

**City of Marco Island
2040 Comprehensive Plan
Conservation and Coastal Management Element
DRAFT**

Goal 1: The City of Marco Island will conserve, protect, manage, and enhance the water, air, coastal and natural resources in and around the Marco island community.

Commented [BDM1]: PB: Include wildlife

Objective 1.1: Manage surface and ground water to maintain and improve overall water body quality and to conserve bay and estuarine productivity and use for the enhancement of the environment and to allow for continued enjoyment of these resources by residents of Marco Island.

Policy 1.1.1 The City will Coordinate with County, State and federal agencies to manage the quality of the City's surface waters so as to maintain or improve water quality; to reduce or maintain current pollution loading and system imbalances in order to conserve bay and estuarine productivity and use.

Policy 1.1.2: The City of Marco Island will coordinate with the Collier County Health Department and the Florida Department of Environmental Protection (FDEP) to establish and conduct a bi-annual water quality testing program. This shall include testing adjacent to waterways and in areas with high concentration 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. At a minimum, the testing program will determine bacteriological information, including fecal coliform, fecal strep counts, and possible source of contamination.

Commented [BDM2]: PB: Be more general about timing. Incorporate Dr. Harper's report if available. Consider including language about importance of swales for water quality.

Policy 1.1.3: The City considers it to be in the public interest to protect health and enhance water quality. When and where sanitary sewer is available, the City will require the abatement and cessation of septic tanks and wastewater treatment package plants.

a. Require all new developments to connect to public sewer if available. If a sewer system is not available, ensure that all new septic systems are designed, reviewed, permitted, and installed in accordance with all applicable rules and regulations.

b. Develop a program to inventory existing septic tanks; evaluate water quality issues; and coordinate with property owners, local utility providers and Florida Department of Environmental Protection to convert from septic tank use to sanitary sewer facilities. An abatement program, schedule, funding options, for septic tanks, private potable water wells, and conversion to central water facilities should be considered.

Commented [BDM3]: PB / Staff: Update.
Suggested change:
Policy 1.1.3 To protect health and enhance water quality, all septic tank conversions and wastewater treatment package plants abatements will comply with the timing and processes established by City Ordinances.

Policy 1.1.4: 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 and water quality degradation resulting from runoff.

Policy 1.1.5: The City will conduct, at a minimum one annual educational outreach program to enhance public awareness of water quality issues, including but not limited to, the City's Fertilizer Ordinance (adopted March 7, 2016), responsible fertilizer practices, and other best management practices for enhancing surface and ground water quality.

Commented [BDM4]: PB: Ensure consistency with MS4.

Policy 1.1.6: 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.

Commented [BDM5]: PB: Add non-governmental agencies

Objective 1.2: Ensure adequate potable water supply to meet the demands of the projected population to the year 2040.

Policy 1.2.1: The City shall include consideration of industrial, agricultural, and potable water use and conservation in its protection of and policies for water conservation consistent.

Commented [BDM6]: PB: Off island would be only means to do this.
Suggested change: Remove Policy

Policy 1.2.2: Utilize and expand the City's stormwater reuse program for landscape irrigation.

Commented [BDM7]: PB: May be controversial. Seek specific Council policy input. Concern over balancing nitrogen or other pollutants with water re-use. Possibly amend to reflect environmentally friendly water re-use options.

Policy 1.2.3: The City will develop and implement a program to educate and incentivize individual household and business water conservation and reuse, including information regarding the City's Ten Year Water Supply Facilities Work Plan, practices and design techniques for Green Building, and water conserving landscape design.

Policy 1.2.4: 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.

Commented [BDM8]: Jeff Poteet Utilities Comment: is looking at more stringent water conservation rules, which we do not agree with. The District is asking systems to increase watering restrictions from 3-days/week to 2. The City's has invested heavily in alternative water supplies ... in fact, the City's water supply comes from 100% alternative water sources. We comply with the 3-day/week restriction; however, when the District does temporary increased restrictions, the City has applied for and were granted a variance from the additional irrigation restrictions. If the District mandates the 2-day restriction, the City will fight it.
Possible Revision:
Policy 1.2.4 Continue irrigation restrictions consistent with the City's Code of Ordinances. Modify restrictions consistent with the City's interests and as appropriate and necessary in coordination with the South Florida Water Management District's water conservation initiatives and requirements.

Objective 1.3: Sustain the City's high ambient air quality from potential degradation.

Policy 1.3.1: Utilize monitoring results from State agencies to ensure Federal and state air quality standards are met or exceeded. Implement an air quality improvement program within one year of notification by Florida Department of Environmental Protection (FDEP) that established air quality minimum standards are not met.

Objective 1.4: Conserve, protect, and improve, where possible, the existing native vegetative and marine habitats including, but not limited to, environmentally sensitive coastal areas such as: wetlands, estuaries, mangrove stands, undeveloped barrier islands, beach and dune systems, aquatic preserves, bays, wildlife refuges, undeveloped tidal creeks and inlets, critical wildlife habitats, benthic communities, and marine grass beds.

Policy 1.4.1: The City will cooperate and coordinate with existing county, State and federal agencies to ensure that established regulatory and enforcement efforts are followed in order to protect native vegetative habitats, marine habitats, and environmentally sensitive coastal areas.

Commented [BDM9]: PB: Consider adding non-governmental agencies

Policy 1.4.2: Reduce the spread of prohibited exotic plants and noxious aquatic vegetation through regulations prohibiting the planting of these species and by requiring their removal when land is developed consistent with City ordinances.

Commented [BDM10]: PB: Reframe with more positive language (e.g., encourage)

Policy 1.4.3: The City will maintain public awareness of critical wildlife areas and natural preserves through educational programs, appropriate access, and systems to report rule and regulation violations to the appropriate agencies.

Policy 1.4.4: The City will develop programs and regulations to maintain the integrity of environmentally sensitive lands as a means to protect against coastal flooding and beach and soil erosion.

Objective 1.5: Seek opportunities for 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 1.5.1: The City will pursue available grant opportunities to expand additional areas for nature preserves and passive open spaces.

Policy 1.5.2: To the extent consistent with the Comprehensive Plan, the City will collaborate with other entities involved in the improvement and preservation of surrounding ecosystems.

Objective 1.6: Ensure protection of wildlife species listed as federally endangered, federally threatened, State threatened or Species of Special Concern that inhabit the environments in and around the City of Marco Island.

Commented [BDM11]: PB: Consider moving objective to end for purposes of flow

Policy 1.6.1: Approval of all development plans is contingent on documentation that the applicant has acquired all local, State and federal permits required and pertaining to wildlife species listed as federally endangered, federally threatened, State threatened or Species of Special Concern as defined by the Florida Fish and Wildlife Conservation Commission in the 2018, or most recent, Florida's Endangered and Threatened Species document.

Policy 1.6.2: The City will cooperate with local, State and federal agencies in protecting wildlife species listed as federally endangered, federally threatened, State threatened or Species of Special Concern, to protect and conserve the habitats in which they reside.

Policy 1.6.3: The City will monitor, post, and track gopher tortoise and burrowing owl nests on vacant properties, and to respond to citizen inquiries concerning species listed as endangered, threatened, or of special concern.

Commented [BDM12]: PB: Also potentially include existing lots

Policy 1.6.4: The City will promote 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.

Commented [BDM13]: PB: Add new language to increase (not just maintain) protected species.
Response: Consider unintended consequences or policy implications of increasing protected species

Objective 1.7: Ensure protection of identified and potential wetlands by maintaining and enforcing 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.

Policy 1.7.1: The Wetlands Map produced with data from the US Fish and Wildlife Service (USFWS) National Wetlands Inventory and incorporated into the Future Land Use Map series shall be updated from time to time as to more accurately assess existing resources, delineation of fresh and tidal wetlands, and establish a baseline for further monitoring. The Wetlands Map shall be used as a conceptual planning tool. Final confirmation of jurisdictional wetland boundaries will be determined by appropriate state and federal agencies. "Wetlands" include all of those lands, whether shown on the Future Land Use Map or not, that are identified as wetland in accordance with F. S. 373.019.

Policy 1.7.2: City personnel shall respond promptly to any and all regulated activities within identified and potential wetland areas. The City will seek external regulatory assistance to ensure compliance with all State and Federal rules and regulations concerning wetland management.

Policy 1.7.3: When applicable, all on site development plan submittals shall include identification of all wetland features.

Policy 1.7.4: 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).

1.7.4.1: The City shall create best management practices and guidelines within its Land Development Code to promote wetland protection, including, Florida-friendly landscaping, low impact design, and green building techniques.

Policy 1.7.5: The City shall direct future land uses that are incompatible with the protection and conservation of wetlands and wetland functions away from wetlands. The City shall consider that the type, intensity or density, extent, distribution, and location of allowable land uses and the types, values, functions, sizes, conditions, and locations of wetlands are land use factors that shall be considered when directing incompatible land uses away from wetlands.

Policy 1.7.6: Any proposed development or redevelopment project that contains a jurisdictional wetland 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. On or off-site mitigation shall comply with those requirements set forth by Florida Statutes Chapter 373 and/or other applicable rules and regulations as may be set forth by the Florida Department of Environmental Protection (FDEP).

Commented [BDM14]: PB: Consider if on-island mitigation is a priority
Response: Wetlands are highly regulated by SFWMD

Policy 1.7.7: 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.

Policy 1.7.8: 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.).

Policy 1.7.9: 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.

Policy 1.7.10: 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 1.7.11: The City shall encourage the acquisition of and grant funding for known wetland resources by conservation organizations to ensure their preservation.

Policy 1.7.12: The City will seek partners to consider a preliminary study on the feasibility of establishing a wetlands bank on the Island.

Commented [BDM15]: PB: How does a wetland bank work? Consider removing.

OBJECTIVE 1.8: 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 1.8.1: 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 and utilize best available design techniques.

Policy 1.8.2: As future beach renourishment projects are proposed and planned, the City will support opportunities to increase public access, with or without attendant parking facilities.

Commented [BDM16]: PB: Subject to Council policy direction.

Policy 1.8.3: The City shall make the re-opening/reestablishment of public access to the Marco Island shoreline as a priority in the post-disaster redevelopment planning program.

Policy 1.8.4: Sand dunes shall be protected and restored whenever they are damaged by human or natural actions. This shall include protection of native dune plants and removal of non-native exotics. The City shall install signage to discourage human intrusion on protected dunes where warranted.

Policy 1.8.5: As part of its shoreline protection efforts, the City will strictly enforce its existing regulations regarding vehicles on the beach and any other applicable ordinances.

Policy 1.8.6: Proposed development and re-development projects seaward of the Coastal Construction Control Line may only be permitted provided compliance with the FDEP Coastal Construction Control Line Program, this Comprehensive Plan, Florida Statutes chapter 161, and all other State and local permitting requirements.

Policy 1.8.7: 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 priorities (1) and (2) are not possible and where its installation will not cause negative impacts for shoreline health or other neighboring properties.

OBJECTIVE 1.9: Ensure all new development and redevelopment abutting the City's shoreline preserve and support existing and future water-dependent and water-related uses, public access, public awareness of shoreline issues, and sound environmental design.

Policy 1.9.1: 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 for issuance of permits.

Policy 1.9.2: The City will investigate and create LDC amendments 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.

Policy 1.9.3: Engage in public-private partnerships that foster the responsible use and enjoyment of parks and preserve areas.

Goal 2: To minimize human and property loss due to tropical storms and hurricanes and coastal flooding, which includes, but is not limited to, high tide events, storm surge, flash floods, stormwater runoff and impacts of sea level rise.

Objective 2.1: Reduce the threat of loss of life and property through diligent and cooperative emergency preparation planning, evacuation and sheltering facilities, and public education.

Policy 2.1.1 Limit future development and redevelopment to not exceed the densities and/or intensities identified on the Future Land Use Map, except where reconstruction of structures as authorized under Policy XX.XX of the Future Land Use Element or the subsequent Post-Disaster Redevelopment Plan are allowed.

Policy 2.1.2: The City shall enforce the Florida building codes, federal laws, and Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map

Commented [BDM17]: PB: Discussion centered on yacht club as an example project
Response: Consider making this more clear and whether LDCs are needed. E.g., modify as follows:
Policy 1.9.2: The City will investigate and create LDC amendments to establish pedestrian promenades along commercially zoned properties with connections to public access points for all new development and redevelopment projects.

requirements to limit the potential damage of structures from hurricanes and tropical storms and coastal flooding events.

Policy 2.1.3: The City will work with Collier County to ensure that evacuation shelters meet or exceed Red Cross, Collier County, and State standards; and that facilities are provided to meet the needs of elderly and disabled persons.

Objective 2.2: Ensure development reduces or eliminate the exposure of human life, and public and private property to catastrophic disasters.

Policy 2.2.1: Comprehensive plan amendments within the City's Coastal High Hazard Area (CHHA) must meet one of the following criteria in accordance with State statutory requirements in Section 163.3178(8)(a), F.S.

- 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.

Objective 2.3: Develop and implement pre-disaster and post-disaster build back programs to reduce or eliminate exposure of human life, and public and private property to catastrophic disasters.

Policy 2.3.1: The City shall implement the buildback policy as set forth in 3.2.3 of the Future Land Use Element.

Policy 2.3.2: The City shall develop and adopt a pre-disaster build-back program to reduce or eliminate exposure of human life, and public and private property to catastrophic disasters.

Policy 2.3.3: Regularly review the post-disaster redevelopment plan in the Marco Island CEMP and associated build-back policies established in the LDC Chapter 6, Article VI.

Policy 2.3.4: The City's build-back policy 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.

Commented [BDM18]: PB: Add innovative approaches to Objective

Commented [BDM19]: PB: Consider using word "maintain"

Policy 2.3.5: 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.

Objective 2.4: Ensure consistency between the Comprehensive Emergency Management Plan (CEMP), Flood Plain Management program, Collier County Comprehensive Emergency Management Plan (Collier County CEMP), the State of Florida Comprehensive Emergency Management Plan and Florida Statute, Chapter 252, Florida Administrative Code Rule 9G-6 and the Federal Robert T. Stafford Act.

Policy 2.4.1: Regularly review the City of Marco Island Comprehensive Emergency Management Plan (CEMP) dated December 2013 or as may be revised from time to time and the Flood Plain Management program to generally conform to the Collier County Comprehensive Emergency Management Plan (Collier County CEMP), the State of Florida Comprehensive Emergency Management Plan and Florida Statute, Chapter 252, Florida Administrative Code Rule 9G-6 and the Federal Robert T. Stafford Act.

Policy 2.4.2: The City will annually update, and publicly distribute the CEMP in coordination with Collier County and the Southwest Florida Regional Planning Council. 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.

Policy 2.4.3: The City will continue to actively participate and interact with the Collier County CEMP organization to foster enhanced emergency planning with special emphasis on maintaining or reducing hurricane evacuation times from Marco Island.

Policy 2.4.4: 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.

Policy 2.4.5: The City will continue to actively participate and interact with the Collier County's Emergency Management Bureau to foster enhanced emergency planning with special emphasis on maintaining or reducing hurricane evacuation times from Marco Island.

Map Series To Be Included

- Update Marco Island FEMA Flood Zones Map (M-10) pursuant to current FEMA maps.
- Update Marco Island Wetlands Map (M-11), as needed.
- Update Marco Island Coastal Control Line Map (M-12), as needed.
- Update Marco Island Historic Places and Archaeological Site Map (M-13), as needed.
- Note: CHHA Map to appear in FLU consistent with F.S.