

Instructions for Completing Hazard Vulnerability Worksheet

The purpose of this worksheet is to provide a format for listing specific facilities and then scoring them in each of the various areas of vulnerability listed across the top of the page. The total of these scores will provide a “vulnerability score” that can be used to identify facilities with higher than average vulnerabilities, and then allow the owner/operator to evaluate the facility for potential mitigative actions that can reduce that vulnerability.

This worksheet is designed to capture all facilities that are the responsibility of one department within an organization in order that the contact person shown on the worksheet will be the same for all facilities listed. For example, the appropriate utility department and contact person information would be the same on each worksheet if all facilities were sewage system related. If some of the facilities were part of the water system and operated by another person within the utility, then a separate set of worksheets would be completed.

In the event there are numerous facilities that each have a different operating department and contact person, it may be more appropriate to complete a “Critical Facilities Inventory Form” on each rather than use a worksheet for only one or two facilities. This would allow the person scoring the facilities to list all of the disjoint facilities on the worksheet for scoring, but would have the detailed owner/operator information on separate inventory forms so they could be entered into a database.

The following instructions should help the person doing the scoring understand the meaning of each area of the worksheet.

Date: Enter the date this worksheet was completed.

Jurisdiction: Print the name of the jurisdiction that the facilities on this report are located in. If the location is in the unincorporated county then enter the name of the County.

Organization: What is the name of the jurisdiction or organization that actually owns the facility?

Department: If there is a specific department within the jurisdiction or organization that is responsible for the facilities on this report, print the name of that department.

Facility Name and Address: Print the name of the facility and its physical address in one of the spaces on the form. Include the City and Zip Code (preferably nine digit code). The physical address is necessary for GIS mapping purposes. If the latitude and longitude are known for the facility, print them below the address.

Contact Person, Title, Etc: Print the name, title, mailing address, phone and fax for the person that is to be contacted for questions about the facilities listed. This would most appropriately be the individual that did the scoring on the facilities.

Scoring the Facilities for Vulnerability

Facility Category: How critical the facility is to the operation of the organization.

0	Can be more than 72 hours before regaining operational capability
1	Must be operationally capable within 24 to 72 hours
2	Must be operationally capable within 24 hours or less
3	Must not lose operational capability

Facility Type: Which of the following classifications does this facility fall within?

- GG** - General Government (Government offices, recreation facilities, courthouses, etc.)
- PS** - Public Safety (Fire or police stations, EOCs, radio/warning systems, jails, bridges, etc.)
- PH** - Public Health (Hospitals, clinics, health departments, etc.)
- HC** - Health Care (Nursing homes, mental health facilities, etc.)
- UT** - Utility (Power, phone/cell, water, sewer, stormwater, natural gas, etc.)
- PC** - Private/Commercial (facilities owned by the private sector, other than utilities)

Public or Private: Is this a public or privately owned facility?

- PUB** – Public
- PRI** – Private

Subject to High Winds: How vulnerable is the facility to “sustained” winds of 74 mph or greater.

0	This facility is not particularly vulnerable to high winds due to its construction, profile, design or other factor.
1	This facility is probably <u>vulnerable to a minor degree</u> to the effects of high winds due to one or more of the following characteristics: its construction, profile, design, lack of protection for building openings, high surface area walls, gable ends, expansive ceiling systems, or its exposure to a tree lay down zone.
2	This facility is <u>moderately vulnerable</u> to the effects of high winds due to one or more of the following characteristics: its construction, profile, design, lack of protection for building openings, high surface area walls, gable ends, expansive ceiling systems, or its exposure to a tree lay down zone.
3	This facility is <u>highly vulnerable</u> to the effects of high winds due to one or more of the following characteristics: its construction, profile, design, lack of protection for building openings, high surface area walls, gable ends, expansive ceiling systems, or its exposure to a tree lay down zone.

Vulnerability to Flooding:

0	This facility is not vulnerable to flooding and has no history of flood damage.
1	This facility is in a flood prone area and/or has had some minor flooding incidents from ponding in parking or grassy areas; but has no history of financial impact.
2	The facility is located within a flood prone area and/or has experienced periodic flooding with only minor financial impact.
3	The facility has a history of flooding and/or has experienced moderate to heavy financial impact from a flood incident.

Vulnerability to Storm Surge:

0	This facility is not subject to damage from a storm surge.
1	This facility is located within a designated storm surge zone, but probably would not sustain damage unless affected by a Category 4 or 5 storm.
2	This facility is located within a designated storm surge zone, but probably would not sustain damage unless affected by a Category 3 storm.
3	This facility is located within a designated storm surge zone, and would probably sustain damage if affected by a Category 1 or 2 storm.

History of Damage:

0	This facility has no history of flood, wind and/or subsidence damage.
1	This facility has had at least one incident of flood, wind and/or subsidence damage that resulted in a loss of less than \$1,000 (One Thousand Dollars).
2	This facility has had at least one incident of flood, wind and/or subsidence damage that resulted in a loss of more than \$1,000 (One Thousand Dollars) but less than \$44,800 (Forty Four Thousand Eight Hundred Dollars).
3	This facility has had at least one incident of flood, wind and/or subsidence damage that resulted in a loss of more than \$44,800 (Forty Four Thousand Eight Hundred Dollars).

Subject to Earth Movement or Loss: This category focuses on damage from water action, not from the potential damage of a sinkhole.

0	This facility is not subject to “the undermining of the ground it rests upon” from any wave or water (canal, river, dam, etc.) action.
1	This facility has some possibility of earth loss from its foundation from riverine flooding.
2	This facility would probably suffer some deterioration of its foundation from riverine flooding or wave action.
3	This facility has a high probability of deterioration of its foundation from wave action due to its location on the coastline.

Vulnerable to Power Outage:

0	This facility has an onsite generator capable of supporting the entire facility.
1	This facility can lose power but an onsite generator will support only part of the facility; or the building is configured to accept a dedicated portable generator that is readily available. A power outage at this facility will cause some minor difficulties for customers and/or users of this facility until power is restored.
2	This facility is configured to accept a portable generator, but that generator may have to be shared with other facilities depending on the situation. A power outage may create moderate difficulties for customers and/or users of this facility until power is restored.
3	This facility has no emergency power capabilities and/or a power outage may create major difficulties for customers and/or users of this facility until power is restored.

Vulnerability to Lightning: This category is intended to score the facility in question for the effects of the electrical surge from a lightning strike. It is assumed that most facilities could be affected by a fire caused by a direct strike on a structure.

0	This facility is not particularly vulnerable to lightning due to its location, construction, profile or the fact that there are protective systems in place.
1	This facility is vulnerable to lightning, but equipment on site is not of a nature that disruption from a strike would create a public safety/health problem or do major damage to critical systems.
2	This facility is vulnerable to lightning, has critical systems and/or equipment, but protective measures have been taken to lessen the likelihood of system failure from a strike.
3	This facility is vulnerable to lightning and a strike would create a public safety/health problem and/or critical systems will go down. No protective systems are in place.

Vulnerable to Roadway Blockage by Debris or Flooding of Access Roads:

0	This facility is not vulnerable to roadway blockage, or it is a critical facility that will receive immediate attention from road clearing crews.
1	This facility is vulnerable to roadway blockage, but personnel assigned to this facility are equipped to gain access within 12 to 24 hours.
2	This facility is vulnerable to roadway blockage and will need attention. Road closure in excess of 24 hours will create moderate problems for the facility owner, and/or customers and employees.
3	This facility is highly vulnerable to roadway blockage, and inaccessibility will create moderate to severe problems for the facility owner, and/or customers and employees or no plan is in place to clear the roads or ensure accessibility.

Dependent upon Water Supply:

0	This facility can operate without a normal water supply for over 72 hours. Either the process provided at this facility does not require water or a reserve water supply system is located onsite.
1	This facility can operate without a normal water supply for between 24 and 72 hours. After that period processes and/or onsite staff will experience difficulties.
2	This facility must have a normal water supply within 24 hours or processes and/or onsite staff will be unable to function.
3	This facility must not lose a normal water supply.

Vulnerable to Sewer System Outage:

0	This facility is not vulnerable to a sewer system outage.
1	A sewer system outage would cause minor problems for or because of this facility.
2	A sewer system outage would cause moderate problems for or because of this facility.
3	A sewer system outage would cause major problems for or because of this facility.

Dependent upon Communications:

0	This facility is not vulnerable to communications equipment failure.
1	This facility could lose communications capability without major problems as long as that capability is restored within 24 to 72 hours.
2	This facility will experience major problems if communications capability is not restored within the first 24 hours.
3	This facility must not lose communications capability.

Disruption causes Health & Safety Hazard:

0	A disruption of this facility poses no hazard to Health & Safety.
1	A disruption of this facility could cause some problems to Health & Safety under certain circumstances.
2	A disruption of this facility for more than 24 hours will likely create Health & Safety problems.
3	A disruption of this facility will absolutely create Health & Safety problems.

Disruption would cause Psychological Hardship:

0	A disruption of this facility will cause no psychological hardships.
1	A disruption of this facility for between 24 and 72 hours could cause minor to moderate psychological hardships.
2	A disruption of this facility for over 24 hours would likely cause psychological hardships.
3	A disruption of this facility for any length of time will cause psychological hardships.

Disruption would have Economic Impact:

0	Disruption of this facility should not cause any meaningful economic impact.
1	Disruption of this facility should cause some economic impact.
2	Disruption of this facility should cause moderate economic impact.
3	Disruption of this facility should cause major economic impact.

Disruption impacts Community Services:

0	Disruption of this facility would not affect Community Services.
1	Disruption of this facility could affect certain non-critical Community Services.
2	Disruption of this facility could affect one or more important Community Services.
3	Disruption of this facility could affect a critical Community Service.

Environmental Problems could occur:

0	Damage to this facility will create no environmental problems.
1	Damage to this facility may create certain short-term environmental problems.
2	Damage to this facility may create a health hazard and/or certain long-term environmental problems.
3	Damage to this facility may create a situation that is life threatening and/or has long-term environmental implications.

Facility has Historic Value:

0	This facility has no historic value.
1	This is a historic structure, but can be repaired without compromise.
2	This is a historic structure and/or contents that have a historic value that would be difficult to repair or replace without compromising that value.
3	This structure and/or its contents have historic value that can neither be replaced or repaired.

Facility impacts Agriculture:

0	Damage to this facility and/or its contents would have no affect on Agriculture.
1	Damage to this facility and/or its contents will have some affect on Agriculture.
2	Damage to this facility and/or its contents will have moderate affect on Agriculture.
3	Damage to this facility and/or its contents will create a situation that has a major affect on Agriculture.

Hazardous Materials:

0	Hazardous Materials is not a concern with this facility.
1	This facility is not considered a hazardous materials site, but periodically uses materials and/or processes that could create a minor hazard.
2	This facility is not considered a hazardous materials site, but does contain some materials or processes that could create health and environmental problems or a there is a facility within close proximity that could create hazardous materials problems for this facility.
3	This facility is considered a hazardous materials site. Damage to this facility will likely create a situation with moderate to major health, safety and/or environmental implications.

Subject to Major Fire:

0	This facility does not face a high risk of major urban fire or wildland fire.
1	This facility is in a position to face the risk of major urban fire or wildland fire, but the threat is considered minor.
2	This facility is in a location that makes it moderately vulnerable to the threat of a major urban fire and/or wildland fire.
3	This facility is located in a position that makes it highly vulnerable to a major urban fire and/or wildland fire.

Vulnerability Score:

This number will reflect the sum of the scores in the row corresponding to each facility. The overall score will help identify areas of vulnerability that need to be addressed and give an indication as to the types of mitigation initiatives that need to be recommended for the facility in question. Overall scores of all submitted facilities would be ranked and prioritized for further evaluation; the higher the score, the more closely the facility would be studied for mitigation initiatives.

Date: _____

Jurisdiction: _____

Organization: _____

Department: _____

Critical Facility or Essential Community Element	<i>Facility Category</i>	<i>Facility Type</i>	<i>Public(Pub)/Private(Pri)</i>	<i>Subject to High Winds</i>	<i>Vulnerability to Flooding</i>	<i>Vulnerability to Storm Surge</i>	<i>History of Damage</i>	<i>Subject to Earth Movement, Loss</i>	<i>Vulnerable to Power Outage</i>	<i>Vulnerability to Lightning</i>	<i>Vulnerable to Roadway Blockage</i>	<i>Dependent on Water Supply</i>	<i>Vulnerable to Sewer System Outage</i>	<i>Dependent on Communications</i>	<i>Disruption creates Health & Safety Hazard</i>	<i>Disruption would cause Psychological Hardship</i>	<i>Disruption would have Economic Impact</i>	<i>Disruption impacts Community Services</i>	<i>Environmental problems could occur</i>	<i>Facility has Historic Value</i>	<i>Facility impacts Agriculture</i>	<i>Hazardous Materials</i>	<i>Subject to Major Urban or Wildland Fire</i>	<i>Vulnerability Score</i>
Facility Name & Address																								
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Vulnerability Assessment Worksheet

Contact Person: _____, Title: _____, Mail Address/Zip: _____, Phone/Fax: _____ / _____