

# CITY OF WARDEN

## 1.1 Local Hazard Mitigation Planning Team

### Primary Point of Contact

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This annex was developed by the local hazard mitigation planning team, whose members are listed in Table 0-1.

**Table 0-1. Local Hazard Mitigation Planning Team Members**

Name	Title
Kristine Shuler	City Administrator
Chad Cole	PW Supervisor
Tony Massa	Mayor

## 1.2 Jurisdiction Profile

### 1.2.1 Location and Features

The City of Warden is in the southeast area of Grant County in Central Washington. Warden is a growing agricultural based community by industry and the surrounding farm land.

The current boundaries generally extend from East Low Canal on the western point to the east, approximately 2 miles. The northern boundary, at Road U and 7.5 SE. extends south for 1.3 miles, encompassing an area of 2.48 square miles

Most of the air masses and weather systems crossing eastern Washington are traveling under the influence of the prevailing westerly winds. In the summer season, air from over the continent results in low relative humidity and high temperatures. In the winter, cold weather prevails. Extremes in temperature in both summer and winter occur when the inland basin is under the influence of air from over the continent. During most of the year, prevailing wind is from the west or southwest. Northeasterly winds are more frequent in fall and winter. Extreme wind velocities can be expected to reach 50 mph at least once in two years; 60 to 70 mph once in 50 years and 80 mph once in 100 years. (Grant County Hazard Mitigation Plan, 2006)

### 1.2.2 History

The City of Warden was incorporated in 1910. Russian-German descendants founded homesteads in the Warden area prior to the turn of the century. New enterprises, such as livery stables, horse wranglers, blacksmiths and other services, followed the settlers and Warden incorporated in 1910. The railroad arrived in the early days bringing construction crews and railroad hands. Railroad operations accounted for a 1920 peak in population of 173. Soon after the WWII, the U.S. Bureau of Reclamation's Columbia Basin Irrigation Project, delivered water to the arid land. Agricultural expansion propelled supporting industries and businesses, offering a diverse array of jobs. Growth has been steady but slow since that time. With 1990 reaching a population of 1,639 to a high of 2,485 in 2021.

### 1.2.3 Governing Body Format

The city is governed by a mayor and five elected officials that comprise the city council.

The Warden City Council assumes responsibility for the adoption of this plan; City of Warden Administration will oversee its implementation.

## 1.3 Current Trends

### 1.3.1 Population

According to State of Washington, Office of Financial Management, the population of Warden as of April 2021 was 2,485. Since 1990 the population has grown at an average annual rate of 1.6 percent.

### 1.3.2 Development

The Port District #8 of Warden is an instrumental factor in the Economic Development of Industry in the City of Warden. The Port continues to work with interested developers. Currently, no future development is scheduled at this time. The City of Warden participates in the National Flood Insurance Program. The city continues to verify compliance every year. The building department operates under the International Building Code requirements that require new and substantially improved code. The City has sold the industrial waste water utility to a private contractor. The installation of a six million gallon anaerobic digester facility and the settling pond restoration that are within the identified flood plain have been completed. Department of Ecology and the Department of Health are the permitting entities.

Identifying previous and future development trends is achieved through a comprehensive review of permitting since completion of the previous plan and in anticipation of future development. Tracking previous and future growth in potential hazard areas provides an overview of increased exposure to a hazard within a community. Table 0-2 summarizes development trends in the performance period since the preparation of the previous hazard mitigation plan, as well as expected future development trends.

**Table 0-2. Recent and Expected Future Development Trends**

Criterion	Response
Has your jurisdiction annexed any land since the preparation of the previous hazard mitigation plan?	Yes
<i>If yes, give the estimated area annexed and estimated number of parcels or structures.</i>	22 acres of Light Manufacturing property near the Warden airport has been annexed. No structures.

Criterion	Response																														
Is your jurisdiction expected to annex any areas during the performance period of this plan?	Unknown at this time																														
<i>If yes, describe land areas and dominant uses.</i>																															
<i>If yes, who currently has permitting authority over these areas?</i>																															
Are any areas targeted for development or major redevelopment in the next five years?	Yes																														
<i>If yes, briefly describe, including whether any of the areas are in known hazard risk areas</i>	A housing development of 40 structures is proposed over the next 2 years. The Port of Warden has potential industrial developers looking at Warden. No known risk hazard areas.																														
How many permits for new construction were issued in your jurisdiction since the preparation of the previous hazard mitigation plan?	<table border="1"> <thead> <tr> <th></th> <th>2017</th> <th>2018</th> <th>2019</th> <th>2020</th> <th>2021</th> </tr> </thead> <tbody> <tr> <td>Single Family</td> <td>8</td> <td>7</td> <td>4</td> <td>6</td> <td>5</td> </tr> <tr> <td>Multi-Family</td> <td>—</td> <td>4</td> <td>—</td> <td>7</td> <td>2</td> </tr> <tr> <td>Other</td> <td>—</td> <td>—</td> <td>—</td> <td>—</td> <td>—</td> </tr> <tr> <td><b>Total</b></td> <td><b>8</b></td> <td><b>11</b></td> <td><b>4</b></td> <td><b>13</b></td> <td><b>7</b></td> </tr> </tbody> </table>		2017	2018	2019	2020	2021	Single Family	8	7	4	6	5	Multi-Family	—	4	—	7	2	Other	—	—	—	—	—	<b>Total</b>	<b>8</b>	<b>11</b>	<b>4</b>	<b>13</b>	<b>7</b>
	2017	2018	2019	2020	2021																										
Single Family	8	7	4	6	5																										
Multi-Family	—	4	—	7	2																										
Other	—	—	—	—	—																										
<b>Total</b>	<b>8</b>	<b>11</b>	<b>4</b>	<b>13</b>	<b>7</b>																										
Provide the number of new-construction permits for each hazard area or provide a qualitative description of where development has occurred.	<ul style="list-style-type: none"> <li>All permits were in the localized residential areas with little to no risk hazard.</li> </ul>																														
Describe the level of buildout in the jurisdiction, based on your jurisdiction's buildable lands inventory. If no such inventory exists, provide a qualitative description.	Warden has buildable land within the city limits for residential and commercial.																														

## 1.4 Capability Assessment

This section describes an assessment of existing capabilities for implementing hazard mitigation strategies. The introduction at the beginning of this volume of the hazard mitigation plan describes the components included in the capability assessment and their significance for hazard mitigation planning.

Findings of the capability assessment were reviewed to identify opportunities to expand, initiate or integrate capabilities to further hazard mitigation goals and objectives. Where such opportunities were identified and determined to be feasible, they are included in the action plan. The “Analysis of Mitigation Actions” table in this annex identifies these as community capacity building mitigation actions. The findings of the assessment are presented as follows:

- An assessment of planning and regulatory capabilities is presented in Table 0-3.
- Development and permitting capabilities are presented in Table 0-4.
- An assessment of fiscal capabilities is presented in Table 0-5.
- An assessment of administrative and technical capabilities is presented in Table 0-6.
- An assessment of education and outreach capabilities is presented in Table 0-7.
- Information on National Flood Insurance Program (NFIP) compliance is presented in Table 0-8.
- Classifications under various community mitigation programs are presented in Table 0-9.
- The community's adaptive capacity for the impacts of climate change is presented in Table 0-10.

Table 0-3. Planning and Regulatory Capability

	Local Authority	Other Jurisdiction Authority	State Mandated	Integration Opportunity?
<b>Codes, Ordinances, and Requirements</b>				
<b>Building Code</b>	Yes	Yes	Yes	No
<i>International Building Code, Ord 775</i>				
<b>Zoning Code</b>	Yes	Yes	Yes	No
<b>Comment:</b>	<i>Ordinance 809</i>			
<b>Subdivisions</b>	Yes	No	Yes	No
<b>Comment:</b>	<i>Warden Municipal Code, Ord 476</i>			
<b>Stormwater Management</b>	No	No	No	No
<b>Comment:</b>				
<b>Post-Disaster Recovery</b>	No	No	No	Yes
<b>Comment:</b>				
<b>Real Estate Disclosure</b>	No	No	No	No
<b>Comment:</b>				
<b>Growth Management</b>	Yes	Yes	Yes	No
<b>Comment:</b>	<i>The State of Washington 36.70A.060 mandates that local governments under 36.70A.050 adopt developmental regulations. Adopted 1999, amended update 2009, 2020</i>			
<b>Site Plan Review</b>	Yes	No	No	No
<b>Comment:</b>	<i>Ordinance 690</i>			
<b>Environmental Protection</b>	Yes	Yes	Yes	No
<b>Comment:</b>	<i>State Environmental Policy Act (SEPA) to be used in conjunction with the Warden Municipal Code.</i>			
<b>Flood Damage Prevention</b>	Yes	Yes	Yes	No
<b>Comment:</b>	<i>Ordinance 688</i>			
<b>Emergency Management</b>	Yes	Yes	Yes	No
<b>Comment:</b>	<i>Working jointly with Grant County Emergency Management</i>			
<b>Climate Change</b>	No	No	No	No
<b>Comment:</b>				
<b>Other</b>	N/A	N/A	N/A	N/A
<b>Comment:</b>				
<b>Planning Documents</b>				
<b>General Plan</b>	Yes	Yes	Yes	Yes
<b>Is the plan compliant with Assembly Bill 2140?</b>	Yes			
<b>Comment:</b>	<i>See "Growth Management"</i>			
<b>Capital Improvement Plan</b>	Yes	Yes	Yes	Yes
<b>How often is the plan updated?</b>	<i>20 year plan with periodic updates as needed.</i>			
<b>Comment:</b>				
<b>Disaster Debris Management Plan</b>	No	No	No	No
<b>Comment:</b>				
<b>Floodplain or Watershed Plan</b>	Yes	Yes	Yes	Yes
<b>Comment:</b>	<i>Participate NFIP</i>			

	Local Authority	Other Jurisdiction Authority	State Mandated	Integration Opportunity?
<b>Stormwater Plan</b>	No	/No	No	No
<i>Comment:</i>				
<b>Urban Water Management Plan</b>	No	No	No	No
<i>Comment:</i>				
<b>Habitat Conservation Plan</b>	No	No	No	No
<i>Comment:</i>				
<b>Economic Development Plan</b>	No	No	No	No
<i>Comment:</i>	<i>Warden participates in the Grant County Economic Development Council, there is no plan.</i>			
<b>Shoreline Management Plan</b>	No	No	No	No
<i>Comment:</i>				
<b>Community Wildfire Protection Plan</b>	No	No	No	No
<i>Comment:</i>				
<b>Forest Management Plan</b>	No	No	No	No
<i>Comment:</i>				
<b>Climate Action Plan</b>	No	No	No	No
<i>Comment:</i>				
<b>Comprehensive Emergency Management Plan</b>	Yes	Yes	No	No
<i>Comment:</i>	<i>Grant County Emergency Management Plan Adopted</i>			
<b>Threat and Hazard Identification and Risk Assessment (THIRA)</b>	No	No	No	No
<i>Comment:</i>				
<b>Post-Disaster Recovery Plan</b>	No	No	No	Yes
<i>Comment:</i>				
<b>Continuity of Operations Plan</b>	No	No	No	No
<i>Comment:</i>				
<b>Public Health Plan</b>	Yes	Yes	No	No
<i>Comment:</i>	<i>MOU Grant County Health District</i>			
<b>Other</b>	N/A	N/A	N/A	N/A
<i>Comment:</i>				

Table 0-4. Development and Permitting Capability

Criterion	Response
Does your jurisdiction issue development permits? <i>If no, who does? If yes, which department?</i>	Yes Planning
Does your jurisdiction have the ability to track permits by hazard area?	No
Does your jurisdiction have a buildable lands inventory?	No

Table 0-5. Fiscal Capability

Financial Resource	Accessible or Eligible to Use?
Community Development Block Grants	Yes
Capital Improvements Project Funding	Yes
Authority to Levy Taxes for Specific Purposes	Yes
User Fees for Water, Sewer, Gas, or Electric Service	Yes
<i>If yes, specify:</i> Water, Sewer, Sanitation	
Incur Debt through General Obligation Bonds	Yes
Incur Debt through Special Tax Bonds	Yes
Incur Debt through Private Activity Bonds	Yes
Withhold Public Expenditures in Hazard-Prone Areas	Yes
State-Sponsored Grant Programs	Yes
Development Impact Fees for Homebuyers or Developers	Yes
Other	N/A
<i>If yes, specify:</i>	

Table 0-6. Administrative and Technical Capability

Staff/Personnel Resource	Available?
Planners or engineers with knowledge of land development and land management practices	Yes
<i>If Yes, Department/Position:</i> Contracted Consultant	
Engineers or professionals trained in building or infrastructure construction practices	Yes
<i>If Yes, Department/Position:</i> Contracted Consultant	
Planners or engineers with an understanding of natural hazards	Yes
<i>If Yes, Department/Position:</i> Contracted Consultant	
Staff with training in benefit/cost analysis	No
<i>If Yes, Department/Position:</i>	
Surveyors	Yes
<i>If Yes, Department/Position:</i> Contracted Consultant	
Personnel skilled or trained in GIS applications	Yes
<i>If Yes, Department/Position:</i> Contracted Consultant	
Scientist familiar with natural hazards in local area	No
<i>If Yes, Department/Position:</i>	
Emergency manager	Yes
<i>If Yes, Department/Position:</i> City Administrator	
Grant writers	Yes
<i>If Yes, Department/Position:</i> Contracted Consultant	
Other	N/A
<i>If Yes, Department/Position:</i>	

Table 0-7. Education and Outreach Capability

Criterion	Response
Do you have a public information officer or communications office? Coordinate with GCEM	No
Do you have personnel skilled or trained in website development?	No
Do you have hazard mitigation information available on your website?	No

Criterion	Response
<i>If yes, briefly describe:</i>	
Do you use social media for hazard mitigation education and outreach?	No
<i>If yes, briefly describe:</i>	
Do you have any citizen boards or commissions that address issues related to hazard mitigation?	No
<i>If yes, briefly describe:</i>	
Do you have any other programs in place that could be used to communicate hazard-related information?	Yes
<i>If yes, briefly describe:</i> Coordinate with Grant County Emergency Management	
Do you have any established warning systems for hazard events?	No
<i>If yes, briefly describe:</i>	

Table 0-8. National Flood Insurance Program Compliance

Criterion	Response
What local department is responsible for floodplain management?	Administration
Who is your floodplain administrator? (department/position)	City Administrator
Are any certified floodplain managers on staff in your jurisdiction?	No
What is the date that your flood damage prevention ordinance was last amended?	Nov. 10, 2009
Does your floodplain management program meet or exceed minimum requirements? <i>If exceeds, in what ways?</i>	Meets
When was the most recent Community Assistance Visit or Community Assistance Contact?	N/A
Does your jurisdiction have any outstanding NFIP compliance violations that need to be addressed? <i>If so, state what they are.</i>	No
Are any RiskMAP projects currently underway in your jurisdiction? <i>If so, state what they are.</i>	No
Do your flood hazard maps adequately address the flood risk within your jurisdiction? <i>If no, state why.</i>	Yes
Does your floodplain management staff need any assistance or training to support its floodplain management program? <i>If so, what type of assistance/training is needed?</i>	NFIP basics
Does your jurisdiction participate in the Community Rating System (CRS)? <i>If yes, is your jurisdiction interested in improving its CRS Classification?</i> <i>If no, is your jurisdiction interested in joining the CRS program?</i>	No No No
How many flood insurance policies are in force in your jurisdiction? <sup>a</sup> <i>What is the insurance in force?</i> <i>What is the premium in force?</i>	-0- National Flood Insurance Program (NFIP) for Grant County \$ __ N/A __
How many total loss claims have been filed in your jurisdiction? <sup>a</sup> <i>How many claims are still open or were closed without payment?</i> <i>What were the total payments for losses?</i>	-0- None \$ __ -0- __

a. According to FEMA statistics as of 2022

Table 0-9. Community Classifications

	Participating?	Classification	Date Classified
FIPS Code	Yes	76160	
DUNS #	Yes	962118840	Unknown
Community Rating System	No	N/A	N/A
Building Code Effectiveness Grading Schedule	No	N/A	N/A
Public Protection	No	N/A	N/A
Storm Ready	No	N/A	N/A
Firewise	No	N/A	N/A



Table 0-10. Adaptive Capacity for Climate Change

Criterion	Jurisdiction Rating <sup>a</sup>
<b>Technical Capacity</b>	
Jurisdiction-level understanding of potential climate change impacts <i>Comment: Enter Comment</i>	Low
Jurisdiction-level monitoring of climate change impacts <i>Comment: Enter Comment</i>	Low
Technical resources to assess proposed strategies for feasibility and externalities <i>Comment: Enter Comment</i>	Low
Jurisdiction-level capacity for development of greenhouse gas emissions inventory <i>Comment: Enter Comment</i>	Low
Capital planning and land use decisions informed by potential climate impacts <i>Comment: Enter Comment</i>	Low
Participation in regional groups addressing climate risks <i>Comment: Enter Comment</i>	Low
<b>Implementation Capacity</b>	
Clear authority/mandate to consider climate change impacts during public decision-making processes <i>Comment:</i>	Low
Identified strategies for greenhouse gas mitigation efforts <i>Comment:</i>	Low
Identified strategies for adaptation to impacts <i>Comment:</i>	Low
Champions for climate action in local government departments <i>Comment:</i>	Low
Political support for implementing climate change adaptation strategies <i>Comment:</i>	Low
Financial resources devoted to climate change adaptation <i>Comment:</i>	Low
Local authority over sectors likely to be negatively impacted <i>Comment:</i>	Unknown
<b>Public Capacity</b>	
Local residents' knowledge of and understanding of climate risk <i>Comment:</i>	Low
Local residents' support of adaptation efforts <i>Comment:</i>	Unsure
Local residents' capacity to adapt to climate impacts <i>Comment:</i>	Unsure
Local economy's current capacity to adapt to climate impacts <i>Comment:</i>	Low
Local ecosystem's capacity to adapt to climate impacts <i>Comment:</i>	Low
a. High = Capacity exists and is in use; Medium = Capacity may exist, but is not used or could use some improvement; Low = Capacity does not exist or could use substantial improvement; Unsure = Not enough information is known to assign a rating.	

## 1.5 Integration Review

For hazard mitigation planning, “integration” means that hazard mitigation information is used in other relevant planning mechanisms, such as general planning and capital facilities planning, and that relevant information from those sources is used in hazard mitigation. This section identifies where such integration is already in place, and where there are opportunities for further integration in the future. Resources listed at the end of this annex were used to provide information on integration. The progress reporting process described in Volume 1 of the hazard mitigation plan will document the progress of hazard mitigation actions related to integration and identify new opportunities for integration.

### 1.5.1 Existing Integration

Some level of integration has already been established between local hazard mitigation planning and the following other local plans and programs:

- **Building Code** – The City currently enforces and follows codes amended by the Washington State Building Code Council.
- **Zoning Code** —The City’s Zoning Code promotes the health and safety of the population of the City and the land resources while ensuring future growth follows the guidelines by consistency, comprehensive and careful planning.
- **Comprehensive Plan**— The Comprehensive Plan includes how to protect and minimize hazards in the community including fire, flood, hazardous materials, and geologic and seismic hazards.

### 1.5.2 Opportunities for Future Integration

The capability assessment presented in this annex indicates opportunities to integrate this mitigation plan with other jurisdictional planning/regulatory capabilities. Capabilities were identified as integration opportunities if they can support or enhance the actions identified in this plan or be supported or enhanced by components of this plan. The capability assessment identified the following plans and programs that do not currently integrate hazard mitigation information but provide opportunities to do so in the future:

- **Post Disaster Recovery Plan** – **The City does not have a recovery plan but would benefit from developing one as a mitigation planning action.**
- **Capital Improvement Projects**— CIP proposals may take into consideration hazard mitigation potential as a means of evaluating project prioritization.

Taking action to integrate each of these programs with the hazard mitigation plan was considered as a mitigation action to include in the action plan presented in this annex.

## 1.6 Risk Assessment

### 1.6.1 Jurisdiction-Specific Natural Hazard Event History

Table 0-11 lists past occurrences of natural hazards for which specific damage was recorded in this jurisdiction. Other hazard events that broadly affected the entire planning area, including this jurisdiction, are listed in the risk assessments in Volume 1 of this hazard mitigation plan.

**Table 0-11. Past Natural Hazard Events**

Type of Event	FEMA Disaster #	Date	Damage Assessment
Flood	70	March 1957	Not Available
Flood	146	March 1963	Not Available
Drought	3037	March 1977	Damage to farmland crops.
Volcano	623	May 1980	The City was covered in inches of ash. The Clean-Up took several months with business, schools and the community suffering.
Ice, Wind, Snow, Landslide, Flood	1159	December 1996- February 1997	Not Available
Severe Winter Storm, Wind, Landslide, Mudslide	1682	December 2006	Power outages, Vehicle Accidents
Severe Winter Storms, Flooding, Landslides, Mudslides	4309	January 2017	Power outages, roadway heaving
COVID 19	3427	January 2020-present	Ongoing
COVID 19 Pandemic	4481	January 2020- present	Ongoing

### 1.6.2 Hazard Risk Ranking

Table 0-12 presents a local ranking of all hazards of concern for which this hazard mitigation plan provides complete risk assessments. As described in detail in Volume 1, the ranking process involves an assessment of the likelihood of occurrence for each hazard, along with its potential impacts on people, property and the economy. Mitigation actions target hazards with high and medium rankings.

**Table 0-12. Hazard Risk Ranking**

Rank	Hazard	Risk Ranking Score	Risk Category
1	Wildfire	36	High
2	Earthquake	34	High
3	Severe Storms	24	Medium
4	Flooding	18	Medium
5	Drought	9	Low
6	Landslide	0	Low
7	Dam Failure	0	Low
8	Volcano	0	Low

### 1.6.3 Jurisdiction-Specific Vulnerabilities

Volume 1 of this hazard mitigation plan provides complete risk assessments for each identified hazard of concern. This section provides information on a few key vulnerabilities for this jurisdiction. Available jurisdiction-specific risk maps of the hazards are provided at the end of this annex.

## REPETITIVE LOSS PROPERTIES

Repetitive loss records are as follows:

- Number of FEMA-identified Repetitive-Loss Properties: 0
- Number of FEMA-identified Severe-Repetitive-Loss Properties: 0
- Number of Repetitive-Loss Properties or Severe-Repetitive-Loss Properties that have been mitigated: 0

## OTHER NOTED VULNERABILITIES

The following jurisdiction-specific issues have been identified based on a review of the results of the risk assessment, public involvement strategy, and other available resources:

- Water Reservoirs on the highest point of community. These reservoirs were built prior to Seismic Regulation. Mitigation would be a Seismic Retrofit.
- Community Wide concern for wildfires.

Mitigation actions addressing these issues were prioritized for consideration in the action plan presented in this annex.

### 1.7 Status of Previous Plan Actions

Table 0-13 summarizes the actions that were recommended in the previous version of the hazard mitigation plan and their implementation status at the time this update was prepared.

**Table 0-13. Status of Previous Plan Actions**

Action Item from Previous Plan	Completed	Removed; No Longer Feasible	Carried Over to Plan Update Check if Yes	Action # in Update
<b>Initiative #W-MH1 – City of Warden</b>				X
<i>Comment: Back-up power generator for Well #6</i>				

### 1.8 Hazard Mitigation Action Plan

Table 0-14 lists the identified actions, which make up the hazard mitigation action plan for this jurisdiction. Table 0-15 identifies the priority for each action. Table 0-16 summarizes the mitigation actions by hazard of concern and mitigation type.

**Table 0-14. Hazard Mitigation Action Plan Matrix**

Benefits New or Existing Assets	Objectives Met	Lead Agency	Support Agency	Estimated Cost	Sources of Funding	Timeline <sup>a</sup>
<b>Action WA-1</b> —Where appropriate, support retrofitting, purchase, or relocation of structures located in hazard areas, prioritizing those that have experienced repetitive losses and/or are located in high- or medium-risk hazard areas.						
<i>Hazards Mitigated:</i>						
Existing	1-8	City of Warden	Administration, Finance	High	HMGP, BRIC, FMA	Short-term
<b>Action WA-2</b> —Actively participate in the plan maintenance protocols outlined in Volume 1 of this hazard mitigation plan.						
<i>Hazards Mitigated:</i>						
New and Existing	1-8	City of Warden	City Administrator	Low	Staff Time, General Funds	Short-term
<b>Action WA-3</b> —Continue to maintain good standing and compliance under the NFIP through implementation of floodplain management programs that, at a minimum, meet the NFIP requirements:						
<ul style="list-style-type: none"> <li>• Enforce the flood damage prevention ordinance.</li> <li>• Participate in floodplain identification and mapping updates.</li> <li>• Provide public assistance/information on floodplain requirements and impacts.</li> </ul>						
<i>Hazards Mitigated:</i>						
New and Existing	4-7	City of Warden	Planning and Development	Low	Staff Time, General Funds	Ongoing
<b>Action WA-4</b> — Purchase generators for critical facilities and infrastructure that lack adequate backup power, including Potable Wells, Wastewater Lift Stations and Administrative Buildings.						
<i>Hazards Mitigated:</i>						
Existing	1-8	City of Warden	City Administrator, Finance		PWB, CDBG, FMA	Short Term
<b>Action WA-5</b> —Integrate the hazard mitigation plan into other plans, ordinances and programs that dictate land use decisions in the community, including wildfire plans.						
<i>Hazards Mitigated:</i>						
New and Existing	2	City of Warden	City Administrator/ City Public Works	Low	Staff Time, General Funds	Ongoing
a. Short-term = Completion within 5 years; Long-term = Completion within 10 years; Ongoing = Continuing new or existing program with no completion date						
Acronyms used here are defined at the beginning of this volume.						

**Table 0-15. Mitigation Action Priority**

Action #	# of Objectives Met	Benefits	Costs	Do Benefits Equal or Exceed Cost?	Is Project Grant-Eligible?	Can Project Be Funded Under Existing Programs/Budgets?	Implementation Priority <sup>a</sup>	Grant Pursuit Priority <sup>a</sup>
1	4	High	High	Yes	Yes	No	Medium	High
2	7	Medium	Low	Yes	No	Yes	High	Low
3	3	Low	Low	Yes	No	Yes	High	Low
4	6	High	Medium	Yes	Yes	Yes	High	High
5	7	Medium	Low	Yes	No	Yes	High	Medium

a. See the introduction to this volume for explanation of priorities.

**Table 0-16. Analysis of Mitigation Actions**

Hazard Type	Action Addressing Hazard, by Mitigation Type <sup>a</sup>							
	Prevention	Property Protection	Public Education and Awareness	Natural Resource Protection	Emergency Services	Structural Projects	Climate Resilience	Community Capacity Building
<b>High-Risk Hazards</b>								
<b>Wildfire</b>	WA -2,5	WA-2,5	WA-2	WA-1	WA-4	WA-1	WA-5	WA-2,3,4
<b>Earthquake</b>	WA-1,2,5	WA-1,2,4,5	WA-2	WA-2,5	WA-4	WA-1	WA-1,5	WA-1,2,4
<b>Medium-Risk Hazards</b>								
<b>Severe Storms</b>	WA-1,3,4,5	WA-1,2,3,4,5	WA-2	WA-1,2,5	WA-4	WA-1	WA-5	WA-1,4
<b>Flooding</b>	WA-1,2,3,4,5	WA-1,2,3,4,5	WA-2	WA-1,2	WA-4	WA-1	WA-5	WA-1,2,3,4
<b>Low-Risk Hazards</b>								
<b>Drought</b>	WA-1,2,6	WA-1,2,5	WA-2	WA-1	WA-4	WA-1	WA-5	WA-4
<b>Landslide</b>	WA-1,2,3	WA-1,2,3,5	WA-2	WA-1	WA-4	WA-1	WA-5	WA-1,2,3,4
<b>Dam Failure</b>	WA-1,2		WA-2	WA-1	WA-4	WA-1	WA-5	WA-4
<b>Volcano</b>	WA-1,2,5	WA-1,2,4	WA-2	WA-1	WA-4	WA-1	WA-5	WA-1,2,4

a. See the introduction to this volume for explanation of mitigation types.

## 1.9 Public Outreach

Table 0-17 lists public outreach activities for this jurisdiction.

**Table 0-17. Local Public Outreach**

Local Outreach Activity	Date	Number of People Involved

## 1.10 Information Sources Used for This Annex

The following technical reports, plans, and regulatory mechanisms were reviewed to provide information for this annex.

- **City of Warden Municipal Code**—The municipal code was reviewed for the full capability assessment and for identifying opportunities for action plan integration.
- **City of Warden Flood Damage Prevention Ordinance**—The flood damage prevention ordinance was reviewed for compliance with the National Flood Insurance Program.
- **City of Warden Comprehensive Plan** – The comprehensive plan was reviewed for planning documentation













The following outside resources and references were reviewed:

- **Hazard Mitigation Plan Annex Development Toolkit**—The toolkit was used to support the identification of past hazard events and noted vulnerabilities, the risk ranking, and the development of the mitigation action plan.

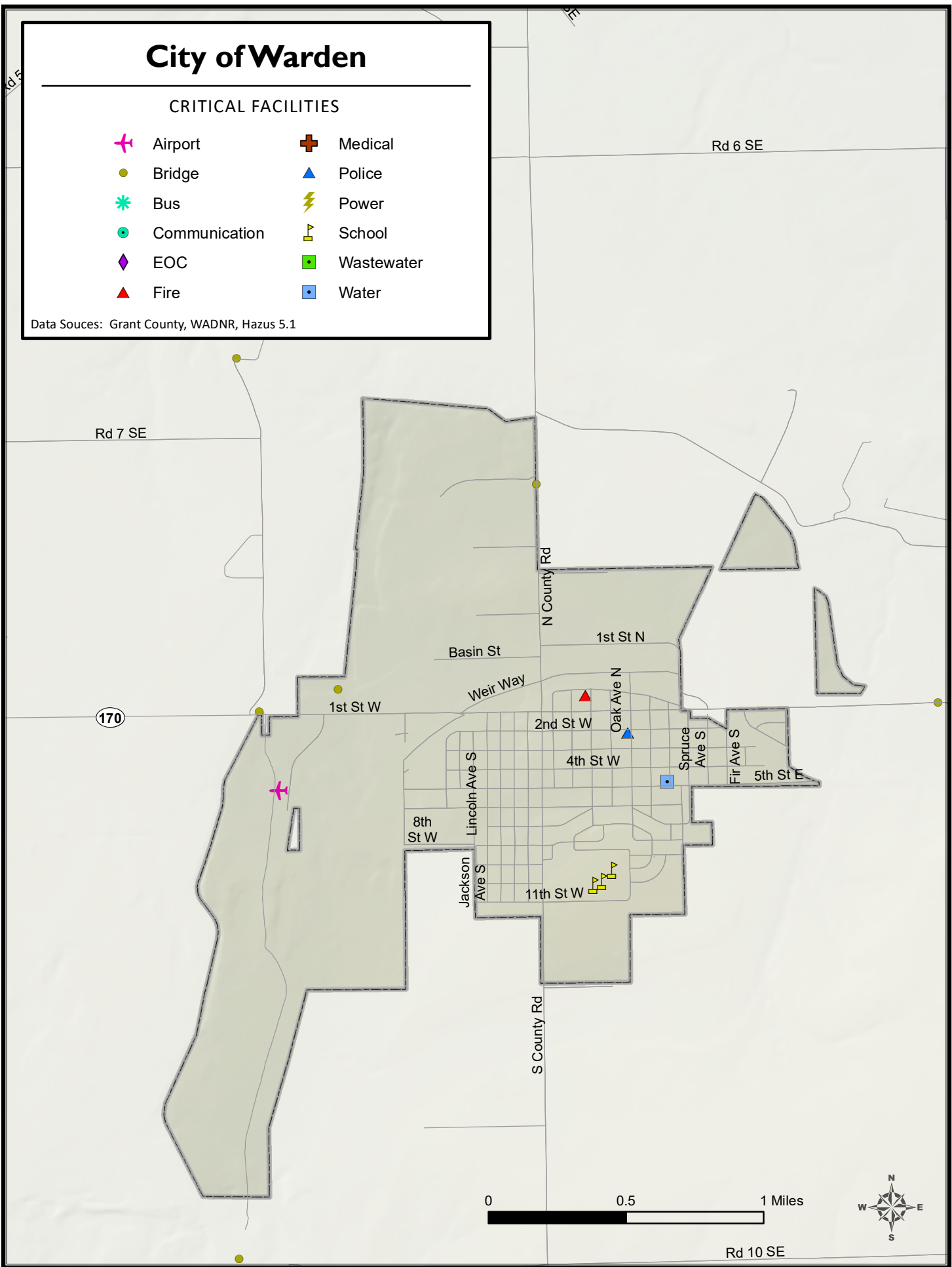


# City of Warden

## CRITICAL FACILITIES

- |   |  |
|---|--|
|  Airport       |  Medical    |
|  Bridge        |  Police     |
|  Bus           |  Power      |
|  Communication |  School     |
|  EOC           |  Wastewater |
|  Fire          |  Water      |

Data Sources: Grant County, WADNR, Hazus 5.1



# City of Warden

## SPECIAL FLOOD HAZARD AREAS

### Flood Zone



1 PCT Annual Chance Flood Hazard



0.2 PCT Annual Chance Flood Hazard

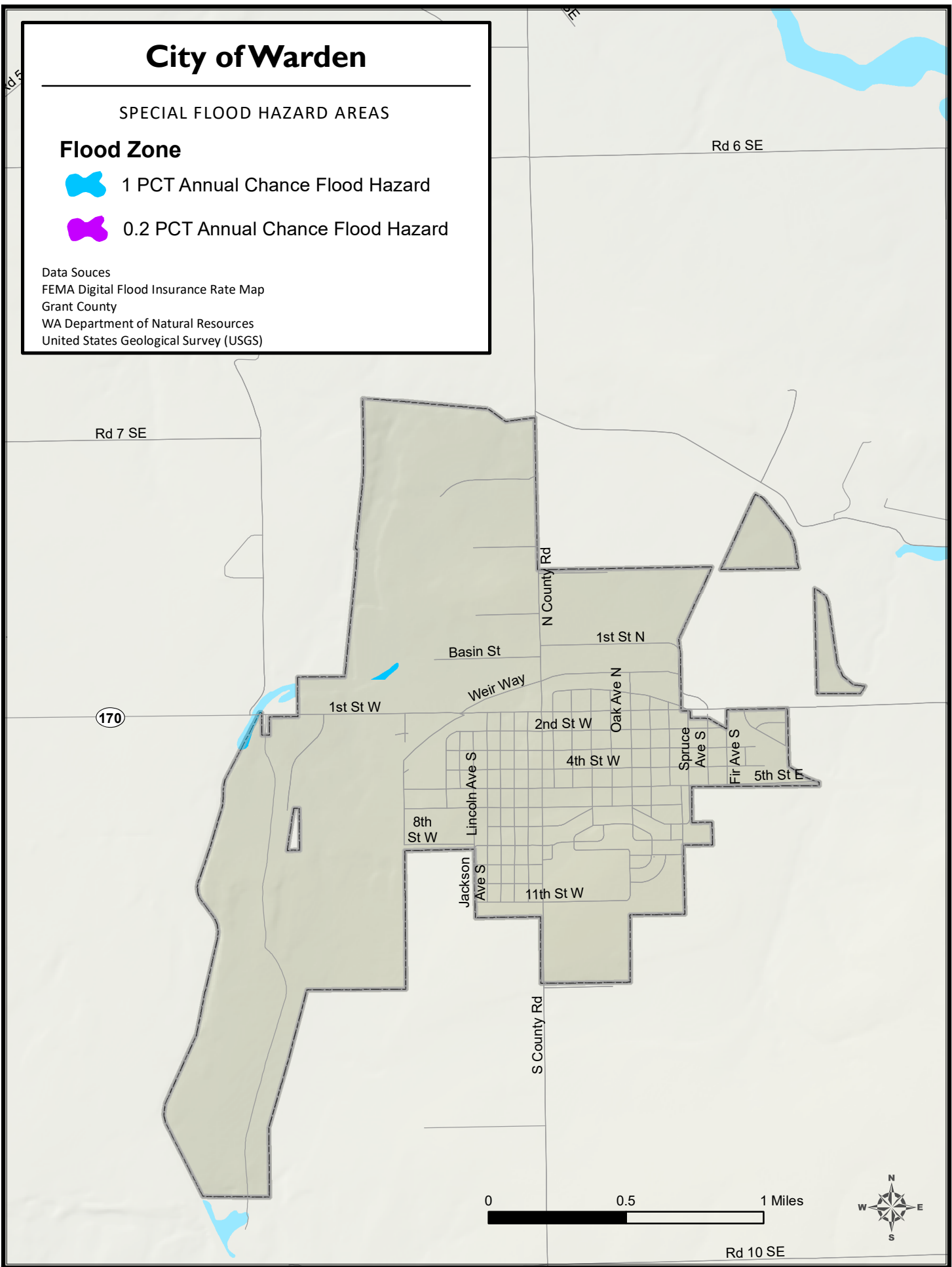
#### Data Sources

FEMA Digital Flood Insurance Rate Map

Grant County



WA Department of Natural Resources

United States Geological Survey (USGS)

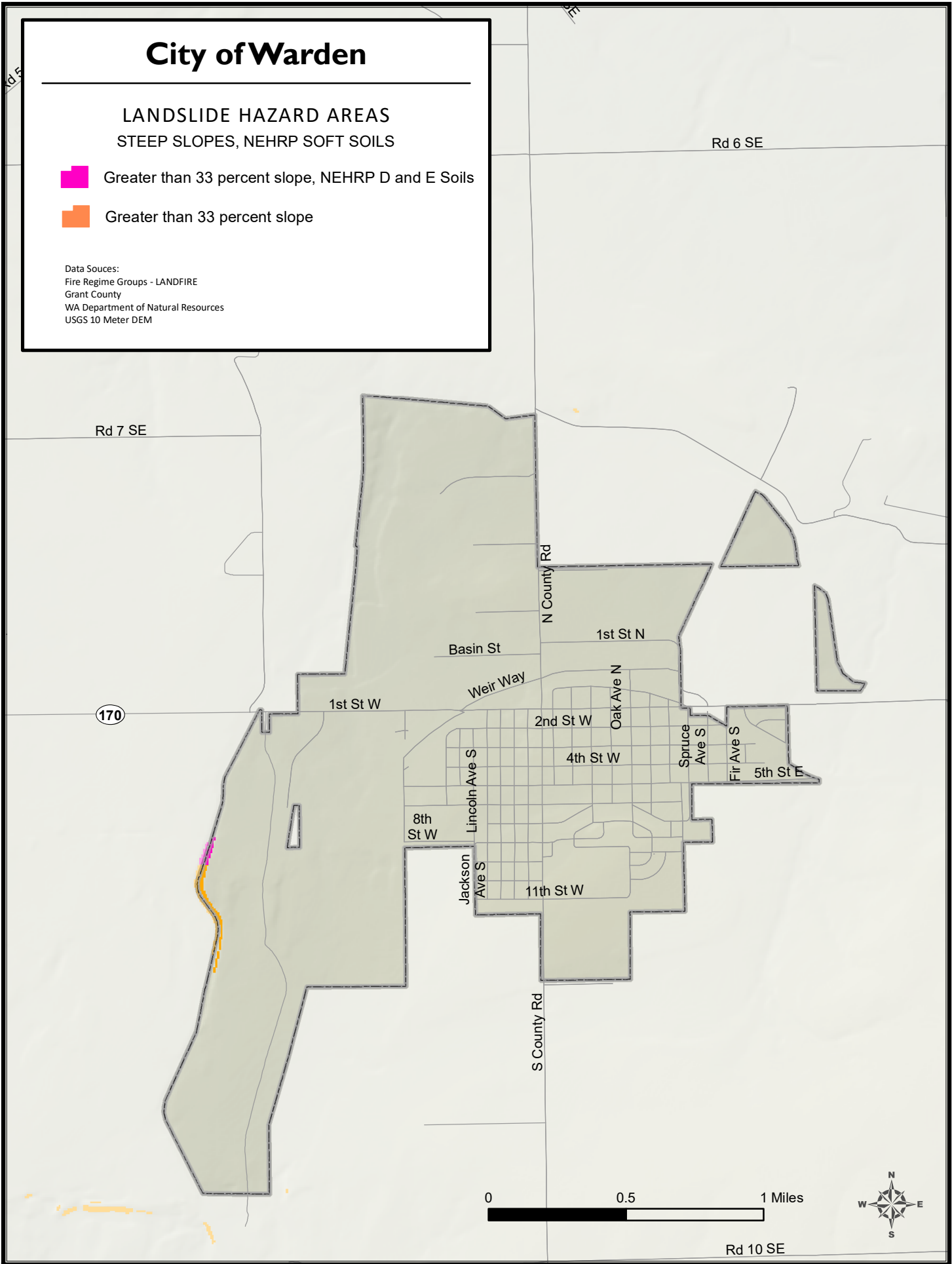


# City of Warden

## LANDSLIDE HAZARD AREAS STEEP SLOPES, NEHRP SOFT SOILS

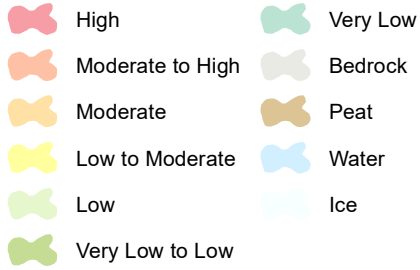
-  Greater than 33 percent slope, NEHRP D and E Soils
-  Greater than 33 percent slope

Data Sources:  
Fire Regime Groups - LANDFIRE  
Grant County  
WA Department of Natural Resources  
USGS 10 Meter DEM

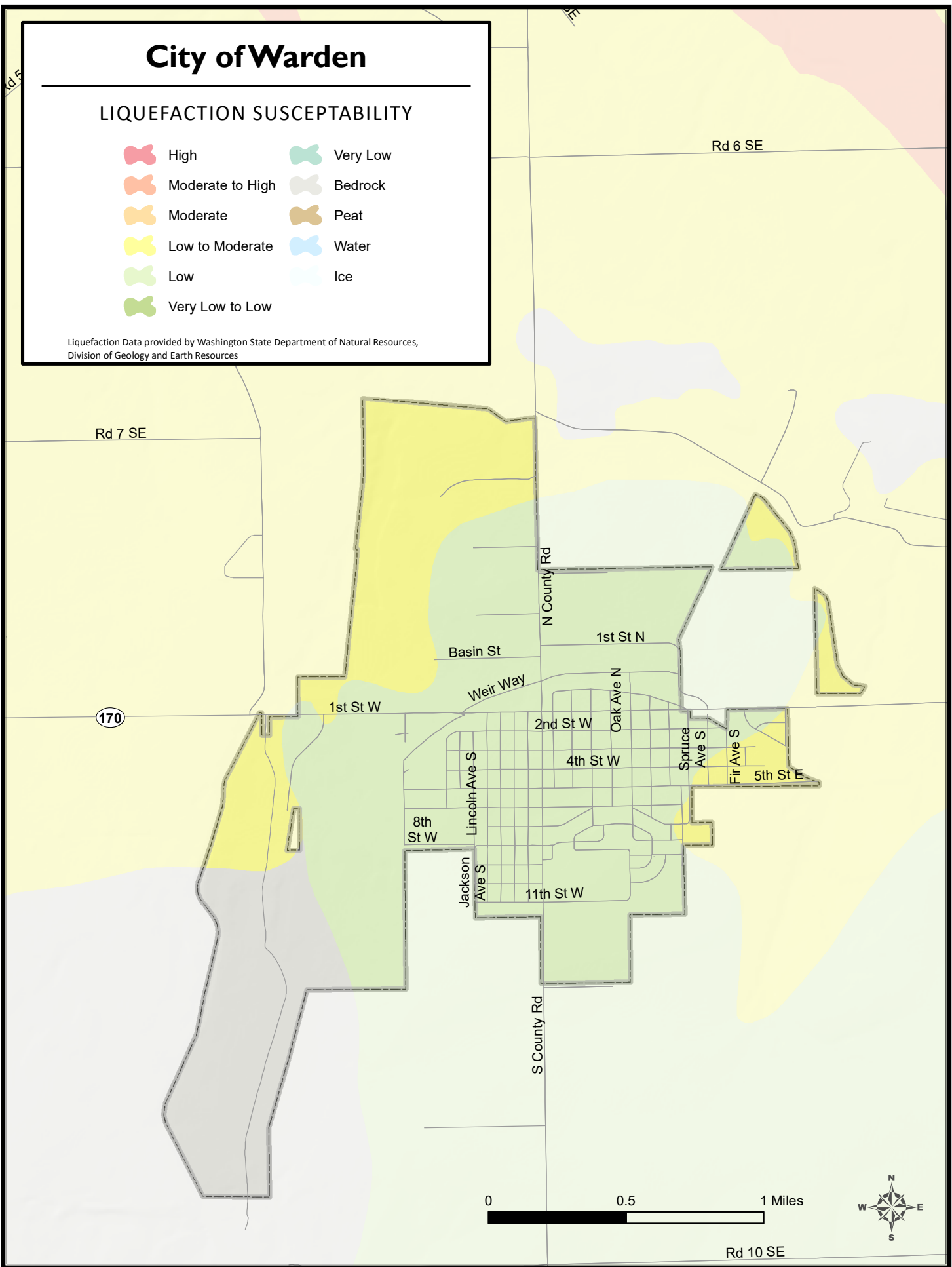


# City of Warden

## LIQUEFACTION SUSCEPTIBILITY













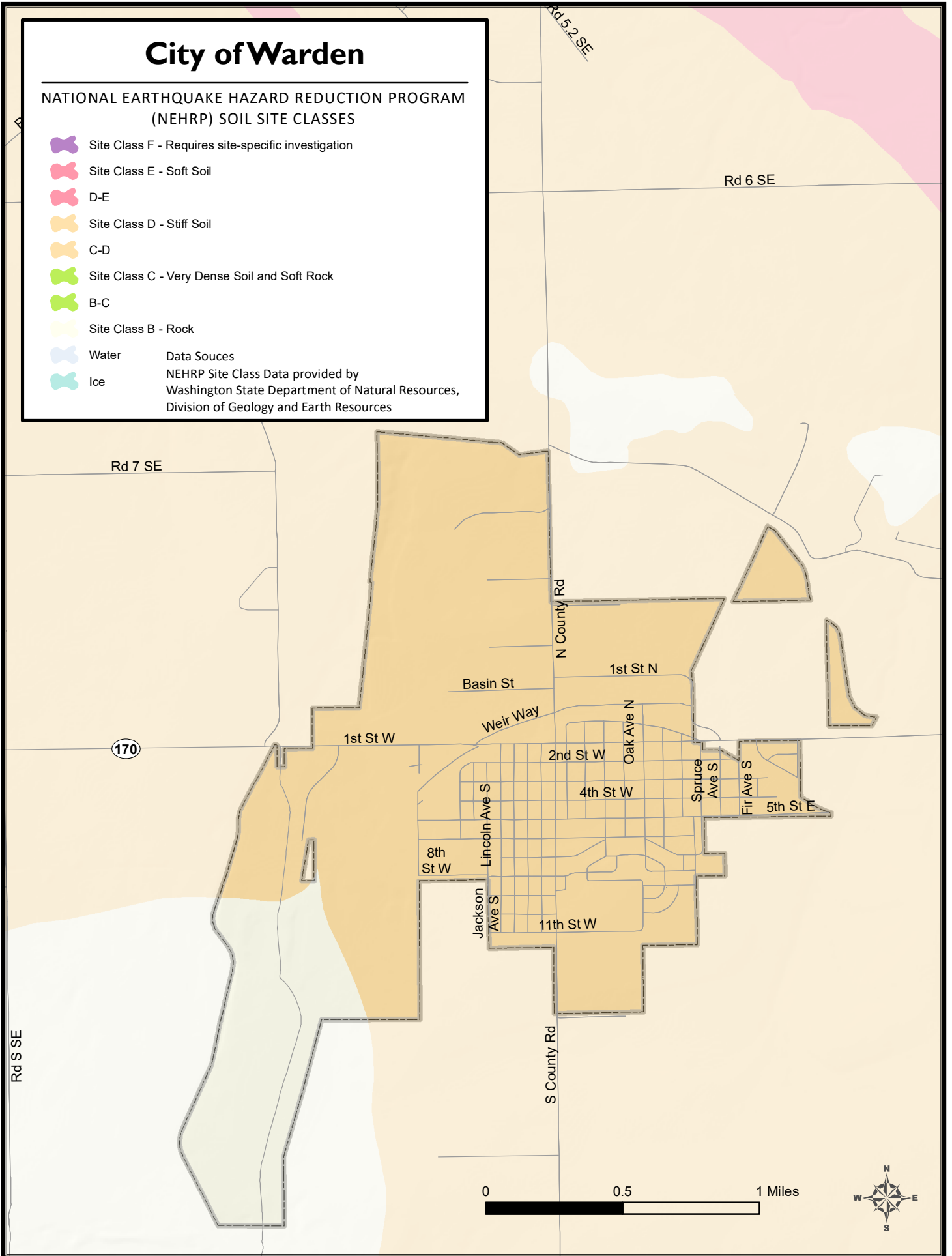
Liquefaction Data provided by Washington State Department of Natural Resources,  
Division of Geology and Earth Resources



# City of Warden

## NATIONAL EARTHQUAKE HAZARD REDUCTION PROGRAM (NEHRP) SOIL SITE CLASSES

-  Site Class F - Requires site-specific investigation
  -  Site Class E - Soft Soil
  -  D-E
  -  Site Class D - Stiff Soil
  -  C-D
  -  Site Class C - Very Dense Soil and Soft Rock
  -  B-C
  -  Site Class B - Rock
  -  Water Data Sources
  -  Ice
- NEHRP Site Class Data provided by  
Washington State Department of Natural Resources,  
Division of Geology and Earth Resources



# City of Warden

## LANDFIRE - FIRE REGIME GROUPS

- Fire Regime Group I
- Fire Regime Group II
- Fire Regime Group III
- Fire Regime Group IV
- Fire Regime Group V

Data Sources:  
Fire Regime Groups - LANDFIRE  
Grant County  
WA Department of Natural Resources

