

APPENDIX H

**HILLSBOROUGH COUNTY MITIGATION
ACCOMPLISHMENTS**

Attachment 1
Hillsborough County
2001-2002 Floodplain Management Plan (and Repetitive Loss)
Annual Progress -- Activity 510

This report is prepared for submittal for continued credit under the National Flood Insurance Program's Community Rating System (CRS). It is designed to provide a short update and report on accomplishments toward implementing the County's Floodplain Management Plan (and Repetitive Flood Loss Plan). Copies of this report of have been distributed to local media and to County Administration for dissemination to the Board of County Commissioners. Additionally, this report is being submitted to the State and Federal Emergency Management agencies as part the County's annual CRS recertification.

1. Name of the Floodplain Management Plan: Hillsborough County Floodplain Management Plan.

Date Adopted: March 1998.

Location where copies are available for review: Hillsborough County Planning and Growth Management Department.

2. Summary of any floods that occurred during the year. At the time of this report, there were no Federal or State declarations assigned to Hillsborough County due to flooding events during the period between October 2001 and October 2002. However, Tropical Storm Gabrielle in September of 2001 did create storm surge effects on September 14 that did flood known repetitive flood-loss structures within the Alafia and Little Manatee coastal and riverine areas. This information is substantiated by the review of the County's Disaster Assessment Team's records, which indicates the following:

**TROPICAL STORM GABRIELLE STORM-SURGE EFFECTS
TO HILLSBOROUGH COUNTY**

- Structures flooded: 39,
- Residential structures: 37, (this added 21 repetitive flood loss structures, verification of addresses will be made),
- Commercial structures 2,
- No. w/Fed. Flood Ins. 10, and
- Apprx. damage value: \$376,000 (not acctng. for lost wages/customers).

Spring and early summer months of the reporting period were pronounced with a severe drought period. However, the County did experience localized flooding from thunderstorms during the mid- to late-summer period of the 2001/2002 reporting period. During these events, the County's severe weather system was initiated providing warning of such events to residents and businesses. A few tornadoes were reported, and there were several reports of wind damage and power outages, but no losses of life.

With respect to localized flooding during the previous year, some minor flooding was reported in the Ruskin and the Odessa areas of the county. Flooding occurred to some roads and to several homes during locally heavy rain events. Both the Public Works and the Planning and Growth Management Departments

responded to reports and took appropriate actions. Localized street flooding required placing signs at respective sites until stormwater receded. The Roads and Streets Department was available to furnish sandbags to County residents at maintenance stations located throughout the County when the demand was present.

The County's Flood Warning System was initiated to have residents evacuate from flood high-hazard areas during Tropical Storm Gabrielle. Gabrielle's main impact was sustained winds and rivers cresting over banks the day after the storm passed through. The storm primarily affected the extreme southern portion of Hillsborough County, particularly residences along the Bullfrog Creek.

Additionally, the Emergency Operations Office did test operations with respect to opening shelters and coordinating emergency procedures through "Table-top" exercises with the Sheriff's Office, the Red Cross, Emergency Medical services and other agencies during the Spring period of 2002. These sessions reinforced the use of techniques and procedures associated with the Warning System's implementation.

3. Attachment 1 lists each objective of the Plan and illustrates accomplishments for the previous reporting period.
4. Were any objectives not reached or is implementation behind schedule? If so, state why:

Goals and Actions are being met. Additionally, two goals identified during the previous reporting period were furthered. The following illustrates those items not addressed in the preceding period, but have been fully or partially met during the period from October 2001 through September 2002.

Report from for the previous period: Goal 3: Develop a public awareness program that informs all property owners in the flood zones that they are located in a flood zone: Currently a System is being designed that will augment the current flood-awareness program. The added System will assist in creating mailing labels from the Property Appraiser's database that will be used on an annual basis. These labels will be used to forward letters to 100% of the property owners with property designated as within a 100-year floodplain (not just owners with structures).

The County is currently in the process of creating and implementing new Stormwater Master Plans for all 17 watersheds in Hillsborough County. These will be used to direct Capital Improvement Projects, revise Flood Insurance Rate Maps, and assist in creating new flood response systems. The County is working with FEMA to create new Digital Flood Insurance Rate Maps that will further assist planning, permitting, and engineering activities. In addition, the new data will be in a format that makes map revisions, due to development and land use changes, more manageable and timely. New FEMA software products such as HAZUS and the FIT tool will also be able to use the new digital data.

Report from for the previous period: Goal 5: Develop an aggressive program to identify and obtain funding for both pre and post disaster mitigation projects. To augment current hazard mitigation efforts, staff should evaluate the use of a permanent funding source for hazard mitigation projects. The results from the analysis should be forwarded to the County Administrator's Office for further direction if appropriate.

The County has permanently funded a Hazard Mitigation Program. Additionally, this Section is cementing its place by coordinating activities with the Public Works, Real Estate, Communications, and Community

Improvement Departments. The Section has also been awarded a Planning Grant by the State to assist in creating a system that will allow the County and State to quickly identify and solve post-disaster funding issues. Additional staff has also been added to the team providing more assistance in grants management and implementation.

5. Should new projects be started or should any of the recommendations or objectives be revised?

The County currently has an aggressive plan that seeks to relieve flooding problems within the county. To augment this effort, staff will begin to evaluate an ordinance in which impacts from development into the Special Flood Hazard Area will be reviewed and impacts mitigated. This analysis, and an assessment of other funding sources for mitigation, will continue during the next review period. Recommendations associated with this effort may be forwarded to the County's Administrator's Office for further direction if appropriate.

Objective Accomplishments of the Floodplain Management Plan -- Annual Progress Report

The National Flood Insurance Program (NFIP) provides federally supported flood insurance in communities that regulate development in floodplains. The Community Rating System (CRS) grades the various Community Floodplain Management Programs and reduces flood insurance premiums in those communities that meet certain requirements. *The County went through both a 5-year Recertification process for the Community Rating System administered by the Insurance Service Office on behalf of FEMA and a Community Assistance Visit administered by the State during this reporting period. The County successfully met all obligations and in fact, improved its Community Rating from a 7 to a 6, thus increasing policy holders' savings to approximately \$2 million annually.* In order to reduce the potential for personal/property losses in flood prone areas and ensure the lowest possible flood insurance premiums for our residents and businesses, Hillsborough County has developed this Floodplain Management Plan. This plan includes components of the previously developed Repetitive Flood Loss Plan; however, current objectives supersede previously developed elements.

Listed below is a review of the County's progress in meeting Plan goals, objectives and action statements.

Goal 1 - Provide leadership in protecting low-income properties and public housing from the impacts of floods. The County's Planning and Growth Management and the Community Improvement Departments have worked together in requesting grants to meet national Housing and Urban Development objectives and to alleviate flooding problems associated with low to moderately-low income families. Through current initiatives, County agencies are working with the State's Division of Community Housing in assisting in removing 12 structures and elevating five structures from the Special Flood Hazard Area.

Additionally, the County's Community Improvement Department is continuing to fund the acquisition of generators for use within designated evacuation shelters to ensure maximum protection within areas of mandatory evacuation during a severe storm event. This equipment will assist those in greatest need during a time of the greatest potential for flooding (Emergency Management Office, 1999 and the Community Improvement Department, 2000).

Goal 2 - Prevent new development in the floodplain from increasing runoff and resulting increases in flood volumes in the floodplain. The County protects wetland and significant wildlife habitat areas through regulations implemented through the County's Environmental Protection Council. The County's development regulations offer

another avenue of protection to persons and property through the Land Development Regulations and plan-review processes. Regulatory processes through agencies under the Board of County Commissioners have worked well in identifying areas of conservation and preservation for the benefit of protecting persons and property that serve to provide watershed storage areas and buffer areas to flood high-hazard areas. These regulations have also served to protect surrounding properties to a greater extent than provided naturally. For example, the County requires a greater amount stormwater retention post-development than was present pre-development (County Land Development Regulations, 1998).

Additionally, in the preceding 12 months the County dealt with 156 zone-change actions that affected 241 parcels within the Special Flood Hazard Area. The SFHA cases were 35% of total cases provided County-wide. This appears consistent since the County is approximately 40% floodplain.

Zoning approvals (including variances to zoning regulations) did not authorize deviation from the Flood Damage Control Regulations that are used to enforce minimum standards under the National Flood Insurance Program. The County has delegated authority of reviewing requests to deviate from standards identified within the Flood Damage Control Regulations to the Hillsborough County Building Board (Part 9 of the Land Development Code). During the preceding 12 months, the Building Board reviewed zero requests to deviate from County minimum standards (approvals granted: 1, Approval associated with Pre-FIRM structure). It must be noted that the Building Board has not allowed a deviation from regulations that is contrary to minimum standards listed in 44 Codes of Federal Regulations.

Regulations enforced through the Planning and Growth Management Department and the Environmental Protection Council have restricted and manage development activity in the floodplain by limiting wetlands encroachment while also preserving open space. This process continues through primarily limiting impervious surface and preservation of critical upland habitat and wetland areas with development approvals.

- 36,392 Acres of Environmental Lands Preserved, and
- 13,770 Acres within the Special Flood Hazard Area (176,081 Acres).

Goal 3 - Develop a public awareness program that informs all property owners in the flood zones that they are located in a flood zone. The County has provided assistance to residential flood-loss victims through various avenues that have included letters, telephone calls, E-mails and site visits. County staff site visits include providing assistance to residents in evaluating potential hazards to a structure, which is provided through a certified planner or a licensed engineer (most times by both).

Residents, both existing and potential, can access information relating to the floodplains at County Permit Services Centers and via the Internet through FEMA's Hazard Maps **and through the Property Appraiser's site**. 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. With respect to the FIRM update, the County has been obligated by FEMA a benefit of approximately \$700,000 to assist in this effort. **The County has submitted 10 of the 17 Watershed plans to FEMA's Map Contractor, Dewberry and Davis, for review. The remaining plans should be there by the end of the 2002 calendar year. It is anticipated that preliminary maps will be presented to the County by late summer of 2003.**

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 flood insurance informational brochures located at the County Administration building and at public libraries. The preceding year illustrates 4,642 instances of customers being assisted in determining whether their properties were designated as within a Special Flood Hazard Area (designated person's assistance to customers, these numbers do not reflect assistance provided through other agencies or indirectly).

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 the use of a berm, flood walls, etc) is mailed to property owners with repetitive flood-loss structures and to known flood prone structures on an annual basis.

Additionally, coordination of emergency services during times of flooding is through the Public Safety Department's Emergency Management Office (EMO). The EMO is responsible for coordinating publication of the County's annual evacuation and severe weather warning publication and in activating the County's warning systems. Other groups within the County provide flood information. These groups include the National Weather Service, the State of Florida Department of Emergency Management, the Water Management District, the American Red Cross, the Tampa Bay Regional Planning Council and the various cities (the County and Cities work closely in disseminating information).

Goal 4 - Provide advice and assistance to property owners concerning the protection of their properties from flooding, local drainage and sewer back-up problems. The County has an aggressive public outreach program. During the preceding review period, the County's Community Rating System Outreach Committee identified outreach projects for the proceeding five years that are directly associated with furthering local efforts in educating residents about flood hazards and the National Flood Insurance Program. Additionally, the County's emergency-management initiatives have included educating small businesses about various hazards and measures of protection (including flooding) through local groups such as Chambers of Commerce, city/County forums, business groups and the University of South Florida. These activities have assisted greatly in educating businesses (**and residents**). Businesses have also been assisted through mail-outs and notification to major organizations such as the Realtor's Board, the Florida Home Builders Association, and others. The Construction community has been assisted through the County working with the Florida Remodelers' Council and the Florida Home Builders Association by supporting training programs. These efforts have been addressed during this review period.

Additionally, the County has provided assistance to residential flood-loss victims through various avenues that have included letters, telephone calls, E-mails and site visits. County staff site visits include providing assistance to residents in evaluating potential hazards to a structure, which is provided through a certified planner or a licensed engineer (most times by both).

As stated previously, the County's Planning and Growth Management and the Community Improvement Departments have worked together in requesting grants and obtaining Federal grants to specifically assist individuals that suffer from flood damage. [Through current initiatives, 12 structures are being removed from the Special Flood Hazard Area. Also, the County has received approval to elevating five structures \(3 near completion, 2 on hold\) from the Special Flood Hazard Area and has received funding to elevate approximately an additional seven.](#)

Goal 5 - Develop an aggressive program to identify and obtain funding for both pre- and post-disaster mitigation projects. The County currently has an aggressive plan that seeks to relieve flooding problems within the county. To

augment this effort, staff has requested and obtained permanent funding to provide notification to those as designated within the Special Flood Hazard Area and to augment assistance to neighborhoods through the County's Local Mitigation program.

Added to this mitigation effort is closely coordinated work with the Public Safety Department's Emergency Management Office to draft an ordinance that will review impacts of development within the Special Flood Hazard Area. It is anticipated that a draft will be prepared during the next reporting period.

Various Departments under the Board of County Commissioners have worked together to identify matching funds for requested State and Federal grant dollars for hazard mitigation purposes. These funds are currently being used to mitigate risks to hazards. Additionally, the County Clerk's Office and the Office of Management and Budget have worked with the Emergency Management Section (formally Hazard Mitigation) to identify avenues to better use grant funds. This effort illustrates the willingness of County agencies to further hazard mitigation within the County.

Goal 6 - Continue and enhance existing programs that acquire wetland areas for passive recreation uses while providing significant watershed volume storage and buffer areas from the floodplain. The County aggressively pursues the acquisition of significant habitats that benefit the community in numerous avenues. Staff working with the county's Environmental Lands Acquisition Program **has acquired approximately 250 additional acres** of wetland and upland areas that can be used for watershed volume storage and floodplain buffer areas. This acreage amount is in-addition to acreage already acquired through this program.

Additionally, the County protects wetland and significant wildlife habitat areas through regulations implemented through the County's Environmental Protection Council. The County's development regulations offer another avenue of protection to persons and property through Land Development Regulations and plan-review processes. Regulatory processes implemented through agencies under the Board of County Commissioners have worked well in identifying areas of conservation and preservation for the benefit of protecting persons and property and that serve to provide watershed storage and designated floodplain buffer areas. These regulations have also served to have developments protect surrounding properties to a greater extent than provided naturally. For example, the County requires a greater amount of retention of stormwater post development than was present pre-development (County Land Development Regulations, 1998).

The County also has a very good recreation program. Through this program and similar initiatives through State and Federal agencies, the County contains resource-based open space that also serves as watershed volume storage and buffers to various categories of floodplains.

Goal 7 - Prioritize capital projects that will mitigate flood impacts in those areas of the County that have experienced significant flooding problems. This task has been completed, but requires an annual review. The Planning and Growth Management Department created an Emergency Management Section. This Section is managed by the County's Hazard Mitigation Manager and works in conjunction with the County's Emergency Management Office. Through the development of the Local Mitigation Strategy (adopted by the Board of County Commissioners), the Section worked through a countywide Local Mitigation Strategy (LMS) Committee to design a mitigation prioritization system. Through the use of the System, the LMS Committee ranked various mitigation projects with respect to the risk to the community, to the number of persons affected, and meeting objectives of the Local Mitigation Strategy. This information has been used in requesting funds from the State, Federal Agencies, and the Board of County Commissioners. Additionally, the list of prioritized projects within the LMS was developed by

taking into consideration current programs implemented through the Public Works Department, which included the current county-wide drainage studies and County stormwater programs.

Additionally, the County's Public Works Department's Stormwater Section has aggressively addressed flooding hazards throughout the County through a five-year program at a cost slightly less than \$100 million. Added to this effort is a program to create Drainage Master Plans for the 17 basins within Hillsborough County and use respective information to update the Federal Flood Insurance Rate Maps. This process is anticipated to be complete in 2002 through assistance provided by the Federal Emergency Management Agency.

Goal 8 - Develop the ability and personnel to review all capital projects in terms of a comprehensive analysis of hazard mitigation opportunities. This activity should include the assignment of a full-time hazard mitigation planner. This task has been completed (also see text under Goal 7). The Planning and Growth Management Department created an Emergency Management Section. The first assignment of the Hazard Mitigation Manager was to complete and have the Board of County Commissioners "adopt" a community Local Mitigation Strategy. The Strategy was adopted on August 18, 1999 and contains mechanisms that have Section staff evaluate annual capital improvement projects with respect to fulfilling hazard mitigation initiatives. This Strategy was subsequently used by the City of Tampa to address the need for a Floodplain Management Plan.

Goal 9 - Develop a hazard mitigation plan that will guide and assist the County in reviewing all new requests for development and in establishing priority for hazard mitigation projects. The County has completed work with all communities and major private-service providers within the county in analyzing risks to area residents and businesses. The community-wide document was compiled through an effort with input provided by both private and public sectors. Additionally, the community document identifies mitigation initiatives and lists prioritized projects that will assist in making the county a better prepared area against hazards that impact public/private agencies, businesses, and residents. The process reviewed and analyzed all potential hazards to the county that took approximately 18 months.

Current processes include reviewing areas susceptible to flooding (inland, riverine and coastal) and potential mitigation initiatives to further public safety protection and protect both public and private property. In review of various sources of data, analyses illustrate that post-FIRM structures within the Special Flood Hazard Area have not flooded due to significant natural events. This illustrates that current regulations and development review procedures work with respect to ensuring new development is protected against risks associated with flooding.

As identified, a "Local Mitigation Strategy" (LMS) was adopted by the Board of County Commissioners on August 18, 1999. To further the LMS and an initiative to analyze development requests with associated risks, two added documents are needed. Documents recommended in pursuing include an ordinance that provides authority to the County in reviewing development requests in high-risk areas and the creation of a redevelopment plan (and associated analyses). The ordinance will provide the mechanism needed to analyze a development request and impacts to public safety and public infrastructure and the redevelopment plan would provide the avenue to better understand development uses best suited for the most hazardous areas of the County.

Goal 10 - Review the effects and locations of areas that experience flooding and determine what steps, if any, the County can take to alleviate future impacts. Through work associated with the Local Mitigation Strategy and the annual review of areas and structures impacted by repetitive floods, a review of past (minimal flooding during this reporting period) flooding "problems" was conducted by multiple agencies within the County. County staff identified that post-FIRM residential and business structures that are within the Special Flood Hazard Area have not

flooded due to significant natural events. This fact illustrates future actions will remain as currently focused, which includes alleviating existing flooding problems, performing studies to better understand drainage patterns to better protect new and old developments, completing stormwater projects and continuing stormwater/drainage maintenance programs. This process is presently occurring and funding assistance is being provided through the Federal Emergency Management Agency.

- Although the County is aggressively addressing flooding issues, the County remains as a Category C jurisdiction with respect to the number of repetitive flood-loss structures. To assist in alleviating this issue, the Building Official will continue to have permit records monitored to ensure that property owners do not substantially improve structures susceptible to flooding unless steps are taken to have the structure brought into code compliance -- monitoring substantial improvements/damage. The current review period included meeting with numerous contractors and residents to review this issue. There have been no case taken to the Building Board seeking variances for floodplain issues over the past year.

Additionally, the County is continuing to assist residents and reduce potential impacts due to flooding disasters. The County will continue to work through its Hazard Mitigation program remove structures from the Special Flood Hazard Areas, to educate citizens and businesses about flooding hazards, work with FEMA to update FIRMs and work towards minimizing threats to the community to both natural and man-made hazards. This includes educating citizens about flood and severe weather warning systems through both flood-protection programs and through the County's participation with Project Impact.

Repetitive Flood Loss Section

The unincorporated area of Hillsborough County has been identified as a National Flood Insurance Program category "C" community by the Federal Emergency Management Agency. A repetitive loss is defined as two (2) or more insurance claims in excess of \$1,000 each for the same property. A category "C" community is one in which ten (10) or more repetitive losses have occurred in the community. Because repetitive flood-loss properties represent approximately one third of the flood insurance claims processed by FEMA, they have made the adoption of a plan to address the specific properties in this classification a mandatory requirement for participation in the Community Rating System (CRS).

The possible activities that could be undertaken to reduce potential flooding to repetitive loss properties must be balanced with rights of property owners, the ability of the County to finance various activities and the potential benefits of those activities. Considering these variables, the County has undertaken the following:

1. The Planning and Growth Management Department worked to update the list of repetitive loss properties maintained within the Flooded Structure Database. Another system (Land Information Management System) is used in the process of monitoring permit activity associated with specific structures to ensure construction activity (based upon reported values) does not exceed 50% of the structure's values unless actions are taken to have the entire structure brought into code compliance. (This process is as defined in the Flood Damage Control Regulations.)
2. Pursuant to the requirements of the National Flood Insurance Program, the County through the Community Rating System Coordinator has sent each repetitive loss property identified by FEMA a personal warning letter. These letters explained that their homes are susceptible to flooding and include information on retrofitting, elevation, relocation and stormwater protection.

3. The Planning and Growth Management Department did perform a site visit for all repetitive-flood loss structures. The result of this analysis was comprehensively addressed in the previous reporting period and did not call for an update to be sent to the County's ISO Coordinator. Additionally, this review was a part of the County's annual inspection of all (existing or newly identified) repetitive loss properties to ascertain the cause of flooding and suggest possible methods to prevent future flooding of these properties.
4. The County (through the Community Rating System Coordinator) did request and receive a listing of flood claims processed within the County. This listing illustrated single-event flood-loss structures.
5. The Community Rating System Coordinator performed an analysis of flood losses. Information obtained from this analysis was reviewed for the inclusion into the Local Mitigation Strategy (adopted by the Board of County Commissioners). The analysis for this reporting period **did include changes from the previous year's report to the County Administrator as Tropical Storm Gabrielle added 21 structures to the Repetitive Flood Loss List**. This is an annual task to identify to County managing staff any emerging patterns of flooding. These patterns are used in the decision process for zoning changes and prioritization of capital projects listed within the LMS and is provided to the Public Works Department's Stormwater Section.

Flood Damage Prevention Action Plan

Taking into consideration the existing fiscal constraints in Hillsborough County and the realization that all floodplain management activities are conducted through various agency-operating budgets, the following action plan is designed to serve as a balanced, comprehensive program to mitigate and manage the impact of development activity in the floodplain.

1. **Prevention** -- The Planning and Growth Management Department, Planning and Zoning Division conducts County regulatory review activities associated with land-development requests, which includes reviewing the need for preservation of open space for mitigating impacts associated with development in identified floodplain area. The County's Land Development Code (LDC) provides regulations that limit and manage development activity in the floodplain by limiting encroachment into wetlands and preserving open space. This is primarily accomplished by ensuring limitations on impervious surface and preservation of critical areas.
2. **Stormwater Management** -- The enforcement of the Land Development Code to ensure requests for development retains and attenuates stormwater impacts. Specifically, the Stormwater Technical Manual continues 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 evaluates 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 17 basins identified in the Stormwater Management Element of the County's Comprehensive Plan.
3. **Drainage System Maintenance** -- The County continues to take the appropriate actions to maintain the County's stormwater management systems. The Water and Public Works Departments, through maintenance programs funded by its operating budget, maintains the stormwater conveyance systems to ensure that flooding impacts are minimized.

4. Property Protection through Acquisition -- The County has set aside matching funds to be used with State and Federal Funding (initiated through the Hazard Mitigation Program) to acquire 15 properties (12 structures and 3 vacant lots) that have experienced repetitive losses due to flooding. The County had acquired these listed properties during the last reporting period and is currently performing demolitions. Hillsborough County spent \$101, 728.00 or 12.5% of the cost of this project (\$813,820 total) on acquisition. In addition, the County paid \$14,875 or 12.5% of the total cost of demolition (\$119,000).

Additionally, through land acquisition purchases by the Environmental Land Acquisition Program, the County will continue to remove property located in the floodplain from the impacts of development. The continuing implementation of this program regarding flood mitigation is important because the removal of property located in the floodplain and its preservation as resource-based recreation maintains storage capacity and removes respective floodplain areas from potential development. A complimentary benefit is the acquisition of adjacent uplands as open space further reduces the introduction of impervious surfaces that can contribute to flooding problems -- buffer to floodplains.

5. Building Elevation -- Through the enforcement of the County's Flood Damage Control Regulations (Ordinance) and in conjunction with its participation in the National Flood Insurance Program 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 completed three elevation projects on repetitive loss properties during the 2001-2002 year.** The County views this activity as a major contribution toward mitigating the impacts of flooding and is currently in the process with the State and FEMA to elevate additional structures. **The County is also working on a planning grant where one of the main goals is to target elevation and acquisition projects.**
6. Insurance -- The County will continue to actively participate in the National Flood Insurance Program. A major contribution to this effort is the recognition of the Community Rating System program is managed by a full-time staff member. To this end, the County has developed a Hazard Mitigation program staffed full-time. As part of the program, it is recognized that a major emphasis should be placed on the education of those property owners who are located in the floodplain that they should secure flood insurance. Increased insurance policies will add protection to policyholders during times of flooding; for example, the magnitude of potential flooded structures may include 42,000 structures indicated by FEMA or as great as 54,000 parcels that are (or could be) built upon (County data).
7. Emergency Services -- The coordination of emergency services during times of flooding is through the Public Safety Department's Emergency Management Office (EMO). The EMO is responsible for coordinating publication of the County's annual evacuation and severe weather warning publication and in activating the County's warning systems.

Flood Warning -- When the National Weather Service issues flood watch or warnings, the EOC initiates those activities appropriate to the potential threat of the event.

Flood Response -- Through the EOC, the Roads and Streets Department furnishes sandbags to County residents at Maintenance Stations located throughout the county. If evacuation is deemed necessary, the EOC opens shelters in affected areas and coordinates activities of the Sheriff's Office, the Red Cross Emergency Medical services and other agencies as required to accomplish a safe evacuation.

8. Structural Projects -- The County's Stormwater Program was approved by the Board of County Commission in fiscal year 1998. These activities include projects that implement the County's Master Drainage Plan. County staff reviews, evaluates and prioritizes needs so that available funding is allocated to those projects that are most critical in alleviating flood impacts.
9. Storm Sewers -- The County, as part of its Capital Improvements Program 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.
10. 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.
11. Public Information -- The County has undertaken various activities that advise property owners concerning the hazards and potential mitigating activities associated with building in the floodplains. This is evident through the County's participation with FEMA as a Project Impact partner.
12. 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). The County has also mapped the storm surge from hurricanes based on the SLOSH model.

Mitigation Accomplishments

	Objective Area / Project Name	Department	Jurisdiction	Estimate	In CIP	Status	Year Complet	VA Factor	Social C/B	Project Criteria
1	Objective 1: Public Education									
1.1	Neighborhood Information Program	Unassigned	CW	N/A	No	Ongoing		N/A	3	8
1.2	Retrofit Existing Structures	Property Owners	COW	N/A	No	Ongoing		N/A	1.45	8
1.3	Hazard Mitigation Education Program	Local Mitigation Strategy W.G.	CW	N/A	No	Ongoing		N/A	3	8
1.4	"Safe Room" Program Development	Local Mitigation Strategy W.G.	CW	N/A	No	Ongoing		N/A	N/A	9
1.5	Hazard Mitigation Website Development		CW	Hazard Mitigation	No	Ongoing		N/A	N/A	9
2	Objective 2: Coordination									
2.1	Private Sector Coordination	EOC	CW		No	Ongoing		N/A	3	8
2.2	Hazard Mitigation Administration	PGM, EOC, PIng and Budget	CO, CT		No	Ongoing		N/A	3	9
2.3	Project Impact	RPC, PGM/EOC, and	CW		N/A	Ongoing		N/A	>1	8
2.4	Community Outreach Program	Hazard Mitigation/ American Red Cross	CW		No	Ongoing		N/A	N/A	8
2.5	Evaluation of School Board Plan for New Sites	Cross	CW		No	Ongoing		Yes	N/A	9
2.6	Assessment of Existing Resources & Enhanced Coordination Efforts	HC Fire Dept	CO		No	Ongoing		N/A	N/A	9
2.7	Assessment of Procedures for Mass Casualty Management	HC Fire Dept	CW		No	Ongoing		N/A	N/A	9
3	Objective 3: Development Management									
3.02B	City of Tampa Assessment	Transportation	CT	\$30,000	No	Completed	FY'01	N/A	11.33	8
3.03A	Automatic Vehicle Locator	Tpa Fire Rescue	CT	\$500,000	No	Completed	FY'00	N/A	4	8
3.05	Install smoke detectors	Tpa Fire Rescue	CT		No	Completed	FY'00	N/A	0.07	8
3.09B	South Tampa Greenway/Urette	Parks Dept.	CT	\$180,000	N/A	Completed	FY'00		>1	
3.09C	McKay Bay Greenway/Turley	Parks Dept.	CT	\$315,000	N/A	Completed	FY'00		>1	

Mitigation Accomplishments

	Objective Area / Project Name	Department	Jurisdiction	Estimate	In CIP	Status	Year Complet	VA Factor	Social C/B	Project Criteria
3.09D	Rivercrest Park Addition/Reed	Parks Dept.	CT	\$744,500	N/A	Completed	FY'00		>1	
3.09H	Fort Brooke Park Expansion	Parks Dept.	CT	\$5,488,560	N/A	Completed	FY'01		>1	
3.12B	City of Tampa Plan	CSC	CT	\$35,000	N/A	Completed	FY'00	N/A	1.35	7
3.13A	30th Street between McBerry & Wilder Drainage	Sanitary Sewers	CT	\$195,000	Yes	Completed	FY'00	N/A	>1	8
3.13AA	Ybor City Line Replacement	Sanitary Sewers	CT	\$98,600		Completed	FY'01		>1	
3.13AB	Newport/Morrison to Swann	Sanitary Sewers	CT	\$87,500		Completed	FY'01		>1	
3.13AC	Manhattan Manor Stormwater Improvements	Sanitary Sewers	CT	\$24,300		Completed	FY'01		>1	
3.13AD	17th St Storm Sewer Bypass	Sanitary Sewers	CT	\$85,600		Completed	FY'01		>1	
3.13AE	Upper Bayshore/EI Prado	Sanitary Sewers	CT	\$87,500		Completed	FY'01		>1	
3.13AF	Glen Avenue/Woodlawn to Ohio	Sanitary Sewers	CT	\$54,300		Completed	FY'01		>1	
3.13AG	Rembrandt and Manhattan	Sanitary Sewers	CT	\$35,000		Completed	FY'01		>1	
3.13X	MacDill Avenue Ditch Closure	Stormwater	CT	Unknown	No	Complete	2001			
3.13AK	Santiago/Lois to Grady	Sanitary Sewers	CT	\$350,000		Completed	FY'01		>1	
3.13C	Spanishtown Creek Drainage Improvements	Sanitary Sewers	CT	\$2,339,098	Yes	Completed	FY'01	N/A	>1	8
3.14BA	Curiosity Creek Drainage Improvements	Stormwater	CT	\$533,287	Yes	Complete	2002			
3.13H	Beach Street Canal Rehabilitation	Stormwater	CT	\$445,000	Yes	Complete	2000			
3.13J	O'Brien: Cleveland and Azeele Drainage Improvement	Stormwater	CT	\$380,000	Yes	Complete	2000			
3.13K	Takomah Trail Drainage Improvements	Sanitary Sewers	CT	\$190,000	Yes	Completed	FY'01		>1	
3.13M	Pipe Rehabilitation: Oak Leaf Ave. & Lincoln Ave.	Stormwater	CT	\$800,000	Yes	Complete	2002			
3.13N	Box Culvert Rehabilitation: Lawn Avenue	Stormwater	CT	\$400,000	Yes	Complete	2001			

Mitigation Accomplishments

	Objective Area / Project Name	Department	Jurisdiction	Estimate	In CIP	Status	Year Complet	VA Factor	Social C/B	Project Criteria
3.13O	Hamilton Avenue Ditch Replacement	Stormwater	CT	\$550,000	Yes	Complete	2003			
3.13T	Bay Way Canal Bank Erosion Control	Sanitary Sewers	CT	\$55,000		Completed	FY'01		>1	
3.13U	Gandy/Himes to 6th	Sanitary Sewers	CT	\$691,000		Completed	FY'01		>1	
3.13V	CIPP/SWM Culvert Rehab (Morrison/Armenia)	Sanitary Sewers	CT	\$302,000		Completed	FY'01		>1	
3.13W	Gandy Flume Rehab	Sanitary Sewers	CT	\$235,000		Completed	FY'01		>1	
3.13X	East Tampa Pond Fencing	Sanitary Sewers	CT	\$98,000		Completed	FY'01		>1	
3.13Y	Brick Restoration/17th St. between 7th & 8th Avenues	Sanitary Sewers	CT	\$31,500		Completed	FY'01		>1	
3.13Z	15th Ave/51st Street to 52nd Street	Sanitary Sewers	CT	\$124,500		Completed	FY'01		>1	
3.14A	Alva St. W/Hesperides	Sanitary Sewers	CT	\$13,000		Completed	FY'00	N/A	>1	8
3.14AW	Occident/San Miguel	Sanitary Sewers	CT	\$140,000	No	Completed	FY'00	N/A	>1	8
3.14BA	Crest Ave W/Habana Ave North	Sanitary Sewers	CT	\$225,000	No	Completed	FY'00	N/A	>1	8
3.14BH	27TH Street N/Yukon	Sanitary Sewers	CT	\$180,000	No	Completed	FY'01	N/A	>1	8
3.14BO	Occident/San Jose Street West	Sanitary Sewers	CT	\$250,000	No	Completed	FY'01	N/A	>1	8
3.14BU	Giddens Avenue/30TH Street North	Sanitary Sewers	CT	\$350,000	No	Completed	FY'00	N/A	>1	8
	Armenia & Platt	Stormwater	CT	\$1,000,000	No	Complete	1999	N/A	>1	8
3.14CH	Linebaugh & Nebraska	Stormwater	CT	\$1,162,500	No	Complete	1999	N/A	>1	8
3.14CZ	I-4 E OF 50TH ST	Sanitary Sewers	CT		No	Completed	FY'00	N/A	>1	8
3.14DA	16TH Street North (YBOR CITY)	Sanitary Sewers	CT		No	Completed	FY'01	N/A	>1	8
3.14DB	Cleveland Street & Lois Avenue	Sanitary Sewers	CT	\$1,578,000	No	Completed	FY'01	N/A	>1	8
3.14DC	S Dale Mabry Highway & Neptune Avenue	Sanitary Sewers	CT		No	Completed	FY'01	N/A	>1	8

Mitigation Accomplishments

	Objective Area / Project Name	Department	Jurisdiction	Estimate	In CIP	Status	Year Complet	VA Factor	Social C/B	Project Criteria
3.14DG	Palma Ceia Drainage Improvements	Sanitary Sewers	CT	\$1,120,000		Completed	FY'01		>1	
3.14DH	Ybor City Flooding/Trolley	Sanitary Sewers	CT	\$29,000		Completed	FY'01		>1	
3.14DM	Improvements at Intersection of Riverhills Dr and Druid Hills	Public Works	TT	\$30,000	Yes	Completed				9
3.14DN	Sandbag Filling Machine	Public Works	CT/TT		No	Completed		N/A	6	8
3.14DO0.0	Grant Hunter Attenuation Pond	Engineering	PC	\$700,000	No	Completed			>1	8
3.14DO0.0	Paradise Fruit Outfall Project	Engineering	PC	\$1,600,000	No	In Progress			>1	8
3.14DO0.0	Empire Base Outfall Canal	Engineering	PC	\$500,000	Yes	Completed	FY'00		>1	9
3.14I	Blann Drainage Ditch	Sanitary Sewers	CT	\$60,000	Yes	Completed	FY'00	N/A	>1	8
3.14L	Mendenhall Ditch	Sanitary Sewers	CT	\$60,000	Yes	Completed	FY'00	N/A	>1	8
3.14M	N Boulevard -- Patterson To Kirby	Sanitary Sewers	CT	\$50,000	Yes	Completed	FY'00	N/A	>1	8
3.14N	POLICE 911 CENTER	Sanitary Sewers	CT	\$55,000	Yes	Completed	FY'00	N/A	>1	8
3.14O	Hollywood/North Boulevard	Sanitary Sewers	CT	\$60,000	Yes	Completed	FY'00	N/A	>1	8
3.14S	10502 N Lantana Avenue	Sanitary Sewers	CT	\$60,000	No	Completed	FY'01	N/A	>1	8
3.14W	Santiago/Lois To Grady	Sanitary Sewers	CT	\$100,000	Yes	Completed	FY'00	N/A	>1	8
4	Objective 4: Critical Facilities									
4.04AC.04	Electronics Generator Replacement	Public Works	CT	\$77,000		Completed	FY'01		>1	
4.04B	Tampa Museum Emergency Generator	Public Works	CT	\$30,000	Yes	Completed	FY'00		>1	9
4.04Q	Tampa Theater Roof Replacement	Tampa Theater	CT	\$140,000	Yes	Completed	FY'00	N/A	>1	8
4.2	Hillsborough River Plant Hurricane Shutters	Water Dept.	CT	\$100,000		Complete	FY'01		>1	

Proposed Mitigation Initiatives

	Objective Area / Project Name	Department	Use	Estimate	In CIP	Status	Year Complet	VA Factor	Social C/B
1	Objective 1: Public Education								
1.1	Neighborhood Information Program	Unassigned	CW	N/A	No	Ongoing		N/A	3
1.2	Retrofit Existing Structures	Property Owners	CW	N/A	No	Ongoing		N/A	1.45
1.3	Hazard Mitigation Education Program	Local Mitigation Strategy W.G.	CW	N/A	No	Ongoing		N/A	3
1.4	“Safe Room” Program Development	Local Mitigation Strategy W.G.	CW	N/A	No	Ongoing		N/A	N/A
1.5	Hazard Mitigation Website Development		CW	Hazard Mitigation	No	Ongoing		N/A	N/A
2	Objective 2: Coordination								
2.1	Private Sector Coordination	EOC	CW		No	Ongoing		N/A	3
2.2	Hazard Mitigation Administration	PGM, EOC, PIng and Budget	CO, CT		No	Ongoing		N/A	3
2.3	Project Impact	RPC, PGM/EOC, and	CW		N/A	Ongoing		N/A	>1
2.4	Community Outreach Program	Hazard Mitigation/ American Red Cross	CW		No	Ongoing		N/A	N/A
2.5	Evaluation of School Board Plan for New Sites		CW		No	Ongoing		Yes	N/A
2.6	Assessment of Existing Resources & Enhanced Coordination Efforts	HC Fire Dept	CO		No	Ongoing		N/A	N/A
2.7	Assessment of Procedures for Mass Casualty Management	HC Fire Dept	CW		No	Ongoing		N/A	N/A
3	Objective 3: Development Management								
3.01	Early Warning Systems	EOC	CW		No			N/A	11.33
3.02	Transportation Corridor Assessment								
3.02A	Hillsborough County Assessment	PGM	CO		No				>1
3.02C	Tampa Emergency Management Information System (TEMIS)	Public Works	CT	\$665,760					
3.02D	Tampa Terrorism Immediate Response Initiative (TTIRI)	TPD	CT	\$929,977					

Proposed Mitigation Initiatives

	Objective Area / Project Name	Department	Use	Estimate	In CIP	Status	Year Complet	VA Factor	Social C/B
3.03	Automatic Site\Vehicle Locator								
3.03B	On Board Computers with GIS Capabilities	Real Estate/GIS	CW	\$50,000	Yes			N/A	N/A
3.03C	On Board Computers with GIS Capabilities	Roadway Maint.	CO	\$50,000	No			N/A	9
3.04	Code Enforcement	Neigh. Improv.	CT			N/A		N/A	4
3.06	Hazard Mitigation Home/Business Inspection Program	Neigh. Improv.	CW			No		N/A	1.45
3.07	Relocate Structures	Unassigned	CW			No		N/A	>1
3.08	Structural Elevations and Acquisitions		CW			No		N/A	>1
3.08A	Repetitive Flood Loss Structures		CO			No		N/A	>1
3.08B	400+ Repetitive Flood Loss Residential Structures		CW			No		N/A	>1
3.08C	Flood proofing Commercial Structures		CW			No		N/A	>1
3.09	Land Acquisition								
3.09A	Downtown Ribbon of Green Project	Parks Dept.	CT	\$4,200,000	No	In Progress		N/A	>1
3.09E	Rivercrest Park Expansion (3)	Parks Dept.	CT	Not Available	N/A	In Progress			
3.09F	Greenwood Avenue (2)	Parks Dept.	CT	Not Available	N/A	In Progress			
3.09G	River Tower (2)	Parks Dept.	CT	Not Available	N/A	In Progress			
3.11A	Update Flood Zone Maps	County Public Works & Haz.	CW	\$8,000,000	Yes	In Progress		N/A	>1
3.11B	Update Flood Zone Maps	CSC	CT	\$25,000	No	In Progress			
3.12	Floodplain Management Plan								
3.12A	Hillsborough County Plan	PGM	CO		No			N/A	>1
3.13AJ	North B/Marie to Himes	Stormwater	CT	Unknown					

Proposed Mitigation Initiatives

	Objective Area / Project Name	Department	Use	Estimate	In CIP	Status	Year Complet	VA Factor	Social C/B
3.13AL	County Stormwater Facility Improvements	Public Works	CO	\$93,000,000	Yes			N/A	>1
3.13AM	Plant City Stormwater Facility Improvements	Public Works	PC	\$5,950,664	Yes			N/A	>1
3.13B	USF Area - Duck Pond Outfall Improvements	Stormwater	CT	\$565,000	Yes	In Progress		N/A	>1
3.13D	Columbus @ 57th Street Drainage Improvements	Stormwater	CT	\$500,000	Yes	Inactive		N/A	>1
3.13E	Henderson & Dale Mabry Drainage Improvements	Stormwater	CT	\$1,000,000	Yes	In Progress		N/A	>1
3.13G	Poinsettia Pond Pump Station Improvements	Stormwater	CT	\$1,500,000	Yes	In Progress			
3.13I	109th Avenue and North Blvd. Pump Station Improvement	Stormwater	CT	\$160,000	Yes	In Progress			
3.13L	Outfall Replacement: Westshore Boulevard	Stormwater	CT	\$330,000	Yes				
3.13P	Lemon/Gray Trunk Sewer Rehabilitation	Stormwater	CT	\$311,000	Yes				
3.13Q	Westshore: Westshore Circle to Gandy Line Replacement	Stormwater	CT	\$520,000	Yes	In Progress			
3.13R	Pump Stations: Replacement, Rehab, Maintenance, etc.	Stormwater	CT	\$1,440,000	Yes	In Progress			
3.13S	Westshore Blvd.: Westshore Circle to Gandy Outfall Replacement	Stormwater	CT	\$300,000	Yes	In Progress			
3.14AA	Tampa Bay Blvd/Gomez Avenue	Stormwater	CT	\$65,000	No			N/A	>1
3.14AB	1808 W Norfolk Street	Stormwater	CT	\$65,000	No			N/A	>1
3.14AC	2946 W Columbus Drive (Kings Manor)	Stormwater	CT	\$120,000	No			N/A	>1
3.14AD	6203 Interbay Avenue	Stormwater	CT	\$65,000	No			N/A	>1
3.14AE	2135 W Bird Street	Stormwater	CT	\$85,000	No			N/A	>1
3.14AF	Sunset Blvd W/Westshore Boulevard S	Stormwater	CT	\$75,000	No			N/A	>1
3.14AG	1013 E Holland Street	Stormwater	CT	\$95,000	No			N/A	>1
3.14AH	3006 Fern Street	Stormwater	CT	\$85,000	No			N/A	>1

Proposed Mitigation Initiatives

	Objective Area / Project Name	Department	Use	Estimate	In CIP	Status	Year Complet	VA Factor	Social C/B
3.14AI	507 N Woodlynne Avenue	Stormwater	CT	\$85,000	No			N/A	>1
3.14AJ	Nebraska: Emma Horth of MLK Boulevard	Stormwater	CT	\$170,000	No			N/A	>1
3.14AK	Tampania Ave (West Tampa Elementary)	Stormwater	CT	\$205,287	Yes	In Progress		N/A	>1
3.14AL	6325 S Church Avenue	Stormwater	CT	\$60,000	No			N/A	>1
3.14AM	2905 - 2907 Comanche Avenue	Stormwater	CT	\$120,000	No			N/A	>1
3.14AN	305 E Althea Avenue	Stormwater	CT	\$100,000	No			N/A	>1
3.14AO	6115 N 23RD Street	Stormwater	CT	\$100,000	No			N/A	>1
3.14AP	Diana Street E/Julie Avenue	Stormwater	CT	\$125,000	No			N/A	>1
3.14AQ	Lotuts Avenue /Taliaferro Avenue North	Stormwater	CT	\$125,000	No			N/A	>1
3.14AR	Armenia Avenue N/Marquette Avenue West	Stormwater	CT	\$180,000	No			N/A	>1
3.14AS	3604 E 7TH Avenue	Stormwater	CT	\$150,000	No			N/A	>1
3.14AT	Ballast Point Blvd W/ Westshore Blvd. South	Stormwater	CT	\$120,000	No			N/A	>1
3.14AU	Columbus Near 57TH Street	Stormwater	CT	\$250,000	No			N/A	>1
3.14AV	10TH Street N/Bird Street East	Stormwater	CT	\$150,000	No			N/A	>1
3.14AX	Hamilton Avenue W/Howard Avenue	Stormwater	CT	\$157,500	No			N/A	>1
3.14AY	Marlin Ave W 3305; Gandy Blvd/6TH Street	Stormwater	CT	\$150,000	No			N/A	>1
3.14AZ	9314 Forest Hills Drive	Stormwater	CT	\$135,000	No			N/A	>1
3.14BB	North B W 2906/Gomez	Stormwater	CT	\$125,000	No			N/A	>1
3.14BC	9313 N Mary Avenue	Stormwater	CT	\$175,000	No			N/A	>1
3.14BD	Forest Hills Drive/Pedriz/Willow	Stormwater	CT	\$200,000	No			N/A	>1

Proposed Mitigation Initiatives

	Objective Area / Project Name	Department	Use	Estimate	In CIP	Status	Year Complet	VA Factor	Social C/B
3.14BE	5802 S 6TH Street	Stormwater	CT	\$150,000	No			N/A	>1
3.14BF	Castle CT.S/Nebraska Avenue	Stormwater	CT	\$175,000	No			N/A	>1
3.14BG	El Portal Drive N/Sitka Avenue East	Stormwater	CT	\$225,000	No			N/A	>1
3.14BI	Forest Hills Drive/Newport Circle	Stormwater	CT	\$177,500	No			N/A	>1
3.14BJ	10414 North Connecusett Road	Stormwater	CT	\$250,000	No			N/A	>1
3.14BK	10016 N Hyacinth Avenue	Stormwater	CT	\$195,000	No			N/A	>1
3.14BL	Oakwood Avenue E/20TH Street	Stormwater	CT	\$250,000	No			N/A	>1
3.14BM	Interbay Blvd/Interbay Avenue	Stormwater	CT	\$176,000	No			N/A	>1
3.14BN	3311 W Napoleon Avenue	Stormwater	CT	\$170,000	No			N/A	>1
3.14BP	Annette Avenue N 109TH Avenue	Stormwater	CT	\$360,000	No			N/A	>1
3.14BQ	60TH Street N/10TH Avenue (60TH Street Ditch)	Stormwater	CT	\$500,000	No			N/A	>1
3.14BR	Jasmine Avenue N/Linebaugh Avenue East	Stormwater	CT	\$275,000	No			N/A	>1
3.14BS	Florida Avenue & Broad Street	Stormwater	CT	\$562,000	No			N/A	>1
3.14BT	Lancaster/Faul/Sherrill	Stormwater	CT	\$250,000	No			N/A	>1
3.14BV	Westshore/Longfellow/Dundee	Stormwater	CT	\$340,000	No			N/A	>1
3.14BW	Armenia Avenue S/Jetton/Georgia	Stormwater	CT	\$210,000	No			N/A	>1
3.14BX	2703 N Sanders Drive	Stormwater	CT	\$665,000	No			N/A	>1
3.14BY	Armenia Avenue & Kirby Street	Stormwater	CT	\$600,000	No			N/A	>1
3.14BZ	1202 East Poinsettia Avenue	Stormwater	CT	\$350,000	No			N/A	>1
3.14C	9515 N Ashley Street	Stormwater	CT	\$37,500	No	In Progress		N/A	>1

Proposed Mitigation Initiatives

	Objective Area / Project Name	Department	Use	Estimate	In CIP	Status	Year Complet	VA Factor	Social C/B
3.14CA	4518 W Peral Avenue	Stormwater	CT	\$247,000	No			N/A	>1
3.14CB	Euclid Avenue & Manhattan Avenue	Stormwater	CT	\$700,000	No			N/A	>1
3.14CC	Paxton & 6TH Avenue	Stormwater	CT	\$415,000	No			N/A	>1
3.14CD	Peral/Dale Mabry/Grady	Stormwater	CT	\$550,000	No			N/A	>1
3.14CE	Sevilla Circle/Leona Street West	Stormwater	CT	\$435,000	No			N/A	>1
3.14CG	Westshore Avenue From Cypress to I-275	Stormwater	CT	\$1,000,000	No			N/A	>1
3.14CI	50TH Street (Betwee Adamo Drive & Acline Drive)	Stormwater	CT	\$1,200,000	No			N/A	>1
3.14CJ	Himes Avenue S/Palmire To San Luis	Stormwater	CT	\$1,160,000	No			N/A	>1
3.14CK	111TH Avenue E/26TH Street North (Duck Pond)	Stormwater	CT	\$1,500,000	No			N/A	>1
3.14CL	Hillsborough & 30TH Street	Stormwater	CT	\$1,500,000	No			N/A	>1
3.14CM	Florida Avenue (From Palm Avenue To MLK)	Stormwater	CT	\$2,500,000	No			N/A	>1
3.14CN	Ashley Drive N/Azalea	Stormwater	CT	\$1,230,000	No			N/A	>1
3.14CO	109TH E oF North Boulevard (Curiosity Project)	Stormwater	CT	\$3,000,000	No			N/A	>1
3.14CP	22ND Street IN Palmetto Beach	Stormwater	CT	\$3,000,000	No			N/A	>1
3.14CQ	Kennedy & Firestone Bldg Ramp	Stormwater	CT	\$3,500,000	No			N/A	>1
3.14CR	Henderson Blvd & S Dale Mabry Highway	Stormwater	CT	\$7,500,000	No			N/A	>1
3.14CS	Clark Avenue S 117 (Cleveland Street Upgrade)	Stormwater	CT	\$3,000,000	No			N/A	>1
3.14CT	Iowa Avenue W/6TH Street South	Stormwater	CT	\$5,375,000	No			N/A	>1
3.14CU	Drew Park	Stormwater	CT	\$9,000,000	No			N/A	>1
3.14CV	Habana Avenue S/Azeele Street West	Stormwater	CT	\$5,500,000	No			N/A	>1

Proposed Mitigation Initiatives

	Objective Area / Project Name	Department	Use	Estimate	In CIP	Status	Year Complet	VA Factor	Social C/B
3.14CW	Elliott/Ingraha/Morton	Stormwater	CT	\$6,500,000	No			N/A	>1
3.14CX	1ST Street S/Interbay/Gandy	Stormwater	CT	\$7,915,000	No			N/A	>1
3.14CY	Kennedy & Rome (Spanish Town Creek)	Stormwater	CT	\$10,200,000	No			N/A	>1
3.14D	3915 E Genesee Street	Stormwater	CT	\$30,000	No			N/A	>1
3.14DD	Manhattan Avenue S Of Henderson	Stormwater	CT		No			N/A	>1
3.14DE	Park Shoreline Erosion Control	Parks	CT	\$228,704		In Progress			
3.14DF	Orchid Avenue at Jasmine Pond Enlargement	Stormwater	CT	\$990,000		On Hold			
3.14DJ	Quicksander	Roadway Maint.	CO	\$56,000	No			N/A	>1
3.14DO	Plant City Flood Control and Prevention Projects								
3.14DO0.0	Paradise Fruit Outfall Project	Engineering	PC	\$1,600,000	No	In Progress			>1
3.14DP	Eastside Canal Masterplan Projects	Engineering	PC	\$7,500,000	No				>1
3.14DP.01	Haines Jenkins Flood Pond Expansion Phases 1-3	Engineering	PC	\$2,800,000					
3.14DP.02	Tomlin, Gilchrest and Pennsylvania Culvert Replacements	Engineering	PC	\$800,000					
3.14DP.03	Gilchrest/Pennsylvania Ave to Reynolds Street Culvert	Engineering	PC	\$800,000					
3.14DP.04	Reynolds Street to CSX Railroad Channel Improvements	Engineering	PC	\$600,000					
3.14DP.05	Laura Street Culvert and Flood Improvements	Engineering	PC	\$1,200,000					
3.14DP.06	Alternative Project - Regional 50 acre pond at Cherry St and Channel Improvements	Engineering	PC	\$7,500,000					
3.14DQ	MLK Surface Flood Relief Project - Maryland to Park Road	Engineering	PC	\$40,000					
3.14DR	Vermont Street Flood Relief Project	Engineering	PC	\$35,000					
3.14DS	Washington Street Flood Relief Project	Engineering	PC	\$600,000					

Proposed Mitigation Initiatives

	Objective Area / Project Name	Department	Use	Estimate	In CIP	Status	Year Complet	VA Factor	Social C/B
3.14DT	Sydney Road Culvert Upgrade	Engineering	PC	\$175,000					
3.14DU	Calhoun Street Flood Relief Project	Engineering	PC	\$700,000					
3.14DV	Ohio Street Flood Outfall from Maryland Ave West	Engineering	PC	\$125,000					
3.14DW	Westside Canal Erosion Repairs	Engineering	PC	\$150,000					
3.14DX	English, Garden, Dixie Storm Water Project	Engineering	PC	\$250,000					
3.14DY	Franklin Street Flood Relief Project	Engineering	PC	\$350,000					
3.14E	2117 W Clifton Street	Stormwater	CT	\$35,000	No			N/A	>1
3.14F	Moody Avenue S/Stroud Avenue West	Stormwater	CT	\$40,000	No			N/A	>1
3.14G	7209 N Highland Avenue	Stormwater	CT	\$30,000	No			N/A	>1
3.14H	1711 W Rion Vista Avenue	Stormwater	CT	\$45,000	No			N/A	>1
3.14J	1417 E Holland Street	Stormwater	CT	\$35,000	No			N/A	>1
3.14K	1004 E 109TH Avenue	Stormwater	CT	\$40,000	No			N/A	>1
3.14P	5802 N Florida Avenue	Stormwater	CT	\$45,000	No			N/A	>1
3.14Q	4205 River Hills Drive	Stormwater	CT	\$65,000	No			N/A	>1
3.14R	Court Drive	Stormwater	CT	\$84,000	No			N/A	>1
3.14T	6807 S MacDill Avenue	Stormwater	CT	\$40,000	No			N/A	>1
3.14U	3904 W Lemon Street	Stormwater	CT	\$50,000	No			N/A	>1
3.14V	11012 N Oregon Avenue	Stormwater	CT	\$75,000	No			N/A	>1
3.14X	6824 S Wall Street	Stormwater	CT	\$60,000	No			N/A	>1
3.14Y	4822 E Temple Heights Road	Stormwater	CT	\$75,000	No			N/A	>1

Proposed Mitigation Initiatives

	Objective Area / Project Name	Department	Use	Estimate	In CIP	Status	Year Complet	VA Factor	Social C/B
4.01	Critical Facilities Countywide Accessible System and System Maintenance	Plng & Mgmt, EOC, PGM, ITS, Local Mitigation Strategy W.G.	CT, CO, TT, PC,		No			N/A	>1
4.02	Critical Facilities Rating System		CW		No			N/A	>1
4.03	Critical Facilities Inspections	Unassigned	CW	\$30,000	No			N/A	>1
4.04	Critical Facilities Improvements								
4.04A	City-Wide Communications System Improvements	Public Works	CT	\$1,800,000	Yes			N/A	3
4.04AA	Port Tampa Community Center Expansion	Recreation Dept	CT	\$1,620,000				14	>1
4.04AB	Retrofit Hurricane Shelters	Emgcy Mgmt, School Board,	CW		No				>1
4.04AB.01	Adams Middle School	Emgcy Mgmt, HCSB, ARC	CW						
4.04AB.02	Brooker Elementary School	Emgcy Mgmt, HCSB, ARC	CW						
4.04AB.03	Buckhorn Elementary School	Emgcy Mgmt, HCSB, ARC	CW						
4.04AB.04	Crestwood Elementary School	Emgcy Mgmt, HCSB, ARC	CW						
4.04AB.05	Cypress Creek Elementary School	Emgcy Mgmt, HCSB, ARC	CW						
4.04AB.06	Edison Elementary School	Emgcy Mgmt, HCSB, ARC	CW						
4.04AB.07	Forest Hills Elementary School	Emgcy Mgmt, HCSB, ARC	CW						
4.04AB.08	Lake Magdalene Elementary School	Emgcy Mgmt, HCSB, ARC	CW						
4.04AB.09	Limona Elementary School	Emgcy Mgmt, HCSB, ARC	CW						
4.04AB.10	Lockhart Elementary School	Emgcy Mgmt, HCSB, ARC	CW						
4.04AB.11	McLane Middle School	Emgcy Mgmt, HCSB, ARC	CW						
4.04AB.12	Mort Elementary School	Emgcy Mgmt, HCSB, ARC	CW						
4.04AB.13	Oak Park Elementary School	Emgcy Mgmt, HCSB, ARC	CW						

Proposed Mitigation Initiatives

	Objective Area / Project Name	Department	Use	Estimate	In CIP	Status	Year Complet	VA Factor	Social C/B
4.04AB.14	Robles Elementary School	Emgcy Mgmt, HCSB, ARC	CW						
4.04AB.15	Robinson Elementary School	Emgcy Mgmt, HCSB, ARC	CW						
4.04AB.16	Shaw Elementary School	Emgcy Mgmt, HCSB, ARC	CW						
4.04AB.17	Sligh Middle School	Emgcy Mgmt, HCSB, ARC	CW						
4.04AB.18	Springhead Elementary School	Emgcy Mgmt, HCSB, ARC	CW						
4.04AB.19	Sulphur Springs Elementary School	Emgcy Mgmt, HCSB, ARC	CW						
4.04AB.20	Summerfield Elementary School	Emgcy Mgmt, HCSB, ARC	CW						
4.04AB.21	Tampa Bay Vocational School	Emgcy Mgmt, HCSB, ARC	CW						
4.04AB.22	Twin Lakes Elementary School	Emgcy Mgmt, HCSB, ARC	CW						
4.04AB.23	Valrico Elementary School	Emgcy Mgmt, HCSB, ARC	CW						
4.04AB.24	Williams Middle School	Emgcy Mgmt, HCSB, ARC	CW						
4.04AB.25	Wilson Elementary School	Emgcy Mgmt, HCSB, ARC	CW						
4.04AC	Generators for Various Facilities								
4.04AC.05	Portable Generators (3) for Lift Stations	Engineering	PC	\$50,000					
4.04AC.06	Liftstation 11 Fairway Estates Permanent Generator	Engineering	PC	\$20,000					
4.04AC.07	Lift Station Walden Lake Unit 30 Permanent Generator	Engineering	PC	\$20,000					
4.04AC0.0	Back-up Generators for Shelters	EOC, CI	CW			No			>1
4.04AC0.0	Generator at Lightfoot	Public Works	TT			No		9	4.5
4.04AC0.0	Back-up power for TT Critical Facilities	Public Works	TT			No			9
4.04AD	Retrofit Sheriff Offices	HC Sheriff's Dept.	CO	\$100,000		No			>1

Proposed Mitigation Initiatives

	Objective Area / Project Name	Department	Use	Estimate	In CIP	Status	Year Complet	VA Factor	Social C/B
4.04AE	Shoreline Erosion Control	Unassigned	CO/CT		No			N/A	>1
4.04AF	Various Community Center Improvements	Unassigned	CW		No				1
4.04AG	Wiring and Electrical Services	Roadway Maint.	CO	\$17,400	No				1
4.04AH	Centers of Last Resort Study	EOC	CW		No				>1
4.04AI	Electronics Radio Tower Replacement	Public Works	CT	\$54,000					
4.04AJ	Roof Replacement Tampa Municipal Office Bldg Emergency	Public Works	CT	\$100,000		In Progress			
4.04C	Generator	Public Works	CT	\$383,000	Yes				>1
4.04D	Electronics Shop Fire Suppression System	Public Works	CT	\$60,000	Yes				4
4.04E	City-Wide Bridge Upgrading	Public Works	CT	\$300,000	Yes			N/A	3
4.04F	Picnic Island Pier & Boat Ramp Expansion	Public Works	CT	\$85,000	Yes			N/A	>1
4.04G	Ballast Point Pier Improvements	Public Works	CT	\$81,500	Yes			N/A	>1
4.04H	Ben T. Davis Beach Restoration	Public Works	CT	\$3,000,000				N/A	3
4.04I	Various Fire Stations Improvements	Fire Department	CT	\$300,000	Yes	In Progress		N/A	4
4.04J	Cypress Street Park Construction	Parks Department	CT	\$498,000	Yes	In Progress		N/A	>1
4.04K	Cypress Street and Mullet Point Park Design	Parks Department	CT	\$300,000	Yes	In Progress		N/A	>1
4.04L	City-Wide Park Development	Parks Department	CT	\$825,555	Yes			N/A	>1
4.04M	Marjorie Park/Bayshore Marina	Parks Department	CT	\$1,700,000	Yes			N/A	>1
4.04N	Tampa Theater Basement Waterproofing	Tampa Theater	CT	\$40,000	Yes			N/A	>1
4.04R	Cable Communications Roof Replacement	Public Works	CT	\$85,000	Yes				1.2
4.04S	David Barksdale Center Renovation	Recreation Dept	CT	\$2,174,035				12	>1

Proposed Mitigation Initiatives

	Objective Area / Project Name	Department	Use	Estimate	In CIP	Status	Year Complet	VA Factor	Social C/B
4.04T	Seminole Gymnastics Center Expansion	Recreation Dept	CT	\$950,000				N/A	>1
4.04U	College Hill Community Center Replacement	Recreation Dept	CT	\$1,500,000				10	>1
4.04V	Loretta Ingraham Community Center Replacement	Recreation Dept	CT	\$3,950,000				11	>1
4.04W	Jackson Heights Community Center Replacement	Recreation Dept	CT	\$2,550,000				10	>1
4.04X	Kate Jackson Community Center Renovation	Recreation Dept	CT	\$780,000				12	>1
4.04Y	Oak Park Community Center Renovation	Recreation Dept	CT	\$500,000				10	>1
4.04Z	Forest Hills Community Ctr. Expansion/Renovation	Recreation Dept	CT	\$1,600,000				12	>1
4.05	Communications Center Internal structure retrofit -- Fla. Dep. of	Unassigned	CT		No				3
4.06	Transportation Emergency County Ops. Office	FDOT	CW		No				>1
4.07	Assessment and Public Building Retrofit	County Fac. Management	CW		No				>1
4.07A	Priority County Retrofit	County Fac. Management	CO		No				>1
4.07B	County Buildings Directly Serving Residents	County Fac. Management	CO		No				>1
4.07C	County Buildings of Critical Operations	County Fac. Management	CO		No				>1
4.07D	Buildings Housing Critical to Recovery due to Service Delivery	County Fac. Management	CO		No				>1
4.08	TECO ECC Roof Retrofit	TECO	CW	\$585,000	No				>1
4.09	TECO Ybor Data Center Roof Retrofit	TECO	CW	\$1,200,000	No				>1
4.1	Radio Remote Receiver	Temple Terrace	TT	\$15,069	No				
4.11	Weather Station at EOC and Dispatch	Temple Terrace	TT	\$30,000	No				3
4.12	Tampa Municipal Building Elevator Upgrade	Public Works	CT	\$400,000					
4.13	Americans With Disabilities Act Compliance	Public Works	CT	\$50,000					

Proposed Mitigation Initiatives

	Objective Area / Project Name	Department	Use	Estimate	In CIP	Status	Year Complet	VA Factor	Social C/B
4.14	New Traffic Signal Installation	Public Works	CT	\$170,000					
4.15	Fire Station Pre-emptor Traffic Signal Installations	Public Works	CT	\$230,000					
4.16	Traffic Signal Upgrading	Public Works	CT	\$200,000					
4.17	Stationary Fuel Tanks Maintenance and Management	Public Works	CT	\$90,000					
4.18	Ballast Point Pier Improvements	Public Works	CT	\$100,000					
4.19	Seawall Improvements	Public Works	CT	\$138,000					
4.21	Hillsborough River Dam Rehabilitation	Water Dept.	CT	\$40,000		In Progress			
4.22	Blue Sink Improvements	Water Dept.	CT	\$150,000		In Progress			
4.23	Sulphur Springs Pumping Station Rehabilitation	Water Dept.	CT	\$300,000		In Progress			
4.24	Treatment Plant Raw Water Pump Station Improvements	Water Dept.	CT	\$200,000					
4.25	Water Main Rehabilitation	Water Dept.	CT	\$3,600,000					
4.26	Installation of Fire Hydrants/Replace Undersized Main	Water Dept.	CT	\$2,100,000					
4.27	Hillsborough River Water Treatment Plant Expansion	Water Dept.	CT	\$9,162,000					
4.28	Debris Management Coordination Center	Public Works	CO, CW	\$170,000					
5	Objective5:Post-Disaster Redevelopment								
5.1	Amend Post-Disaster Redevelopment Regulations and/or Ordinances	EOC/PGM, PIng & Mgmt	CO, CT		No			N/A	3
5.2	Economic Impact Analysis	Unassigned	CW		No			N/A	3
5.3	Evaluation of Post-Hurricane (Severe Weather) Sites	American Red Cross	CW		No				N/A
5.4	Update Redevelopment Plan	PGM/EOC	CO		No				>1
5.5	Assess Secondary Critical Facility Locations	LMS Working Group	CW		No				>1

Proposed Mitigation Initiatives

	Objective Area / Project Name	Department	Use	Estimate	In CIP	Status	Year Complect	VA Factor	Social C/B
5.6	Assess Petroleum Storage Facility Alternatives	LMS Working Group	CW		No				>1
	Young Middle School	Emgcy Mgmt, HCSB, ARC	CW						

Legend	
CT	City of Tampa
CW	County Wide
PC	City of Plant City
TT	City of Temple Terrace

Proposed Mitigation Initiatives

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Proposed Mitigation Initiatives

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Proposed Mitigation Initiatives

Project
Criteria Rank
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