

**APPENDIX B**

**EVALUATION OF EXISTING PROGRAMS AND POLICIES**

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The following section reviews hazard-mitigation processes currently used by the Hillsborough County Board of County Commissioners and the city councils of Temple Terrace, Tampa and Plant City. These strategies are designed to address public health, safety and welfare and mitigate the impact of potential hazards on proposed and existing development. The programs and policies and an evaluation of their effectiveness, have been illustrated within the following table, which is categorized by: regulations, plans/policies, and programs.

<b>ORDINANCE, PROGRAM OR PLAN</b>	<b>HILLSBOROUGH COUNTY DESCRIPTION (Relevant to Hazard Mitigation)</b>	<b>EFFECTIVENESS &amp; EVALUATION</b>
Land Development Code (Hillsborough County Ord. Last amendments adopted in 2003 – updated annually). The Code includes: Flood Damage Control Regulations; Stormwater Technical Manual (used in conjunction with the Code); and regulations associated with stormwater drainage.	The Land Development Code (LDC) has established standards, regulations and procedures for review and approval of all proposed development of property in unincorporated Hillsborough County. The Code provides a development review process that is comprehensive, consistent, and efficient in the implementation of the goals, objectives, and policies of the Future of Hillsborough Comprehensive Plan. Further, it identifies areas for review, which include consideration given to mitigating hazards – related review areas include: coastal high-hazard areas, setbacks from wetlands and water bodies, wellhead protection areas, flood-damage control, subdivision of land, site design/plan, transfer of development rights design standards, and establishing a base-flood elevation in which to build from, and site specific standards to mitigate flooding hazards.	The LDC has been effective in prohibiting new development within high hazard areas unless mitigation techniques are conducted. Specifically, no building or structure shall be constructed or reconstructed (partially or in full) within a flood-hazard area unless (mitigation) regulations are met. Since 1989, and due to the implementation of the LDC, no units have been constructed within flood hazard areas (structures have mitigated circumstances that places them outside of the hazard area). Additionally, the LDC has strengthened the “standard” for post development stormwater retention. The LDC has also been effective in implementing the County’s Growth Management (mandated through State statute) and Community Rating System programs (required through participation within the Federal Emergency Management Agency for the National Flood Insurance Program).

ORDINANCE, PROGRAM OR PLAN	HILLSBOROUGH COUNTY DESCRIPTION (Relevant to Hazard Mitigation)	EFFECTIVENESS & EVALUATION
Building and Construction Code (Hillsborough Co. Ord. 95-3)	The Code is used in permitting construction. Factors considered that are related to hazard mitigation include enforcement of Federal Emergency Management Agency (FEMA) requirements for the National Flood Insurance Program (NFIP).	The Code is consistent with standards identified within the Southern Builders' Code. However, modifications will be made to make the Codes come into compliance with State requirements in 2003. These modifications will strengthen the Code with respect to natural disasters (e.g. hurricanes).
Floodplain Management Plan (Hillsborough County Plan)	This Plan is a result of the County's existing Floodplain Management program supporting federal initiatives identified through the Federal Emergency Management Agency (FEMA). The purpose of the program is to address localized flooding connected with weather systems that are less than a hurricane. Additionally, the program provides for the review of requests for state/federal assistance for concurrence with Local Mitigation objectives. This Plan is required to maintain the current County status associated with the Community Rating System (CRS) and is required to move to the next level in the CRS program that will save county residents an additional five percent on flood insurance rates.	This Plan is effective. The Board of County Commissioners have formally approved and adopted the use of this Plan. This Plan unifies many of the mitigation strategies available for development within the County, which includes the use of regulatory reviews and processes. The Plan does identify measures the County has in place that serve to prevent, minimize or <b>mitigate</b> the impacts of flooding within unincorporated areas of the county. These mitigation efforts include: floodplain development regulations, drainage system maintenance, building elevation, flood insurance qualification, and wetlands protection. Additionally, this Plan will serve to further the County's participation with the National Flood Insurance Program and the State's/County's initiative to develop a Hazard Mitigation Strategy.

ORDINANCE, PROGRAM OR PLAN	HILLSBOROUGH COUNTY DESCRIPTION (Relevant to Hazard Mitigation)	EFFECTIVENESS & EVALUATION
<p>County Comprehensive Plan</p> <p>(Hillsborough Planning Commission, Comprehensive Plan, Ord. 94-10)</p>	<p>The Comprehensive Plan implements the County's growth-management program, which includes the implementation of the Capital Improvements Program (CIP). Principal elements of the Plan that effect hazard mitigation are: the Future Land Use Element, the Conservation Element, and the Coastal Management Element. These Elements are developed in accordance with Chapter 163, Florida Statutes and Section 9J-5 Florida Administrative Code.</p>	<p>The Comprehensive Plan is mandated by the State to be modified to coordinate the re-designation of land uses by encouraging the elimination or reduction of uses that are inconsistent with any interagency hazard mitigation recommendations that the Board determines to be appropriate. The Plan must also contain within its background documentation, an analysis of proposed development or re-development based upon strategies identified within the County's Hazard Mitigation Strategy.</p>
<p>Future Land Use Element (Hillsborough Comprehensive Plan, Ord. 94-10)</p>	<p>This Element requires that the County:</p> <ul style="list-style-type: none"> <li>▪ Maintain compatibility between land uses,</li> <li>▪ Control land-use intensity and density, and</li> <li>▪ Monitor levels of service standards associated with concurrency management (includes drainage).</li> </ul>	<p>The Future Land Use Element (FLUM) has been effective in maintaining compatibility in the development of property between various land uses designated within the Comprehensive Plan.</p>
<p>Conservation and Aquifer Recharge Element (Hillsborough Comprehensive Plan, Ord. 94-10)</p>	<p>This Element requires that the County:</p> <ul style="list-style-type: none"> <li>▪ restrict encroachment into the 100 year floodplain,</li> <li>▪ minimize wetland disturbance to maintain natural retention functions,</li> <li>▪ establishing setbacks adjacent to wetlands and water bodies, and</li> <li>▪ protection of aquifer high-recharge areas that are susceptible to contamination.</li> </ul>	<p>The Conservation and Aquifer Recharge Element (CARE) has been effective in implementing the protection of natural resources. Through protection of these resources, mitigation efforts associated with development have occurred, which has retained many of the natural-protection aspects associated with wetlands, tidal areas, and floodplains. Additionally, incompatibilities between development and these areas have been minimized.</p>

ORDINANCE, PROGRAM OR PLAN	HILLSBOROUGH COUNTY DESCRIPTION (Relevant to Hazard Mitigation)	EFFECTIVENESS & EVALUATION
Coastal Management and Port Element (Hillsborough Planning Commission, Comprehensive Plan, Ord. 94-10)	<p>Policies of the Coastal Management and Port Element (CMPE) require protection of tidal and coastal plains from negative physical and hydrological alterations. These protection measures (limits) are:</p> <ul style="list-style-type: none"> <li>▪ Establishment of construction standards,</li> <li>▪ Maintaining natural conditions,</li> <li>▪ Dune and beach stabilization,</li> <li>▪ Tidal and floodplain management,</li> <li>▪ Limit/mitigate new development,</li> <li>▪ Limitations to utilities support equipment ,</li> <li>▪ Limit the use of new septic systems,</li> <li>▪ Monitoring land-use changes to compatible designations,</li> <li>▪ Acquire or obtain in another fashion, open space/recreational areas where appropriate,</li> <li>▪ Enter into intergovernmental agreements for area servicing,</li> <li>▪ Post disaster redevelopment – mitigation techniques for new development,</li> <li>▪ Limit new publicly funded infrastructure,</li> <li>▪ Limit new ROW/road dedication unless identified as a needed facility,</li> <li>▪ Limiting development in high hazard areas to ensure evacuation clearance times can be maintained,</li> <li>▪ Requirement for shelters in manufactured home parks,</li> </ul> <p>Limitation of no new hazardous waste management sites within the coastal high hazard area.</p>	<p>The CMPE has been effective in implementing the protection of coastal natural resources. Through protection of these resources, mitigation efforts associated with development have occurred, which has retained many of the natural-protection aspects associated with wetlands, tidal areas, and floodplains. Additionally, incompatibilities between development and these areas have been minimized.</p>

ORDINANCE, PROGRAM OR PLAN	HILLSBOROUGH COUNTY DESCRIPTION (Relevant to Hazard Mitigation)	EFFECTIVENESS & EVALUATION
Other Elements of the Comprehensive Plan (Comprehensive Plan, Ord. 94-10)	<p>Other associated elements include: Stormwater, Recreation and Open Space, and Transportation. Salient areas associated with Hazard Mitigation include:</p> <ul style="list-style-type: none"> <li>▪ Set limits and storm event levels,</li> <li>▪ Establish drainage level-of-service standards,</li> <li>▪ Retrofit areas for stormwater,</li> <li>▪ Management of drainage-basin systems,</li> <li>▪ Obtain areas suitable for open space,</li> <li>▪ Provide for transportation systems that can effectively evacuate persons in the event of disasters.</li> </ul>	<p>The Comprehensive Plan has become an effective growth-management tool for Hillsborough County in implementing land-development and resource protection processes. The implementation of these have ensured that development has not occurred within flood plain areas (without mitigating) the flood hazard) and has maintained the “workability “ of natural systems, which has assisted with mitigating natural disaster occurrences. The Planning Commission of Hillsborough County is mandated by the State to modify the Comprehensive Plan to re-designate land uses by encouraging the elimination or reduction of uses that are inconsistent with interagency hazard mitigation recommendations that the Board determines to be appropriate. The Plan must also contain within its background documentation, an analysis of proposed development or re-development based upon strategies identified within the County’s Hazard Mitigation Strategy.</p>
Comprehensive Emergency Management Plan ( <i>Hillsborough County Plan, Resolution R97-150</i> )	<p>The Comprehensive Emergency Management Plan (CEMP) provides the County leaders with a set of uniform policies and procedures for the effective coordination of actions necessary to prepare for, respond to, recover from, and mitigate natural or man-made disasters.</p>	<p>The CEMP has been effective in: minimizing loss of life, personnel injuries and property losses; minimizing recovery time associated with various emergency situations and mitigation efforts pre- and post-disaster; providing a comprehensive framework that addresses all aspects of emergency preparedness, response, recovery and mitigation.</p>

ORDINANCE, PROGRAM OR PLAN	HILLSBOROUGH COUNTY DESCRIPTION (Relevant to Hazard Mitigation)	EFFECTIVENESS & EVALUATION
National Flood Insurance Program/Community Rating System (Hillsborough County Program)	The County participates in the National Flood Insurance program. This program is based upon an agreement between the Board of County Commissioners and the Federal Government. The Agreement states if a community adopts and enforces a floodplain management plan (the County does this through a section of the Land-Development Code) to reduce future flooding risks to new construction in "Special Flood Hazard Areas, the Federal Government will make available to the community flood insurance as a financial protection against flood losses.	This is an effective program within the County. The Agreement with the Federal Emergency Management Association states that if a community adopts and enforces a floodplain management plan to reduce future flooding risks to new construction in "Special Flood Hazard Areas, the Federal Government will make available to community flood insurance as a financial protection against flood losses. The County currently receives a rating that allows county residents to receive a 10% discount on its flood insurance rates. Additionally, the County has effectively implemented the program, and has not allowed any new development within a flood hazard area without mitigating the flood hazard since the end of 1989. The County has documented through the program that of the 255,200 housing units, less than .01 percent of the units are affected by repetitive flood losses (200 units). Additionally, less than .02 percent are identified as being associated with flooding problems. Of these units, some are earmarked for acquisition through the Program for multiple (repetitive) floods problems.
Stormwater Policy/NPDES (Hillsborough County Program)	This is a national program that was instigated to monitor "non-point" source stormwater runoff.	This program has been effective in ensuring stormwater runoff is appropriately engineered to minimize impacts to the community. Although the principal purpose of the program is to ensure non-point source pollution is minimized, the program implements techniques that review stormwater facility functions through the development process.

ORDINANCE, PROGRAM OR PLAN	HILLSBOROUGH COUNTY DESCRIPTION (Relevant to Hazard Mitigation)	EFFECTIVENESS & EVALUATION
Sustainable Communities Agreement (Hillsborough County Program -- County/Tampa)	This program arose from the Governor's Commission for a Sustainable Florida. That Commission established a strong partnership between state and local agencies that resulted in several positive recommendations to improve the quality of life in Florida. The City of Tampa and Hillsborough County were selected to enter into a joint process in having Hillsborough County become a sustainable community. With respect to hazard mitigation, one component of this program will identify, when complete, pre and post-disaster development/redevelopment projects for the City/County.	The City of Tampa and the County are in the process of developing a program to meet the Governor's Commission's intent of a sustainable community. The program will include (at a minimum) initiatives to: restore key ecosystems/protecting natural systems; achieve a cleaner/healthier environment; limiting urban sprawl; advancing the efficient use of land; and developing a process to create integrated communities (increasing the quality of life) and creating employment opportunities. Included with this process are efforts to integrate strategies established through the Local Mitigation Strategy process into use in routine land-use and development review processes and to be used in the consideration of pre- and post-disaster planning.
Capital Improvement Program (Hillsborough County Program)	As part of the County's budget process and as a part of the Comprehensive Plan, the Board adopt a five-year Capital Improvements Program (CIP). The program identifies a five-year window in which projects are fiscally programmed to occur. The CIP is updated on an annual basis and is readopted to reflect changes in the community.	The CIP has been modified recently due to the above rainfall amounts experienced within the preceding nine months. Modifications to the CIP are expected to be implemented between 1999 and 2001. Modifications include accelerating projects associated with: neighborhood projects located on private property, roadway culverts, the Stormwater Master Plan development, and drainage basins. The proposed acceleration of projects is estimated to be between seven and eight million dollars.
Environmental Land Acquisition Program (Hillsborough County Program)	This program has been established to pursue the acquisition of conservation areas.	This Program is effective in acquiring critical habitat areas. Because of the characteristics of these areas, many acquisitions.

ORDINANCE, PROGRAM OR PLAN	HILLSBOROUGH COUNTY DESCRIPTION (Relevant to Hazard Mitigation)	EFFECTIVENESS & EVALUATION
Community Development/ Redevelopment Program (includes <i>Hillsborough Co. Ord. 93-20</i> )	The principal component of this program is to assist low-income groups in the purchase of homes. Additionally, there is a part of the program that assists with the repair of existing homes.	Before County assistance is provided within this program, home site is reviewed with respect to flooding hazards. Construction or repairs are not provided with authorization under this program within flood hazard areas unless the circumstance is mitigated.
Strategic Regional Policy Plan (Plan), Emergency Prepared-ness ( <i>Tampa Bay Regional Planning Council - TBRPC</i> )	The Emergency Preparedness Section of the Plan was developed to assist in coordinating efforts to ready communities for natural or man-made disaster occurrences. The Plan does identify coordinating processes (as well as programs and techniques) to be used by the various local governments within the region with respect catastrophic event preparation, evacuation, recovery, and mitigation.	These efforts have resulted in an annual regional-hurricane-public education campaign, numerous studies, and workshops/committees addressing specific concerns in the region. Additionally, through the research associated with this Plan, there have been a total of 727 extremely hazardous-substances sites identified within the Tampa Bay area. These sites include over 2,000 facilities. Projected increases in commercial and industrial sites will only increase the number of these sites, increasing the potential for a chemical incident or accidental release of hazardous substances. The Plan provides for monitoring and identification of techniques to track and monitor sites, and works with local agencies in identifying avenues for disaster (natural or man-made) preparation, evacuation and recovery procedures within the Tampa Bay area.

## CITY OF PLANT CITY

### EVALUATION OF POLICIES, PROGRAMS AND ORDINANCES

1. **Comprehensive Plan** – Pursuant to Chapter 163.3002(1), Florida Statutes, Chapter 9G-5, Florida Administrative Code, and Chapter 75-390-37, laws of Florida, “The Future of Hillsborough Comprehensive Plan for the City of Plant City” is established as the controlling document relevant to the City’s Land Development Regulations. The Comprehensive Plan provides goals and objectives and policies and establishes the basis on which the City of Plant City regulates land development, including various forms of mitigation strategies, particularly as it relates to future land use; use of and retention of open space; conservation; public facilities, including wastewater, potable water, solid waste and drainage; a capital improvement element addressing future needs based upon established levels of service; and providing for intergovernmental coordination.
2. **Development Permits, Fees** – The development permit process provides for the City of Plant City review, authorization, and control of the construction, site development, including the subdivision of land processes. This includes extensive review of matters pertaining to conservation area permits, tree removal, land clearing, and infrastructure.
3. **Development Permits, Fees** – The development permit process provides for the collection of fees and charges to support the City’s regulatory control process.
4. **Fire Protection and Prevention** – Provides for the establishment of policies and procedures with regard to hazardous materials, protection systems, and inspections. Also provides for plan review authority and the establishment of a life safety code as a standard for permit review.
5. **Health and Sanitation** – This section provides for policies procedures and programs related to excavation, filling, permits and use of septic tanks, control of weeds, grass, and underbrush.
6. **General Legislation/ Administration** – Establishes policies, procedures and programs, as well as the authority for the City’s implementation of local land development regulation pursuant to Chapter 163, Florida Statutes, Chapter 9G-5, Florida Administrative Code, and Chapter 75-390-37, Laws of Florida.
7. **Section III, Zoning Ordinance** – Provides for the establishment of zoning districts based upon the City’s Comprehensive Plan, thereby regulating the use of land.
8. **Development Orders** – Provides for administration, policies and procedures, regarding all phases of the site development approval process, including provision of water and sewer service, platting of land and construction in flood hazard areas.
9. **Title IX, Ch. 121 Flood Damage Prevention** – Provides for the administration and implementation of provisions for flood hazard reduction
10. **Title IV. Utilities, Chapters 42, 43, and 45 Stormwater Management** – Provides for the implementation of standards on a site specific basis with regard to general design, drainage systems, environmentally sensitive lands protection, flood plain protection, construction of docks and seawalls, storm water management, tree removal, and wellfield protection.
11. **Level of Service** – Provides for the establishment of minimum levels of service standards for public facilities and services, transportation, recreation and open space, pursuant to Chapter 163, F.S.
12. **Official Zoning Map of the City** – Establishes the official zoning map which provides for permitted uses of land within the City of Plant City.

13. **Chapter 111.22. Nonconforming Development and Variances** - Provides for the establishment of policies and procedures designed to deal with nonconformities as they relate to storm water management, use of land or structures.
14. **Parks, Playgrounds and Recreation** – Provides for policies addressing issues related to pollution of waters and wildlife protection and preservation.
15. **Permits** – Establishes requirements for obtaining permits related to building construction, conservation area, development, excavation, infrastructure, septic tanks, site preparation, tree removal and well permits.
16. **Platting/Platting Required** – Provides for the establishment of processes related to the subdivision of land; including the dedication of jurisdictional lands, including wetlands and/or areas prone to flood.
17. **Septic Tanks** – See item 5 above.
18. **Site Plans** – Provides for the policies and procedures related to the submission, review and approval of site plans, including coordination with all other policies related to determination of areas of high hazard, including areas subject to additional hazard mitigation requirements.
19. **Wastewater Systems** – Provides for policies and procedures related to the establishment and maintenance of wastewater systems, including regulations and limitations of use of septic tanks.
20. **Water Distribution System** – Provides for the establishment of policies and procedures related to the establishment and maintenance of a water distribution system.
21. **Zoning** – See item 6b above.

## **EVALUATION OF EXISTING MITIGATION POLICIES**

Making decisions in the context of hazard mitigation, with respect to new development and redevelopment, has much to do with the mechanisms that a local government uses to review development approvals. It is these mechanisms that guide decision-makers through the process of reviewing new development and redevelopment requests to ensure the long-range effects of development and their cost on society are considered. The ever increasing cost associated with disasters (man-made or natural) is requiring local governments to consider development practices prior to construction approval and identifying redevelopment alternatives in the aftermath of a catastrophic event.

As illustrated within the previous section (Plant City -- List of Municipal Policies, Ordinances and Programs that affect Mitigation), the City currently has processes that effectively “work” with respect to hazard mitigation. The understanding of these processes will assist in the development of the Local Mitigation Strategy (LMS) and develop a bridge between local growth and emergency-management plans, land-development regulations, building codes and other ordinances and programs. Special emphasis will be required for ongoing cooperative action between county and city governments, businesses and industry, as well as, other segments of the community. The LMS development will further these programs by illustrating avenues to unify processes through the coordination of programs within City government and through inter-agency coordination with other local governments and businesses within the county.

The development of the Local Mitigation Strategy (LMS) assists in developing a bridge between local growth and emergency-management plans, land-development regulations, building codes and other ordinances and programs. Ongoing cooperative action between county and city governments, businesses and industry, as well as, other segments of the community is required for the success of this objective. The LMS development furthers these programs by illustrating avenues to unify City processes through the coordination of programs within City government and through inter-agency coordination with other local governments and businesses within the county. The following descriptions illustrate topic

areas. These topic areas will begin to identify areas in which attention may be required in order to begin strengthening regulatory frameworks or to better integrate other similar processes. Principal topic areas include:

- **Regulatory review** – the City has regulatory areas that manage growth through the development-review process. These regulations are principally associated with mitigating development associated with: floodplains/floodways (includes the establishment of base-flood elevations or identification of floodproofing), and wetlands.

The current regulatory framework does not fully address certain techniques that may assist in furthering hazard-mitigation initiatives. Some of these topic areas include items that may be better established first through policy within the Comprehensive Plan, and then through drafting/modifying regulations in order for consideration to be provided through development-review and building-permitting functions. At a minimum, considerations to the following items may be included: use of mitigation techniques for all land uses within areas of potential, redevelopment, or the limitation of, non-conforming uses after a disaster (an economic analysis may be required), and development/redevelopment in areas associated with repetitive losses due to natural disasters.

- **Plans and policy implementation** – the City has an adopted Comprehensive Plan that is used to guide growth based upon factors such as: development limitations, public-service provision and environmental-resource protection. Additionally, the City has adopted the use of other Plans for use in mitigating hazards and in the development-review process. These plans are principally associated with mitigating development associated with: limiting development density and intensity for various areas within the City, prioritizing areas for protection and have a preservation or a conservation value, maintaining adequate level-of-service capacities associated with public infrastructure and services, and support of, local mitigation objectives, and implementing procedures of the Comprehensive Emergency Management Plan. Additionally, modifications to the Comprehensive Plan may be requested to recognize strategies approved within the Local Mitigation Strategy (and per Chapter 163, Florida Statutes and 9J-5, Florida Administrative Code).
- **Program implementation** – the City has implemented programs that are effective in mitigating hazards. However, the various programs are mostly associated with hazards associated with flooding. One of the principal purposes of the Local Mitigation Strategy is to unify these programs and identify areas for strengthening to ensure implementation of the Local Mitigation Strategy. Plans principally associated with mitigating development are: the Pre- and Post- Disaster Recovery Plan (CEMP) and the National Flood Insurance Program – criteria provides for the provision of flood insurance.
- **Program Improvement** (Current programs that do not fully address certain areas needed to assist in furthering hazard-mitigation initiatives.) Areas in which additional considerations are needed include: review of allowances made for nonconforming uses to rebuild, update the Comprehensive Emergency Management Plan to include a definition of critical facilities as defined within the Local Mitigation Strategy, coordinate repetitive-loss cases to better examine historical patterns of repetitive damage to determine whether the policy should be expanded or modified to other areas, and identify alternatives (and incentives) in building techniques for development within high hazard areas.

# CITY OF TAMPA

## EVALUATION OF POLICIES, PROGRAMS AND ORDINANCES

### Analysis of Policies

#### **1. Policies that limit public expenditures in areas subject to repetitive damage from disasters.**

Objective 10 of the Coastal Management Element limits public infrastructure expenditures in the Coastal High Hazard Area (CHHA), the area with the highest potential to incur repetitive damage from natural disasters. Policy 10.1 specifically limits funding of infrastructure improvements for necessary restoration, retrofitting and mitigation activities. The policy targets only the Coastal High Hazard Area.

These policies sufficiently limit public expenditures to essential needs in the Coastal High Hazard Area, the area with the highest exposure to potential hurricane threats and the areas subject to repetitive damage. This area represents approximately 19 percent of the City's land area. Expanding the policies to include a larger geographical area is not considered viable, because much of the community's economic base and existing development patterns would be negatively affected. Nearly 30 percent of the City is contained within the Hurricane Zone 2 area and 34 percent lies within the Hurricane Zone 3. The only change would be modifying to Policy 10.1 of the Coastal Management Element to include retrofitting for wind standards as a permitted public expenditure in the Coastal High Hazard Area.

#### **2. Policies that regulate beach and dune alteration.**

The City has three beaches but does not have dune formations. Policies 3.1 to 3.6 of the Coastal Management Element are specifically geared toward regulating beach and dune alteration. In synopsis, the policies call for protecting, maintaining and restoring city beaches. New development is required to meet all FEMA development standards. The policies prohibit the use of seawalls and rip rap along beaches unless it is necessary to protect human life or property. The policies also call for beach stabilization when and where needed and appropriate.

Current policies attempt to stabilize the three beaches that the City owns. They prohibit rip-rap and seawalls except in situations where beach erosion would pose serious threats to human life and property. These policies are sufficient to address the potential needs for regulating beach and dune alteration. No changes are recommended at this time.

#### **3. Policies that regulate non-point source stormwater runoff.**

Stormwater Policies 1.1.1, 1.1.3 and 4.1.1 outline the City's efforts to address stormwater runoff through planning and capital improvements. Policies 2.1.1 - 2.1.3 call for regulating development and redevelopment to ensure that post-development runoff does not exceed pre-development loadings. Policy 2.2.1, 3.1.1 and 3.1.2 call for retrofitting stormwater systems to minimize flooding and to improve stormwater quality. Stormwater policies 4.1.3. - 4.1.5 shore up the stormwater facility maintenance program. Finally, Policies 6.1.1 - 6.1.4 ensure that new development will not negatively impact stormwater runoff levels to adjacent areas. These policies are sufficient to address the non-point source stormwater runoff levels.

Because the City is nearly built out, additional stormwater requirements may not result in long-term marginal benefits. In addition, overly stringent development regulations have been shown a deterrent to new investment and development. No new policies are recommended at this time.

#### **4. Policies that regulate the design and location of sanitary sewer and septic tanks in hazard-prone areas & encourage the removal of septic tanks and technologically-hazardous sites.**

Policy 4.10 in the Coastal Management Element prohibits new septic tanks in the Coastal High Hazard Area. Policy 10.1 limits the expenditure for public infrastructure in the Coastal High Hazard Area to flood-proofing sanitary sewer facilities or for a public facility of overriding public concern (as in the case of improvements to the Howard F. Curren AWT Treatment Plan). There are no policies

encouraging the removal of septic tanks or technologically-hazardous sites from high hazard areas. The policy only pertains to the Coastal High Hazard Area; however, no known septic tanks exist in the Coastal High Hazard Area. Approximately 98% of the City is septic-tank free and served by the City's sanitary sewers. No additional changes are recommended.

**5. *Policies to eliminate development in hazard prone areas.***

There is no specific policy or set of policies that call for the elimination of development in hazard prone areas. Although there are no specific policies calling for the elimination of development, there are policies requiring mitigation of development impacts in hazard prone areas. There will be a need to develop new policies to guide the City's actions in achieving this objective, particularly in instances where the City may need to acquire property to mitigate potential future losses.

The City has several policies that regulate development in various hazard prone areas, such as floodplains, beach dunes and the Coastal High Hazard Area. For instance, Coastal Management Element Objective 3 and Policies 3.1 to 3.6 protect and restore beaches. Policy 4.4 limits new development in the Coastal High Hazard Area to uses that are vested, water enhanced, water related, water dependent or which further development and redevelopment of the Port. Policy 4.7 requires structures which are damaged to be rebuilt to meet current codes.

In the Conservation Element, Objective 3 and Policies 3.3, 3.5, and 3.6 require the protection of wetlands from development. Policy 3.8 protects wildlife habitat attributes of the floodplain of the Hillsborough River. Objective 15 and Policy 15.1 in the Conservation Element call for performance standards for the protection of wetlands and environmentally sensitive Resource Protection Areas, which include, among other areas, the 100-year floodplain and tidal creeks and wetlands. These act as shock absorbers for storm surges

**6. *Policies to ensure the protection of critical facilities.***

In the Coastal Management Element, there are policies that protect public facilities in the Coastal High Hazard Area. Policy 9.1 requires a contingency action plan of all public facilities in the Coastal High Hazard Area. Policy 10.1 stipulates when public expenditures can be made in the Coastal High Hazard Area to protect infrastructure; however, there are no clear or specific policies addressing critical facilities. There will be a need to develop a policy or policies for the prioritization, protection and enhancement of critical facilities.

The City's current policies provide for the basic protection of the critical facilities; however, the critical facilities have not been identified. The Critical Facilities Inventory and mapping program being carried out as part of the development of the Local Mitigation Strategy will provide a comprehensive database of the City's Critical Facilities. Based on the findings, analysis and priority of the Critical Facilities inventory, there may be a need to develop additional policies directed at the protection and enhancement of critical facilities.

**7. *Regulation of non-conforming uses, particularly in areas subject to damage from disasters.***

The Future Land Use Element (page 115) states that the City's main approach for reducing or eliminating land uses that are inconsistent with the community character is to use the Future Land Use Plan and Zoning Regulations to: 1) transition existing non-conforming uses to compatible uses over time, and 2) prevent additional inconsistent land uses from developing. This approach is consistent with the approaches used in many other communities.

The Plan does not discuss non-conforming land uses in areas subject to damage from disasters. Policy 9.3 in the Coastal Management Element provides for the rebuilding of nonconforming uses by allowing them to be rebuilt after a disaster only if they conform to current coastal construction standards, and forbids pre-existing uses, which posed unsafe conditions, to be rebuilt. Policy 9.3 states that such provisions are to be used until a Post Disaster Redevelopment Plan is developed. This policy will need to be replaced with a policy (or policies) which are designed to further the long-term redevelopment of the City of Tampa in case of a natural disaster.

**8. *Policies that address repetitively damaged and vulnerable structures.***

Policy 4.7 of the Coastal Management Element requires structures within the coastal planning area

(an area equivalent to the Hurricane Evacuation Zone C) that have been damaged in excess of 50% to be rebuilt to all current requirements. There are no policies that specifically address structures that have been repetitively damaged due to disasters. A policy (or policies) to guide public and private efforts to reduce the incidence of repetitively damaged or vulnerable structures may prove helpful, particularly in instances where Federal and State programs are available to assist property owners in such situations.

**9. Policies on the removal and relocation of damaged and vulnerable infrastructure.**

Policy 9.1 in the Coastal Management Element states that the City shall develop a contingency plan for its infrastructure within the coastal high hazard area and Policy 9.2 says that as a part of the post disaster redevelopment plan, the City shall adopt a redevelopment decision-making matrix for this infrastructure for deciding whether public infrastructure should be rebuilt, relocated, or structurally modified. These policies have not yet been implemented. Additional policies regarding this area will need to be developed.

**10. Policies to ensure that applications for state and federal assistance are reviewed for concurrence with and support of local mitigation objectives.**

Typically, applications for state and federal assistance are reviewed for consistency with the City's Comprehensive Plan. A policy in the Plan related to this area would help to ensure project consistency.

**11. Policies that prioritize the use of coastal areas for water dependent uses such as public access and selective aquaculture.**

Coastal Management Element policy 4.4 prioritizes new development in the coastal high hazard area, to uses that are vested, water enhanced, water related, water dependent, or Port development. Policy 5.1 gives priority to locating water dependent and related uses within the coastal planning area and policy 5.3(1) sets up criteria for water dependent, related, or enhanced developments that include a transfer of development rights on site for public access dedication. Water-dependent means those activities that can be carried out only on, in or adjacent to water areas because the use requires access to the water body; water-enhanced means activities that may derive economic or aesthetic benefit by its proximity to a water body, and water-related activities are not directly dependent upon access to a water body but provide goods and services directly associated with water-dependent or waterway uses.

The City has sufficient policies addressing the priority and need for water dependent uses in coastal areas. No changes are recommended at this time.

**12. Regulation of watershed alteration, wetland fill and development to address restoration or enhancement of disturbed or degraded natural resources that can mitigate hazards.**

The Tampa Port Authority has the permitting authority for watershed alteration activities such as channelization, diking, and damming and the City of Tampa coordinates with them on such developments. Wetlands fill and development are guided by policies 3.3., 3.5. and 3.6 in the Conservation Element. These policies prohibit encroachment into the 100-year old floodplain of significant wetlands and riverine systems, minimize the disturbance of wetlands, and require like compensation for their elimination. They also protect and preserve wetlands by designating major wetlands as Environmentally Sensitive Areas on the Future Land Use Map. This prohibits development in these areas and requires development setbacks from the wetlands. Additionally, Policy 1.2 in the Coastal Management Element protects tidal wetlands from detrimental physical and hydrological alteration through the land use planning and development review process.

The City has sufficient policies regulating watershed alteration and wetland fill and development. However, these policies have not taken into consideration the need or benefit of hazard mitigation in the restoration or enhancement of disturbed or degraded natural resources. While certain degraded natural resources may never achieve fully restored ecosystems, they may provide substantial shoreline mitigation benefits to justify their restoration.

**13. Policies that encourage economic diversification to protect a community from complete dependence on a particular economic source.**

There are no specific policies in the City's Comprehensive Plan calling for economic diversification; however, the Future Land Use Element provides for the development of a mixed-use environment and stresses the significance of the City's (and region's) economic resources.

There are policies in the Future Land Use, Policies A-1.6, A- 1.9, A-1.10, and A-8.1, which create various types of activity centers: the high intensity Central Business District is surrounded by a bonus-driven periphery development zone, then ringing outward from the center are mixed use regional activity centers, and then there are community and neighborhood activity centers, all of which encourage economic diversification. Linking these activity centers are corridors, some of which are designated in the Future Land Use Element's Objective B-7 as commercial redevelopment corridors in order to stimulate new commercial uses along these roadways. In policy A-1.10, research and high technology areas are designated. Supporting medical facilities are encouraged in Objective A-4 to develop around an existing large hospital. Objective A-3 recognizes the importance of MacDill Air Force Base and Tampa International Airport to the region. No changes are recommended at this time.

**14. Policies that designate and prioritize properties for acquisition.**

There are several policies in the plan on property acquisition. The city prioritizes lands for acquisition each year in Policy 4.1.2 of the Recreation and Open Space Element through its Environmental Land Acquisition and Protection Program. Furthermore, the City has policies in its Recreation and Open Space Element which calls for the acquisition of waterfront property for public access, specifically for linkage in its greenways program. Policies 5.1.1. and 5.2.2 in the Recreation and Open Space Element state that seven parks will be developed along the Hillsborough River and that these will be linked by a greenways corridor which will link with the City's Bayshore corridor. Policy 5.2.3 provides for a greenway corridor around McKay Bay. In the CBD Element, Policy 5.3.1 calls for the acquisition of park sites along the waterfront to increase public accessibility and use of the waterfront.

While these policies pertain to the acquisition of property for a variety of public purposes, adding provisions for hazard mitigation could strengthen these policies. One or more policies establishing priorities for property acquisition to mitigate for future potential losses could be beneficial in achieving long-range mitigation objectives.

**15. Policies and procedures for post-storm reconstruction, such as building moratoria or special emergency permitting procedures.**

Policy 9.3 in the Coastal Management Element allows expedited permitting procedures after an emergency and the suspension of fees. It also includes build back policies. These policies are sufficient to address these situations. However, there may be a need to establish policies and procedures to implement widescale post disaster redevelopment plans in case of a major catastrophe. Such policies would guide how the City of Tampa coordinated redevelopment plans with federal, state and local disaster assistance programs.

**16. Other Comprehensive Plan Goals that can be addressed through hazard mitigation.**

The City's Comprehensive Plan contains other policies that can be addressed through the implementation of hazard mitigation procedures and programs. These are identified below.

**Public Access:** Coastal Management Element Goal 6 and its policies on Public Access, 6.1 to 6.9, support the acquisition of, and availability to the public, of the shoreline, thereby restricting the kind of development that is inappropriate for a coastal high hazard area.

**Creation and development of greenways and waterfront parks:** Greenways and parks located on the River and Bays not only provide public access to the waterfront, but can also buffer the effects of storm surge on developed areas of the City. Goal 5 and its policies in the Recreation and Open Space Element are devoted to providing a system of greenways to link parks, nature reserves, cultural and historic sites, and waterfront areas. Besides creating a greenways corridor along the

Hillsborough Riverfront, Objective 5.1 and McKay Bay, Policy 5.2.3, another policy, 5.1.1, states that the City will develop a minimum of seven parks along the river.

**Redevelopment:** Redevelopment is a major construct of the Future Land Use Goal and appears recurrently in many of the Future Land Use Element objectives (A-1, A-6, A-7, A-8, A-9, A-10, B-2, B-3, B-6, B-8, ) and related policies. As explained in the Future Land Use Plan, because the City of Tampa is a developed city, unique solutions and special consideration should be given to the redevelopment of existing or underutilized properties, the renewal of blighted areas, the elimination or reduction of inconsistent uses, and the potential for infill. Areas which suffer damage during a disaster can be redeveloped to their potential.

**Maintaining adequate capacity on roadways:** In the Transportation Element, Goal 2, Objectives 2.3 and 2.4, and many of their related policies, 2.2.2, 2.3.3, 2.4.1, and 2.4.2, are concerned with providing adequate capacity for travel in the City. This is important in relation to the constrained roadways listed in the Element. Additionally, Objective 1.3 and its policies, 1.3.1 and 1.3.2, focus on a transportation system that permits safe evacuation in the event of man-made or natural disasters.

### **Analysis of Mitigation Programs**

#### **1. *National Flood Insurance Program (NFIP).***

The National Flood Insurance Program (NFIP) is designed to help mitigate damage in flood prone areas. The City of Tampa has participated in the National Flood Insurance Program (NFIP) since the mid-seventies.

The program was created through Title XIII of the Housing and Urban Development Act of 1968 (PL 90-448) and authorized a program of subsidized personal and property insurance for property owners within "floodprone" areas. Eligible communities are those which implement floodplain management controls that limit and regulate development in flood-prone areas. Tampa has done this by incorporating Flood Damage Control - Technical Requirements into its Building Code, Article IV Section 5-221. In 1973, the Act mandated participation in the program to qualify for disaster assistance and other federal programs. According to a 1996 NFIP report, Tampa had 15,763 NFIP insurance policies (305 V-Zone, 12,708 A-Zone) and of these, there were 104 repetitive loss properties, representing 239 individual losses. With approximately 8,832 housing units in the Coastal High Hazard Area, and 13,000 flood insurance policies in the City, it is assumed that most of the units are covered by flood insurance.

No changes are recommended to this program at this time.

#### **2. *Community Rating System***

The Federal Emergency Management Agency (FEMA) implemented a Community Rating System in 1991 to encourage and reward communities that undertake public awareness and floodplain activities beyond those required by the National Flood Insurance Program. A community may apply for CRS classification in order to obtain flood insurance premium rate credits for its residents. Tampa has participated in this program for several years and has attained a rating of 7 (out of a possible rating of 10), through incorporating flood reduction activities throughout the City. This class 7 rating allows its home owners to purchase flood insurance at a 15% discount. The City may be able to increase its Community Rating through future reviews and assessments of its Floodplain Management Plan and CRS activities.

#### **3. *Public Education Programs***

One area in which the City can significantly improve its hazard mitigation level is through a variety of public education programs designed to encourage private property owners, neighborhood and business organizations, and governmental entities to implement hazard mitigation initiatives. The implementation of such programs will be investigated during the remainder of the project period.

#### **4. *Mitigation or Retrofitting.***

Retrofitting refers to any technique intended to protect buildings from a natural or man-made damage.

Since the City's Coastal Area is nearly developed, retrofitting existing structures to withstand potential hurricane and flood damage may provide significant long-term benefits.

Typical retrofits for flooding may include elevating buildings above the flood hazard level, providing watertight closures for doors and windows, and using floodwalls around ground level openings or, alternatively, eliminating such openings. Also included are the use of water-resistant materials, structural reinforcements to withstand water pressures, and placement of mechanical elements in the upper parts of the building. The City is working to identify mitigation projects for the NFIP repetitive Loss properties that are cost-beneficial. Grant applications are to be submitted to FEMA for Flood Mitigation Assistance Grants and Pre-disaster Mitigation Grants.

Strengthening floors, foundations, and wall/floor attachments of existing structures can mitigate potential wind damage. The use of storm shutters; shatter-proof glass or windows that are rated for the design speed of the site can help to prevent internal structural damage during storm events. Improving the way roofs are attached to the walls (i.e., using gable end bracing on frame gables, nail patterns, roof sheathing, hurricane straps, etc.) can keep roofs from lifting up in hurricane-force winds.

While it has been demonstrated in other communities that retrofitting can reduce the risk of damage to structures located in hurricane prone areas, there is no widespread or established retrofitting program in the City of Tampa. Individual structures may have vastly different retrofitting needs, and costs can vary considerably from site to site. Structural assessments or hazard mitigation audits, similar to the Department of Community Affairs' *Residential Construction Mitigation Program*, would help in identifying what improvements can be made to strengthen buildings against storm damage. Efforts to establish a local hazard mitigation audit and loan program to support State efforts may also be considered.

## **5. Development Management**

Development management refers to the use of planning tools and techniques to reduce the threat of damage from disasters. Such tools can also be used to help direct long-term development patterns in a manner that can help minimize future threats. For example, greenways and parks could be developed in flood prone areas to collect water and minimize flooding to surrounding structures. Facilities or structures which have undergone repetitive damage could be relocated to more secure areas. Existing development could be removed from strategic areas allowing natural drainage patterns to take effect and help reduce the potential for flooding. These opportunities and limitations will be investigated as part of the development of the City's hazard mitigation strategy.

## **Analysis of Mitigation Ordinances**

### **1. Coastal Construction Control Lines or Areas of Critical State Concern.**

There are no Areas of Critical State Concern in the City of Tampa, nor are there Coastal Construction Control Lines in Tampa.

### **2. Chapter 2, "Civil Emergencies" (Article VII, Administration, Section 2-401 and 2-402).**

City code, Article VII, Civil Emergencies, Section 2-401 (Declaration) and City code, Article VII, Civil Emergencies, Section 2-402 (Emergency Management Powers of the Mayor) start the process of emergency response and upon a declaration of a state of local emergency, the Mayor, under Section 2-402, has the power and authority to "Direct and compel the evacuation of all or part of the population from any stricken or threatened area within the city if he or she deems this action necessary for the preservation of life or other emergency mitigation, response or recovery." This ordinance provides for emergency mitigation measures. There may be a need to amend the ordinance to provide for the implementation of Post Disaster Redevelopment Plans in the event of a widescale catastrophic disaster.

3. **Chapter 5, "Flood Damage Control Ordinance" (Article IV, Building and Construction Regulations, Section 5-221).**

The City's Flood Damage Control Ordinance requires that all new development and substantial redevelopment located within the 100-year flood zone be placed above the minimum flood elevation and establishes site specific building construction standards consistent with FEMA and State standards. Since 1977, when FEMA regulations were incorporated into the City of Tampa's Code, 38,501 new residential units have been constructed (approximately 30 percent of the City's total residential units).

In general, new residential construction and substantial improvements must be elevated above the base flood level. Non-residential structures cannot be lower than the base flood level, and in certain areas (in A-Zones), the structure can be flood-proofed in lieu of being elevated. Development is prohibited in the floodway, unless a registered professional engineer demonstrates that the encroachment will not result in any increase in flood levels during the occurrence of a base flood discharge.

The City's 100-year flood zone is divided into A-Zones and V-Zones. V-Zones delineate areas that are vulnerable to a storm surge up to the 100-year flood level and are subject to the effects of velocity wave action in heights of **three feet or greater**. A-Zones are areas which are vulnerable to the same storm surge but with velocity wave heights of **less than three feet**. Due to effects of the velocity wave action, V-Zones necessitate stricter elevation and construction standards for new development than properties located in the A-Zone. There are approximately 305 properties in the V-Zones and 12,708 in the A-Zones.

Structures within the V Zones (the Zone with the greatest threat to property damage) must have the bottom of the lowest horizontal structure member of the elevated floor placed above the base flood level by means of pilings, columns (post and piers) or shear walls and adequately anchored so as not to impair the structural integrity of the building during a flood. Structures within the A Zones must have the top of the elevated floor raised above the base flood level. No changes are recommended to this ordinance at this time.

4. **Chapter 5, "Wind Zone" (ASCE 7-88 and the Florida Building Code)**

The City's adopted wind speed standards taken from ASCE 7-88 and the Florida Building Code, 2001. The adopted wind speed standard for the City of Tampa is 120 miles per hour. This is consistent with national and state wind standards for the Tampa Bay area. Only a very small portion of the City is located in a Wind-Borne Debris Area requiring protection of openings.

5. **Chapter 17.5, "Stormwater Technical Manual" (Article VI, Planning & Land Development).**

The Stormwater Technical Standards Manual for Private Development requires all new development to ensure that there are no offsite impacts related to flooding. Developed is required to meet a 25-year rain storm event. For such an event, the off-site runoff can be no greater than an undeveloped site associated with a 5-year storm. These regulations are effective in addressing many of the major rain events in the City; however, since much of the City was developed prior to the adoption of these regulations, several areas of the City incur street flooding during lesser storms. Approximately 17 major intersections in the City are subject to flooding during these lesser rain events. These areas can most effectively be addressed through the implementation of capital improvement projects. No changes to the technical manuals are recommended at this time.

6. **Chapter 27, "Zoning".**

Section 27-104 establishes setbacks for development located within flood-prone areas. No building or structure may be erected in the floodplain and drainage retention area designated as the Curiosity Creek Drainage System. In addition, the Area, Height, Placement and Use provisions of Chapter 27 regulate the use and orientation of structures. These regulations implement the land use policies of the City's Comprehensive Plan. No changes are recommended at this time.

7. **Chapter 13, "Landscaping, Tree Removal, and Site Clearing".**

Section 13-163 details the buffers needed between wetlands and development to minimize any

adverse effect of the development on the wetland and its hydro-period. The buffers, along with appropriate soil erosion control, should have a minimum width of 15 feet and an average width of 25 feet to prevent wetland impacts associated with adjacent upland activities. No changes are recommended at this time.

8. ***Procedures to request limited revised FIRM studies or FIRM re-studies from FEMA.***

The City's Stormwater Department follows the procedures established by FEMA in its publication "Revisions to National Flood Insurance Program Maps" MT-2 FEMA FORM 81-89 SERIES, OCT 94 (Supersedes RSD-1, JUL 93) to request such studies. There are no recommendations to change these procedures at this time. The Department is in the process of applying to become a Cooperating Technical Partner with FEMA to improve the City's mapping capabilities.

### **Conclusions**

As can be seen by this preliminary assessment of the City's policies, programs and ordinances, the City does have a framework for hazard mitigation planning. However, there are some areas where additional study may be warranted. In particular, most of the policies in the City's Comprehensive Plan target only the Coastal High Hazard Area. They may provide sufficient guidance to address mitigation needs for less intense storms that primarily impact the CHHA; however, there may be a need to provide additional guidance for mitigation efforts outside of this area and for hazards of greater intensity.

Based on the experience of other communities, there may be opportunities, in addition to the National Flood Insurance Program and the Community Rating System, to develop other programs to improve the City's hazard mitigation level. Additionally, the City's codes and regulations appear to provide a framework for hazard mitigation. However, changes to policies or new policies may result in changes to existing development regulations.

**CITY OF TEMPLE TERRACE**  
**EVALUATION OF POLICIES, PROGRAMS AND ORDINANCES**

1. **Comprehensive Plan** – Pursuant to chapter 163.3002(1), Florida Statutes, Chapter 9G-5, Florida Administrative code, and chapter 75-390-37, laws of Florida, “the Future of Hillsborough Comprehensive Plan for the City of Temple Terrace” is established as the controlling document relevant to the city’s Land development regulations. The Comprehensive Plan provides goals and objectives and policies and establishes the basis on which the City of Temple Terrace regulates land development, including various forms of mitigation strategies, particularly as it relates to future land use; use of and retention of open space; conservation; public facilities, including wastewater, potable water, solid waste and drainage; a capital improvement element addressing future needs based upon established levels of service; and providing for intergovernmental coordination.
2. **Development Permits, Fees** – The development permit process provides for the City of Temple Terrace review, authorization, and control of the construction, site development, including the subdivision of land processes. This includes extensive review of matters pertaining to conservation area permits, tree removal, land clearing, and infrastructure.
3. **Development Permits, Fees** – The development permit process provides for the collection of fees and charges to support the City’s regulatory control process.
4. **Fire Protection and Prevention** – Provides for the establishment of policies and procedures with regard to hazardous materials, protection systems, and inspections. Also provides for plan review authority and the establishment of a life safety code as a standard for permit review.
5. **Health and Sanitation** – this section provides for policies procedures and programs related to excavation, filling, permits and use of septic tanks, control of weeds, grass, and underbrush.
6. **General Legislation/ Administration** – Establishes policies, procedures and programs, as well as the authority for the City’s implementation of local land development regulation pursuant to Chapter 163, Florida statutes, Chapter 9G-5, Florida Administrative Code, and Chapter 75-390-37, Laws of Florida.
7. **Article V, Zoning** – Provides for the establishment of zoning districts based upon the City’s Comprehensive Plan, thereby regulating the use of land.
8. **Article VI, Development Orders** – Provides for administration, policies and procedures, regarding all phases of the site development approval process, including provision of water and sewer service, platting of land and construction in flood hazard areas.
9. **Article VII, Design Standards and Development Criteria** – Provides for the implementation of standards on a site specific basis with regard to general design, drainage systems, environmentally sensitive lands protection, flood plain protection, construction of docks and seawalls, storm water management, tree removal, and wellfield protection.
10. **Article IX, Level of Service** – Provides for the establishment of minimum levels of service standards for public facilities and services, transportation, recreation and open space, pursuant to Chapter 163, F.S.
11. **Map, official Zoning Map of the City** – Establishes the official zoning map which provides for permitted uses of land within the City of Temple Terrace.

12. **Nonconforming Development and Variances** - Provides for the establishment of policies and procedures designed to deal with nonconformities as they relate to storm water management, use of land or structures.
13. **Parks, Playgrounds and Recreation** – Provides for policies addressing issues related to pollution of waters and wildlife protection and preservation.
14. **Permits** – Establishes requirements for obtaining permits related to building construction, conservation area, development, excavation, infrastructure, septic tanks, site preparation, tree removal and well permits.
15. **Platting/ Platting Required** – Provides for the establishment of processes related to the subdivision of land; including the dedication of jurisdictional lands, including wetlands and/or areas prone to flood.
16. **Seawalls (Construction Standards)** – Provides for the policies and procedures related to the permitting and construction of seawalls.
17. **Septic Tanks** – See item 5 above.
18. **Site Plans** – Provides for the policies and procedures related to the submission, review and approval of site plans, including coordination with all other policies related to determination of areas of high hazard, including areas subject to additional hazard mitigation requirements.
19. **Wastewater Systems** – Provides for policies and procedures related to the establishment and maintenance of wastewater systems, including regulations and limitations of use of septic tanks.
20. **Water Distribution System** – Provides for the establishment of policies and procedures related to the establishment and maintenance of a water distribution system.
21. **Wellfield Protection** – Provides for the establishment of policies and procedures related to the establishment of wellfield protection zones; provides for the elimination on nonconforming uses and activities.
22. **Zoning** – See item 6b above.

## **EVALUATION OF EXISTING MITIGATION POLICIES**

Making decisions in the context of hazard mitigation, with respect to new development and redevelopment, has much to do with the mechanisms that a local government uses to review development approvals. It is these mechanisms that guide decision-makers through the process of reviewing new development and redevelopment requests to ensure the long-range effects of development and their cost on society are considered. The ever increasing cost associated with disasters (man-made or natural) is requiring local governments to consider development practices prior to construction approval and identifying redevelopment alternatives in the aftermath of a catastrophic event.

As illustrated within the previous section (Temple Terrace -- List of Municipal Policies, Ordinances and Programs that affect Mitigation), the City currently has processes that effectively “work” with respect to hazard mitigation. The understanding of these processes will assist in the development of the Local Mitigation Strategy (LMS) and develop a bridge between local growth and emergency-management plans, land-development regulations, building codes and other ordinances and programs. Special emphasis will be required for ongoing cooperative action between county and city governments, businesses and industry, as well as, other segments of the community. The LMS development will further these programs by illustrating avenues to unify processes through the coordination of programs within City government and through inter-agency coordination with other local governments and businesses within the county.

The development of the Local Mitigation Strategy (LMS) assists in developing a bridge between local growth and emergency-management plans, land-development regulations, building codes and other ordinances and programs. Ongoing cooperative action between county and city governments, businesses and industry, as well as, other segments of the community is required for the success of this objective. The LMS development furthers these programs by illustrating avenues to unify City processes through the coordination of programs within City government and through inter-agency coordination with other local governments and businesses within the county. The following descriptions illustrate topic areas. These topic areas will begin to identify areas in which attention may be required in order to begin strengthening regulatory frameworks or to better integrate other similar processes. Principal topic areas include:

- **Regulatory review** – the City has regulatory areas that manage growth through the development-review process. These regulations are principally associated with mitigating development associated with: floodplains/floodways (includes the establishment of base-flood elevations or identification of floodproofing), and wetlands.

The current regulatory framework does not fully address certain techniques that may assist in furthering hazard-mitigation initiatives. Some of these topic areas include items that may be better established first through policy within the Comprehensive Plan, and then through drafting/modifying regulations in order for consideration to be provided through development-review and building-permitting functions. At a minimum, considerations to the following items may be included: use of mitigation techniques for all land uses within areas of potential, redevelopment, or the limitation of, non-conforming uses after a disaster (an economic analysis may be required), and development/redevelopment in areas associated with repetitive losses due to natural disasters.

- **Plans and policy implementation** – the City has an adopted Comprehensive Plan that is used to guide growth based upon factors such as: development limitations, public-service provision and environmental-resource protection. Additionally, the City has adopted the use of other Plans for use in mitigating hazards and in the development-review process. These plans are principally associated with mitigating development associated with: limiting development density and intensity for various areas within the City, prioritizing areas for protection and have a preservation or a conservation value, maintaining adequate level-of-service capacities associated with public infrastructure and services, and support of, local mitigation objectives, and implementing procedures of the Comprehensive Emergency Management Plan. Additionally, modifications to the Comprehensive Plan may be requested to recognize strategies approved within the Local Mitigation Strategy (and per Chapter 163, Florida Statutes and 9J-5, Florida Administrative Code).
- **Program implementation** – the City has implemented programs that are effective in mitigating hazards. However, the various programs are mostly associated with hazards associated with flooding. One of the principal purposes of the Local Mitigation Strategy is to unify these programs and identify areas for strengthening to ensure implementation of the Local Mitigation Strategy. Plans principally associated with mitigating development are: the Pre- and Post- Disaster Recovery Plan (CEMP) and the National Flood Insurance Program and the Community Rating System – criteria provides for the provision of flood insurance.
- **Areas of Improvement** (Current programs that do not fully address certain areas needed to assist in furthering hazard-mitigation initiatives.) Areas in which additional considerations are needed include: review of allowances made for nonconforming uses to rebuild, update the Comprehensive Emergency Management Plan to include a definition of critical facilities as defined within the Local Mitigation Strategy, coordinate repetitive-loss cases to better examine historical patterns of repetitive damage to

determine whether the policy should be expanded or modified to other areas, and identify alternatives (and incentives) in building techniques for development within high hazard areas.

**A MULTI-JURISDICTIONAL ANALYSIS OF HOW EXISTING POLICIES, ORDINANCES AND PROGRAMS COULD BE STRENGTHENED TO ACHIEVE THE MITIGATION GOALS AND OBJECTIVES OF THE COMMUNITY.**

Objective	Summary of Potential Modifications to Current Programs that are Directly Related to Listed Objectives
Public Education	<p>Public awareness and education is the key to any program associated with emergency management or hazard mitigation. The County is anticipating modifying the current Emergency Management Operation Center's "Guide for Business &amp; Industry" to include a section that specifically addresses Hazard Mitigation.</p> <p>There is a greater level of education required with respect to the implementation to mitigating techniques associated with: redevelopment, new construction, hazard proofing, and general awareness. Additionally, there are needs in working with both the public and private sector on the proper handling and disposal of both hazardous materials and hazardous waste. Awareness could be heightened through promoting programs such as the Emergency management Operations Center's public awareness program, the Sustainable Community's private and public partnership, and (as an example) the Florida Department of Environmental Protection's Waste Reduction Assistance Program. Work is required with the County's Public Information Office to identify better avenues to increase public awareness. Additionally, interaction with private and public groups (aggressively recruiting citizen and business involvement) will increase awareness on programs operated by the County, which include the National Flood Insurance Program. Changes with the Comprehensive Plan's policies may include identifying a process to educate the public on the necessity of preparedness planning.</p> <p>Other means of public education include working within "normal" avenues, which include working through media sources to promote: a speakers program, school programs, Internet home page, utility bill enclosures, public displays and public events, and the neighborhood liaison program. Specific target audiences for public-information efforts include working with (not an exhaustive list): elected officials, property owners, business owners and operators, chambers of commerce/building and trade associations, and land developers and contractors. This process is (somewhat) being used at the present time to educate the "public" through the Emergency Management Operations Center's program, the neighborhood liaison program and special media events.</p>
Coordination	<p>Disaster conditions are any significant manmade or natural events (or emergency conditions) that require coordinated response by local agencies. Coordination with respect to critical facilities and areas associated with potential hazards should be formalized to ensure a cross-section of agencies are familiar with the facilities/areas or possible future mitigation efforts.</p> <p>Coordination efforts are required in the development of the annual update of the County's Capital Improvements Program (CIP). Through coordinating projects to be placed within the CIP with the various County agencies, priority mitigation projects will be listed within the County's fiscal work plan to be addressed.</p> <p>Additionally, the work being performed by the LMS Working Committee is to establish processes in which local governments within the county will coordinate the manner needed to address various hazardous situations. To this end, coordination of hazard-mitigation project identification is required to move beyond the current parameters to include working with the various Offices of Management and Budgets to ensure funding is considered for priority projects at time of budget adoption (priorities for</p>

Objective	Summary of Potential Modifications to Current Programs that are Directly Related to Listed Objectives
	<p>mitigation projects will be uniform county-wide).</p> <p>Specific areas of the County have a greater probability of receiving damage during certain natural disasters. Facilities within these areas may be considered for storm proofing or be “retrofitted” to be protected. Flood proofing (or retrofitting) incorporates the use of techniques to protect a structure from damage due to a natural disaster (or man-made). Retrofitting structures within high flood or hurricane vulnerable areas may benefit the county in the “long-term.” There are alternatives available to both businesses and home-owners with respect to retrofitting structures. However, the County currently does not have a program that that would implement widespread retrofitting. Additionally, a cost benefit analysis, or value assessment, would be required prior to the establishment of a “retrofit” program.</p> <p>The various governmental entities within the county do participate in the National Flood Insurance Program (NFIP). The process provides for the avenue for the respective jurisdictions to receive discounts in their current rate structure. If the coordination efforts established through the LMS Working Group are carried forward with respect to identifying and addressing areas susceptible to flooding hazards, the cities and County may receive additional discounts for citizens with respect to their flood insurance policies.</p> <p>There are changes, however, needed with the current process between the local jurisdictions within the county. A greater amount of coordination is needed between local governments maximize benefits from discounts that are offered through the Community Rating process, which is associated with the NFIP. Through greater efforts, local governments may share resources in meeting requirements to minimize flooding hazards or work together on various mitigation programs/projects that would minimize public expenditures.</p> <p>A separate change to the NFIP is one associated with coordination efforts between the Federal Emergency Management Agency (FEMA) and the County. The process to modify is to have the County obtain notification from FEMA prior to a “claim” being processed to have the County (or city) verify that the structure is a conforming use.</p>
Development Management	<p>In the context of hazard mitigation, “Development Management” refers to the use of techniques to reduce the threat of damage from disasters (<i>City of Tampa, Second Deliverable, 1998</i>). Such tools can also be used to help direct long-term development patterns in a manner that can help minimize future threats. For example, greenways and parks could be developed in flood prone areas to collect water and minimize flooding to surrounding structures. Facilities, or structures, that have undergone repetitive damage could be relocated to more secure areas. Existing development could be removed from strategic areas allowing natural drainage patterns to take effect and help reduce the potential for flooding. These opportunities and limitations will be investigated as part of the development of the hazard mitigation strategy.</p> <p>Through the process of establishing the local mitigation strategy, various development approval processes will be reviewed to gain an understanding of the manner in which hazard mitigation is considered in the approval of various land-use projects. Current review of development-approval processes illustrates areas that may benefit from greater consideration of alternative development standards to mitigate potential hazards from natural or man-made disasters. Areas of consideration include:</p> <ul style="list-style-type: none"> <li>- Alternatives to redevelopment in high hazard areas,</li> <li>- Emergency development-review and building-permitting processes (that provide consideration to hazard mitigation alternatives),</li> <li>- Potential flooding from hurricane storm-surges and associated wind and wave action (county-wide),</li> </ul>

Objective	Summary of Potential Modifications to Current Programs that are Directly Related to Listed Objectives
	<ul style="list-style-type: none"> <li>- Redevelopment, or the prohibition of, non-conforming uses (county-wide) after a disaster (an economic analysis may be required), and</li> <li>- Development/redevelopment in areas associated with repetitive losses due to natural disasters.</li> </ul> <p>Various plans used within the County do not fully address certain areas needed to assist in furthering hazard-mitigation initiatives. Some of these topic areas include items that may be better established first through policy within the Comprehensive Plan, and then (possibly) modifying development-review regulations. At a minimum, the following considerations may assist with the implementation of the LMS goal and objectives:</p> <ul style="list-style-type: none"> <li>- Redevelopment of existing properties after a disaster to ensure mitigation strategies are considered that would minimize the potential for future losses,</li> <li>- Modify the Comprehensive Plan to recognize strategies approved within the Local Mitigation Strategy (and per Chapter 163, Florida Statutes and 9J-5, Florida Administrative Code),</li> <li>- Update the Comprehensive Emergency Management Plan to use hazard-mitigating strategies (where appropriate) as identified through the Local Mitigation Strategy Working Group,</li> <li>- Establish a policy direction that encourages removal of septic tanks or hazardous sites (where appropriate) from high-hazard areas throughout the county after a catastrophic event,</li> <li>- Establish policy direction that provides incentives for the retrofit of vulnerable structures as defined within the Local Mitigation Strategy, and</li> <li>- Establish policy direction to ensure evacuation shelters are addressed per the direction of the CEMP (in the context of development approval).</li> </ul> <p>Modifications to current programs that may further the intent of the Hazard Mitigation Strategy include:</p> <ul style="list-style-type: none"> <li>- Development of a system to monitor flood levels,</li> <li>- Acquisition program to acquire high hazard vulnerability areas (when no other feasible alternative exist),</li> <li>- Review of allowances made for non-conforming uses to rebuild after a disaster,</li> <li>- Update the Comprehensive Emergency Management Plan to include a definition of critical facilities as defined within the Local Mitigation Strategy,</li> <li>- Coordinate repetitive-loss cases to better examine historical patterns of repetitive damage to determine whether the policy should be expanded or modified to other areas,</li> <li>- Coordinate repetitive loss flood insurance “payouts” from the Federal government to ensure payments are not for non-conforming structures,</li> <li>- Establish a permanent funding source for selected mitigation projects within the Capital Improvements Program for those projects that cannot be grouped within another agencies funding code,</li> <li>- Identify alternatives (and incentives) in building techniques for development within high hazard areas, and</li> <li>- Identify all potential hazards in the review of development.</li> </ul>
Critical Facilities	<p>Local governments are the primary protectors of the public health, safety and general welfare. Their responsibility is to reduce the risk of property damages and loss of life accompanying catastrophic events. Chapter 252, Florida Statutes, provides the avenue for local governments to take in preventing, or mitigating, emergencies that may be caused by inadequate planning. To this end, and to meet the intent of the objective, the County will work towards “full” implementation of a critical-facilities</p>

Objective	Summary of Potential Modifications to Current Programs that are Directly Related to Listed Objectives
	<p>database. The current program of listing critical facilities will be modified to ensure integration of other geographic information systems (GIS) and land-information systems (LIS) databases to incorporate data available from those respective sources. Additionally, this database will be used in the assessment of various sites with respect to vulnerability to various man-made and natural disasters and prioritize respective areas to receive funding for mitigation.</p>

A remaining item not included within the above matrix and that is the “real” key to building a disaster-resistant community, is building constructive partnerships within our cities and county with residents and businesses. (“*Building a Disaster Resistant Community, Project Impact*,” FDCA). More can be accomplished through working within the community versus working for the community. Hazard mitigation strategies involve everyone’s input within the county, and modifying current public processes will start the process of truly making our “community” disaster resistant.