

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 LAKEWOOD FIRE DEPARTMENT MITIGATION STRATEGY SECTION

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Table 5-1 Pierce County Fire District #2 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>)	Lakewood Fire	Ongoing	✓	✓	✓	✓	✓	✓
	2. Plan Maintenance (<i>E,L,V,D,F,WUI,SW,MM</i>)	Lakewood Fire	Ongoing	✓	✓	✓	✓	✓	✓
HMF	1. Pierce County Hazard Mitigation Forum (<i>E,L,V,D,F,WUI,SW,MM</i>)	PC DEM; Lakewood Fire	Ongoing	✓	✓	✓	✓	✓	✓
Fire District	1. Capability Identification and Evaluation (<i>E,L,V,D,F,WUI,SW,MM</i>)	Lakewood Fire	1-2	N/A					
	2. Seismic Upgrade of Fire Communications building (<i>E,L,V,D,F,WUI,SW,MM</i>)	Lakewood Fire – Support Services	5	✓	✓	✓			✓
	3. Review and Update Comprehensive EMP (<i>E,L,V,D,F,WUI,SW,MM</i>)	Lakewood Fire – Support Services	1-2	✓	✓	✓	✓	✓	✓
	4. IMT Type 4 Team (<i>E,L,V,D,F,WUI,SW,MM</i>)	Lakewood Police with Lakewood Fire & Regional Partners	1-2	✓	✓	✓			
	5. Bring All Facilities Up to Power Standards with Necessary Generators (<i>E,L,V,D,F,WUI,SW,MM</i>)	Lakewood Fire – Support Services	5	✓	✓				
	6. Develop Employee Protection and Preparedness Plan (<i>E,L,V,D,F,WUI,SW,MM</i>)	Lakewood Fire – Support Services	1-2	✓	✓			✓	
	7. Shelter Planning (<i>E,L,V,D,F,WUI,SW,MM</i>)	Lakewood – Parks Dept.	1-2	✓		✓		✓	
	8. Non-Structural Seismic Retrofit Program (<i>E, SW</i>)	Lakewood Fire – Support Services	1-2	✓	✓				
Public Education	1. Cross Training with Dupont, Steilacoom, and University Place (<i>E,L,V,D,F,WUI,SW,MM</i>)	Lakewood Fire and Regional Partners	Ongoing	✓	✓	✓			✓
	2. Business Preparedness Program (<i>E,L,V,D,F,WUI,SW,MM</i>)	Lakewood Fire with Chamber of Commerce	1-2	✓		✓		✓	

Startup Mitigation Measures

Existing Mitigation Actions

Hazards: E, L, V, D, F, WUI, SW¹, MM²

Pierce County Fire District (PCFD) #2 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)** = Lakewood Fire - Support Services
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

PCFD #2 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)** = Lakewood Fire - Support Services
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

PCFD #2 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; Lakewood Fire - Support Services
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

PCFD #2 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)** = Lakewood Fire - Support Services
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.

Seismic Upgrade of Fire Communications building

Hazards: E, L, V, D, F, SW, WUI¹, MM²

Seismic Upgrade of Fire Communications building

1. **Goal(s) Addressed** = Protect Life and Property; Promote A Sustainable Economy; Ensure Continuity of Operations; Establish and Strengthen Partnerships for Implementation.
2. **Cost of Measure** = \$1 million plus
3. **Funding Source and Situation** = Funding could be obtained through local budget and/or match, or state or federal grants
4. **Lead Jurisdiction(s)** = Lakewood Fire – Support Services
5. **Timeline** = Long-term
6. **Benefit** = Citizens of County, all contracting agencies, employees
7. **Life of Measure** = 50 years
8. **Community Reaction** = the proposal would be somewhat controversial

Review and Update Comprehensive EMP

Hazards: E, L, V, D, F, SW, WUI¹, MM²

Improve existing Operational Plan to be a CEMP to include all facets of the departments program.

1. **Goal(s) Addressed** = Protect Life and Property; Promote A Sustainable Economy; Ensure Continuity of Operations; Preserve or Restore Natural Resources; Increase Public Preparedness for Disasters; Establish and Strengthen Partnerships for Implementation.
2. **Cost of Measure** = Minimal – staff time and materials
3. **Funding Source and Situation** = Funding could be obtained through local budget.
4. **Lead Jurisdiction(s)** = Lakewood Fire – Support Services
5. **Timeline** = Short-Term
6. **Benefit** = Fire district, community and families of fire fighters
7. **Life of Measure** = Perpetual
8. **Community Reaction** = the proposal is likely to be endorsed by the entire community.

IMT Type 4 Team

Hazards: E, L, V, D, F, SW, WUI¹, MM²

In conjunction with Lakewood Police and other agencies, develop an IMT Type 4 Team.

1. **Goal(s) Addressed** = Protect Life and Property; Ensure Continuity of Operations; Establish and Strengthen Partnerships for Implementation.
2. **Cost of Measure** = Staff time for training, training fees and overtime costs
3. **Funding Source and Situation** = Funding could be obtained through local budget or grants.
4. **Lead Jurisdiction(s)** = City of Lakewood Police Department with Lakewood Fire and Regional Partners
5. **Timeline** = Short-term
6. **Benefit** = Citizens and regional partners
7. **Life of Measure** = Perpetual
8. **Community Reaction** = the proposal would benefit those affected, with no adverse reaction from others.

Bring All Facilities Up to Power Standards with Necessary Generators

Hazards: E, L, V, D, F, SW, WUI¹, MM²

Purchase generators to support existing facilities to maintain full operations at all times.

1. **Goal(s) Addressed** = Protect Life and Property; Ensure Continuity of Operations.
2. **Cost of Measure** = \$32,000 each for three, so \$100,000
3. **Funding Source and Situation** = Funding could be obtained through local budgets or state or federal grants.
4. **Lead Jurisdiction(s)** = Lakewood Fire – Support Services
5. **Timeline** = Long-Term
6. **Benefit** = Lakewood fire District and the community
7. **Life of Measure** = 20 years
8. **Community Reaction** = the proposal would benefit those affected, with no adverse reaction from others.

Develop Employee Protection and Preparedness Plan

Hazards: E, L, V, D, F, SW, WUI¹, MM²

Develop Employee Protection and Preparedness for firefighters, other employees and their families.

1. **Goal(s) Addressed** = Protect Life and Property; Ensure Continuity of Operations; Increase Public Preparedness for Disasters.
2. **Cost of Measure** = \$5,000 for materials
3. **Funding Source and Situation** = Funding could be obtained through local budget or state and federal grants.
4. **Lead Jurisdiction(s)** = Lakewood Fire – Support Services
5. **Timeline** = Short-term
6. **Benefit** = Fire Fighters and other employees of district and the community
7. **Life of Measure** = Perpetual
8. **Community Reaction** = the proposal is likely to be endorsed by the entire community.

Shelter Planning

Hazards: E, L, V, D, F, SW, WUI¹, MM²,

Work with the City of Lakewood to develop shelters locally and planning to sustain same.

1. **Goal(s) Addressed** = Protect Life and Property; Establish and Strengthen Partnerships for Implementation; Increase Public Preparedness for Disasters.
2. **Cost of Measure** = Training time and staff planning time
3. **Funding Source and Situation** = Funding could be obtained through local budget.
4. **Lead Jurisdiction(s)** = City of Lakewood – Parks Dept.
5. **Timeline** = Short-term
6. **Benefit** = Citizens, Fire district and regional partners
7. **Life of Measure** = Perpetual.
8. **Community Reaction** = the proposal is likely to be endorsed by the entire community.

Non-Structural Seismic Retrofit Program

Hazards: E, SW¹

Perform non-structural seismic mitigation on all facilities.

1. **Goal(s) Addressed** = Protect life and property; Ensure Continuity of Operations.
2. **Cost of Measure** = Time and materials such as tie-downs, brackets, etc.
3. **Funding Source and Situation** = Funding could be obtained through local budget or grants.
4. **Lead Jurisdiction(s)** =Lakewood Fire – Support Services
5. **Timeline** = Short-term
6. **Benefit** = Fire Fighters, employees and community
7. **Life of Measure** = 5-7 years
8. **Community Reaction** = the proposal is likely to be endorsed by the entire community.

Public Education Mitigation Measures

Business Preparedness Program

Hazards: E, L, V, D, F, SW, WUI¹, MM²

Develop Business Preparedness information to be disseminated to businesses when performing bi-annual commercial fire inspections.

1. **Goal(s) Addressed** = Protect Life and Property; Establish and Strengthen Partnerships for Implementation; Increase Public Preparedness for Disasters.
2. **Cost of Measure** = Cost of materials
3. **Funding Source and Situation** = Funding could be obtained through local budget.
4. **Lead Jurisdiction(s)** = Lakewood Fire with Chamber of Commerce
5. **Timeline** = Short-term
6. **Benefit** = Business owners, First Responders and entire community
7. **Life of Measure** = Perpetual
8. **Community Reaction** = the proposal would be endorsed by the entire community.

Cross Training with Dupont, Steilacoom and University Place

Hazards: E, L, V, D, F, SW, WUI¹, MM²

Continue to develop training programs together and cooperate with Dupont, Steilacoom, University Place and other partners.

1. **Goal(s) Addressed** = Protect Life and Property; Promote A Sustainable Economy; 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 budget.
4. **Lead Jurisdiction(s)** = Lakewood Fire and Regional Partners
5. **Timeline** = On-going
6. **Benefit** = Fire employees and communities
7. **Life of Measure** = Perpetual
8. **Community Reaction** = the proposal would benefit those affected, with no adverse reaction from others.

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.