Additional Data Needs and Information for a Community Risk and Vulnerability Assessment



NOAA Office for Coastal Management coast.noaa.gov/digitalcoast/tools/flood-exposure.html

This page provides additional data and information needs as well as topics for consideration during community risk and vulnerability discussions.

Hazards

Name	Description	Where to Get It	Significance
Coastal Erosion	Areas impacted by coastal erosion	Office of emergency management, planning department	Identifies areas where coastal erosion is problematic
Earthquake	National Seismic Hazard Maps	U.S. Geological Survey	Maps and data of earthquake hazards
Liquefaction Susceptibility	Areas prone to liquefaction during seismic events	U.S. Geological Survey	Identifies areas with high earthquake damage risk
Wildfire	Federal fire occurrence data for the time period 1980 to 2012	U.S. Geological Survey	View locations of previous wildfires
Landslides	Areas where large numbers of landslides have occurred and areas which are susceptible to landsliding in the conterminous United States	U.S. Geological Survey	Identifies locations of landslide risk

Additional Topics to Consider in Your Discussions:

- What other hazards are occurring (e.g. heavy rain, hotter nights)?
- How often does it flood in your community?
- Are there hot spots or problem areas not showing up on the maps?
- How often are you seeing impacts?
- Have you noticed any changes in the frequency of these events?
- Is hazards information being used to inform community development decisions, policies, programs, and projects?

Societal Exposure

Name	Description	Where to Get It	Significance
Major Employers	Major employers	Planning department, economic and community development	Identifies locations of largest employers and type of industry
Economic Sectors	Economic sectors	Planning department, economic and community development	Identifies what economic sectors the community has invested in
Other Demographic Information	Access to transportation, disabilities, language, ethnicity, race, education, mobile homes	Planning department, community and housing development Census	Provides more information on the social conditions of your population

Additional Topics to Consider in Your Discussions:

People

- What other information can help you determine how susceptible these populations are to hazards?
- How much and where is your population growing or decreasing?
- What will their needs be related to special care, affordable housing, or transportation?
- What makes the people in your community strong (e.g., support networks, church)? What types of activities or programs are geared towards helping people who have vulnerabilities?
- Is hazards information being used to inform these programs and activities?

Economy

- In what sectors does your population work?
- Is your community reliant on a single sector?
- Who are your largest employers?

- Where are they located?
- Where are your economic centers located? Is hazards information being used to inform economic decisions, policies, programs, and projects?

Infrastructure Exposure

Name	Description	Where to Get It	Significance
Land Use	How land is being used	City or county assessor office; planning department	Land uses exposed to hazards
Future Land Use	Proposed land use	City or county assessor office; planning department; land information office	Proposed land uses exposed to hazards
Public and Private Utilities	Water, wastewater, pump stations, treatment facilities, sewer, culverts	Utilities departments; private sector	Used to identify utilities exposed to hazards
Transportation	Roads, bridges, ports, marinas	Planning department	Used to identify transportation systems exposed to hazards
Hazard Mitigation Plan	Information on risks and vulnerabilities	Emergency management or planning department; state hazard mitigation officer	Will contain information on critical infrastructure vulnerabilities and hazard mitigation actions
Past Damages, Insurance Claims, Complaints	Information on flooding occurrences, types of damages, other hazard impacts	Floodplain manager, planning department, emergency management department	Helps pinpoint localized flooding and other damage issues
Private sector risk and vulnerability assessments	Infrastructure risk and vulnerability assessments	Utilities, businesses, regional planning commissions, private sector	Provides information on infrastructure vulnerabilities and potentially mitigation actions to reduce impacts

Additional Topics to Consider in Your Discussions:

- What kinds of development (e.g., roads, housing, pump stations) are located in these areas?
- What happens if that infrastructure or structure is damaged or destroyed?

- What will damages cost?
- How much and where is your population growing?
- Is this driving development in hazard-prone areas?
- Will this development take away natural areas that are providing protective, recreational, and economic services?
- Will it actually cost you more than the revenue generated from taxes to maintain the services to these areas if they are continually being damaged?
- Is hazards information being used to inform infrastructure decisions, policies, programs, and projects?

Ecosystem Exposure

Name	Description	Where to Get It	Significance
Confined Feeding Operations	An animal agricultural facility that concentrates large numbers of animals in small and confined places and has as a potential pollution profile	State department of natural resources or environmental regulatory office	Confined feeding operations impacted by inundation hazard events can release manure and pathogens into natural areas.
Protected Areas	Inventory of U.S. conservation easements and protected areas	National Conservation Easement Database (NCED) and Protected Areas Database of the United States (PAD-US)	See protected areas relative to other habitats to identify a connected network of lands and waters to facilitate species and habitat migration due to sea level rise.
Riparian Buffers	Vector data representing the surface water of the U.S. using common features such as lakes, ponds, streams, rivers, canals, and oceans	National Hydrography Dataset: U.S. Geological Survey	Natural buffer areas adjacent to rivers and streams provide flood and water quality protection.
Oyster Reefs	Oyster reef location data	State or local level benthic data Digital Coast Data Registry	Mangroves absorb wave energy and protect the shoreline.

Name	Description	Where to Get It	Significance
Land Cover	Changes in land cover types over time	Coastal Change Analysis Program Land Cover (C-CAP) C-CAP Land Cover Atlas	Identify trends that could be making your community more vulnerable to hazard impacts.
Wetland Migration	Predictions of potential distribution of wetlands based on different sea level rise scenarios	Sea Level Viewer	Assess areas adjacent to wetlands to facilitate future migration.
Impaired Waters	Impaired and threatened waters (stream and river segments, lakes) that do not maintain water quality standards	EPA 303(d)	

Additional Topics to Consider in Your Discussions:

- Are there ways to connect protected natural areas to provide more benefits in reducing hazard impacts?
- Are there riparian buffers along streams that can filter contaminants before entering waterways?
- Does your community have nearshore oyster reefs that provide wave attenuation? Are there oyster reefs in need of restoration to provide protective services?
- How has your land cover changed over time? Have natural areas been replaced by development and impervious surfaces? Is this contributing to increased impacts from flooding? Are there ways to add vegetation and trees in those areas to absorb floodwaters and decrease peak flow?
- Do you have wetlands providing buffers from storm surge? With sea level rise, are there conserved areas inland of existing wetlands to allow for migration?
- Are there impaired waters in your community that are degrading important habitat? What are some opportunities to improve water quality and maintain the benefits provided by healthy habitats?