Jackson County Hazard Mitigation Plan 2022 Edition Plan Element



Bright Walls Mural | Downtown Jackson

Goals and Objectives Element

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Possible Goals

Goal 1: Promote life safety - Minimize disaster-related injuries and loss of life through public education, hazard analysis, and early warning.

Objective 1.1: Increase public and private sector awareness of hazard related dangers, resiliency principles, and mitigation solutions.

Objective 1.2: Encourage and promote multi-hazard emergency plans in all public and private institutions, including provisions for mitigating applicable hazards.

Objective 1.3: Promote local early warning systems and capabilities.

Objective 1.4: Better serve at-risk populations (e.g., the elderly, disabled, limited English).

Goal 2: *Reduce property damage –* Incorporate hazard mitigation considerations into land use planning, resource management, land development processes, and disaster-resistant structures.

Objective 2.1: Increase knowledge of elected/appointed county/municipal officials and other local leaders about sound land use and development practices that can help reduce long-term hazard risks and vulnerabilities.

Objective 2.2: Identify appropriate mitigation measures for vulnerable public and private facilities and infrastructure.

Objective 2.3: Promote and assist with winter weather mitigation projects countywide.

Objective 2.4: Encourage tree trimming and maintenance in public rights-of-way and utility easements to prevent limb breakage and safeguard utility lines.

Goal 3: Provide leadership - Provide leadership, direction, coordination, guidance, and advocacy for hazard mitigation.

Objective 3.1: Educate and inform governmental officials, other local policy-makers, and the public, about resilience and hazard mitigation concepts, programs, and processes.

Objective 3.2: Promote better information flow/coordination regarding hazard mitigation among units of government, and between public and private entities.

Objective 3.3: Identify strategies to assist local governments in overcoming obstacles to successfully applying for hazard mitigation grants.

Objective 3.4: Identify, establish, and promote new partnership opportunities.

Goal 4: Secure funding - Explore funding options for priority mitigation activities.

Objective 4.1: Use a cost-benefit review of mitigation activities to evaluate impact feasibility.

Objective 4.2: Develop public/private partnerships to implement mitigation activities.

Objective 4.3: Identify preparedness, mitigation, and responses gaps countywide and leverage grant dollars to implement recommendations.

Hazard Mitigation Approaches

- 1. Modify the hazard to remove or eliminate it. Modification will reduce its size or amount, or control the rate of release of the hazard.
- 2. Segregating the hazard to try to "keep the hazard away from the people." This is often accomplished through the construction of structural protection measures. This can be a highly effective strategy but also very expensive. Care must be taken to maintain structural solutions over time. Risks could be compounded if development continues behind a structure that is allowed to deteriorate!
- 3. **Preventing or limiting development** in locations where people and structures would be at risk. This approach seeks to "keep the people away from the hazard" and includes a variety of land use planning and development regulation tools, such as comprehensive planning, zoning, flood-plain management ordinances, capital improvements planning, disclosure laws, and the acquisition and relocation of hazard-prone properties. When properly applied, this strategy can be highly effective in promoting safe, sustainable development.
- 4. Altering design or construction to make it less vulnerable to disaster damage. Also known as "interacting with the hazard," it focuses on engineering structures to withstand potentially destructive impacts.
- 5. Early warning and public education to ensure that the public is aware of potential hazards, and that proper warning and communication systems are in place to save lives and protect property.

Hazard Mitigation Tools

Corrective measures. When structures and communities are located in hazardous areas, corrective measures are directed at working with current conditions. Examples of corrective measures include:

- 1. Acquisition: Public acquisition and management of lands that are vulnerable to damage from local hazards. Following acquisition, land uses more appropriate to the degree of risk may be chosen. Public acquisition has been achieved by: a) purchase at full market value; b) purchase at less than full market value through such methods as foreclosure of tax delinquent property, bargain sales, purchase and lease back, etc.; c) donation, through reserved real estate, donation by will, donation and lease back; d) leases; and e) easements.
- 2. **Relocation:** Permanent evacuation of hazard-prone areas through movement of existing hazard-prone development and population to safer areas. The two common approaches to relocation are physical removal of buildings to a safer area with future use of the vacated area limited to permanent open space, and replacing existing land uses with others that are less vulnerable to the hazard.
- 3. **Redevelopment:** Rebuilding damaged areas in such a way that future damages are reduced and economic viability is improved. An example of this approach would be the redesign of deteriorated urban areas using renewal authorities and funds.
- 4. **Modifications:** Modifications can be made both to a site and to a structure. Examples include landscape grading, or retrofitting existing structures to be damage resistant (e.g., flood-proofing existing buildings, adding structural braces to buildings to improve earthquake or wind resistance, etc.)

Public works measures. This category covers the most commonly known engineering measures used to contain or redirect natural hazards away from development and affected populations. Examples of these types of measures include:

- 1. **Structural protection measures:** Construction of measures that directly protect people and property at risk (in Michigan, primarily from flood hazards). Examples include dams, reservoirs, dikes, levees, seawalls, bulkheads, revetments, high flow diversions, and spillways.
- 2. Land treatment: Measures which are intended to reduce the intensity of hazard effects by modifying the natural environment. Examples include reforestation, contour plowing, grading, and soil stabilization.

Planning and regulatory measures. Government has the power and resources to guide and influence the location, type, and amount of development within a jurisdiction. The tools of this "development management" are contained in the community's plans, regulations, public facilities and taxation measures, in addition to land acquisition policies which were discussed previously.

- Plans: Land use plans specify the planned location of types of development activity, including commercial, industrial, and residential. As a hazard mitigation tool, plans can also identify hazard areas such as floodplains, fault zones, landslide and high-erosion areas, and hazardous waste sites. Land use plans can guide concentrated development away from these hazard areas by designating them for open space or other low density uses.
- 2. Zoning: Zoning ordinances are used to regulate the use of land and structures to ensure the public health, safety, and general welfare. Hazard areas such as floodplains can be zoned as low density districts. Hazard areas can also be identified in other zoning districts where special performance standards may be applied to development.
- 3. **Regulations:** Certain regulations, such as subdivision regulations, place requirements and standards for the conversion of raw land into building sites. These types of regulations can require floodproofing of such facilities as water and sewer lines, and storm drains. The subdivider can be required to prevent environmental degradation (e.g. using cluster developments) and mitigate hazards (e.g. retention basins). Development in high-hazard areas can be prevented or protected by requiring elevation or floodproofing. The regulations may also require that hazard information appear on deeds for lots within the development.

Environmental regulations also provide an opportunity to accomplish hazard mitigation. Since sensitive areas are protected by these regulations, mitigation can be accomplished when this protection reduces hazard impacts, and when the protection guides new development away from these areas.

- 4. **Codes:** Building codes protect lives and property by setting standards for construction materials, techniques, and design procedures. Both performance codes and specification codes can be valuable hazard mitigation tools when used to require protection of new construction (or substantial redevelopments). Housing and sanitary codes establish minimum standards, one for occupancy and the other for waste disposal. Special standards may be established for hazard-prone areas.
- 5. **Disclosure:** Hazard mitigation goals can be accomplished by requiring sellers and real estate brokers to inform prospective buyers about the vulnerability of buildings and lots to specific hazards.

- 6. Moratoria: Ordinances or regulations can be applied to delay rebuilding after a disaster until mitigation priorities have been established. This can be done either before, or immediately following a disaster.
- 7. **Development rights:** This type of regulation or policy may prevent development in hazardous areas by purchasing the development rights from the seller. The land can then be maintained as open space, or leased back for agricultural purposes. Another option is to transfer the development rights to another location that is safer. By increasing densities in the safer location in exchange for decreased densities in the hazard zone, both sellers and developers can realize a profit while accomplishing hazard mitigation at little or no cost to government.
- 8. **Open space planning:** By employing some of the same strategies as for acquisition of developed properties, jurisdictions can lessen the potential for natural hazards by acquiring vulnerable undeveloped areas.

Persuasion and encouragement. Other mitigation strategies are available to discourage new development in hazardous areas and encourage practices which are consistent with mitigation goals. These include:

- 1. Incentives: Financial incentives and disincentives, such as taxes, mortgage standards, and insurance credits can be used to conform with mitigation objectives. An example of a disincentive would be the denial of loans to would-be borrowers who cannot show that hazard-related standards are being met.
- 2. Location: Leading by example, such as a clear and consistent government policy aimed at preventing the location of public buildings in hazardous areas, may discourage private development in these locations. An extension of this policy would be the denial of public services, such as water, power, and sewage into these areas. Finding alternatives to repairing or rebuilding damaged public facilities which service hazard-prone areas may also set an example for the private sector.

Public education and awareness. Public awareness programs are necessary to periodically inform and remind people about an area's hazards, and the measures necessary to minimize potential damage and injury. Tools in this category include:

- 1. Public relations: Providing general information or establishing public consensus can be accomplished through a formal or informal public relations program.
- 2. Public information: Information about hazards or mitigation efforts can be disseminated through the media.
- 3. Public hearings: The public may obtain information and express opinions about mitigation efforts at public forums run by appropriate government agencies.
- 4. Surveys and polls: Government agencies or other organizations can gather information about public support for mitigation efforts.
- 5. Public education: Learning experiences, such as workshops and seminars, may be used to communicate hazard mitigation information to special target audiences.

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