

# TRANSPORTATION

## *Connections*

The transportation network is the framework for moving people and goods within the Village. The Village seeks an interconnected transportation network that successfully links residential, commercial and recreational areas safely, economically and efficiently. The core principles for the transportation network are intended to help accomplish the mobility of people and goods in sync with the Village's development pattern and future land use mapping.



### **Interconnections**

A community that lacks interconnectivity contributes to congestion. Estero seeks to add interconnections between existing and newly developed areas to help shorten trips and make destinations easier to reach.

### **Linkages**

Estero residents want to feel connected to their community's parks, recreation, and centers of activity. Pathways along roadways, greenways that are away from roadways, and blueways along the Estero River are desired to link residents to these community's assets. Opportunities to link to destinations beyond Estero along the CSX rail corridor and FPL corridor are also important.

### **Safety**

Above all else, safety is the driving force behind the future planning, design, and maintenance of Estero's vehicular, bicycle and pedestrian infrastructure.

The majority of Estero's main corridors are under jurisdiction of Lee County or the State of Florida. The Village has ongoing and active coordination with those jurisdictions and the Metropolitan Planning Organization for the planning and management of these arterial and collector roadway corridors as well as regional pathways and transit. The goals, objectives and policies of the Transportation Element are intended help Estero grow as a community with multi-modal access and connections to and between Estero's neighborhoods, economic areas, civic uses, recreational facilities, natural and historic areas, and commercial and mixed-use centers.

## Complete Streets

Complete street design strategies are responsive to the context and needs of the immediate area and surrounding community. Generally, complete streets provide safe, accessible, convenient routes for people in motorized vehicles, on bicycles and on foot.

## Interconnectivity

New development and redevelopment projects can play a significant role in creating interconnections in locations where they are lacking. Interconnections between existing and new development areas and community assets like the parks, Estero River, and activity centers are valuable for reducing congestion and providing direct access between compatible uses.

## Key Improvements

Due to their importance to traffic, safety and convenience, the need to make improvements along Corkscrew Road and at the proposed western entrance to Estero Community Park are highlighted.

## Transportation Options

Blueways, bikeways, pedestrian paths and use of the CSX rail corridor and FPL corridor are important and viable alternatives to traditional roadway infrastructure. Estero is committed to identifying and expanding these options where and when feasible.

## Roadscapes

Well-designed landscaping along roadways not only looks attractive but helps "complete" the street by providing shade and helping to cool and reduce the heat island effect. The Village will evaluate options for a Roadway Landscaping Master Plan to establish model standards to be applied in different contexts as appropriate to enhance the transportation system's integration with environmental, social, economic and aesthetic features of the Village.

## Innovation and Technology

The Village anticipates the potential for accommodating autonomous vehicles in the future.

TRA-1

**GOAL**

Provide a safe, economic, efficient, and interconnected transportation network that successfully links residential, commercial and recreational areas; and accommodates mobility in coordination with the Village’s development pattern and Future Land Use Map.

**COMPLETE STREETS**

TRA-1.1

**OBJECTIVE**

The Village shall improve multi-modal mobility and safety through implementation of complete street approaches, as appropriate.



*Image by Johnson Engineering, Inc.*

**POLICIES**

**TRA-1.1.1** Provide for well designed, safe, and multi-modal transportation corridors by encouraging and establishing complete street design guidelines, as appropriate, for the major corridors (US 41, Corkscrew Road, Estero Parkway and Three Oaks Parkway) and minor corridors (Via Coconut/Sandy Lane, Broadway, Coconut Road, and Williams Road).

**TRA-1.1.2** Complete street design guidelines shall include roadway and median landscape standards, access management guidelines, signage, street lighting, and sidewalks to ensure safe and effective pedestrian crossing within the context of a comprehensive pedestrian and bikeway system.

**TRA-1.1.3** All public and private rights of way within future mixed-use centers and the Old Estero Area, as defined in the Land Development Code, are encouraged to be designed to include pedestrian ways, crosswalks and traffic calming measures including, where appropriate, on-street parking, raised crosswalks, narrow lane widths or other similar mechanisms.

**TRA-1.1.4** Evaluate complete streets approaches to facilitate expansion of bikeways and walkways networks along roadway corridors that provide access to and from schools, parks, greenways and blueways. The Village shall consider improving the bicycle/pedestrian network with underpasses or overpasses where feasible.

## INTERCONNECTIVITY

TRA-1.2

### OBJECTIVE

Facilitate the development of an interconnected community that enables people to easily access Estero’s neighborhoods, recreational areas, commercial and mixed-use centers as well as other areas within the county and region through an integrated transportation and mobility system.



*Image by Johnson Engineering, Inc.*

### POLICIES

**TRA-1.2.1** Encourage the use of landscaped paths and park areas to link neighborhoods, commercial and mixed use centers, and other open space and recreational facilities through an integrated system of bicycle, pedestrian, and roadways connections.

**TRA-1.2.2** Establish land development code standards that ensure the development of a well connected transportation system that includes pedestrian pathways, bikeways, transit, and roadways. These standards should:

- A. Require, where feasible, interconnects with adjacent uses;
- B. To the extent feasible, minimize access points onto primary road corridors by providing multiple access to adjacent properties;
- C. Link neighborhoods, commercial and mixed-use centers, public facilities, and parks, with priority on corridors linking neighborhoods to each other and a corridor to link Estero Community Park, the Estero River, Koreshan State Park, and Estero Bay Preserve; and
- D. Enable multi-modal transportation access (pedestrian, bicycle, vehicular, and transit) within and between the different neighborhoods, economic and employment centers, civic uses, and public space, park, and recreational facilities within the Estero Community.

**TRA-1.2.3** Expand opportunities for Estero’s transportation network of pedestrian and bicycle pathways, sidewalks, trails, and other facilities by working with the State of Florida and other local and regional entities to:

- A. Consider multi-use pathways that feature shade trees, benches, bike racks, and other design elements to attract usage;
- B. Consider targeted funding sources including development contributions, private donations, public funding sources (e.g.: MSBU), or other mechanisms;
- C. Consider utilizing the FP&L right of way within Estero State Buffer Preserve for trail and recreational purposes by working with FP&L and Lee County;

- D. Support a pedestrian–bike trail within or along the rail right of way for public recreation by working with the existing rail corridor and private developers;
- E. Consider blueways in the Master Recreation & Open Space planning effort to determine appropriate and safe opportunities for motorized and non-motorized and recreational uses along the Estero River; and
- F. Coordinate with the MPO on developing the Estero Bicycle and Pedestrian Master Plan and recommend options to improve safety and quality of bicycle and pedestrian conditions and connections within the Village of Estero.

**TRA-1.2.4** During the review of comprehensive plan amendments, rezonings, zoning amendments, and development order applications, applicants must provide an evaluation addressing potential for addition of new interconnections between communities, creation of pedestrian and vehicular interconnection, and addition of new connections to the surrounding road network.

**TRA-1.2.5** Only take over maintenance responsibility from a private entity for roadways, trails, or multiuse paths on condition that those facilities will become open and accessible to the public.

**TRA-1.2.6** Discourage cul-de-sacs in new development and redevelopment.

**TRA-1.2.7** Coordinate with the City of Bonita Springs to evaluate the extension of Via Coconut Point Road to connect to Old 41.

## CORKSCREW ROAD IMPROVEMENTS

TRA-1.3

**OBJECTIVE**

The Village shall seek to improve safety and traffic flow on Corkscrew Road.



*Image from Google Earth*


**POLICIES**

**TRA-1.3.1** Work with the state and county to reduce truck traffic on Corkscrew road and encourage truck traffic to use Alico Road to avoid conflicts with the movement of residents and the elementary schoolchildren on Corkscrew Road.


**TRA-1.3.2** Work with the state and county to improve traffic flow at the I-75 and Corkscrew Road interchange by implementing the “Interim Improvements” and collaborating on long term improvements.

**TRA-1.3.3** Work with the state and county to improve traffic congestion on Corkscrew Road with a focus on the area from Three Oaks Parkway to Bella Terra Boulevard.

**TRA-1.3.4** Discourage further development of increased density along East Corkscrew Road in the DR/GR area as designated in the Lee County Future Land Use Map series.

TRAFFIC CONGESTION		TRA-1.4
<b>OBJECTIVE</b>	Reduce traffic congestion in the Village.	 <p><i>Image from Google Earth</i></p>

- POLICIES**
- TRA-1.4.1** Evaluate and prioritize recommendations from the “2017 Village of Estero Area Wide Traffic Study”.
  - TRA-1.4.2** Periodically review road conditions and identify roadway segments, intersections, and safety improvements for potential inclusion in the Capital Improvements Plan.


SAFETY		TRA-1.5
<b>OBJECTIVE</b>	Consider public safety improvements when determining transportation infrastructure improvements.	 <p><i>Image by Johnson Engineering, Inc.</i></p>

- POLICIES**
- TRA-1.5.1** Use road conditions and vehicle, bicycle and pedestrian crashes historic data to identify improvements to be addressed in the Capital Improvements Plan.
  - TRA-1.5.2** Evaluate roundabouts as part of any new roadway construction or reconstruction project.
  - TRA-1.5.3** Ensure that critical evacuation roadway links receive high priority for maintenance and capital improvement expenditures. (see Policies CCM-1.1.4 and CCM-1.3.7)

**TRA-1.5.4** During the review of rezonings or zoning amendments, and development order applications, applicants must provide an evaluation of vehicle, bicycle and pedestrian safety in the proposed design or plan.

**TRA-1.5.5** The Village will comply with Lee County emergency evacuation policies and coordinate with the state and county on evacuation planning as needed.

**TRA-1.5.6** New and expanded transportation facilities should be designed to protect existing residential neighborhoods.

MAJOR ROADWAY BEAUTIFICATION		TRA-1.6
<b>OBJECTIVE</b>	<p>Enhance the aesthetics of roadways in the Village.</p>	 <p><i>Image by Johnson Engineering, Inc.</i></p>

**POLICIES**

**TRA-1.6.1** Evaluate the need for a Roadway Landscaping Master Plan to establish model standards to be applied in different contexts to improve aesthetics of road rights of way and medians.

**TRA-1.6.2** Coordinate with state and county transportation agencies with jurisdiction and with property owners to identify opportunities to encourage appropriate landscaping within and along the rights of way of collectors, arterials and local roads to maintain and contribute to the attractiveness and high quality of the community.

**TRA-1.6.3** Seek opportunities to provide a visually appealing and functional road landscape for the benefit of road users and for use as a linear recreational trail by the community.

**TRA-1.6.4** Promote the design of transportation facilities to minimize impacts on the natural environment, enhance scenic views, and reflect the scale and character of surrounding natural and developmental features by using:

- A. Varying street widths and traffic calming measures to allow views of any scenic or historic resources;
- B. Appropriate paving materials, including intersection treatments;
- C. Appropriate styles of traffic control facilities; and
- D. Landscape materials that complement the character of the resources.

## BLUEWAYS, BIKEWAYS AND PEDESTRIAN PATHS

TRA-1.7

**OBJECTIVE**

Maintain and enhance the Village's network of blueways, bikeways, and pedestrian paths.



*Image by Johnson Engineering, Inc.*

**POLICIES**

**TRA-1.7.1** Evaluate blueways in the Recreation & Open Space Master planning effort to determine appropriate and safe opportunities for motorized and non-motorized and recreational uses along the Estero River.

**TRA-1.7.2** Evaluate the feasibility of providing an Estero Bay water taxi service from the Estero River to destination in Estero Bay and Gulf of Mexico.

**TRA-1.7.3** Support efforts of the Lee County Metropolitan Planning Organization to plan for hiking/biking/walking trails along the entire rail corridor, to add capability for commuter rail, light rail, or bus rapid transit service in Lee County and northern Collier County, and to maintain freight capability.

**TRA-1.7.4** Seek Sun Trail funding to enhance the Village's network of bikeways and walkways, greenways and blueways.

**TRA-1.7.5** Coordinate with the MPO on developing the Estero Bicycle and Pedestrian Master Plan and recommend options to improve safety and quality of bicycle and pedestrian conditions and connections within the Village of Estero.

**TRA-1.7.6** Work with state, county and Florida Power & Light to allow the FPL easement which extends from Pelican Colony Blvd to Williams Road to be utilized as a bicycle and pedestrian path.



## LEVELS OF SERVICE

TRA-1.8

**OBJECTIVE**

Adopt and maintain transportation levels of service applicable within Estero.

**POLICIES**

**TRA-1.8.1** Minimum acceptable motorized vehicle Level of Service (LOS) Standards for roadways as established by the state of Florida and Lee County are recognized as shown below:

I-75	D
Arterials	E
Collectors	E

- A. ~~For general planning purposes roadway LOS may be evaluated using average annual daily traffic (AADT) counts~~ For minimum acceptable levels of service determination, the peak season, peak hour, peak direction condition will be defined as the 100th highest volume hour of the year in the predominant traffic flow direction. The 100th highest hour approximates the typical peak hour during the peak season. Peak season, peak hour, peak direction conditions will be calculated using K-100 factors and "D" factors from the nearest, most appropriate county permanent traffic count station.
- B. ~~For purposes of concurrency determinations and issuing development orders the LOS shall be determined using P.M. peak hour traffic counts.~~
- C. Local Roads will be maintained in good order and repair.

**TRA-1.8.2** Map TR-1 Roadway Classification Map is the functional classification map. The Village will review and update the Functional Classification Map when warranted by changes in the transportation system.

**TRA-1.8.3** The Village will coordinate with the state of Florida and Lee County to encourage better traffic flow and functioning of arterial and collector roadways than the designated minimum levels of service on those roadways.

**TRA-1.8.4** In order to maintain road network operating efficiency, minimum desirable standards for connections to the road network are established in the Land Development Code.

**TRA-1.8.5** Develop an official Trafficways Map that will depict estimated ultimate right-of-way needs to provide for adequate level of service for the Village based on the development capacities of the Future Land Use Element.

**TRA-1.8.6** Evaluate an alternative mobility level of service (LOS) to complement minimum acceptable annual average daily traffic (AADT) and peak hour/peak seasonal/peak direction roadway level of service (LOS) standards.

**TRA-1.8.7** Support public transit and other modes of transportation to reduce traffic and provide services to transportation disadvantaged persons by coordinating with LeeTran and the MPO by:

- A. Maintaining availability of LeeTran schedules at Village Hall;
- B. Suggesting appropriate locations for new bus stops in the Village;
- C. Working closely with LeeTran to coordinate planning of the Village Center with the provision of public transit necessary to efficiently service patrons traveling to and within the area, including the possible establishment of a trolley system connecting the Village Center, parks and neighborhoods; and
- D. Continuing to support the provision of transportation services to serve the aging and disadvantaged population through the LeeTran Passport and other available programs.

**TRA-1.8.8** Maintain an effective and fair system of impact fees to ensure that development creating additional impacts on arterials and collector roads pays an appropriate fair share of the costs to mitigate its (off-site) impacts.

## ENERGY EFFICIENCY AND NATURAL RESOURCE PROTECTION

TRA-1.9

### OBJECTIVE

The Village shall encourage reduction in transportation energy consumption and protection of natural resources.



*Image by Johnson Engineering, Inc.*

### POLICIES

**TRA-1.9.1** Promote design of subdivision street systems that incorporate multiple interior connections and routes that provide connections between major transportation arteries.

**TRA-1.9.2** Promote design of traffic calming measures such as roundabouts.

**TRA-1.9.3** Participate in the development of the MPO 2040 Long Range Transportation Plan (LRTP) and support travel demand management strategies aimed at reducing the number and length of car trips and increasing the efficiency of the transportation system.

**TRA-1.9.4** Support new and emerging transportation innovations such as driverless or autonomous vehicles (AV) and their implications for passengers, services, and deliveries on roadways within the Village.

**TRA-1.9.5** Seek to reduce energy consumption and greenhouse gases by promoting use of alternative fuels (e.g., electric vehicles, compressed natural gas).

**TRA-1.9.6** Oppose new roads or expansion of existing facilities through wetland areas or the Density Reduction Groundwater Resource areas, [as designated in the Lee County Future Land Use Map series](#), including the northward extension of CR951.

**TRA-1.9.7** Protect, preserve and enhance native vegetation within and along the rights of way of collectors, arterials and local roads whenever possible.

## RAIL CORRIDOR

## TRA-1.10

### OBJECTIVE

Evaluate the need for the CSX rail corridor as a strategic regional transportation corridor to protect the corridor for future transportation purposes (see Map TR-2) as recommended by the Lee County Metropolitan Planning Organization (MPO), and/or for the purposes of hiking, biking or walking trails.



*Image by Johnson Engineering, Inc.*

### POLICIES

**TRA-1.10.1** Support efforts of the Lee County Metropolitan Planning Organization to plan for hiking/biking/walking trails along the rail corridor and other corridors in the Village.

**TRA-1.10.2** The Village Center future land use designation demonstrates the Village’s commitment to transit-oriented development up to a half mile around future stations for commuter rail, light rail, or bus rapid transit. Transit-oriented development provides higher densities and intensities in a physical form that emphasizes walkability and connectivity and provides a broad range of uses, reducing reliance on vehicle trips and parking lots. Stations could be placed at Coconut Point and near Corkscrew Road. Model procedures for station area planning and implementation are provided in the Florida TOD Guidebook, published by Florida DOT in December 2012.

**TRA-1.10.3** Encourage Florida DOT to purchase the real estate interests in the rail corridor from its current owner, CSX Transportation Inc. (which leases the corridor to Seminole Gulf Railway).

**TRA-1.10.4** Oppose attempts to abandon the rail corridor, with the exception of abandonment, to further the Village’s initiative for pedestrian and biking trails. Support use of federal rails-to-trails authority to railbank the corridor, if abandonment ever succeeds, in order to preserve the corridor for possible future rail service or recreational needs.

**TRA-1.10.5** Cooperate with Lee and Collier Counties, the City of Bonita Springs, and the City of Fort Myers in evaluating and potentially operating public rail transportation through their jurisdictions and creating new redevelopment opportunities near potential stations.

**TRA-1.10.6** Cooperate with all counties and cities along the rail corridor to pursue common goals for trails.

# HOUSING

# Homes

Estero’s unique character is embedded in the successful, consistent quality of its residential neighborhoods. Core housing principles are aimed at providing an adequate variety of housing which meets the needs of Estero’s existing and future residents consistent with the character of the Village.



*Rendering of Genova from estero-fl.gov*

### **Value & Character**

Preserving and building the value of established residential housing stock is a goal of most communities, but it is at the heart of the vision for the Estero community. A community of neighborhoods, Estero’s architectural and natural features define its character. This character is to be maintained and furthered through application of codes and standards for the maintenance, development, and redevelopment of housing.

### **Historic Preservation**

The Village supports recognition, restoration, maintenance and adaptive reuse of historic homes to ensure these connections to the community’s past remain viable and useful for present and future generations.

### **Variety**

Estero currently has a wide array of housing options. The Village seeks to maintain a variety of housing options to serve all needs, including for aging and special needs populations.

### **Sustainability**

Housing developed in Estero should be constructed to stand the test of time, maximize resource efficiency, and serve the changing needs of current and future generations.

The goals, objectives and policies of the Housing Element are intended to ensure the existing and future housing stock of Estero is of high value and meets the needs of the community.

## Neighborhood Integrity and Compatibility

Protect the integrity of residential areas by ensuring that new developments are compatible and consistent in form and character.

## Recognition of Historic Housing

Encourage the preservation, restoration or rehabilitation for adaptive reuse of historically significant housing. Consider incorporating design characteristics of these historic structures into future architectural design, streetscape, and community-wide standards.

## Aging and Special Needs Populations

Allow for private and non-profit sectors to provide dwelling units of various types, sizes and costs to meet the housing needs of residents, businesses, and elderly and special needs populations while maintaining the unique character of the Village.

## Affordable Housing

Maintain affordable housing stock and allow for the private sector to provide housing for the workforce and housing that is affordable. Affordable housing options are possible through the rehabilitation of the Village's older housing stock.

## Sustainable Strategies

Maximize resource efficiency in the built environment by supporting sustainable construction methods and use of renewable energy.

## Maintenance of Housing Stock

The Village will ensure proper maintenance of the housing stock through code enforcement guidelines for the rehabilitation or reconstruction of any housing that becomes substandard.

## HOU-1

### GOAL

Provide an adequate mix of safe and sustainable housing which meets the needs of Estero's existing and future residents.

## RESIDENTIAL NEIGHBORHOODS

## HOU-1.1

### OBJECTIVE

Preserve the value and character of existing neighborhoods.



*Image by Johnson Engineering, Inc.*

### POLICIES

**HOU-1.1.1** Recognize the value of strong and stable neighborhoods by encouraging neighborhood identity and a sense of community in the Village.

**HOU-1.1.2** Promote public/private programs and activities that strengthen, stabilize, improve and enhance neighborhoods.

**HOU-1.1.3** New development must be compatible with existing residential uses.

**HOU-1.1.4** Protect residential neighborhoods from encroachment and detrimental impacts from other more intensive land uses and continue to enforce existing regulations that provide buffering from more intensive uses.

**HOU-1.1.5** The Village shall promote programs designed to enhance neighborhood safety in order to help prevent possible housing deterioration by crime. Facilitate public participation in the land development approval process by having the owner or agent applying for Planned Developments, Rezoning, Variances, Special Exceptions, Plan Amendments, and other amendments and Development Orders, within the Village, participate in a public information meeting pursuant to adopted Village regulations and policies.

## AGING AND SPECIAL NEEDS POPULATIONS

HOU-1.2

### OBJECTIVE

Ensure the availability of adequate housing for the elderly and special needs populations.

### POLICIES

**HOU-1.2.1** In order to serve persons with special needs and disabilities, the Village will allow community residential facilities according to the definition and siting provisions of Florida Statute 419.001.

**HOU-1.2.2** Adult living and continuing care facilities should be located in appropriate areas and should be convenient to services.

**HOU-1.2.3** Cooperate with ~~appropriate agencies~~ public and/or private housing providers in order to provide adequate sites for group homes, foster care facilities and similar facilities to meet the requirements of persons with special needs.

**HOU-1.2.4** Promote the design of home features that will help elderly and disabled persons to live independently.

## HISTORIC PRESERVATION

HOU-1.3

### OBJECTIVE

Encourage the preservation, restoration or rehabilitation for adaptive reuse of historically significant housing, as appropriate.



*Image by Johnson Engineering, Inc.*

### POLICIES

**HOU-1.3.1** Continue to encourage preservation of buildings, sites, districts and other resources of historic significance in Estero and maintain Land Development Code standards for historic preservation.

**HOU-1.3.2** Require that modifications to any housing within the Village designated as historically significant by a recognized county or state agency comply with the U.S. Secretary of the Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings.




**HOU-1.3.3** Recognize the unique historical and cultural values of the Village of Estero by establishing and implementing development incentives and regulations within the Land Development Code that:

- A. Encourage the development of the Old Estero area in a manner that maintains its historic character;
- B. Incorporate design features of Estero’s historic structures into future architectural design, streetscape, and community-wide LDC standards; and
- C. Identify, protect, and promote historic resources and facilities such as those related to Koreshan Park, Old Estero area, and the Estero Community Park.

**HOU-1.3.4** Consider creating an inventory of buildings which are 50 years or older, including their unique characteristics, to provide criteria or standards for any restoration/conservation action.

SUSTAINABLE HOUSING		HOU-1.4
<b>OBJECTIVE</b>	Encourage sustainable housing design and construction practices.	

- |                 |   |
|-----------------|---|
| <b>POLICIES</b> | <p><b>HOU-1.4.1</b> Encourage adaptive reuse of buildings where appropriate.</p> <p><b>HOU-1.4.2</b> Encourage installation of solar panels and LEED (Leadership in Energy and Environmental Design) construction methods.</p> <p><b>HOU-1.4.3</b> Encourage energy efficiency in new and existing housing to reduce the production of greenhouse gas emissions.</p> <p><b>HOU-1.4.4</b> Promote materials conservation, including materials reuse, construction and demolition materials recycling, and use of recycled content materials.</p> |
|-----------------|---|

HOUSING AVAILABILITY AND VARIETY		HOU-1.5
<b>OBJECTIVE</b>	<p>Allow for a mix of dwelling units of various types, sizes, and costs, to meet the housing needs of the community, businesses and residents.</p>	
	 <p><i>Rendering of Genova from estero-fl.gov</i></p>	

**POLICIES**

**HOU-1.5.1** The Village’s Future Land Use Element and Future Land Use Map will include a variety of residential land use categories to accommodate varying housing densities and housing types to provide opportunities for affordable workforce housing; housing for low-income, very low-income, and moderate-income households; mobile homes and manufactured homes; and community residential facilities.

**HOU-1.5.2** Encourage a mix of housing types in areas designated for mixed use.

**HOU-1.5.3** Encourage the rehabilitation of older housing stock into affordable housing.

**HOU-1.5.4** The Village shall not prohibit mobile and manufactured homes as affordable housing in appropriately zoned areas.

**HOU-1.5.5** The Land Development Code will continue to designate zoning categories for mobile home parks.

**HOU-1.5.6** As part of the ongoing efforts to provide additional affordable housing opportunities, the Village shall encourage housing alternatives to be provided for Village residents displaced by the closure of mobile home parks.

**HOU-1.5.7** The Village will continue to assist community based organizations and community housing development organizations to address housing needs in the Village and evaluate ways to streamline the permit process.

**HOU-1.5.8** Workforce and affordable housing shall be consistent with the use and density provisions of the Comprehensive Plan and Land Development Code and located in areas that:

- Avoid concentrations of very-low and low-income households;
- Are provided full urban services and facilities;
- Are environmentally sensitive; and
- Would create a livable and supportive environment.

**SUBSTANDARD HOUSING**

**HOU-1.6**

**OBJECTIVE**

Ensure that housing remains safe and sanitary through code compliance and enforcement.

**POLICIES**

**HOU-1.6.1** Require unsafe or condemned residential or commercial structures to be secured, repaired, demolished, or otherwise removed as a threat to the public health, safety, and welfare.

**HOU-1.6.2** Utilize available code enforcement procedures to ensure that existing structures meet code standards.

**HOU-1.6.3** Enforce the Florida Building Code in all new development and redevelopment to avoid substandard housing conditions.

**HOU-1.6.4** Facilitate the redevelopment of older properties to come into compliance with adopted comprehensive plan policies, Land Development Code and building standards.

**HOU-1.6.5** Evaluate implementation of a property maintenance code.

# INFRASTRUCTURE

## *Services*

To ensure the public health, safety, and welfare of the community, the infrastructure element calls for coordination with service providers to deliver high quality water, sewer, drainage, and solid waste services and facilities.



### **Service Levels**

The Village adopts level of service standards for the basic essential services of water, sewer, drainage, and solid waste. These standards are consistent with the standards adopted by the providers of those services to ensure infrastructure is in place and adequate to serve existing and future populations.

### **Drinking Water**

Proper planning to preserve and protect the drinking water supply is an important responsibility to ensure the health and welfare of current and future generations. Water supply planning is coordinated with the utility service providers and the South Florida Water Management District. Ground water protection is coordinated with local and state agencies.

### **Surface Water**

Natural water bodies, flowways and manmade water management systems are abundant in Estero. These systems are essential for proper flood protection and water quality. The Village seeks to protect the natural features and ensure maintenance of the manmade features.

### **Green Infrastructure**

Natural areas, drainage systems, and open spaces are vital to the sustainability of the built environment. The Village supports innovative techniques in infrastructure design that serve the needs of the community with emphasis on the value and importance of natural or green infrastructure.

Essential services of water, sewer, drainage, and solid waste systems are provided to Village residents through the operations and regulation of other agencies. The goals, objectives and policies of the Infrastructure Element are intended to ensure essential services are provided in a coordinated manner that ensures safety, sustainability and cost-effectiveness.

## Water Services and Supply

Coordination with Lee County Utilities and Bonita Springs Utilities will ensure the provision of acceptable levels of potable water service. The Village also coordinates with the South Florida Water Management District in adopting a Water Supply Facilities Work Plan, and coordinates with County and state agencies on implementing standards to protect groundwater.

## Sewer Services and Conversion from Septic

Much of the Village is served with sewer systems of Lee County Utilities and Bonita Springs Utilities. The Village will coordinate to ensure provision of acceptable levels of sewer services. Where sewer systems are not in place, it is priority to abate and cease use of septic tanks and wastewater treatment package plants where and when central sewer is available in order to preserve public health and preserve and enhance environmental quality.

## Solid Waste

The existing solid waste facilities serving Estero are operated by Lee County. Estero adopts the minimum acceptable level-of-service standard for availability of solid waste disposal facilities.

## Surface Water Management

The Village will adopt a Storm Water Management Master Plan. This will address water quality issues and the protection of present and future uses of real property from stormwater flooding.

## Green Infrastructure

The following techniques will be evaluated as options for new capital projects, and will be encouraged when and where possible: green roofs, permeable pavement, bioswales, rainwater harvesting, green streets, stormwater parks, and conservation areas.

## INF-1

### GOAL

To ensure the public health, welfare, and safety by providing and coordinating with providers to deliver high-quality water, sewer, drainage, and solid waste services and facilities throughout the Village of Estero, and to ensure that the costs of providing services and facilities are borne by those who benefit from them.

## SURFACE WATER MANAGEMENT

## INF-1.1

### OBJECTIVE

Reduce the hazards to life, health, and property created by flooding due to rainfall in a manner consistent with the community's criteria for the preservation of environmental values and the conservation of natural resources.



*Image by Johnson Engineering, Inc.*

### POLICIES

**INF-1.1.1** The following surface water management standards are adopted as minimum acceptable levels of service:

- A. The existing surface water management system in the Village will be sufficient to prevent the flooding of designated evacuation routes (U.S. 41, Corkscrew Road, Three Oaks Parkway, Interstate 75, and Ben Hill Griffin Parkway) from the 25-year, 3-day storm event (rainfall) for more than 24 hours.

~~All new private and public and private infrastructure shall be constructed with floor slabs constructed a minimum of one (1) foot above the 100-year, 3-day storm event flood plain level and shall be safe from flooding from a 100-year, 3-day storm event (rainfall).~~

- B. Regulation of Private and Public Development

All new private and public developments shall be constructed with floor slabs constructed a minimum of one (1) foot above the 100-year, 3-day storm event flood plain level and shall be safe from flooding from a 100-year, 3-day storm event (rainfall). In addition, in such new public and private developments, road elevations shall be constructed at a minimum of the 25-year, 3 day storm event flood plain level, and parking areas shall be constructed at a minimum of the 10-year, 1 day flood plain level.

Surface water management systems in new private and public developments (excluding widening of existing roads) must be designed to SFWMD standards (to detain or retain excess stormwater to match the predevelopment discharge rate for the 25-year, 3-day storm event [rainfall]).

Stormwater discharges from development must meet relevant water quality and surface water management standards as set forth in state rules including but not limited to requirements listed in Numeric Nutrient Criteria and Total Maximum Daily Loads and Basin Management Action Plans.

New developments must be designed to avoid increased flooding of surrounding areas ~~and be consistent with the adopted recommendations of the Village Stormwater Master Plan~~. Development must be designed to minimize increases of discharge to public water management infrastructure (or to evapotranspiration) that exceed historic rates, to approximate the natural surface water systems in terms of rate, hydroperiod, basin and quality, and to eliminate the disruption of wetlands and flowways, whose preservation is deemed in the public interest.

- C. Design trunk conveyance crossings of arterial roads to be free of flooding from 25-year, 3-day storm events at a minimum.
- D. Other standards may be added by amendment to this comprehensive plan for development impacting water bodies that have water quality impairments identified by Florida Department of Environmental Protection, including but not limited to the following water bodies: 3258C4 - Mullock Creek (Marine Segment); 3258C - Mullock Creek; 3258D1 - Estero River (Marine Segment); 3258D2 - Estero River; 3258H2 - Spring Creek (Marine Segment).

**INF-1.1.2** Prepare a Stormwater Master Plan that is geographically based on watersheds using best available data related to rainfall, soils, topography, drainage patterns and water quality.

The Stormwater Master Plan will evaluate future conditions (including build-out within the watershed) and long-duration storms, identify existing wetlands and natural areas, and promote the protection of natural channels and conveyances. The Stormwater Master Plan will also provide recommendations on mitigation activities for the enhancement of existing stormwater management facilities and/or natural conveyances and recommend other programmatic and regulatory action items to be implemented within the land development code with the intent to reduce increased flooding from future conditions within the watershed and enhance water quality.

**INF-1.1.3** The Village shall implement its Stormwater Master Plan through the land development code and through facilities and improvements intended to protect present and future uses of real property from stormwater flooding and to address water quality issues.

~~INF-1.1.4 Protect and restore principal flow-way systems, if feasible, to assure the continued environmental function, value, and use of natural surface water flow ways and associated wetland systems~~The Village shall endeavor to protect, secure and restore, where feasible, natural flowway systems including, without limitation, the Main, South and North Branches of the Estero River and the Halfway Creek flowway, through regulations or incentives to assure their continued environmental function.

**INF-1.1.5** The Village shall maintain requirements in its land development code that proper stormwater management systems be installed when land is being redeveloped. Appropriate exemptions will be provided to this requirement for individual residential structures and for historic designated properties. However, this policy will not be interpreted so as to waive any concurrency level-of-service standards

**INF-1.1.6** Water management projects will be evaluated and ranked according to the priorities adopted into this plan and the Village’s adopted Stormwater Master Plan. Major emphasis will be given to improving existing drainage facilities and to enhancing or restoring environmental quality.

**INF-1.1.7** Provide sufficient performance and/or design standards for development protective of the function of natural drainage systems, including the following provisions to be addressed in the land development code:

- A. Provide sufficient performance and design standards to require post-development runoff to approximate the total characteristics of the natural flow prior to development.
- B. Floodplains must be managed to minimize the potential loss of life and damage to property by flooding.
- C. Floodways should be kept as unobstructed as possible.
- D. Natural flow patterns will be restored by public investment where such action is of significant public or environmental benefit, and feasible.
- E. To maintain flowways, the Village may coordinate with landowners at time of new development or redevelopment to establish flowage easements while allowing concentration or clustering of development on the remainder of the property.
- F. The Village will maintain regulations which provide for the management and protection of floodplains, consistent with state and federal regulations.
- G. Through the land development code, the Village will require developments to have and maintain an adequate surface water management system that is consistent with the criteria adopted per recommendations of the Stormwater Master Plan, provide for acceptable programs for operation and maintenance, and post-development runoff conditions which reflect the natural surface water flow in terms of rate, direction, quality, hydroperiod, and drainage basin.



- H. Channelization of natural streams and rivers is prohibited; channelization of other natural watercourses is discouraged.
- I. Through the land development code, the Village will adopt appropriate regulations to protect the natural functions of riparian systems from incompatible development practices along their banks.

## GROUNDWATER RECHARGE

INF-1.2

**OBJECTIVE**

Protect groundwater supplies from those activities having the potential for depleting or degrading those supplies.

**POLICIES**

**INF-1.2.1** The Village shall implement Lee County's wellfield protection ordinance through the land development code to protect the quality of water flowing into potable water wellfields.

**INF-1.2.2** The Village shall coordinate with the Lee County staff hydrogeologist for review and comment on all development applications near public utility potable water wellfields, with particular attention to proposed land uses within a 10-year travel time from the wellheads.

**INF-1.2.3** The Village shall base all future development and use of groundwater resources on determinations of the safe yield of the aquifer system(s) in order not to impair the native groundwater quality or create other environmental damage. Criteria for safe-yield determinations will be determined by the SFWMD, the agency charged with permitting these activities.

**INF-1.2.4** For maximum protection of groundwater resources, coordinate with applicable utility providers to identify future wellfields and/or relocation site(s) for existing wellfields well in advance of need. Coordinate with SFWMD, water suppliers, and Florida Department of Environmental Protection to avoid duplication and to assist in data collection.

**INF-1.2.5** Coordinate with Lee County and utility providers to identify water needs consistent with projections of human population and the needs of natural systems in order to determine the future demands for groundwater.

**INF-1.2.6** Continue to encourage the developer driven expansion of infrastructure to provide reuse water service when sufficient supply is available.

**INF-1.2.7** When and where available, reuse water should be the first option for meeting irrigation needs of a development. Where reuse water is not available, surface water or low quality groundwater should be used for irrigation. All other potential water sources must

be eliminated prior to selecting potable water as the sole source for meeting the irrigation needs of a development.

## WATER SUPPLY PLANNING & COORDINATION

INF-1.3

### OBJECTIVE

Coordinate with the South Florida Water Management District to ensure that the Village Comprehensive Plan remains consistent with the District's regional water supply plans.

### POLICIES

**INF-1.3.1** No building permit will be issued unless potable water supply will be available to meet current and projected growth demands, or surety is given that it will be available prior to occupancy.

**INF-1.3.2** The Village shall develop a Water Supply Facilities Work Plan within 18 months after the South Florida Water Management District approves an update to the regional water supply plan.

**INF-1.3.3** The Village shall continue to evaluate the latest water supply plans issued by the South Florida Water Management District to ensure consistency in the Village Comprehensive Plan and the Village's Water Supply Facilities Work Plan.

**INF-1.3.4** The Village shall coordinate with other government agencies and private suppliers of potable water during the water supply planning process to include the review of land use changes, addressing population projections, and acceptable level of service standards.

## SANITARY SEWER

INF-1.4

### OBJECTIVE

Coordinate with utility providers to ensure the provision of acceptable levels of sanitary sewer service.

**POLICIES**

**INF-1.4.1** The minimum acceptable level of service standard for sanitary sewer connections to Lee County Utilities is established for the basic facility capacity, which is the principal productive capital of a water or sewer system, i.e., a wellfield and water treatment plant, as distinguished from the distribution system. The minimum acceptable level of service for Lee County Utilities sanitary sewer will be:

Available basic facility capacity to treat and dispose of a volume of wastewater equal to 200 gallons per day per equivalent residential connection (ERC), except that facilities serving only multifamily or mobile home residential structures shall have a capacity of 160 gallons per day and facilities serving only recreational vehicles or travel trailer residential structures must have a capacity of 80 gallons per day.

**INF-1.4.2** The minimum acceptable level-of-service standards for sanitary sewer connections to Bonita Springs Utilities will be:

Available capacity to treat and dispose of a volume of wastewater equal to 200 gallons per day per equivalent residential connection (ERC), except that facilities serving only mobile home residential structures shall have a capacity of 150 gallons per day and facilities serving only travel trailer residential structures shall have a capacity of 120 gallons per day.

**INF-1.4.3** Encourage all private utilities to set a minimum acceptable level of service to be adopted herein for use in the concurrency management system within their respective franchised or certificated areas.

**INF-1.4.4** All utility providers are encouraged to construct and install sufficient treatment facilities and collection systems that will meet or exceed the minimum acceptable service standards and with the capacity to service the demand so generated and will meet or exceed the minimum requirements of the Department of Environmental Protection, the Department of Health and Rehabilitative Services, U.S. Environmental Protection Agency, or any local ordinances which exceeds the foregoing. All utility providers must advise the planning and utility engineering staff of the Village regarding system expansions or modification and must regularly provide summaries to the Village on compliance with standards.

**INF-1.4.5** No development order for new development, or change in use or intensity in an approved development order, will be issued unless sanitary sewer service is available at the minimum acceptable level of service within 1/4 mile of the development, or surety is given that it will be installed prior to occupancy.

**INF-1.4.6** No permit will be issued allowing any utility to use a public right-of-way or to cut a pavement in a public right-of-way to extend service outside of its certificated or franchised area or to extend service into an area allocated to another utility, unless the other utility concurs in writing. This will be enforced along municipal and state rights-of-way by interlocal agreement and memoranda of agreement as required.

**INF-1.4.7** The costs of new or augmented sanitary sewer infrastructure that is developed by a utility provider will be borne by those who benefit from the improved supply.

**INF-1.4.8** New development will pay through appropriate financial mechanisms its fair share of the costs of providing standard sanitary sewer for that development.

**INF-1.4.9** It is hereby declared that in the interests of preserving public health and of preserving and enhancing environmental quality, it is in the public interest to abate and cease use of septic tanks and wastewater treatment package plants where and when central sewer is available. The Village will identify the existing inventory of septic tanks in the Village, evaluate water quality issues associated with them, and coordinate with property owners, local utility providers and Florida Department of Environmental Protection to develop a program, schedule and funding to convert from septic tank use to central sewer facilities. Abatement of the use of private potable water wells and conversion to central water facilities should be considered in conjunction with this program.

**INF-1.4.10** With the cooperation of the respective utility firms or agencies, the Village will coordinate as needed on programs for the abatement of septic tanks and package plants or potable wells in areas in which central sewer or water is presently available and in areas encompassed by assessment districts established for upgrading central sewer or water availability.

	POTABLE WATER	INF-1.5
<b>OBJECTIVE</b>	The Village of Estero shall coordinate with utility providers to ensure the provision of acceptable levels of potable water service.	

<b>POLICIES</b>	<p><b>INF-1.5.1</b> The minimum acceptable level of service standard for potable water connections to Lee County Utilities will be:</p> <p>An available supply and treatment capacity of 250 gallons per day per equivalent residential connection (ERC), except that facilities serving only multi-family or mobile home residential structures must have a capacity of 200 gallons per day and facilities serving only recreational vehicle or travel trailer residential structures must have a capacity of 100 gallons per day.</p> <p><b>INF-1.5.2</b> The minimum acceptable level of service standard for potable water connections to Bonita Springs Utilities will be:</p> <p>An available supply and treatment capacity of 235 gallons per day per equivalent residential connection (ERC) and delivery of potable water at a minimum pressure of 20 pounds per square inch (psi) at the meter anywhere in the system.</p>
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**INF-1.5.3** Utility providers are encouraged to construct and install sufficient treatment facilities and distribution systems that will meet or exceed the minimum acceptable service standards and with the capacity to deliver water at a pressure of 40 pounds per square inch (wp PSI static) at the meter anywhere on the individual system (excluding fire flow conditions). All utility providers must advise planning and engineering staff of the Village regarding system expansions or modifications and must regularly provide summaries to the Village on compliance with water treatment and quality standards.

**INF-1.5.4** No development order for new development will be issued unless potable water service, at the minimum acceptable level of service, is available at the property line, or surety is given that it will be installed prior to occupancy.

**INF-1.5.5** No permit will be issued allowing any utility to use a public right-of-way or to cut a pavement in a public right-of-way to extend service outside of its certificated or franchised area or to extend service into an area allocated to another utility, unless the other utility concurs in writing. This will be enforced along municipal and state rights-of-way by interlocal agreement and memoranda of agreement as required.

**INF-1.5.6** The costs of new or augmented potable water infrastructure that is developed by a utility provider will be borne by those who benefit from the improved supply.

**INF-1.5.7** New development will pay through appropriate financial mechanisms its fair share of the costs of providing standard potable water for that development.

## GREEN INFRASTRUCTURE

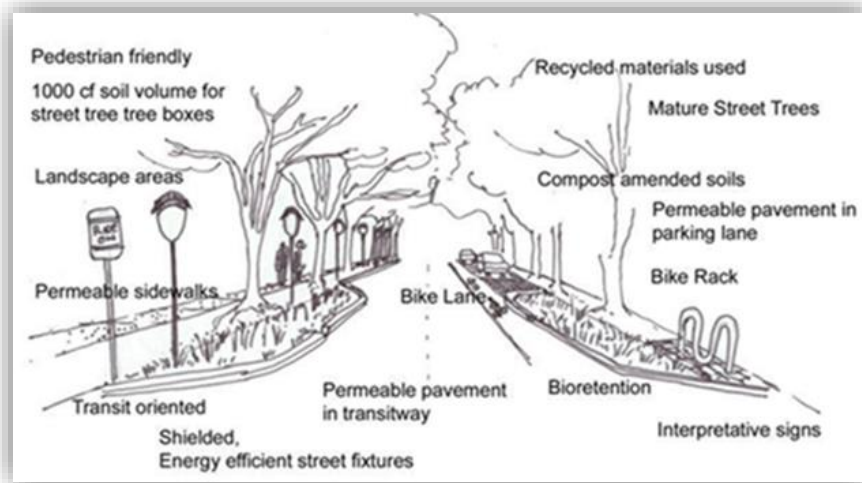
INF-1.6

### OBJECTIVE

The Village seeks to foster and maintain and ensure compliance with requirements associated with its green infrastructure, which is comprised of natural areas, low impact drainage systems, open spaces, and green energy resources, in support of public health, safety, welfare and resource sustainability.

### POLICIES

**INF-1.6.1** Encourage when possible the following techniques: green roofs, permeable pavement, bioswales, rainwater harvesting, green streets, stormwater parks, and conservation areas.



*Anatomy of a green street from [www.epa.gov](http://www.epa.gov)*

**INF-1.6.2** When the Village evaluates a proposed capital improvement to the stormwater system, consideration will be given to green infrastructure alternatives and retrofits according to: cost estimates, life cycle costs including capital and operation and maintenance, potential disproportionate burdens on portions of the community, projected pollutant reductions, benefits of receiving waters and other environmental and public health benefits associated with each option.

## SOLID WASTE

**INF-1.7**

**OBJECTIVE**

Support the health, safety, and general welfare of Estero’s residents by protecting the quality of the environment through the proper management and disposal of solid waste.

**POLICIES**

**INF-1.7.1** The minimum acceptable level-of-service standard for availability of solid waste disposal facilities is 7 pounds per capita per day.

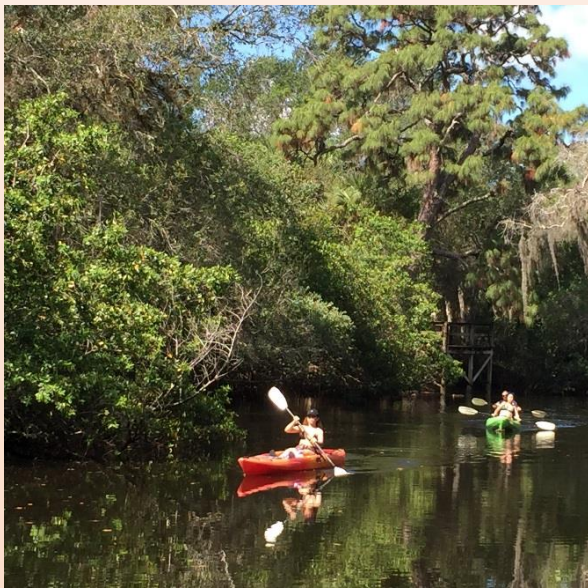
**INF-1.7.2** The Village shall work cooperatively with the County’s efforts to identify and monitor the disposal activities of hazardous wastes generators and with the County’s local program to collect (and properly dispose of) small quantities of hazardous materials such as pesticides, paint, used motor oil, etc.

**INF-1.7.3** The Village shall work cooperatively with other agencies to promote community clean up events to promote a clean and litter free community.

# CONSERVATION & COASTAL MANAGEMENT

*Nature*

The Village's unique natural environment consists of a variety of wildlife and plant communities. A natural treasure and focal point of the community is the Estero River and its tributaries, which lead to the Estero Bay, an estuarine body of water at the Village's western boundary. The Village puts priority on protection of natural resources while also supporting access to natural areas for residents and visitors in ways that do not compromise the protection of these resources.



## **Natural Treasures**

The Estero River, Estero Bay Buffer Preserve, Estero Bay, old growth trees, and wildlife are treasured by Estero's residents. It is a priority of the Village to maintain and integrate these resources in the lives of residents in ways that do not compromise them.

## **Preservation**

It is critical to the Village to preserve and maintain conservation lands and natural areas to enrich the native habitats, plants and wildlife. This can be accomplished through active participation with the agencies managing public lands, and through enforcement of maintenance standards for privately managed lands.

## **Coastal Resources**

Coastal resource protection strategies are necessary to reduce the risk of flooding, storm surge and the impacts of sea level rise.

## **Hazard Protection**

The Village aligns with Lee County's emergency management and hazard mitigation plans and strategies to ensure protection of residents and property.

The Village establishes goals, objectives and policies that emphasize preserving, protecting, and integrating natural features within the community in the following ways:

#### Plant and Tree Preservation

Through coordination with agencies who maintain public lands and establishing standards for maintenance of private landscaping, green spaces, and trees, the Village will ensure plant and tree health and preservation.

#### Water Access and Quality

The Village will support efforts to develop, regulate and implement programs to counter negative impacts on water from recreational, marine, and development issues while providing public access to the Estero River and supporting the viability of the Calusa Blueway.

#### Coastal Conservation

By coordinating with county, state and federal agencies to maintain or improve water quality and wildlife diversity, the Village will work toward improving the current pollution loading conditions to support estuarine health.

#### Wildlife Preservation

Ensuring floral and faunal species diversity, water quality, and natural surface water resources helps to sustain wildlife. The Village will coordinate with agencies who maintain public lands and establish standards for maintenance of privately managed preserves, which helps to support native habitats.

#### Resource Management and Efficiency

The Village supports smart and innovative use of resources to ensure their sustainability through promoting Florida-friendly ~~and xeriscape~~ landscaping techniques, encouraging the use of bio diesel, electricity and other clean fuels.

#### Hazard Protection

Through adoption of appropriate development and redevelopment regulations, the Village seeks to reduce the risk of flooding, storm surge, and impacts of sea level rise. Coordination with Lee County's emergency planning and hazard mitigation programming will ensure protection of the public.



CCM-1

**GOAL** The Village’s unique natural environment consists of wildlife and plant communities, the Estero River and its tributaries leading to the Estero Bay that defines the Village’s western boundary. The Village will support and promote public access to greenway and waterfront areas by residents and visitors in ways that do not compromise the protection of these natural resources.

PRESERVE MANAGEMENT COORDINATION

CCM-1.1

**OBJECTIVE** The Village has thousands of acres of public and private natural areas that are protected as state parks, public lands, or private preserve areas. These areas offer tremendous ecological, environmental, recreational and community benefits to the Village. The Village will collaborate with public agencies and private developers to preserve and maintain interconnected natural areas to benefit citizens and visitors.

- POLICIES**
- CCM-1.1.1 The Village shall develop and maintain an inventory of public and private parks and conservation areas and other natural areas existing within the Village boundaries.
  - CCM-1.1.2 Collaborate with public and private land managers to create interconnections between existing and future parks and preserve areas for recreational and wildlife benefits, in ways that do not compromise the protection of natural resources.
  - CCM-1.1.3 Engage in public-private partnerships that foster the responsible use and enjoyment of parks and preserve areas.
  - CCM-1.1.4 Encourage responsible land management techniques for public and private natural areas and parks designed to mimic natural South Florida ecosystems, increase biodiversity of beneficial native plant and animal species, and reduce fuel load and the potential for catastrophic wildfires.
  - CCM-1.1.5 The Village shall facilitate the cooperation of public and private land managers to reduce cost and increase effectiveness of the management of natural areas.
  - CCM-1.1.6 The Village shall seek to ensure that private developments perform maintenance and protect landscaping, drainage systems and preservation areas in accordance with applicable standards in the land development code and applicable permit conditions.
    - A. General trees, buffer trees and plantings that are required as part of development orders should be maintained in a healthy condition. Any change to established general trees, buffer trees and plantings that are required as part of development orders shall be governed by standards and procedures outlined in the land development code that relate to vegetation removal permit requirements and

replacement plans subject to Village approval. New development shall follow the Lee County standards for prohibited and permitted plant species.

- B. Preserves or conservation lands that are required as part of development orders should be maintained in a healthy and exotic free condition. Any vegetation removal or impacts associated with an area designated as a preserve or conservation area is limited per the applicable standards in the land development code, applicable permit conditions, and stipulations associated with conservation easements.
- C. Vegetation removal proposed on wooded or otherwise undeveloped sites is discouraged. Vegetation removal shall be governed by standards and procedures outlined in the land development code.

WATER ACCESS

CCM-1.2

OBJECTIVE

Support efforts to develop, regulate and implement programs to counter negative impacts on water from recreational, marine, and new and existing development, while providing public access and supporting the viability of the Calusa Blueway.



Image by Johnson Engineering, Inc.

POLICIES

**CCM-1.2.1** Discourage new public access to the Estero River for motorized watercraft while encouraging new public access to the river for non-motorized and electric watercraft in ways that do not compromise the protection of natural resources.

**CCM-1.2.2** The Village will cooperate to the extent practicable with the City of Bonita Springs and Lee County to provide public access to Estero Bay.

**CCM-1.2.3** Evaluate feasibility of a scenic waterways program in order to enhance the opportunities for physical, visual, and interpretive access to the water.

**CCM-1.2.4** Encourage Seek public private partnerships to encourage private landowners along the Estero River to provide some form of water access to the public.

**CCM-1.2.5** The Village will develop strategies for increasing public water access which may include development review, regulation, incentives, and acquisition. The first step in this process will be to develop and maintain an inventory of existing public and private water access sites in the Village.

COASTAL RESOURCE PROTECTION

CCM-1.3

OBJECTIVE

The Village will adopt development and redevelopment principles and strategies that reduce the risk of flooding, storm surge, and impacts of sea level rise.



Image by Johnson Engineering, Inc.

POLICIES

**CCM-1.3.1** Public expenditures in areas particularly subject to repeated destruction by hurricanes will be limited to necessary repairs, public safety needs, services to existing residents, and recreation and open space uses

**CCM-1.3.2** Conserve and enhance the natural functions of environmentally critical coastal areas.

**CCM-1.3.3** Continue to encourage the construction of environmentally compatible shoreline stabilizing systems where stabilizing systems are needed.

**CCM-1.3.4** Support efforts to maintain the ecosystem that nourishes and shelters the commercial and sport fisheries surface waters adjacent to the Village

**CCM-1.3.5** The Village shall review the Florida Department of Economic Opportunity's "Community Resiliency Initiative: Planning for Adaptation to Sea Level Rise," and the "Lee County Climate Change Resiliency Strategy" (CCRS) as well as other state and federal planning resources, as part of its efforts to establish effective strategies to plan for and adapt to sea level rise. In examining the statewide planning framework, the Village can better determine how best to integrate sea level rise adaptation policies into existing processes.

**CCM-1.3.6** The Coastal High Hazard Area, shall be defined as stated in Florida Statute Chapter 163, as the areas below the elevation of the category 1 storm surge line as established by a Sea, Lake, and Overland Surges from Hurricanes (SLOSH) computerized storm surge model, as described in Florida Statute 163.3178(2)(h). The area defined should be based upon the most recently available data published by the Florida division of emergency management.

**CCM-1.3.7** Comprehensive plan amendments within the CHHA must meet one of the following criteria in accordance with state statutory requirements in Florida Statute 163.3178(8)(a):

**A.** The proposed amendment shall demonstrate that a 16-hour out of county hurricane evacuation time for a category 5 storm event, as measured on the Saffir-Simpson scale, is maintained; or

B. The proposed amendment shall demonstrate that a 12-hour evacuation time to shelter for a category 5 storm event is maintained, and ensure adequate shelter space is available to accommodate the additional residents of the development allowed by the proposed amendment; or

C. The proposed amendment shall provide mitigation to satisfy the provisions of evacuation time and shelter space, which may include payment of money, contribution of land, and/or construction of hurricane shelters and/or transportation facilities. The required mitigation shall be addressed in a binding agreement and shall not exceed the amount required to accommodate the impacts reasonably attributable to the development.

CCM-1.3.87 Critical evacuation roadway links shall receive high priority for maintenance and capital improvement expenditures.

CCM-1.3.98 Continue to regulate and encourage proper coastal management techniques through site plan review and zoning mechanisms.

CCM-1.3.109 Implement development and redevelopment engineering solutions and standards that reduce the flood risk in coastal areas and along waterways such as the Estero River and Halfway Creek. Tools to be considered, but not limited to, are:

- Public infrastructure planning, siting, construction, replacement, operation and maintenance
- Stormwater Management
- Green Streets
- Rain Gardens/Bioswales
- Vernacular Streetscapes and Plant Placement (Water-Dependent Species)
- Grass Pavers (Driveways, Main Streets, Ponding Areas)
- Ecological Asset Preservation (Natural Areas, Mangroves, Plants, Animals)
- Land Development Regulations
- Comprehensive Planning

CCM-1.3.11 The Village shall develop a stormwater master plan to readdress recurring flood issues which takes into account an anticipated increase in flooding from rainfall and storm surge.

CCM-1.3.12 All development and major redevelopment in the CHHA shall be consistent with the flood-resistant construction requirement in the Florida Building Code and applicable flood plan management regulations set forth in 44 CFR part 60.

CCM-1.3.13 Development in coastal areas shall consider site development techniques to reduce losses due to flooding and claims made under flood insurance policies issued in the state. These may include accommodation strategies, such as elevating structures,

drainage improvements, or green infrastructure techniques that function to absorb or store water.

CCM-1.3.14 The Village shall limit public expenditures that subsidize development in the CHHA.

NATURAL RESOURCE PROTECTION

CCM-1.4

OBJECTIVE

Protect wetland and upland ecosystems so as to maintain and enhance native habitats, floral and faunal species diversity, water quality, and natural surface water and groundwater resources.

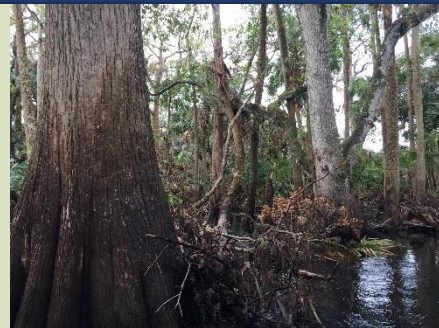


Image by Johnson Engineering, Inc.

POLICIES

**CCM-1.4.1** Ensure the long-term protection and enhancement of the natural upland and wetland habitats through the retention of interconnected, functioning, and maintainable hydroecological systems where the remaining wetlands and uplands function as a productive unit resembling the original landscape.

**CCM-1.4.2** Conserve habitat of native and non-invasive plant and animal species through development review, regulation, incentives, and acquisition.

**CCM-1.4.3** Continue implementing regulations and incentives to prevent incompatible development in and around environmentally sensitive lands; which are rare and unique uplands as described in Policy CCM-1.5.1 and wetlands, as defined in the definition section of this Plan.

~~CCM-1.4.4 Prevent water management and development projects from altering or disrupting the natural function of significant natural systems.~~

**CCM-1.4.5** The Village attaches great importance to the integrity of the Density Reduction/Groundwater Resource Area (DR/GR) in so far as actions in the DR/GR area have an impact on the environment, natural resources, mobility, sense of place, and character of Estero. The Village shall advocate to discourage development or future land use changes of DR/GR designated lands if the proposed development or future land use change has potential to increase density, intensity or traffic within the Village

**CCM-1.4.6** Require that the integrity of sloughs be maintained and restored, as opportunities arise, so that natural flow ways are functionally preserved.

**CCM-1.4.7** Evaluate the possibility of a building setback buffer requirement from the Estero River to protect natural plant communities and the river system.

PLANT COMMUNITIES

CCM-1.5

OBJECTIVE

Preserve and protect the inherent integrity of the Village's natural plant communities.



Image by Johnson Engineering, Inc.

POLICIES

~~CCM-1.5.1 Develop and maintain an inventory of upland habitats that, due to their presence or importance to the Village, should be retained in their natural state and incorporated as amenities into the design of new developments.~~

~~CCM-1.5.2~~ 1 Encourage Establish standards in the Land Development Code for the retention and preservation of high-value upland and wetland habitat types that are unique, rare, or otherwise important to the Village environmentally critical areas including wetlands and Rare and Unique upland habitats. Rare and Unique upland habitats include, but are not limited to: sand scrub (320); coastal scrub (322); those pine flatwoods (411) which can be categorized as "mature" due to the absence of severe impacts caused by logging, drainage, and exotic infestation; slash pine/midstory oak (412); tropical hardwood (426); live oak hammock (427); and cabbage palm hammock (428). The numbered references are to the Florida Land Use Cover and Forms Classification System (FLUCFCS) Level III (FDOT, 1985).

~~CCM-1.5.3~~ 2 Encourage Establish standards in the Land Development Code for the preservation of wetland and upland habitats that are contiguous to other public or private natural areas along with the hydrologic interconnection between such preserve areas.

~~CCM-1.5.4~~ 3 During development review, require applicants to submit environmental inventories and assessments of the impacts of development and encourage the protection and maintenance of viable tracts of sensitive or high-quality natural plant communities within developments.

~~CCM-1.5.5~~ 4 Maintain regulations to minimize and control the clearing of natural vegetation, including tree removal and clearing of understory, prior to the development of property or its conversion to agricultural uses.

~~CCM-1.5.6~~ 5 Development adjacent to aquatic and other nature preserves, wildlife refuges, and recreation areas must protect the natural character and public benefit of these areas including, but not limited to, scenic values, and wildlife habitat for the benefit of future generations.

TREE PROTECTION

CCM-1.6

OBJECTIVE

Protect heritage, historic, and champion trees and forests as unique community resources.



Image by Johnson Engineering, Inc.

POLICIES

CCM-1.6.1 The Village shall develop and maintain an inventory of specimen trees heritage, historic, and champion trees that, due to their uniqueness or importance to the Village, should be retained in their natural state and incorporated as amenities into the design of new developments.

CCM-1.6.2 Evaluate the Land Development Code for opportunities to strengthen mechanisms for the protection of trees associated with any development or redevelopment.

WILDLIFE

CCM-1.7

OBJECTIVE

The Village shall maintain and enhance fish and wildlife diversity and distribution for the benefit of a balanced ecological system.



Image by Johnson Engineering, Inc.

POLICIES

CCM-1.7.1 Support protecting Protect habitats of endangered and threatened species and species of special concern including but not limited to southern bald eagles, west Indian manatees, gopher tortoises, red-cockaded woodpecker, woodstork, Florida panther and black bear, smalltooth sawfish, bonneted bat in order to maintain or enhance existing population numbers and distributions of those species.

CCM-1.7.2 Participate with the Florida Fish and Wildlife Conservation Commission in the development of a regional plan that identifies and protects areas utilized by wildlife, including panthers and bears, so as to promote the continued viability and diversity of regional species.

CCM-1.7.3 Protect wildlife habitat located within areas designated as Wetlands on the Future Land Use Map consistent with the requirements of the Wetland future land use category and Objective CCM-1.8 and Policies CCM-1.8.1, 1.8.2, and 1.8.3.

CCM-1.7.4 Protect wildlife habitat located within areas designated as Conservation on the Future Land Use Map consistent with the requirements of the Conservation future land use category.

CCM-1.7.5 Protect wetland wildlife habitat located outside areas designated as Wetlands or Conservation on the Future Land Use Map consistent with the wetland protection requirements of Objective CCM-1.8 and Policies CCM-1.8.1, 1.8.2, and 1.8.3.

CCM-1.7.6 Protect upland habitat of threatened and endangered species and species of special concern located outside areas designated as Wetlands or Conservation on the Future Land Use Map consistent with Objective CCM-1.7 and Policies CCM-1.7.1 and CCM-1.7.2.

CCM-1.7.7 Establish standards in the Land Development Code that will provide for upland buffers (that maintain the natural habitat function of the buffer area) adjacent to preserved wetlands to provide habitat diversity and protection of wildlife.

WETLANDS

CCM-1.8

OBJECTIVE

The Village recognizes that wetlands are an invaluable natural resource which contribute vital benefits for the public, wildlife, ecosystems and the environment and will maintain and enforce a regulatory program for development in wetlands that is cost-effective, complements federal and state permitting processes, and protects the fragile ecological characteristics of wetland systems.



Image by Johnson Engineering, Inc.

POLICIES

**CCM-1.8.1** The natural functions of wetlands and wetland systems will be protected and conserved through the enforcement of the Village’s, the State of Florida’s, and the US Army Corp of Engineers’ wetland protection regulations and the goals, objectives, and policies in this plan at a minimum.

**CCM-1.8.2** To the extent allowed by law, the Village will require wetland mitigation for wetlands impacted by development or construction within the Village to be mitigated in order of preference: 1) On the same site or downstream of the impact within the same watershed; 2) within Estero; and 3) as close geographically to Estero as possible but still within the Estero Bay watershed. The Village will coordinate with South Florida Water Management District, Lee County, and the US Army Corps of Engineers to determine the nature and level OF mitigation on a case-by-case basis.



CCM-1.8.3 Encourage upland preservation in and around preserved wetlands to provide habitat diversity, enhance edge effect, and promote wildlife conservation.

WATER QUALITY

CCM-1.9

OBJECTIVE

The Village coordinate with County, state and federal agencies to manage the quality of the Village’s surface waters with priority on the Estero Bay ecosystem so as to maintain or improve water quality and wildlife health and diversity; to reduce or maintain current pollution loading and system imbalances in order to conserve estuarine productivity; and to provide the best use of estuarine areas.



Image by Johnson Engineering, Inc.

POLICIES

CCM-1.9.1 The Village shall review, evaluate, and work cooperatively with applicable local, and state, and federal agencies to address all new upland developments in terms of their impacts on estuarine systems.

~~CCM-1.9.2 The Village will work to ensure new development will maximize stormwater retention and treatment.~~

CCM-1.9.2~~3~~ New development must not degrade water quality of surface waters or groundwater or contribute to flooding of other areas.

CCM-1.9.3~~4~~ It is hereby declared that in the interests of preserving public health and of preserving and enhancing environmental quality, it is in the public interest to abate and cease use of septic tanks and wastewater treatment package plants where and when central sewer is available. The Village will identify the existing inventory of septic tanks in the Village, evaluate water quality issues associated with them, and coordinate with property owners, local utility providers and Florida Department of Environmental Protection to develop a program, schedule and funding to convert from septic tank use to central sewer facilities. Abatement of the use of private potable water wells and conversion to central water facilities should be considered in conjunction with this program.

CCM-1.9.4~~5~~ With the cooperation of the respective utility firms or agencies, the Village will coordinate as needed on programs for the abatement of septic tanks and package plants in areas in which sewer is presently available and in areas encompassed by assessment districts established for upgrading sewer availability.

CCM-1.9.5~~6~~ Through education, incentives, and standards in the land development code, encourage residents, owner associations, and golf courses to utilize responsible fertilizer practices designed and implemented specifically to reduce nutrient runoff into wetlands and waterways.

WATER RESOURCE PROTECTION

CCM-1.10

**OBJECTIVE**

Support Lee County and Bonita Springs Utilities efforts to provide continued reliable, sustainable, and cost-effective water resource availability.

**POLICIES**

**CCM-1.10.1** Work with Lee County and utility providers to identify water needs consistent with projections of human population and the needs of natural systems in order to determine the future demands for groundwater. The Village will support appropriate measures to ensure water supplies of sufficient quantity and quality to meet the present and projected demands of all consumers and the environment, based on the capacity of the natural systems.

**CCM-1.10.2** Comply with the Mandatory Year Round Landscape Irrigation Conservation Measures as detailed in the Florida Administrative Code and cooperate with emergency water conservation measures of the South Florida Water Management District.

**CCM-1.10.3** Develop and implement a Water Supply Facilities Work Plan, as required by the State of Florida. The Village shall use the document as the Village’s guide to water supply facility planning with a minimum planning horizon as specified by the State of Florida. A copy of the adopted Water Supply Facilities Work Plan will be maintained and kept on file by the Village.

**CCM-1.10.4** Promote Florida-friendly ~~and xeriscape~~ landscaping techniques in the land development code and ~~will~~ provide education on water conservation through creative landscaping, and promote the conservation and use of native plant species through ~~xeriscape~~ Florida-friendly landscaping techniques on Village projects.

**CCM-1.10.5** Well stimulation treatments in Estero, including acid stimulation and hydraulic and acid fracturing, or “fracking,” are prohibited.

**CCM-1.10.6** Support and comply with Lee County’s wellfield protection ordinance protecting the quality of water flowing into potable water wellfields.

AIR QUALITY

CCM-1.11

OBJECTIVE

Maintain the best possible air quality, meeting or exceeding state and federal air quality standards.



Image by Village Staff

POLICIES

CCM-1.11.1 Encourage the use of bio diesel, electricity and other clean fuels in public vehicles, and consider implementing incentives in the land development code for dedicated parking for such vehicles in new developments and redevelopments.

PLANNING, COORDINATION AND IMPLEMENTATION

CCM-1.12

OBJECTIVE

The Village will adopt and coordinate on the implementation of Lee County’s emergency plans and programs designed to protect the public from natural and technological hazards.



Image from estero-fl.gov

POLICIES

CCM-1.12.1 Address disaster preparedness, response and recovery and mitigation by coordinating with and participating in the Lee County Comprehensive Emergency Management Plan, Post-Disaster Strategic Plan, and Flood Plain Management Ordinance.

CCM-1.12.2 In the event of a disaster, the Village shall cooperate with Lee County to assist people with special needs (those who are elderly, frail, infirm, or handicapped) during an emergency.

CCM-1.12.3 The Village shall adhere to Lee County’s hazardous material emergency responses plan and will coordinate with the Estero Fire District on the provision of notification, resource, and logistical support to the response team and other primary agencies responding to hazardous material incidents to ensure proper containment, cleanup and disposal of hazardous materials involved in an emergency incident.

**CCM-1.12.4** Adhere to Lee County Emergency Evacuation procedures and guidelines to ensure provision of evacuation and shelter capabilities adequate to safeguard the public against the effects of hurricanes and tropical storms.

**CCM-1.12.5** Coordinate with Lee County and Estero Fire District to provide planning and decision-making to guide redevelopment during the response and recovery period following major emergencies, such as tropical storms and hurricanes.

**CCM-1.12.6** The Village acknowledges that wildfires present a threat to life and property. State parks, public lands, and private preserve areas increase in flammable fuel loads each year and can be ignited by natural and human-induced causes. Through public education efforts, cooperation with state park rangers, review of preserve management plans the Village will promote wildfire defense and resilience strategies of Fire Wise Communities to decrease the risk of damages associated with catastrophic wildfires while increasing the usability and enjoyment of natural areas.