐ _____

☐ _____

☐ _____

☐ _____

☐ _____

☐ _____

☐ _____

☐ _____

2. Advanced Readiness Contracts

☐   Copies of existing ARCs are included in the template appendix.

Advanced readiness contracts (ARCs) for storm preparation, response and recovery have been executed by the local government with the following vendors and contractors:

Equipment Rental Vendors

☐ _____

☐ _____

☐ _____

☐ _____

☐ _____

Debris Removal Contractors

☐ _____

☐ _____

☐ _____

☐ _____

☐ _____

Mulch Grinding Contractors

☐ _____

☐ _____

☐ _____

☐ _____

☐ _____

Tree Service Contractors

☐ _____

☐ _____

☐ _____

☐ _____

☐ _____

Tree Suppliers

☐ _____

☐ _____

☐ _____

☐ _____

☐ _____

Landscape Contractors

☐ _____

☐ _____

☐ _____

☐ _____

☐ _____

G. COMMUNICATION, INFORMATION, EDUCATION AND AWARENESS

1. Communication

☐   We have a designated call center established for notification of fallen and hazardous trees and tree damage.

The name and contact information for the call center is:

Name of Call Center: _____

Address: _____

_____

Phone No.: _____

Fax No.: _____

Website: _____

E-mail Address: _____

Call Center Director/Contact: _____

2. Information and Education

Internal Information Sharing

During storm preparation, information will be shared internally by:

☐ Phone Calls   ☐ Meetings (notices, agendas, minutes)

☐ E-mails   ☐ Quarterly

☐ Predetermined and Set Up   ☐ Semi-Annual
    Cloud-Based Storage Site

                                  ☐ Annual

The person responsible for coordinating internal information sharing about community forest storm damage mitigation planning, preparation, response and recovery is:

Name:

Title:

Department:

Primary Phone No.:   Alt. Phone No.:

E-mail Address:

External Information Sharing

☐   Government Websites

☐   Community Forest Management Program Website

☐   Neighborhood Association Website

☐   Facebook Page

☐   Twitter Account

☐   Phone (see storm mitigation team contact list)

☐   E-mail (see storm mitigation team contact list)

☐   Cloud-Based Storage Site

☐   Pamphlets and Brochures

☐   Meetings: ☐ Quarterly   ☐ Semi-Annual   ☐ Annual

☐   Scripts and Recorded Public Service Announcements

☐   Press Releases and Newspaper Articles

The person responsible for coordinating external information sharing and education about storm preparation, response and recovery is:

Name:

Title:

Department:

Primary Phone No.:   Alt. Phone No.:

E-mail Address:

Information and Education Topics

☐   The community has information readily available to disseminate to the public on storm preparation, response and recovery.

The information available by topic and format is indicated in the following chart:

TOPIC	WRITTEN SCRIPT	RECORDED PSA	ARTICLE /PRESS RELEASE	WEBSITE /SOCIAL MEDIA	BROCHURE/ HANDOUT
Benefits of Trees	☐	☐	☐	☐	☐
Tree Maintenance Standards and BMPs	☐	☐	☐	☐	☐
When and How to Hire an Arborist	☐	☐	☐	☐	☐
Chain Saw Safety	☐	☐	☐	☐	☐
Storm Severity and Damage Magnitude	☐	☐	☐	☐	☐
Debris Pick-up Schedule and Procedures	☐	☐	☐	☐	☐
Type of Debris to be Collected	☐	☐	☐	☐	☐
Expected Clean-up Time	☐	☐	☐	☐	☐
Post-storm Hazards (hangers, leaning trees, downed power lines)	☐	☐	☐	☐	☐
Caring for Storm Damaged Trees	☐	☐	☐	☐	☐
Tree Selection and Planting BMPs	☐	☐	☐	☐	☐
Public Park Closures	☐	☐	☐	☐	☐

The media outlets that will be used for disseminating information on storm preparation, response and recovery include:

☐ Websites   ☐ Television Stations

☐ Social Media   ☐ Newspapers

☐ Radio Stations   ☐ Public Meetings

The person responsible for distributing written information, press releases and public service announcements to the public and the media is:

Name:

Title:

Organization/Company/Agency:

Primary Phone No.: _____   Alt. Phone No.: _____

E-mail Address:

The person responsible for coordinating educational opportunities for the public is:

Name:

Title:

Organization/Company/Agency:

Primary Phone No.: _____   Alt. Phone No.: _____

E-mail Address:

3. Awareness

☐   The community coordinates the dissemination of storm preparation information during state-wide and national weather and emergency awareness programs.

The dates of upcoming statewide and national weather and emergency awareness weeks and days that will be the focus of information dissemination are:

☐   Air Quality Awareness Week   _____

☐   Fire Prevention Week   _____

☐   Hurricane Preparedness Week   _____

☐   Severe Weather Preparedness Week   _____

☐   Tsunami Awareness Week   _____

☐   Flood Awareness Week   _____

☐   Heat Awareness Day   _____

☐   Lightning Safety Awareness Week   _____

H. PREPARATION RECORD KEEPING

The following records are maintained and kept in the tree care manager's office and online in a cloud-based storage service as appropriate.

- ☐ Storm Mitigation Team Contact Information

- ☐ Storm Mitigation Team Meeting Announcements, Agendas and Minutes

- ☐ Community Forest Storm Mitigation Plan

- ☐ Storm Mitigation Map

- ☐ Memoranda of Understanding

- ☐ Advance Readiness Contracts

- ☐ Data and Cost Information for:

  - ☐ Program Administration (Personnel And Overhead)

  - ☐ Tree Canopy Assessments

  - ☐ Tree Risk Assessments

  - ☐ Tree Inventory Assessments

  - ☐ Tree Pruning

  - ☐ Cabling and Bracing

  - ☐ Lightning Protection

  - ☐ Tree Removal

  - ☐ Other Tree Maintenance

- ☐ Date, Amount and Source Of Volunteer Hours for Program Activities

- ☐ Public Information Scripts, Public Service Announcements and Press Releases

PART III. STORM RESPONSE

A. MOBILIZATION

Crews will be mobilized to clear fallen trees and woody debris from the highest priority areas as identified on the storm mitigation map. These priority areas will include:

- ☐ Priority Roads

- ☐ Priority Facilities

- ☐ Emergency Evacuation Routes

- ☐ Buildings, Vehicles or Other Situations with a Personal Injury

- ☐ Buildings and Vehicles Without Injured Persons

- ☐ Utility Repair

- ☐ Remaining Rights-of-Way, Public Buildings and Public Facilities

The person responsible for mobilizing resources to respond to storm damage and dispatching crews to remove fallen trees and woody debris is:

Name:

Title:

Department:

Primary Phone No.:   Alt. Phone No.:

E-mail Address:

B. DEBRIS MANAGEMENT

1. Debris Staging and Storage

☐   One or more debris storage sites that will accommodate large volumes of woody debris and logs have been established.

Debris storage sites have been established in the following locations:

1. _____

2. _____

3. _____

4. _____

The person responsible for coordinating debris staging and storage is:

Name: _____

Title: _____

Department: _____

Primary Phone No.: _____ Alt. Phone No.: _____

E-mail Address: _____

2. Debris Estimation

The person responsible for debris estimation is:

Name: _____

Title: _____

Department: _____

Primary Phone No.: _____ Alt. Phone No.: _____

E-mail Address: _____

C. TREE RISK AND DAMAGE ASSESSMENTS

☐   Tree risk and damage assessments will be performed within 30 days of the storm event by one or more of the following groups or individuals:

☐   Government Staff

☐   Consultants

☐   Urban Forest Strike Teams

☐   Trained Volunteers

The person responsible for coordinating tree risk and damage assessment crews is:

Name:

Title:

Department:

Primary Phone No.:   Alt. Phone No.:

E-mail Address:

Trees with the following conditions and structural defects should be pruned or removed to reduce further damage potential:

☐   Hangers (detached limbs hanging in the crown; remove limb only)

☐   Splitting Limbs (prune or remove)

☐   Splitting Trunks (cable or remove)

☐   Leaning Trunk with Soil Broken and Heaved Opposite the Lean (remove)

☐   Exposed Heartwood

☐   Other Conditions (list below)

☐   We have a policy in place that trees that do not pose an imminent risk of failure will not be removed until a tree damage assessment has been completed to avoid the removal of trees that are still viable and valuable to the community.

The person responsible for determining which standing trees should be removed is:

Name:

Title:

Department:

Primary Phone No.:   Alt. Phone No.:

E-mail Address:

D. INFORMATION

The person responsible for providing information to the public during a storm event is:

Name:

Title:

Department:

Primary Phone No.:   Alt. Phone No.:

E-mail Address:

E. RESPONSE RECORD KEEPING

During initial storm response, the following records will be retained:

- [ ] Tree and Debris Removal Call Log
- [ ] Debris Removal Costs
- [ ] Debris Volume Estimates
- [ ] Number and Location of Trees Removed
- [ ] Number and Location of Trees Pruned
- [ ] Number and Location of Stumps Removed
- [ ] Hazardous Tree, Limb and Stump Removal Costs
- [ ] Contractor Invoices
- [ ] Staff Hours By Person
- [ ] Equipment Hours By Piece of Equipment
- [ ] Volunteer Hours By Person and Activity
- [ ] Volunteer Contact Information
- [ ] Tree Damage Assessment Data and Costs

F. FEMA PUBLIC ASSISTANCE GRANTS

1. Hazardous Trees Documentation

Documentation retained for hazardous tree removal includes:

- [ ] Spreadsheet showing the number of trees removed and size and location of each tree
- [ ] Location of hazardous trees removed including the street/road name and GPS coordinates of each tree removed along public rights-of-way, and the property address and GPS coordinates of each tree removed from private property
- [ ] Photographs of trees cut flush with the ground along with a certification that the trees were 6 inches or larger in diameter

2. Hazardous Limbs Documentation

Documentation retained for hazardous limb removal includes:

☐ Spreadsheet showing the location of the trees and number of limbs cut on each tree (information on number of hazardous limbs removed per tree is not necessary if removal was contracted for on a per-tree basis)

☐ Certification that the limbs were 2 inches or larger in diameter

☐ Locations of hazardous limb removals including the street/road name and GPS coordinates of each tree with hazardous limbs removed along public rights-of-way, and the property address and GPS coordinates for trees with hazardous limbs removed on private property

☐ Photographs showing the number of limbs cut

3. Hazardous Stumps Documentation

Documentation retained for hazardous stump removal includes:

☐ Hazardous Stump Worksheet (http://www.fema.gov/pdf/government/grant/pa/9523_11.pdf)

☐ Number of hazardous stumps removed, locations and sizes

☐ Quantity of fill material required to fill the remaining hole

☐ Photographs of the stumps removed

The person responsible for documenting the hazardous trees, limbs and stumps removed is:

Name:

Title:

Department:

Primary Phone No.:   Alt. Phone No.:

E-mail Address:

PART IV. STORM RECOVERY

A. POST-STORM MITIGATION ANALYSIS

The activities that contributed most to the mitigation of tree-related damage during the most recent storm(s) are:

1. _____

2. _____

3. _____

4. _____

5. _____

The greatest areas of need identified during the most recent storm(s) for preparation and mitigation for future storms are:

1. _____

2. _____

3. _____

4. _____

5. _____

B. SUMMARY OF TREE LOSSES

☐   A summary of the number of public trees lost by species and diameter breast height (DBH) category will be completed after each storm event, using the following chart:

The total number of public trees lost in the most recent storm by species and size category are:

SPECIES COMMON NAME	NUMBER OF TREES BY DBH CATEGORY						
	< 6"	7-12"	13-18"	19-24"	25-30"	31-36"	>36"
TOTAL							

C. INVENTORY OF POTENTIAL PLANTING SITES

SITE TYPE*	LOCATION	STREET	ADDRESS	GROWING SPACE**	RECOMMENDED SPECIES

* Street, Park, Cemetery, Facility, School, etc.   ** Mature Tree Size of Large, Medium or Small

Inventory Date: _____   Page _____ of _____

D. TREE SPECIES SELECTION

☐   Our community has adopted an official list of trees recommended for planting in our area that is used as a guide for selecting trees for planting on public property.

In our area, fast-growing, weak-wooded species and other species to be avoided include:

☐   Bradford Pear

☐   Silver Maple

☐   Royal Paulownia (Princess Tree)

☐   Ash

☐   Hemlock

☐   Other

_____

_____

_____

_____

_____

_____

_____

_____

_____

E. TREE REPLACEMENT PLAN

To replace trees lost after a storm event, a public tree replacement plan will be developed that takes into account the number of tree losses, number of available planting sites inventoried, and available resources. We will adopt a goal of planting a specific number of trees per year an appropriate number of years.

☐   We have developed a written 3-year maintenance plan that includes mulching, watering, pest management, structural pruning and inspection of all newly-planted trees.

The person responsible for developing and coordinating the community's tree replacement plan is:

Name:

Title:

Department:

Primary Phone No.:   Alt. Phone No.:

E-mail Address:

The person responsible for new tree maintenance is:

Name:

Title:

Department:

Primary Phone No.:   Alt. Phone No.:

E-mail Address:

F. TREE REPLACEMENT PARTNERS

The person(s) responsible for soliciting financial, labor and material assistance for tree replacement are:

1. Tree Care Manager/Storm Mitigation Team Members

Name:

Title:

Department:

Primary Phone No.:   Alt. Phone No.:

E-mail Address:

Name:

Title:

Department:

Primary Phone No.:   Alt. Phone No.:

E-mail Address:

Name:

Title:

Department:

Primary Phone No.:   Alt. Phone No.:

E-mail Address:

Name:

Title:

Department:

Primary Phone No.:   Alt. Phone No.:

E-mail Address:

Name:

Title:

Department:

Primary Phone No.:   Alt. Phone No.:

E-mail Address:

Name:

Title:

Department:

Primary Phone No.:   Alt. Phone No.:

E-mail Address:

Name:

Title:

Department:

Primary Phone No.:   Alt. Phone No.:

E-mail Address:

Name:

Title:

Department:

Primary Phone No.:   Alt. Phone No.:

E-mail Address:

2. Tree Replacement Program Partners

Name:

Title:

Organization/Company/Agency:

Primary Phone No.:   Alt. Phone No.:

E-mail Address:

Name:

Title:

Organization/Company/Agency:

Primary Phone No.:   Alt. Phone No.:

E-mail Address:

Name:

Title:

Organization/Company/Agency:

Primary Phone No.:   Alt. Phone No.:

E-mail Address:

Name:

Title:

Organization/Company/Agency:

Primary Phone No.:   Alt. Phone No.:

E-mail Address:

Name:

Title:

Organization/Company/Agency:

Primary Phone No.:   Alt. Phone No.:

E-mail Address:

Name:

Title:

Organization/Company/Agency:

Primary Phone No.:   Alt. Phone No.:

E-mail Address:

Name:

Title:

Organization/Company/Agency:

Primary Phone No.:   Alt. Phone No.:

E-mail Address:

Name:

Title:

Organization/Company/Agency:

Primary Phone No.:   Alt. Phone No.:

E-mail Address:

G. ONGOING TREE RISK MITIGATION

☐   We have an ongoing tree risk mitigation program that focuses on:

     ☐   Improvement of Tree Health

     ☐   Routine Tree Pruning

     ☐   Quality Tree Species, Tree and Site Selection

     ☐   Routine Tree Maintenance Including Watering, Mulching, Pest Management and Inspections

     ☐   Tree Protection

The person responsible for coordinating ongoing tree risk mitigation is:

Name:

Title:

Department:

Primary Phone No.:   Alt. Phone No.:

E-mail Address:

H. INFORMATION AND EDUCATION

☐   We have a program in place to identify the individuals, organizations and companies that deserve recognition for their efforts in storm response and recovery.

The person responsible for coordinating the recognition program for response and recover is:

Name:

Title:

Department:

Primary Phone No.:   Alt. Phone No.:

E-mail Address:

During long-term response, our community forest information and education program will continue and will focus on the following topics:

- [ ] Tree and Tree Canopy Loss Results

- [ ] Tree Planting Programs and Grants

- [ ] Availability of Assistance and Materials, Including Volunteer Labor, Replacement Trees, Mulch

- [ ] When and How to Hire an ISA Certified Arborist

- [ ] Ongoing Tree Risk Assessment

- [ ] Tree Health Maintenance

- [ ] Crown Restoration Pruning

- [ ] Recommended Species for Planting

- [ ] Tree Planting Techniques

- [ ] Tree Benefits

Information and education programs that will be utilized during long-term recovery to communicate with the public will include:

- [ ] Recognition Programs for Responders

- [ ] Field Demonstrations

- [ ] Neighborhood Workshops

- [ ] Website Content

- [ ] Newspaper Articles

- [ ] Public Service Announcements

I. RECOVERY RECORD KEEPING

☐ Staff Hours

☐ Equipment Hours

☐ Volunteer Hours

☐ Contractor Invoices

☐ Donations by Source and Value with Contact Information

☐ Tree Purchase Data (nursery source, number purchased by species and cultivar) and Costs

☐ Tree Planting Data (species, location, date) and Costs

☐ Tree Survival Data (annual results)

The person(s) responsible for maintaining long-term recovery records are:

Name:

Title:

Department:

Primary Phone No.:   Alt. Phone No.:

E-mail Address:

Name:

Title:

Department:

Primary Phone No.:   Alt. Phone No.:

E-mail Address:

APPENDICES

Additional supplemental information and documents included as part of our *Community Forest Storm Mitigation Plan* are located in the appendices that follow.

☐ Appendix A _____

☐ Appendix B _____

☐ Appendix C _____

☐ Appendix D _____

☐ Appendix E _____

☐ Appendix F _____

☐ Appendix G _____

☐ Appendix H _____

☐ Appendix I _____

☐ Appendix J _____

☐ Appendix K _____

☐ Appendix L _____

☐ Appendix M _____

☐ Appendix N _____

☐ Appendix O _____

☐ Appendix P _____

☐ Appendix Q _____

☐ Appendix R _____

☐ Appendix S _____

Notes: