

## 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 PIERCE COUNTY FIRE DISTRICT #18 MITIGATION STRATEGY SECTION

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**Table 5-1 Pierce County Fire District #18 Mitigation Strategy Matrix**

Implementation Mechanism	Mitigation Measure ( <i>Hazard(s)</i> ) <sup>1</sup>	Lead Jurisdiction(s) / Department(s)	Timeline (years)	Plan Goals					
				Life and Property	Operations Continuity	Partnerships	Natural Resources	Preparedness	Sustainable Economy
<b>Startup</b>	1. Existing Mitigation Actions ( <i>E,L,V,D,F,WUI,SW,MM</i> )	Pierce County Fire District #18	Ongoing	✓	✓	✓	✓	✓	✓
	2. Plan Maintenance ( <i>E,L,V,D,F,WUI,SW,MM</i> )	Pierce County Fire District #18	Ongoing	✓	✓	✓	✓	✓	✓
<b>HMF</b>	1. Pierce County Hazard Mitigation Forum ( <i>E,L,V,D,F,WUI,SW,MM</i> )	PC DEM; Pierce County Fire District #18	Ongoing	✓	✓	✓	✓	✓	✓
<b>Fire District</b>	1. Capability Identification and Evaluation ( <i>E,L,V,D,F,WUI,SW,MM</i> )	Pierce County Fire District #18	1-2	N/A					
	2. Require Additional Apparatus and Staff for Same ( <i>E,L,V,D,F,WUI,SW,MM</i> )	Pierce County Fire District #18	5	✓	✓				
	3. Support Land and Building Codes to Control and Limit Land Use in Hazard Zones ( <i>E,V,F,SW</i> )	City of Pierce County, Pierce County Fire District #18, Pierce County	Ongoing	✓	✓	✓			✓
	4. Improving Ability of Homes and Built Infrastructure to Survive Earthquake and Flood ( <i>E,F</i> )	City of Pierce County, Pierce County Fire District #18, Pierce County	Ongoing	✓	✓	✓		✓	✓
	5. Increase Percentage of Homes with Flood Insurance ( <i>F,SW</i> )	City of Pierce County, Pierce County Fire District #18	Ongoing	✓		✓		✓	
	6. Support Levee Improvement Projects ( <i>F,SW</i> )	City of Pierce County, Pierce County Fire District #18, Pierce County	5	✓		✓			
	7. Develop EOC for Pierce County Fire and Provide Training ( <i>E,L,V,D,F,WUI,SW,MM</i> )	City of Pierce County, Pierce County Fire District #18	1-2	✓	✓	✓			
<b>Public Education</b>	1. Institute Post-Earthquake Analysis with ATC-20 Training ( <i>E,V,SW</i> )	Pierce County Fire District #18	1-2	✓	✓				

# Startup Mitigation Measures

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## Existing Mitigation Actions

**Hazards:** E, L, V, D, F, WUI, SW<sup>1</sup>, MM<sup>2</sup>

Fire District 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)** = Pierce County Fire District #18
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.

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## Plan Maintenance

**Hazards:** E, L, V, D, F, WUI, SW<sup>1</sup>, MM<sup>2</sup>

Fire District 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)** = Pierce County Fire District #18
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

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## Pierce County Hazard Mitigation Forum

**Hazards:** E, L, V, D, F, WUI, SW<sup>1</sup>, MM<sup>2</sup>

Fire District 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; Pierce County Fire District #18
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

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## Capability Identification and Evaluation

**Hazards:** E, L, V, D, F, WUI, SW<sup>1</sup>, MM<sup>2</sup>

Fire District 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)** = Pierce County Fire District #18
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.

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## Require Additional Apparatus and Staff for Same

**Hazards:** E, L, V, D, F, SW, WUI<sup>1</sup>, MM<sup>2</sup>

In order to provide better public safety, fire department requires additional type 1 Fire engine and a minimum of two personnel.

1. **Goal(s) Addressed** = Protect Life and Property; Ensure Continuity of Operations.
2. **Cost of Measure** = \$500,000 first year, and \$200,000 every year after
3. **Funding Source and Situation** = Funding could be obtained through local budget and state or federal grants
4. **Lead Jurisdiction(s)** = Pierce County Fire District #18
5. **Timeline** = Long-term
6. **Benefit** = Community and Fire District, Regional partners
7. **Life of Measure** = 10 years on equipment
8. **Community Reaction** = the proposal would benefit those affected, with no adverse reaction from others.

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## Support Land and Building Codes to Control and Limit Land Use in Hazard Zones

**Hazards:** E, V, F, SW<sup>1</sup>

Continue partnership for dialogue on construction and building within the jurisdiction. Work with and support land use and building codes to control and limit land use in hazard zones.

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 for review or meetings
3. **Funding Source and Situation** = Funding could be obtained through local budget and grants.
4. **Lead Jurisdiction(s)** = City of Pierce County, Pierce County with Support of Pierce County Fire District #18
5. **Timeline** = Ongoing
6. **Benefit** = City, County, Community and Fire District
7. **Life of Measure** = Perpetual
8. **Community Reaction** = the proposal would be somewhat controversial.

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## Improving Ability of Homes and Built Infrastructure to Survive Earthquake and Flood

**Hazards:** E, F<sup>1</sup>

Improve the community's ability for homes, businesses and infrastructure to survive the next flood or earthquake.

1. **Goal(s) Addressed** = Protect Life and Property; Promote A Sustainable Economy; Ensure Continuity of Operations; Establish and Strengthen Partnerships for Implementation; Increase Public Preparedness for Disasters.
2. **Cost of Measure** = Staff time in support of City effort
3. **Funding Source and Situation** = Funding could be obtained through local budget or grants.
4. **Lead Jurisdiction(s)** = City of Pierce County, Pierce County Fire District #18 and Pierce County
5. **Timeline** = Ongoing
6. **Benefit** = Community, Fire District and regional partners
7. **Life of Measure** = Perpetual
8. **Community Reaction** = the proposal would be somewhat controversial.

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## Increase Percentage of Homes with Flood Insurance

**Hazards:** F<sup>1</sup>, SW

Support Flood Insurance effort through education and public information liaison. This program could support the County CRS program and ultimately lower the flood insurance rates that citizens would have to pay.

1. **Goal(s) Addressed** = Protect Life and Property; Establish and Strengthen Partnerships for Implementation; Increase Public Preparedness for Disasters.
2. **Cost of Measure** = Staff and materials
3. **Funding Source and Situation** = Funding could be obtained through local budgets.
4. **Lead Jurisdiction(s)** = City of Pierce County and Pierce County Fire District #18
5. **Timeline** = Ongoing
6. **Benefit** = Community, Regional Partners
7. **Life of Measure** = Perpetual
8. **Community Reaction** = the proposal would benefit those affected, with no adverse reaction from others.

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## Support Levee Improvement Projects

**Hazards:** F<sup>1</sup>, SW

The City has proposed a setback levee on the Puyallup River and the Fire District will support that levee as well as support additional levee improvements south of the city in the Needham Road area.

1. **Goal(s) Addressed** = Protect Life and Property; 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)** = City of Pierce County and Pierce County with support of Pierce County Fire District #18
5. **Timeline** = Long-term
6. **Benefit** = Community, Critical Infrastructure, Fish and Wildlife, First Responders
7. **Life of Measure** = 50 years
8. **Community Reaction** = the proposal would be somewhat controversial.

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## Develop EOC for Pierce County Fire and Provide Training

**Hazards:** E, L, V, D, F, SW, WUI<sup>1</sup>, MM<sup>2</sup>

Develop a Joint EOC between City of Pierce County and PCFD 18. Develop training program for the EOC.

1. **Goal(s) Addressed** = Protect Life and Property; Ensure Continuity of Operations; Establish and Strengthen Partnerships for Implementation.
2. **Cost of Measure** = \$10,000 for equipment and training
3. **Funding Source and Situation** = Funding could be obtained through local budget or grants and state or federal grants.
4. **Lead Jurisdiction(s)** = City of Pierce County and Pierce County Fire District #18
5. **Timeline** = Short-term
6. **Benefit** = Citizens, First Responders and Regional Partners
7. **Life of Measure** = Perpetual
8. **Community Reaction** = the proposal is likely to be endorsed by the entire community.

# Public Education Mitigation Measures

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## Institute Post-Earthquake Analysis with ATC-20 Training

**Hazards:** E, V, SW<sup>1</sup>

In 12 months, train 5 fire fighters in the ATC-20 program for post-earthquake inspection.

1. **Goal(s) Addressed** = Protect Life and Property; Ensure Continuity of Operations.
2. **Cost of Measure** = \$500
3. **Funding Source and Situation** = Funding could be obtained through local budget or grants.
4. **Lead Jurisdiction(s)** = Pierce County Fire District #18
5. **Timeline** = Short-term
6. **Benefit** = First Responders, Citizens, Businesses, Community and Regional Partners
7. **Life of Measure** = Perpetual
8. **Community Reaction** = the proposal is likely to be endorsed by the entire community.

# Endnotes

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<sup>1</sup> Hazard Codes:

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

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

<sup>2</sup> 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.