

GOALS, STRATEGIES, AND ACTIONS
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STRATEGIC REGIONAL POLICY PLAN

SOUTHWEST FLORIDA REGIONAL PLANNING COUNCIL

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INTRODUCTION

➤ BACKGROUND

One of the first tasks the Council undertook upon formation was the establishment of a policy plan. This first plan went into effect on January 1, 1975. That early action has helped guide policy compatibility among the Region's many public players. Each successive regional update has built upon that early foundation. All local governments of the Region now have adopted plans to manage future growth. Local governments have improved their fiscal ability to pay for the infrastructure to serve new development. Additionally, various state and regional programs have begun or have been expanded to improve the conditions of individual issues.

Review of current plans and programs indicates, however, that "regional planning" may need to expand beyond the role of providing policy consistency. Local plans generally address local issues adequately. When those plans are examined in the aggregate, however, there are issues and needs beyond those identified in the local plans. Further, state plans are seldom disaggregated into areawide needs and analysis. When they are, they are not normally based on local growth forecasts or land use distribution. This failure then leads to "disconnects" between state efforts and local efforts. Since one role of the Council is to serve to "lobby" for regional approaches that recognize local plans, aggregating local plans into a regional picture helps meet that role. Consequently, this update of the Regional Plan is based largely on the long-range needs of the aggregated local plans.

The long-range time frame in this plan is the hypothetical "buildout." This means the buildout of the current approved or vested projects of regional scale, which are incorporated in local plans, as well as the additional urban areas incorporated in the future land use plans of local governments. These future land use plans commonly (but not uniformly) use the year 2020-2025 as the long range dates. (Projects approved as vested may have a hypothetical time-line much longer.)

Regardless of the estimated forecast date, the future land use plans taken together constitute a vision of our future. The Regional Plan is the tool to develop the strategies needed either to achieve the vision or to modify it.

For the entire Region, the forecasted population of the vested projects and local plan future land use areas approximates 3 million people (1.9 million over 2000). Similarly, aggregated forecasts of functions populations in local plans total 1.4 million by the year 2010 and 1.7 million by 2020. Since the approved projects and future land use maps fix a "demand" picture, it is necessary to also fix the "resource" picture that is to serve the demand before future activities foreclose our options. For the Regional Plan to fulfill its role, it is necessary to address not only near-term and twenty-year forecasts, but also the "buildout" resource needs, since these are "fixed" assets.

➤ GROWTH: PROMISE OR THREAT

Southwest Florida is composed of six counties, four of which (Charlotte, Lee, Collier, and Sarasota) border the Gulf of Mexico. The remaining two counties (Glades and Hendry) are located inland.

The Region covers a land area of 5,986 square miles or 11.1 percent of the total land area of Florida. The 1999 estimated population of the Region is 1,135,139 or 7.4 percent of the total population of the State (15,322,000).

The growth of the Region has been remarkable when a comparison to recent history is made. In 1950, the Region's population was just 70,000. By 1970, the population was 305,000, more than four times as large as in 1950. By 1990, the population was 909,000, almost thirteen times as large as in 1950.

Local plans are built upon the assumption that population growth will continue at current numerical increases if the national economy remains stable. This growth would be fueled primarily by the migration of retirees and, secondarily, by working families moving to the jobs created by these new retiree residents.

It should be noted that the leading indicator of growth for Southwest Florida is tourism, in that tourists frequently become residents. Adding to the decision of a tourist to become a resident has been the broad areas prepared for residential development. This has further resulted in a relatively low cost of housing (for growth areas), making the area competitive for both seasonal and retirement lifestyles.

Local governments in Southwest Florida have shown areas expected to accommodate future growth. These areas, including the platted land areas, are depicted in Map 6. (In order to produce this map, the individual land use categories of each local government have been redefined into more generalized groupings for a common legend.) These are the growth "centers" which the Strategic Regional Policy Plan acknowledges in its strategies.

The Regional Plan contains five major sections as follows:

Resources of Regional Significance

These resources constitute the resources that must be maintained in order to sustain our forecasted growth. These include our rural and "urban" natural resources, including those of the interior of the Region and the coast. They are included because of their overall importance to the economy and safety of the Region or as indicators of the quality of life. Most of the resources of regional significance are identified within local plans. The resources themselves though often lack an overall management strategy for conservation or sustained function.

Transportation

Societies function, survive, and flourish because there is effective internal communication. The prime mode of communication is transportation: of goods, services, ideas, and general commerce. In order for communities, the Region, and the state to have an effective and integrated sense of identity, transportation systems must effectuate—not hinder—communication.

Future urban and rural growth areas create greater demands including the following:

- For road, rail, air, and water borne commerce;

- For electrical and telecommunications service and access; and
- For pipelines and channelization of water courses.

Those various demands must be addressed in such a way as to balance all aspects of growth, as discussed in this document. For example, demands for drainage must be balanced with environmental concerns.

The major transportation corridors that exist or are forecasted are generally depicted in the Regional Description. These constitute state and regional transportation corridors (including public transportation and mass transit), airports, ports and marinas, rail, manmade and maintained waterways, and pipelines. In many areas there is a “disconnect” between communities, between modes, or between regions. Remedying this disconnect is a primary driving force of the strategy developed in the discussion of the transportation issue. Since transportation growth is the biggest “threat” to air quality, that subject will also be included in the transportation section.

Emergency Preparedness

Southwest Florida has a serious emergency preparedness problem due to natural hazards. This is seen in the coastal low-lying areas and Lake Okeechobee flood hazard areas depicted in the emergency management strategy. Further, increasing urbanization and increasing sophistication of agriculture have led to additional hazards from materials and wastes. Successfully addressing these threats adds to the sustainability of the Region.

Affordable Housing

One major example of the interrelationships that exist within this Region is housing. It is common that persons reside in one community and recreate, work, and shop in others. This has created a series of interlocking subregional housing markets. Unfortunately, some communities bear disproportionate shares of an inadequate affordable housing market. This is particularly true in the case of rural communities.

Census tracts for urban fringe areas and interior rural areas have the highest proportion of substandard and low-income housing. Their location and the travel patterns indicate that these areas satisfy a housing demand that is greater than that generated within the local community. In effect, they provide housing for other parts of the Region. This interdependency can only increase. The degree to which this can be addressed due to governmental or artificial market inequities will be described in the discussion of the affordable housing issue.

Economic Stability

The Region’s economy has many components, each contributing to overall quality of life. Components such as education, health care, arts, and recreation all contribute to the Region’s economic competitiveness.

Staples of the Region’s ability to affect investment and income include retirement, tourism, and agriculture. Maintaining these staples remains a challenge for areas with regional population growth.

The various components and staples of the regional economy are addressed in the economic stability section. This section also recognizes disparities within the Region. Strategies to maintain, enhance, and improve the Region’s economy are provided, which also recognize the interrelation with the preceding sections.

➤ **IMPLEMENTING THE REGIONAL PLAN**

Each of the five strategic regional subject areas (see the previous parts of this volume) concludes with a discussion of implementation. In that discussion, the ways in which the Strategic Plan can be implemented by the Regional Planning Council and by other agencies are reviewed.

The primary implementation of the Strategic Plan is carried out by the Council itself as follows:

1. Review of large development;
2. Review of local plans and amendments;
3. Technical assistance;
4. Intergovernmental reviews;
5. Special studies;
6. Special review roles;
7. Special coordination roles;
8. Advocacy;
9. Forums;
10. Dispute resolution; and
11. Directed activities.

The role of other agencies is also important. As shown in the matrix that ends each of the sections, an agency can have one or more of the following roles in the implementation of the Strategic Regional Policy Plan:

1. advisory,
2. funding,
3. informational, and
4. regulatory.

➤ **ON-GOING REGIONAL PLANNING COUNCIL ACTIVITIES**

Review of Large Development Projects

The Council's review responsibilities for Developments of Regional Impact (DRIs) are detailed in Section 380.06, Florida Statutes. Among responsibilities is the early identification of specific issues that are relevant to the review process. The processes that the Council follows in these reviews are controlled by 9J-2, Florida Administrative Code. The planning standards that the Council uses in

reviews are contained within the various components of the Strategic Plan, except where they are superseded by the planning standards in 9J-2, in accordance with general law.

The DRI review work load of the Council has been significant. Since 1975, the Council has processed over 160 DRIs. These DRIs have a potential buildout of approximately 500,000 persons. The demise of the DRI process is anticipated by the ELMS III legislation, with DRI functions transferred to enhanced intergovernmental coordination elements in local comprehensive plans. Attempts at implementing this concept have not proved promising.

The state has a related program known as Florida's Quality Developments (FQD). The FQD program was established under section 380.061, Florida Statutes. The purpose of the program is to encourage developments that give special consideration to natural amenities, the cost of the provision of services, and quality of life. The Southwest Florida Regional Planning Council is a participant in the review of any project covered by this program, along with the Department of Community Affairs and the appropriate local government. This program provides another area under which the Regional Planning Council can address development to ensure consistency with the Strategic Regional Policy Plan.

The Council promotes the use of the Florida Quality Development process in areas of urban infill. This furthers a number of regional goals and affects areas where extensive capital planning is likely to have occurred.

Local Government Plan Reviews

The Council is a statutory review agency for all amendments to local comprehensive plans (in addition to providing coordination and technical assistance to agencies preparing such plans).

Under the formal review process, the Council reviews local plan amendments for consistency with the Strategic Regional Policy Plan and forwards its comments to the state land planning agency, the Department of Community Affairs. Findings of inconsistency with the Regional Plan may initiate administrative proceedings against a local government that can keep those plan amendments from taking effect.

A local plan will be found consistent with the SRPP if the local plan is "compatible with" and "furthers" the SRPP. The local plan is compatible with the SRPP if it is not in conflict with it. Compatibility will be determined through the presence of a related goal and whether the goal conflicts with the goals of the SRPP. For example, there is a conflict with a regional goal favoring wetlands protection if the local plan allows the indiscriminate destruction of wetlands.

The local plan "furthers" the SRPP if it takes action in the direction of realizing the goals of the SRPP. "Furthering" will be determined by identifying some action toward the regional goal in the local plan during its planning period. For example, the regional goal may be to reduce traffic congestion by 50%. The local goal may be to reduce it by only 1%. Even with this difference, the local goal would still further the regional goal. It would be a different case, however, if the regional goal were to reduce traffic congestion by 50% while the local plan allowed it to increase by 10%. In that case, it would be concluded that the SRPP was not being furthered. If special action were

needed to achieve the full measure of the Council goal, this responsibility does not fall onto a particular local government. A special exception exists in the regard of needed and shared regional facilities. A highway needed to extend through several jurisdictions needs to be included by all jurisdictions. The exclusion of the facility by one will likely cause that plan element to fail the consistency test.

Technical Assistance

The Council's technical assistance role is provided through staff services and expertise on a variety of matters, either as an uncompensated service or for a fee. Examples include the preparation of local comprehensive plans, staff services to the Lee County Metropolitan Planning Organization, and other review and assistance activity not previously mentioned. Each service so provided is in part for the purpose of implementing the Regional Plan. The Council provides extensive technical assistance to three programs and has served to partially underwrite the staff services in order to get the programs to function. These include the Local Emergency Management Committee, which is concerned with the identification and management of hazardous materials storage sites, the Transportation Disadvantaged Program, and the Traffic Safety Program. The first program has a committee that serves all six counties. It provides varying levels of assistance based on need and capacity. The second serves four counties in providing transportation services to the disadvantaged. The third serves seven counties in providing staff services in administration and technical assistance.

The Council also provides information services through its extensive planning library, publications, newsletters, and information depositories. The library includes some 8,000 titles covering a wide variety of planning issues. The publications of the Council provide information on the status of the Region as do its newsletters (including "Economic Views" with a monthly readership of approximately 500). The public libraries and the chambers of commerce in the Region act as depositories of Council publications and other agency publications that the Council feels deserve wider distribution.

Intergovernmental Clearinghouse and Review

An important tool to implement the Regional Plan through coordination is the Intergovernmental Clearinghouse and Review role (IC&R). This role, identified in Section 29I-5, F.A.C., is the means by which the Council reviews the following:

Permits of the US Army Corps of Engineers, Florida Department of Environmental Protection, and the United States Coast Guard, Requests for federal funding assistance by agencies within the Region, and Environmental impact statements by all agencies.

This role enables the Council to monitor the progress of other agencies. A major shortcoming is that many state activities (permit requests, land acquisition programs, and construction activities) do not go through any regional review process, making the IC&R program less effective than it could be.

Special Studies

Special studies are undertaken by the Council when existing programs do not achieve the desired result. Special studies of note have been performed for manatee protection and marina siting in the Caloosahatchee River, the number of lots in subdivisions in Southwest Florida, the studies establishing the Charlotte Harbor NEP, siting of the new Florida Gulf Coast University, and various aspects of the threat of hurricanes to the Region.

Special Review Roles

The Council also has several special review roles. These special review roles are those performed by the Council to assist a lead agency in the performance of its duties, and provide the Council with significant capacities for carrying out its intergovernmental coordination role. The Council currently serves as:

the Public Law 92-500 areawide "208" review agency for the Florida Department of Environmental Protection (FDEP),
the Chapter 403 review agency for FDEP for hazardous waste storage or disposal sites, and power plant sites,
the areawide ten-year power plant siting act review agency for the Florida Department of Community Affairs (DCA),
the areawide emergency management plan review agency for DCA,
the review of power plant and power line corridor siting proposals for FDEP,
the Job Siting Act reviews for Enterprise Florida and the Governor's Office of Trading, Tourism and Economic Development, and
a reviewer of State University Campus Master Plans.

Special Coordination Committees

The Council sponsors and assists several coordination committees. These committees lead to compatible approaches being taken in pursuit of common problems. The Council provides basic staff services so that the committees can pursue further implementation or recommendations to solve problems, such committees include the Homeless Coalition, the Regional Harbor Board, the Beach and Inlet Convocation, the Freight Advisory Committee, and the Agency for Bay Management.

Advocacy

The Council has often acted as an advocate and spokesman for the Region's local governments. Also, the Council, either alone or with the support of other public and private agencies, can lobby state and federal agencies to pursue the implementation of the Region's policies and to achieve the Region's goals. A recent example has been the Council's advocacy for additional transportation funding for the Region.

Forum

The Council is recognized as a central place for the discussion of a wide range of interrelated issues, as well as the source of assistance for more narrowly focused programs and concerns. The Council offers the joint use of its meeting facilities and services to entities that are furthering the regional goals through their own programs. Agencies that use the Council's offices and facilities include the Senior Solutions (for meetings), FDOT (public workshops), and EPA.

Dispute Resolution

Under section 186.509, Florida Statutes, the Regional Planning Council is directed to establish by rule a formal dispute resolution process to reconcile differences on planning and growth management between local governments, regional agencies, and private interests. The Regional Planning Council developed and adopted Chapter 29I-7, Florida Administrative Code, as its dispute resolution process in 1994.

The proposed rule was reviewed by local governments, regional agencies, the Department of Community Affairs, and others. The Southwest Florida Regional Planning Council worked with other regional planning councils and the Florida Growth Management Conflict Resolution Consortium to develop a process for dispute resolution. As a result, the Regional Planning Councils developed a common format and theme for consistency from region to region.

Resolution of any conflict under this rule would be guided by the Strategic Regional Policy Plan. The Plan has been developed with the review and comment of local governments in the Region. As a result, it incorporates many local concerns. This should make it more acceptable to the parties in conflict.

Directed Activities By The Council

The Council directs staff to undertake particular tasks, or participate in particular activities as they arise from emerging regional issues.

AFFORDABLE HOUSING

Introduction

A wide range of housing, including affordable housing, is necessary in each community. Affordable housing is needed not only by service workers earning less than optimal wages, but also by employees of new businesses that are relocating to Southwest Florida. Affordable housing is also needed by new graduates and newly formed households in which the individuals are just starting in the job market. Retirees and persons with special needs who live on fixed incomes are additional groups that need affordable housing. To accommodate the income restrictions of these and other groups, a mixture of affordable for-sale and for-rent units is important.

➤ PROBLEMS, NEEDS, AND OPPORTUNITIES

Problems

There are several problems that constrain efforts to increase the supply of affordable housing. One problem concerns the high cost of land. In many communities, land with adequate infrastructure and elevation is extremely costly, making it difficult to develop affordable housing without large subsidies. Unfortunately, more affordable land is often found in platted communities that lack water, sewer, lighting and sidewalks, or in rural areas where nearby stores and schools are unavailable. Construction on these sites leads to dispersed development patterns that increase the demand for infrastructure in outlying areas. Another cost issue involves rising impact fees. Though needed to cover a portion of the cost of new growth, rising impact fees make some homes unaffordable to low- and moderate-income households.

The prevalence of low-paying jobs in the Region is yet another problem. Many of these jobs are found in the tourism and agriculture sectors. Economic development organizations are addressing this problem through efforts to attract businesses offering higher-paying jobs. Workforce development professionals are also striving to increase the skills of the workforce to help residents qualify for higher-paying jobs. Although progress is being made in both areas, the Region's reliance on tourism and service-type jobs will continue the prevalence of low-paying jobs that make finding affordable housing difficult for many.

Another problem is frequent public opposition to affordable housing efforts. Such opposition occurs in many communities and is especially troublesome in several of the coastal counties. Public opposition can stop a project or add considerable time and money to its costs. As a result, affordable housing is often built in communities where opposition is low or does not occur. This can result in concentrations of low-income households, which may be harmful to the neighborhood's stability.

Public opposition to affordable housing is extremely hard to overcome. Fear of crime and decreasing property values cause many people to oppose it. An education program can help in some circumstances. More likely, however, it will be necessary for the local government and housing

providers to demonstrate strong leadership and ensure that new housing will be an asset to the neighborhood.

Finally, profit margins of for-profit affordable housing developers are low or unstable. As a result, developers in the private sector find it difficult to operate in the affordable housing market without some form of state or federal program that offers a subsidy to cover a portion of the housing costs, thereby guaranteeing a certain rate of return.

Needs

As described under the problems section, the Region needs a larger supply of affordable housing and higher-paying jobs. Additionally, local governments need to continue, and in some cases expand, their involvement in the area of affordable housing. Jurisdictions should provide staff to work on housing programs. They should also support housing providers in the community through both staff cooperation and funding.

Another need is for additional support services. For very low-, low-, and moderate-income households, affordable housing is not the only need. Day care, health care, job training, and transportation, among other things, are also necessary. Coordination among providers should be enhanced to ensure cost effectiveness and to eliminate gaps that individuals might otherwise experience.

Another need is to protect and/or restore older neighborhoods. A comprehensive approach is needed to accomplish this effort. To be successful, it must involve improving the housing and neighborhood, updating and improving infrastructure, attracting new businesses, and reducing crime.

Opportunities

A number of opportunities for affordable housing exists. First, the state took a proactive step in the area of affordable housing when it created and implemented the SHIP program. By creating this program, the state produced another source of funds that allows each community to target its particular needs.

While listed above as a need, the rehabilitation of older neighborhoods also provides an opportunity to recover housing units that are affordable. These older neighborhoods typically have infrastructure already, and are in need of restoration in order to protect and preserve the larger community.

Third, a number of innovative housing programs exist within the state and country. It is possible to learn from others and adapt their programs to local conditions. This process occurs locally with a number of groups sharing information among one another, both independently and through the Housing Providers Coalition that is coordinated by the RPC. The Coalition provides participants with an opportunity to exchange ideas and information.

Fourth, mixed-use and compact land-use plans should be encouraged, especially in the rapidly developing areas of the coastal counties. Doing so can reduce commute times and the cost of infrastructure.

Lastly, a number of people and organizations already participate in or are interested in participating in the provision of affordable housing. Thus, the interest and support are available, as well as funding through certain state and federal programs. The opportunity exists to make significant strides in the area of affordable housing.

➤ **ISSUES**

❖ **THE SUPPLY OF AFFORDABLE HOUSING**

Goal 1: Supply a variety of housing types in various price ranges to ensure that all residents have access to decent and affordable housing.

Generally, the private sector provides sufficient housing for moderate- and high-income residents in the Region. For low and even some moderate-income households, however, a shortage of desirable affordable units exists. The definition of affordable housing is based on standards used by the Department of Housing and Urban Development (HUD). Accordingly, "affordable" means a situation where monthly rents plus utilities or monthly mortgage payments plus taxes and insurance do not exceed 30% of the median gross annual income for a household.

The 1990 Census showed that over 44% of the homeowners in the Region with household incomes under \$20,000, paid 30% or more of their income for housing. For renters, the figures were much higher. More than 70% of the renters with household incomes under \$20,000 paid 30% or more of their income for housing. The high number of low-income households (both homeowners and renters) paying beyond what is termed "affordable" illustrates the problem created by unemployment, low-wage jobs, and a shortage of inexpensive housing. For households of these income ranges, assistance from the public sector is necessary to construct units that are affordable. Public sector involvement can help ensure that units of all price ranges and all styles are constructed for the Region's residents. Yet, private sector involvement is needed to stretch public resources. Incentives such as density bonuses, impact fee reductions, and one-stop permitting for affordable units are necessary to promote private sector participation.

Strategy: Increase the supply of affordable housing through public and private efforts.

Actions:

1. Assist local governments in identifying the housing needs of very low-, low-, and moderate-income households in the Region.
2. Review housing elements of local comprehensive plans to ensure those needs are identified and considered when funding choices are made.
3. Assist local governments and non-profit organizations in identifying and adopting innovative funding sources and programs for the development of affordable housing.

4. Work with local governments to promote structures and developments that combine commercial and residential uses as a means of providing housing that is affordable and near employment opportunities.
5. Encourage local governments to adopt strategies that promote the development of affordable housing by the private and nonprofit sectors including incentives such as one-stop permitting/review process for developers and contractors and the donation of publicly owned lands for development by non-profit organizations.
6. Work with state programs to change current criteria that make it difficult to compete for projects in some portions of the region.

Indicators:

- Number of housing elements in local governments' comprehensive plans that identify current and future housing needs of their residents and recommend actions to address those needs.
- Innovative funding or incentive programs in use in the region.
- Number of affordable housing units built in the region through local, state, and federal programs.

Reduction of Public Opposition to Affordable Housing

Builders of affordable housing often face tremendous opposition from residents in the area who fear loss of property value and increased crime. The opposition, if successful, can stop the builder or organization from building at that site. Even if the project is not stopped, it may still be delayed, thereby adding considerable time and money to the project's total cost. In response to this, organizations sometimes choose sites where no opposition exists. If this occurs extensively, concentrations of low-income housing will occur which could have negative effects on the surrounding area. Rather, a mix of housing styles and prices is preferable. To overcome opposition, local governments should strive to educate residents regarding the need for affordable housing and to ensure that new housing developments are assets to the communities in which they are located. Also, in areas deemed appropriate, local governments should permit the use of density bonus programs to build affordable units. This would eliminate the need for developers to request a zoning change or comprehensive plan amendment for such parcels.

Strategy: Reduce opposition to affordable housing.

Actions:

1. Promote the development of "quality" affordable housing projects.
2. Encourage organizations to provide homebuyer counseling both before and after a family purchases a home to ensure the house is well maintained and does not become an eyesore in the community.

3. Continue to educate elected officials and citizens on the need for and benefits of affordable housing.
4. Promote the mix of affordable and non-affordable housing to create integrated communities.

Indicators:

- Number of affordable housing developments constructed that did not face significant public opposition.
- Number of developments containing affordable and non-affordable housing.
- Programs initiated by non-profit and government housing providers to educate new homeowners and promote their involvement in the community.

❖ **LIVABLE COMMUNITIES**

Goal 2: Southwest Florida will develop (or redevelop) communities that are livable and offer residents a wide range of housing and employment opportunities.

By locating new housing in areas where services already exist, local governments can reduce the strain on their resources and promote the cost effective use of their services. Doing so can also promote livable communities that offer residents a variety of amenities and opportunities. Encouragement of infill development, mixed land uses, and neighborhood revitalization are among the steps local governments can take to promote new affordable housing without sacrificing other planning goals.

Strategy: Develop livable, integrated communities that offer residents a high quality of life.

Actions:

1. Encourage programs that promote infill development in urban areas to maximize the efficient use of existing infrastructure.
2. Work with local governments to promote structures and developments that combine commercial and residential uses as a means of providing housing that is affordable and near employment opportunities.
3. Encourage communities that are pedestrian friendly or offer alternative modes of transportation to overcome transportation problems many low-income families face.
4. Encourage new housing to be built in higher areas to reduce the need for costly flood insurance.
5. Promote the mix of affordable and non-affordable housing to create integrated communities.

Indicators:

- Communities that have incentive or other programs to promote infill development.

- Communities that promote combined commercial and residential uses in developments and structures.
- Communities that are pedestrian friendly and offer alternatives to auto transportation.
- Number of developments containing affordable and non-affordable housing.

Stability and Protection of Neighborhoods

The housing stock in the Southwest Florida Region is relatively new and is generally in good condition. In 1990, less than 1% of the Region's housing supply was considered substandard, yet pockets of substandard housing exist in every community. Public and private efforts are needed to rehabilitate homes in these areas.

Also, as the housing units within the Region age, the need for rehabilitation programs will grow. For low-income households, especially among the elderly who are on fixed incomes, paying for needed maintenance can become impossible. To maintain and improve the condition of the Region's housing stock, it is important to have programs that provide repair services to low-income homeowners.

Strategy: Protect existing, well-established neighborhoods and communities and revitalize those experiencing deterioration.

Actions:

1. Encourage communities to fill existing infrastructure gaps (such as sidewalks, parks, lighting, etc.) in neighborhoods that offer affordable housing.
2. Assist communities in identifying neighborhoods that are, or are in danger of, deteriorating.
3. Assist communities in their efforts to develop methods for removing or rehabilitating substandard units, abandoned or unsafe property, and blighting influences in residential areas and the surrounding neighborhoods.
4. Assist communities in establishing effective housing codes that include ongoing monitoring and enforcement programs.
5. Review comprehensive plans and land development regulations to encourage the inclusion of incentives to develop and redevelop land downtown.
6. Work with local agencies to apply for state or federal programs that assist in community revitalization.
7. Encourage communities to focus on troubled areas in a comprehensive method that coordinates programs and services, rather than using a shotgun approach.
8. Promote resident involvement in neighborhood planning efforts, so residents are active in making decisions that will affect their areas.

Indicators:

- Communities with rehabilitation and demolition programs.
- Communities with active code enforcement programs.
- Communities with incentive programs.
- Number of applications submitted for state or federal community revitalization programs.

❖ **PERSONS WITH SPECIAL NEEDS**

Goal 3: The housing needs of persons with special needs will be met.

Certain sub-groups of the population have special housing needs. These groups include the disabled, elderly, homeless, and large-family households. Each group needs affordable housing options that offer facilities or services required for their situation. Female-headed households are an additional at-risk population due to their reduced earning power. Unfortunately, detailed data on the size of each special needs population are difficult to find.

Strategy: Develop housing and services to assist persons with special needs live as independently as possible.

Actions:

1. Review local government comprehensive plans to ensure that housing for persons with special needs is considered and provided.
2. Assist communities in identifying the size and needs of special populations.
3. Help communities fill the gaps in services to special needs populations by applying for funding from various state and federal sources.
4. Encourage communities and organizations to utilize appropriate housing methods to serve developmentally disabled and physically handicapped individuals.
5. Assist service providers in working together to fill gaps in services to special needs populations.

Indicators:

- Housing elements that identify the housing demands of special needs populations and recommend actions to address those needs.
- Number of applications submitted to address the housing and service needs of special needs populations.
- Number of cooperative agreements or arrangements between housing and service providers.

As with other special needs groups, reliable data on farmworkers are difficult to find. The U.S. Department of Health and Human Services estimated the farmworker population in 1990 to be 26,097 in the Region. This figure includes both farmworkers and their families. A 1998 study

prepared by the Institute of Food and Agricultural Sciences at the University of Florida estimated the population to be 30,802.

Housing this group is difficult due to their travel patterns and sometimes separated family-living arrangements. For instance, some farmworkers travel with their families. Others leave their families in one location and travel alone with other males. Another problem involves the lack of documentation to show farmworkers are in the U.S. legally. Without the documentation, they cannot be housed in most state or federally funded housing.

A regional approach is especially important for farmworker housing. Farmworkers tend to live wherever housing and services can be found and then commute to the fields to work. As a result, urban communities must be prepared to address the needs of farmworkers if rural agricultural areas are nearby.

Strategy: Farmworkers will be recognized as an essential part of our economy and their housing needs will be included in community programs.

Actions:

1. Assist communities in identifying the need for farmworker housing and incorporating steps to address those needs in local, regional, and state housing programs.
2. Continue to educate citizens and local officials on the need for additional farmworker housing.
3. Work with public and private partners to provide and maintain safe, sanitary housing for farmworkers.

Indicators:

- Number of workshops and public meetings to discuss the issue of farmworker housing and alert citizens to the need for housing.
- Number of newly constructed farmworker housing units.

❖ **HUMAN SERVICE NEEDS**

Goal 4: Communities and non-profit organizations will work together to identify and address the population's human service needs.

Affordable housing is just one component under the large category of human services issues. Other components include affordable and decent health care, dental care, child care, transportation, and job training services. Very low- and low-income households often have difficulty accessing or receiving these services, yet without them, they may be unable to work and/or keep their homes. For this reason, service and housing providers need to assist their clients in dealing with all of these challenges, rather than focusing on just one or two.

Strategy: Coordinate local housing programs with related programs to enhance services to clients.

Actions:

1. Coordinate with housing and service providers to promote the formation of comprehensive programs that offer job training and support services, such as daycare and transportation, for individuals with affordable housing needs.
2. Assist local governments and housing providers in working together to apply for state and federal funds as applicable to fill identified gaps.
3. Work with service providers and local governments to identify critical needs that cannot be resolved through current funding sources. Where possible, assist communities in developing local or regional networks to address those needs.

Indicators:

- Number of cooperative agreements or arrangements between housing and service providers.
- Number of multi-party applications submitted for state or federal funding.

❖ REGIONAL COOPERATION

Goal 5: Communities and local non-profit organizations will cooperate when possible to reduce duplication of services and improve cost efficiency.

The housing needs of a community are not limited by city and county boundaries. People often work in one community but reside in another due to factors such as cost, personal choice, and convenience. This pattern is especially common among people who work in the service sector within moderate to high income areas. Although the jobs and services they provide are required by the area's population, the employees earn wages that make it impossible for them to live there. Thus, they work in one area and live in another, more affordable community. Addressing housing from a more regional approach allows communities the opportunity to share resources and enhance cost effectiveness.

Strategy: Communities will work together to address regional housing needs.

Actions:

1. Assist communities in developing interlocal agreements with neighboring communities so they work together to jointly address community-wide or regional housing concerns.
2. Continue to coordinate the Housing Providers Coalition as a means of bringing together housing providers from the Region to share information and ideas.
3. Assist housing and service providers in working together to stretch limited dollars and eliminate any unnecessary overlap of services.

Indicators:

- Number of communities with interlocal agreements to address housing needs.
- Number of Housing Provider Coalition meetings held or other regional forums for sharing information.

➤ **IMPLEMENTATION**

The following matrix shows the ways in which SWFRPC will interact with other organizations to implement the goals listed in the plan.

Agency	Goal 1	Goal 2	Goal 3	Goal 4	Goal 5
Counties	A/R/I/G	A/R/I/G	A/R/I/G	A/I/G	A/I/G
Cities	A/R/I/G	A/R/I/G	A/R/I/G	A/I/G	A/I/G
Nonprofit Housing Agencies	A/I/G	A/I/G	A/I/G	A/I/G	A/I/G
Service Providers	A/I/G	A/I/G	A/I/G	A/I/G	A/I/G
Public Housing Authorities	A/I/G	A/I/G	A/I/G	A/I/G	A/I/G
Private Developers	A	A	A		
DCA/FHFC	I/G	I/G	I/G	I/G	I/G
DCFS	I/G		I/G	I/G	I/G
HUD	I/G	I/G	I/G	I/G	I/G
USDA	I/G	I/G	I/G	I/G	I/G

A = Advise or inform

R = Review or regulate

I = Implementation or coordination assistance

G = Grant writing assistance (either on behalf of the indicated community/organization or to help a community/organization apply for funds offered by the agency indicated)

AGENCY ABBREVIATIONS

DCA/FHFA: Department of Community Affairs/Florida Housing Finance Corporation

DCFS: Department of Children and Family Services

HUD: Department of Housing and Urban Development

USDA: U.S. Department of Agriculture

ECONOMIC DEVELOPMENT

Introduction

The Southwest Florida Regional Planning Council has had a strong economic component since the first policy plan (1975). The importance of economic factors is reflected in Council publications, including "Economic Views" (published monthly) and the Description of the Region. The Council's economic efforts are further strengthened by its designation as an Economic Development District, a program of the U. S. Economic Development Administration. The Council also created the Southwest Florida Economic Development Coalition to review and comment on economic development.

Vision Statement

The following vision statement is based on an initial effort by the Economic Development Coalition:

Southwest Florida will attract, retain, and create quality businesses to diversify its economic base, while protecting the natural and cultural environments, to promote economic stability, greater job and educational opportunities, and higher income for its residents.

The vision statement served as the basis for the development of the following economic issues. Regional resources and facilities are listed at the end of this element.

➤ ISSUES

❖ ECONOMIC INFRASTRUCTURE

Economic infrastructure consists of the wide range of human and physical components necessary for society's functions. These include the social, health, and education systems that support the individual's development from the cradle to the grave; information systems for worldwide access; the transportation system for movement of goods and services; and community systems of daily "necessities-of-life" infrastructure. There are also the basics of life: water resources and food and fiber production.

The physical infrastructure is rapidly expanding. The challenge is that most public facilities are relatively new (due to past rapid growth) but aging. While growth continues and maintenance requirements increase, forecasts are grim for funding.

Maximizing the use of existing facilities through increased capacity can serve additional development more efficiently, without the cost of new construction (assuming the expansion can meet relevant requirements). In addition, expansion of an existing facility can encourage continued development and infill in its service area.

Rural infrastructure is often rudimentary and small. This reflects low tax bases, with few opportunities to raise funds through enterprise or user fees. Reductions in grants for infrastructure have made it more difficult for small communities to provide and upgrade their infrastructure. In addition, facilities such as air cargo, rail, etc. require sufficient market demand before they are financially feasible. These factors decrease the attractiveness of rural areas for investment and make them unintended targets for uses unacceptable in urban areas.

Goal 1: A well-maintained social, health, and educational infrastructure to support business and industry.

Strategy: Continually improve the educational system to produce an educated and trained work force.

Actions:

1. Use the economic advisory committees to assist in the exchange of information between the educational system and the business community about business needs.
2. Use the economic advisory committees to advise educational institutions to increase upper division and graduate level studies through programs appropriate to regional needs.
3. Review proposed development for impacts on and opportunities to provide needed educational facilities and services.

Indicators:

- Student retention rates that meet or exceed those of the state.
- Rate of high school graduates entering post-secondary school that meets or exceeds that of the state.
- Expansion of degrees and programs offered by post-secondary schools.

Strategy: Ensure a health care system that addresses the needs of both business and the work force.

Actions:

1. Participate in the study of health insurance options for employers and employees.
2. Review proposed development for impacts on and opportunities to provide needed health care facilities and services.

Indicators:

- Decreased rates of death, disability, and illness.
- Reduction in the rate of health care cost increases.
- Reduction in the rate of health insurance cost increases.

Strategy: Maintain the physical infrastructure to meet growth demands.

Actions:

1. Review plan amendments, development proposals, and clearinghouse items for public facility deficits and encourage mitigation of those deficits.
2. Assist local governments and state agencies in planning for future support service facilities, before the need arises.
3. Review proposed public facilities to ensure their location in urban areas that have in place, or are covered by binding agreements to provide, the resources and facilities for desired growth in an environmentally acceptable manner.
4. Study alternatives and assist other entities to study alternatives to encourage land development that maximizes the use, rehabilitation, and re-use of existing facilities, structures, and buildings as an alternative to new construction and development.
5. Review proposed public facilities and services to ensure that costs are allocated on the basis of benefits received by existing and future residents.
6. Review proposed development to require the developer to install or finance the necessary infrastructure and to provide land for the needed support services.
7. Assist local governments to obtain funding to maintain, improve, or expand their infrastructure.

Indicators:

- An inventory of support services and facilities.
- Increased funding of infrastructure from non-local sources.

Strategy: Ensure the adequacy of lands for commercial and industrial centers, with suitable services provided.

Actions:

1. Map or assist in mapping the appropriate distribution of urban uses for growth.
2. Identify existing urban lands and transportation corridors for development or redevelopment, and ensure adequate access and services are provided.
3. Include in planning efforts the recognition of lands with natural capacity, accessibility, previous preparation for urban purposes, and adequate public facilities.
4. Participate, coordinate, or promote intergovernmental coordination for siting unpopular land uses.
5. Review proposed development for increased densities and infill in suitable urban areas.

Indicators:

- Increased square footage of development in central business districts when compared with overall population growth.
- Reduced average distance from residential areas to commercial/service sites.
- Increased expansion of appropriate trade and service areas for future residential areas.

Strategy: Ensure the availability of the infrastructure needed for advanced telecommunications and high technology.

Actions:

1. Inventory existing high-technology infrastructure and promote efforts to eliminate impediments.
2. Promote public and private efforts to monitor and anticipate the need for high-technology infrastructure and to evaluate funding sources to meet those needs.
3. Participate with public and private entities to address potential conflicts due to the placement of communication towers and similar high-technology infrastructure.

Indicators:

- Cooperative arrangements with regulators and public and private providers of high-technology infrastructure.

Strategy: Ensure adequate infrastructure for rural areas.

Actions:

1. Advocate the prioritization of public discretionary technical assistance and infrastructure grants for rural areas with inadequate infrastructure.
2. Evaluate locally undesirable land uses as part of rural economic development.
3. Assist rural local governments to develop grant applications.

Indicators:

- Adopted levels of service in rural areas, compared with levels of service in urban areas.
- Improved rural infrastructure.

Strategy: Promote the use of alternative energy resources.

Actions:

1. Review proposed development to promote energy conservation.
2. Participate in analysis of the production of agricultural energy such as fuel alcohol and methane capture.
3. Participate in an ongoing regional forum on alternative energy research and development.

Indicators:

- More occupational licenses for energy production or installation of energy conservation appliances or energy-producing devices or equipment.
- Increased sales of solar water heaters and other alternative energy systems.

❖ **THE WORK FORCE**

An essential part of regional economic development is the workforce. There must be enough properly trained workers to allow business development and expansion.

Employment levels in Southwest Florida vary during the year. For example, winter residents and visitors create a demand for seasonal workers. The agricultural work year also has significant "peaks" and "valleys." Additionally, rural areas have higher unemployment rates and lower average wage scales than the Region, state, and nation as a whole.

Training programs and assistance programs will continue to have high demand as the population increases. Further, many jobs will require continuous retraining for employees.

Goal 2: A well-educated, well-trained work force.

Strategy: Enhance the skill level of the regional work force.

Actions:

1. Coordinate with the public and private sectors to assess skills for targeted industries.
2. Participate with educators, business groups, and public entities such as the Workforce Development Boards to establish training and educational programs.
3. Participate in, support, and market the one-stop concept for work force development.

Indicators:

- Increased capacity of job-training programs.
- Increased participation by employers in work force development.
- Improvements in educational attainment.

Strategy: Ensure a wide range of employment for all Southwest Floridians.

Actions:

1. Identify employment sectors that create jobs appropriate to this Region.
2. Participate in business, industrial, and governmental organizations to attract diversified and permanent employment.
3. Assist rural local governments to increase services for start-up businesses and entrepreneurs.

4. Cooperate with the public and private sectors to increase the use of enterprise zones, economic development districts, community development corporations, and similar programs to expand job opportunities.
5. Review proposed development to increase the access of working parents to the job market through arrangements such as on-site day care facilities and flexible work hours.

Indicators:

- A regional job creation rate greater than the rate of population increase.
- A regional job creation rate greater than the state rate.
- Increased number of enterprise zones, free trade zones, etc.

Strategy: Reduce seasonal variations in employment.

Actions:

1. Assist in business formation or location in areas with high seasonal or year-round unemployment.
2. Assist in development of off-season tourism for tourist and agricultural centers, focusing on eco-tourism.

Indicators:

- Decreased seasonal variation of the unemployment rate.
- Increased percentage of year-round jobs.

Strategy: Improve the high rates of unemployment and low wage scales in rural areas.

Actions:

1. Identify economically depressed areas and assist with applications for funding and economic development planning.
2. Assist communities largely reliant upon agricultural income or employment to diversify their employment and tax bases.
3. Assist in the development and expansion of rural tourism and eco-tourism.
4. Assist in the development of information programs, including signage coordinated with transportation agencies, for rural historic places and cultural and historical activities.

Indicators:

- Reduced out migration rates among younger rural residents.
- Increased median education and income levels in rural areas.
- Increased real value or square footages of commercial, governmental, residential, and cultural land uses in rural areas.
- More rural economic development programs.
- More programs for rural downtown preservation and revitalization.

❖ **LIVABLE COMMUNITIES**

Livable communities require a sustainable economic vitality. Since Southwest Florida has been reinventing its economic base over the last half century, this is difficult to accomplish. The region's communities were founded to support agriculture, tourism, fishing, hunting, and passive uses of resources that formed the base of the early regional economy. These are still strong components of the quality of life for residents and visitors. That quality of life contributes strongly to the trade and service sectors of the economy.

A major concern is how additional development will affect overall community livability. Some residents are reluctant to accept growth due to concerns about degradation of the quality of life. They may be unaware of the benefits of economic development and may not support efforts to attract new businesses or to help existing ones grow. Support for economic development--based on recognition of the importance of the quality of life--will translate into increased resources to enhance and expand the range of programs offered to new or existing businesses.

Most new jobs in the Region come from the growth of existing businesses or the creation of new businesses by area residents. Thus, enhancement of the resources for small business growth will result in new jobs and a growing tax base. Small business growth in turn translates into a stronger interest in keeping the community a desirable place to continue to live.

Goal 3: A stable regional economy based on a continuing excellent quality of life.

Strategy: Maintain and improve the natural, historic, cultural, and tourist-related resources as primary regional economic assets.

Actions:

1. Assist in the identification and acquisition of potential park and recreational sites and other resources in future growth areas.
2. Participate in studies, plans, and programs for public access to beaches and other resources.
3. Review proposed development to require that natural and other resources of regional significance are maintained, enhanced, restored, or re-created, as appropriate.

Indicators:

- Development of a regional inventory of natural and other resources.
- Increased preservation/conservation/utility zones covering water sources.
- More public beach access points and boat ramps.
- Fewer closings of public swimming areas or shellfish beds due to health hazards.
- Increased designations of historic sites, with public access.

Strategy: Ensure sustainable volumes of natural resources for economic productivity.

Actions:

1. Promote and assist resource planning programs to incorporate local government population projections and assessments of land consumption.

2. Offer mediation and facilitation to resource-based planning programs that have conflicts with land use-based planning programs.

Indicators:

- Reduced application times for standard permits.
- Increased identification and "pre-clearance" of sites suitable for permitting.
- More "ready-to-serve" designated areas.

Strategy: Enhance existing commercial, service, and industrial centers through adequate maintenance and reinvestment.

Actions:

1. Maintain an inventory of public infrastructure and recommended improvements.
2. Review plan amendments, new plans, and land development regulations for incentives to develop and redevelop land downtown.
3. Review proposed development to maximize the use, rehabilitation, and reuse of existing infrastructure.

Indicators:

- Increased building permit values in existing urban areas.

Strategy: Protect the regional energy supply against disruption.

Actions:

1. Review proposed development to promote development and construction patterns, techniques, and designs for more efficient use of energy.
2. Review proposed development to include alternative transportation methods such as sidewalks and bike lanes for greater energy efficiency.
3. Coordinate with other agencies to develop and/or modify transportation plans, traffic circulation plans, and regulations for more efficient use of energy.

Indicators:

- Reduced per capita fossil fuel use.
- Reduced proportion of energy from fossil fuels.
- Increased percentage of homes with solar energy devices or equipment.

Strategy: Increase the retention and expansion of local business and industry and encourage local entrepreneurial development.

Actions:

1. Provide services to facilitate entrepreneurship and the development of small and minority-owned business.

2. Cooperate with the public and private sectors to maintain information on regional economic development needs.
3. Coordinate among learning institutions, employment agencies, and others for training and educational needs.
4. Assist in increased use of economic development tools such as enterprise zones, incubator areas for small business formation, and community development corporations.
5. Identify and publicize programs for business development assistance.
6. Identify the needs of local businesses for capital or other assistance and the products they purchase and sell.

Indicators:

- Development and maintenance of a needs inventory for businesses.
- Publication of a resource guide for business development assistance.
- Increased number and range of SBA programs in the Region.
- More accessible incubator sites for manufacturing and service and retail trade.

Strategy: Increase the preparedness of businesses for potential hazards and natural disasters.

Actions:

1. Work with local emergency preparedness offices, economic development organizations, and other interested groups to alert businesses of the need to prepare for natural disasters.
2. Assist in making disaster-preparedness planning resources and tools, such as the Disaster Survival Workbook for Businesses, available to businesses in the region.

Indicators:

- Cooperative arrangements with interested groups for disaster preparedness for businesses.
- Development and publication of a guide for disaster preparation for businesses.

Strategy: Enhance support for economic development.

Actions:

1. Educate residents about the benefits of economic development.
2. Demonstrate to residents the benefits of reducing the over-dependence on residential properties for tax revenues.

Indicators:

- Periodic publication of the benefits of economic development.

Strategy: Streamline regulatory processes to avoid delays for new or expanding businesses, provided safety, health, and environmental requirements are met.

Actions:

1. Encourage local governments to expedite the permitting process and to assist businesses in permitting and licensing matters.
2. Cooperate with local governments, public agencies, environmental groups, and business groups to review permitting and licensing processes, forms, and related aspects for efficiency and standardization.

Indicators:

- Reduced time and cost to obtain standard permits for business formation and operation.
- Establishment of bodies to review permitting and licensing.
- Creation of ombudsman positions to assist businesses applying for permits or licenses.

Strategy: Promote agriculture in the face of growing competition for land and water.

Actions:

1. Cooperate with public and private entities to protect lands with high, sustainable production capability.
2. Participate in economic analyses of agricultural uses.

Indicators:

- Real dollar increases in agricultural production value, overall and by crop.
- Increased number and types of agricultural products.

❖ **DIVERSITY**

The employment sectors and occupational profile of the Region contain imbalances, particularly in more highly trained blue and white-collar professions. While the growing population should lead to improvements, it may be difficult to increase manufacturing employment significantly.

Attracting new businesses is also an important way to diversify the regional economy. New technology businesses, for example, can create high-paying jobs. In addition, as such businesses begin to locate in the Region, other similar businesses will follow.

The attraction of new business to a community is very competitive. It is also expensive due to costs of advertisements and marketing, participation in trade shows, and incentives.

Goal 4: A diverse regional economy.

Strategy: Diversify the regional economy by attracting new business and industry.

Actions:

1. Develop a list of targeted industries that create jobs suitable for this region.
2. Work with business, industry, and government to target industries appropriate for their markets.
3. Develop and publish demographic information and marketing materials to assist communities in business development.

Indicators:

- Broader range of businesses by Standard Industrial Classification.
- Development of a list of targeted, higher-wage industries.
- Periodic publication of essential demographic and marketing information.

Strategy: Inventory the business incentives offered in the Region.

Actions:

1. Review and analyze the effects of incentives, such as jobs created and average wages, as well as the community's estimate of the benefits.

Indicators:

- Publication of an assessment of incentives offered to business.

Strategy: Work with communities to develop eco-tourism.

Actions:

1. Assist in development, expansion, and funding of eco-tourism, especially for rural areas.
2. Provide eco-tourism information on the SWFRPC web site.

Indicators:

- Increased number of projects to assist rural communities.
- Increased information about eco-tourism on the SWFRPC web site.
- Increased number of grants, awards, etc. received by local governments for eco-tourism.

Strategy: Increase regional access to capital markets.

Actions:

1. Develop and publicize an inventory of financial programs for businesses.
2. Coordinate with public and private economic development groups, funding sources, and others to promote and market programs for business capital.
3. Continue to support and market the Southwest Florida Regional Development Corporation and the SBA 504 Loan Program.

4. Develop other capabilities, such as micro-loan and revolving loan fund programs, to assist small businesses.

Indicators:

- Inventory of economic development financial programs.
- Increased number of SBA 504 loans by SWFRDC to local businesses.
- Increased number of assistance programs available through SWFRDC.

❖ **MARKETING**

An important task is to market the region to business--as well as tourists and retirees. This region is more than a tourist destination and retirement area. The region also needs to continue to market itself as a location for new and relocating businesses.

The tourist or retiree may want to start a business, buy an existing one, or relocate a business from elsewhere. That interest may arise only upon visiting here. The business owner's experience may be crucial in any relocation decision.

The primary weekend visitor to recreational areas, festivals, and other events in the Region is usually a resident. Thus, promotion of local resources and events (and associated local stays) is a way to keep dollars in the region. This can be achieved more effectively if local tourist promoters participate in cooperative marketing of local and neighboring recreational opportunities.

In addition, some natural resources connect Southwest Florida and other regions. For example, boaters, tourists, and others use the water route along the Gulf shoreline between this Region and the Florida Keys from Southwest Florida and other regions.

Goal 5: Increased tourism and business relocation.

Strategy: Promote both internal and inter-regional tourism.

Actions:

1. Encourage increased regional tourism and promotion by local interests in other areas.
2. Advocate tourism between this and other regions and protect inter-regional tourism resources.

Indicators:

- Reduced variations in seasonal occupancy versus non-seasonal occupancy.
- Reduced variation in the percentage of tourist development taxes collected during the winter season versus summer season.
- Increased local participation in regional promotional efforts.

Strategy: Re-evaluate the success of Southwest Florida as a retirement and tourist destination.

Actions:

1. Review proposed development to protect the resources important to the quality of life.
2. Review capital improvement programs to identify the impacts and needs of residents and tourists and to prioritize improvements to accommodate both.
3. Cooperate with the public and private sectors to research funding for facilities and services to support tourism, consistent with local resources and plans.

Indicators:

- Analysis of retirement and tourism in the regional economy.

Strategy: Promote Southwest Florida as a business location.

Actions:

1. Participate in local and regional efforts to attract targeted businesses.
2. Encourage increased regional efforts to promote business relocations.

Indicators:

- Increased number of new business locations from other areas.
- Increased local participation in regional promotional efforts.

❖ **REGIONAL COOPERATION**

Potential participants in economic development include the educational community, the business sector, public agencies (primarily local and regional), and other groups and individuals. It is essential to ensure participation of representatives from all of these groups, public and private. That will lead to greater knowledge and awareness by each party of the needs and limitations of others, while reducing the potential for conflict seen in some public-private interactions.

Goal 6: A system of cooperation and coordination for economic development that includes a broad range of public and private participants.

Strategy: Promote regional cooperation and coordination for economic development.

Actions:

1. Promote cooperative arrangements and actions for economic development among business, governmental, and environmental groups, and other public and private entities.
2. Maintain the designation of the Southwest Florida Regional Planning Council as an Economic Development District.
3. Continue to utilize the Southwest Florida Economic Development Coalition in the development and review of economic issues.

4. Continue the relationship with the Southwest Florida Regional Development Corporation.

Indicators:

- Continued designation as an Economic Development District.
- Continued support of the Economic Development Coalition.
- Continued relationship with SWFRDC.

Strategy: Provide technical assistance to member local governments and other public economic development entities.

Actions:

1. Develop and distribute economic and demographic information.
2. Maintain and expand the SWFRPC library of items about economic development.
3. Exchange information through the Southwest Florida Economic Development Coalition, and other workshops, groups, and committees.
4. Provide examples of economic elements for local comprehensive plans.
5. Review economic proposals, such as plan elements, projects, and grant applications.
6. Assist in development and preparation of applications for funding.

Indicators:

- Number of volumes in the economic section of the SWFRPC library.
- Number of projects and applications assisted by SWFRPC.

➤ **IMPLEMENTATION**

This is a guide to ways in which SWFRPC could coordinate and interact with others to implement the goals in this element.

Agency	Goal 1	Goal 2	Goal 3	Goal 4	Goal 5	Goal 6
Cities and counties	A/R/I/G	A/R/I/G	A/R/I/G	A/R/I/G	A/R/I/G	A/R/I/G
State agencies	A/I/G	A/I/G	A/I/G	A/I/G	A/I/G	A/I/G
Federal agencies	A/I/G		A/I/G	A/I/G	A/I/G	A/I/G
EDOs	A/I/G	A/I/G	A/I/G	A/I/G	A/I/G	A/I/G
SWFEDC and other economic advisory committees	A/I/G	A/I/G	A/I/G	A/I/G	A/I/G	A/I/G
Educational system	A/I	A/I	A/I			
Private developers	A/R/I	A/R/I	A/R/I		A/R/I	
Health care system	A/I					
Utilities	A/R/I	A/R/I	A/R/I			
Environmental groups	A/I	A/I	A/I	A/I/G	A/I/G	A/I/G
SBA			A/I	A/I		
SWFRDC			A/I/G	A/I/G		A/I/G
Emergency preparedness agencies			A/R/I			

A = advise or inform.

R = review or regulate.

I = implement or coordinate.

G = assist in grant application either to or for the entity listed.

AGENCY ABBREVIATIONS

- EDOs: Economic development organizations. (These--public or semi-public--include chambers of commerce, business development groups, tourism groups, etc. An EDO might focus on development in one community. Another might focus on a single subject, such as tourism, agriculture, historic preservation, etc., that crosses geographic and other boundaries. Some groups do both.)
- SBA: U. S. Small Business Administration. Listed separately due to its special role with SWFRDC.
- SWFEDC: Southwest Florida Economic Development Coalition. Listed separately due to its role as a regional group staffed by SWFRPC.
- SWFRDC: Southwest Florida Regional Development Corporation.
- Utilities: This includes public and private providers of various physical infrastructure components.

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EMERGENCY PREPAREDNESS

Introduction

Southwest Florida is vulnerable to a variety of natural and technological hazards and sociological-based threats. The natural hazards include excessive rainfall, storm surge flooding, destructive winds and lightning normally cause by severe thunderstorms, hurricanes and tornadoes. Droughts and freezes impact the region's agricultural economy; wildfires impact natural resources and rural development. Dike failures have occurred from heavy rainfall and could occur from hurricane wind driven water surges. Technological hazards are hazardous material incidents creating spills and plumes, hazardous waste sites and mass care and casualty events such as are possible from airplane crashes, nuclear accidents, civil disorder, and spontaneous mass immigration. (The latter two are considered sociological caused threats.)

➤ PROBLEMS, NEEDS, AND OPPORTUNITIES

Problems

Natural Hazards

The primary natural hazard threat in this region is from hurricanes, attributed mostly to the low land elevations along the densely populated coastal areas and high probabilities for hurricane occurrence; this is depicted in Map 1. Southwest Florida is the second most hurricane vulnerable region in the country. Adequate hurricane evacuation infrastructures (roads and shelters) are not keeping pace with population growth within the hurricane surge vulnerable areas or for the wind-vulnerable mobile homes that are increasing throughout the region. More than 20 percent (827.7 square miles) of the regions land area is subject to storm surge flooding in a worst-case category 3 hurricane. Seventy-nine percent (773,107 people) of the region's population is vulnerable to category 3 hurricane hazards. Adding to the operational problems, an above average percent of this population is substantially aged or infirm. The hurricane vulnerable population is increasing at a rate of three percent a year with only a .75% increase per year increase in hurricane shelter space. Between 1983 and 1991, 210,000 new residents in the region became hurricane vulnerable. Evacuation time increases for some counties ranged from 1.5 to 10 hours. Total evacuation times for the worst case regional scenario ranges from 39.5 to 54.1 hours.

Regional population growth in hurricane vulnerable areas are expected to continue. The long range implication of development and redevelopment along our coastline becomes even more serious when weighed against such phenomenons as further potential for a sea level rise. Research indicates that sea level rise during the past century has been greater than the previous 200 years, extreme projections indicate that overall plans should be made for a 66-centimeter (26 inches) rise in sea level by 2010. Therefore, in an effort to reduce the loss of lives and property, evacuation route improvements must be constructed, new shelter space must be found and structural vulnerability must be reduced.

Thunderstorms and their effect are another problem in the Region. According to the state's hazard analysis, Southwest Florida has the highest mean annual thunderstorm days in the state, with Hendry County having the highest. On any day during the summer's rainy season, thousands of lightning strikes accompany these thunderstorms. These storms also produce tornadoes giving Florida the highest tornado occurrences in the nation. Between 1959 and 1992, Southwest Florida had a total of 168 reported tornadoes which caused a total of 115 injuries and eight deaths. During this same period, 90 injuries and 20 deaths were caused by lightning. Total property losses in dollars during this time frame is unknown but is estimated to be ten of millions of dollars. Although tornadoes and lightening threaten all structures, serious mobile home damage from tornadoes/wind shears is more frequent than for conventional homes. With mobile homes currently constituting 16% of housing stock, and having been increasing as a percentage through time, growth will increase the nature of the threat.

Although Southwest Florida is known for its warm climate, the Region has had numerous freezes which caused significant crop losses and unemployment. At least 20 notable freezes have affected the region's agricultural economy, which creates the second most economic activity behind tourism.

Droughts and the resulting fires are another emergency preparedness problem affecting the Region. Droughts affect agricultural production and also cause groundwater drinking supply problems (e.g., saltwater intrusion) and increase the threat of wildfires. In Southwest Florida, because the dry season coincides with peak population levels, water restrictions have become routine. The public health and welfare of Southwest Florida's citizens cannot be provided for without a sufficient quantity of water. Because the region's water supply is intertwined with multiple regions, South Florida's fast growing population is causing concerns from citizens and elected officials that the existing water supply may not be adequate, and at least needs better management, to provide for the state's projected needs. Water management officials believe overall water demand is expected to increase 55 percent between 1990 and 2010, with urban demand increasing by 90 percent and agricultural demand by 44 percent. Although no life threatening water shortages have yet occurred, the economic impact of a major water shortage can have far reaching effects on the Region's urban and agricultural economies. Further, "buildout" scenarios for the Region's urban areas indicate an increased competition for water resources between urban and rural areas.

The regional drought cycle, combined with historical efforts to keep lands drained to increase their productivity, has resulted in increased fire hazard throughout much of the region's open space. This occurs because the dehydrated lands have lost natural resistance to fire and its rapid spread. Vegetation becomes overly dry; drought and overdrainage (or over use) eliminates the natural firebreaks caused by creeks and wetland ponds and sloughs. When fire breaks out, either through natural conditions, accident or arson, it rapidly spreads and -combined with high wind conditions- becomes difficult to contain. Each year homes and structural damage occurs as rural fires move to inhabited areas. In the large subdivisions where there are scatterings of homes, damage threat mounts rapidly when such fires spread, leaping roads and dry drainage courses.

Technological Hazards

The primary technological hazard threat in the region is from fixed based and mobile hazardous materials. Accidents involving hazardous materials are becoming more routine as the region grows and diversifies economically, requiring the use of greater volumes and types of hazardous substances.

Of the top ten hazardous materials, a total of 1,781,468 pounds of these substances are currently found within the region. Various industries, swimming pool chemical companies, agricultural operations, dry cleaners, retail and wholesale distributors, as well as state, local, and federal governments handle these hazardous substances. A total of 374 extremely hazardous substances sites are present in Southwest Florida, with 51 of these sites being considered regional because of having the possibility of impacting two or more jurisdictions. Forecasted increases in commercial and industrial sites will only increase the number of these sites.

Other technological hazards and sociological threats, which have lesser probability, are nuclear threats and nuclear power plant fallout from accidents at one of the three plants in Florida or from a plant under construction in Cuba. Portions of the lower eastern portion of the region, for example, are within the 50 mile radius of the Turkey Point nuclear plant, while the Hutchinson Island plant's 50 mile radius affects the Lake Okeechobee counties. While Southwest Florida has been spared serious impacts from spontaneous mass immigration and civil disturbances, geographic location makes all of South Florida susceptible to the social and economic impacts of these sociological threats.

The natural and technological hazards and sociological threats discussed above will usually impact more than one jurisdiction and will require a coordinated multi-jurisdiction response and recovery approach to manage. The following emergency preparedness issues and accompanying goals and policies are proposed to help prepare for, response to, recover from, and mitigate the economic and social impacts of these hazards and threats in the region.

The increasing sophistication of the region's urban and suburban development creates challenges for the region's public safety agencies. Hazardous material storage, pipeline expansions, and taller structures provide training and equipment challenges for public safety agencies that began in rural or suburban settings. The cost of information, training and equipment often becomes more than solitary entities can successfully carry.

Needs

The region needs a system of inland shelters and refuges, whether public or private, that can withstand the force of great hurricanes. It needs routes with sufficient capacities to take evacuees to these shelters in a timely manner. Shelters need self sufficiency for water and sanitation, and in electrical generation for essential medical services.

Regarding problems of technology and natural hazards, there are ongoing and growing needs for training, volume of manpower, equipment, public information and awareness, and coordination at the operational, planning, and policy levels.

Communities that survive the test of time are those that can cope with the downturns of circumstance, and plan for the long term-as measured in centuries. Southwest Florida's communities, being lowlying, are among the first in the nation to be tested by the effects of global warming, whether slow or fast moving. A component of planning for communities in Southwest Florida is the extent to which this phenomenon can be recognized and steps taken to ensure the long term livability for the communities throughout the decades.

Opportunities

The Council has had since 1973 a formal arrangement between counties to work on common issues. This has assisted in the resolution of a number of substantive matters.

In the matter of emergency preparedness, the Council has sponsored and participated in working groups of emergency managers (both public and private) since 1978, when the Council performed the state's first substantive hurricane evacuation study based on natural hazard analysis.

The Council's LEPC was established in 1989 to provide additional structure, particularly in regard to manmade hazards. This expanded the Council's scope into these hazards beyond the ad hoc arrangement that existed previously.

These arrangements, and others, provides the Council the continuing opportunity to assist in issue resolution through technical analysis, coordination, and the capacity to focus resources upon identified problems on a needs basis. With pending updates of the State Plan, agency functional plans, and local comprehensive plans, the opportunity to further the strategies following are heightened.

➤ ISSUES

❖ NATURAL HAZARDS

Goal 1: The general public and its governmental agencies become aware of the extent of flooding that can be induced from the Gulf of Mexico and Lake Okeechobee by a tropical storm or hurricane.

Surge zones have been identified and mapped for the region (Volume One, Map 7). Many public and private entities make concerted efforts to brief residents on the location of the threat, including publication of surge zones in some of the telephone directories. This effort cannot be diminished since the region's population is continually growing and changing due to immigration replacing out migration and deaths.

Strategy: Make easily understood information available with timely updates.

Actions:

1. Maps depicting areas subject to storm surge flooding will be regularly updated and circulated to affected populations.

Indicators:

- Storm surge atlases and summary maps widely reprinted.
- Current atlases available at public libraries.
- Current atlases available through emergency management and planning offices.

Facilities: Hoover Dike is the region's only facility established solely for hurricane surge protection.

Planning standard: Saffir Simpson scale storm surge lines

Goal 2: An organized recovery response to the effects of freezes, droughts, or floods on food and fiber production.

The region has repeatedly lost components of its agricultural and fisheries production to natural causes, sometimes aggravated by man's management. This, in turn, results in widespread layoffs and unemployment. Legal impediments to relief need to be removed in order to quickly respond to those areas that will have a quick demand for basic human assistance in the form of food, rent assistance, and jobs.

Strategy: Coordinated local, substate, and state short-term emergency response plans for relief and assistance for areas with catastrophic job losses due to freezes, droughts or floods.

Actions:

1. Petition Congress, the President, and FEMA to identify drought as a natural disaster deserving of emergency relief.
2. Promote with the Water Management agencies, drought, freeze, and flood management programs that promote increased natural system storage to reduce impacts of fire, water shortages, and flooding.
3. Assist public agencies in identifying and keeping up-to-date disaster relief sites.
4. Public agencies should maintain lists that identify teams of short-term public relief workers.

Indicators:

- Relief plans with interagency agreements for relief support.
- Management Plans that indicate pre and post storage capacities.

Planning standards: Relief support should be prepared to meet 10% of labor force of Glades, Hendry, and Collier Counties, and 2% of the remainder of the region.

Goal 3: Safe evacuation or protection for the most threatened populations.

Southwest Florida's evacuation needs exceed public resources. One response, recognizably inadequate for all components of the problem, is to evacuate or shelter those for whom exposure leads to loss of life, as opposed to those to whom flooding will be an uncomfortable but not a life threatening event.

Hurricane flooding and hurricane force winds are the best known but not sole natural hazard. Using hurricane threat as an example, though, predictions are not totally accurate on the extent of flooding, nor is flooding the sole threat to structures. More persons will commonly be told to evacuate than will need to move, primarily because there is no manner in which to accurately predict the specific flooding of a particular storm whose landfall is not exactly known at the time the order to evacuate

needs to be given, particularly for more inland areas. However, time to evacuate all threatened population exceeds most reliable estimates of the warning time that can be given. Consequently, a prioritization program may reduce an overall community threat by targeting the most threatened; thereby, reducing shelter and evacuation road demand and reducing the number of persons who would over evacuate.

Strategy: Develop programs that assess risk and are capable of giving priority to those who have the greatest threat, when time or resources provide constraints on total evacuation.

Actions:

1. Each hurricane study update shall update  the numbers and locations of the most exposed populations.
2. Each hurricane study update shall update the evacuation times of the exposed zones, and recommend for prioritization for road improvements those zones with greater than 18 hour evacuation times.
3. Each hurricane study update shall update estimates and concentrations of housing types more subject to hurricane force wind damage, and prioritize these populations for sheltering.
4. Continue requiring all deeds to property located within a Development of Regional Impact located within the Southwest Florida Special Hurricane Preparedness District as required by Rule 9J-2.0257(4) shall be accompanied by a disclosure statement in the form of a covenant stating that the property is located in a hurricane vulnerability zone, that the hurricane evacuation clearance time for City/ County or the Southwest Florida Region is high, and/or hurricane shelter spaces are limited.
5. Work with all local governments in the region to require all deeds to hurricane vulnerable property located within their jurisdiction be accompanied by a disclosure statement in the form of a covenant stating that the property is located in a hurricane vulnerability zone, that the hurricane evacuation clearance time for City/County or the Southwest Florida Region is high, and hurricane shelter spaces are limited.

Indicator:

- Forecasted evacuation times that exceed 18 hours.
- Number of counties with those forecasts which have developed priority programs for the most threatened residents.

Planning standards: Evacuation times.

Goal 4: Ensure that emergency management programs have the logistical support for successful evacuation, sheltering, and post storm relief and recovery.

Evacuation requires traffic managers and emergency clearance crews. Sheltering requires shelter managers, health workers, and law enforcement. Recovery is an even more labor intensive effort, and will draw upon temporary relief workers from elsewhere who appear to assist in the recovery. For all these workers there is the need for logistical support, information systems to use them effectively, housing, and equipment and supply staging areas. Also, a precondition for effective relief and recovery involves the knowledge of the materials likely to be available and their spatial and support needs, and the physical sites likely to be available to meet them.

Strategy: Maintain and keep up to date inventories of personnel, communities with mutual aid agreements, public shelters, evacuation route control points, supply lists needed for sheltering and recovery, recovery sites and staging areas for recovery operations.

Actions:

1. Annually review and update the identification of potential disaster field offices and disaster assistance centers.
2. Assist communities in annually reviewing traffic control points for evacuation.
3. Review local plan amendments and development plans for the staffing, evacuation and sheltering needs of all new development within flood hazard areas in the event of hurricane type high wind and water conditions;

Facilities: Regional storm recovery sites on Map 2.

❖ **TECHNOLOGICAL HAZARDS**

Goal 5: Be prepared to respond to accidental spills of hazardous materials or severely improper disposal of hazardous wastes.

An increasingly sophisticated technology has been expanding the nature of emergencies and the hazards to those that combat them. It is important for general public safety, as well as personal and business liability, that those businesses with unique needs have developed emergency response programs and have coordinated them with public emergency managers. In recent years, fires in structures with hazardous materials have incapacitated unsuspecting local responders, and have forced the evacuation of thousands of unsuspecting residents. The nature of the threat will not diminish in forthcoming years.

A visual emergency, such as a fire or flooding, is a more recognizable emergency than leakage. However, dispersal of complex toxic materials or materials that are not toxic alone, but may combine with other materials through leakage to form toxic or other hazardous materials, has caused deaths and injuries for unsuspecting employees, neighbors, and emergency responders. Employees and managers need adequate training in spotting signs of dispersal and how to end the threat.

There have been efforts made to coordinate responses to manmade disasters. Those involving hazardous materials affecting more than one county are identified in Map 3, "EHS Hazardous Materials Map." Other facilities of concern, but not on this map, include the nuclear power plants in the Treasure Coast and South Florida Regions.

Strategy: All sites that generate, use, or store significant amounts of hazardous materials (including wastes) having appropriate plans to manage spills or releases, and appropriate procedures for safely disposing unneeded materials.

Actions:

1. Update inventories at least every 5 years of the location, type, and quantity of hazardous materials.
2. Update and maintain through the LEPC a coordinated program among regulatory agencies for the effective regulation of generation, storage, treatment, disposal, and transportation of hazardous materials and waste.
3. Continue to support a region-wide hazardous waste program which:
 - a. provides for regional siting for areawide hazardous waste sites;
 - b. increases on-site treatment of appropriate wastes;
 - c. recycles reusable wastes;
 - d. maintains a pick up system for households, small businesses, and other small quantity generators of hazardous waste;
 - e. develop environmentally safe treatment, storage, and disposal facilities;
 - f. provides training and certification for appropriate personnel;
 - g. implements the plan for siting of hazardous waste storage and transfer facilities, as previously adopted;
 - h. provides public education about hazardous and special waste treatment, disposal and recycling;
 - i. encourages the establishment of used oil recycling centers in each county of the Region;
 - j. coordinates between land use agencies and transportation agencies in the location of industrial and utility facilities which require a transport along public highways of hazardous waste materials;
 - k. restricts hazardous wastes and materials from being transported through residential areas;
 - l. evaluates  hazardous material and waste movement, includes measures for risk reduction of hazardous waste transport, coordination with emergency contingency plans, off-peak routing schemes or restrictions, and consideration of other transportation modes;

- m. requires carriers to be qualified and permitted, properly identified and marked, and requires vehicles to transport only properly packaged materials and wastes;
- n. addresses and properly disposes of or recycles special wastes, such as construction and demolition debris, white goods, waste tires, biohazardous waste, and batteries; and
- o. provides public information and public notice for proper storage and disposal of hazardous waste and materials, including special opportunities for disposal or technical assistance in proper storage.

Indicators:

- Percentages of sites generating or storing hazardous materials that have adequate disposal and emergency plans.

❖ **LIVABLE COMMUNITIES**

Goal 6: New private and public developments are built further from flood prone areas than in the past and structures and roadways are protected from rain induced flooding.

Communities must be able to survive adversity in order to be considered “livable” or “sustainable.” The common regional threat shared by all Southwest Florida communities is that of hurricanes. Much of the region's development has occurred in areas subject to hurricane surge flooding. Past development practices have also led to the dredging of lengthy canals with direct access to coastal waters, with residential lots along these canals. These lots are subject to inundation even quicker than in natural conditions since the canals provide new corridors for flood driven waters. These are the same areas that are experiencing the first effects of sea level rise, as the gradual creep of saltwater inland slowly increases the extend of lands subject to flooding.

Inland, Lake Okeechobee constitutes the site of the state's worst disaster for loss of life due to flooding. Although an extensive dike system protects these threatened lands, canals around the lake have served as attractions that draw even more persons into the threat area.

Rain induced flooding is an issue for all low-lying inland areas. Building lots and roadways approved prior to the Federal Emergency Management Administration's Flood Insurance Program are particularly susceptible to flooding due to heavy rainfall.

Many of the platted lots along the coast and inland are still vacant. The forecasted development expects all of these lots to be built upon at some point in the future. The latest surveys indicate that approximately 31% of the value of the region's structures may be damaged through hurricane waters and winds. (SWFRPC Hurricane Loss Study) The loss of this percentage of the region's value would be beyond local governments' capacities to restore in any timely period.

One means by which local governments, regional, state, and federal agencies can reduce risks is to lead by example. Damaged or destroyed publicly owned community centers, office buildings, maintenance and warehousing facilities, can be relocated inland, or built to higher elevations or

improved standards. By such leadership, private enterprises is given an example of what is expected of them.

Strategy: New public structures be located outside the category 2 hurricane flood zone and outside of rainfall induced flow-ways.

Actions:

1. Assist local mitigation strategy programs to identify relocation sites for most exposed public facilities.
2. Review local plan amendments and development proposals for their ability to locate new development outside of the category 2 flood zone and rainfall flow-ways.
3. mote provisions for the acquisition of hurricane vulnerable land, including channels, low-lying areas, and shoreline by federal, state and local governmental sponsored land acquisition programs.
4. Promote public acquisition of property that has been destroyed or damaged as the result of a hurricane, storm wave, or tidal action.

Strategy: New developments and redevelopment of existing areas should provide for increased land elevations for public infrastructure and community infrastructure, including potential sheltering or refuge sites.

Actions:

1. Promote local development requirements within each mobile home park outside of the category 1 surge zone that there be adequate shelter space within elevated structures to accommodate those who do not want to evacuate outside their community.
2. Promote local development requirements that there will be designated refuge space in condominium and apartment complexes outside of the category 2 zone (but within the category 5 zone.)

Planning standard: 10 sq. feet per person, on an occupancy rate of 75% for mobile home, 41% for a resident recreational vehicle, 78% for apartments, and 64% for condominiums.

Goal 7: Designated shelters safe from flooding, and containing enough capacity to meet existing estimates of need.

Not all of the region’s structures can be protected from flooding, but to be “livable” all of the region’s population must be able to be sheltered from storm induced flooding and winds. Regretfully, the region has had a continued public and private shelter deficit since hurricane assessments were first performed. These early assessments led to the deletion of many shelters that were discovered to be threatened with flooding or were structurally unsound. Space available for category 1 storms in 1995 approximated 2.5 million square feet in public shelters, with additional space in private refuges and motels. However, the more severe storms diminishes the space that may be available.

In many ways sheltering has been improving for the lesser category storms due to concerted efforts by local emergency management programs identifying or developing sheltering options, but it is recognized that more can be done. For greater category storms, virtually all coastal communities have sheltering needs that are unattainable in the region. Forecasted growth in low lying areas increases the volume and extent of the problem. A Regional Refuge of Last Resort Strategy Study will be completed to encourage local governments to implement a hurricane refuge plan for wind and surge vulnerable residents.

There are local initiatives to improve the situation. DRIs have been improving shelter space inland. Lee County has a special millage to retrofit structures with shutters. Private entities have been developing refuges for special populations.

Strategy: Increase shelter space at rates greater than population growth

Actions:

1. Promote programs to provide adequate storm evacuation shelters that:
 - a. Require all habitable areas of new residential construction in identified flood-prone areas to be elevated above the level subject to flooding as identified for the statistical 100-year storm or Federal Flood Insurance Program;
 - b. Incorporate in sheltering efforts the voluntary participation of owners of structures identified as potential storm evacuation shelters that are elevated above the level subject to flooding as identified for the category 3 storm surge height;
 - c. Require all new development of more than 100 dwelling units located outside category one and two storm zones, but within 3-5 zones, to provide on-site refuge facilities for residents of the development;
 - d. Require all development located outside category one and two flood zones to provide refuge space at a ratio of 20 square feet per person in common areas or other shelter areas; all development in category 1 and 2 zones should identify and secure unused shelter space in inland areas;
 - e. Require deeds, covenants, and all similar documents, for multi-story residential structures, to contain provisions to permit temporary shelters, during category 1 and 2 storm events, in upper interior hallways, or similarly protected areas, which contain no openings directly to the exterior, provided the structure is located in Category 3, 4, or 5, flood zones;
 - f. Require any shelter to be designed and constructed to withstand winds of at least 120 miles per hour sustained winds;
 - g. Require shelter to be equipped with emergency power, potable water supplies, and wastewater treatment capacity;

- h. Require any shelter to be constructed with as little glass as possible, while providing adequate protection by shutters or boards for any glass used;
 - i. Require any shelter to have adequate ventilation, sanitary facilities, and first-aid equipment;
 - j. Establish Homeowner's Associations to provide information to their residents concerning hurricanes, evacuation shelters, and related matters; and
 - k. Require  new residential development within category 1, 2, and 3 storm zones, and/or with  evacuating population, to mitigate impact on inland shelter space.
2. Support management  programs that advise hotels/motels in category 1 and 2 storm zones to evacuate during a hurricane watch and should not be utilized as storm shelters.
 3. Discourage in Plan reviews the placement of storm shelters on islands.

Indicator:

- Ratios of available  public shelter capacity to the projected demand.

Percentage of new shelters built above the category 3 storm surge height.

Facilities: Shelters depicted in SWFRPC Hurricane Evacuation Study (and updates).

Planning standards  20 sq. feet for storm duration per person, 40 sq. feet for a long term stay, power generator and refrigeration, toilet and cooking space, and withstand 120 mph sustained winds. Occupied floor elevations to exceed those heights forecasted for category 3 storms, be located outside of category 1-2 zones according to County Hurricane Storm Tide Atlas, and space is exclusive of unshuttered windowed rooms.

Goal 8: Plan for and accommodate the segments of the population with special evacuation needs.

All segments of the population must be included in efforts to make the region livable during periods of adversity. The region's special needs lie in the percentage of elderly, particularly frail elderly, which is exceeded by no other region in the nation. An estimated 27% of the region's population is retirement aged, which is a percentage double the national average, and fifty percent higher than the state as whole. This age indicator denotes the special evacuation problem that occurs when individuals, entire households, or developments such as Adult Congregate Living Facilities are unable to manage an evacuation.

Although many with special needs have a dependable support network (spouse, family, friends, etc.) that would provide for their needs, others do not. Through time, the numbers of these persons in the flood zone have been increasing, and there is no reason to expect that this will not continue. Fortunately, programs such as the transportation disadvantaged program have enabled public agencies to target and plan for the evacuation and sheltering of great portions of these persons.

However, the reality of the ability to transport and shelter is as serious for this segment as it is for the overall population.

Not all persons may go to a regular shelter. A recent evacuation that unsuspectingly mixed tubercular carriers with other persons resulted in a number testing positive for tuberculosis afterwards. For such persons-when known-special arrangements are needed.

Strategy: Involve the expertise of human service agencies in identifying and accommodating those with special evacuation needs.

Actions:

1. Integrate human service entities in evacuation and shelter planning.
2. Provide for special shelter needs for the frail, elderly, handicapped, persons with special medical/support conditions, and people with other conditions requiring specialized attention, who lack a dependable support not within a regular shelter.
3. Include additional disaster preparedness requirements in reviewing existing and new developments whose future residents, including the elderly, might have limited mobility or demand specialized attention.

Indicator:

- Designation and capacity of special needs shelters.

Facilities: Shelters designated in 2001 Update, as special needs.

Planning standard: 1 percent of evacuating population, as special needs.

Goal 9: Public buildings designed to serve as short term shelters.

It has been generally estimated that including general sheltering consideration into public building design will increase costs by 5%. However, there can be no expectation that private design will meet sheltering needs, and evacuation times are expected and have proven to be excessive. Further, directing persons to shelters that lack "reasonable" sheltering consideration, exposes the community to liability in the event of structure failures. Consequently, for current population and future population growth, improving public building design and construction is one of only a few viable options. Unfortunately, this is not a common consideration in public building design. With forecasted school and courthouse construction alone, much of our shelter deficits can be made up or prevented from increasing.

Strategy: Make all public entities aware of the serious emergency shelter deficits that exist and that the situation affects the lives of the members of the agencies and their families.

Actions:

1. Promote major public buildings outside of the category 1 flood zone meeting state building standards for shelters and having on-site facilities which are adequate for maximum capacity short-term occupation.
2. Promote innovative programs for financing shelter space, including municipal service benefit districts and shelter impact fees.

Indicators:

- Percentage of new local, district, state, and federal buildings which meet these criteria.
- Percentage of public agency bid packages that include this in the criteria for architectural design and construction.
- Capacity of new shelters.

Facilities: Public Buildings listed as "Secondary Support Services," Support Services, 2001, SWFRPC.

Planning standards: n/a

Goal 10: Regional medical centers capable of operating through a natural disaster.

A side effect of storms is the large number of injured persons, in addition to the current occupants of medical facilities. With current sheltering problems for the population at large, the region's evacuation program cannot accommodate additional stress of avoidable dislocations of medical centers and their occupants, and termination of their capacities to treat injuries. Many facilities, though, are in sites subject to storm flooding. These facilities may need retrofitting in order to operate, and new or expanded facilities should meet the special conditions necessary for them to function.

Strategy: Power, water, and sanitation self sufficiency (for temporary periods) for each major medical facility.

Actions:

1. Promote funding eligibility for the retrofit of existing hospitals with Hurricane Andrew Trust Funds, as well as with similar sources.
2. Promote in reviews that services necessary for hospital operation during emergencies be located on floors above the forecasted Category 3 flood elevation.
3. Promote during reviews of new hospitals (of 100 or more beds) that they should be located outside of the category 1 storm surge zone and should not be located on barrier islands.

Indicators:

- Percentage of medical centers that can operate in category 3 storms;
- Percentage that can operate in 1 or 2 only; and the change in percentage through time.

Facilities: Major Medical Sites depicted in Map 4.



Planning standard: Wind-proofing to 120 mph; flood elevation of first occupied floor level to category 3 storm surge heights; elevated generator and water supplies.

Goal 11: A Region prepared for potential fuel shortages or prolonged electrical outages.

Twice in the last three decades, the region suffered fuel emergencies. Each occasion led to the development of fuel shortage emergency response plans. However, these plans are outdated and are commonly considered irrelevancies lacking any current threat. Neither previous shortage; however, was preceded by a gradual buildup of tensions. Consequently, realistic assessments of supplies, needs, and priorities still need to be a component of emergency management.

Hurricane Andrew has also indicated the region is susceptible to short- and mid- term electrical outages. Damage to major electrical lines and loss of many electrical distribution systems can make otherwise habitable structures unusable due to the lack of cooking and lighting. Prioritization of all least minimum levels of service is a necessity for community recovery.

Strategy: Maintained up-to-date fuel shortage and energy loss emergency response plans.

Actions:

1. Assist communities in maintaining inventories of commercial fuel storage and sales sites, and in keeping up-to-date ordinances for emergency management of sale.
2. Promote public agencies setting examples by maintaining emergency response plans for staff, which include mandatory car pooling for work, and optional programs for family use.
3. Promote electrical utilities maintaining and keeping up-to-date fuel emergency and electrical conservation plans, coordinated with local and state regulatory authorities for energy conservation.

Indicators:

- Percentage of counties with up-to-date fuel shortage plans.
- Percentage of customers of electrical utilities whose service does not rely on a single generating or transmission system, or fuel type.

Facilities: Regional transmission lines depicted in the Description of the Region; FPL Plant on Caloosahatchee River.

Goal 12: Fire, ambulance, and police services provide satisfactory service and responses times, not withstanding the pressures of growth.

Commonplace emergencies are of the greatest volume and occur in the wide geography of the region's workplaces and homes. The distribution of hazardous materials increases the complexity of these emergencies without reducing their geographic spread. In order to meet these recurring incidents and better manage the threat, personnel and equipment must be distributed in general degree to meet the region's population spread. Since most of the region's population growth is

forecasted for areas currently with few services available, this decentralization and spread will need to be continued.

The region's land use densities and intensities have been expanding through time. Areas formerly served by the Florida Division of Forestry now need rural fire districts, rural fire districts need hired full time personnel, and urban districts need more sophisticated equipment and personnel trained to meet a broader range of threat. Water supplies that were previously served by wells now need centralized services, which in turn must be designed to also meet fire flow. Lower water tables due to drought increase rural fire risk, which is best handled through rapid information and response before the spread is too great, which in turn requires sophisticated information systems. This trend of increasing technological need will continue.

It should be noted that fire service adequacy is partially reimbursed through lower insurance rates. Ratings provided by the ISO indicates the community threat preparedness, the better the rating, and the lower the insurance rate for fire. This is of particular importance for businesses to whom fire and casualty insurance can be a significant cost.

Strategy: Investing in personnel, equipment, and managerial structure to achieve or maintain a response capacity and capability within the recommended response times.

Actions:

1. Promote increasing law enforcement and fire protection or equivalent community programs to match growth rates and eliminate current service deficits.
2. Review plans for development to ensure that adequate supplies of water for fire fighting is available.
3. Promote coordination agreements that enable all medical response teams to take victims to the nearest appropriate emergency facility, regardless of administrative jurisdiction.
4. Promote the participation of all jurisdictions in interagency agreements to cover insurance liabilities and staff and equipment costs when emergencies require assistance between neighbors.

Indicators:

- Percentage of emergency calls receive the response within recommended times; ISO ratings for individual fire departments, including water supplies suitability.

Planning standards: ICMA recommended response times for urban and rural communities.

❖ **TRANSPORTATION**

Goal 13: Evacuation routes identified and clearly designated, and at the capacity and quality needed to carry the expected number of evacuating vehicles.

Hurricane induced flooding and wind damages are the region's single greatest individual threat. More people will be threatened with death and injury over a broader area by a single hurricane than by any other foreseeable event (other than nuclear attack). Routes that move persons from flood zones have been identified in the past and some funding priority given to route improvements, but continued growth requires the constant reassessment of routes and reevaluation of needs and resources. Current forecasted times are high, and future growth will make them higher without comparable systematic road improvements. Routes are continually reevaluated by state, regional, and local transportation agencies; private entities assist in the public dissemination of this information through hurricane pamphlets (such as developed by the media), and by the phone companies, who include route maps in the phone books.

Evacuation is not solely a "within region" phenomenon. Most "great storm" scenarios require evacuation to and through other regions. Map 5 provides a general direction of evacuation traffic flow for "land falling" and "crossing" hurricanes.

There are tools available to reduce the volume of population growth expected in surge areas. Charlotte and Lee Counties have efforts to reduce densities in low lying areas. The City of Naples and Collier County jointly work to keep densities below one unit per acre on Key Island. Sarasota County has a special district designation to keep densities low on Casey Key. Unfortunately, many of the older platted subdivisions are in low lying areas, with adequate infrastructure for the consideration of building permits. More vigorous reassembly laws would enable proactive approach to removing some portion of these lots from potential development, as would a program of tax deed foreclosures.



Strategy: Reduce evacuation times through capital investment and traffic management.

Actions:

1. Recommend prioritization in FDOT or local capital improvement programs for evacuation routes with evacuation capacity restrictions, particularly intercommunity evacuation routes.

2. Review development and plan amendment proposals to ensure that there is mitigation of the impact of all new development on emergency evacuation routes, including consideration of non-road alternatives such as on site sheltering.

Indicators:

- Time to evacuate, by county and by region.

Facilities: Evacuation routes as depicted in SWFRPC Hurricane Evacuation Study (as updated)

Planning standards: 2 persons per vehicle; 1.1 vehicles per dwelling, based upon seasonal occupancy rates by unit type; route capacities as calculated according to the Highway Capacity Manual, 1985 edition, and its successor documents.

❖ REGIONAL COORDINATION

Goal 14: Regional news media fully aware of and prepared for their critical role in helping the public respond to emergencies.

Virtually all electronic and most daily print media have areawide service areas. They are the major recurring information medium for natural and manmade hazards. Their hurricane briefings, for example, provide a reliable level of coverage on that particular hazard for the entire regional population at the start of the hurricane season. Emergency management; however, largely focuses on very local problems, supplemented with working agreements between management entities. In training or preparing the public for appropriate responses, depending upon the nature of the emergency, it is important to keep the media briefed on the particular threat, the appropriateness of the response, and their role in targeting that part of the population in need of accurate information with clear detail. This is particularly relevant to Southwest Florida because the region's population will always have a high percentage of recent arrivals, to whom common place names will not be known, and may either not respond or wrongly respond because of unclear information in details such as who is being threatened.

Strategy: Keep the media informed and answer questions as best as possible.

Actions:

1. Promote local and state emergency managers annually brief the local news media about the nature of emergencies, likely public responses, and procedures for obtaining and circulating accurate information during emergencies.

2. Promote and maintain information accessible to the public on what can be done to prepare for the nature of emergencies of most importance to them.

Indicators:

- Percentage of media participation in annual briefings.

Facilities: All daily print media; all commercial broadcast media with news component.

➤ **IMPLEMENTATION**

The following matrix shows the ways in which SWFRPC will interact with other organizations to implement the goals listed in the plan.

	Goals																		
Agency	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Counties	I	R	R	R	F/I	F/I	R/F	R/F	R	A	R/F	R/A	I	R/F/I	F/I	R/I	F	A/I	I
Cities	I	R	R	R	F/I	F/I	R/F	R/F	R	A	R/F	R/A	I	R/F/I	F/I	R/I	F	A/I	I
Special Districts*						F/I	I	F	F		F		I	A/I	I	I	F	A/I	
Sheriffs							A							A			A	A/I	
FDOT					F/I		A			A						A/I		A/I	
DOA													A	I					
DOC													A	I					
DLES													F						
WMD		R									R/F							A/I	
DEP													R/A/F	R/A/F/I	R				
DCA	A/F	F				A	F	A	A	A	A	A	A	A/R	A	A	A	A/I	I

Emergency Preparedness Element

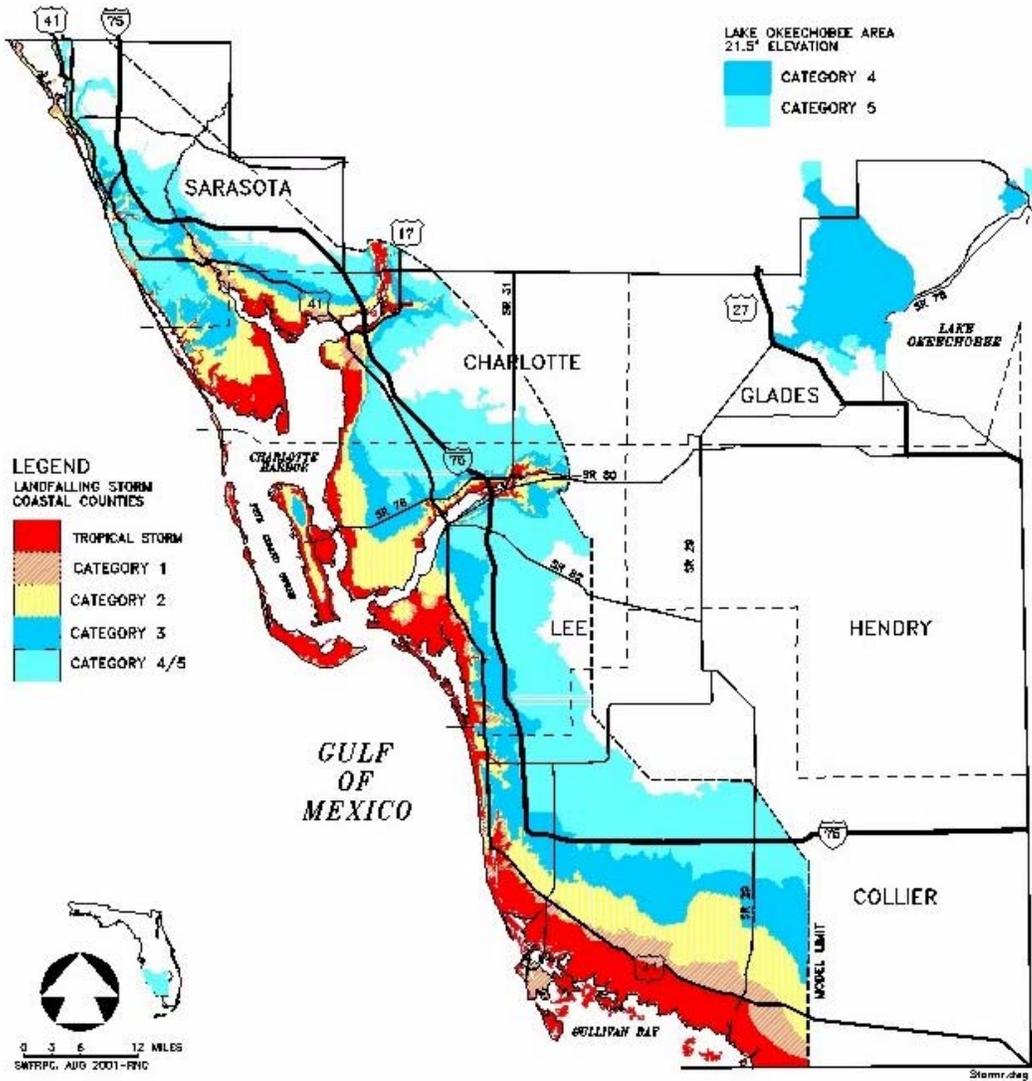
EOG**						I		I			I		I		I	I		I	
FED		F/A					A	F		A	R	I		A				A/I	
Red Cross						A/I	I/A					I		I				A/I	I
Other Private						I	I/A		F			I	I	I	F/A/I	I	I	A/I	A/I
RPC	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
HRS							A		R				A/F						
FDLE																	A	A/I	
FDBR			X	X															

R = regulatory
 F = funding
 A = advisory
 I = informational
 X = all roles of Council

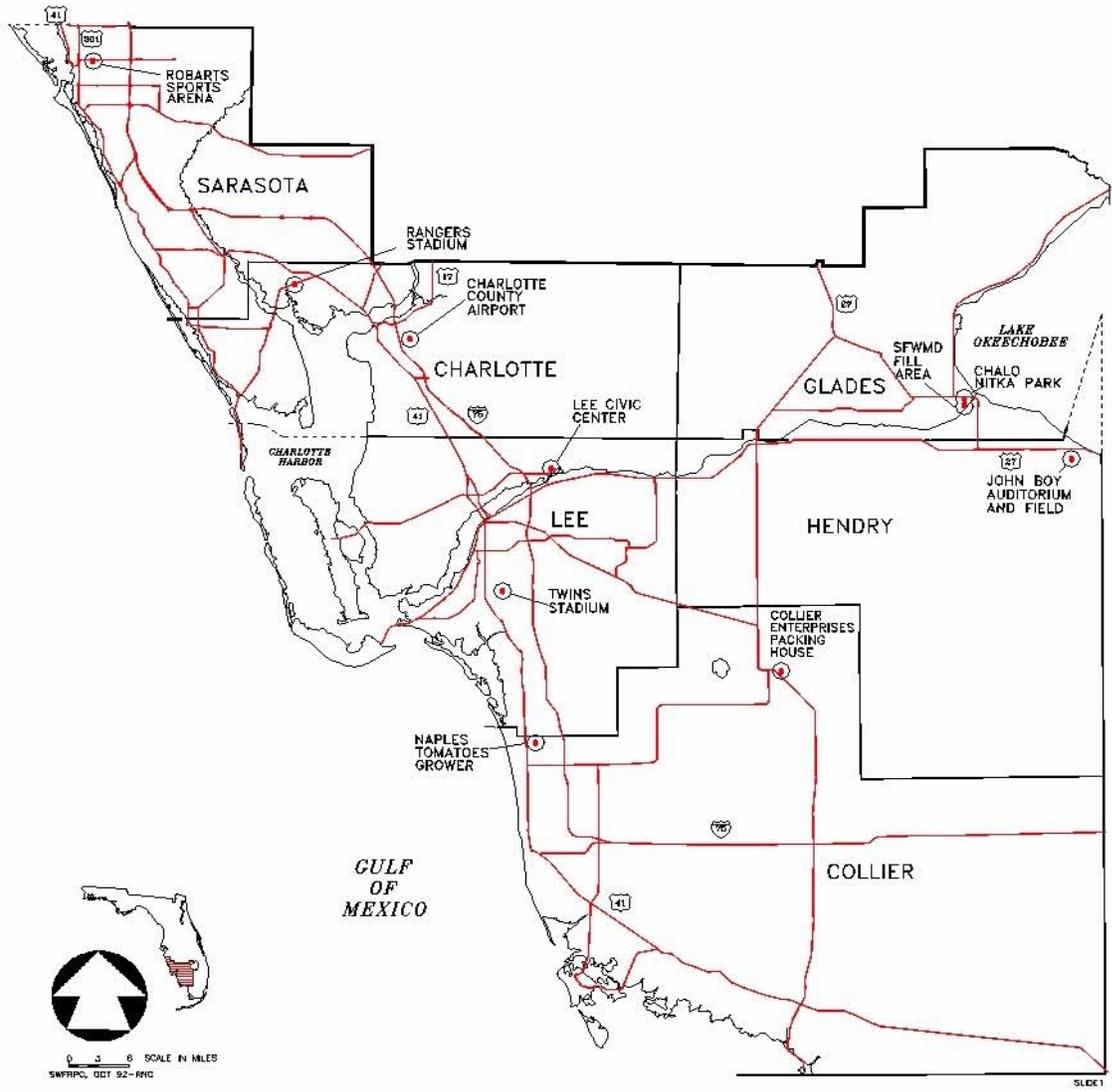
*Commonly, fire districts.
 **EOG provides direction to all state agencies, and also stands for state agencies not otherwise listed.

AGENCY ABBREVIATIONS

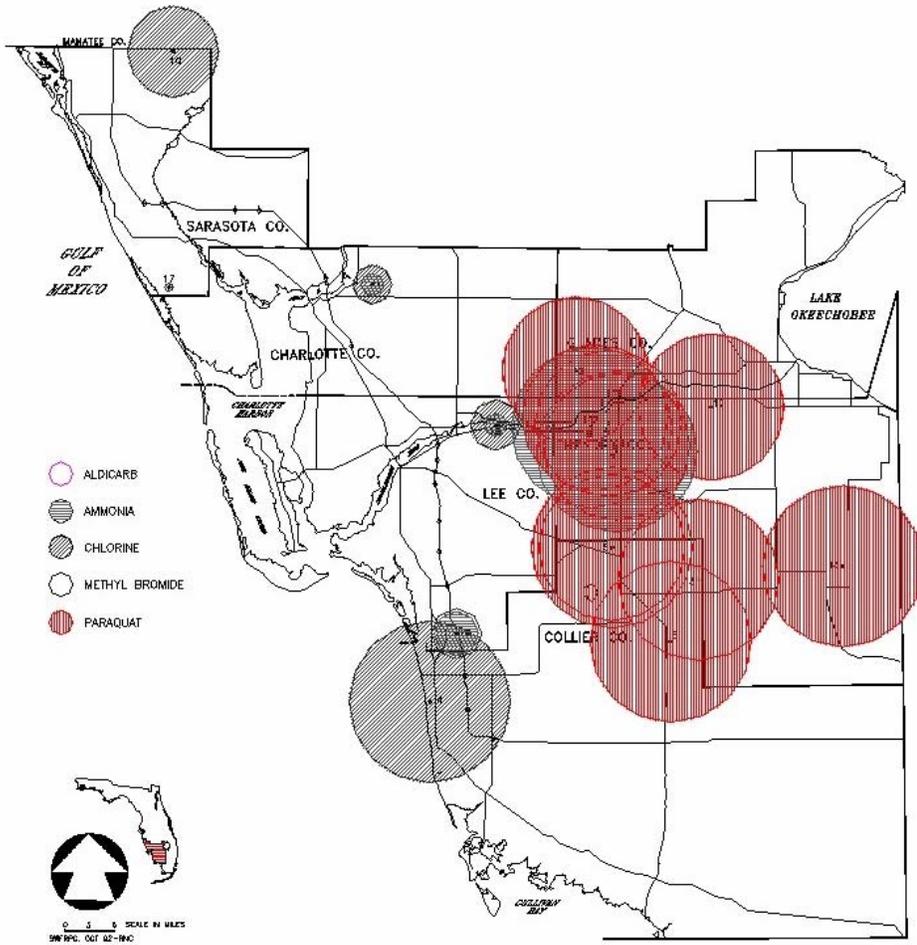
- FDOT: Florida Department of Transportation
- DOA: Department of Agriculture
- DOC: Department of Commerce
- DLES: Department of Labor Employment Security
- WMD: South and Southwest Water Management Districts
- DEP: Department of Environmental Protection
- DCA: Department of Community Affairs
- EOG: Executive Office of the Governor
- FED: Federal Agencies in General
- RPC: Regional Planning Council
- HRS: Health and Rehabilitative Services
- FDLE: Florida Department of Law Enforcement
- FDBR: Florida Department of Business Regulation



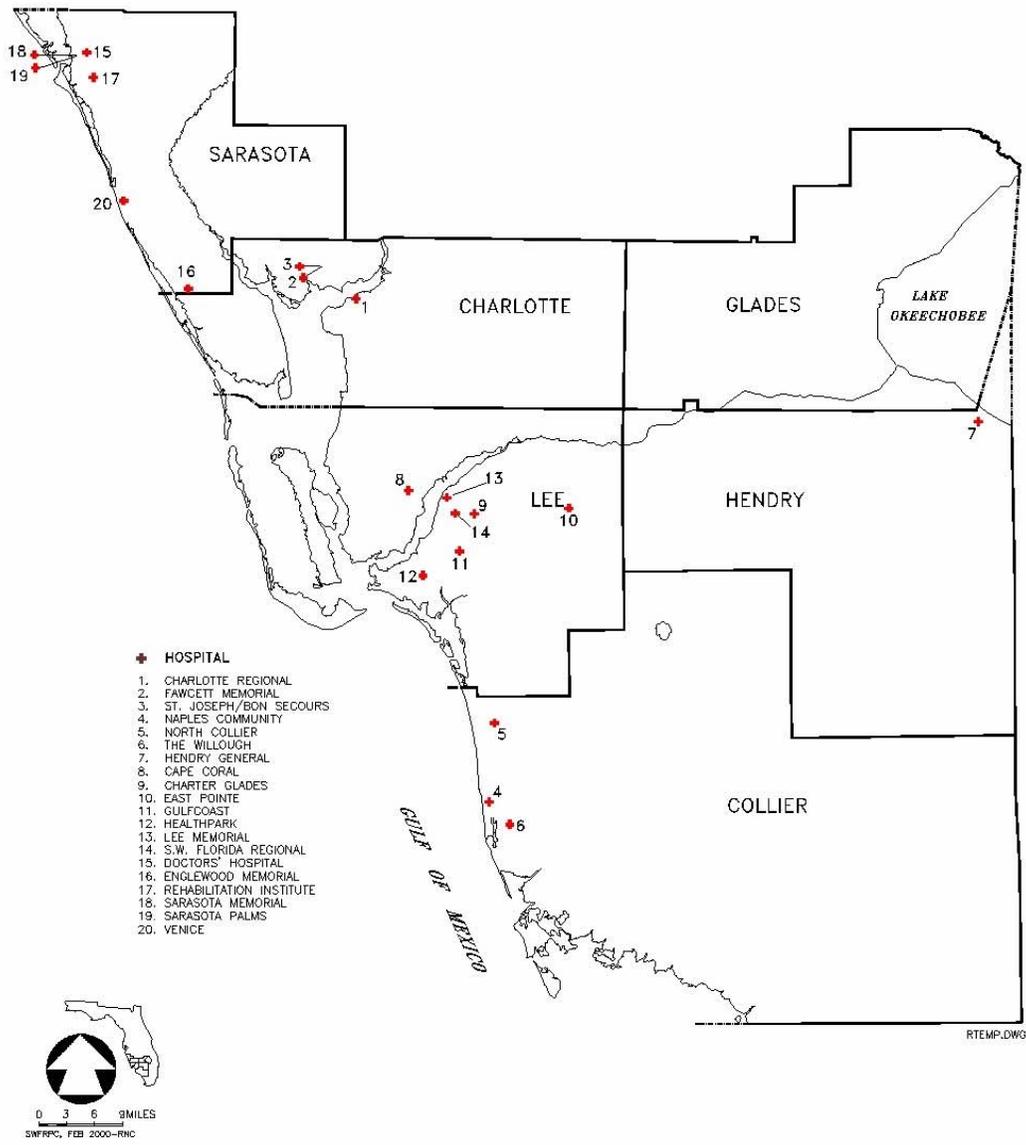
SOUTHWEST FLORIDA REGION
LANDFALLING STORM



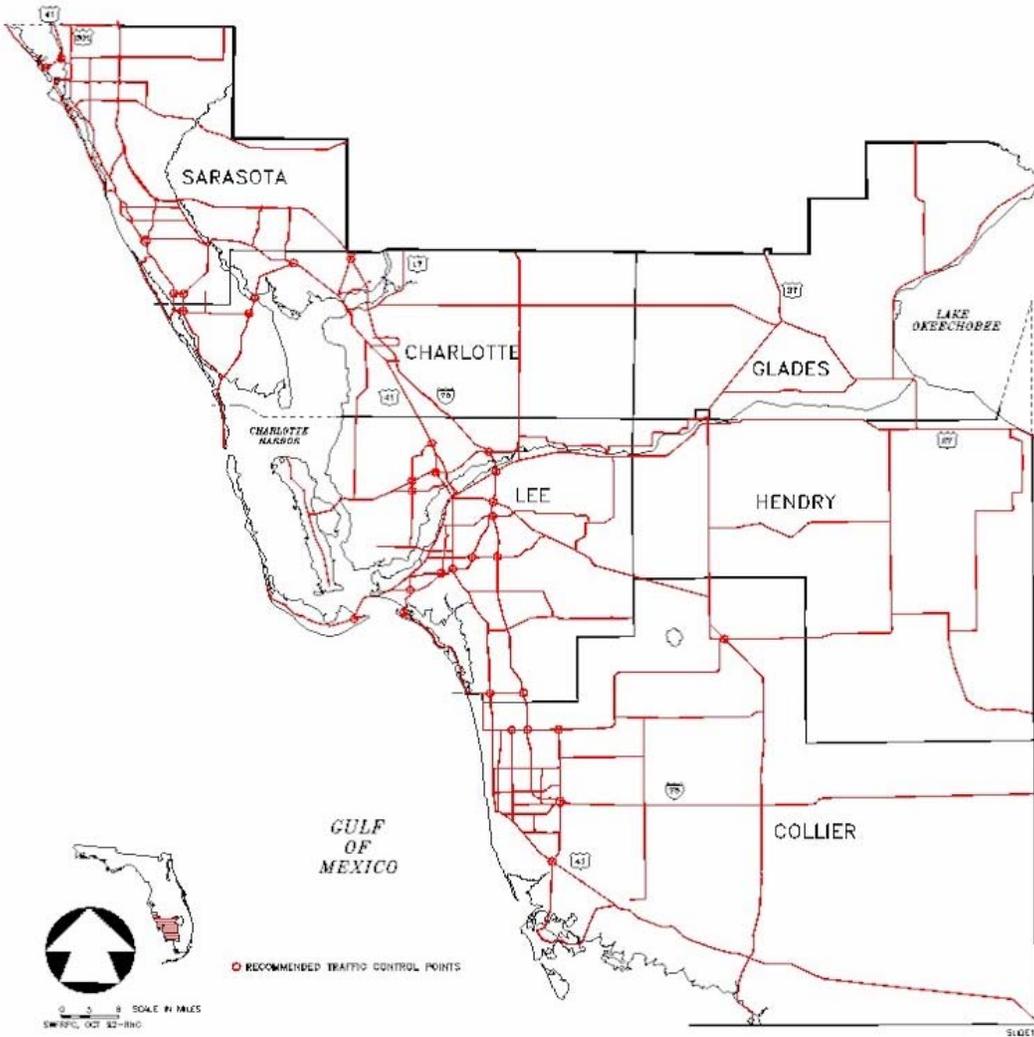
MAP 2
SOUTHWEST FLORIDA REGION
HURRICANE RECOVERY STAGING AREAS



MAP 3
SOUTHWEST FLORIDA REGION
EHS HAZARDOUS MATERIALS MAP



MAP 4 SOUTHWEST FLORIDA REGION MAJOR MEDICAL SITES



MAP 5
SOUTHWEST FLORIDA REGION
EVACUATION TRAFFIC ROUTES

NATURAL RESOURCES

Introduction

Southwest Florida contains an abundance of natural resources that, along with a favorable climate, creates economic opportunities, recreational opportunities and a quality of life that is important to the citizens and visitors to the region. The protection of these resources creates a challenge to planners, managers and decision makers in a rapidly growing region that must utilize these resources for economic reasons and to create housing for our population.

➤ **PROBLEMS, NEEDS, AND OPPORTUNITIES**

Problems

The main problem in dealing with the protection of natural resources is the competition for these resources among the many users of them. Some examples are; not only are urban areas competing for water use with agricultural and industrial users, but our natural systems must also compete with these other users; the Florida Panther requires large areas of habitat which are being converted to agriculture then to urban uses which are not compatible for panther use; plans are created for the panther that illustrate that large areas of the region are needed to maintain the panther, however, no monies are allocated to purchase lands or development rights. Private landowners cannot be expected to dedicate their lands and investments to sit idle or unused for overall public benefit, without an expectation that they will be economically compensated.

Another major problem for resource managers are the need for solid information on systems that are constantly changing due to constantly changing baseline conditions. Typical examples include beach erosion, rainfall levels, sea level rise, seasonal changes and ground water levels. Finally, natural systems are complicated and the science needed to make sound conclusions may not exist or be reliable.

Needs

The most obvious need for certain resources is space. Species such as black bear and red cockaded woodpeckers need wide ranging areas that are currently in private ownership. The obvious need for obtaining space is money. Even once these lands are acquired, monies are needed for maintenance and management. Monies and research are needed to control exotic species that rapidly spread into once pristine areas.

Opportunities

In spite of the challenges of protecting natural resources while providing for the needs of our population, there are opportunities that exist to assist us. Land acquisition programs such as Florida Forever, which include; the Conservation and Recreational Lands (CARL) Program; Save Our Rivers (SOR) Program; Rails to Trails Program; Florida Communities Trust Program; State Park Additions; Department of Forestry Lands Additions and Game and Freshwater Fish Commission

Lands Additions. Local governments also have land acquisition programs and mitigation options that include land acquisition. Other opportunities include designations to programs such as the Aquatic Preserve and State Buffer Reserve Program, Outstanding Florida Waters, Surface Water Improvement and Management Program (SWIM), National Estuary Program and the National Estuarine Research Reserve Management Program.

Opportunities exist in the form of planning such as the Strategic Regional Policy Plan, District Water Management Plans and Florida Fish and Wildlife Conservation Commission Planning. Finally, it is obvious that new opportunities must be found that can accommodate the needs of our natural systems and the private landowners. Programs that need further investigation include the Farmlands Trust Program that can assist landowners to continue to utilize their lands in a manner that is sensitive to our natural systems and remain economically feasible in the face of rising property values and rising taxes.

➤ **ISSUES**

❖ **PUBLIC AWARENESS**

Goal 1: The Region's environmental awareness educational programs will be modernized and directed to all citizens of the region.

One of the basic principals of any proactive or strategic plan is the education of the public on the issues. With respect to Natural Resources, it is important to teach the public since we are a rapidly growing area, with persons unfamiliar with the Southwest Florida environment and the role that natural resources play in our economy and quality of life. The education process needs to not only be directed at the youth but also to these newcomers. Educational programs should also consider ecosystems and their management, which includes both man and nature.

Strategy: Provide technical assistance to the Region's various public awareness programs.

Action:

1. The Southwest Florida Regional Planning Council will assist School Boards and Environmental Education Centers in the design of awareness programs.
2. The SWFRPC shall work with the Florida Gulf Coast University in the design of a planning program, if requested, and serve as a planning resource to any environmental program.
3. The SWFRPC shall make presentations on issues concerning the Region at the request of various entities.
4. Local, regional and state agencies should establish non-regulatory, educational urban non listed wildlife programs, which include:
 - a. The identification of wildlife living in urban areas;
 - b. Public education concerning the behavior and needs of urban wildlife, and the benefits of maintaining urban wildlife;

- c. Measures to avoid conflicts between urban wildlife species and man, and the means to resolve such conflicts.

Indicators:

- Number of educational programs concerning our environment.
- Percentage of middle and high schools offering environmental education programs.

❖ **NATURAL RESOURCES PROTECTION**

Goal 2: The diversity and extent of the Region's protected natural systems will increase consistently beyond that existing in 2001.

The Southwest Florida Region has a variety of natural systems that range from open water marine and freshwater systems to upland sandhill forest systems. These systems together provide a solid base of economic, environmental, spiritual, aesthetic and recreational values and functions that serve the permanent and seasonal residents of the Region.

Sustainability and ecosystem management are the latest approaches that are being considered today for management of our natural resources. This approach to management not only considers the natural resource, but also how man and nature interact with each other. For example, it is well known that our local economy relies on our natural resources not only to provide a product or resource (i.e. fishing, shellfish) but a quality of life.

Regionally significant natural resources are depicted on Map 6. Identification of named proposed reserves/preserves is solely for planning purposes and not for regulatory purposes. Better, site-specific data (if available) for any feature or resource shown on this map should be used to identify whether any natural resource of regional significance is in fact present on that site for preparation of local comprehensive plans and for consideration of site specific land use requests.

Strategy: To identify and include within a land conservation or acquisition program, those lands identified as being necessary for the sustainability of Southwest Florida, utilizing all land preservation tools available.

Actions:

1. To help eliminate possible duplication or competition on a tract of land between entities, provide a clearinghouse and inventory of lands included in all land acquisition programs in a central location so various entities can see if any other entities were involved in a specific location. A future Web Site would be a useful tool and provide easy access.
2. Support continued acquisition of lands targeted for conservation and recreation by Public Land Acquisition Programs including CARL, SOR, Florida Communities Trust, Lee County CLASAC, CREW, WRDA and other efforts in the Region.
3. Assist Florida Communities Trust staff to evaluate projects that have been submitted for consideration under the Florida Forever program, as requested by Trust staff on an application-by-application basis.

4. Support continued preservation of lands targeted for conservation and recreation by Private Environmental Land Trust Programs in the Region.
5. Facilitate and assist in the coordination of all land acquisition programs in the Southwest Florida Region by sponsoring periodic meetings of all public and private initiatives.
6. Create a map depicting land that has been set aside for conservation purposes within approved developments (existing conservation easements).
7. Create a map depicting regionally significant lands that private landowners agree will be voluntarily managed to maintain their environmental value, yet still provide them with economic benefits, without the need for public acquisition consideration (such lands would be candidates for future conservation easements).
8. Working with the various entities and utilizing the following Criteria and Guidelines, create a non-regulatory gaps planning map of land needed for recreation, hunting/fishing, flood control, forestry activities, etc.; to provide support for future populations and to protect existing ecosystems. Potential gaps may include lands which are not included in any current acquisition/conservation /preservation program, have not already been set aside as conservation areas within approved development or lands which may be within private ownership and may be potentially proposed for future agricultural or urban intensification, which would preclude their environmental value.
9. Workings with the various acquisitions programs identified in this Plan and working with Local Governments and private landowners, develop a strategy to protect gaps lands identified in the above action, using the Tools outlined in this plan.
10. Assist in the preparation of applications of existing programs for funding of land acquisitions for gaps lands shown on the above-mentioned planning map.
11. Investigate the potential of forming a new Programs, Land Trusts, or encourage existing Land Trusts, to focus on land acquisition, and on other land conservation techniques within portions of Southwest Florida not currently within a program and depicted on the above mentioned gaps map.
12. Working with the various entities, encourage the establishment of management funding at the time of acquisition and refine existing Management Strategies to insure that the lands acquired are maintained in the natural condition that led to their preservation status. Management strategies should include provisions for fire management.

Indicators:

- Acres of protected natural systems, terrestrial and aquatic.
- Net change in wetland acreage as a result of permitted activities.
- Net change in wetland viability as a result of permitted activities.

Resources: Outstanding Florida Waters; beaches and dunes; wetlands; aquatic preserves and state buffer preserves; and other natural areas owned by local governments, water management districts,

other local, regional, state, and federal agencies; privately held natural preserve areas, depicted on Map 6.

❖ **WATER RESOURCE MANAGEMENT**

Goal 3: Water Management Districts and local governments must have programs based on scientific modeling to protect surface water, potable water wells, wellfields and contributing areas from contamination.

The management and control of water quality and quantity has long been an issue of concern for Southwest Florida. It is important that urban and agricultural users, and natural systems all have water sources of sufficient quantity, quality, timing, and duration to supply their needs. Recent winter and spring droughts, coupled with inadequate summer rains, have led to year-long water use restrictions for portions of the region. More extensive use restrictions, more efficient management of water resources, and the need to utilize poorer quality sources of water (with greater treatment costs) can be expected in the future.

The volume of water needed for natural systems is hard to estimate. Natural systems in Southwest Florida are geared to an annual cycle of alternating wet and dry periods. The yearly water cycle for a particular natural system is referred to as its hydroperiod. When a system's hydroperiod is altered it can become stressed. Stressed natural systems are subject to invasion from exotic (non-native) vegetation, or plants from other types of natural systems. When invasion occurs, and remains unchecked (either by a resumption of the natural hydroperiod, or by human intervention) the stressed system will eventually disappear. Much of the acreage in the Region which was formerly dominated by wetlands, and even some dryer areas, have succumbed to the cycle of stress, invasion and disappearance, due to the impacts of nearby development or agricultural projects.

In the future, as the impacts of competing surface and ground water uses on natural systems become better understood, and as water sources become more difficult to locate, and more expensive to utilize, local governments will begin to institute water management rules and water quality controls to protect existing and future water supplies. This has already occurred to some extent. Local agencies have recently begun enforcing water use restrictions imposed by the water management districts.

Because of our region's geology, our surface water systems and ground water systems are linked. There is a very close relationship between surface waters and the shallow aquifer system. There is evidence statewide of lakes and wetland systems that have lowered water levels due to extensive ground water usage. Conversely we also have evidence of lowered water table levels and aggravated saltwater intrusion caused by over drainage of surface waters.

Strategy: To resolve this land planning and water management disjunct, all entities need a common, readily accessible, understandable water resource modeling tool.

Actions:

1. Working with the Water Management Districts and local governments, assist in the creation of a modeling tool to evaluate current resource conditions based on alternative rainfall scenarios. The modeling tool needs to be able to predict and evaluate future resource

conditions based on alternative land use and rainfall scenarios. The tool needs to be able to address the likelihood of success of different management responses to the alternatives forecasted.

2. Work with the WMDs and local governments to insure that the resource condition evaluation addresses surface and groundwater, quantity and quality, flow, volume, direction, and the hydro period cycle.
3. Work with the WMDs and local governments to insure a better provide land use/water linkage and provide for consideration that the land use scenarios recognize the land use patterns of urban, agricultural, and natural system coverage, and the social/economic factors that guide change to land use.
4. The different communities and agencies in a given natural basin area need a common forum and coordinated planning framework to pursue a shared response to the selected management system needed for the basin. In lieu of another entity serving that function, the Regional Planning Council should serve that function.
5. Where economic/political units are divided by Water Management District boundaries (i.e., metropolitan areas or cohesive rural food and fiber production areas), assist in the coordination between districts and the political units that emphasizes the planning for water resource development and improvements (and expected results), not on the permitting process.
6. Work with the State to reestablish the intent of the State and Regional Planning Act of 1984 and Growth Management Act of 1985, and lobby for Water Management District Board Members to be included among the Governor's Voting appointments to Regional Planning Councils.

Indicators:

- Reduction in per capita water use; Percentage of groundwater monitoring wells showing a deterioration in quality or water levels.
- Number of local wellhead protection programs; Change in the permitted volume of water withdrawals; Surface and Ground Water Quality.
- Improved natural systems hydroperiods.

❖ **LIVABLE COMMUNITIES**

Goal 4: Livable communities designed to improve quality of life and provide for the sustainability of our natural resources.

Economic prosperity is key to our Region's future. Growing according to our values is critical to our quality of life. Livable communities embrace both values. In livable communities, young and old can walk, bike, work and play together.

Livable communities are places where we not only protect historic old neighborhoods, but where farms, green spaces, and forests add vigor, context and beauty to the newest of suburbs; places where we work competitively, but spend less time in traffic and more time with our families, friends, and neighbors.

Each community faces different challenges and will find its own solutions. Strategies to create more livable communities may include efforts to: Preserve green space. Secure safe streets. Strengthen local economies. Reduce traffic and air pollution. Provide transportation choices. Create community-centered schools. Foster citizen and private sector cooperation. Promote collaboration among neighboring communities.

Strategy: Promote through the Council’s review roles community design and development principles that protect the Region’s natural resources and provide for an improved quality of life.

Actions:

1. Working in cooperation with agencies and local governments provide for the disposal of man's liquid and solid wastes in a manner that will not lead to long-term degradation of air, ground, and water resources.
2. Working in cooperation with agencies and local governments insure that beaches and inlets that have been damaged by human activity are replaced/renourished and/or managed in order to have the total system function naturally.
3. Working in cooperation with agencies and local governments provide for Air quality improvement and maintenance as our population and urban areas increase.
4. Working in cooperation with agencies and local governments insure that all mining and borrow operations prepare and implement reclamation programs that restore and ensure long-term sustainability of their watersheds and native habitats.
5. Working in cooperation with agencies and local governments insure that agricultural operations are compatible with our identified natural resource protection areas.
6. Working in cooperation with agencies and local governments insure that new public facilities, facility expansions and additions avoid designated natural resource protection areas.
7. Working with all levels of government within Southwest Florida actively plan and prepare for the potential long-term impact of sea level rise upon the Region’s natural systems.
8. Working with all levels of government within Southwest Florida actively plan for lands that have been acquired for natural resource purposes to be maintained and managed to preserve their environmental integrity.
9. Insure that opportunities for governmental partnerships and public/private partnerships in preserving wildlife habitats are maximized.

Indicators:

- Drinkable swimmable water; Clean air; wildlife biodiversity; public access to natural resources; acres of natural and restored wetlands.
- Number of environmental education programs for the community; acres of environmentally sensitive areas preserved.

❖ **REGIONAL COOPERATION**

Goal 5: Effective resource management is maintained across the borders of sovereign public agencies.

When viewing the Regionally Significant Natural Resources Map and other information, it is clear that only a partnership between public agencies and private organizations and land owners can implement this level of management, especially on lands that are not currently owned by the public, or that are not listed on current land acquisition programs or included in designated aquatic preserves.

Strategy: All plans concerning the same resource shall have as objectives the same effective results.

Actions:

1. Assist in the creation of proactive boating siting and management programs that will protect the West Indian Manatee, seagrass areas, sanctuaries, fisheries habitat and other necessary natural features and at the same time identify and maximize the use of available land most suitable for public access to the natural resource.
2. The Region shall continue to support the Southwest Florida Regional Harbor Board non-regulatory resource protection program for boating facilities and provide technical assistance in the development of a regional waterway management plan.
3. The SWFRPC will play an active role on the Management Conferences for the Charlotte Harbor and Sarasota Bay National Estuary Programs.
4. The SWFRPC will promote State, regional and local agencies to consider lands identified as priority one habitat south of the Caloosahatchee River and areas formally designated as critical habitat for the Florida Panther to be incorporated in their agency's natural resource management programs and provide intergovernmental coordination for the implementation of management practices that, based on existing data, would be expected to result in maintaining habitat conditions for the panther.
5. The SWFRPC will continue to support the regional management of the Region's Beaches and Shores through the Southwest Florida Beaches and Shores Convocation.
6. The SWFRPC will continue to support the Estero Bay Agency on Bay Management consistent with the Settlement Agreement for the permitting of Florida Gulf Coast University and in coordination with the signatories of the Settlement Agreement.

7. The SWFRPC will continue to coordinate with the entities of the South Florida Ecosystem Restoration Task Force Working Group in their restoration efforts.
8. The SWFRPC will continue to support the Local Emergency Planning Committee for Southwest Florida and their training for Hazardous Materials handling, storage, management, emergency response and disposal.
9. The SWFRPC will continue to serve on and support natural resource advisory committees such as the Charlotte Harbor SWIM TAC and Myakka River Coordinating Council.
10. The SWFRPC will take a lead role in the planning for Sea Level Rise in Southwest Florida.

Indicators:

- Number of listed species remaining throughout the Region.
- Number of adopted marina siting plans.
- National Estuary Program Comprehensive Conservation and Management Plans effectively implemented.
- Proper disposal and management of hazardous materials; progress toward the restoration of South Florida.

➤ **IMPLEMENTATION**

The following matrix shows the ways in which SWFRPC will interact with other organizations to implement the goals listed in the plan.

Agency	Goal 1	Goal 2	Goal 3	Goal 4	Goal 5
County	A	A,I,G	A,I,R	A,I, R,G	A,I
City	A	A,I,G	A,I,R	A,I, R,G	A,I
FDEP	A,R	A,I,R,G	A,I,R	A,I,R	A,I
DCA	A,R	A,I,G	A,I,G	A,I, R,G	A,I,R,G
FWC	A,I	A,I	A,I	A,I	A,I
HRS	A		A	A	A,I
WMD	A,R,I	A,R,I,G	A,R,I	A,I,R	A,I,R
RPC	A,I	A,I	A,I	A,I	A,I
EPA	A	A,I	A,R,I,G	A,I, R,G	A,I
USFWS	A	A,I,G	A,R,I,G	A,I	A,I
ORGs	A	A,I	A,I	A,I	A,I
Private	A,R,I	A,I,G	A,I,G	A,I,G	A,I

A = advise or inform.

R = review or regulate.

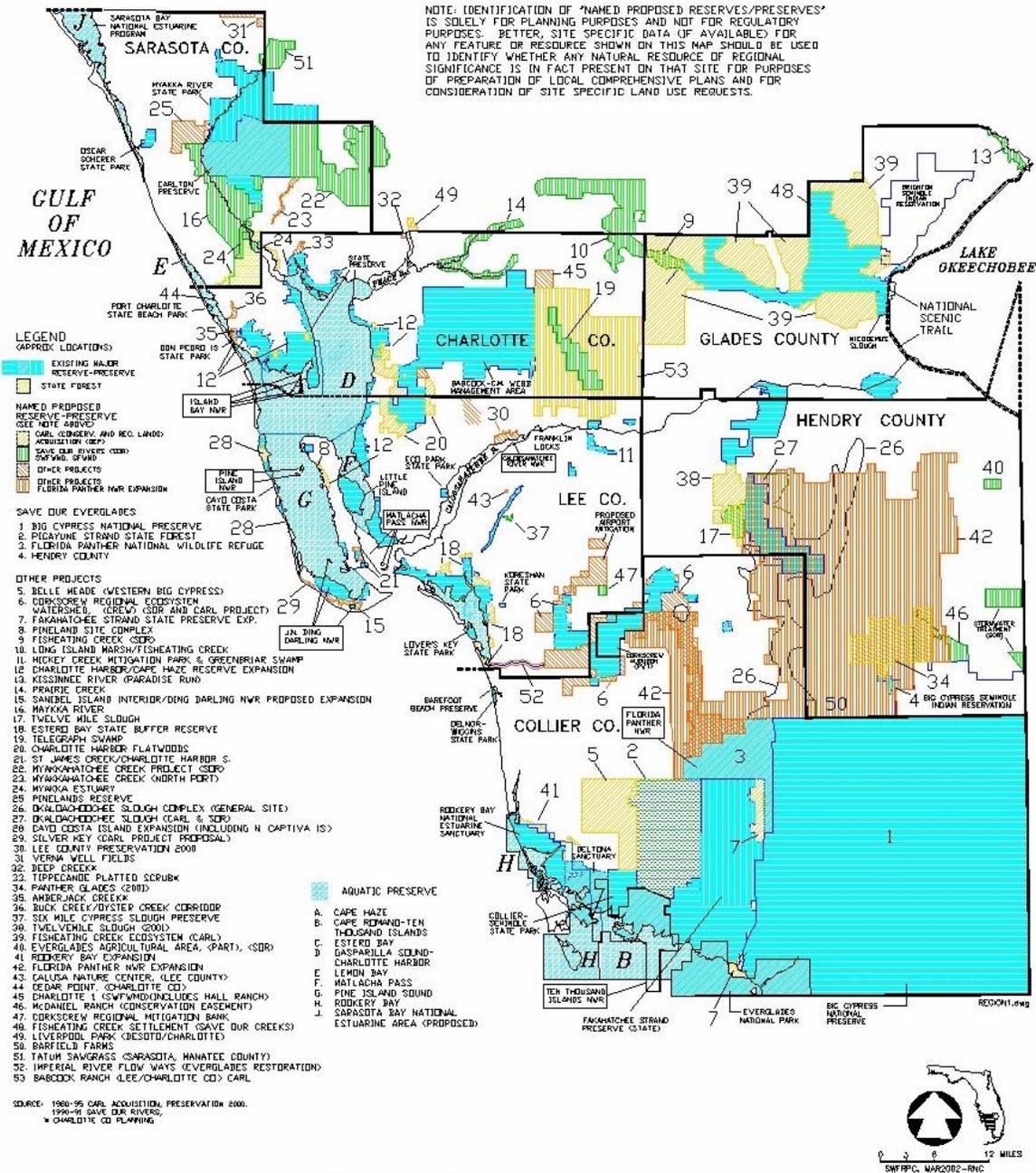
I = implement or coordinate.

G = assist in grant application either to or for the entity listed.

AGENCY ABBREVIATIONS

- FDEP: Florida Department of Environmental Protection
- DCA: Department of Community Affairs
- FCW: Florida Fish and Wildlife Conservation Commission
- HRS: Department of Health and Rehabilitative Services
- WMD: South and Southwest Florida Water Management Districts
- RPC: Regional Planning Councils
- EPA: U.S. Environmental Protection Agency
- USFWS: U.S. Fish and Wildlife Service
- ORGs: Private Organizations formed for the purpose of Environmental Management

Natural Resources Element



SOUTHWEST FLORIDA REGION REGIONALLY SIGNIFICANT NATURAL RESOURCES

APPENDIX 1

NATURAL RESOURCES OF REGIONAL SIGNIFICANCE*

Please refer to the Regionally Significant Natural Resources Map

Aquatic Reserve-Preserves and Proposed Estuarine Areas

- A. Cape Haze
- B. Cape Romano-Ten Thousand Islands
- C. Estero Bay
- D. Gasparilla Sound-Charlotte Harbor
- E. Lemon Bay
- F. Matlacha Pass
- G. Pine Island Sound
- H. Rookery Bay

Existing and Proposed Public Acquisition Lands

Save Our Everglades

1. Big Cypress National Preserve
2. Picayune Strand State Forest
3. Florida Panther National Wildlife Refuge
4. Hendry County

Other Projects

5. Belle Meade (Western Big Cypress)
6. Corkscrew Regional Ecosystem Watershed, (Crew) (SOR and CARL Project)
7. Fakahatchee Strand State Preserve Exp.
8. Pineland Site Complex
9. Fisheating Creek (SOR)
10. Long Island Marsh/Fisheating Creek
11. Hickey Creek Mitigation Park
12. Charlotte Harbor Reserve Expansion
13. Kissimmee River (Paradise Run)
14. Prairie Creek
15. Sanibel Island Interior/Ding Darling NWR Proposed Expansion
16. Myakka River
17. Twelve Mile Slough
18. Estero Bay State Buffer Reserve
19. Telegraph Swamp
20. Charlotte Harbor Flatwoods
21. St James Creek/Charlotte Harbor S.
22. Myakkahatchee Creek Project (SOR)
23. Myakkahatchee Creek (North Port)
24. Myakka Estuary
25. Pinelands Reserve
26. Okaloachoochee Slough Complex (General Site)

27. Okaloachoochee Slough (CARL & SOR)
28. Cayo Costa Island Expansion (Including N. Captiva Is.)
29. Silver Key (Carl Project Proposal)
30. Nature Conservancy Preserve (Also CARL Project)
31. Verna Well Fields
32. Deep Creek
33. Tippecanoe Platted Scrub
34. East & West Branch, Coral Creek
35. Amberjack Creek
36. Buck Creek/Oyster Creek Corridor
37. Six Mile Cypress Slough Preserve
38. Cape Haze, Charlotte Harbor (6/96)
39. Hall Ranch
40. Everglades Agricultural Area, (Part), (SOR)
41. Rookery Day Expansion
42. Caloosahatchee Ecoscape
43. Calusa Nature Center, (Lee County)
44. Cedar Point, (Charlotte Co.)
45. Greenbriar Swamp Preserve
46. Mcdaniel Ranch (Conservation Easement)
47. Corkscrew Regional Mitigation Bank
48. Nicodemus Slough
49. Liverpool Park (Desoto/Charlotte)
50. Barfield Farms
51. Tatum Sawgrass (Sarasota, Manatee County)
52. Fisheating Creek Settlement (Save Our Creeks)
53. Lee County Preservation 2000
54. Charlotte 1 (SWFWMD)(Includes Hall Ranch)
55. Fisheating Creek Ecosystem (CARL)

Other Lands and Waters

Parks and State Recreation Areas

1. Myakka River State Park
2. Oscar Scherer State Park
3. Cayo Costa State Park
4. Caloosahatchee River State Park
5. Koreshan State Park
6. Collier-Seminole State Park
7. Everglades National Park
8. Eco Park (Cape Coral)
9. Lover's Key (S.R.A.)
10. Delnor Wiggins Pass (S.R.A.)
11. Port Charlotte Beach (S.R.A.)
12. Barefoot Beach State Preserve
13. Don Pedro Island State Park

14. Gasparilla Island State Park
15. Fakahatchee Strand Preserve State Park

National Wildlife Refuges

1. Island Bay NWR
2. Pine Island NWR
3. Matlacha Pass NWR
4. J.N. Ding Darling NWR
5. Caloosahatchee River NWR
6. Florida Panther NWR

Barrier Islands

Depicted on Map 17 in Volume One of the Description of the Region.

Other Projects

1. Carlton Preserves
2. C.M. Webb - Babcock Wildlife Management Area
3. Nicodemus Slough
4. Lake Hicpochee
5. S.W. Florida International Airport Mitigation Lands
6. Corkscrew Swamp Sanctuary (Audubon)
7. Deltona Sanctuary
8. Fakahatchee Strand State Preserve
9. Big Cypress National Preserve
10. Rookery Bay National Estuarine Sanctuary
11. Picayune Strand State Forest
12. Sarasota Bay NEP Water Bodies
13. Charlotte Harbor NEP and SWIM Water Bodies

Florida Greenways By County

Charlotte

1. Cape Haze Pioneer Trail
2. Gasparilla Island Rail Trail

Collier

1. Big Cypress National Preserve Florida National Scenic Trail
2. Corkscrew Regional Ecosystem Watershed Greenway
3. Florida Trail System

Glades

1. Florida National Scenic Trail/Florida Trail System

Hendry

1. Florida National Scenic Trail/Florida Trail System

Lee

1. Corkscrew Regional Ecosystem Watershed Greenway
2. Hickey Creek Greenway/Canoe Trail
3. Sanibel Island Greenway
4. Six Mile Cypress Slough Preserve Greenway
5. Estero River Canoe Trail

Sarasota

1. Florida National Scenic Trail/Florida Trail System
2. Myakkahatchee Creek

Official Lists

1. Florida's Endangered Species, Threatened Species And Species of Special Concern, *Official Lists*, August 1, 1997 by the Florida Fish and Wildlife Conservation Commission.
2. Critically Imperiled, Imperiled, and Rare Natural Communities, as identified by the Florida Natural Areas Inventory.

* Note: Identification of "Proposed Public Acquisition Lands" is solely for planning purposes and not for regulatory purposes. Better, site specific data (if available) for any feature or resource shown on this list should be used to identify whether any natural resource of regional significance is in fact present on that site for purposes of preparation of local comprehensive plans and for consideration of site specific land use requests.

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REGIONAL TRANSPORTATION

Introduction

The regional transportation system will be an integral component of the future overall regional quality of life. A non-fragmented, coordinated planning approach to regional transportation issues will result in an efficient regional transportation system. A number of strategies can be employed that will help maximize the benefits of an effective transportation system at a variety of levels. For example, coordinated land use and transportation planning can help promote compact development patterns that support public transportation systems. Public transportation systems that effectively meet the travel demand help increase auto occupancy rates and reduce the number of single occupant automobiles. In addition to land use planning that promotes public transit and other steps for effective transit planning, traffic congestion can be alleviated through strategies other than highway construction, such as travel demand management strategies, use of new technologies, and coordinated intergovernmental planning.

The SWFRPC, through the actions adopted in this Strategic Regional Policy Plan, can provide the necessary framework for decision-making at the local level to promote these strategies.

➤ **PROBLEMS, NEEDS, AND OPPORTUNITIES**

Problems

All components of transportation infrastructure age and through aging, require increased maintenance activity. Privately owned components meet maintenance costs through fees, while publicly owned facilities meet costs through taxes. Both components in Southwest Florida; however, still are expected to have growth demands. The first challenge is the affordability of maintenance and growth needs of our various transportation systems. For roads, the problem is particularly acute, since the revenue base (primarily gas tax) has decreased in purchasing power and vehicles have become more efficient by providing more miles of movement per gallon purchased. The most evident indicator of this need is congestion on regional and inter-regional roadways. This is reflected in county and state DOT traffic counts, in DRI assessments, and in forecasts made by local, regional, and state planning entities, copies of which are kept at SWFRPC. An additional component is affordability of transportation access, between vehicle costs, operating costs, licensing, and age components of user populations, a tenth of the region's population needs assistance to travel.

The second challenge is the conflict between transportation as a land (or water) use and other land uses, including natural systems. Transportation, whether road, rail, or drainage affect the character of the community. Widening roads, for example, may make an area less desirable for housing due to traffic noises; waterways may make the area very desirable for high value housing, but exacerbate affordable housing issues. Airports are recognized as being one of the classic LULUs (Locally Undesirable Land Use).

The third challenge is the regional nature of transportation systems. Whether water or land, such systems cross the boundaries of many land use authorities, and different transportation systems affect

each other. Rail/road conflicts, road/water conflicts, road/pipeline conflicts, are not uncommon. Further, single purpose public transportation providers still need to be brought into coordinated systems.

Needs

All publicly owned transportation systems need reliable revenue bases that include maintenance and growth components. Further, some components need to be made affordable to the distressed user, so that basic human needs can be met.

Public decision making needs to maintain its openness for participation in transportation location and expansion decisions. Further, land use decisions need to continue to recognize the transportation impacts those decisions entail.

Finally, efficiencies in the selection of transportation alternatives need further support. Traditional reliance on single person/single vehicle trips is the most costly alternative and will continue to be the region's major user. However, efforts to increase car pools, transit, and so forth, can recognizably have positive impacts upon congestion.

Opportunities

State, regional, and local planning provide the best opportunities to address land use and transportation mode conflicts. Within the region's coastal counties, MPOs provide a much enhanced capacity to identify most of those conflicts early enough to prevent wasteful litigation and inadequate road design.

The strategies within this regional plan also provide the region a number of enhanced opportunities for multi-jurisdictional coordination on transportation issues. The first area is the ability to articulate overall funding needs for documentable facilities. The second is the ability to adjudge the efficacy of competing transportation modes, and the greater public benefit of land use/transportation conflicts. The third is the inherent forum of the "Jury of Peers" in evaluating multi-jurisdictional/regional benefit from the viewpoint of the recipients.

➤ ISSUES

❖ BALANCED INTERMODAL/MULTIMODAL SYSTEM

Goal 1: Construct an interconnected multimodal transportation system that supports community goals, increases mobility and enhances Southwest Florida's economic competitiveness.

Southwest Florida needs to preserve, expand, and manage an integrated, multi-modal transportation system comprised of highway corridors, major streets, public transit, bikeways, pedestrian paths, facilities and services to optimize the efficient mobility of goods and passengers while protecting the environment.

Strategy: Identify the general transportation system composed of connected corridors, facilities, and services for the effective movement of freight and visitors.

Actions:

1. By 2003, identify sites that lack connectivity including ground access to airports, public transportation, waterways, and non-motorized vehicle modes.
2. Continue assisting appropriate agencies with applications for intermodal funding, including rail.

Indicators:

- Number of local transportation plans and agreements that provide connectivity
- Number of joint planning agreements
- Number of connected inter county transit services
- Number of communities that link job centers to population centers, regardless of political jurisdiction.
- Change in mode split
- Increase in miles of bicycle paths and lanes

Strategy: Ensure that a network of interconnected roads exist that provide the timely, cost effective movement of people and goods within, through and out of the Region.

Actions:

1. Annually provide a report, in conjunction with FDOT, MPOs, and local government on the level of service (LOS) on the regionally significant roadway network.
2. By 2003, identify unconnected and/or under connected components of the regional transportation network.
3. Annually, provide a report in conjunction with the Department of Environmental Protection (DEP), MPOs, and local government on regional ambient air quality and our effort to reduce pollutants.

Indicators:

- Number of local transportation plans and agreements that provide connectivity
- Percent of roadways at level of service (LOS) E and F
- Use of alternative fuels
- Maintenance of air quality standards

Strategy: Promote Smart growth where residential communities are linked with job centers through transit, carpooling, or other high occupancy vehicle transportation.

Actions:

1. Annually, provide a report in conjunction with regional transit agencies on the use of mass transit where development densities or population support such transit.
2. In cooperation with transit providers and other governmental and private entities, seek long term, dedicated funding sources for use for improving and expanding the transit system.
3. Report on the overall effect of regional land use policies and pricing policies on urban sustainability

Indicators:

- Number of local transportation plans and agreements that provide transit connectivity
- Transit trips per capita
- Transit use/ percent increase
- Transit service density (miles of routes * number of transit vehicles/ square miles)
- Percentage of residents within reasonable distance from transit service
- Percentage of major employment areas with reasonable access to transit.
- Increase the proportion of elderly citizens who use transit and can live independently

Strategy: In cooperation with FDOT and the region's airport operators develop a mode balanced plan for people and freight.

Actions:

1. Assist the region's airports in planning new improvements that will minimize travel delays and improve ground access for passengers, goods, and commercial vehicles.
2. In cooperation with FDOT, local government, and the MPOs, annually identify airport improvements that optimize intermodal connections with other transportation modes.

Strategy: Ensure airports in the Region will be expanded to meet the regional aviation systems needs for foreseeable demand in passengers and cargo and in private small plane operations.

Actions:

1. By 2003, identify land surrounding airports to be preserved and protected to allow for future increased operations and expansion.
2. By 2005, update an air systems plan component consistent with the Continuing Florida Aviation System Planning Process that incorporates air space management and airport master plan improvements.
3. Assist the MPOs in scheduling financial assistance programs which support aviation systems plans identified as capital improvements to airport-managed properties.

Indicators:

- Increase in the amount of passenger and freight moved through intermodal facilities.

- Increased utilization of, and improved facilities, safety, and financial performance at airports.
- Number of passenger enplanements/percent of increase.
- Number of tons of freight/cargo imported and exported by mode/percent increase.

Strategy: Coordinate investments in rail infrastructure with the needs of the private sector to maximize the development of existing and future industrial, manufacturing, and agricultural centers.

Actions:

1. By 2003, identify any expansion of rail service planned to optimize intermodal connections.
2. Assist local and State planning efforts to incorporate the land use and transportation needs for rail service, including rail related warehousing and industrial uses.
3. Identify abandoned linear corridors, such as rail, transmission, or pipelines to be acquired and retained for future transportation alternatives, including non-motorized activity.

Indicators:

- Increase in amount of rail cargo handled by region's rail systems
- Number of regional transportation rail corridors adequately protected by federal, state, and local governments for future high-speed rail.
- Number of abandoned rail corridors retained for future transportation corridors, including non-motorized.

Strategy: Assess the freight capacity of non-highway infrastructure throughout the Region.

Actions:

1. By 2003, complete a comprehensive transportation programs analysis that includes: waterway plan, combining the natural waterways, maintained intracoastal waterways, interconnecting channels, and current and forecasted users; and an assessment of existing and future suitable pipeline corridors;
2. Continue coordination with governmental agencies and the West Coast Inland Navigational District to ensure that future water system needs can be met with a minimum of land use conflict.

Indicators:

- Increase in amount of port cargo handled by region's waterways.
- Increase in the amount of passenger and freight moved through intermodal facilities.
- Increased utilization of, and improved facilities, and safety on the region's waterways.
- Number of communities and recreational destinations linked by waterborne transportation.

❖ **LIVABLE COMMUNITIES**

Goal 2: Livable communities designed to affect behavior, improve quality of life and responsive to community needs.

New urbanism design concepts, urban revitalization efforts and land use planning need to be better coordinated with transportation planning to facilitate development of an effective regional multi-modal transportation system that provides for transfers between modes for passengers and freight.

Strategy: Promote through the Council's review function a good environment for driving, walking, bicycling, and public transit using a highly connected network of public streets, green space, and community centers.

Actions:

1. By 2003, in cooperation with local government establish project selection criteria reflective of Smart Growth and Livable Community initiatives.
2. By 2003, identify projects that implement Smart Growth and Livable Community principles.
3. By 2003, in cooperation with local government, complete a regional bicycle and pedestrian inventory of existing and needed facilities.
4. Review comprehensive plans and land development regulations for incentives to develop and redevelop using mixed uses, higher densities, shared parking; and improved vehicular, mass transit, pedestrian and bicycle access and travel, as well as providing a variety of affordable residential densities and types.
5. Coordinate with local governments in the construction of bicycle paths and pedestrian ways that cross jurisdictional boundaries.
6. Assist local government and private sector in the design and location of shared parking to enhance the character and attractiveness of the community and to encourage the use of alternate modes of transportation.

Indicators:

- Increase in number of patrons utilizing transit service.
- Greater percentage of residents within reasonable distance from transit service
- Greater percentage of major employment areas with reasonable access to transit.
- Increase in auto occupancy percentages.
- Increase in miles of bicycle paths and lanes.
- Number of impacted natural/wildlife areas
- Use of alternative fuels
- Decrease in single occupant vehicle (SOV) use

Strategy: Encourage local governments and the private sector to implement travel demand management policies and actions to relieve traffic congestion, improve air quality and reduce energy consumption.

Actions:

1. In conjunction with the MPOs and transit providers, identify residential communities linked with job centers through transit or through carpooling, or other high-occupancy vehicle mode of transportation.
2. Annually report on the use of TDM strategies such as staggered work shift hours, car/van pools, peak hour off-loading restrictions, employee telecommuting, innovative parking strategies and alternative modes of travel.

Indicators:

- Increase in vehicle occupancy percentages.
- Major employer-sponsored car pools.
- Number of travel demand management (TDM) programs implemented
- Number of transportation management organizations (TMO)
- Number of persons served by a TMO
- Percentage of trips made using single occupant vehicles (SOV) compared to trips made using an alternative form of transportation
- Transit service density
- Transit trips per capita
- Percent increase in transit use

Strategy: Incorporate community impact assessment techniques throughout the transportation project planning and development process.

Actions:

1. Identify community needs through coordination and partnering with advisory committees, political entities, civic organizations, agencies, church groups and other organizations in the community.
2. Work with project development members to identify potential design or engineering options to address community impacts starting with avoidance, and then moving to on to minimization and mitigation.
3. Coordinate enhancement opportunities that are a reasonable expenditure of funds to help projects fit harmoniously into the community and avoid disproportionately high and adverse impacts on minority and low income populations.

Indicators:

- Number of communities using community impact assessment techniques
- Formation of a community continuing public education/information programs.
- Number of persons adversely impacted by transportation projects or enhancements

Strategy: Review projects for impacts on our neighborhoods, commercial centers, and natural areas due to roadway expansions and right-of-way reservations.

Actions:

1. Report on comprehensive plans and land development regulations that protect future state, regional, and local public facilities, corridors, and rights-of-way from building encroachment.
2. Depict in the annual plan report, rights-of-way for transportation projects in designated transportation corridors that make effective use of conventional and innovative approaches to protection and acquisition.
3. During the development approval process, assist local government in requiring dedicated right-of-way where there is a relationship between the land use and need for the transportation improvement.

Indicators:

- Number of communities using transportation corridors rights-of-way protection techniques
- Number of corridor rights-of-way acquisition programs

Strategy: Report annually on the relationship between transportation, natural and man made resources and impact on the quality of life.

Actions:

1. Coordinate with FDOT, local government, and the MPOs the region's effort to direct the expansion of the regional transportation system and its associated development to avoid impacting significant natural resources.
2. Assist FDOT, local government, and the MPOs in reviewing transportation access plans to ensure that roads are directed away from identified environmentally sensitive areas and other regionally significant natural systems.
3. Assist local government in the review of special lighting zones and guidelines when planning for highway and parking improvements near coastal shoreline areas where lighting and turtle nesting beaches interact.
4. Review the impact of transportation improvements in coastal high-hazard areas or in identified environmentally sensitive areas such as wetlands, floodplains, listed species habitat, or marine areas.
5. Coordinate improving regional air quality by promoting the use of alternative fuel vehicles and less polluting vehicles and promoting intelligent highway systems.

Indicators:

- Maintenance of air quality standards.
- Acreage of wetlands and significant uplands impacted by new transportation systems.
- Number of protected corridor travel ways/crossings.

- Number of acres impacted in high hazard coastal areas.
- Number of coastal communities with lighting and parking restrictions along the beach.
- Increase in the use of alternative fuels.

Strategy: Provide affordable non-emergency transportation services to special need and transportation disadvantaged populations who because of physical or mental disability, income, status, age, or children at risk are unable to transport themselves.

Actions:

1. Assist the appropriate agencies in expanding programs and improving transportation services to increase the mobility of persons who are unable to transport themselves.
2. Coordinate programs that inform the elderly about public transportation and enable them to better utilize existing public transit systems.
3. In cooperation with FDOT, local government, MPOs and transportation service providers, annually provide an assessment of the needs of the transportation disadvantaged, including special access measures needed for the physically and economically handicapped.
4. Coordinate with FDOT, local government, and the MPOs the implementation of a coordinated system of special transit and mass transit routes and schedules that meet the needs of its transportation disadvantaged.
5. Assist local government and Community Transportation Coordinators in contractual agreements between human service agencies purchasing transportation services and private for-profit and non-profit transportation operators.
6. Report annually on transportation disadvantaged services that are integrated with fixed-route transit, where available, and promote inter-county service efficiency by designing services that consider efficient routing, scheduling, and operating procedures.
7. Coordinate implementation of local governments plans that promote the linkage between transit usage, land use, and supporting urban design features that provide physical assets that better meet the needs of the transportation disadvantaged.
8. Promote the innovative use of technology, such as automatic vehicle location (AVL), mobile data terminals (MDT), automatic fare media, and enhanced scheduling/dispatching technologies, to better coordinate community and regional paratransit and fixed route transit integration.

Indicators:

- Percentage of transportation disadvantaged who have access to public transit services.
- Number of transportation disadvantaged trips per capita
- Number of transportation disadvantaged passengers per mile
- Percent increase in transportation disadvantaged trips

- Specialized transportation hourly operating cost

❖ **ECONOMIC COMPETITIVENESS**

Goal 3: Achieve a competitive and diversified regional economy through improved work force development, enhanced access to technology and education, and investment in multi-modal transportation facilities.

Southwest Florida needs to identify and program transportation Improvements necessary to sustain and enhance economic activity, recognize the diverse needs of all business sectors, and promote accessibility for people, information, and goods. We must strategically identify locations for industrial and commercial use; identify connections and access to multimodal distribution facilities; and ensure that interconnections exist that provides the timely, cost effective movement of goods in and out of the region.

Strategy: Enhance economic prosperity and competitiveness through a transportation system composed of corridors, facilities, and services for the effective movement of freight and visitors.

Actions:

1. Undertake a Goods, Freight, People, & Information Movement Study to assess the freight capacity of highway and non-highway infrastructure throughout the Region.
2. In cooperation with FDOT, local government, MPOs and private sector business develop freight movement performance measures, based on operational studies.
3. Identify the transportation requirements of leading and emerging sectors of the regional economy and distinctive needs of all business sectors of the regional economy to move people and goods within and through the region.

Strategy: Enhance the movement of goods and freight by identifying important routes as a funding priority in the transportation planning and capital improvement programming process.

Actions:

1. In cooperation with FDOT, local government and the MPOs, designate trade routes network that accommodates the efficient movement of goods and freight.
2. Identify major intersections improvements within the freight corridor to accommodate heavy vehicles by sizing corner curb return radii for heavy truck turns from the curb lane to the curb lane and sizing right- and left-turn lane storage and the deceleration taper lengths for the future heavy truck traffic volumes.
3. In cooperation with FDOT, local government, and MPOs, develop a database on freight and tourism movement describing the characteristics and patterns of freight, goods, visitors,

and services movement to identify both current and future needs throughout Southwest Florida.

4. Conduct freight and tourism movement studies to assess infrastructure, operational, and institutional needs and requirements that improve efficient intermodal connections.
5. Develop a recommended set of improvements and other actions to address current and future needs to enhance safety, efficiency, and effectiveness of freight, goods, visitors, and services movement throughout Southwest Florida.

Indicators:

- Increase in the Region's access to international and local markets.
- Net increase in new business.
- Increased job placement through workforce development and direct placement programs.
- Increase in high-wage jobs.
- Increase in high-value jobs with above average pay levels for new job entrants.
- Increase in goods produced in Southwest Florida.
- Increase in goods exported from Southwest Florida.
- Increase in goods that flow into and through Southwest Florida.

❖ **TRANSPORTATION SAFETY**

Goal 4: A regional transportation system that provides Southwest Florida citizens and visitors with safe, timely and efficient access to services, jobs, markets and attractions.

The transportation system needs to be coordinated among agencies to improve safety, reduce crashes, and to optimize emergency evacuation capabilities, including the application of intelligent transportation systems technology.

Strategy: Continue to work with the Florida Department of Transportation Safety Office and the participants of the regional Community Traffic Safety Team program to reduce the number and severity of traffic crashes, promote bike/ped safety, and to reduce aggressive driving.

Actions:

1. Identify and document safety issues and concerns to improve highway safety by working with CTST members and local engineering, enforcement, emergency, and educational representatives.
2. Develop public and private support and participation for the Community Traffic Safety Team Program through public service announcements, presentations and distribution of safety information.

3. Coordinate with the 47 CTSTs in the Florida Community Traffic Safety Team Coalition to share accomplishments, safety materials, programs, and to facilitate technology transfer among the teams.

Indicators:

- Increase in the amount of safety program funds into the region.
- Reduction in the number of vehicular fatalities and crashes.
- Number of successful crash countermeasures undertaken or completed.
- Increase in the number of safety education programs.
- Increase in the percent of seat belt usage.
- Reduction in the number of vehicular red-light running episodes.
- Increase in the number of bicycle/pedestrian safety classes and programs.
- Reduction in the frequency and rate of pedestrian and bicycle crashes.

Strategy: Develop road construction and prioritization programs, and alternative modes analyses, that ensure evacuation times in coastal regions will decline with no evacuation times in the Region exceeding 18 hours.

Actions:

1. Develop land use plans and policies that assess the potential for adverse impacts to transportation facilities and protects investment in transportation infrastructure.
2. Identify and document evacuation routes with evacuation capacity restrictions, particularly inter-community evacuation routes, to ensure routes receive high priority in FDOT and local capital improvement programs.
3. Assist local governments in adopting minimum level-of-exposure standards for the design of local roadway storm drainage systems to prevent rain flooding during an evacuation.
4. Identify transportation improvements in local, regional, and state transportation plans related to emergency evacuation constraints, and assist in prioritizing their mitigation in the appropriate capital improvement plans.
5. Coordinate emergency evacuation routes designated in each of the Counties comprehensive emergency management plans with the findings of the regional emergency evacuation study.
6. Review all disaster preparedness plans for transportation accommodations for the handicapped and transportation disadvantaged.

Indicators:

- Levels of service for emergency evacuation routes.
- Reduction in evacuation clearance times in the regional evacuation study.
- Segments of new roadways and improvements to designated emergency evacuation routes with flooding potential during Category 3 storm event.
- Roadway condition and structural integrity of primary routes for evacuation.

- Availability of emergency evacuation information before, during, and after an incident.

Strategy: Develop tools, approaches, and funding opportunities represented by ITS for addressing local transportation system management and operational needs.

Actions:

1. In cooperation with FDOT, local government, and MPOs identify ITS services and benefits and coordinate distribution of relate this information within agencies and local government.
2. Promote the value of leveraging commercial vehicle carrier and toll revenue systems by linking to intermodal traveler information systems.
3. Promote the use of integrated and interoperable ITS data systems between agencies, local government and FDOT.
4. Provide incident management training in conjunction and cooperation with the Local Emergency Planning Committee (LEPC).
5. Establish institutional mechanisms to facilitate regional cooperation and coordination to co-locate, share information and reduce costs of ITS projects.
6. Support FDOT and the MPOs I-75 corridor model deployment to demonstrate the benefits of ITS applications.

Indicators:

- Increased support and implementation of regional ITS initiatives.
- Improved transportation efficiency through traveler and vehicle information management systems.
- Number of communities improving traffic flow and safety through synchronized commuter automated traffic signal systems.
- Cost savings to motor carriers, transit operators, toll authorities, and government agencies.
- Reduction in travel delay and secondary crashes resulting from better incident management.

❖ **REGIONAL COOPERATION**

Goal 5: Develop a cost-effective and financially feasible transportation system that adequately maintains all elements of the transportation system to better preserve and manage the Region’s urban and non-urban investment.

The Florida Department of Transportation, Metropolitan Planning Organizations, local governments and the Regional Planning Council need to be an integral part of the coordinated transportation and land use planning process.

Strategy: Develop land use plans and policies that assess the potential for adverse impacts to transportation facilities and protects investment in transportation infrastructure.

Actions:

1. Ensure that Title IV compliance and environmental justice principles are understood and implemented in MPO planning activities, processes, and documents.
2. In cooperation with FDOT, local government, and the MPOs, collaboratively test coordinated land use and transportation plans.
3. Assist FDOT, local government, and the MPOs in designing plans that connect and serve urban communities with an efficient, transit oriented, multi-modal transportation system.
4. Review local government transportation concurrency management systems and planning agreements for mediation provisions addressing transportation impacts to neighboring jurisdictions when requested by the affected local government.
5. Ensure local governments and metropolitan planning organizations, through their planning programs and future road networks, accommodate travel demand across jurisdictional and neighborhood boundaries.
6. Annually report on level of service standards on the on the local roadway network adopted in local government comprehensive plans and metropolitan planning organization long range transportation plans.
7. Identify residential, employment, and transportation patterns of low income and minority populations so that their needs can be identified and addressed, and the benefits and burdens of transportation investments can be fairly distributed.
8. In conjunction with FDOT, local government, and the MPOs, the capacities and operations of major regional roadways should be protected through coordinated land use, careful site plan review, driveway access management, coordinated signal spacing and timing, paralleling roads, and connection permit policies and other Transportation System Management (TSM) alternatives among all levels of government.
9. In cooperation with FDOT, local government, and the MPOs, review transportation plans and projects to direct development in areas where adequate transportation facilities exist or are planned.
10. In conjunction with FDOT, local government, and the MPOs, direct transportation investments in such a way so that it contributes to efficient urban and non-urban development throughout the region.
11. Enhance economic prosperity and competitiveness through development of a transportation system composed of corridors, facilities, and services for the effective movement of freight and visitors throughout the region.
12. The Council will work with the Urbanized MPOs, FDOT, and local governments in promoting regional coordination for addressing transportation planning and programming

for the entire region, including those counties and portions thereof that are not represented within the MPO.

Strategy: Implement new financing alternatives to overcome the shortfall of transportation funding.

Actions:

1. Direct future transportation improvements to aid in the management of growth and to advance economic development in designated areas through supplemental funding programs such as Transportation Outreach program (TOP), State Infrastructure Bank (SIB), Small County Road Assistance Program (SCRAP), Small County Outreach Program (SCOP).
2. In cooperation with local government, review transportation impact fee ordinances at least every five years to ensure a fair share continues to be applied.
3. Encourage local government to implement the full array of local option gas tax or equivalent through other appropriate tax revenue.
4. Assist transit providers and other governmental and private entities should seek long term, dedicated funding sources for use for improving and expanding the transit system.
5. The Council, in cooperation with representatives of state, regional, and local public transportation agencies and private sector transportation professionals, will undertake a continuing public education program to inform area citizens of transportation issues, their implication to area travel patterns and conditions, and constraints to their full implementation.

Strategy: Encourage local governments to create inter-local and regional agreements to better address joint planning and revenue sharing.

Actions:

1. Assist non-urban local government in the prioritization of regional transportation improvements.
2. Coordinate development of tax revenue sharing agreements to address greater than local transportation and land issues.
3. Assist FDOT, local government, and private sector, in developing joint public-private sector agreements to share financing and the use of facilities to foster infrastructure development.
4. Encourage intercounty bus service as appropriate to meet growing intra-county travel demands.
5. Review all planning for the Florida High Speed Rail System to ensure future links to Southwest Florida and eventual completion of a statewide High Speed Rail System.

6. Achieve a condition of good repair for pavement and improve continually the structural condition of bridges until life cycle costs are minimized.
7. In cooperation with FDOT, local government, and the MPOs report on a capital improvement plan that includes construction of new facilities as an alternative to the Florida Intrastate Highway System to protect its interregional and intrastate functions.
8. In cooperation with FDOT, local government, and the MPOs, review transportation plans and development projects to ensure mitigation of adverse impacts upon regional transportation facilities.

Indicators:

- Number of multi-jurisdictional impact disputes satisfactorily settled by mediation process.
- Number of joint planning agreements.
- Number of regional transportation corridors adequately protected by local governments.
- Availability of regular intercounty bus service.
- Level of service standards adopted by local governments.
- Formation of a regional continuing public education program.

➤ **IMPLEMENTATION**

The following matrix shows the ways in which SWFRPC will interact with other organizations to implement the goals listed in the plan.

Agency	Goal 1	Goal 2	Goal 3	Goal 4	Goal 5
Counties	A/R/I/G	A/R/I/G	A/R/I/G	A/R/I/G	A/R/I/G
Cities	A/R/I/G	A/R/I/G	A/R/I/G	A/R/I/G	A/R/I/G
FDOT	A/R/I/G	A/R/I/G	A/R/I/G	A/R/I/G	A/R/I/G
FTDC	A/R/I	A/R/I	A/R/I	A/R/I	A/R/I
FHWA	A/R/I	A/R/I	A/R/I	A/R/I	A/R/I
RPC	A/R/I/G	A/R/I/G	A/R/I/G	A/R/I/G	A/R/I/G
MPO	A/R/I/G	A/R/I/G	A/R/I/G	A/R/I/G	A/R/I/G
EOG	A/R/I	A/R/I	A/R/I	A/R/I	A/R/I
FHP	A/R/I	A/R/I	A/R/I	A/R/I	A/R/I
Sheriff	A/R/I	A/R/I	A/R/I	A/R/I	A/R/I
DCA	A/R/I	A/R/I	A/R/I	A/R/I	A/R/I
DEP	A/R/I	A/R/I	A/R/I	A/R/I	A/R/I
U.S. Corp	A/R/I	A/R/I	A/R/I	A/R/I	A/R/I
WMD	A/R/I	A/R/I	A/R/I	A/R/I	A/R/I
EDC	A/R/I	A/R/I	A/R/I	A/R/I	A/R/I
Developers	A/R/I	A/R/I	A/R/I	A/R/I	A/R/I

A= Advise and/or inform

R= Review

I= Implementation, coordination, and assistance

G= Grant writing assistance

AGENCY ABBREVIATIONS

- FDOT: Florida Department of Transportation
- FTDC: Florida Transportation Disadvantaged Commission
- FHWA: Federal Highway Administration
- RPC: Regional Planning Councils
- MPO: Metropolitan Planning Organizations
- EOC: Executive Office of the Governor
- FHP: Florida Highway Patrol
- DCA: Department of Community Affairs
- DEP: Department of Environmental Protection
- U.S. Corp: U.S. Army Corp of Engineers
- WMD: Water Management Districts
- EDC: Economic Development Councils