

## Section 6

### Infrastructure Requirements

***Assessing Vulnerability: Identifying Structures---Requirement §201.6(c)(2) (ii)(A):***

The plan **should** describe vulnerability in terms of the types and numbers of existing and future buildings, infrastructure, and critical facilities located in the identified hazard areas...

- Does the plan describe vulnerability in terms of the **types and numbers** of existing buildings, infrastructure, and critical facilities located in the identified hazard areas?
- Does the plan describe vulnerability in terms of the **types and numbers** of future buildings, infrastructure, and critical facilities located in the identified hazard areas?

***Assessing Vulnerability: Estimating Potential Losses---Requirement §201.6(c)(2) (ii)(B):***

[The plan **should** describe vulnerability in terms of an] estimate of the potential dollar losses to vulnerable structures identified in paragraph (c)(2)(i)(A) of this section and a description of the methodology used to prepare the estimate...

- Does the plan estimate **potential dollar losses** to vulnerable structures?
- Does the plan describe the **methodology** used to prepare the estimate?

**REGION 5 HAZARD MITIGATION PLAN  
MT. VIEW-EDGEWATER WATER COMPANY  
INFRASTRUCTURE SECTION**

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The **Infrastructure** for the **Mt. View-Edgewood Water Company** is displayed in following tables and graphics:

- **Table 6-1 Infrastructure Summary**
- **Table 6-2 Infrastructure Category Summary**
- **Table 6-3 Infrastructure Vulnerability – Dependency Summary**
- **Table 6-4 Infrastructure Vulnerability – Hazard Summary**
- **Table 6-5 Infrastructure Dependency Matrix**
- **Table 6-6 Infrastructure Table**

The tables and graphics show the overview of infrastructure owned by the Mt. View-Edgewood Water Company. The infrastructure is categorized according to the infrastructure sectors as designated by the Department of Homeland Security. These tables are intended as a summary only. For further details on Department of Homeland Security infrastructure sectors, please see the Process Section 1.

**Table 6-1 Infrastructure Summary**

<b>INFRASTRUCTURE SUMMARY<sup>1</sup></b>	
<b>TOTAL INFRASTRUCTURE (#)</b>	19
<b>TOTAL VALUE (\$)</b>	\$34,538,000

**Table 6-2 Infrastructure Category Summary**

<b>INFRASTRUCTURE CATEGORY SUMMARY<sup>2</sup></b>	
<b>EMERGENCY SERVICES</b>	0
<b>TELECOMMUNICATIONS</b>	0
<b>TRANSPORTATION</b>	0
<b>WATER</b>	19
<b>ENERGY</b>	0
<b>GOVERNMENT</b>	0
<b>COMMERCIAL</b>	0

**Table 6-3 Infrastructure Vulnerability – Dependency Summary**

<b>DEPENDENCE</b>	<b># DEPENDENT ON SERVICE</b>	<b>%</b>
<b>RELIANCE ON EMERGENCY SERVICES</b>	1 of 19	5.2%
<b>RELIANCE ON POWER</b>	5 of 19	26.3%
<b>RELIANCE ON SEWER</b>	0 of 19	0%
<b>RELIANCE ON TELECOMMUNICATION</b>	11 of 19	57.8%
<b>RELIANCE ON TRANSPORTATION</b>	0 of 19	0%
<b>RELIANCE ON WATER</b>	0 of 19	0%

**Table 6-4 Infrastructure Vulnerability – Hazard Summary**

<b>HAZARD</b>	<b># IN HAZARD ZONE</b>	<b>%</b>
<b>DROUGHT</b>	0 of 19	0%
<b>EARTHQUAKE</b>	19 of 19	100%
<b>FLOOD</b>	2 of 19	10.5%
<b>LANDSLIDE</b>	3 of 19	15.7%
<b>VOLCANIC</b>	2 of 19	10.5%
<b>WEATHER</b>	19 of 19	100%
<b>WILDLAND/URBAN FIRE</b>	0 of 19	0%

**Table 6-5 Infrastructure Dependency Matrix**

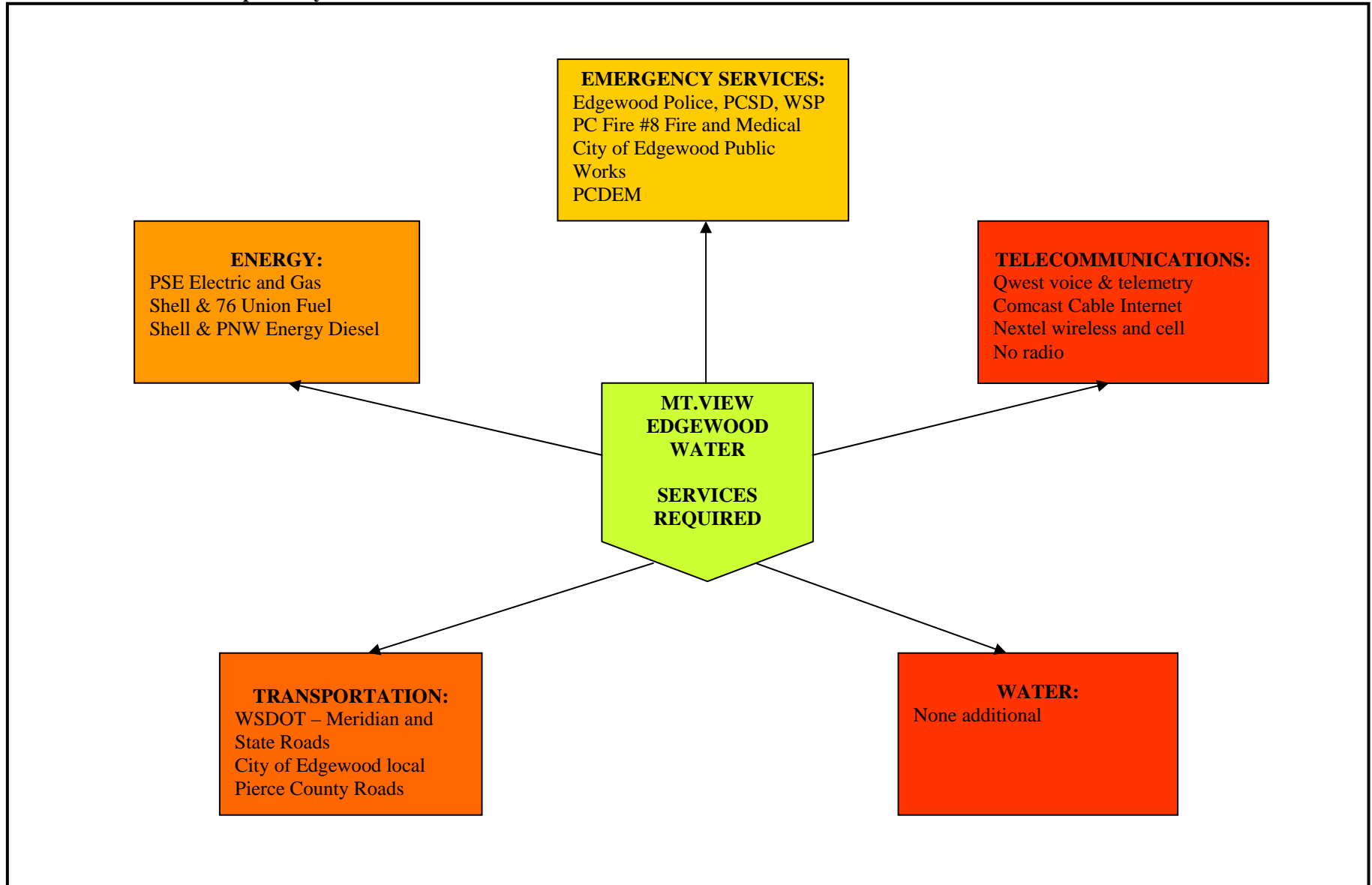


Table 6-6 Infrastructure Table

INFRASTRUCTURE <sup>3</sup>	BUILT <sup>4</sup>	FLOORS	UPGRADES <sup>5</sup>	VALUE	OCCUPANCY	HAZARD										RELIANCE				
						AVAILANCHE	DROUGHT	EARTHQUAKE	WUI FIRE	FLOOD	LANDSLIDE	TSUNAMI	VOLCANIC	WEATHER	EMERGENCY	POWER	SEWER	TELECOMM	TRANSPORT	WATER
Alternate Office (C,12,S)	1945	1	No	150,000	1--0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0
Distribution System (C,12)	1925	55 miles water main, 2900 service connections	Improvements & additions made monthly	21,780,000	0	0	0	1	0	0	1	0	1	1	0	0	0	0	0	0
North Reservoir Booster Station (C,AP,12)	2002	1	No	375,000	1--0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0
North Reservoir (C,AP,12)	2002	1 - 30 ft tall	no	1,150,000	1--0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0
Main Office (C,12,S)	1989	1	no	200,000	4--0	0	0	1	0	0	0	0	1	1	1	2	0	1	0	0
South East Reservoir (C,12)	1954	1 - 50 ft tall	no	600,000	1--0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0
Shop (C,12)	1964	1	1992-addition	575,000	3--0	0	0	1	0	0	0	0	1	1	0	1	0	0	0	0
South West Reservoir (C,12)	1972	1 - 50 ft tall	no	850,000	1--0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0
Tanker Fill Site (C,12)	2001	1	no	125,000	0--0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0
Well 1R (C,AP,12)	1999	1	no	310,000	1--0	0	0	2	0	0	1	0	3	1	0	0	0	1	0	0
Well 2 (C,12)	1968	N/A	no	30,000	0--0	0	0	1	0	0	0	0	1	1	0	0	0	1	0	0
Well 3 (C,12)	1964	1	no	322,000	0--0	0	0	1	0	0	0	0	1	1	0	0	0	1	0	0
Well 5 (C,12)	1970	1	no	331,000	1--0	0	0	1	0	1	0	0	1	1	0	2	0	1	0	0
Well 6 (C,12)	1977	1	no	330,000	1--0	0	0	1	0	1	0	0	1	1	0	2	0	1	0	0
Well 7 (C,12)	1982	1	no	318,000	1--0	0	0	1	0	0	0	0	1	1	0	2	0	1	0	0
Well 8 (C,AP,12)	1982	1	no	308,000	1--0	0	0	1	0	0	1	0	3	1	0	0	0	1	0	0
Well 9 (C,AP,12)	1995	1	no	320,000	1--0	0	0	1	0	0	0	0	1	1	0	0	0	1	0	0
Well 9 Generator (C,AP,12)	1997	1	no	80,000	0--0	0	0	1	0	0	0	0	1	1	0	0	0	1	0	0
Wells 1R&8 Generator (C,AP,12)	2000	1	no	80,000	0--0	0	0	1	0	0	0	0	1	1	0	0	0	1	0	0

**Table 6-7 Infrastructure Table Key – Hazard Ratings**

<b>HAZARD CATEGORY</b>	<b>RATING</b>	<b>SELECTION FACTOR OR DESCRIPTION</b>
<b>Avalanche</b>	0	The infrastructure is not located in a known avalanche prone area.
	1	The infrastructure is in an avalanche prone area but has no prior history of avalanche damage.
	2	The infrastructure is in an avalanche prone area and has experienced some limited avalanche damage in the past.
	3	The infrastructure is in an avalanche prone area and has experienced significant avalanche damage.
<b>Drought</b>	0	The infrastructure would not suffer any damage or operational disruption from a drought.
	1	The infrastructure could suffer some damage or minor operational disruption from a drought.
	2	The infrastructure has suffered damages or significant operational disruption from past droughts.
	3	The infrastructure has suffered damages or significant disruption from past droughts which has had serious community economic or health consequences.
<b>Flood</b>	0	The infrastructure is not located in a known flood plain or flood prone area.
	1	The infrastructure is in a flood plain or flood prone area but has no prior history of flood damage.
	2	The infrastructure is in a flood plain or flood prone area and has experienced some flood damage in the past.
	3	The infrastructure is in a flood plain or flood prone area and has experienced significant flood damage, or the property is an NFIP repetitive loss property.
<b>Earthquake</b>	0	The infrastructure is not located in an area considered to have any significant risk of earthquake
	1	The infrastructure is in an area considered as at risk to earthquakes but has no prior history of earthquake damage.
	2	The infrastructure is in an area considered as at risk to earthquakes, is located on soft soils, and has no history of damage OR In an area considered as at risk to earthquakes and has experienced some limited earthquake damage.
	3	The infrastructure is in an area considered as at risk to earthquakes, is located on soft soils and experienced significant earthquake damage.
<b>Landslide</b>	0	The infrastructure is not located in a known area considered vulnerable to landslides.
	1	The infrastructure is in area vulnerable to landslides but has no prior history of landslides.
	2	The infrastructure is in area vulnerable to landslides area and infrastructure has experienced some landslide damage.
	3	The infrastructure is in area vulnerable to landslides and infrastructure has experienced significant landslide damage.
<b>Major U/I Fire</b>	0	The infrastructure meets the current fire code, has adequate separation from other structures and good access, and is not close to heavily vegetated areas.
	1	The infrastructure meets the current code, is not close to heavily vegetated areas, but access and/or separation from nearby structures increase fire risk.
	2	The infrastructure does not meet current fire code, is in or adjacent to large vegetated areas, and has inadequate access and/or separation from other structures.

HAZARD CATEGORY	RATING	SELECTION FACTOR OR DESCRIPTION
	3	The infrastructure does not meet the current code, is in or adjacent to vegetated areas, with access limitations or structure separation making fire suppression difficult.
<b>Severe Weather</b>	0	The infrastructure would not suffer any damage or operational disruption from severe weather.
	1	The infrastructure could suffer some damage or minor operational disruption from severe weather.
	2	The infrastructure has suffered damages or significant operational disruption from past severe weather.
	3	The infrastructure has suffered damages or significant disruption from past severe weather which has had serious community economic or health consequences.
<b>Tsunami/or Seiche</b>	0	The infrastructure is not located in or near a known area considered to be a tsunami or seiche inundation area.
	1	The infrastructure is located at the edge of a designated tsunami or seiche risk zone.
	2	The infrastructure is located just inside a designated tsunami or seiche risk zone, but has no prior damage.
	3	The infrastructure is located well inside a designated tsunami or seiche risk zone, and/or has experienced prior tsunami or seiche damage.
<b>Volcanic</b>	0	The infrastructure is not located in or near a known area with significant risk from volcanic hazards.
	1	The infrastructure is in or near an area that could receive some ashfall, but has no structural features, equipment or operations considered vulnerable to ash.
	2	The infrastructure is in or near an area where heavy ashfall or a debris flow could occur.
	3	The infrastructure is in an area known to have experienced heavy ashfall, debris flow or blast effects from past volcanic activity.

**Table 6-8 Infrastructure Table Key – Dependency Ratings**

EXTERNAL DEPENDENCY CATEGORY	RATING	SELECTION FACTOR OR DESCRIPTION
<b>Emergency Services</b>	0	The infrastructure can maintain essential functions without emergency services.
	0	The infrastructure has ability to independently provide emergency services to all essential functions of infrastructure.
	1	The infrastructure would have to <u>curtail</u> operations somewhat without emergency services with <u>no</u> direct economic/environmental/safety/health consequences.
	2	The infrastructure would have to <u>curtail</u> operations somewhat without emergency services with <u>some</u> direct economic/environmental/safety/health consequences. OR <u>stop</u> operations with <u>no</u> direct economic/environmental/safety/health consequences.
	3	The infrastructure would have to <u>stop</u> its operations without emergency services and <u>significant</u> economic/environmental/safety/health consequences will occur.
<b>Power Outage</b>	0	The infrastructure can maintain essential functions without electricity or gas supply.
	0	Infrastructure has ability to independently provide power to all essential functions of infrastructure.
	1	The infrastructure would have to <u>curtail</u> operations somewhat without gas or electrical supply, with <u>no</u> direct economic/environmental/safety/health consequences.
	2	The infrastructure would have to <u>curtail</u> operations somewhat without gas or electrical supply, with <u>some</u> direct economic/environmental/safety/health consequences. OR <u>stop</u> operations with <u>no</u> direct economic/environmental/safety/health consequences.
	3	The infrastructure would have to <u>stop</u> its operations without gas or electrical supply and <u>significant</u> economic/environmental/safety/health consequences will occur.
<b>Sewer Out</b>	0	The infrastructure can maintain essential functions without sewer service
	0	The infrastructure has ability to independently provide wastewater or septic service to support essential functions.
	1	The infrastructure would have to <u>curtail</u> operations somewhat without wastewater service, with <u>no</u> direct economic/environmental/safety/health consequences.
	2	The infrastructure would have to <u>curtail</u> operations somewhat without wastewater service, with <u>some</u> direct economic/environmental/safety/health consequences. OR <u>stop</u> operations with <u>no</u> direct economic/environmental/safety/health consequences.
	3	The infrastructure would have to <u>stop</u> its operations without wastewater service and <u>significant</u> economic/environmental/safety/health consequences will occur.
<b>Telecomm Failure</b>	0	The infrastructure can maintain essential functions without telecommunications.
	0	The infrastructure has ability to independently provide phone service or alternate/redundant communications systems to support essential functions.
	1	The infrastructure would have to <u>curtail</u> operations somewhat without telecommunication service, with <u>no</u> direct economic/environmental/safety/health consequences.
	2	The infrastructure would have to <u>curtail</u> operations somewhat without telecommunication service, with <u>some</u> direct economic/environmental/safety/health consequences. OR <u>stop</u> operations with <u>no</u> direct economic/environmental/safety/health consequences.
	3	The infrastructure would have to <u>stop</u> its operations without telecommunication service and <u>significant</u> economic/environmental/safety/health consequences will occur.
<b>Transportation</b>	0	The infrastructure can maintain essential functions without transportation routes.
	0	Infrastructure has ability to independently provide alternate transportation, in the absence of transportation routes, to ensure all essential functions.
	1	The infrastructure would have to <u>curtail</u> operations somewhat without transportation routes with <u>no</u> direct economic/environmental/safety/health consequences.
	2	The infrastructure would have to <u>curtail</u> operations somewhat without transportation routes with <u>some</u> direct economic/environmental/safety/health consequences. OR <u>stop</u> operations with <u>no</u> direct economic/environmental/safety/health consequences.
	3	The infrastructure would have to <u>stop</u> its operations without transportation routes and <u>significant</u> economic/environmental/safety/health consequences will occur.

EXTERNAL DEPENDENCY CATEGORY	RATING	SELECTION FACTOR OR DESCRIPTION
<b>Water Supply</b>	0	The infrastructure can maintain essential functions without its water supply.
	0	The infrastructure has ability to independently provide water to support essential functions.
	1	The infrastructure would have to <u>curtail</u> operations somewhat without water supply, with <u>no</u> direct economic/environmental/safety/health consequences.
	2	The infrastructure would have to <u>curtail</u> operations somewhat without water supply, with <u>some</u> direct economic/environmental/safety/health consequences. OR <u>stop</u> operations with <u>no</u> direct economic/environmental/safety/health consequences.
	3	The infrastructure would have to <u>stop</u> its operations without its water supply and <u>significant</u> economic/environmental/safety/health consequences will occur.

# Endnotes

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<sup>1</sup> This is a total of infrastructure and the approximate value provided by the jurisdiction. If no value, then value was not provided or not available.

<sup>2</sup> These are the Homeland Security Infrastructure Categories which were used in completing the Infrastructure Tables in the plan.

<sup>3</sup> The following table explains the codes used in this column:

<b>Code</b>	<b>Explanation</b>
C	Infrastructure critical in first 72 hours after disaster
AP	Infrastructure has auxiliary or backup power
(#)	Homeland Security Infrastructure Category Number
S	Infrastructure is a designated community shelter

<sup>4</sup> The “built” column refers to the year in which the original infrastructure was constructed.

<sup>5</sup> This column addresses major remodels, upgrades or additions to the infrastructure in dollar amount and/or year of changes.