

Public Outreach Strategy

The Hillsborough County Public Outreach program is a community wide effort and includes participants from all jurisdictions. This report illustrates a commitment by Hillsborough County and communities within the county to further initiatives identified within the National Flood Insurance Program to reduce a community's exposure to flooding hazards. This report is Hillsborough County's Community Rating System (CRS) Outreach Strategy and was prepared to provide guidance to CRS Committee members and for submittal for credit under the National Flood Insurance Program's Community Rating System. It is designed to illustrate a strategy that is used with Actions identified within the County's Floodplain Management Plan to inform county residents and business owners about flooding hazards and respective mitigation techniques.

Outreach Committee and Strategy: The County's outreach program has been undertaken to bring together a strategy to best advise property owners (business and residential) about hazards and potential mitigating activities associated with building in the floodplain. Activities will be undertaken to reduce the risk from potential flooding to properties throughout the county. There have been additional efforts to assist repetitive flood-loss properties through requesting funds through various mitigation grants from the State and Federal governments. These funds will be added to County funds to assist with specific projects. Additionally, actions have been carefully balanced with the rights of the land owners, the ability of the County to finance various activities and the potential benefits of those activities.

Hillsborough County has established a Public Outreach Community Rating System (Outreach and Education Team) consisting of members of the County's Local Mitigation Strategy Committee, which reports to the longtime established county-wide Disaster Recover Committee. The Team consists of one representative from each of the County's jurisdictions, a representative from outside of the community that is experienced in floodplain management -- a neighboring county's CRS Coordinator, a private-sector representative of the engineering profession, the County's Community Rating System Coordinator, the Director of the County's Emergency Management Office, and representation from the University of South Florida's Geography Department (which is greatly involved with hazard mitigation within the County).

Flood Hazard: Hillsborough County is a Bay area county that is affected by storm surge along its shoreline/coastline and riverine flooding from three rivers (and tributaries): the Alafia, Hillsborough and the Little Manatee. Additionally, certain low-lying inland areas in the northwest, north and southeast are considered flood-prone areas. Also, major storm-surge effects (flooding due to an increase in the Bay tide) during the last 10 years were created from the No-name storm in 1993 and Tropical Storm Josephine in 1996. Most recent significant freshwater flooding occurred from December 1997 through March 1998, impacting hundreds of homes countywide and resulting in a Federal Disaster Declaration on January 6, 1998 (El Nino).

Although no official flooding depth measurements were taken during the No-name event, it has been estimated that storm surge flooding during the storm caused tidal waters to rise five to six feet above mean high-tide (approximately equivalent to a category one hurricane). The recent freshwater flooding left some properties in affected areas three-feet underwater.

Base flood elevations have been calculated in the Flood Insurance Study for Hillsborough County and flood zones are published in the Flood Insurance Rate Map dated August 1992. Additionally, the County has embarked upon an aggressive plan to restudy drainage basins and implement approximately \$100 million in stormwater projects. Coastal flooding caused by tropical storms, hurricanes and unusually high tides combined with strong westerly or northwesterly winds also poses a continuing threat to the County. Storm surge produces most of the flood damage and loss of life associated with tropical cyclone storms that make landfall or that nearly approach the coastline. Of hurricane hazards, the storm surge is considered to be the most dangerous since nine out of ten hurricane related deaths are attributed to drowning. The principal tool used in assessing the hazard of a storm surge is the Sea, Lake and Overland Surges from Hurricane (SLOSH) model. The computerized SLOSH model predicts the tidal surge heights that result from hypothetical hurricanes with selected various combinations of pressure, size, forward speed, track and winds. The SLOSH model, which is used locally for hazard and vulnerability analysis, has been digitized into the County's GIS (Geographical Information System) mapping system. Estimated storm surge heights range from four to five feet in a Category 1 storm to in excess of eighteen feet in a Category 5 storm (Saffir-Simpson Hurricane Scale).

Because of the varying effects from storm surge and wind, the State of Florida and the U.S. Army Corp. of Engineers have created models for communities to better understand areas susceptible to storm-surge flooding and sustained tropical force winds. The newer model is "The Arbiter of Storms" (TAOS). This is the State's principal tool for analyzing the vulnerability to potential hurricanes affecting various areas of Florida including Hillsborough County. The model output has been provided by the Department of Community Affairs as part of the Local Hazard Mitigation Strategy. This Model provides a vulnerability analysis for public and private property located within the county.

Flood Safety and Protection Measures: The County is active in providing information regarding hazard/flood-warning systems and avenues to mitigation against various hazards. This has become a joint program effort between the Public Safety and Planning and Growth Management Departments. Information is disseminated through a variety of forums that include teaching a course at the University of South Florida Small Business Development Center, annual business Emergency Preparedness Seminar sponsored by the Greater Tampa Bay Chamber of Commerce and various sponsored training programs through professional business groups.

As a regionally designated Project Impact Community, the County, State and FEMA have sponsored training programs regarding flood mitigation to Bay area builders/contractors, developers, building/hazard mitigation officials and interested citizens. These courses are usually incorporated with a building organization (such as the Remodelers Association or an area Builders Association) and are conducted in a manner that professional credits can be obtained.

Much is prepared and circulated with respect to being prepared for flooding disasters. Informational brochures and newsletters emphasize safety for flooding hazards, which includes using important flood safety measures, which include:

What to do before a flood:

1. Keep a battery-powered radio tuned to the local station and follow emergency instructions,
2. Turn off all utilities at the main power switch, close off any gas valves,
3. Move valuables such as documents, papers and jewelry, to higher elevations or take them with you when you evacuate,
4. Fill sanitized bathtubs, sinks and plastic bottles with clean water, and
5. Bring outdoor belongings inside;

Safety measures during and after a flood:

1. Do not drive through a flooded area,
2. Do not walk through flooded areas,
3. Stay away from downed utility lines,
4. Watch for animals, especially snakes,
5. If your structure is damaged by the flood, call your insurance company who handles your flood insurance policy,
6. Make sure your building has not been structurally damaged before reentering it,
7. Keep power off until an electrician has inspected the system,
8. Clean up right away. Flood waters carry sewage and toxic chemicals, and
9. Use caution on wet surfaces to prevent falling.

Flood Protection and Warning: The County is active in providing information to residents and businesses with respect to warning systems associated with hazards that may be of an impact. To emphasize specific areas of protection/prevention and warning, the following are identified:

1. Flood Warning - When the National Weather Service issues flood watch or warnings, the EOC initiates respective (appropriate) activities that are associated with the threat of the event.
2. Flood Response: Through the EOC, the Roads and Streets Department furnishes sand bags to County residents at maintenance stations located throughout the County. If evacuation is deemed necessary, the EOC opens shelters in the affected areas and coordinates the activities of the Sheriff's Office, the Red Cross Emergency Medical services and other agencies as required to accomplish a safe evacuation.
3. Taking into consideration existing fiscal constraints experienced by Hillsborough County, and the realization that all floodplain management activity is conducted through the operating budgets of various County departments, regulations and a Floodplain Management Plan exist to mitigate and manage development activity within various floodplains.
4. Planning and Zoning - Through the regulatory/review activities of the Planning and Growth Management Department, the preservation of open space and the restriction of development in the floodplain will be a priority. The County's Land Development Code (LDC) provides regulations that restrict and manage development activity in the floodplain by limiting wetlands encroachment and preserving open space. This will be primarily accomplished by ensuring limitations on impervious surface and preservation of critical upland

habitat and wetland areas.

5. Stormwater Management - The enforcement of the Land Development Code so that all new development retains and attenuates for its stormwater impacts. Specifically, the Stormwater Technical Manual will continue to be used to regulate all development, whether it is located within or outside of the floodplain. The Stormwater Management Section of the Public Works Department will evaluate each flood event to determine the effectiveness of recently constructed projects and identify potential additional projects or improvements. The County's budget includes funding for the completion of the Stormwater Management Plans for the County's drainage basins identified in the Stormwater Management Element of the County's Comprehensive Plan.
6. Drainage System Maintenance - The County will continue to take the appropriate actions to maintain the County's stormwater management systems. The Water Department, through maintenance programs funded by its operating budget, maintains the stormwater conveyance systems to ensure that flooding impacts are minimized.
7. Acquisition - The County will set aside funding and develop a Hazard Mitigation Program that provides for the acquisition of properties that have experienced repetitive losses due to flooding. Through land acquisition purchases by the Environmental Land Acquisition Program, the County shall continue to remove property located in the floodplain from the impacts of development. The continuing impact of this program on flood mitigation is important because the removal of property located in the floodplain and its preservation as resource-recreation areas maintain storage capacity and that removes floodplain area from potential development. A complimentary benefit is the acquisition of adjacent uplands as open space which further reduces the introduction of impervious surfaces that can contribute to flooding problems.
8. Building Elevation - Through the enforcement of the County's Floodplain Ordinance and in conjunction with its participation in the National Flood Insurance Plan's Community Rating System, structures located in floodplains will continue to be identified for elevation to mitigate for their location in flood-prone areas. The County views this activity as a major contribution toward mitigating impacts of flooding.
9. Insurance - The County will continue to actively participate in the National Flood Insurance Program. A major contribution to this effort is the recognition that the Community Rating System program is managed by a full-time staff member. As part of the program, it is recognized that a major emphasis is placed on the education of those property owners who are located in the floodplain and that they should secure flood insurance. Given the fact that FEMA indicates that 22,000 properties in the County participate in the NFIP and that the County's research has indicated that there are more than 38,000 parcels located full or in part in the floodplain, success in this area will help to insure that property losses in the floodplain will be covered by insurance.
10. Coordination of emergency services during times of flooding is through the Public Safety Department's Emergency Operations Center.
11. The County's Stormwater Program identifies projects that prioritize needs so that available funding is allocated

to those projects that are most critical in alleviating flood impacts.

12. Storm Sewers - The County, as part of its Capital Improvements Program (CIP) continuously provides funding for the reconstruction of obsolete storm sewer systems. This activity includes the replacement of storm pipes, manholes, end walls, culverts and conveyance systems. The CIP also provides funding for individual projects designed to alleviate flooding problems in specific locations in the County.
13. Retention - Each development, whether private or public, is required to meet the provisions of the Stormwater Technical Manual. Instead of providing reservoirs to store stormwater runoff, each project must provide on-site retention of its runoff and/or tie into the County's stormwater system. As part of the County's effort to retrofit its stormwater system, funding in the Capital Improvement Program is provided to acquire property and construct stormwater retention facilities to alleviate flooding impacts to roads and private property.
14. Map information - Residents, both existing and potential, can access information relating to the floodplains at the Permit Services Center. Floodplain determinations can be requested that provide an official determination of whether a property is located, fully or partially, within a floodplain. Additionally, the County has mapped the floodplains on its Geographical Information System (GIS), and is actively working with FEMA to update County Flood Insurance Rate Maps.

Flood zone and other flood mapping information is available through the County's Development Services Division or by calling the County's Stormwater Division of Public Works. This local information is currently publicized in locally-produced flood insurance informational brochures located at the County Administration building and at public libraries.

Additional flood safety and protection information is available at the County's Public library -- cataloged for complete county distribution and physically located within the Resource Section. In addition, Federal Emergency Management Agency (FEMA) booklets and brochures outlining flood safety precautions and protection measures are also available at libraries and the County Administrative Buildings (soon to also be distributed through County permitting offices).

15. Other flood protection measures primarily involve the elevation of pre Flood Insurance Rate Map (FIRM) structures or retrofitting them with second stories to meet the FIRM Base Flood Elevation (BFE) requirements. Information on other flood proofing techniques such as berms, flood walls, etc. is mailed to property owners with repetitive flood-loss structures and to known flood prone structures on an annual basis.

Flood-related Public Information Activities: The County annually notifies repetitive loss property owners by mail about their flood risk. This information is accompanied with flood-protection methods that property owners may seek to reduce or eliminate respective flooding risk. General information about flood-protection financial assistance that may be available to eligible property owners is also included with the letter.

The County participates in the annual publication and distribution of the *Hurricane Guide for the Tampa Bay Region*. Hillsborough County's emergency management agencies participate in several Hurricane Awareness Seminars held at locations throughout the County.

Additionally, the County produces and distributes local and national flood insurance and flood hazard brochures/publications that address local flood risks, the availability of flood insurance to County residents, mandatory flood insurance requirements, where to obtain more floodplain and mapping information, the County's floodplain regulations and how the National Flood Insurance Program works.

Goals for the CRS Outreach Program:

- Inform residents about the flood hazard and flood protection methods,
- Inform residents about the availability and desirability of flood insurance, and
- Inform residents about the County's flood warning system and safety precautions.

Outreach Projects to be Implemented Each Year to Attain Goals:

1. Provide written notification to property owners that have experienced repetitive flood losses advising of flood hazards, methods of protection and any financial assistance that may be available to them for flood mitigation projects,
2. Provide brochures and publications to property owners through media, mail and resource libraries at selected buildings throughout the county. Brochures and publications address local flood hazards, flood insurance, flood protection and mitigation, regulations, availability and location of flood mapping information, and the availability of the local flood resource library. The information will be reviewed annually by the CRS Committee, which will be revised and reprinted as demand requires,
3. Continue to participate in the annual publication and distribution of the *Hurricane Guide for the Tampa Bay Region*,
4. Presenting at various business and neighborhood meetings regarding hazards facing residents and participate in Hurricane Awareness Seminars/Expos held throughout the County each year.
5. Participate at a minimum of two AHome Shows and annual Expos/business seminars,
6. Provide educational information through media avenues, such as through newsletter/utility bill mail-outs,
7. Continue to promote illustrations within the local telephone book,
8. Continue to provide informational and educational training courses associated the hazard mitigation (includes NFIP and flood topics) program through USF's Small Business Development Center (or similar body) at least on an annual basis,
9. Provide Amail-outs@to properties with structures as identified within the 100-year Floodplain and classified as a repetitive flood loss structure on an anticipated biannual basis,
10. Perform an annual review of structures identified as a repetitive-flood loss structure by the Federal Emergency Management Agency on an annual basis,
11. Continue to work with local Chambers of Commerce to review flood-protection programs,
12. Provide the main branch of the County Library with a complete copy of FIRM maps after each FIRM update or as required to maintain a full set of maps,
13. Monitor respective (individual) community Floodplain Management Plans on an annual basis.
14. Schedule Hazard Mitigation and Flood Awareness semiannual notifications that:
 - C Displays at county Post Offices,
 - C Displays at specific county offices, such as the Tax Collector's office and Animal Shelters,
 - C Participation in various seminars, such as the Hurricane Conference and business meetings,

- C Hazards Awareness (includes flood awareness) display at high traffic locations, such as shopping malls to promote flood safety, protection and knowledge about flood insurance and the CRS program; and
15. Development of a media and education plan to meet the established public outreach goals.
 16. Work to have at least one local government official/employee attend the Emergency Management Institute (EMI) CRS Coordinator=s training within the five-year period, and
 17. Provide educational information through respective jurisdictional Internet Web@ pages that also provide linkages back to the FEMA=s Web page by year 2001,
 18. Establish additional NFIP resource libraries within local permitting offices by the year 2001, and
 19. Identify an avenue for residents to locate floodplain information via a GIS or telephone call-in system by the year 2002.

Monitoring and Evaluation: The CRS Committee will meet not less than twice per year to review and evaluate the Strategy to determine its effectiveness in meeting established goals.

Additional Information: Each project undertaken will describe or provide information on where to get additional flood information.

Documentation: Implementation of the Public Outreach Strategy will be appropriately documented to FEMA for the CRS program.

Annual Evaluation: Hillsborough County's annual CRS recertification will include an evaluation of the public outreach projects implemented and a reason why projects, if any, were not implemented during the year. This report will also include any projects or objectives that should be added, revised or deleted.

The CRS Committee is actively pursuing methods to better illustrate to property owners and to-be@ property owners potential flooding hazards within the county. Additionally, the Committee is striving to educate residents and business owners about methods that may be used to mitigate against flooding hazards, which includes providing information concerning the National Flood Insurance Program.

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