

# HOW MY COMMUNITY IS PREPARING FOR FLOODING



## WHAT ARE THEY?

Floods are caused by a number of conditions, including widespread or heavy rainfall; runoff from deep snow cover; over-saturated soil; frozen soil; high river, stream or reservoir levels preceding heavy or extended rains; ice jams in rivers; and urbanization.

## WHEN DO THEY OCCUR?

The region is at the highest risk for flooding during the months of May, June, July and September. Flash flooding may occur within a few hours. Riverine flooding can last for several days, weeks or months.

## WHERE DO THEY OCCUR?

With the exception of fires, floods are the most common and widespread of all natural disasters. A significant portion of the region lies within floodplains.

## CORRESPONDING HAZARDS

Floods can disperse contaminants and pollutants across large areas, cause septic system problems, overflow wastewater treatment basins, damage underground storage tanks, and inundate facilities that manufacture or store hazardous materials.

## DAMAGE TYPE & SEVERITY

Damage depends on several factors, including the depth and velocity of the flood waters. Flooding poses significant problems for infrastructure. Flooding can also erode stream banks and deposit large amounts of silt in waterways. Large amounts of fast-moving water can destroy vegetation and alter wildlife habitats.

## VULNERABLE AREAS


- Stormwater systems
- Sewer and drainage systems obstructed by debris
- Areas of low elevation
- Telecommunications and electrical distribution systems
- Roads and bridges
- Water supply

COMMUNITIES	ACTION
	1. Work with owners of repetitive flood-loss properties to identify feasible mitigation strategies and opportunities; determine property owners' interest in specific mitigation options.
KC	2. Identify potential funding opportunities to implement mitigation options for repetitive-flood-loss properties.
	3. Target repetitive flood-loss properties and structures for buyout as funding allows.
KC	4. Explore incentives to encourage property owners to take action to prevent or reduce future flood losses.
KC	5. Consider construction of detention basins, ponds, greenways or riparian corridors in new development areas to channel/catch stormwater, to reduce likelihood of flooding.
	6. Develop a strategy — based on existing local comprehensive and land-use plans — for acquiring flood-prone property for use as open space/park land.
	7. Identify funding sources for the acquisition of flood-prone land for environmental, recreational and flood-mitigation uses.

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COMMUNITIES	ACTION
	8. Consider alternative uses for floodplains and flood-prone areas, such as sports fields, parks, wildlife habitats and others.
	9. Work with environmental groups, property owners and other stakeholders to develop and implement flood mitigation strategies that also promote the restoration and/or sustainability of fish and wildlife habitats.
	10. Develop partnerships among regional emergency management, floodplain management and environmental groups to educate one another and the public of the benefits of collaboration and identify specific programs and activities that can be developed and implemented jointly.
	11. Encourage homeowners and businesses in flood-prone areas to elevate mechanical systems, such as furnaces, hot water heaters and electrical panels.
	12. Encourage water and wastewater districts to elevate vulnerable equipment, electrical controls and other equipment at wastewater treatment plants, water treatment plants and pumping stations.
	13. Encourage utility providers to assess their facilities and distribution systems for vulnerability to flooding and, if needed, modify them to decrease vulnerability.
	14. Target repetitive flood-loss properties and structures for buyout as funding allows.
	15. Elevate public facilities in flood-prone areas. Encourage homeowners and businesses to elevate their structures.
	16. Identify incentives to offer homeowners and businesses to remove or retrofit structures in flood-prone areas.
	17. Adopt ordinances prohibiting residential and commercial development in floodplains or flood-prone areas.
	18. Develop or amend comprehensive or land-use plans to specifically address development in flood-prone areas and recommend strategies for decreasing jurisdictions' vulnerabilities to flooding.
	19. Assess fees on new residential, commercial and other development in floodplains or flood-prone areas to finance flood mitigation, preparedness, response and recovery actions.

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<b>COMMUNITIES</b>	<b>ACTION</b>
	20. Obtain data for flood-boundary areas and enhance vulnerability assessments for these areas.
	21. Partner with FEMA in the Cooperating Technical Partners Program to increase local involvement in and ownership of the flood-mapping process.
	22. Purchase HAZUS-Flood software from FEMA, possibly in conjunction with other local or regional stakeholders.
	23. Coordinate the collection of demographic, economic, watershed, land-use and other data required by the HAZUS-Flood software program or geographic information systems.
	24. Conduct an in-depth flood-risk analysis using HAZUS data and create detailed maps based on geographic information systems technology to identify areas at risk from flooding.
	25. Encourage homeowners/businesses to purchase flood insurance.
	26. Get brochures and related publications on flood mitigation, preparedness, response and recovery from FEMA, SEMA, American Red Cross and other organizations and provide them to homeowners and businesses in flood-prone areas.
	27. Partner with emergency services, public health, human services organizations, appropriate state and federal agencies and the business community to conduct special public education events.
	28. Participate in the National Flood Insurance Program and Community Rating System.
	29. Obtain the latest copies of flood insurance rate maps (FIRMs), floodplain maps and similar documents.
	30. Determine the need for stream gauges in waterways with and without flood warning systems.
	31. Work with local governments and other stakeholders to share data from flood warning systems in multiple jurisdictions.
	32. Develop and implement procedures to analyze and disseminate information from flood warning systems to the public.