

Section 5

Mitigation Strategy Requirements

Mitigation Strategy---Requirement §201.6(c)(3):

The plan **shall** include a strategy that provides the jurisdiction's blueprint for reducing the potential losses identified in the risk assessment, based on existing authorities, policies, programs and resources, and its ability to expand on and improve these existing tools.

Local Hazard Mitigation Goals---Requirement §201.6(c)(3)(i):

[The hazard mitigation strategy **shall** include a] description of mitigation goals to reduce or avoid long-term vulnerabilities to the identified hazards.

- Does the plan include a description of mitigation goals to reduce or avoid long-term vulnerabilities to the identified hazards?

Identification and Analysis of Mitigation Measures---Requirement §201.6(c)(3) (ii):

[The mitigation strategy **shall** include a] section that identifies and analyzes a comprehensive range of specific mitigation actions and projects being considered to reduce the effects of each hazard, with particular emphasis on new and existing buildings and infrastructure.

- Does the plan identify a **comprehensive range** of specific mitigation actions and projects for each hazard?
- Do the identified range of mitigation actions and projects address reducing the effects of hazards on **new** buildings and infrastructure?
- Do the identified range of mitigation actions and projects address reducing the effects of hazards on **existing** buildings and infrastructure?

Implementation of Mitigation Measures---Requirement: §201.6(c)(3) (iii):

[The mitigation strategy section **shall** include] an action plan describing how the actions identified in section (c)(3)(ii) will be prioritized, implemented, and administered by the local jurisdiction. Prioritization **shall** include a special emphasis on the extent to which benefits are maximized according to a cost benefit review of the proposed projects and their associated costs.

- Does the mitigation strategy include how the actions are **prioritized**?
- Does the mitigation strategy address how the actions will be **implemented and administered**?
- Does the prioritization process include an emphasis on the use of **cost-benefit review**?

SECTION 5

REGION 5 HAZARD MITIGATION PLAN GRAHAM FIRE AND RESCUE MITIGATION STRATEGY SECTION

Table of Contents

MITIGATION STRATEGY REQUIREMENTS.....	1
TABLE OF CONTENTS	2
STARTUP MITIGATION MEASURES.....	6
EXISTING MITIGATION ACTIONS	6
PLAN MAINTENANCE	6
HAZARD MITIGATION FORUM	7
PIERCE COUNTY HAZARD MITIGATION FORUM	7
FIRE DISTRICT MITIGATION MEASURES	8
CAPABILITY IDENTIFICATION AND EVALUATION.....	8
DEVELOP A POST-EMERGENCY PLAN FOR WINDSHIELD SURVEYS.	8
IMPROVE PLANS AND DEVELOP TRAINING FOR EOC.....	9
ESTABLISH A NEW PRIMARY EOC.....	9
DEVELOP OPERATING GUIDELINE FOR SHELTER OF EMPLOYEE FAMILIES	10
SEISMIC RETROFIT OF STATION 1	10
POST-EARTHQUAKE CHECKLIST.....	11
NON-STRUCTURAL RETROFIT OF ALL STATIONS.....	11
DEVELOP LIST OF "AT-RISK" POPULATIONS	12
DEVELOP LISTS OF PCNET'S IN GRAHAM AREA	12
DEVELOP DECISION MAKING MODEL AND CHAIN OF COMMAND.....	13
PERSONNEL RECALL PLAN AND EMERGENCY WORK SCHEDULES.....	13
POWER, WATER AND FUEL AGREEMENTS	14
FOSTERING RELATIONSHIPS WITH UTILITIES	14
IMPROVE TECHNICAL RESCUE CAPABILITY.....	15
DEVELOPMENT OF COMMUNITY SHELTERS.....	15
LOCATE AND IDENTIFY FACILITY ENVIRONMENTAL HAZARDS	16
CIVIL ENGINEERING TO ASSIST IN ASSESSING DAMAGE TO ALL FACILITIES IN DISTRICT.....	16
LAHAR EVACUATION ROUTE CONTROL	17
FACILITIES AND EQUIPMENT CHECKLIST	17
HAZARD REMOVAL AROUND FIRE STATIONS	18
PARTICIPATE IN COUNTY AND REGIONAL STRIKE TEAMS	18
LINK WITH HAM RADIO OPERATORS TO SUPPLEMENT COMMUNICATIONS	19
PUBLIC EDUCATION MITIGATION MEASURES.....	20
ATC-20 TRAINING.....	20
DEVELOP TRAINING COORDINATION WITH PIERCE COUNTY SHERIFF DEPARTMENT	20
CITIZEN HAZARD AWARENESS PROGRAM	21

BUSINESS EMERGENCY PREPAREDNESS..... 21
TRAINING ON WILDLAND / URBAN INTERFACE..... 22
PIERCE COUNTY NEIGHBORHOOD EMERGENCY TEAMS 22
ENDNOTES..... 23

Table 5-1 Graham Fire District #21 Mitigation Strategy Matrix

Implementation Mechanism	Mitigation Measure (<i>Hazard(s)</i>) ¹	Lead Jurisdiction(s) / Department(s)	Timeline (years)	Plan Goals					
				Life and Property	Operations Continuity	Partnerships	Natural Resources	Preparedness	Sustainable Economy
Startup	1. Existing Mitigation Actions (<i>E,L,V,D,F,WUI,SW,MM</i>)	Graham Fire & Rescue	Ongoing	✓	✓	✓	✓	✓	✓
	2. Plan Maintenance (<i>E,L,V,D,F,WUI,SW,MM</i>)	Graham Fire & Rescue	Ongoing	✓	✓	✓	✓	✓	✓
HMF	1. Pierce County Hazard Mitigation Forum (<i>E,L,V,D,F,WUI,SW,MM</i>)	PC DEM; Graham Fire & Rescue	Ongoing	✓	✓	✓	✓	✓	✓
Fire District	1. Capability Identification and Evaluation (<i>E,L,V,D,F,WUI,SW,MM</i>)	Graham Fire & Rescue	1-2	N/A					
	2. Develop a Post-Emergency Plan for Windshield Surveys (<i>E,L,V,F,SW</i>)	Graham Fire & Rescue	1-2	✓					
	3. Improve Plans and Develop Training for EOC (<i>E,L,V,D,F,WUI,SW,MM</i>)	Graham Fire & Rescue	1-2	✓	✓				
	4. Establish a New Primary EOC (<i>E,L,V,D,F,WUI,SW,MM</i>)	Graham Fire & Rescue	1-2	✓	✓	✓			
	5. Develop Operating Guideline for Shelter of Employee Families (<i>E,V,F,SW</i>)	Graham Fire & Rescue	1-2	✓	✓			✓	
	6. Seismic Retrofit of Station 1 (<i>E,SW,MM</i>)	Graham Fire & Rescue	5	✓	✓				
	7. Post-Earthquake Checklist (<i>E,SW</i>)	Graham Fire & Rescue	1-2	✓	✓				
	8. Non-Structural Retrofit of all Stations (<i>E,SW</i>)	Graham Fire & Rescue and PC DEM	5	✓	✓				
	9. Develop List of “At-Risk” Populations (<i>E,L,V,D,F,WUI,SW,MM</i>)	Graham Fire & Rescue	1-2	✓		✓		✓	
	10. Develop Lists of PCNETs in Graham Area (<i>E,L,V,D,F,WUI,SW,MM</i>)	Pierce County DEM	1-2	✓		✓		✓	
	11. Develop Decision Making Model & Chain of Command (<i>E,L,V,D,F,WUI,SW,MM</i>)	Graham Fire & Rescue	Ongoing	✓	✓			✓	✓
	12. Personnel Recall Plan and Emergency Work Schedules(<i>E,L,V,D,F,WUI,SW,MM</i>)	Graham Fire & Rescue Operations Division	Ongoing	✓	✓				
	13. Power, Water and Fuel Agreements (<i>E,L,V,D,F,WUI,SW,MM</i>)	Graham Fire & Rescue Operations Division	1-2	✓	✓	✓			
	14. Fostering Relationships with Utilities (<i>E,L,V,D,F,WUI,SW,MM</i>)	Graham Fire & Rescue Operations Division	Ongoing	✓	✓	✓		✓	✓
	15. Improve Technical Rescue Capability (<i>E,L,V,D,F,WUI,SW,MM</i>)	Graham Fire & Rescue Operations and Training	Ongoing	✓	✓	✓			
	16. Development of Community Shelters (<i>E,L,V,D,F,WUI,SW,MM</i>)	Graham Fire & Rescue Training & Operations	1-2	✓		✓		✓	

Implementation Mechanism	Mitigation Measure (<i>Hazard(s)</i>) ¹	Lead Jurisdiction(s) / Department(s)	Timeline (years)	Plan Goals					
				Life and Property	Operations Continuity	Partnerships	Natural Resources	Preparedness	Sustainable Economy
<u>Fire District</u>	17. Locate and Identify Facility Environmental Hazards (<i>E,L,V,D,F,WUI,SW,MM</i>)	Graham Fire & Rescue Operations Division	5	✓	✓	✓		✓	✓
	18. Civil Engineering to Assist in Assessing Damage to All Facilities in District (<i>E,L,V,F,SW</i>)	Graham Fire & Rescue Operations Division	5	✓	✓	✓		✓	✓
	19. Lahar Evacuation Route Control (<i>E,L,V</i>)	Graham Fire & Rescue Operations Division	5	✓	✓	✓		✓	
	20. Facilities and Equipment Checklist (<i>E,V,F,SW,MM</i>)	Graham Fire & Rescue Facilities and Equipment	1-2	✓	✓				
	21. Hazard Removal Around Fire Stations (<i>E,SW,WUI,MM</i>)	Graham Fire & Rescue Facilities and Vehicle	1-2	✓	✓			✓	
	22. Participate in County and Regional Strike Teams (<i>E,L,V,D,F,WUI,SW,MM</i>)	Graham Fire & Rescue Operations Division	Ongoing	✓	✓		✓	✓	
	23. Link with HAM Radio Operators to Supplement Communications (<i>E,L,V,D,F,WUI,SW,MM</i>)	Graham Fire & Rescue	1-2	✓	✓	✓		✓	
<u>Public Education</u>	1. ATC-20 (<i>E,L,SW,MM</i>)	Graham Fire & Rescue and PC DEM	5	✓	✓	✓			
	2. Develop Training Coordination with Pierce County Sheriff Department(<i>E,L,V,D,F,WUI,SW,MM</i>)	Graham Fire & Rescue Training Division	Ongoing	✓	✓	✓	✓	✓	
	3. Citizen Hazard Awareness Program (<i>E,L,V,D,F,WUI,SW,MM</i>)	Graham Fire & Rescue Pub Ed Division	Ongoing	✓	✓	✓		✓	✓
	4. Business Emergency Preparedness (<i>E,L,V,D,F,WUI,SW,MM</i>)	Graham Fire & Rescue Training and Pub Ed	Ongoing	✓	✓	✓	✓	✓	✓
	5. Training on Wildland/Urban Interface (<i>WUI</i>)	Graham Fire & Rescue Training and Pub Ed	Ongoing	✓	✓		✓	✓	✓
	6. Pierce County Neighborhood Emergency Teams (<i>E,L,V,D,F,WUI,SW,MM</i>)	Graham Fire & Rescue Operations and Training	Ongoing	✓		✓		✓	

Startup Mitigation Measures

Existing Mitigation Actions

Hazards: E, L, V, D, F, WUI, SW¹, MM²

Graham Fire will continue to implement existing programs, policies, and regulations as identified in the Capability Identification Section of this Plan. This includes continuing those programs that are identified as technical and fiscal capabilities.

1. **Goal(s) Addressed** = Protect Life and Property; Promote A Sustainable Economy; Ensure Continuity of Operations; Increase Public Preparedness for Disasters; Preserve or Restore Natural Resources; Establish and Strengthen Partnerships for Implementation.
2. **Cost of Measure** = TBD
3. **Funding Source and Situation** = Funding could be accomplished with local budgets or grants.
4. **Lead Jurisdiction(s)** = Graham Fire and Rescue
5. **Timeline** = Ongoing
6. **Benefit** = Area-Wide
7. **Life of Measure** = Perpetual
8. **Community Reaction** = the proposal is likely to be endorsed by the entire community.

Plan Maintenance

Hazards: E, L, V, D, F, WUI, SW¹, MM²

Graham Fire will adopt those processes outlined in the Plan Maintenance Section of this Plan.

1. **Goal(s) Addressed** = Protect Life and Property; Promote A Sustainable Economy; Ensure Continuity of Operations; Increase Public Preparedness for Disasters; Preserve or Restore Natural Resources; Establish and Strengthen Partnerships for Implementation.
2. **Cost of Measure** = TBD
3. **Funding Source and Situation** = Funding could be obtained through local budget.
4. **Lead Jurisdiction(s)** = Graham Fire and Rescue
5. **Timeline** = Ongoing
6. **Benefit** = Area-Wide
7. **Life of Measure** = Perpetual
8. **Community Reaction** = the proposal is likely to be endorsed by the entire community.

Hazard Mitigation Forum

Pierce County Hazard Mitigation Forum

Hazards: E, L, V, D, F, WUI, SW¹, MM²

Graham Fire will work in conjunction with the County through the Pierce County Hazard Mitigation Forum (HMF). The Forum will continue as a means of coordinating mitigation planning efforts among all jurisdictions within the County that have completed a mitigation plan. This ensures efficient use of resources and a more cooperative approach to making a disaster resistant county. The HMF meets annually; every October. This is addressed in the Plan Maintenance Section of this Plan.

1. **Goal(s) Addressed** = Protect Life and Property; Promote A Sustainable Economy; Ensure Continuity of Operations; Increase Public Preparedness for Disasters; Preserve or Restore Natural Resources; Establish and Strengthen Partnerships for Implementation.
2. **Cost of Measure** = Minor
3. **Funding Source and Situation** = Funding could be obtained through local budget.
4. **Lead Jurisdiction(s)** = PC DEM; Graham Fire and Rescue
5. **Timeline** = Ongoing
6. **Benefit** = Regional
7. **Life of Measure** = Perpetual
8. **Community Reaction** = the proposal is likely to be endorsed by the entire community.

Fire District Mitigation Measures

Capability Identification and Evaluation

Hazards: E, L, V, D, F, WUI, SW¹, MM²

Graham Fire will develop a consistent and replicable system for evaluating capabilities. A comprehensive evaluation will lead to specific policy recommendations to more effectively achieve disaster resistant communities. Further, a capability evaluation involves measurable variables so that capabilities may eventually be tracked in conjunction with the implementation of all mitigation measures. This is a key component in evaluating the success of the overall mitigation strategy.

1. **Goal(s) Addressed** = N/A. Goals addressed are contingent upon the mitigation measures resulting from this priority.
2. **Cost of Measure** = TBD
3. **Funding Source and Situation** = Funding could be obtained through local budget or grants.
4. **Lead Jurisdiction(s)** = Graham Fire and Rescue
5. **Timeline** = Short-term
6. **Benefit** = Area-Wide
7. **Life of Measure** = Perpetual
8. **Community Reaction** = the proposal is likely to be endorsed by the entire community.

Develop a Post-Emergency Plan for Windshield Surveys.

Hazards: E, L, V, F, SW¹

Develop a plan to conduct windshield surveys after an event with specific driving routes dependent on what has taken place.

1. **Goal(s) Addressed** = Protect Life and Property.
2. **Cost of Measure** = \$4,000
3. **Funding Source and Situation** = Funding could be obtained through local budget or match, and state or federal grants.
4. **Lead Jurisdiction(s)** = Graham Fire and Rescue
5. **Timeline** = Short-term
6. **Benefit** = Citizens and businesses in the district
7. **Life of Measure** = Perpetual
8. **Community Reaction** = the proposal is likely to be endorsed by the entire community.

Improve Plans and Develop Training for EOC

Hazards: E, L, V, D, F, SW, WUI¹, MM²

Improve the existing operational plan to include triage areas and shelter locations and develop training on same to be able to prioritize calls based on life threat and property loss using a decision tree. This would include a tabletop exercise.

1. **Goal(s) Addressed** = Protect Life and Property; Ensure Continuity of Operations.
2. **Cost of Measure** = \$3,000 labor and materials
3. **Funding Source and Situation** = Funding could be obtained through local budget or match.
4. **Lead Jurisdiction(s)** = Graham Fire and Rescue
5. **Timeline** = Short-Term
6. **Benefit** = Citizens and local businesses and fire district
7. **Life of Measure** = Perpetual
8. **Community Reaction** = the proposal is likely to be endorsed by the entire community.

Establish a New Primary EOC

Hazards: E, L, V, D, F, SW, WUI¹, MM²

Relocate existing EOC away from Station 1 to Station 4 and having Station 1 as secondary location only. Includes purchase of new equipment.

1. **Goal(s) Addressed** = Protect Life and Property; Ensure Continuity of Operations; Establish and Strengthen Partnerships for Implementation.
2. **Cost of Measure** = TBD
3. **Funding Source and Situation** = Funding could be obtained through local budget or grants and state or federal grants.
4. **Lead Jurisdiction(s)** = Graham Fire and Rescue
5. **Timeline** = Short-term
6. **Benefit** = Fire district, local citizens and businesses, regional partners
7. **Life of Measure** = 5-7 years
8. **Community Reaction** = the proposal is likely to be endorsed by the entire community.

Develop Operating Guideline for Shelter of Employee Families

Hazards: E, V, F, SW¹

Develop Operating Guide to care, house and feed responders and their families for a minimum of 7 days to include supplies and sheltering.

1. **Goal(s) Addressed** = Protect Life and Property; Ensure Continuity of Operations; Increase Public Preparedness for Disasters.
2. **Cost of Measure** = TBD
3. **Funding Source and Situation** = Funding could be obtained through local budgets or match and state or federal grants.
4. **Lead Jurisdiction(s)** = Graham Fire and Rescue
5. **Timeline** = Short-Term
6. **Benefit** = Fire District employees and families, community and regional partners
7. **Life of Measure** = Perpetual
8. **Community Reaction** = the proposal is likely to be endorsed by the entire community.

Seismic Retrofit of Station 1

Hazards: E, SW¹, MM²

Seismic Retrofit to include an engineering study and funding to do actual upgrades.

1. **Goal(s) Addressed** = Protect Life and Property; Ensure Continuity of Operations.
2. **Cost of Measure** = TBD
3. **Funding Source and Situation** = Funding could be obtained through local budget or match and federal grants.
4. **Lead Jurisdiction(s)** = Graham Fire and Rescue
5. **Timeline** = Long-term
6. **Benefit** = Fire District and Citizens
7. **Life of Measure** = 30 years
8. **Community Reaction** = the proposal is likely to be endorsed by the entire community.

Post-Earthquake Checklist

Hazards: E, SW¹

Develop a specific checklist for all equipment and facilities to be checked after an earthquake and include a list of structural engineers to assess the use of facilities.

1. **Goal(s) Addressed** = Protect Life and Property; Ensure Continuity of Operations.
2. **Cost of Measure** = TBD
3. **Funding Source and Situation** = Funding could be obtained through local budget or match.
4. **Lead Jurisdiction(s)** = Graham Fire and Rescue
5. **Timeline** = Short-term
6. **Benefit** = Fire District and Citizens, Regional Partners
7. **Life of Measure** = Perpetual
8. **Community Reaction** = the proposal is likely to be endorsed by the entire community.

Non-Structural Retrofit of all Stations

Hazards: E, SW¹

Partner with PC DEM to assess stations for non-structural issues. Purchase and install tie-downs, etc. as necessary to make stations safer for first responders and other employees.

1. **Goal(s) Addressed** = Protect life and property; Ensure continuity of operations.
2. **Cost of Measure** = Purchase of equipment and installation time.
3. **Funding Source and Situation** = Funding could be obtained through local budget or grants and state or federal grants.
4. **Lead Jurisdiction(s)** =Graham Fire and Rescue with Pierce County DEM
5. **Timeline** = Long-term
6. **Benefit** = Fire District, employees, community and Regional Partners
7. **Life of Measure** = 5-7 years
8. **Community Reaction** = the proposal is likely to be endorsed by the entire community.

Develop List of "At-Risk" Populations

Hazards: E, L, V, D, F, WUI, SW¹, MM²

Develop and maintain a list of "at-risk" individuals both in licensed facilities and in private homes that may need additional or priority assistance after a significant event.

1. **Goal(s) Addressed** = Protect Life and Property; Establish and Strengthen Partnerships for Implementation; Increase Public Preparedness for Disasters.
2. **Cost of Measure** = Staff time
3. **Funding Source and Situation** = Funding could be obtained through local budget or match.
4. **Lead Jurisdiction(s)** = Graham Fire and Rescue
5. **Timeline** = Short-term
6. **Benefit** = Citizens, First Responders and Regional Partners
7. **Life of Measure** = Perpetual
8. **Community Reaction** = the proposal would be somewhat controversial.

Develop Lists of PCNET's in Graham Area

Hazards: E, L, V, D, F, SW, WUI¹, MM²

With assistance from DEM and Pierce County Sheriff, develop a list of PCNETs to coordinate reporting after a significant event.

1. **Goal(s) Addressed** = Protect Life and Property; Establish and Strengthen Partnerships for Implementation; Increase Public Preparedness for Disasters.
2. **Cost of Measure** = Staff Time
3. **Funding Source and Situation** = Funding could be obtained through local budgets or match.
4. **Lead Jurisdiction(s)** = Pierce County DEM
5. **Timeline** = Short-term
6. **Benefit** = First Responders, Citizens, Fire District and Regional Partners
7. **Life of Measure** = Perpetual
8. **Community Reaction** = the proposal would benefit those affected, with no adverse reaction from others.

Develop Decision Making Model and Chain of Command

Hazards: E, L, V, D, F, SW, WUI¹, MM²

Develop model for decision making in case of injury to key personnel.

1. **Goal(s) Addressed** = Protect Life and Property; Ensure Continuity of Operations; Increase Public Preparedness for Disasters; Promote A Sustainable Economy.
2. **Cost of Measure** = TBD
3. **Funding Source and Situation** = Funding could be obtained through local budget or match.
4. **Lead Jurisdiction(s)** = Graham Fire and Rescue – Operations Division
5. **Timeline** = Ongoing
6. **Benefit** = Graham Fire District
7. **Life of Measure** = Perpetual
8. **Community Reaction** = the proposal is likely to be endorsed by the entire community.

Personnel Recall Plan and Emergency Work Schedules

Hazards: E, L, V, D, F, SW, WUI¹, MM²

Develop a plan to recall all employees under emergency conditions. Develop work schedules to be used after major emergencies where all employees may not be available.

1. **Goal(s) Addressed** = Protect Life and Property; Ensure Continuity of Operations.
2. **Cost of Measure** = TBD
3. **Funding Source and Situation** = Funding could be obtained through local budget or match.
4. **Lead Jurisdiction(s)** = Graham Fire and Rescue - Operations Division
5. **Timeline** = Ongoing
6. **Benefit** = Graham Fire and Rescue, Community and citizens, Regional partners
7. **Life of Measure** = Perpetual
8. **Community Reaction** = the proposal is likely to be endorsed by the entire community.

Power, Water and Fuel Agreements

Hazards: E, L, V, D, F, SW, WUI¹, MM²

Develop agreements with power, water, and fuel providers to prioritize services for fire facilities after major disasters.

1. **Goal(s) Addressed** = Protect Life and Property; Ensure Continuity of Operations; Establish and Strengthen Partnerships for Implementation.
2. **Cost of Measure** = Staff Time
3. **Funding Source and Situation** = Funding could be obtained through local budgets or match.
4. **Lead Jurisdiction(s)** = Graham Fire and Rescue - Operations Division
5. **Timeline** = Short-term
6. **Benefit** = Fire District and citizens of the community
7. **Life of Measure** = Perpetual
8. **Community Reaction** = the proposal is likely to be endorsed by the entire community.

Fostering Relationships with Utilities

Hazards: E, L, V, D, F, SW, WUI¹, MM²

Continue to foster working relationships with the utility companies serving the community to enhance response to emergency issues.

1. **Goal(s) Addressed** = Protect Life and Property; Ensure Continuity of Operations; Establish and Strengthen Partnerships for Implementation; Increase Public Preparedness for Disasters; Promote A Sustainable Economy.
2. **Cost of Measure** = Staff time
3. **Funding Source and Situation** = Funding could be obtained through local budget or match.
4. **Lead Jurisdiction(s)** = Graham Fire and Rescue - Operations Division
5. **Timeline** = Ongoing
6. **Benefit** = Fire Department and utilities; community and regional partners
7. **Life of Measure** = Perpetual
8. **Community Reaction** = the proposal is likely to be endorsed by the entire community.

Improve Technical Rescue Capability

Hazards: E, L, V, D, F, SW, WUI¹, MM²

Train with and improve coordinated response with PCSORT.

1. **Goal(s) Addressed** = Protect Life and Property; Ensure Continuity of Operations; Establish and Strengthen Partnerships for Implementation.
2. **Cost of Measure** = TBD
3. **Funding Source and Situation** = Funding could be obtained through local budgets or match and state or federal grants.
4. **Lead Jurisdiction(s)** = Graham Fire and Rescue - Operations & Training Division
5. **Timeline** = Ongoing
6. **Benefit** = Graham Fire & Rescue, community and regional partners
7. **Life of Measure** = Perpetual
8. **Community Reaction** = the proposal is likely to be endorsed by the entire community.

Development of Community Shelters

Hazards: E, L, V, D, F, SW, WUI¹, MM²

Develop and maintain a list of “at-risk” individuals both in licensed facilities and in private homes that may need additional or priority assistance after a significant event.

1. **Goal(s) Addressed** = Protect Life and Property; Establish and Strengthen Partnerships for Implementation; Increase Public Preparedness for Disasters.
2. **Cost of Measure** = TBD
3. **Funding Source and Situation** = Funding could be obtained through local budget or match.
4. **Lead Jurisdiction(s)** = Graham Fire and Rescue - Training & Operations Divisions
5. **Timeline** = Short-term
6. **Benefit** = All citizens affected by major disaster
7. **Life of Measure** = Varies
8. **Community Reaction** = the proposal is likely to be endorsed by the entire community.

Locate and Identify Facility Environmental Hazards

Hazards: E, L, V, D, F, SW, WUI¹, MM²

With assistance from DEM and Pierce County Sheriff, develop a list of PCNET's to coordinate reporting after significant event.

1. **Goal(s) Addressed** = Protect Life and Property; Ensure Continuity of Operations; Establish and Strengthen Partnerships for Implementation; Increase Public Preparedness for Disasters; Promote A Sustainable Economy.
2. **Cost of Measure** = Staff Time TBD
3. **Funding Source and Situation** = Funding could be obtained through local budgets or match.
4. **Lead Jurisdiction(s)** = Graham Fire and Rescue - Operations Division
5. **Timeline** = Long-term
6. **Benefit** = Fire District and facility having Haz Mat concerns
7. **Life of Measure** = Perpetual
8. **Community Reaction** = the proposal is likely to be endorsed by the entire community.

Civil Engineering to Assist in Assessing Damage to all Facilities in District

Hazards: E, L, V, F, SW¹

By 2008 locate a civil engineer living within the Fire District to assist with assessing damage to commercial and other buildings in district and to assist firefighters in assessment before entering damaged buildings.

1. **Goal(s) Addressed** = Protect Life and Property; Ensure Continuity of Operations; Establish and Strengthen Partnerships for Implementation; Increase Public Preparedness for Disasters; Promote A Sustainable Economy.
2. **Cost of Measure** = Staff time and professional fees TBD
3. **Funding Source and Situation** = Funding could be obtained through local budget or match.
4. **Lead Jurisdiction(s)** = Graham Fire and Rescue - Operations Division
5. **Timeline** = Long-term
6. **Benefit** = Graham Fire & Rescue, citizens and regional partners
7. **Life of Measure** = Perpetual
8. **Community Reaction** = the proposal is likely to be endorsed by the entire community.

Lahar Evacuation Route Control

Hazards: E, L, V¹

Prior to 2009 and working with Pierce County DEM, Pierce County Sheriff and Fire District 18, develop a Traffic Control Plan for the evacuation of the Orting Valley in the case of a Lahar. Also, identify staging locations for short term evacuation, and possible housing in Graham Fire District as well as coordinate traffic flow to maximize numbers evacuated.

1. **Goal(s) Addressed** = Protect Life and Property; Ensure Continuity of Operations; Establish and Strengthen Partnerships for Implementation; Increase Public Preparedness for Disasters.
2. **Cost of Measure** = Staff Time and TBD
3. **Funding Source and Situation** = Funding could be obtained through local budgets or match.
4. **Lead Jurisdiction(s)** = Graham Fire and Rescue - Operations Division
5. **Timeline** = Long-term
6. **Benefit** = Residents of Orting Valley, surrounding communities
7. **Life of Measure** = Perpetual
8. **Community Reaction** = the proposal would benefit those affected, with no adverse reaction from others.

Facilities and Equipment Checklist

Hazards: E, V, F, SW¹, MM²

Develop checklists for Fire District Facilities and equipment to assist in evaluation of same for safety and operability after a significant event.

1. **Goal(s) Addressed** = Protect Life and Property; Ensure Continuity of Operations.
2. **Cost of Measure** = Staff time and TBD
3. **Funding Source and Situation** = Funding could be obtained through local budget or match.
4. **Lead Jurisdiction(s)** = Graham Fire and Rescue - Facilities and Equipment Division
5. **Timeline** = Short-term
6. **Benefit** = Staff and firefighters of Graham Fire & Rescue, community and regional partners
7. **Life of Measure** = Perpetual
8. **Community Reaction** = the proposal is likely to be endorsed by the entire community.

Hazard Removal Around Fire Stations

Hazards: E, SW, WUI¹, MM²

By the end of 2008, assess all stations and remove any identified hazards (e.g. tall trees that could fall in high winds).

1. **Goal(s) Addressed** = Protect Life and Property; Ensure Continuity of Operations; Increase Public Preparedness for Disasters.
2. **Cost of Measure** = TBD
3. **Funding Source and Situation** = Funding could be obtained through local budgets or match.
4. **Lead Jurisdiction(s)** = Graham Fire and Rescue - Facilities and Vehicle Division
5. **Timeline** = Short-term
6. **Benefit** = Graham Fire and Rescue Firefighters, community and regional partners
7. **Life of Measure** = 30 years
8. **Community Reaction** = the proposal is likely to be endorsed by the entire community.

Participate in County and Regional Strike Teams

Hazards: E, L, V, D, F, SW, WUI¹, MM²

Continue ongoing participation in County and Regional planning for Strike Teams for fires and other events.

1. **Goal(s) Addressed** = Protect Life and Property; Ensure Continuity of Operations; Preserve or Restore Natural Resources; Increase Public Preparedness for Disasters.
2. **Cost of Measure** = TBD
3. **Funding Source and Situation** = Funding could be obtained through local budgets or match.
4. **Lead Jurisdiction(s)** = Graham Fire and Rescue - Operations Division
5. **Timeline** = Ongoing
6. **Benefit** = Graham Fire and Rescue and firefighters, community and regional partners
7. **Life of Measure** = Perpetual
8. **Community Reaction** = the proposal is likely to be endorsed by the entire community.

Link with HAM Radio Operators to Supplement Communications

Hazards: E, L, V, D, F, SW, WUI¹, MM²

Coordinate with local HAM Radio Operators for additional communications to supplement existing radio, cell phone and pager communications.

1. **Goal(s) Addressed** = Protect Life and Property; Ensure Continuity of Operations; Establish and Strengthen Partnerships for Implementation; Increase Public Preparedness for Disasters.
2. **Cost of Measure** = Staff Time
3. **Funding Source and Situation** = Funding could be obtained through local budget or grants and state or federal grants.
4. **Lead Jurisdiction(s)** = Graham Fire and Rescue
5. **Timeline** = Short-term
6. **Benefit** = Graham Fire, Citizens, and Regional Partners
7. **Life of Measure** = Perpetual
8. **Community Reaction** = the proposal would benefit those affected, with no adverse reaction from others.

Public Education Mitigation Measures

ATC-20 Training

Hazards: E, L, SW¹, MM²

Contract with Pierce County DEM for ATC-20 training for several first responders in order to assess building damage and safety after an earthquake.

1. **Goal(s) Addressed** = Protect Life and Property; Ensure Continuity of Operations; Establish and Strengthen Partnerships for Implementation.
2. **Cost of Measure** = \$50 per student
3. **Funding Source and Situation** = Funding could be obtained through local budget or match and state or federal grants.
4. **Lead Jurisdiction(s)** = Graham Fire and Rescue with Pierce County DEM
5. **Timeline** = Long-term
6. **Benefit** = Fire District, citizens, businesses and Regional partners
7. **Life of Measure** = Perpetual
8. **Community Reaction** = the proposal is likely to be endorsed by the entire community.

Develop Training Coordination with Pierce County Sheriff Department

Hazards: E, L, V, D, F, SW, WUI¹, MM²

Develop coordination of training where PCSD and Graham Fire have interface. By 2010 develop and coordinate training events with Pierce County Sheriff to ensure smooth coordination and common command measures are understood

1. **Goal(s) Addressed** = Protect Life and Property; Ensure Continuity of Operations; Establish and Strengthen Partnerships for Implementation; Preserve or Restore Natural Resources; Increase Public Preparedness for Disasters.
2. **Cost of Measure** = TBD
3. **Funding Source and Situation** = Funding could be obtained through local budgets or match.
4. **Lead Jurisdiction(s)** = Graham Fire and Rescue - Training Division
5. **Timeline** = Ongoing
6. **Benefit** = Graham Fire and Sheriff Department
7. **Life of Measure** = Perpetual
8. **Community Reaction** = the proposal is likely to be endorsed by the entire community.

Citizen Hazard Awareness Program

Hazards: E, L, V, D, F, SW, WUI¹, MM²

Develop and implement training and awareness program for the citizens of Graham Fire and Rescue. Focus on pre-planning and self-reliance for three to seven days.

1. **Goal(s) Addressed** = Protect Life and Property; Ensure Continuity of Operations; Establish and Strengthen Partnerships for Implementation; Increase Public Preparedness for Disasters; Promote A Sustainable Economy.
2. **Cost of Measure** = TBD
3. **Funding Source and Situation** = Funding could be obtained through local budget or match.
4. **Lead Jurisdiction(s)** = Graham Fire & Rescue - Public Education Division
5. **Timeline** = Ongoing
6. **Benefit** = Citizens of Fire District, communities
7. **Life of Measure** = Perpetual
8. **Community Reaction** = the proposal is likely to be endorsed by the entire community.

Business Emergency Preparedness

Hazards: E, L, V, D, F, SW, WUI¹, MM²

Prior to the end of 2009, establish an awareness program for business owners to assist them in preparing for and recovering from an emergency or disaster.

1. **Goal(s) Addressed** = Protect Life and Property; Ensure Continuity of Operations; Establish and Strengthen Partnerships for Implementation; Preserve or Restore Natural Resources; Increase Public Preparedness for Disasters; Promote A Sustainable Economy.
2. **Cost of Measure** = Staff Time TBD
3. **Funding Source and Situation** = Funding could be obtained through local budgets or match.
4. **Lead Jurisdiction(s)** = Graham Fire and Rescue - Training and Public Education Divisions
5. **Timeline** = Ongoing
6. **Benefit** = Fire District and business owners
7. **Life of Measure** = Perpetual
8. **Community Reaction** = the proposal is likely to be endorsed by the entire community.

Training on Wildland / Urban Interface

Hazards: WUI¹

Continue training of personnel on Wildland/Urban interface issues and develop public awareness of issues involved.

1. **Goal(s) Addressed** = Protect Life and Property; Ensure Continuity of Operations; Preserve or Restore Natural Resources; Increase Public Preparedness for Disasters; Promote A Sustainable Economy.
2. **Cost of Measure** = Staff time TBD
3. **Funding Source and Situation** = Funding could be obtained through local budget or match.
4. **Lead Jurisdiction(s)** = Graham Fire and Rescue - Training & Public Education Division
5. **Timeline** = Ongoing
6. **Benefit** = Personnel trained, citizens of district
7. **Life of Measure** = Perpetual
8. **Community Reaction** = the proposal is likely to be endorsed by the entire community.

Pierce County Neighborhood Emergency Teams

Hazards: E, L, V, D, F, SW, WUI¹, MM²

By 2008 with the assistance of PC Department of Emergency Management and Pierce County Sheriff Department develop a list of PC NETs (Pierce County Neighborhood Emergency Teams) and contacts to coordinate reporting after a significant event, in the fire district.

1. **Goal(s) Addressed** = Protect Life and Property; Establish and Strengthen Partnerships for Implementation; Increase Public Preparedness for Disasters.
2. **Cost of Measure** = TBD
3. **Funding Source and Situation** = Funding could be obtained through local budget or match.
4. **Lead Jurisdiction(s)** = Graham Fire and Rescue - Operations and Training Divisions
5. **Timeline** = Ongoing
6. **Benefit** = Fire District and the community
7. **Life of Measure** = Perpetual
8. **Community Reaction** = the proposal is likely to be endorsed by the entire community.

Endnotes

¹ Hazard Codes:

Where necessary, the specific hazards addressed are noted as follows:

A:	Avalanche
E:	Earthquake
F:	Flood
D:	Drought
T:	Tsunami
V(L OR T):	Volcanic (lahar or tephra-specific)
SW:	Severe Storm (wind-specific)
L:	Landslide
WUI:	Wildland/Urban Interface Fire
MM:	Manmade to include terrorism
ALL:	All hazards, including some man made. Where only natural hazards are addressed, it is noted.

² While this Plan is strictly a *Natural* hazard mitigation plan, where a measure stems from a facility recommendation (Infrastructure Section) that deals specifically with terrorism, the mitigation strategy will use that analysis. Other measures, such as those that deal with multi-hazard community preparedness or recovery planning, mitigate man-made hazards and are noted as such. It is not the intent of this notation to imply that all measures were analyzed with regards to man-made hazards or that measures were identified with that in mind. Rather, the notation merely illustrates the potential on this template for the inclusion of man-made hazard analysis.