

## **Executive Summary**

Hazard mitigation is any action taken to permanently reduce or eliminate long-term risk to people and their property from the effects of hazards. Some examples of hazard mitigation include land use planning techniques that limit infrastructure in high hazard areas and programs for retrofitting existing structures to meet new building codes and standards. Ideally, a community can minimize the effects of future hazards through a mix of code enforcement, planning, and responsible development.

Mitigation occurs in many ways through various governmental activities. Together, these activities establish the mitigation goals for a community and provide the framework for effective redevelopment. Existing plans, programs, policies, and ordinances should be reviewed to identify mitigation activities already occurring in a jurisdiction. These independent activities are combined and contained in the Local Mitigation Strategy.

Effective mitigation should in no way be seen as an impediment to the growth and continued development of a community. An overarching philosophy of mitigation should be applied to all decisions related to a community's growth – so that communities across Florida can grow smarter. The result of incorporating mitigation into development practices will be the creation of safer and more economically resilient communities.

The Sarasota County Unified Local Mitigation Strategy 2010 plan was developed as a multi-jurisdictional, multi-hazard strategy to involve the public, assess the hazards, determine the vulnerability, identify risks, set goals, and identify mitigation activities, and plan for natural and manmade hazards to Sarasota County and the jurisdictions therein.

## **Jurisdiction Description**

### ***Geographic Profile***

Sarasota County is located on the west coast of Florida about 50 miles south of the City of Tampa. It is bordered to the north by Manatee County, the east by DeSoto County, to the south by Charlotte County, and to the west by the Gulf of Mexico. Sarasota County encompasses a total area of 725 square miles, of which 572 square miles of land and 154 square miles are classified as a water feature. Table 1 below reflects the distribution of land areas amongst the local jurisdictions.

***Table 1: Jurisdiction Land Distribution***

<b>Jurisdiction</b>	<b>Land Area (Square Miles)</b>	<b>Percent of Total Land Area</b>
City of North Port	104.1	18.1%
City of Sarasota	14.7	2.6%
City of Venice	16.6	2.9%
Town of Longboat Key	2.3	0.4%
Unincorporated County	435	76%

Sarasota County’s generally flat topography is characterized by isolated swamps and marshes, which connect into sloughs and meandering streams that flow into the coastal estuaries. Elevation along the Gulf of Mexico coastline ranges from 1 to 2 feet to 18 feet above sea level with the highest natural elevation in the northeast portion of the County at 95 feet above sea level.

**Demographics**

Sarasota County’s current population is 325,957 according to the U.S. Census Bureau, 2000 and has experienced a steady rate of growth. Based upon the U.S. Census Bureau analysis for the decennial period of 1990 to 2000, Sarasota County added 48,181 residents, but there were significant variations in the population growth within the municipalities. North Port grew by 90%, Longboat Key grew by 48%, Venice grew by 5%, and the City of Sarasota grew by 3% over the previous decade. Table 2 below reflects the population growth projections through 2030 in Sarasota County.

**Table 2: Population Growth Predictions**

	<b>U.S. Census Bureau</b>	<b>Bureau of Economic and Business Research University of Florida Florida Population Studies, Volume 42, Bulletin 153, March 2009</b>					
<b>Year</b>	2000	2008	2010	2015	2020	2025	2030
<b>Population</b>	325,957	393,608	396,000	425,500	458,900	491,500	522,700

Sarasota County does experience a large number of tourist/seasonal visitors throughout the County. According to the Economic Development Corporation of Sarasota County, the County experiences an average of 200,000 visitors per calendar year quarter, with an average stay of six days. Peak visitation is usually during the first quarter of the year. In order to determine a functional population for planning purposes, Sarasota County Planning Services utilizes a multiplier of 1.217.

Table 3 below reflects the population distribution by age based upon the U.S. Census Bureau, 2000.

**Table 3: Population Distribution by Age**

	<b>Age Group</b>				
	<b>0-14</b>	<b>15-24</b>	<b>25-44</b>	<b>45-64</b>	<b>65 Plus</b>
<b>Population</b>	43,685	25,533	70,685	83,471	102,583

**Economic Profile**

According to the U.S. Census Bureau, Sarasota County’s median household income for 2007 was \$50,031. Additionally, it was estimated by the U.S. Census Bureau that 8.1% of the population lived below the poverty level in 2007. Tables 4 through 6 are provided to offer a brief description of Sarasota County’s economic profile.

**Table 4: 2009 4<sup>th</sup> Quarter Employment Wages**

Industry	Units	Oct	Nov	Dec	Total Wages \$	Average	
						Employ	Wages \$
Agriculture, Forestry, Fishing	51	314	376	370	2,322,891	353	6,574
Mining	8	43	43	42	446,686	43	10,469
Construction	2,135	9,300	9,139	9,119	95,337,904	9,186	10,379
Manufacturing	436	4,751	4,746	4,680	54,810,117	4,726	11,598
Wholesale Trade	658	3,343	3,348	3,356	43,829,664	3,349	13,087
Utilities	31	493	497	495	10,123,169	495	20,451
Retail Trade	1,708	18,703	19,309	19,588	141,033,505	19,200	7,345
Transportation & Warehousing	180	2,057	2,071	2,187	22,365,615	2,105	10,625
Information	195	2,348	2,328	2,346	29,579,436	2,341	12,637
Financial	889	5,826	5,848	5,720	107,888,526	5,798	18,608
Real Estate	940	3,228	3,204	3,239	31,052,672	3,224	9,633
Professional Services	2,017	8,248	8,318	8,372	146,976,416	8,313	17,681
Management of Company or Enterprise	71	628	632	629	18,056,436	630	28,676
Admin Support	1,186	8,083	8,069	7,957	64,716,130	8,036	8,053
Education	162	9,171	9,284	9,286	99,638,793	9,247	10,775
Health Care	1,485	24,981	25,208	25,429	303,027,184	25,206	12,022
Leisure	268	4,982	5,131	5,339	33,892,735	5,151	6,580
Accommodation & Food	864	13,888	14,234	14,404	65,607,220	14,175	4,628
Other Services	1,285	5,449	5,511	5,444	38,754,197	5,468	7,087
Public Administration	78	6,697	6,647	6,641	89,554,659	6,662	13,443
Unclassified	27	17	28	33	539,613	26	20,754

\* <http://www.labormarketinfo.com>

**Table 5: June 2010 Unemployment Statistics**

Category	Value
Labor Force	166,672
Employment	147,000
Unemployment Level	19,672
Unemployment Rate	11.8%

\* <http://www.labormarketinfo.com>

**Table 6: Sarasota County Property Values (All Jurisdictions)**

<b>Property Type</b>	<b># of Parcels</b>	<b>Market Value (\$millions)</b>	<b>Taxable Value (\$millions)</b>	<b>% of Total Taxable Value</b>
Single Family Homes	129,017	\$28,943	\$21,505	47.99%
Condominiums	50,423	\$12,767	\$11,096	24.76%
Improved Commercial	7,862	\$6,167	\$5,815	12.98%
Vacant Residential	56,598	\$1,541	\$1,506	3.36%
Multi-Family (-10)	4,132	\$1,602	\$1,274	2.84%
Improved Industrial	2,250	\$1,160	\$1,147	2.56%
Vacant Commercial	775	\$549	\$525	1.17%
Mobile Homes	11,647	\$689	\$467	1.04%
Institutional	796	\$1,635	\$461	1.03%
Multi-Family (+10)	204	\$399	\$362	0.81%
Retirement Homes & Misc. Residential	11	\$318	\$231	0.52%
Vacant Industrial	320	\$107	\$105	0.23%
Miscellaneous	1,937	\$313	\$90	0.20%
Cooperatives	365	\$78	\$72	0.16%
Agriculture	901	\$780	\$70	0.16%
Non-Agricultural Acreage	181	\$68	\$65	0.15%
Government	687	\$2,821	\$11	0.02%
Leasehold Interest	19	\$13	\$2	0.00%

\* Sarasota County Property Appraiser, 2009 Data

## **Prerequisites**

### ***Multi-Jurisdictional Plan Adoption***

Adoption of the plan is a multi-jurisdictional function that requires each participating jurisdiction to independently accept and adopt the plan by resolution or ordinance. The specific jurisdictions represented by The Sarasota County Unified Local Mitigation Strategy 2010 plan are:

- City of North Port
- City of Sarasota
- City of Venice
- Sarasota County
- Sarasota County Schools
- Sarasota Memorial Hospital
- Town of Longboat Key

Supporting documentation for each jurisdiction may be found in Appendix F.

**Multi-Jurisdictional Planning Participation**

Development of the updated plan was a multi-jurisdictional effort encompassing all the jurisdictions represented by The Sarasota County Unified Local Mitigation Strategy 2010 plan. Beginning in December of 2007, and each calendar quarter thereafter to the present, the Sarasota County Local Mitigation Strategy Work Group held quarterly meetings to identify, discuss, and recommend changes to the 2004 plan. Each continuing and new jurisdiction participated in the development of the plan and was a full and integral member of the review and decision process. The Table 7 below identifies all of the participating jurisdictions in The Sarasota County Unified Local Mitigation Strategy 2010. Meeting agendas, minutes, and public notices may be found in Appendix K.

**Table 7: Participating Jurisdictions**

Jurisdiction	Planning Participation		
	New	Continuing	No Longer
City of North Port		X	
City of Sarasota		X	
City of Venice		X	
Sarasota County		X	
Sarasota County Schools	X		
Sarasota Memorial Hospital	X		
Town of Longboat Key		X	

**Planning Process**

In December of 2007, the Local Mitigation Strategy Work Group met to focus on the development of a process to update the 2004 plan. The initial meeting identified two main focal points for the members: updating the current plan in accordance to established standards, and the integration of the floodplain plan into the local mitigation plan to form one document.

A process was established to review the 2004 plan based upon the Local Mitigation Plan Review Crosswalk and to identify any deficiencies in that plan. Members were also tasked with identifying portions of the 2004 plan that did not meet the member’s current goals and strategies. Through a series of quarterly meetings by the Local Mitigation Strategy Work Group and the Regional Floodplain Management Planning and Coordination Committee a detailed analysis was conducted of the plan. Recommended changes or additions of the plan were drafted by the Planning Section (Chair) of the Sarasota County Emergency Management Department and forwarded to the Vice Chair for the initial review process. Once the initial review process was complete, the changes or additions were forwarded to the entire Local Mitigation Strategy Work Group for

review and approval. Upon approval by the members of the Work Group, the changes or additions were incorporated into the updated plan.

During the December 2007 Sarasota County Local Mitigation Strategy Work Group meeting, a discussion took place to determine the need of forming a plans committee. A decision was made that a separate plans committee would be formed after the update was completed, and tasked with advising and recommending changes based upon new State and Federal regulations in the subsequent years. It was determined by the members that each participating jurisdiction should have an equal and participating role in the update of the plan. The Table 8 below identifies who was involved in the current planning process to update the plan.

**Table 8: Planning Process Contributors**

Name	Contributors	
	Jurisdiction	External
Richard Todd Kerkering (Chair)	Sarasota County	
Richard Berman (Vice Chair)	City of North Port	
James Bugyis	Sarasota Memorial Hospital	
Gerald “Buster” Chapin	City of Sarasota	
Desiree Companion	Sarasota County	
Cindy Desmond		American Red Cross
Gilbert Fernandez	City of Sarasota	
James Hesemann	Sarasota Memorial Hospital	
James Linkogle	Town of Longboat Key	
Debra Metheny	Sarasota County Schools	
Pradeep Nagarajan		AECOM (Contractor)
Valerie Raney	City of Venice	
Inaki Rezola		American Red Cross
Kathleen Weeden	City of Venice	
Elizabeth Wong	City of North Port	

One of the outcomes of a Local Mitigation Strategy Work Group and the Regional Floodplain Management Planning and Coordination Committee meeting was the laying of a basic foundation for combining the Local Mitigation Strategy Plan and each jurisdiction participating in the Community Rating Systems Floodplain Management Plan. While still in its infancy, the plans were combined by including the jurisdictions Floodplain Management Plan as an annex to the Local Mitigation Strategy Plan. While this accomplish is minor in the overall scheme, it did save several work hours for the participating jurisdictions by precluding the need for separate resolutions on each plan. The work is not complete and both organizations will continue to develop strategies and methods for the continued combining of both plans.

The public has been provided an opportunity to provide input on the updated plan from the onset of the December of 2007 meeting. Each Local Mitigation Strategy Work Group

meeting is advertised as a public service announcement in the local newspaper. Sarasota County Emergency Management has also created a separate link for Local Mitigation Strategy on Sarasota County's All-Hazards web site. The web site may be found at <http://www.scgov.net/EmergencyServices/mitigation.asp>. This web site not only provided an opportunity to view the draft copy, but a direct link to email questions or comments to the Work Group via the [lms@scgov.net](mailto:lms@scgov.net) email address. Prior to each jurisdiction's approval resolution, the public will be afforded a final opportunity to comment on the plan during the respective jurisdiction's adoption process.

Coordination with other agencies and organizations outside of the jurisdiction of Sarasota County took place in many different forms. As in most local governments, employees are often involved in several different projects at the same time, but of a similar nature. The members of the Sarasota County Local Mitigation Strategy Work Group are made up of a diverse group of job specialties ranging from professional planners, engineers, public works professionals, emergency management professionals and educators. Many of these same members of the Local Mitigation Strategy Work Group participated in the Pennsylvania State University Sea Level Rise project in Sarasota County and continue to be involved in the Sarasota County Post Disaster Redevelopment Plan. Additionally, each job specialty offers its own set of collaboration methods with the member's counterparts in jurisdictions outside of Sarasota County. The jurisdiction of the Town of Longboat is equally divided between Sarasota and Manatee Counties and the representative from the Town of Longboat Key is a member on both LMS Work Groups. While direct involvement was limited by parties outside the jurisdiction, the indirect sharing of ideas, goals and objectives were of great value in the development of the updated plan.

The Sarasota County Local Mitigation Strategy Work Group continues to recognize that the opportunity exist for greater involvement amongst the remaining jurisdictions, nonprofits, and other interested parties within the county as well as our neighboring communities. Preliminary discussion has taken place to date, and a membership drive initiative will be developed in the 2010 calendar year. Additional jurisdictions include, but are not limited to, Englewood Water District, Englewood Fire District, and the Sarasota Bradenton Airport Authority. In addition to non-participating jurisdictions, the Work Group has identified, and continues to identify educational, business, and civic groups for direct invitations to participate with the LMS Work Group.

One of the two main focal points of updating the plan was the incorporation of the Floodplain Management Plan into the Local Mitigation Strategy Plan. As a result, several existing plans and studies were reviewed or participated in by members of the Local Mitigation Strategy Work Group and the Regional Floodplain Management Planning and Coordination Committee. These included, but were not limited to:

- Sarasota County Comprehensive Emergency Management Plan
- Pennsylvania State University Sea Level Rise Study
- Post Disaster Redevelopment Plan (On-going)
- Sarasota 2050
- Jurisdiction Comprehensive Plans

Jurisdiction Floodplain Plans  
Jurisdiction Codes and Ordinances  
State of Florida Hazard Mitigation Plan  
Peace River/Manasota Regional Water Supply Authority Reservoir Emergency  
Action Plan

The Sarasota County Local Mitigation Strategy Work Group reviewed and analyzed each section of the 2004 plan in accordance with the current Local Mitigation Plan Review Crosswalk. It was determined very early on in the review process, that the 2004 Plan was cumbersome, not user friendly, and maintenance intensive. While the 2004 Plan continues to have very valuable information, it was agreed upon to incorporate relevant and applicable portions of the 2004 Plan into a restructured, streamlined 2010 Plan. The following information listed below documents the analysis conducted on The Sarasota County Unified Local Mitigation Strategy 2004 plan during the updating process and highlights the revised actions:

Executive Summary – This section was reviewed and determined to be repetitive and duplicated information that was more appropriate in other sections of the plan and thus was streamlined to meet the LMS Work Group needs.

The Working Group Members – This section was reviewed and revised under the Multi-Jurisdiction Planning Participation and the Planning Process sections of the updated plan. Information relevant to the rules and actions of the LMS Work Group were formalized into by-laws and added as a separate appendix to the updated plan.

Hurricane Hazard Mitigation – This section was reviewed and will be revised under the Risk Assessment section of the updated plan.

Wildfire - This section was reviewed and will be revised under the Risk Assessment section of the updated plan.

Stormwater Construction – This section was reviewed and determined to be no longer relevant in its current form.

Regional, State, and Federal Agencies & Partners – This section was reviewed and determined to be no longer relevant to the updated plan. A link on the Local Mitigation Strategy web page will identify partner agencies, such as the Florida Department of Emergency Management or the Federal Emergency Management Agency, and will provide a link to their respective web page.

Florida Hazard Mitigation Team Goals and Objectives – This section was reviewed and determined to be a duplication of the State of Florida's plan. This information was removed from the updated plan and a link to the State of Florida's plan will be provided on the Local Mitigation Strategy web page.

Hazard Identification Vulnerability Analysis (Attachment A) – This section was reviewed and updated. It was determined that this section would be placed within the basic plan update, instead of a separate attachment. Supporting documentation will be placed in a separate appendix.

Critical Facilities Inventory Vulnerability Assessments (Attachment B) – This section was reviewed and determined to contradict the intent of the Local Mitigation Strategy efforts for public outreach and the Florida Constitution by documenting and containing within the plan a listing of critical facilities within all of Sarasota County. Continued inclusion of a critical facilities list would violate F.S. 119.07(1) and F.S. 24(a), Article I of the State Constitution.

Critical Facilities Inventory Vulnerability Assessments Score (Attachment C) - This section was reviewed and determined to contradict the intent of the Local Mitigation Strategy efforts for public outreach and the Florida Constitution by documenting and containing within the plan a listing of critical facilities within all of Sarasota County. Continued inclusion of a critical facilities list would violate F.S. 119.07(1) and F.S. 24(a), Article I of the State Constitution.

Repetitive Loss Data (Attachment D) – This section was reviewed and the information contained therein, was determined not to be available for public release in the current format. Repetitive loss data will be contained in the Assessing Vulnerability: Addressing Repetitive Loss Properties section of the updated plan and additional information may be found within each respective jurisdictions floodplain plan.

Project Evaluation Data (Attachment E) - This section was reviewed and maintained as the hazard mitigation evaluation criteria procedure.

Public Outreach (Attachment F) – This section was reviewed and it was determined that it would be more appropriately placed within the plan under the section title Continued Public Involvement. Additional public involvement participation plans may be found within each respective jurisdictions floodplain plan.

Guiding Principles (Attachment G) – This section was reviewed and determined to be a duplication of the Documentation of the Planning Process Element E section of the updated plan and no longer relevant.

Local Mitigation Successes (Attachment H) - This section was reviewed and updated to include successful projects from 2004 to the present. See Annex J

Project List (Attachment I) - This section was reviewed and updated to reflect the current project list. See Annex I

Guiding Principle Evaluation Form (Attachment J) – This document was reviewed and determined to be outdated and no longer relevant as an example form.

Future Mitigation Outlook/Capital Improvement Projects (Attachment K) - This section was reviewed and it was determined to be a duplication of the project list and no longer relevant to the needs of the LMS Work Group.

## **Risk Assessment**

### ***Identifying Hazards***

Sarasota County is a medium size coastal community located in southwest Florida that is vulnerable to many types of natural hazards. Many residents and visitors are aware of the County's location within the "Hurricane Belt" but are complacent or unaware about the potential for other severe natural disasters within the County. All parts of the County are subject to natural disasters to some extent and can take place virtually at any time. Due to the County's low coastal topography and usually high water table, the County can be particularly vulnerable to natural hazards that directly or indirectly result in flooding.

The Sarasota County Unified Local Mitigation Strategy 2004 plan profiled all of the hazards identified by the LMS Work Group. This profiling process considered the historical occurrences, the geographic extent the probability for future occurrences, and utilizing the FEMA developed HAZUS program. As part of the 2010 plan revision, each hazard was reconsidered and new information was added for the updating period. The LMS Group focused on updating and adding new information relating to the hazards and emphasized the streamlining approach by considering the following:

- Validating the current general information.
- Identifying new hazard occurrences since the 2004 Plan.
- Identifying specific jurisdiction hazard variations.
- Aligning the extent and probability factors with the Sarasota County Comprehensive Emergency Management Plan and the State Mitigation Plan.

Table 9 below offers a brief description identifying the hazard type, location, extent, and probability that affect the jurisdictions within Sarasota County. Refer to Tables 9A, 9B, and 9C for clarification of the data. A narrative description of each hazard follows Table 9C. Jurisdiction boundary maps may be found in Appendix L.

**Table 9: Identified Hazards**

<b>Hazard Type</b>	<b>Jurisdiction (1)</b>	<b>Extent (2)</b>	<b>Probability (3)</b>
Avalanche	None	Unlikely	None
Coastal Erosion	2,3,4,7	Extensive	Annual
Coastal Storm	All	Extensive	Annual
Dam Failure	All	Low	Low
Drought	All	Low	Annual
Earthquake	All	Low	20 + years
Expansive Soils	All	Unlikely	None
Levee Failure	1,4	Low	Unlikely
Flood	All	Catastrophic	Annual
Hailstorm	All	Low	Annual
Hurricane	All	Catastrophic	Annual
Land Subsidence	All	Low	Medium
Landslide	None	Unlikely	None
Seasonal Severe Weather Storm	All	Extensive	Annual
Tornado	All	Low	Annual
Tsunami	2,3,4,7	Unlikely	None
Volcano	None	Unlikely	None
Wildfire	All	Extensive	Annual
Windstorm	All	Extensive	Annual

1. Jurisdiction

**Table 9A**

<b>Jurisdiction</b>	<b>Identification #</b>
City of North Port	1
City of Sarasota	2
City of Venice	3
Sarasota County Government	4
Sarasota County Schools	5
Sarasota Memorial Hospital	6
Town of Longboat Key	7

2. Extent

**Table 9B**

<b>Population Affected</b>	<b>Extent</b>
No data available	Unlikely
0-1,000	Low
1,001 – 5,000	Medium
5,001 – 10,000	High
10,001 – 25,000	Extensive
25,001 plus	Catastrophic

3. Probability

**Table 9C**

<b>Years Between Events</b>	<b>Classification</b>
Annual	Annual
1 – 5	High
6 – 10	Medium
11 – 20	Low
20 plus	Unlikely
No Occurrence on Record	None

At a minimum, the risk assessment will be reviewed and validated at one of the annual quarterly meetings.

***Profiling Hazards***

**Avalanche**

An avalanche is defined as a fall or slide of a large mass down a mountainside. Due to the topography of Sarasota County and the jurisdictions within, avalanches are not a natural threat. There have been no historical references to an avalanche taking place within Sarasota County. Avalanches are not considered a risk and therefore it will not be fully profiled.

**Coastal Erosion**

Coastal erosion is the wearing a way of land or the removal of beach or dune sediments by wave action, tidal currents, wave currents, or drainage. Waves generated by coastal storms or hurricanes cause coastal erosion, which may take the form of long-term losses of sediment and rocks, or merely in the temporary redistribution of coastal sediments. Erosion in one location may result in accretion nearby. The jurisdictions that are affected

by coastal erosion in Sarasota County are; the City of Sarasota, City of Venice, Sarasota County Government, and the Town of Longboat Key.

Sarasota County Government has taken the preemptive approach with the creation of the Coastal Resources Department within the Environmental Services Business Center. This organization focuses on a number of shoreline interests, from maintenance of navigable waterways to shoreline enhancement, habitat restoration, and the monitoring of coastal erosion through a series of benchmarks placed every 1000 feet along our shoreline. One of the most important mitigation efforts to have taken place was the approval of the Coastal Setback Code with amendments on October 28, 2008. The revised code creates consistency with the Comprehensive Plan, other natural resources protection codes, and addresses the requirements for shore protection structures, such as seawalls and rock revetments.

The beaches and inland waterways will continue to shift and change over time and will continue to be an identifiable hazard. While the 2004 Plan did not specifically identify coastal erosion as a hazard, the current LMS Work Group chose to identify this hazard in the updated plan. Whether or not coastal erosion takes place over a long period of time or by a single incident, coastal erosion is a continued hazard to the jurisdictions identified in Table 9.

Coastal erosion and or accretion occur in various parts of Sarasota County's coastline and inland waterways throughout the year. The erosion and or accretion rates within Sarasota County are very dynamic between the barrier islands and at different locations on the same island. The typical average rates within Sarasota County for a specific location range from ten feet of accretion to ten to fifteen feet of erosion. All coastal structures as well as the critical facilities that support these structures could be impacted by coastal erosion. During the previous ten years, Sarasota County has averaged the loss of one structure per year with a value of \$1-5M as a result of coastal erosion and or undermining of the foundation. For planning purposes, this average is consistent with the expectations of the Local Mitigation Strategy Work Group estimates for this natural hazard occurrence per event.

The most recent historical event to take place was Tropical Storm Fay, in which Sarasota County was eligible for Public Assistance under the FEMA-1785-DR as a result of an estimated \$3M in coastal beach erosion. For a complete listing of events recorded by the NOAA Satellite and Information Service that have taken place in Sarasota County from January 1, 1950 to June 30, 2010 please refer to Appendix O.

### **Coastal Storms**

Coastal storms are typically associated with hurricanes and or other tropical depressions and storms that may impact Sarasota County. The difference between the vulnerabilities and impacts of coastal storms and hurricanes is separated by the severity of the event. Coastal Storms will be profiled under the Hurricane natural hazard description.

For a complete listing of events recorded by the NOAA Satellite and Information Service that have taken place in Sarasota County from January 1, 1950 to June 30, 2010 please refer to Appendix O.

### **Dam Failure**

According to the National Inventory of Dams, there are no dams located in Sarasota County, but the definition of a dam by Florida Statutes is, any artificial or natural barrier, with appurtenant works, raised to obstruct or impound, or which does obstruct or impound, any of the surface waters of the state. By definition, Sarasota County has many structures within the County and municipal jurisdictions designed to mitigate flooding by controlling storm waters. The LMS Work Group recognizes the importance of these structures, but also recognizes their failures could result in the very thing they were designed to prevent.

A failure by any one or several of the structures within the County may have an impact on one or all of the jurisdictions. While the loss of property may be minimal, there could be an undetermined measure of economic loss and inconvenience due the closure of a major roadway.

According to the NOAA Satellite and Information Service, Sarasota County and the jurisdictions within have experienced zero dam failure events during the updated plan period from January 1, 2004 to June 30, 2010. To date, the only reported occurrences of dam (water control gate) failure within Sarasota County is located within the City of North Port. For a complete listing of events recorded by the NOAA Satellite and Information Service that have taken place in Sarasota County from January 1, 1950 to June 30, 2010 please refer to Appendix O.

Based upon historical data and the type and function of the dam structures located within Sarasota County, it would be unlikely to see results of the subsequent flooding in depths greater than two feet. If this event were to occur within Sarasota County, non-elevated structures and critical facilities in the vicinity could be temporarily impacted. Structural damage as a result of this event would be similar to the historical average \$500K per incident for flooding. For planning purposes, this average is consistent with the expectations of the Local Mitigation Strategy Work Group estimates for this natural hazard occurrence per event.

### **Drought**

A drought is defined as a period of abnormally dry weather sufficiently prolonged by the lack of precipitation to cause a serious hydrological imbalance. While droughts are a normally occurring event, they are difficult to predict or forecast both as to when they will begin and how long they will last. The severity of a drought will depend upon the duration, seasonal or extended, moisture deficiency, and the size of the affected area.

Conceptually, droughts have often been associated with their impact on the agriculture industry of the affected area, but there may also be socioeconomic impacts as a result of a drought. Based upon Sarasota County's long history of involvement in the agriculture and livestock industry, an extended drought or drought conditions could be devastating to that particular industry, but as a whole it would be a low impact on the entire county and jurisdictions within based upon the direct population that would be impacted. As the duration of a drought increases, so does the socioeconomic impacts of the drought. Watering restrictions would be instituted, limitations in freshwater recreation and the potential increase of wildfires, while generally inconveniences to most, could impact the County as a whole.

Sarasota County utilizes the Keetch-Byram Drought Index (KBDI) to monitor drought conditions. The Keetch-Byram drought index (KBDI) is a continuous reference scale for estimating the dryness of the soil and duff layers. The index increases for each day without rain (the amount of increase depends on the daily high temperature) and decreases when it rains. The scale ranges from 0 (no moisture deficit) to 800. The range of the index is determined by assuming that there is 8 inches of moisture in a saturated soil that is readily available to the vegetation.

Historically, Sarasota County has experienced several extended drought conditions throughout its history with the last ending in 2008. During the last five years, Sarasota County reached its highest level on the KBDI scale with a 675 on June 10, 2006. All of Sarasota County and the jurisdictions within may be affected by drought conditions on an annual basis and could expect to see similar levels as high on the KBDI scale in the future.

According to the NOAA Satellite and Information Service, Sarasota County has not had a recorded drought that has taken place from January 1, 1950 to June 30, 2010. For a complete listing of events recorded by the NOAA Satellite and Information Service that have taken place in Sarasota County from January 1, 1950 to June 30, 2010 please refer to Appendix O.

## **Earthquake**

An earthquake is defined as a sudden and sometimes violent movement of the earth's surface as a result of movement along a fault or by volcanic disturbance. Earthquakes are measured by the Modified Mercalli Intensity Scale (Table 10A below) which measures detectability/level impact or by the Richter Scale (Table 10B below) which measures logarithmic magnitude scale of earthquake energy.

**Table 10A: Modified Mercalli Intensity Scale**

<b>Intensity</b>	<b>Detectability/Level Impact</b>
I	Detected only by sensitive instruments
II	Felt by a few persons at rest, especially on upper floors
III	Felt noticeably indoors, but not always recognized as a quake
IV	Felt indoors by many, outdoors by a few
V	Felt by most people, damage to glass and plaster
VI	Felt by all, many frightened and run outdoors, damage small
VII	Everybody runs outdoors, damage to buildings varies
VIII	Panel walls thrown out of frames, fall of walls and chimneys
IX	Buildings shifted off foundations, cracked, thrown out of plumb
X	Most masonry and framed structures destroyed, ground cracked
XI	New structures still standing, bridges destroyed, ground fissures
XII	Damage total, waves seen on ground surface

**Table 10B: Richter Scale**

<b>Magnitude</b>	<b>Energies (TNT)</b>
1	1.7 Kilograms
2	5.9 Kilograms
3	180 Kilograms
4	6 Tons
5	199 Tons
6	6,270 Tons
7	100,000 Tons
8	6,270,000 Tons
9	199,000,000 Tons

While Florida is not known for earthquakes, there have been over 30 recorded seismic activities in the State since the late 1700's. Sarasota has not recorded any damage to these seismic activities, but an event could affect all the jurisdictions within the County. The last seismic event to take place within the area occurred on September 10, 2006, in which the epicenter was located, an estimated 250 miles west-southwest of the County.

Based upon past historical data, the extent of damage from an earthquake would be low for all the jurisdictions within the County. Based upon these historical occurrences, the LMS Work Group estimates the probability of this phenomenon occurring in Sarasota County is 20 plus years between occurrences and would measure level I on the Modified Mercalli Intensity Scale. In the event that this natural hazard did occur within Sarasota County, the impact could influence all of the structures and critical facilities depending upon the severity.

For a complete listing of events recorded by the NOAA Satellite and Information Service that have taken place in Sarasota County from January 1, 1950 to June 30, 2010 please refer to Appendix O.

## **Expansive Soils**

Expansive soils are soils that expand by the adding of water and contract as the soil dries out, which in turn may cause foundations and walls of structures to shift or crack. The 1991 Soil Survey of Sarasota County, Florida conducted by the United States Department of Agriculture did not highlight or specifically identify expansive soils as a hazard to any of the areas within the county. There have been no historical references to an expansive soil incident taking place within Sarasota County. Expansive soils are not considered a risk and therefore it will not be fully profiled.

## **Levee Failure**

A levee failure is defined as a break in the water-retaining earthwork that allows the release of water in the direction the levee was designed to prevent from occurring. The recent completion of the six billion gallon Peace River/Manasota Regional Water Supply Authority Reservoir located in DeSoto County Florida has added the unlikely potential of a levee failure occurring and impacting a small population of residences located within Sarasota County and the City of North Port.

Levee failure inundation studies conclude that depending upon the location of the failure and current level of the reservoir, residents within the inundation area could experience water depths from two to four feet. The impact of a levee failure could impact non-elevated homes and have a temporary impact to the critical facilities that directly support these homes. Currently, based upon the inundation studies, of the 3,942 properties located within the potential impact area, only two properties have structures with a combined value of \$174K. Considering the different factors associated with a levee breach and the actual number of structures in the area, the impact would not exceed the \$200K at this time.

Due to the partnership and collaboration of the Peace River/Manasota Regional Water Supply Authority and the surrounding jurisdictions the threat of a levee failure in the future is unlikely. There have been no historical references to a levee failure taking place within Sarasota County. For a complete listing of events recorded by the NOAA Satellite and Information Service that have taken place in Sarasota County from January 1, 1950 to June 30, 2010 please refer to Appendix O.

## **Flood**

Flooding has been the most frequent occurrence in Sarasota County over the past 100 years. Sarasota County residents can experience flooding from two sources and they can occur at the same time;

- Coastal flooding and erosion triggered by tropical storms and hurricanes.
- Riverine flooding intense and abundant rainfall into our river, streams, channels and numerous low-lying areas.

General flooding in the County has typically accompanied storms which have passed over or near Sarasota. In 1962, over 16 inches of rain fell in 48-hour period, and the "No Name" storm of 1982, caused severe flooding along the bays and coastline, while the accompanying heavy rain and wind in the region created floodwaters that inundated residential areas on the coastal islands, and covered.

Because of their proximity to bodies of water, or low-lying areas, all of the jurisdictions in Sarasota County are vulnerable to flooding. Major flooding occurring in the County would have a significant impact on population, property, and economy; besides the threat to human life and property. In addition, floodwaters could cause wastewater treatment facilities to shut down, contaminate local water supplies, and disrupt utilities. Major property losses could be expected in the communities previously mentioned. Floodwaters could also submerge portions of I-75, US41 and east west highways. The loss of these transportation networks would hinder evacuation and relief efforts, making it difficult to provide emergency response services.

Since 1950, there have been 43 recorded flood events within Sarasota County by the NOAA Satellite and Information Service. Usually these events have floodwaters ranging from one to two feet and impact non-elevated structures causing a temporary disruption to critical facilities. In rare situations within the County, floodwaters have reached the five to seven feet in depth and have impacted all types of structures. In these rare events, there have been disruptions to critical facilities.

Specific jurisdiction details relating to locations, extent, past occurrences, probability of future events occurring, and structures may be found in each jurisdiction's Floodplain Management Plans located in Annexes A through E. Structural damage as a result of flooding has been recorded 30 times by the NOAA Satellite and Information Service. Damage has ranged from as little as \$1K to as much as \$9.2M with the average of \$500K per event. For planning purposes, this average is consistent with the expectations of the Local Mitigation Strategy Work Group estimates for this natural hazard occurrence per event.

Additional vulnerability information for this natural hazard in relation to hurricane surge is in the Hazard Identification and Vulnerability Analysis located in Appendix M Maps associated with this natural hazard may be found on-line at <http://www.scgov.net/EmergencyServices/mitigation.asp>. For a complete listing of events recorded by the NOAA Satellite and Information Service that have taken place in Sarasota County from January 1, 1950 to June 30, 2010 please refer to Appendix O.

## **Hailstorm**

Hail is defined as precipitation of balls or pieces of ice with a diameter of 0.2 to 4 inches. Small hail is typically defined as having a diameter of less than 0.2 inches. Hailstorms usually accompany thunderstorms which are common occurrences in Sarasota County. The extent of people impacted could be County-wide, but damage is typically low or non-existent to all structures and critical facilities.

According to the NOAA Satellite and Information Service, Sarasota County and the jurisdictions within have experienced two hailstorm events during the updated plan period from January 1, 2004 to June 30, 2010. The last hailstorm event occurred on 4 August, 2008. For a complete listing of events recorded by the NOAA Satellite and Information Service that have taken place in Sarasota County from January 1, 1950 to June 30, 2010 please refer to Appendix O.

**Hurricanes**

Coastal storms, hurricanes and windstorms and their associated consequences all have the potential probability to affect all the jurisdictions within Sarasota County to varying degrees. The extent may vary from jurisdiction to jurisdiction, but each have the potential to create extensive to catastrophic damage based upon the particular dynamics of each storm. Hurricanes would cause the greatest impact to the jurisdictions of Sarasota County, thus mitigation efforts are focused on hurricanes and include the mitigation efforts associated with coastal storms and wind events.

Hurricanes are large cyclonic storms with counter-clockwise winds of 74 mph or greater based upon the Saffir-Simpson Hurricane Wind Scale (Table 11). The coastal areas that receive the full force of hurricane winds and storm surge sustain the most damage. Since hurricanes dissipate quite rapidly to less than hurricane strength after they make landfall, inland areas typically receive less catastrophic damage. Inland damage is usually in the form of flooding associated with the exceptionally heavy rains commonly associated with the remaining storm system.

**Table 11: Saffir-Simpson Hurricane Wind Scale**

<b>Category</b>	<b>Sustained Winds</b>	<b>Potential Damage</b>
Tropical Storm	39-73 mph	Some
1	74-95 mph	Some
2	96-110 mph	Extensive
3	111-130 mph	Devastating
4	131-155 mph	Catastrophic
5	156 mph plus	Catastrophic

An average of two hurricanes make landfall in the continental U.S. annually, causing massive destruction and huge loses for anyone in its path. Since 1971, Florida has experienced the largest number of hurricanes affecting the state.

The consequences of hurricane winds and storm surge, which are also seen in tornadoes, include loss of life, flooding, coastal erosion, structural failures, power failures, and utilities disruption and felled trees, as well as economic disruption. In terms of economic damage, the five costliest hurricanes in the history of the United States all impacted portions of Florida. Hurricane Charley, which impacted the bordering county to the south, is ranked as the 4<sup>th</sup> costliest hurricane at \$15 billion.

Due to its geographic location in the subtropics, adjacent to the Gulf of Mexico, the entire

County is vulnerable to damage caused by hurricane force winds and related flooding. Vulnerability to hurricane related flooding is dependent upon the severity of storm surge, a general rise in sea level caused by the low pressure and strong winds around a hurricane's eye, and the amount of rain carried by the hurricane. Storm surge is related to the hurricane's velocity, and can rise twenty feet or more above normal sea level and cause massive flooding and destruction along shorelines in its path. Flooding due to heavy rainfall may extend over widespread areas of the County.

During past storm events, private and public structures, shoreline protection structures, public roads, and facilities in Sarasota County have been damaged. Most recently, in 2008, as a consequence of Tropical Storm Fay, Sarasota County and the jurisdictions within, experienced an estimated \$3M in coastal beach erosion. Sarasota County has not experienced a severe hurricane for several decades, and the full impact of a destructive storm, for example, a landfall category three hurricane, remains unknown and could exceed several billion dollars.

Sarasota County has been affected by hurricanes or Tropical Storms a total of 16 times since 1950. For a complete listing of events recorded by the NOAA Satellite and Information Service that have taken place in Sarasota County from January 1, 1950 to June 30, 2010 please refer to Appendix O.

Additional vulnerability information for this natural hazard is the Hazard Identification and Vulnerability Analysis located in Appendix M Maps associated with this natural hazard may be found on-line at <http://www.scgov.net/EmergencyServices/mitigation.asp>.

### **Land Subsidence/Sinkholes**

Land subsidence is the lowering of a portion of the earth's crust and can occur naturally or through human activity. Natural subsidence may occur when limestone, which is easily carved by underground water, collapses, leaving sinkholes on the surface or by earthquakes along fault lines. Human activities such as mining or the extraction of oil, gas, and water may also lead to land subsidence. Sinkholes are a common feature of Florida's landscape due to land subsidence.

Sinkholes are only one of many kinds of karst landforms, which include caves, disappearing streams, springs, and underground drainage systems, all of which occur in Florida. Sinkholes form in karst terrain principally from the collapse of surface sediments into underground cavities in the limestone bedrock. Slightly acidic ground water slowly dissolves cavities and caves in the limestone over a period of many years. When a cavity enlarges to the point that its' ceiling can no longer support the weight of overlying sediments, the earth collapses into the cavity forming a sinkhole.

All of the jurisdictions within Sarasota County are vulnerable to land subsidence and the sinkholes that may be created in their aftermath. Since July of 1981, Sarasota County and the jurisdictions within have recorded six sinkhole events, all less than ten feet in diameter, and each was centered on a single property. The extent of sinkhole damage is

low and the probability of future occurrences is a medium threat based upon the number of historical occurrences. All structures and critical facilities could be impacted by this hazard along with the associated economic disruptions and environmental damage an incident could create. Based upon current historical data, it would be unlikely for a sinkhole event greater than ten feet in diameter to occur.

Additional vulnerability information for this natural hazard is the Hazard Identification and Vulnerability Analysis located in Appendix M Maps associated with this natural hazard may be found on-line at <http://www.scgov.net/EmergencyServices/mitigation.asp>. For a complete listing of events recorded by the NOAA Satellite and Information Service that have taken place in Sarasota County from January 1, 1950 to June 30, 2010 please refer to Appendix O.

### **Landslide**

A landslide is defined as a mass movement of soil, mud, and (or) rock down a slope. Due to the topography of Sarasota County and the jurisdictions within, landslides are not a natural threat. There have been no historical references to a landslide taking place within Sarasota County. Landslides are not considered a risk and therefore it will not be fully profiled.

### **Seasonal Severe Weather Storms**

Phenomena associated with weather generated events are grouped under the category Seasonal Severe Weather. Each severe weather hazard has its own natural characteristics, areas and seasons in which it may occur, duration, and associated risks. While these hazards have their own characteristics and effects, they often occur in conjunction with one another, thereby increasing and intensifying the effects. The primary hazards included under this category include: lightning, freezes, and damaging winds.

Central Florida is the most lightning prone area in the United States with about 90 thunderstorm days a year. Because of this, Florida has more lightning deaths than any other state. In fact, lightning kills more people in Florida than all other weather hazards combined. In the Florida Peninsula, thunderstorm season has two general periods. The summer months, running from early May to early October, is known as the wet season. Conversely, October through May is known as the dry season. Historically, the most dangerous months are June, July and August.

According to the National Severe Storms Laboratory 1989-1999 Average U.S. Lighting Flashes per square kilometer per year study, Sarasota County is in the highest category with approximately 16 strikes per square kilometer. The worst case scenario for Sarasota County would be to receive a thunderstorm that has cloud to ground lightning that strikes at a large outdoor gathering and injures or kills a number of people. A separate but also bad case scenario would be lightning that sparks a wildfire (see wildfire extent). Lighting events have been recorded 22 times since 1950 by the NOAA Satellite and Information Service in Sarasota County. Structural damage as a result of lighting for

these recorded events has totaled over \$1.1M for an average of \$51K per event. For planning purposes, this average is consistent with the expectations of the Local Mitigation Strategy Work Group estimates for this natural hazard occurrence per event.

Sarasota County is susceptible to freezing temperatures and damage resulting from freezes. The damage that can result from a freeze is typically associated with the agriculture industry, and not one affecting persons, structures or associated property directly. Personal injury or death due to freezes is not considered a hazard in this analysis. Sarasota County has had occurrences in the past where the temperature has dropped into the low 20's for several hours during the night and early morning according to the National Climatic Data Center report information. In the worst case scenario Sarasota County could expect to see temperatures in the low 20's for 8-10 hours before warming to a less critical temperature.

There have been eight incidents of freezes causing damage to the citrus industry in the County since 1951. Typically December through February, are the months most susceptible to freeze events. A severe freeze in Sarasota County is possible each winter season. The exact probability would be very difficult to determine, but based on past experiences, it would be very low. The entire citrus and vegetable industry is vulnerable to freezes. The maximum threat for the County would be for a late or early season freeze to occur. Agricultural damage as a result of freezes for these recorded events has totaled over \$57.4M for an average of \$7.1M per event. For planning purposes, this average is consistent with the expectations of the Local Mitigation Strategy Work Group estimates for this natural hazard occurrence per event.

Damaging winds are typically associated as a consequence of hurricanes and tropical storms. While severe thunderstorm events may create high and damaging winds, their impact is usually not long lasting. High winds associated with thunderstorms have been recorded 122 times since 1950 by the NOAA Satellite and Information Service in Sarasota County. Structural damage as a result of thunderstorms for these recorded events has totaled over \$1.9M for an average of \$16K per event. For planning purposes, this average is consistent with the expectations of the Local Mitigation Strategy Work Group estimates for this natural hazard occurrence per event.

All of Sarasota County is susceptible to severe weather events on an annual basis and the damage could be extensive to the county as a whole. While not classified as a tropical cyclone, the most significant event occurred on June 18, 1982 when a no-name storm impacted the county with six inches of rain and 60 mph winds.

Additional vulnerability information for this natural hazard is the Hazard Identification and Vulnerability Analysis located in Appendix M Maps associated with this natural hazard may be found on-line at <http://www.scgov.net/EmergencyServices/mitigation.asp> For a complete listing of events recorded by the NOAA Satellite and Information Service that have taken place in Sarasota County from January 1, 1950 to June 30, 2010 please refer to Appendix O.

## Tornado/Waterspout

One of the most frequent and unpredictable natural hazards that all communities face are tornadoes. Tornadoes are cyclonic wind storms that usually accompany thunderstorms and hurricanes. While relatively short-lived in duration, tornadoes are intensely focused, making them one of the most destructive natural hazards. The weather conditions that tend to generate this phenomenon are unseasonably warm and humid earth surface air, cold air at the middle atmospheric levels, and strong upper-level jet stream winds. Waterspouts are weak tornadoes that form over warm water and occasionally move inland and become tornadoes.

More tornadoes occur in the United States than any-where else in the world and Florida is considered an “at risk” state. Florida has two tornado seasons. The summer tornado season runs from June until September and has the highest frequencies of occurrences with usual intensities of EF0 or EF1 on the Enhanced Fujita Scale (Table 12 below). The spring tornado season runs from February until April and is characterized by more powerful tornadoes on the Enhanced Fujita Scale.

**Table 12: Enhanced Fujita Tornado Scale**

<b>Classification</b>	<b>MPH</b>	<b>Knots</b>
EF0	40-72	35-62
EF1	73-112	63-97
EF2	113-157	98-136
EF3	158-206	137-179
EF4	207-260	180-226
EF5	261-318	227-276

All jurisdictions within Sarasota County are at risk to tornadoes and waterspouts. According to the NOAA Satellite and Information Service, Sarasota County and the jurisdictions within have experienced four tornado events during the updated plan period from January 1, 2004 to June 30, 2010. The last tornado event occurred on 23 June, 2009 and was an F0 on the Fujita Tornado Scale striking a plant nursery in the northeast corner of the unincorporated area of the county causing an estimated \$1M in damage. For a complete listing of events recorded by the NOAA Satellite and Information Service that have taken place in Sarasota County from January 1, 1950 to June 30, 2010 please refer to Appendix O.

Historically, Sarasota County typically experiences activity on the EF0 or EF1 Fujita Tornado Scale, but a tornado of a higher magnitude EF3, struck the City of Venice in 1985 causing one death, 45 injuries, and damage to 150 homes. Based upon historical data, it would be highly unlikely for Sarasota County to experience a tornado or waterspout greater than an EF3. A tornado of any scale could impact all types of structures and critical facilities within its path. Economic disruptions and environmental damage will be dependent upon the magnitude of the tornado.

Additional vulnerability information for this natural hazard is the Hazard Identification and Vulnerability Analysis located in Appendix M Maps associated with this natural hazard may be found on-line at <http://www.scgov.net/EmergencyServices/mitigation.asp>.

### **Tsunami**

A tsunami is defined as a sea wave of local or distant origin created by an underwater disturbance such as an earthquake, landslide, volcanic eruption, or meteorite. Overall, Florida has not experienced any destructive tsunami events, but all of the coastlines of Florida, to include Sarasota County's coastal jurisdictions are prone to tsunami events. There is no historical data available to estimate the extent of impact or probability of an event occurring within Sarasota County, but a comparison of the storm surge data that is available does offer some guidance concerning the impact of the hazard. The 500-year tsunami event by comparison would be equal to a Category 5 storm surge event. This type of an event would impact all structures and critical facilities as well as cause severe economic and environmental issues.

Additional vulnerability information for this natural hazard is the Hazard Identification and Vulnerability Analysis located in Appendix M Maps associated with this natural hazard may be found on-line at <http://www.scgov.net/EmergencyServices/mitigation.asp>.

### **Volcano**

A volcanic eruption is defined as the discharge of fragmentary ejecta, lava, and gases from a volcanic vent. Due to the topography of Sarasota County and the jurisdictions within, the absence of any known volcano's this natural hazard is not a natural threat. There have been no historical references to a volcanic eruption taking place within Sarasota County. Volcanoes are not considered a risk and therefore it will not be fully profiled.

### **Wildfire**

A wildfire is defined as an intense fire that is usually in an uninhabited or sparsely habited area. Sarasota County has experienced a number of wildfires each year of varying degrees of scale. This is a major concern for all the jurisdictions, directly or indirectly, within the County because over 75% of the County is vulnerable to wildfires. While the Town of Longboat Key is the only jurisdiction not directly vulnerable to wildfires within its jurisdiction, it may be indirectly affected by the smoke and other associated hazards. The fire departments located within the County do work closely with outside fire suppression agencies on fire mitigation and controlled burns, and recently instituted a local Firewise Communities Program. Table 13 below addresses the wildfire by cause data for the fiscal year of 2009.

**Table 13: Wildfires by Cause FY 2009**

<b>Source</b>	<b># of Fires</b>	<b>% of Total Fires</b>	<b># of Acres</b>	<b>% of Total Acres</b>
Lighting	21	28	107	10.5
Campfires	1	1.33	1	.1
Smoking	2	2.67	3.7	.36
Debris	2	2.67	9.2	.9
Incendiary	11	14.67	61.2	6
Equipment	8	10.67	37.6	3.69
Railroad	0	0	0	0
Children	6	8	.7	.07
Unknown	16	21.33	795.1	77.99
Miscellaneous	8	10.67	4	.4
<b>Total</b>	<b>75</b>		<b>1,019.5</b>	

The largest wildfire on record for Sarasota County was over 4,500 acres in the Carlton Preserve during April of 2001. While the County has not experienced a wildfire of this magnitude since, it is still reasonable under the proper conditions that a similar fire of this severity could occur again. Most structures within the vicinity of the fire would be impacted as well as the critical facilities. Depending on the location within the County, a similar fire could cause an economic disruption and or environmental damage.

As of 30 July, 2010, there have been a total of 36 wildfires with an estimated 132 acres burned. The overall reduction of wildfires can be attributed to the Firewise Communities Program and the recent increase in precipitation.

Additional vulnerability information for this natural hazard is the Hazard Identification and Vulnerability Analysis located in Appendix M Maps associated with this natural hazard may be found on-line at <http://www.scgov.net/EmergencyServices/mitigation.asp>

### **Windstorm**

Windstorms are typically associated with rain events like hurricanes, tropical depressions and storms, and thunderstorms that may impact Sarasota County. The difference between the vulnerabilities and impacts of windstorms, hurricanes and thunderstorms is separated by the severity of the event. Windstorms as rain events will be profiled under the Hurricane and Seasonal Severe Weather natural hazard description.

Since 1950, Sarasota County has been impacted by windstorms (high winds and strong winds) that are not associated with a rain event a total of five times as recorded by the NOAA Satellite and Information Service. Structural damage as a result of windstorms ranged from \$55K to no reported damage. It is estimated that a windstorm event could cause up to \$50K to \$100K in damage for this rare vent. For planning purposes, this average is consistent with the expectations of the Local Mitigation Strategy Work Group estimates for this natural hazard occurrence per event.

For a complete listing of events recorded by the NOAA Satellite and Information Service that have taken place in Sarasota County from January 1, 1950 to June 30, 2010 please refer to Appendix O.

***Vulnerability Overview***

Sarasota County continues to remain vulnerable to natural hazard events, and based upon our geographic location, will always remain so. The greatest catastrophic natural threat to Sarasota County remains hurricanes. The formatting of the previously approved plan and the updated plan has changed, but the natural hazard vulnerability as not diminished. It has actually increased with the addition of levee failure which was not in the previously approved plan.

While some natural hazards have limited mitigation options, and others have more robust opportunities, Sarasota County and the jurisdictions within continue to explore all options. Details relating to a specific hazard may be found “Profiling Hazards” section of this plan. Details relating to types of structures and dollar amount figures, along with potential impacts to specific natural events may be found in Appendix M. Maps identify each jurisdiction and their future land use may be found in Appendix L.

***Repetitive Loss Properties***

The jurisdictions within Sarasota County utilize National Flood Insurance Program data for tracking flood claims, locations and losses. This data is used as a reliable base for identifying potential flood risks neighborhoods and hazard mitigation planning. This data is nationally used to represent a 20% indicator of potential flood losses to a community. The CRS coordinator in each jurisdiction also targets specific outreach for these areas of potential flood blight and/or federal grant opportunities. Table 14 below describes the vulnerability by jurisdictions in terms of numbers of repetitive loss and severe repetitive loss properties located within Sarasota County. Table 14A reflects the types of properties located in each jurisdiction. The information contained in Tables 14 and 14A are based upon FEMA’s Repetitive Loss Properties list dated March 31, 2010 and FEMA’s Severe Repetitive Loss list dated February 28, 2010.

***Table 14***

<b>Jurisdiction</b>	<b># of Repetitive Loss Properties</b>	<b># of Severe Repetitive Loss Properties</b>
City of North Port *	0	0
City of Sarasota	55	3
City of Venice *	17	0
Sarasota County Government *	198	17
Town of Longboat Key	87	8

\*Map located in Appendix G and in each jurisdiction’s Floodplain Management Plan.

**Table 14A**

<b>Type</b>	<b>City of North Port</b>	<b>City of Sarasota</b>	<b>City of Venice</b>	<b>Sarasota County</b>	<b>Town of Longboat Key</b>
Single Family	0	37	1	183	82
Condominiums	0	15	15	3	3
Improved Commercial	0	3	1	11	7
Multi-Family (-10)	0	3	0	15	0
Mobile Homes	0	0	0	3	3

***Identifying Structures & Estimating Potential Losses***

The Hazard Identification and Vulnerability Analysis located in Appendix M were created by utilizing the FEMA HAZUS programming tool. This appendix describes the vulnerability in terms of the types and numbers and the potential dollar losses for several of the natural hazards that may impact Sarasota County and the jurisdictions within. Critical facilities are included in the overall numbers of this analysis and a separate listing is not included as part of this plan for security purposes.

***Analyzing Development Trends***

Land uses and development trends are defined within each jurisdiction’s adopted Comprehensive Plan. State Statues have given local governments the responsibility for coordinating the overall pattern of physical development in a community. In order to achieve this coordination, a local government needs a document which establishes long-range, general policies for the physical development of the community. A comprehensive plan meets this need.

The contents of these plans are all-inclusive, general and long-range. “All-inclusive” means that the plan addresses all geographical parts of the community and all functional elements that can affect physical development. “General” means that it includes general policies and designations, not detailed regulations. “Long-range” means that the plan looks beyond pressing current issues to the problems and possibilities of years in the future.

Comprehensive plans can be amended at a specific time of year called the yearly amendment cycle. Amendments may be initiated by private citizens and the jurisdiction. Jurisdiction Commissions may approve an amendment after the State Department of Community Affairs considers the proposed change to be in compliance with state law.

In addition, the Sarasota 2050 is a 50 year land use plan to manage and shape future growth in Sarasota County. Sarasota 2050's primary goals are preserving the county's natural, cultural and physical resources while making all neighborhoods, old and new, more livable.

City of North Port, City of Sarasota, City of Venice, Sarasota County Government, and Town of Longboat Key future land use maps may be found in Appendix L. Sarasota County Schools and Sarasota Memorial Hospital do not have comprehensive land use plans.

### ***Multi-Jurisdictional Risk Assessment***

The multi-jurisdictional risk assessment may be found in Table 9. Due to the topography of the County, the jurisdictions within Sarasota County are vulnerable to the same natural hazards with three exceptions. Coastal erosion and tsunamis only affect the City of Sarasota, City of Venice, Sarasota County Government, and the Town of Longboat Key because of their respective jurisdictional border with the Gulf of Mexico. A levee failure may impact the City of North Port and Sarasota County Government due to the reservoir located in an adjacent county that borders the two jurisdictions.

## **Mitigation Strategy**

### ***Local Hazard Mitigation Goals***

The overall goal of The Sarasota County Local Mitigation Strategy Work Group is to develop and maintain a "Disaster Resilient Community", through awareness and application of hazard mitigation policies and the identification, prioritization and achievement of cost-effective mitigation projects. In order to effectively and efficiently implement the strategy, the following goals and objectives or action items were established based upon the 2004 Plan and were reviewed and updated for the 2010 Plan:

**Goal 1:** *Assess vulnerabilities and identify mitigation models for natural hazards relevant to Sarasota County.*

Objective 1:

- Maintain up-to-date community-wide vulnerability assessment.

Objective 2:

- Identify mitigation models and disseminate community-wide.

**Goal 2:** *Identify, prioritize, and achieve cost-effective mitigation projects for the prevention and protection of lives, property, and natural resources within Sarasota County.*

Objective 1:

- Identify projects to mitigate losses and meet the strategies of mitigation “Best Practices” for;
  - Acquisition of hazard prone property and conversion to open space.
  - Retrofitting existing buildings and facilities.
  - Elevation of flood prone structures.
  - Vegetative management and soil stabilization.
  - Infrastructure protection measures.
  - Stormwater management.
  - Minor structural flood control projects.
  - Post-disaster code enforcement activities.

Objective 2:

- Educate stakeholders in mitigation grant criteria.

Objective 3:

- Maintain up-to-date project list and supporting documentation.

Objective 4:

- Timely distribute grant opportunity information to stakeholders.

**Goal 3:** *Promote the continued participation in the National Flood Insurance Program and the Community Rating System.*

Objective 1:

- Continue to contribute, review, and support local ordinances related to the floodplain regulations within the National Flood Insurance Program and jurisdictional Floodplain Management Plans.

Objective 2:

- Maintain, support, and improve administrative requirements at the local jurisdiction.

**Goal 4:** *Maintain and develop effective “Public Outreach” activities.*

Objective 1:

- Maintain citizen informational and contact web site.

Objective 2:

- Maintain and distribute Federal Emergency Management Agency and National Flood Insurance Program literature to the citizens of Sarasota County.

Objective 3:

- Appropriately advertise all Local Mitigation Strategy Work Group and Regional Floodplain Management Planning and Coordination Committee meetings.

**Goal 5:** *Maintain and increase participation in the Sarasota County Local Mitigation Strategy Work Group.*

Objective 1:

- Distribute annual invitation to non-participating jurisdictions.

Objective 2:

- Identify Non-profit and Profit Non-Governmental Organizations and distribute invitations to participate.

Objective 3:

- Identify Neighborhood Associations and distribute invitations to participate

**Goal 6:** *Support mitigation activities and research projects within Sarasota County and the surrounding local, State of Florida and Federal jurisdictions.*

Objective 1:

- Participate in adjoining County Local Mitigation Strategy meetings.

Objective 2:

- Identify and participate in mitigation activities and projects at all jurisdictional levels.

Objective 3:

- Encourages research and demonstration projects within Sarasota County.

***Identification and Analysis of Mitigation Actions***

The Sarasota County Unified Local Mitigation Strategy 2010 plan identifies and analyzes a wide range of mitigation actions and projects for the natural hazards that may affect the jurisdictions encompassed by this plan. Projects range from public outreach to reducing the effects of natural hazards on new and existing buildings. A complete list of mitigation projects and actions may be found in Appendix I.

***Identification and Analysis of Mitigation Actions: National Flood Insurance Program (NFIP) Compliance***

The communities of both incorporated and unincorporated Sarasota County have adopted and continue eligibility the National Flood Insurance Program which allows all of their residents to purchase Federal Flood Insurance and qualify for emergency assistance. Sarasota County Schools and Sarasota Memorial Hospital are legal jurisdictions in the State of Florida and may also purchase federal flood insurance through the respective eligible community. Tables 15A through 15C below summarize each participating community’s involvement in the National Flood Insurance Program and Community Rating System (CRS) program as of May 1, 2009. CRS status changes are reported by FEMA twice a year on May 1<sup>st</sup> and October 1<sup>st</sup>. Those changes are posted to a website under “Communities and their Classes” visit <http://www.fema.gov/library/viewRecord.do?id=3629> . Additional information is provided in each jurisdiction’s respective Floodplain Management Plan that may be found in Annexes A –E.

***Table 15A***

<b>Jurisdiction</b>	<b>Date Joined NFIP</b>	<b>CRS Class</b>	<b>% of Savings</b>	<b>Office Designated as Floodplain Administrator</b>
City of North Port	1981	7	15	Planning, Zoning, & Engineering Department
City of Sarasota	7/30/71	7	15	Neighborhood and Development Services
City of Venice	7/30/71	6	Up to 20	Engineering Department
Sarasota County Government	12/71	5	25	Building Official
Town of Longboat Key		6	20	Town Manager

**Table 15B**

Jurisdiction	# of Policies	Claims	
		#	\$
City of North Port	2,528	Unknown	Unknown
City of Sarasota	9,472	556	\$6,537,822
City of Venice	5,396	316	\$1,075,358
Sarasota County Government	47,222	Unknown	\$24,681,623
Town of Longboat Key	11,691	754	\$5,429,665

**Table 15C**

Jurisdiction	Date of Current Effective Maps*
City of North Port	September 2, 1981
City of Sarasota	September 29, 1996
City of Venice	May 18, 1992
Sarasota County Government	1984
Town of Longboat Key	8-15-83 (Sarasota) 5-18-92 (Manatee)

\* Effective and historic Flood Insurance Rate Maps (FIRMs) are available both on line at [www.msc.fema.gov](http://www.msc.fema.gov). The printing of paper Flood Insurance Rate Maps was discontinued by FEMA on October 1, 2009, however these maps are required to be retained by the Floodplain Manager in each participating community. Paper FIRMs are also available at the following libraries for review Selby and Fruitville Libraries in Sarasota, Venice Library, Elsie Quirk Library in Englewood, and the North Port Library. Digital Flood Insurance Rate Maps will replace the above paper FIRMs. Sarasota County unincorporated and incorporated, Southwest Florida Water Management District (SWFWMD) became Cooperative Technical Partners with the Federal Emergency Management Agency in order to produce and adopt a Digital Flood Insurance Rate Map. The digital maps will include public comments about the riverine flood insurance study updates performed by both Sarasota County and SWFWMD, and utilize the 2007 LiDAR (topography aeriels) performed by the State of Florida. The current adoption schedule is posted and subject to change on each participating community website, the SWFWMD website and on FEMA's website [www.Floodsmart.gov](http://www.Floodsmart.gov) by inserting the address of concern. As of this update the current schedule for federal and local adoption is late 2011.

Local community flood study updates not subject to federal regulation 44 CFR have occurred and been adopted and used for regulation in Sarasota County unincorporated since 1994. This flood risk data and regulations associated are routinely made available to as a regular step of the permit process.

### ***Implementation of Mitigation Actions***

Each jurisdiction within the Sarasota County Unified Local Mitigation Strategy plan is able to submit mitigation actions and projects to the Chairperson of the LMS Work Group at any time during the calendar year. At the time of submission, each jurisdiction is required to complete and turn-in to the Chairperson of the LMS Work Group a Hazard Mitigation Project Evaluation Criteria Worksheet (Appendix H) in order for the project to be added to the Sarasota County Local Mitigation Strategy Work Group Project List.

The Hazard Mitigation Project Evaluation Criteria Worksheet located in Appendix H includes a wide-range of information related to a specific mitigation action or project. This information includes, but is not limited to: the responsible department, potential financial resources, timeframe of completion and the goals achieved. Also included is a cost-benefit review of each mitigation action or project. Ultimately, it is the responsibility of each jurisdiction's representative of the LMS Work Group to keep the Chairperson informed on the status of their mitigation actions and/or projects. At a minimum, the LMS Work Group will conduct a review of the project list at the regularly scheduled December quarterly meeting to coincide with the January submissions of the project list to the Florida Department of Emergency Management.

As a benchmark for progress, completed mitigation actions and projects will be removed from the project list and placed in the Sarasota County Local Mitigation Strategy Work Group Successful Mitigation Projects booklet. Projects that are deferred will remain on the project list and a description will be listed as to why the project was deferred. A project that is identified to be deleted from the project list will remain on the project list for one reporting cycle along with a description as to why the project will be removed.

Jurisdictions wishing to submit a grant application for a specific action or project will have the project reviewed by the Project Ranking Committee. Mitigation actions and projects receive their final prioritization by the Project Ranking Committee for externally funded projects by the State of Florida and/or other Federal sources. Upon the completion of the ranking process, a general vote of the members of the LMS Work Group will be conducted to approve the ranking process.

### ***Multi-Jurisdictional Mitigation Actions***

Identifiable actions and projects for each jurisdiction are located in Appendix I. As a benchmark for progress, successful projects are identified in Appendix J, and deferred projects remain on the project list with a brief description as to why the project was deferred. A project that is identified to be deleted from the project list will remain on the project list for one reporting cycle along with a description as to why the project will be removed.

## **Plan Maintenance Process**

### ***Monitoring, Evaluating, and Updating the Plan***

The LMS Work Group conducted an analysis of the current plan, *the Sarasota County Unified Local Mitigation Strategy dated 21 November 2004*, and concluded that the criteria previously established for monitoring, evaluating, and updating did not meet the current needs of the Work Group. The analysis concluded the following:

- The current plan does not specifically identify the responsible party to monitor and review the plan.
- Limited and vague criteria were established for evaluating the plan.
- No formal method was identified for the requirement to update the plan.

As a result of the analysis by the LMS Work Group, the following procedures have been established to monitor, evaluate and update the plan.

### ***Monitoring***

The Sarasota County Emergency Management Department has the primary responsibility of monitoring and supporting the LMS Plan. This effort shall include technical and clerical support for the benefit of the LMS Work Group. The Department will monitor the status of LMS-supported projects throughout the year; and on a semi-annual basis (i.e., January and June) will assess the Plan against the LMS Work Group- and the Florida Department of Emergency Management-established evaluation criteria to determine if any changes to the Plan are necessary. If, based on this cursory review, the Plan requires a further, formal evaluation and update; the LMS Work Group Chair will call a LMS Plan Committee meeting. Additionally, if a significant event occurs in Sarasota County, for which a LMS-supported project may be eligible for grant funding, a special meeting of the LMS Plan Committee will be called by the Chair.

### ***Evaluating***

If no potential changes have been identified in the aforementioned Monitoring phase, the LMS Plan Committee will meet at least once annually to review and evaluate the LMS Plan against FDEM- and LMS Work Group-established evaluation criteria. The annual review will take place during the first quarter of each calendar year and no later than the second quarter of each calendar year to complete the review process prior to the onset of hurricane season.

The LMS Work Group evaluation criteria utilized by the Sarasota County Emergency Management Department and the LMS Work Group and or the LMS Plan Committee are not limited to, but shall include:

1. Are there any new or changing laws, regulations or policies that require changes to the Local Mitigation Strategy?
2. Have there been any mandates from Federal, State or local agencies that require changes to the Local Mitigation Strategy?
3. Do the goals and objectives of the LMS Work Group address current and expected conditions for Sarasota County?
4. Have the nature, magnitude, and/or type of risks changed for Sarasota County?
5. Are current resources appropriate for implementing the plan?
6. Are there implementation challenges, such as technical, political, legal financial, or coordination issues with other agencies?
7. Have the outcomes occurred as expected?
8. Are the jurisdictions and other partners participating as originally planned?
9. Are there recommendations or lessons-learned from any incident or event during this review cycle?

### ***Updating***

In the event that the LMS Plan Committee determines an update or change to the LMS Plan is required, the committee will prepare the update or change, along with supporting documentation, for this information to be presented to the LMS Work Group. The presentation for changes may be made at a regularly-scheduled meeting or a special meeting called by the Chair. The significance of the update or change will determine the LMS Work Group course of actions. If the actions are minor (determined by County administrator, City/Town manager or Work Group Chair) the LMS Work Group voting members can approve the update or change, and it will be adopted accordingly. If the actions are major (determined by County administrator, City/Town manager or Work Group Chair) the LMS Work Group voting members may approve the update or change, and each jurisdiction will complete their respective Resolution process.

Annual updates required by Federal or state statutes or administrative law do not require a new Resolution to the updated 2010 Plan. As part of the annual review and update process for the five-year cycle, Table 16 identifies the tentative meeting date, attendees, and the minimum agenda items to be discussed.

**Table 16**

DATE	ATTENDEE	AGENDA ITEM
December 2010	Work Group	Review Projects & Action Items Review 9G.22 annual requirements
March 2011	Work Group	Review Jurisdiction Planning Mechanisms
June 2011	Work Group	Review Public Outreach Strategy
September 2011	Work Group	Review Risk Assessment
December 2011	Work Group	Review Projects & Action Items Review 9G.22 annual requirements
March 2012	Work Group	Review Jurisdiction Planning Mechanisms
June 2012	Work Group	Review Public Outreach Strategy
September 2012	Work Group	Review Risk Assessment
December 2012	Work Group	Review Projects & Action Items Review 9G.22 annual requirements
March 2013	Work Group	Review Jurisdiction Planning Mechanisms
June 2013	Work Group	Review Public Outreach Strategy
September 2013	Work Group	Review Risk Assessment
December 2013	Work Group	Review Projects & Action Items Review 9G.22 annual requirements Establish Planning Committee for Plan Update
January 2014	Planning Committee	Review Previous Planning Process
February 2014	Planning Committee	Draft Update Planning Process
March 2014	Work Group	Review Jurisdiction Planning Mechanisms
March 2014	Planning Committee	Review Identification of Hazards
April 2014	Planning Committee	Review Profile Hazards
May 2014	Planning Committee	Review Profile Hazards
June 2014	Work Group	Review Public Outreach Strategy
June 2014	Planning Committee	Review Profile Hazards
July 2014	Planning Committee	Review Vulnerability Assessment
August 2014	Planning Committee	Review Vulnerability Assessment
September 2014	Work Group	Review Risk Assessment
September 2014	Planning Committee	Review Repetitive Loss Program
October 2014	Planning Committee	Review Structures/Economic Loss
November 2014	Planning Committee	Review Development Trends
December 2014	Work Group	Review Projects & Action Items Review 9G.22 annual requirements
December 2014	Planning Committee	Review Goals and Objectives
January 2015	Planning Committee	Review Mitigation Actions
February 2015	Planning Committee	Review National Flood Insurance Program
March 2015	Work Group	Review Jurisdiction Planning Mechanisms
March 2015	Planning Committee	Review Plan Maintenance Process
April 2015	Planning Committee	Complete Draft for Review by Work Group
May 2015	Planning Committee	Review Draft Changes and Amendments
June 2015	Work Group	Review Public Outreach Strategy

June 2015	Planning Committee	Submit Draft Plan for Review
September 2015	Work Group	Review Risk Assessment
September 2015	Jurisdictions	Board Resolutions

***Incorporation into Existing Planning Mechanisms***

As part of the annual series of quarterly meetings of the Sarasota County Local Mitigation Strategy Work Group, members will dedicate at least one quarterly meeting to ensuring that the goals, objectives, priorities, projects, and actions established in this plan are maintained or incorporated into participating jurisdictions planning activities. In the event of an activity not meeting the established goals, objectives, priorities, projects, and actions, it is the responsibility of each jurisdiction member to ensure the appropriate changes are made through their individual jurisdiction change process. While not limited to, Table 16 below identifies other local planning mechanisms available for incorporating the mitigation requirements of the mitigation plan. At a minimum, the planning mechanisms listed in Table 17 will be reviewed at the designated quarterly meeting.

***Table 17***

Current Plans	City of North Port	City of Sarasota	City of Venice	Sarasota County	Sarasota County Schools	Sarasota Memorial Hospital	Town of Longboat Key
Comprehensive Plan	✓	✓	✓	✓	✓	✓	✓
Floodplain Plan	✓	✓	✓	✓			✓
Codes & Ordinances	✓	✓	✓	✓			✓
Sarasota 2050	✓	✓	✓	✓	✓	✓	✓
Post Disaster Redevelopment Plan	✓	✓	✓	✓	✓	✓	✓
Local Mitigation Strategy Plan	✓	✓	✓	✓	✓	✓	✓
Comprehensive Emergency Management Plan	✓	✓	✓	✓	✓	✓	✓
Capital Improvement Project List	✓	✓	✓	✓	✓	✓	✓

The responsibility of identifying the appropriate methods or actions of incorporating the mitigation strategy into existing planning mechanisms rest with each jurisdiction’s LMS

Work Group representative. The process of incorporating the Local Mitigation Strategy into existing planning mechanisms begins with an audit by each jurisdiction of their plans to determine which mechanism is due for a required review or which mechanism was determined by their respective Administration for review in the upcoming year. This information is presented to the LMS Work Group at the regularly scheduled quarterly meeting to assist each jurisdiction in creating a strategy for incorporating the Sarasota County Unified Local Mitigation Strategy plan into these planning mechanisms. State of Florida Statutes and Administrative Law require specific procedures in order to enact change in many of these planning mechanisms, but each jurisdiction has their own unique way of implementing these requirements. Ultimately, it is the responsibility of each jurisdiction to implement the respective changes to their planning mechanisms, and it is the responsibility of the LMS Work Group to support and assist when possible, other members of the LMS Work Group in implementing these changes.

One of the key advantages of the Sarasota County Local Mitigation Strategy Work Group is it is made up of a diverse group of job specialties ranging from professional planners, engineers, public works professionals, emergency management professionals and educators that operate on a daily basis in a diverse group of business environments. Membership includes representatives that range from a zoning official and public works professional whose collateral duties are that of the Community Rating System coordinator, two city engineers that are also the floodplain managers and emergency management professionals who are all responsible for several other planning mechanisms.

The LMS Work Group has demonstrated the incorporation of the mitigation strategy into other planning mechanisms by the combining of the Local Mitigation Strategy Plan with each jurisdiction's Floodplain Management Plan in this document. In previous years, these planning tools were separate documents with each requiring their own jurisdictional board resolution. While this is an initial step, it has avoided the duplication of effort, duplication within the documents, and the requirement of two distinct board resolutions. The LMS Work Group and the Regional Floodplain Management Planning and Coordination Committee will continue to identify areas of common interest and requirements that can be documented in the LMS Plan to avoid further duplication and present a more refined document in the future.

Many of the members of the LMS Work Group were directly involved in the updating of the Sarasota County Comprehensive Emergency Management Plan 2009 edition, in which the jurisdiction description in this plan is based upon. Additionally, the risk assessment in the Comprehensive Emergency Management Plan was initially based upon the 2004 LMS Plan and was modified to create an up-to-date risk assessment. This new risk assessment found in the Comprehensive Emergency Management Plan was then utilized to create the foundation for this updated LMS plan.

Another keen aspect of the diversity within the LMS Work Group membership is all the County and municipality representatives are involved in the updating and maintenance of each jurisdiction's Comprehensive Plan. Florida Statute requires each jurisdiction to

submit an Evaluation and Appraisal Report that has been approved by their respective Board to the Florida Department of Community Affairs for approval. Currently, the City of Venice and Sarasota County are in this review process, the City of North Port completed this review during the updating of this plan, and the City of Sarasota and Town of Longboat Key will begin the review process in the upcoming year. These offsetting review cycles work to the advantage of the LMS Work Group by allowing the group to support one or two jurisdiction in the review process, instead of all at once.

### ***Continued Public Involvement***

The Sarasota County Local Mitigation Strategy Work Group is dedicated to public involvement in the hazard mitigation planning and review process and continues to seek opportunities to increase the public's participation. In addition to Goal 4 and associated objectives of the Local Mitigation Strategy Goals and Objectives, the Work Group has established the standard, and will continue to advertise all quarterly and special meetings, update and maintaining of a comprehensive mitigation video, and form partnerships with other related entities to keep the public informed and hopefully create greater involvement. At a minimum, public outreach plans and opportunities will be discussed at one of the quarterly meetings. In addition, the web site will be available with the most up-to-date documentation and points of contact for the public.

The partnership forged by the Work Group and the Regional Floodplain Management Planning and Coordination Committee will offer an increased opportunity for success in generating public involvement during activities such as the adoption process of the new Flood Insurance Rate Maps for Sarasota County. This partnership has also created a joint public outreach committee whose mission is to integrate the mitigation and Community Rating System outreach activities into one, in order to reduce expenditures and reach a greater number of community residents. A detailed description of the joint public outreach committee goals and activities may be found in Appendix N.