

V. CONSERVATION AND COASTAL MANAGEMENT ELEMENT

GOAL 1: TO CONTINUE TO PROTECT, PROMOTE, AND ENHANCE THE COASTAL AND NATURAL RESOURCES IN AND AROUND THE MARCO ISLAND COMMUNITY THROUGH PRUDENT MANAGEMENT, PUBLIC EDUCATION, APPROPRIATE REGULATIONS AND ENFORCEMENT, AND ACTIVE PARTNERSHIPS WITH ALL OTHER INTERESTED PARTIES.

Objective 1.1: Sustain the City's high ambient air quality from potential degradation.

Policy 1.1.1: Utilize monitoring results from state agencies to ensure Federal air quality standards are met or exceeded.

Measurement: Monitor testing results from state agencies, and review information provided by the Regional Planning Council, to ensure air quality on Marco Island meets or exceeds Federal standards.

Policy 1.1.2: Encourage non-motorized travel on the island to reduce fossil fuel emissions through improved pedestrian and bicycle facilities. (See Transportation Element/Capital Improvement Element).

Measurement: Capital expenditures, sidewalk assessment districts, and Land Development Regulations that promote a multi-modal transportation network.

Objective 1.2: Maintain and/or improve the water quality of the community's water bodies based on current FDEP designations.

Policy 1.2.1: Upon Plan adoption, the City of Marco Island will coordinate with Collier County Health Department to request FDEP to conduct bi-annual water quality tests in and adjacent to waterways for bacteriological information for public notification. The test will determine fecal coliform and fecal strep counts and also determine the source if results are positive. The tests will be taken in areas with high concentrations of septic tanks, areas with all units connected to sewer, areas with limited development, and areas far enough away from septic tanks to provide baseline data. The test results will be made available to the public.

Measurement: Implementation of bi-annual water quality testing by FDEP.

Policy 1.2.2: Maintain cooperative relationships with governmental agencies to ensure prompt responses and/or investigations of events that may threaten the quality of water resources in and around the City of Marco Island.

Measurement: Number of events reported to Collier County Pollution Control annually for investigation.

Policy 1.2.3: Ensure that all new septic systems are designed, reviewed, permitted, and installed in accordance with all applicable rules and regulations.

Measurement: Number of new septic tank systems reviewed and approved for installation by the Department of Health prior to the issuance of a building permit.

- Policy 1.2.3.5:** Beginning June 1, 2001, for all properties utilizing septic tanks, prior to the issuance of a development order that authorizes any increase in the square footage of an existing structure, installation of a swimming pool or spa, or for the demolition of an existing structure, the applicant shall provide the City with a report from a licensed individual or firm stating that the existing septic system has been inspected and found to be in good working order. Should the report find the septic system is deficient the Collier County Department of Health will be notified and requested to initiate appropriate corrective actions.
- Policy 1.2.4:** Conduct, at a minimum, one annual educational outreach program to enhance public awareness of water quality issues for water-bodies on and around Marco Island.
- Measurement:* *Establishment of an annual educational outreach program to enhance public awareness of water quality issues.*
- Policy 1.2.5** The City will require best management practices for the use, handling, storage, and or disposal of regulated substances so as to prevent ground water contamination.
- Policy 1.2.6** The City shall assess projected water needs and sources and in coordination with the Lower West Coast Water Supply Plan and the City's adopted Ten Year Water Supply Facilities Work Plan to ensure that adequate water supplies and facilities are available.
- Objective 1.5:** Conserve and protect the existing native vegetative and marine habitats.
- Policy 1.5.1:** The City of Marco Island will cooperate and coordinate with existing county, state and federal agencies to ensure that established regulatory and enforcement efforts to protect mangrove, estuarine, beach, bay, river, and wetland systems are followed.
- Measurement:* *Continue to require agency review and approval prior to issuance of development orders for development activities that are proposed within environmentally sensitive areas.*
- Policy 1.5.2:** Increase public awareness of critical wildlife areas and natural preserves by education, allowing appropriate access, but also reporting violations of the rules and regulations to the appropriate agencies.
- Measurement:* *Establishment of an education outreach program to enhance public awareness of critical wildlife areas and natural preserves.*
- Policy 1.5.3:** Regularly monitor activities that are within the City's jurisdiction to assess whether local rules and regulations or other actions are needed to ensure that the natural resources are conserved and protected for long-term viability.
- Measurement:* *Review of local rules and regulations related to natural resource conservation and protection concurrent with required Land Development Regulation review within one year of plan adoption.*
- Objective 1.6:** Continually seek public acquisition of additional areas for nature preserves and

passive open spaces to expand the opportunities for conservation and increase public appreciation of natural habitats within the community.

Policy 1.6.1: After Plan adoption the City will pursue grant opportunities for preservation of natural areas.

Measurement: Number of grant applications pursued annually.

Policy 1.6.2: The City will participate, to the extent consistent with the Comprehensive Plan, with other entities involved in the improvement and preservation of surrounding ecosystems.

Measurement: City participation/interaction with not-for-profit organizations to improve and preserve the environmental status of surrounding ecosystems.

Objective 1.7: Ensure species listed as endangered, threatened, or of special concern that inhabit the environments in and around the City of Marco Island are protected.

Policy 1.7.1: Increase cooperation with local, state and federal agencies in protecting wildlife species listed as endangered, threatened, or of special concern, and protect and conserve the habitats in which they reside.

Measurement: The City will actively interact with local, state and federal agencies to ensure the habitat of endangered, threatened wildlife species is protected. Annual number of infractions investigated by non-City entities related to endangered or threatened species.

Policy 1.7.1.5: City staff will continue to monitor, post, and track gopher tortoise and burrowing owl nests on vacant properties, and to respond to citizen inquiries concerning species that are endangered, threatened, or of special concern.

Policy 1.7.2: Approval of any development plans will depend on if all local, state and federal permits pertaining to listed species are obtained correctly and filed with the City of Marco Island.

Measurement: Require all regulatory permits be secured prior to the issuance of a local development order.

Policy 1.7.3: Continue and increase public appreciation and awareness of native wildlife and habitats in and around the community through newspaper articles, brochures, presentations, workshops, and other means of education.

Measurement: Establishment of an educational outreach program to enhance public awareness of critical wildlife areas and natural preserves.

Objective 1.8: Ensure identified and potential wetlands are protected from unlawful, intrusive actions which could result in environmental damage or degradation.

Policy 1.8.0.5: The "potential wetland area" map produced by SFWMD and incorporated into the Future Land Use Map series shall be continually refined to more accurately assess existing resources, delineation of fresh and tidal wetlands, and establish a baseline

for further monitoring. (See Figure 5).

Measurement: *Establishment of a GIS system to map and track natural resources by the end of 2001.*

Policy 1.8.1: City personnel shall respond promptly to any and all situations involving activities within identified and potential wetland areas and, will obtain such outside regulatory agency assistance as deemed warranted, to ensure compliance with all State and Federal rules and regulations concerning wetland management.

Measurement: *Annual number of incidents investigated involving wetland areas.*

Policy 1.8.2: Require that all wetland features be accurately identified, when applicable, on site development plan submittals prior to permit issuance.

Policy 1.8.3: The City shall require that best management practices be incorporated into any development plan on property that contains wetlands or that is located adjacent to property that contains jurisdictional wetland resources prior to the issuance of a development order. Depending on the size or complexity of the proposed development, such BMP's may be the result of a required environmental impact statement (EIS).

Measurement: *Annual permits issued for development of lots on and adjacent to wetlands.*

Policy 1.8.3.1: Any proposed development or redevelopment project that contains a jurisdictional wetland (one acre or more) area shall be required to obtain all Federal and State permits, prior to the issuance of a City building permit, and comply fully with all terms and conditions of such approved permit(s), including on and off site mitigation, if applicable.

Policy 1.8.3.2: Any proposed development or redevelopment project that contains non-jurisdictional wetlands (less than one acre) area shall be required to comply with all applicable non-City processes prior to the issuance of a City building permit.

Measurement: *Annual number of development orders issued for projects involving non-jurisdictional wetlands.*

Policy 1.8.3.3: Proposed residential development (both single family and multifamily) located on lots with wetlands will be encouraged to retain and protect such wetland resources through clustering, setback relief, and other innovative planning techniques. The City shall support those applicants who demonstrate a desire to protect on-site wetlands by approving such requests for relief from rigid dimensional standards (i.e., setbacks, required landscaped areas, etc.).

Measurement: *Applications for dimensional relief granted for projects that involve wetland areas.*

Policy 1.8.3.4: The City shall not approve the rezoning of non-commercial land to commercial zoning if the land proposed for rezoning contains wetlands, or is adjacent to jurisdictional wetlands.

Measurement: *Commercial rezoning requests denied.*

- Policy 1.8.3.5:** All future capital improvements projects that abut wetland resources shall be designed, reviewed and permitted utilizing such protective measures as deemed warranted to avoid impacts to the natural function of those wetland resources.
- Policy 1.8.3.6:** Automotive wrecking facilities, junkyards, chemical manufacturing plants, refineries, asphalt batch plants, and tanneries are deemed to be incompatible uses of property that contain wetland resources. No such use shall be granted a development order for construction or expansion, if the site development plan shows existing wetland resources on or adjacent to the subject property.
- Policy 1.8.3.7:** The City shall encourage the acquisition of known wetland resources by conservation organizations to ensure their preservation.
- Measurement:** *Property acquired and maintained by conservation organizations.*
- Policy 1.8.3.8:** Within three years of Plan adoption, the City will seek partners to consider a preliminary study on the feasibility of establishing a wetlands bank on the Island.
- Measurement:** *Consideration of a preliminary study on the establishment of an on-Island wetlands bank by the end of 2004.*
- Objective 1.9** Ensure conservation of the City's potable water source through the utilization of water conservation and reuse techniques. _
- Policy 1.9.1** Continue utilization and expansion of the City's stormwater reuse program for landscape irrigation.
- Policy 1.9.2** Encourage water conservation through the use of Green Building construction and design techniques
- Policy 1.9.3** Continue to promote water conservation through the public education programs listed, including, but not limited to information regarding the City's Ten Year Water Supply Facilities Work Plan.
- Policy 1.9.4** Continue irrigation restrictions consistent with the City's Code of Ordinances and modify restrictions when necessary in coordination with the South Florida Water Management District's water conservation initiatives and requirements.
- GOAL 2:** TO CONSERVE AND MANAGE THE ENVIRONMENTAL RESOURCES AND MAN-MADE USES IN THE COASTAL AREA OF MARCO ISLAND.
- Objective 2.1:** Conserve and enhance the shoreline of Marco Island by increasing the amount of dunes, renourishing beaches to counter natural erosion, and reducing negative man-made impacts on beaches and dunes.
- Policy 2.1.1:** Periodic beach renourishment projects will be necessary along much of the shoreline. Such renourishment projects can provide long-term ecological, recreational and economic benefits. All practical measures shall be taken to ensure that beach renourishment projects are environmentally sound in design.
- Measurement:** *All regulatory permits must be approved prior to the issuance of local development*

orders for beach renourishment projects.

Policy 2.1.1.5: As future beach renourishment projects are proposed and planned, the City will support opportunities to increase public access, with or without attendant parking facilities.

Policy 2.1.1.6: The City shall make the re-opening/reestablishment of public access points a priority as part of the post-disaster redevelopment planning program.

Policy 2.1.2: Sand dunes shall be protected and recreated whenever they are damaged by human or natural actions. Native dune plants should be protected and non-native exotics removed. Appropriate signage shall be installed by year 2003 to protect dune areas from human intrusion.

Measurement: Implementation of appropriate signage program by the end of 2003. Continued abatement of exotic vegetation throughout the City.

Policy 2.1.3: The City will strictly enforce existing Vehicles on the Beach Regulations.

Measurement: Permits and/or citations issued annually pursuant to Vehicles on the Beach regulations.

Policy 2.1.4: Proposed development and re-development projects seaward of the Coastal Construction Control Line may be permitted provided it complies with this Comprehensive Plan and all state and local permitting requirements.

Measurement: Review of projects seaward of the CCCL line for conformance with plan and all state and local permitting requirements.

Policy 2.1.5: Where buildings are threatened by erosion that cannot be reversed or abated by major beach renourishment, the City's priorities are (1) to allow the structure to be moved away from the beach; (2) to allow emergency renourishment (including the use of trucked-in sand); and (3) to allow rip-rap or T-Groins only when the previous priorities are not possible.

Measurement: Alternatives utilized for buildings threatened by erosion, when and if necessary.

Objective 2.2: Protect, conserve and enhance coastal wetlands, living marine resources, coastal barriers, and wildlife habitats through diligent monitoring and cooperation/coordination with appropriate entities and agencies.

Policy 2.2.1: The City of Marco Island will continue to cooperate with County, State and Federal entities responsible for regulation and enforcement of activities associated with the protection and enhancement of mangrove, estuarine, beach, bay, river and wetland systems.

Measurement: Ensure all regulatory permits are obtained prior to the issuance of local development orders in areas subject to enhanced oversight. Actively pursue joint enforcement of violations of existing regulations.

- Policy 2.2.2:** Maintain cooperative relationships with governmental agencies to ensure prompt response, reporting, and/or investigation of events that may threaten the quality of water resources in and around Marco Island.
- Measurement:* *Number of incidents reported by the City to other regulatory agencies annually.*
- Objective 2.3:** Ensure that during the review of any commercial or multi-family project abutting the community's shoreline that resources are prudently utilized to support existing and future water-dependent and water-related uses that will promote public access, public awareness of shoreline issues, and sound environmental design.
- Policy 2.3.1:** Any new marina, marina expansion, or similar water-dependent use shall be reviewed to comply fully with existing manatee protection plans and design criteria, and further require all applicable state and federal permits prior to consideration by the City of Marco Island for issuance of permits.
- Measurement:* *Marinas and similar water dependent uses shall be reviewed and approved consistent with procedures outlined in Ordinance 00-04, Boat Docking Facilities.*
- Policy 2.3.2:** All new marinas shall be subject to review by the Regional Planning Council for a determination of whether such facility would be a development of regional impact (DRI).
- Measurement:* *Marina projects referred to the RPC for consideration as a DRI annually.*
- Policy 2.3.3:** All beach vendors will be required to obtain an annual vendor permit from the City pursuant to the City's adopted Beach Management Regulations.
- Measurement:* *Annual permits issued to beach vendors pursuant to Ordinance 98-12 Beach Management Ordinance.*
- Policy 2.3.4:** Within five years of Plan adoption, the City will investigate and create a mechanism to establish a dedicated pedestrian promenade easement along major bulkheads of commercial zoned property and dedicated easement from the promenade to the nearest public access for all new development and redevelopment projects.
- Measurement:* *Establishment of development regulations to effect the creation of the desired pedestrian easement.*
- GOAL 3:** TO MINIMIZE HUMAN AND PROPERTY LOSS DUE TO TROPICAL STORMS AND HURRICANES.
- Objective 3.1:** Reduce the threat of loss of life and property resulting from tropical storms and hurricanes through diligent, cooperative preparation planning, improved evacuation and sheltering facilities, and public education.
- Policy 3.1.0.5:** As virtually the entire Island is an evacuation zone for a Category One hurricane future development and redevelopment shall be limited to and not exceed the densities and/or intensities identified on the Future Land Use Map. This policy shall

not preclude reconstruction of structures as authorized under Policy 3.3.3 or the subsequent Post-Disaster Redevelopment Plan.

Measurement: Issuance of development orders for new projects consistent with the densities prescribed on the Future Land Use Map.

Policy 3.1.1: The City shall maintain and enforce building codes at least as stringent as required by Florida law to limit the potential damage of structures from hurricanes and tropical storms. These codes shall include wind-resistance commensurate with the risk of a coastal environment and building elevation requirements that conform with federal laws and Flood Insurance Rate Maps.

Measurement: The City shall adopt the new Florida Building Code pursuant to the prescribed implementation schedule.

Policy 3.1.2: The City will continue to actively participate and interact with the County's Local Emergency Management Planning (LEMP) organization to foster enhanced emergency planning with special emphasis on maintaining or reducing hurricane evacuation times from Marco Island.

Measurement: City representatives will actively participate in LEMP meetings.

Policy 3.1.3: The City will develop a local hurricane plan, which will be annually reviewed and revised before June 1st.

Measurement: Annual review of local hurricane plans.

Policy 3.1.4: Strongly advocate the expansion of the Jolley Bridge facilities to the MPO's funded priority list, and continue all efforts necessary until project completion.

Measurement: Success in placing the bridge on the MPO's funded priority list and other civic efforts to help accomplish this vital project.

Policy 3.1.5: The City will work through the County staff to ensure that hurricane evacuation shelters meet or exceed Red Cross standards, and that facilities are provided to meet the needs of elderly and disabled persons.

Policy 3.1.6: Upon plan adoption the City will conduct at least one public hurricane preparation meeting before hurricane season, and seek the assistance of local groups and associations to distribute pertinent materials on hurricane preparation and evacuation.

Measurement: Annual public hurricane preparation information meeting.

Objective 3.2: To limit public expenditures for infrastructure that would have the effect of directly subsidizing private development.

Policy 3.2.1: The City shall limit it's funding of public infrastructure expansion if such funding and such expansion would have the effect of directly subsidizing a specific private development in the City.

Measurement: *Annual funding and project design for public infrastructure projects.*

Policy 3.2.2: Policy 3.2.1. shall in no way limit the City's ability to fund and construct public improvements in order to provide adequate infrastructure to serve the Future Land Use Plan development pattern or development for which rights were vested prior to enactment of this Plan.

Policy 3.2.3: Such infrastructure improvements shall be consistent with adopted Levels of Service (LOS) contained in the Concurrency Management System (CMS) at the time of Plan adoption.

Measurement: *Documentation that infrastructure improvements shall be consistent with, or exceed adopted LOS standards for design and capacity, upon plan adoption.*

Policy 3.2.4: The maximum density of future residential development is limited to the densities described in the Future Land Use Element in recognition of natural hazards and existing population concentrations.

Measurement: *The City shall maintain a maximum density of four units per acre as described in the Future Land Use Element.*

Objective 3.3: The City will utilize a post-disaster redevelopment plan and associated build-back policies to reduce or eliminate the exposure of human life, and public and private property to catastrophic disasters.

Policy 3.3.1: Prior to the start of the 2001 Hurricane season the City shall adopt a post-disaster redevelopment plan and associated build-back policies. The plan, at a minimum shall address the following issues:

What constitutes a catastrophic disaster which would trigger implementation of adopted measures

Establishment of pertinent definitions and thresholds

Establishment of post-disaster redevelopment priorities

Establish restoration priorities for essential services and facilities

Post-disaster debris clearance and disposal strategies

Determination of damage, build-back policy, moratoria, emergency repairs, and emergency permitting system

Economic redevelopment policies

Guidelines for acquiring damaged properties

Interaction with Collier County and the SWFRPC.

Measurement: Adoption of post-disaster redevelopment plan with associated build-back policies prior to the start of the 2001 Hurricane season.

Policy 3.3.2: The City's interim build-back policy will be written such that structures which have been damaged by natural or manmade to the shall allow for the complete repair or reconstruction of all legally conforming structures which have been damaged by natural or manmade disasters to the documented actual use and density at the time of destruction. Existing conforming structures which have been damaged to the extent that the cost of their reconstruction or repair exceeds fifty percent (50%) of the replacement value of the structure may be reconstructed, but in accordance with the legally documented actual use, density, size, style and type of construction including square footage existing at the time of destruction, thereby allowing such structures to be rebuilt or replaced to the size, style, and type of their original construction, including their original square footage; provided, however, that the affected structure, as rebuilt or replaced, complies with all applicable Federal and State regulations and local regulations which do not preclude reconstruction otherwise intended by this policy. This policy shall not extend to non-conforming boat docking facilities or signs.

Policy 3.3.2.5: Upon adoption of the Post-Disaster Redevelopment Plan policies 3.1.1 and 3.3.2 shall be rendered null and void.

Policy 3.3.3: During post-disaster recovery periods, after damaged areas and infrastructure requiring rehabilitation or redevelopment have been identified, appropriate City departments shall use the post-disaster redevelopment plan to reduce or eliminate the future exposure of life and property to hurricanes.

Measurement: Implementation of actions and activities as described in the post-disaster plan when and if necessary.

Policy 3.3.4: The City's post-disaster plan shall be drafted to insure maximum coordination and clear lines of command and communication with Collier County's Emergency Management personnel and affected County departments to expedite post-disaster recovery.

Policy 3.3.5: Such post-disaster redevelopment plans will be coordinated with other Island service providers to ensure consistency between public and private plans and facilitate cooperation in execution of such plan at the time of emergency.

Measurement: Distribution of adopted post-disaster plan to service providers.