

## 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 CITY OF ORTING MITIGATION STRATEGY SECTION

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**Table 5-1 City of Orting 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> )	Orting	Ongoing	✓	✓	✓	✓	✓	✓
	2. Plan Maintenance ( <i>E,L,V,D,F,WUI,SW,MM</i> )	Orting	Ongoing	✓	✓	✓	✓	✓	✓
<b>HMF</b>	1. Pierce County Hazard Mitigation Forum ( <i>E,L,V,D,F,WUI,SW,MM</i> )	PC DEM; Orting	Ongoing	✓	✓	✓	✓	✓	✓
<b>City Government</b>	1. Capability Identification and Evaluation ( <i>E,L,V,D,F,WUI,SW,MM</i> )	Orting	1-2	N/A					
	2. Puyallup River Set Back Levee Improvement ( <i>E,V,F</i> )	Orting	5	✓	✓	✓	✓	✓	✓
	3. Carbon River Set Back Levee Improvement ( <i>E,V,F</i> )	Orting	5	✓	✓	✓	✓	✓	✓
	4. Sealing Manhole Covers in City of Orting ( <i>F,SW,MM</i> )	Orting	5	✓	✓				✓
	5. Purchase and install manholes with special tide-flex valves ( <i>V,F,SW,MM</i> )	Orting	5	✓	✓		✓		✓
	6. Restore Detention Capacity Along the Puyallup River ( <i>F,SW</i> )	Orting	1-2	✓		✓	✓		✓
	7. Maintain Residential Conservation Property ( <i>E,L,V,F</i> )	Orting	1-2	✓			✓		✓
	8. Identify a Comprehensive List of Sabô Projects ( <i>V,F</i> )	Orting and Regional Partners	5	✓	✓	✓	✓		✓
	9. Identify, Design, and Build Evacuation Bridges over Carbon River and Puyallup ( <i>V,F</i> )	Orting, Regional Partners	5	✓	✓	✓		✓	
	10. Identify and Establish Community Warming/Cooling Center for Severe Weather ( <i>E,V,F,SW</i> )	Orting – Fire Department	1-2	✓		✓		✓	
	11. Enhance First Responder Mobility ( <i>E,L,V,F,WUI,MM</i> )	Orting	5	✓	✓				✓
	12. Install Public Address Systems in Police Vehicles ( <i>E,L,V,D,F,SW,WUI,MM</i> )	Orting	1-2	✓	✓				
	13. Purchase Aerial Device ( <i>E,L,V,F,SW,WUI</i> )	Orting – Fire Department	5	✓	✓	✓			✓
	14. Purchase Fire Medic Unit ( <i>E,L,V,F,SW,WUI,MM</i> )	Orting	5	✓	✓	✓		✓	
	15. City Infrastructure-Structural Retrofit Program ( <i>E,SW</i> )	Orting	5	✓	✓			✓	✓
	16. City Infrastructure Non-structural Retrofit Program ( <i>E,SW</i> )	Orting	5	✓	✓			✓	✓
	17. Purchase Vacuum Truck ( <i>F,SW,MM</i> )	Orting - Public Works	5	✓	✓		✓		✓
	18. Continue Implementation of the CRS Program ( <i>F,SW</i> )	Orting - Public Works	5	✓	✓	✓		✓	✓
	19. Support Implementation of Bridge for Kids Project ( <i>V,F</i> )	Orting and Regional Partners	5	✓		✓			✓
<b>Public Education</b>	1. Continue Lahar Evacuation Drills ( <i>V</i> )	Orting	Ongoing	✓		✓		✓	
	2. Public Education - PC NET ( <i>E,L,D,F,SW,WUI</i> )	Orting	Ongoing	✓		✓		✓	

# 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>

Orting will continue to implement existing programs, policies, and regulations as identified in the Capability Identification Section of this Plan. This includes such actions as updating the Critical Area Regulations and any ensuing land use policies with best available science. It also includes continuing those programs that are identified as technical 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)** = City of Orting
5. **Timeline** = Ongoing
6. **Benefit** = City-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>

Orting 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)** = City of Orting
5. **Timeline** = Ongoing
6. **Benefit** = City-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>

Orting 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; City of Orting
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.

# City Government 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>

Orting will develop a consistent and replicable system for evaluating the City's 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 City's 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)** = City of Orting
5. **Timeline** = Short-term
6. **Benefit** = City-Wide
7. **Life of Measure** = Perpetual
8. **Community Reaction** = the proposal is likely to be endorsed by the entire community.

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## Puyallup River Set Back Levee Improvement

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

Design and build a setback levee that meets Federal Regulatory Standards on the Puyallup River between Puyallup Bridge and connecting to the new setback levee and going north to the High Cedars Golf Course. This will be a joint partnership with Pierce County. The project will be tied into the Cities CRS program for the NFIP.

1. **Goal(s) Addressed** = Protect Life and Property; Promote A Sustainable Economy; Ensure Continuity of Operations; Preserve or Restore Natural Resources; Establish and Strengthen Partnerships for Implementation; Increase Public Preparedness for Disasters.
2. **Cost of Measure** = \$1.5 million per mile if you don't own the land, but they own 95% on one side, but on County side they have to buy some private property. Estimate of \$10 million.
3. **Funding Source and Situation** = Funding could be obtained through REET Taxes as well as state and federal grants.
4. **Lead Jurisdiction(s)** = City of Orting - Administration
5. **Timeline** = Long-term
6. **Benefit** = The entire city ad all populations, critical infrastructure, fish and wildlife
7. **Life of Measure** = 50 years
8. **Community Reaction** = the proposal is likely to be endorsed by the entire community.

## Carbon River Set Back Levee Improvement

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

Design and build a setback levee that meets Federal Regulatory Standards on the Carbon River. This will be a joint partnership with Pierce County. The project will be tied into Cities CRS program for the NFIP.

1. **Goal(s) Addressed** = Protect Life and Property; Promote A Sustainable Economy; Ensure Continuity of Operations; Restore/Protect/Preserve the Environment; Establish and Strengthen Partnerships for Implementation; Increase Public Preparedness for Disasters.
2. **Cost of Measure** = \$15 million, must purchase property on one side of river to do this.
3. **Funding Source and Situation** = Funding could be obtained through REET Taxes as well as federal or state grants.
4. **Lead Jurisdiction(s)** = City of Orting - Administration
5. **Timeline** = Long-Term
6. **Benefit** = The entire city and all populations, critical infrastructure, fish and wildlife
7. **Life of Measure** = 50 years
8. **Community Reaction** = the proposal is likely to be endorsed by the entire community.

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## Sealing Manhole Covers in City of Orting

**Hazards:** F, SW<sup>1</sup>, MM<sup>2</sup>

Obtain and install special lids for the manhole covers that prevent water from entering the sewer system.

1. **Goal(s) Addressed** = Protect Life and Property; Promote A Sustainable Economy; Ensure Continuity of Operations.
2. **Cost of Measure** = \$120 each for 400 of them or around \$50,000
3. **Funding Source and Situation** = Funding could be obtained through local budgets (REET or general fund) or grants.
4. **Lead Jurisdiction(s)** = City of Orting – Public Works
5. **Timeline** = Long-term
6. **Benefit** = Entire city and population
7. **Life of Measure** = 20 years
8. **Community Reaction** = the proposal is likely to be endorsed by the entire community.

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## Purchase and install manholes with special tide-flex valves

**Hazards:** V, F, SW<sup>1</sup>, MM<sup>2</sup>

Purchase and install manholes with special tide-flex valves (one way backflow valve) to prevent river water from flowing into the city and maintain fish habitat.

1. **Goal(s) Addressed** = Protect Life and Property; Promote A Sustainable Economy; Ensure Continuity of Operations; Preserve or Restore Natural Resources.
2. **Cost of Measure** = \$30,000 each (need 4) or a total of \$120,000
3. **Funding Source and Situation** = Funding could be obtained through Storm Impact Fee for match, REET or state and federal grants.
4. **Lead Jurisdiction(s)** = City of Orting – Public Works
5. **Timeline** = Long-Term
6. **Benefit** = Entire city and population, reduces impact of flooding. Levee system benefit in relieving pressure.
7. **Life of Measure** = 20 years
8. **Community Reaction** = the proposal is likely to be endorsed by the entire community.

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## Restore Detention Capacity along the Puyallup River

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

Remove silt deposits from November 2006 flooding, in order to return retention capacity to pre-flood levels. Silt, in the thousands of cubic feet, filled the retention capacity all along the Puyallup and Carbon Rivers. Silt will be removed with heavy equipment in retention areas on City side of levees.

1. **Goal(s) Addressed** = Protect Life and Property; Promote A Sustainable Economy; Preserve or Restore Natural Resources; Establish and Strengthen Partnerships for Implementation.
2. **Cost of Measure** = \$250,000-\$500,000 project
3. **Funding Source and Situation** = Funding could be obtained through local match and state or federal grants.
4. **Lead Jurisdiction(s)** = City of Orting – Building Department
5. **Timeline** = Short-term
6. **Benefit** = City and population, reduces flood impact – detention infrastructure
7. **Life of Measure** = 10 years
8. **Community Reaction** = the proposal is likely to be endorsed by the entire community.

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## Maintain Residential Conservation Property

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

Maintain residential conservation property by modifying or updating the City Comprehensive Plan Project. Currently, there is limited available land density behind the Levee System. Converting land from residential to open space would reduce the vulnerability of the City and allow the development of broader and contiguous strategies.

1. **Goal(s) Addressed** = Protect Life and Property; Promote A Sustainable Economy; Preserve or Restore Natural Resources.
2. **Cost of Measure** = \$10,000
3. **Funding Source and Situation** = Funding could be obtained through city General fund match or state and federal grants.
4. **Lead Jurisdiction(s)** = City of Orting - Administrator
5. **Timeline** = Short-term
6. **Benefit** = City wide, environmental
7. **Life of Measure** = Perpetual
8. **Community Reaction** = the proposal would be somewhat controversial.

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## Identify a Comprehensive List of Sabô Projects

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

Erosion control structures (such as Sabô Works) can inhibit a lahar flow as it descends the valleys limiting the damage further down the valley. These include crib dams, channel works, step dams, slit dams, catchment basins, training dikes, etc. In most instances rather than a single structure they are used in multiples or combinations of any different structures. This measure will identify a comprehensive List of Sabô Projects which could be implemented over time to reduce the volume of lahars on the Puyallup and Carbon river valleys. Orting will work with the County to coordinate the identification of these sabô projects.

1. **Goal(s) Addressed** = Protect Life and Property; Promote A Sustainable Economy; Ensure Continuity of Operations; Preserve or Restore Natural Resources; Establish and Strengthen Partnerships for Implementation.
2. **Cost of Measure** = 250 million
3. **Funding Source and Situation** = Funding could be obtained through local budget or grants.
4. **Lead Jurisdiction(s)** = City of Orting – Administrator, Regional partners
5. **Timeline** = Long-term
6. **Benefit** = City of Orting, other regional partners
7. **Life of Measure** = 75-100 years
8. **Community Reaction** = the proposal is likely to be endorsed by the entire community.

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## Identify, Design, and Build Evacuation Bridges over Carbon River and Puyallup

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

There are limited evacuation routes in the City for the lahar and flood threat. This measure will identify, design and build evacuation bridges over the Carbon River and Puyallup River. Having multiple evacuation routes tied to a sustained public education campaign will reduce the overall vulnerability of the citizens of the City. This project will be implemented in conjunction with the Bridge for Kids Project. That project is looking at evacuation routes over the Carbon River.

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** = \$30 million for Carbon or \$40 million for auto and \$15 million for Puyallup.
3. **Funding Source and Situation** = Funding could be obtained through local budget or grants.
4. **Lead Jurisdiction(s)** = City of Orting, Regional Partners
5. **Timeline** = Long-term
6. **Benefit** = City, population and First Responders
7. **Life of Measure** = 75 years
8. **Community Reaction** = the proposal is likely to be endorsed by the entire community.

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## Identify and Establish Community Warming/Cooling Center for Severe Weather

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

This measure would identify a center within the City that can be used for day use for citizens needing shelter from cold and heat and possible feeding in severe weather. After the identification, the City would establish this Center with the proper resources such as: generator, supplies, communication equipment, etc.

1. **Goal(s) Addressed** = Protect Life and Property; Establish and Strengthen Partnerships for Implementation; Increase Public Preparedness for Disasters.
2. **Cost of Measure** = \$20,000 with generator and supplies
3. **Funding Source and Situation** = Some General Fund, REET, local match as well as state or federal grants.
4. **Lead Jurisdiction(s)** = City of Orting – Fire Department (Chief)
5. **Timeline** = Short-term
6. **Benefit** = City population and mostly seniors, the specific facility
7. **Life of Measure** = Perpetual
8. **Community Reaction** = the proposal is likely to be endorsed by the entire community.

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## Enhance First Responder Mobility

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

This measure would provide means of small, fast transportable conveyance for first responder personnel to evacuate area, conduct damage assessments, etc. This would involve research, identification, and purchasing of such conveyance devices.

1. **Goal(s) Addressed** = Protect Life and Property; Ensure Continuity of Operations; Promote A Sustainable Economy.
2. **Cost of Measure** = \$50,000
3. **Funding Source and Situation** = Funding could be obtained through local match or grants.
4. **Lead Jurisdiction(s)** = City of Orting – Police Department
5. **Timeline** = Long-term
6. **Benefit** = City population, First Responders
7. **Life of Measure** = 5 years for equipment or 7
8. **Community Reaction** = the proposal is likely to be endorsed by the entire community.

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## Install Public Address Systems in Police Vehicles

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

This measure would install public address systems in all Police Vehicles. The public address system would enhance the communication capability in the City to warn Citizens of pending threats.

1. **Goal(s) Addressed** = Protect Life and Property; Ensure Continuity of Operations.
2. **Cost of Measure** = \$20,000 (ten cars)
3. **Funding Source and Situation** = Funding could be obtained through local match or grants.
4. **Lead Jurisdiction(s)** = City of Orting – Police Department
5. **Timeline** = Short-term
6. **Benefit** = City population, all hazards
7. **Life of Measure** = 5-7 years equipment
8. **Community Reaction** = the proposal is likely to be endorsed by the entire community.

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## Purchase Aerial Device

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

This measure will purchase an aerial device for Orting Fire Department. This device will provide an increased capability to the City Fire Department when responding to multiple threats that currently the City has limited assets to respond with.

1. **Goal(s) Addressed** = Protect Life and Property; Establish and Strengthen Partnerships for Implementation; Ensure Continuity of Operations; Promote A Sustainable Economy.
2. **Cost of Measure** = 1.8 million with staff (3 persons)
3. **Funding Source and Situation** = Funding could be obtained through impact fees, local match or grants.
4. **Lead Jurisdiction(s)** = City of Orting – Fire Department
5. **Timeline** = Long-term
6. **Benefit** = City population, automatic and mutual aid agreements
7. **Life of Measure** = 20 years
8. **Community Reaction** = the proposal would be somewhat controversial.

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## Purchase Fire Medic Unit

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

This measure will purchase a fire medic unit. This device will provide an increased capability to the City Fire Department when responding to multiple threats that currently the City has outdated assets to respond with.

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** = \$300,000
3. **Funding Source and Situation** = Funding could be obtained through Capital Expense, local budget and state or federal grants.
4. **Lead Jurisdiction(s)** = City of Orting – Fire Department
5. **Timeline** = Long-term
6. **Benefit** = City population, mutual and automatic aid agreements
7. **Life of Measure** = 5 years
8. **Community Reaction** = the proposal would be somewhat controversial.

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## City Infrastructure-Structural Retrofit

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

This measure would develop and implement a program to assess and structurally retrofit City Infrastructure. Priority would be given to infrastructure that serves the greatest population.

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 match or state and federal grants.
4. **Lead Jurisdiction(s)** = City of Orting - Administration
5. **Timeline** = Long-term
6. **Benefit** = Citizens of Orting and Orting Public Services
7. **Life of Measure** = 50 years
8. **Community Reaction** = the proposal would be somewhat controversial.

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## City Infrastructure Non-structural Retrofit Program

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

This measure would develop and implement a program to assess and non-structurally retrofit City Infrastructure. Purchasing and installing non-structural safeguards for non-structural elements of the infrastructure would be included.

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 match as well as state and federal grants.
4. **Lead Jurisdiction(s)** = City of Orting - Administration
5. **Timeline** = Long-term
6. **Benefit** = Orting citizens and public services
7. **Life of Measure** = 5 years
8. **Community Reaction** = the proposal is likely to be endorsed by the entire community.

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## Purchase Vacuum Truck

**Hazards:** F, SW<sup>1</sup>, MM<sup>2</sup>

This measure would purchase a vacuum truck to vacuum out sewers and storm system. This resource would provide the City with capability to reduce their vulnerability to the threats directly impacting the sewer and storm system.

1. **Goal(s) Addressed** = Protect Life and Property; Ensure Continuity of Operations; Preserve or Restore Natural Resources; Promote a Sustainable Economy.
2. **Cost of Measure** = TBD
3. **Funding Source and Situation** = Funding could be obtained through local budget as well as state and federal grants.
4. **Lead Jurisdiction(s)** = City of Orting – Public Works
5. **Timeline** = Long-term
6. **Benefit** = City of Orting, surround jurisdictions and environment
7. **Life of Measure** = 25 years
8. **Community Reaction** = the proposal is likely to be endorsed by the entire community.

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## Continue Implementation of the CRS Program

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

The measure would involve the City to continue development in the NFIP CRS Program. Currently, the City has a rating of 7. The City will work to improve their rating.

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** = TBD
3. **Funding Source and Situation** = Funding could be obtained through local budget as well as state and federal grants.
4. **Lead Jurisdiction(s)** = City of Orting – Public Works
5. **Timeline** = Long-term
6. **Benefit** = City of Orting, surrounding jurisdictions and environment
7. **Life of Measure** = Varies
8. **Community Reaction** = the proposal is likely to be endorsed by the entire community.

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## Support Implementation of Bridge for Kids Project

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

City of Orting will continue to support the Bridge for Kids which entails the construction of two pedestrian bridges in downtown Orting across the Carbon River and over SR 16 that will connect with recreation trails coming down the hill from the new development in Cascadia. This will allow students and others in the town of Orting a quick and easy evacuation route from the town. A third bridge will be constructed over State Highway 162 near the entrance to Ptarmigan Ridge School. The only current evacuation route open for the students at Ptarmigan Ridge is to hike south along the Puyallup River levee to Calistoga Street where they can cross the river and ascend the hill. The time it takes to evacuate the school and get all the students up the hill is too long, given the speed of the lahar. This bridge, by the school, will allow children from Ptarmigan Ridge to cross the highway giving them access to the northern most of the two bridges over the Carbon and therefore to safe ground.

1. **Goal(s) Addressed** = Protect Life and Property; Establish and Strengthen Partnerships for Implementation; Promote a Sustainable Economy.
2. **Cost of Measure** = \$25 million
3. **Funding Source and Situation** = Funding could be obtained through local budget as well as state and federal grants.
4. **Lead Jurisdiction(s)** = City of Orting, Regional Partners
5. **Timeline** = Long-term
6. **Benefit** = City of Orting, others in Valley, First Responders
7. **Life of Measure** = 75 years
8. **Community Reaction** = the proposal is likely to be endorsed by the entire community.

# Public Education Mitigation Measures

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## Continue Lahar Evacuation Drills

### **Hazards:** V<sup>1</sup>

On average the Orting Region citizens have about 40 minutes to evacuate from a lahar originating from Mt. Rainier. This measure will continue the ongoing quarterly neighborhood drills in the Orting Region to promote life safety.

1. **Goal(s) Addressed** = Protect Life and Property; Establish and Strengthen Partnerships for Implementation; Increase Public Preparedness for Disasters.
2. **Cost of Measure** = \$2,000 per exercise
3. **Funding Source and Situation** = Funding could be obtained through local budget.
4. **Lead Jurisdiction(s)** = City of Orting - Administrator
5. **Timeline** = Ongoing
6. **Benefit** = City of Orting Neighborhoods
7. **Life of Measure** = Perpetual
8. **Community Reaction** = the proposal would be somewhat controversial.

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## Public Education – PC NET

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

This measure will have the City partner with the County to establish Pierce County Neighborhood Emergency Teams (PC NETs) in Orting.

PC NET is a neighborhood-oriented approach to emergency preparedness and homeland security. It is based on the belief that a cooperative effort between a county and its citizens is the only sure way to protect a neighborhood and to prepare for a major disaster. The program helps individuals and their neighborhoods prepare to mutually assist each other so that lives can be saved, property can be spared, and emergency services can be freed to respond to the most devastated areas. This will be accomplished by organizing block groups into a variety of disaster response teams, each of which has a simple one-page list that clearly outlines necessary tasks. No special skills or equipment are required to participate – and only a minimal time commitment is needed. Such programs are critical to remind the public of the natural hazards in Pierce County, and of the necessity of having on hand the supplies and materials to survive independently for a minimum of 72 hours. These programs will be continued and expanded upon.

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 budgets or grants.
4. **Lead Jurisdiction(s)** = City of Orting - Administration
5. **Timeline** = Ongoing
6. **Benefit** = PC NET neighborhoods, City of Orting
7. **Life of Measure** = Varies
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.