

# MITIGATION GOALS

The Franklin County Natural Hazard Mitigation Plan Core Group developed problem statements, goals and objectives in an incremental, step-by-step process. This section summarizes the process used to develop the Action Plan for the natural hazards identified in the mitigation plan.

The mission of the Franklin County Natural Hazard Mitigation Plan is to provide a comprehensive view of natural hazards in Franklin County and make recommendations designed to protect citizens, essential facilities, infrastructure and private property from natural hazards. This can be achieved by incorporating these ideas into existing and future land use planning documents, identifying at-risk infrastructure and increasing public education about natural hazards.

The Core Group examined existing and repetitive problems occurring in Franklin County and the mitigation plan goals were identified based on their findings. The goals focus on a specific area serving as an umbrella over several problem statements related to that goal.

The plan goals determined by the Core Group provide the foundation for the Action Item recommendations. From each mitigation goal, ideas for implementation have been included to reduce or prevent losses from natural hazards in Franklin County, they are as follows:

1. **Manage Development:** Integrate goals and action items from the Franklin County Natural Hazard Mitigation Plan into existing and future land-use planning documents, and existing regulatory programs.
2. **Maintain Public & Private Infrastructure:** Develop inventories of at-risk infrastructure and prioritize preventative measures in areas vulnerable to natural hazards.
3. **Manage Debris Along Streams & Waterways:** Involve watershed and natural resource management, and all other interested parties, in natural hazards mitigation planning to rehabilitate and maintain streams and waterways.
4. **Minimize Damage to Public & Private Property:** Strengthen partnerships between government agencies and private sector businesses to develop public awareness of and involvement in natural hazards mitigation strategies.
5. **Minimize Loss of Life from Severe Weather Hazards:** Develop and implement public education programs to increase public awareness and understanding of the risks associated with natural hazards.
6. **Reduce the Number of Repetitively Damaged Existing Structures:** Protect buildings in repetitive loss areas through acquisition, elevation or other mitigating activity.

## Mitigation Strategies & Additional Ideas for Implementation

There are a number of ways to mitigate the effects of future disasters on communities. This section focuses on the types of actions communities have specifically identified to mitigate risks and potential losses.

The following mitigation actions are discussed in four primary areas: preventative measures, property protection, resource protection and structural projects.

### Preventative Measures

Preventative measures are those measures put in place to protect new and future development from potential hazards. Building codes, standards for manufactured homes, planning, zoning, subdivision regulations, green space preservation and stormwater management are examples of preventative measures.

### Building Codes

Building Codes are a useful tool in addressing most of the hazards a community may face, including earthquakes, tornadoes, high winds and snow storms. Provisions can include anything from retrofitting roofs to accommodate heavy snows, to requiring new buildings to have tornado “safe rooms”.

### Manufactured Home Standards

Aside from location, manufactured or “mobile” homes are generally not regulated at the local level. They must meet construction standards set by the US Department of Housing and Urban Development (HUD). All mobile homes constructed after June 15, 1976 must comply with HUD’s National Manufactured Home Construction and Safety Standards.

Mitigating activities to protect mobile homes from wind damage includes anchoring the mobile home to a permanent foundation.

### Planning and Zoning

The intent of planning activities is to direct development away from areas considered to be high hazard. Various local planning documents are referenced in the flooding chapter of this plan.

Zoning ordinances or resolutions provided criteria for how land should be used within a zoning district.

### Property Protection

Property protection measures are used to modify buildings or property subject to damage to lessen its impact. Flood proofing a structure is a form of property protection. A flood proofed structure is designed to allow the structure to flood with minimal damage, so the structure is usable relatively quick after the event.

### Physical Barriers

A number of alternatives exist to protect property from the effects of flooding. Barriers can be created to keep a flood hazard away. The Franklinton Floodwall is an example of a flood barrier. Completed in 2004, this structure is designed to re-direct the flow of water away from improved properties in low-lying areas. Relocation, building elevation and demolition are other alternatives available to removing at-risk structures from hazard areas.

### Retrofitting

Retrofitting involves modifying a property or site to minimize or prevent damage. Flood retrofitting measures can include both dry and wet flood proofing. In dry flood proofing, walls are coated with

waterproofing compounds and any openings are closed. Wet flood proofing operates under the assumption that flooding will occur and everything that could be damaged by a flood is removed or elevated above the flood level. Structural components below the flood level are replaced with materials that are not subject to water damage.

### Resource Protection

Resource protection involves preserving natural areas such as fields, floodplains and wetlands in a natural state. This chapter covers the resource protection programs and standards that can help mitigate the impact of natural hazards, while improving the overall environment. Many of these issues have been touched upon in the hazard specific chapters.

### Wetland Protection

Wetlands are generally found in floodplains and depression areas of a watershed. Wetlands serve as a depository for floodwaters, which reduces the flow of water downstream. They also serve as a natural filter, which helps to improve water quality, and provide habitat for fish, wildlife and plants.

Wetlands that are determined to be part of the waters of the United States are regulated by the U.S. Army Corps of Engineers and the U.S. Environmental Protection Agency under Section 404 of the Clean Water Act. Before a “404” permit is issued, the plans are reviewed by several agencies, including the Corps and the U.S. Fish and Wildlife Service. Each of these agencies must sign off on individual permits.

There are also nationwide permits that allow small projects that meet certain criteria to proceed without individual permits. Wetlands not included in the Corps’ jurisdiction or that are addressed by a nationwide permit may be regulated by local authorities.

If a permit is issued by the Corps or the county, the impact of the development is typically required to be mitigated. Wetland mitigation can include creation, restoration, enhancement or preservation of wetlands elsewhere. Wetland mitigation is often accomplished within the development site; however, mitigation is allowed off-site and sometimes in another watershed. When a wetland is mitigated at another site there are drawbacks to consider. First, it takes many years for a new wetland to approach the same quality as an established one. Second, a new wetland in a different location will not necessarily have the same flood damage reduction benefits as the original one did.

### Erosion and Sedimentation Control

Farmlands and construction sites typically contain large areas of exposed soil. Surface water runoff can erode soil from these sites, sending sediment into downstream waterways. Erosion also occurs along stream banks and shorelines as the volume and velocity of flow destabilize and wash away the soil.

Sediment suspended in the water tends to settle out where flowing water slows down. It can clog storm sewers, drain tiles, culverts and ditches and reduce the water transport and storage capacity of river and stream channels, lakes and wetlands. When channels are constricted and flooding cannot deposit sediment in the bottomlands, even more is left in the channels. The result is either clogged streams or increased dredging costs.

There are two principal strategies to address these problems: minimize erosion and control sedimentation. Techniques to minimize erosion include phased construction, minimal land clearing, and stabilizing bare ground as soon as possible with vegetation and other soil stabilizing practices.

If erosion occurs, other measures are used to capture sediment before it leaves the site. Silt fences, sediment traps and vegetated filter strips are commonly used to control sediment transport. Runoff from the site can be slowed down by terraces, contour strip farming, no-till farm practices, hay or straw bales, constructed wetlands, and sediment basins. Slowing surface water runoff on the way to a drainage channel increases infiltration into the soil and reduces the volume of topsoil eroded from the site.

### River Restoration

The objective of river restoration is to return streams, stream banks and adjacent land to a more natural condition. A key component of these efforts is to use appropriate native plantings along the banks that resist erosion. This may involve retrofitting the shoreline with willow cuttings, wetland plants and rolls of landscape material covered with a natural fabric that decomposes after the banks are stabilized with plant roots.

Restoring the right vegetation to a stream helps reduce the amount of sediment entering the water, can reduce flood damage by slowing the velocity of water and can reduce long term maintenance costs.

### Structural Projects

Structural projects are usually funded by public agencies and constructed to protect people and infrastructure from damage due to natural hazards. Floodwater management is the primary focus of structural projects. A good example of this is either a floodwall or levee.

### Drainage and Storm Sewer Improvements

Man-made ditches and storm sewers help drain areas where the surface drainage system is inadequate, or where underground drainage ways may be safer or more practical. Storm sewer improvements include installing new sewers, enlarging small pipes and preventing back flows. Drainage and storm sewer improvements usually are designed to carry the runoff from smaller, more frequent storms. Because drainage ditches and storm sewers convey water faster to other locations, improvements are only recommended for small local problems where the receiving stream or river has sufficient capacity to handle the additional volume and flow of water. To reduce the cumulative downstream flood impacts of numerous small drainage projects, additional detention or run-off reduction practices should be provided in conjunction with the drainage system improvements.

A combination of restored wetland detention, vegetation and infiltration trenches that reduce runoff can be implemented in conjunction with stormwater system improvements.

### Drainage System Maintenance

Detention ponds, stream channels, swales, ditches and culverts all serve as drainage systems. Drainage system maintenance is an ongoing program to clean out blockages caused by an accumulation of sediment or overgrowth of weedy, non-native vegetation or debris, and remediation of stream bank erosion sites.

“Debris” refers to a wide range of blockage materials that may include tree limbs and branches that accumulate naturally, or large items of trash or lawn waste accidentally or intentionally dumped into channels, drainage swales or detention basins. Maintenance activities do not alter the shape of the

channel or pond, but they do affect how well the drainage system can do its job. Sometimes there is a fine line that separates debris that should be removed from natural materials that helps form habitat. Therefore, written procedures that are consistent with state laws and environmental concerns are usually needed.