

CONSERVATION & OPEN SPACE ELEMENT GOALS, OBJECTIVES & POLICIES

Background

The purpose of the Conservation and Open Space Element is to establish the basis for protecting West Melbourne's unique natural environment that features water resources, tropical vegetation and wildlife, and a mild tropical climate. The purpose of the Conservation and Open Space Element is to promote sustainable development practices through which the city will determine how to develop the community in such a way that meets needs of the present without compromising the needs for the future.

The Conservation and Open Space Element sets the framework for how to protect and conserve the city's natural environment while supporting the community's quality of life and small hometown sense of place. The element's goals, objectives, and policies set forth the city's priorities for the preservation and use of open spaces and natural resources. As a result, the element ensures the city is able to support its environment for now and the future.

Planning Framework

The objectives and policies established in the Conservation and Open Space Element provide a planning framework which:

- Identifies how to support county, regional, state, and federal environmental priorities.
- Assesses how the city's conservation and open space practices support the plan's other planning directives.
- Adopts policies that guide environmental preservation and open space provision practices.
- Achieves the community planning vision established through the Horizon 2030 EAR and 2010 Comprehensive Plan.
- Addresses the guiding issues and community concerns identified in the 2009 EAR.
- Provides for local, regional, and state planning priorities, principles, and practices.

The Conservation and Open Space Element accomplishes its goal to *"foster West Melbourne's quality of life, future sustainability, and community vision by protecting, maintaining, and preserving the city's open spaces and environmental amenities"* through planning directives aimed at:

- Implementing sustainable land development practices that protect the natural environment, native habitats, and clean air and energy efficiency.
- Utilizing the city's open space corridors to support the city's green spaces, environmental features, greenway system, and urban development areas.
- Implementing preservation strategies that protect natural habitats and environmental lands and natural resources from development impacts.
- Executing conservation strategies that preserve and protect potable water resources.
- Protecting surface waters and groundwater recharge areas.

- Utilizing intergovernmental partnerships to expand the city’s ability to protect its open spaces and natural resources.

By addressing these issues, the Conservation and Open Space Element will promote sustainable planning and development practices.

Conservation and Open Space Goal

Foster West Melbourne’s quality of life, future sustainability, and community vision by protecting, maintaining, and preserving the city’s open spaces and environmental amenities.

Objective 1: Sustainable Development Practices

Support the health of the natural environment, minimize the degradation of native habitats, and promote clean air and energy efficient use of vital resources by implementing sustainable land development practices.

Policies

1.1 Sustainable Land Development Strategies

Protect natural habitats and conservation lands through sustainable land development strategies that make the best use of new and existing development land areas. Such strategies may include:

- a. Require that invasive non-native species be removed and, as possible, require that native Florida species be preserved.
- b. Utilize conservation easements, transfer of development rights, open space set asides, wetland protection efforts, and environmental lands programs to direct new growth from these areas.
- c. Incorporate traditional neighborhood, compact forms of development.
- d. Maximize build out within the city through infill and redevelopment practices.

1.2 Minimal Environmental Development Impacts

Ensure that developers identify, address, and mitigate the environmental impact of all new and redevelopment projects through the implementation of site and development review process.

1.3 Development in Significant Natural Habitats

Protect habitats of protected species as identified by the US government and the State of Florida by implementing land use practices including:

- a. Foster traditional development practices and master planned communities.
- b. Use of cluster homes, mixed-use developments, and planned urban development practices in areas known to have natural habitats of threatened and endangered species.
- c. Creating natural preserves that set aside habitats from development.

1.4 Green Building (Energy Conservation) Strategies

The City, by December 2011, shall adopt a Green Building (Energy Conservation) Ordinance that requires new residential development to incorporate energy saving design and construction features, including, but not limited to, adequate insulation, innovative water heater devices,

parking space reduction, and more heat reflecting or heat minimizing roofing materials, into design, construction and site development plans.

The determination of the types of energy savings materials and construction features shall be made by the City after a study has been prepared, and used as justification for the ordinance. The City's ability to meet the target date will depend on the financial feasibility of conducting the required studies and data and analysis given current economic constraints, and the State's adoption of final Rules into the Florida Administrative Code that can be used as predictable guidance.

1.5 Stormwater Runoff Development Site Design Practices

Promote the reduction of the amount of stormwater runoff by educating developers on Low Impact Development (LID) site design practices including:

- a. Reducing paving area (i.e.: reduced parking widths and shared parking resources).
- b. Preserving natural areas on site.
- c. Using drought tolerant landscaping.
- d. Infill and redevelopment practices.
- e. Compact forms of development (i.e.: cluster home and mixed-use).

1.6 Clean Air and Energy Efficient Land Development Practices

Foster clean air protection and energy efficiency efforts by promoting sustainable land development practices that promote live-work-play opportunities. Such efforts to promote sustainable development include:

- a. Developing of neighborhoods and integrated development areas as master planned communities around mixed-use centers and corridors.
- b. Creating of safe and comfortable pedestrian and bicycling environments.
- c. Promoting of "safe street" designs.
- d. Placing building in locations that create public spaces.
- e. Creating and maintaining infrastructure to support desired development.
- f. Supporting existing communities and development areas.

1.7 Clean Air and Energy Efficient Transportation Development Practices

Encourage sustainable transportation practices that foster clean air and energy efficiency by coordinating transit and neighborhood development practices and encouraging community connectivity and multi-modal transportation alternatives. Such efforts may include:

- a. Promoting walking and bicycle use.
- b. Supporting transit corridors and public transportation alternatives and supporting increase multi-modal alternatives that decrease vehicle dependence.
- c. Improving neighborhood transit choices.
- d. Development of parking and street strategies to slow vehicular emissions.
- e. Identification of infrastructure resources that support very low emission vehicles.
- f. Integration of land uses than enable people to walk, ride bicycles, or utilize mass transit to move throughout the community.

1.8 Wetland and Aquifer Recharge Areas Protection

The city shall protect its groundwater sources, particularly in wetland and identified aquifer recharge areas, through its site and development review process by:

- a. Limiting activities that are known to adversely impact such areas.

- b. Requiring submittal of an environmental report to the City for all development projects that may contain wetlands. The City will rely on the data and conclusions made in these reports by professional biologists and scientists and shall coordinate with the St. Johns River Water Management District on the designation and permitting of such areas.
- c. Requiring that site plans include an identification and analysis of natural drainage features, man-made drainage structures, and impact of the proposed development on drainage and topographic features.
- d. Enforcing the wetland protection criteria contained in Objective 3 of this Conservation and Open Space Element.
- e. Maintaining a wetlands map, based on the US Fish and Wildlife Service, National Wetlands Inventory, as part of the Comprehensive Plan.
- f. Determining the functional value of the wetlands as described in Objective 3 of this Conservation and Open Space Element.
- g. Requiring that a restrictive easement be placed on the preserved wetland.

1.9 Flood Plain Development Standards

The city shall use best management practices for all development proposals in flood plain areas. Flood plain developments shall meet the following standards:

- a. Public water and sewer shall be required for all development projects, including those proposed in flood plain areas.
- b. The amount of post-development runoff shall not exceed the amount of predevelopment runoff.

1.10 Natural Drainage Channels Protection

Construction and development activities in natural drainage channels shall be limited, except for public flood protection projects designed to correct specifically identified pre-existing flood conditions and for which no reasonable alternative flood control measures are available, provided that:

- a. Such activities shall not increase the flood potential for areas outside the project target area.
- b. The overall water quality of the affected drainage channels shall not be reduced as a result of the activities.

Objective 2: Open Space Corridors

Utilize the city's open space corridors to provide urban green areas and key environmental features, establish a unified greenway system, and define the city's urban development area.

Policies

2.1 Open Space System

The City of West Melbourne shall utilize its site and development process to expand its open space system. The features of the city's open space system are:

- a. Permanently set aside undeveloped land or common areas for public or private use.
- b. Reserved for passive or active recreation parks, walking paths, or other passive natural uses.
- c. Accessible and interconnected pedestrian trails and bikeways.

2.2 Open Space Areas and Natural Communities

The city's open space system shall provide homes to natural species that are able to live within urban development corridors and coexist with human populations. However, due to the problems associate with habitat fragmentation, open space areas are not intended to act as natural habitats and conservation lands.

2.3 Open Space Corridor Development Strategy

The city shall utilize the site and development review process to implement the open space corridor study by:

- a. Creating new open space areas from the list of prioritized areas.
- b. Providing low-impact natural activities such as walking trails, picnic areas, and canoe launches.
- c. Preserving viewsheds, establishing focal points, and supporting landscape design features.

2.4 Open Space Development Standards

The city shall establish development standards for the preservation of open spaces and natural features by developers. Such standards shall include, but not be limited to:

- a. Preserving existing native vegetation and natural areas.
- b. Establishing new open space areas that connect to adjacent neighborhood open spaces and natural areas.
- c. Creating neighborhood buffers that link to the community's open space corridor system.
- d. Constructing stormwater systems that include wetland features, if feasible.

2.5 Natural Parks and Open Spaces

Limit recreational activities in natural parks and open space areas to those compatible with the natural environment.

Objective 3: Habitats, Conservation Lands, and Natural Resources

Implement preservation strategies that protect natural habitats and vegetative conditions, conserve environmental lands and natural resources, and minimize environmental degradation.

Policies

3.1 Habitat Conservation

The city shall protect natural habitats from habitat fragmentation by locating conservation areas outside the urban development corridor. Since the entire City of West Melbourne is an established urban development area, the city shall implement this policy in coordination and partnership with Brevard County, SJRWMD, Central Florida Regional Planning Council, Florida Department of Environmental Protection, adjacent local municipalities, and other state, regional, and local partners.

3.2 Endangered or Threatened Species Protection

The city shall protect threatened, endangered native species from incompatible development by requiring that proposed greenfield development sites be examined for location of Listed Species.

- a. If found, such species' habitat shall be identified on the proposed site plan and a plan for mitigation shall be discussed in the site plan narrative.
- b. Such information shall be addressed through the project staff report.

3.3 Endangered and Threatened Species Coordination

Partner with local, regional, state, and federal environmental agencies in the promotion, maintenance, and protection of environmental state and federal law. Areas of special consideration ought to include the habitats of natural communities identified as threatened or endangered by state and federal law.

3.4 Public Resources and Conservation Lands

Protect the natural diversity, processes, and functions of natural communities in the West Melbourne area's public resource and conservation lands. Coordinate conservation activities in these areas with local, regional, state, and federal government partners including Brevard County, SJRWMD, Florida Department of Fish and Wildlife, Florida Department of Environmental Protection.

3.5 Non-Native Invasive Species

Prevent the spread of non-native invasive vegetation, wildlife, insects, and other species and protect the health and well-being of the native environment through:

- a. Removing of existing non-native species in coordination with city initiated work projects.
- b. Eliminating non native species on all city owned properties and right-of-ways.
- c. Prohibiting the use of non-native, invasive species to meet city codes during development.
- d. Encouraging removal of non-native invasive species through conditions of approval for site and development review.
- e. Educating the public about the harmful impacts of non-native species into the environment.
- f. Regional, state, and federal partnerships on efforts to eradicate invasive species.

3.6 Habitat Protection

Coordinate with Brevard County and other local, regional, state, and federal environmental entities in the re-nourishment and protection of sensitive natural habitats. Such habitats include wetland and pine forests vegetation systems.

3.7 Wetland Protection

The City shall use the comprehensive planning process which includes review by the regional (SJRWMD), State (FDEP) and federal agencies for any development project containing a wetland larger than one-half acre in size. The protection shall be accomplished through:

- a. The Comprehensive Plan and Future Land Use Map and the evaluation of the density, intensity, extent, distribution, and location of allowable land uses as well as the types, function, conditions and location of affected wetlands.
- b. Compatible land uses adjacent to wetland areas (when the wetlands are deemed as functional) are:
 - i. passive recreation,
 - ii. open space,
 - iii. restricted access to the property (where unavoidable), and

iv. nature preserve.

All other uses shall be directed away from the wetlands.

- c. If the City, after review of the environmental report and consultation with regulatory agencies determines that direct impact to the wetlands cannot be avoided, or that the environmental report determines wetlands are not functional, mitigation that complies with federal, state, regional, and local agencies shall be allowed.
- d. Mitigation measures shall be the terms determined by SJRWMD and/or other regulatory agencies.

3.8 Wetland Functional Value Assessment

Land development impacts on designated wetlands shall be based on the functional value of wetlands. The functional value assessment criteria for wetlands shall at a minimum, include consideration of:

- a. Capacity for flood storage or flow regulation;
- b. Potential as wildlife and/or fisheries habitat;
- c. Provision of habitat for state or federally protected species;
- d. Rarity as a vegetative community type;
- e. Degree of prior adverse impacts which would limit the future viability of the wetland (i.e. invasion by upland or exotic species, fire, permanent alteration of drainage patterns);
- f. Value of the wetland as functional or degraded with minimal restoration potential;
- g. Isolation of the wetlands from other functional wetlands;
- h. Potential for recreation usage

The functional value shall be assessed by the City with the submittal of the environmental report after consultation with the applicable state and regional regulatory agencies. The City's evaluation is not meant to impose a decision contrary to the laws and rules of the state and other regulatory agencies, nor as a substitute for permitting, and it is for this reason that consultation will occur on every identified wetland.

3.9 Wetland Impacts

Wetlands and wetland functions shall be protected and conserved by restricting direct and indirect development impacts as follows:

- a. Existing development – Existing uses in wetlands may continue, but shall not expand unless they are allowed, permitted, or exempted by the SJRWMD and this policy.
- b. New Development and Redevelopment – New and redevelopment having impact on the wetland shall be permitted if the activity meets at least one of the following criteria:
 - 1. Road crossings. If proposed road crossings, such as for collector and higher classified roads are in the public interest.
 - 2. Access to uplands across wetlands. Access to uplands property may cross wetland areas if no other access is practical, such access is limited, and the location and construction results in minimal environmental impacts.
 - 3. Degraded wetlands. If the SJRWMD determines a wetland or portion of, is severely degraded and has minimal restoration potential.
 - 4. Isolated wetlands for stormwater management systems. As determined by the City, development may incorporate isolated wetlands into stormwater

management systems, provided the stormwater runoff is pre-treated before entering the wetland, so that the wetland is used for nutrient and volume attenuation.

5. Isolated wetlands with no significant and sustainable wildlife value. The City shall use the environmental report and obtain the opinion of SJRWMD and other applicable regulatory agencies as to whether an isolated wetland has significant or sustainable wildlife value.

3.10 Wetland Habitat Site and Development Protection

Wetlands and their associated habitats shall be protected during the site development process by following these policies:

- a. Utilize buffering setbacks adjacent to wetlands in order to protect water quality, preserve natural wetland function and preserve natural habitat. The buffer, as measured landward from the approved jurisdictional line, shall be maintained in a natural vegetative state (versus fertilized or mowed) as follows:
 - i. For wetland areas east of I-95, a buffer width not less than fifteen (15) feet shall be required.
 - ii. For wetland areas west of I-95, the buffer width shall not be less than thirty feet.
- b. Incompatible uses shall be directed away from wetlands.
- c. Prohibit activity which impairs the natural function of these lands.

3.11 Wetland Habitat Alteration

Wetlands and wetland habitats shall not be dredged, filled, or disturbed in any manner that diminishes their natural functions, unless:

- a. Appropriate mitigation practices are established in coordination with and approved by local, regional, state, and federal agencies, after the City has received an environmental report that provides scientific data as to the presence of wetlands and directs the applicant to the regulatory agencies.
- b. Encroachments are allowed as determined upon review by the appropriate regulatory agency and subject to the regulatory agency's policies and review, after these agencies receive justification that no other feasible or practical alternatives exist that would permit the reasonable use of land or where there is an overriding public benefit.

3.12 Pollution Prevention and Enforcement

The city shall coordinate with the Brevard County, Florida Department of Environmental Protection, and other governmental entities in identifying pollution problems and providing documentation and other relevant assistance as appropriate and feasible towards the mitigation and remediation of pollution problems, including assistance as necessary in cases where sanctions may be imposed for violations of applicable environmental regulations.

3.13 Hazardous Waste Disposal and Habitat Protection

The city shall protect the area's vital natural habitats and environmental resources by establishing effective hazardous waste disposal practices and coordinating with Brevard County on the implementation and enforcement of such practices. Such practices shall address the following considerations:

- a. Prohibition of disposal of hazardous wastes into the public sewer system and canals and ditches by addressing these issues during the site plan review process.
- b. Coordination with Brevard County on hazardous waste amnesty days.
- c. Use of active code enforcement to ensure adherence to hazardous waste policies and regulations.
- d. Public awareness of the dangers of hazardous waste materials and methods of safe disposal through the city public information and publication outlets.

3.14 Mining Operations

Encourage efficient mineral resource extraction, if proposed in the city, through resource conserving extraction methods, use of reclaimed water when available, and other cost effective and resource conserving techniques.

Objective 4: Potable Water Resources

Execute conservation strategies that preserve the city's vital potable water resources, and protect existing and future sources of potable water.

Policies

4.1 Water Distribution System

Maintain its water distribution system in order to provide drinking water of an acceptable quality in the most efficient and effective manner. Special consideration shall be made to implement the city's leak detection program in order to discover and eliminate wasteful losses of potable water from the city's central water supply and distribution system.

4.2 Potable Water Supply Safety

The city shall protect the safety of its potable water supply by:

- a. Visually inspecting every well site for damage and vandalism.
- b. Utilizing a radio telemetry system to monitor pump failures, loss of flow and other indications of security problems.
- c. Having a redundant, off site, manual shut down system for well operations.
- d. Reporting any suspicious activities to the Florida State Warning Point.

4.3 Private Septic Systems

The city will not permit new private septic systems within environmentally sensitive areas or areas currently served by sanitary sewer systems. Existing or new private septic systems are required to connect to city utilities upon service availability.

4.4 Public Water Conservation Efforts

The city shall encourage the community and its members to use water effectively and effectively by:

- a. Participating in water conservation public information programs.
- b. Encouraging the use of water conserving plumbing fixtures.
- c. Promoting the landscaping use of drought tolerant native vegetation.

4.5 Water Conservation Ordinance

The city shall continue to enforce the water conservation ordinance which implements SJRWMD landscape irrigation restrictions and shall keep the public informed of these restrictions.

4.6 Reclaimed Water System Expansion

The city shall promote the conservation of water by encouraging the use of reclaimed water for landscape irrigation purposes. Specific efforts to encourage the use and expansion of the system include:

- a. Requiring the installation of reclaimed water lines and connection to the reuse system for all new residential subdivisions that are developed in the reuse district.
- b. Requiring that all new commercial projects either:
 - i. Connect to the reuse system.
 - ii. Provide stub outs from the irrigation system to the right-of-way for future connection.

4.7 Water Irrigation

Promote water conservation and discourage waste of potable water resources for irrigation purposes by:

- a. Informing the public about sustainable irrigation practices and alternative water supplies.
- b. Utilizing the site and development process to encourage the use of reclaimed water for irrigation of new developments where available.
- c. Requiring connection to reclaimed water for irrigation purposes when reclaimed water resources are available and authorized by the Florida Department of Environmental Protection (FDEP) and/or SJRWMD, pursuant to Florida Statutes.
- d. Implementing the SJRWMD's landscape irrigation restrictions and keeping the public informed of these restrictions.

4.8 Low Consumption Plumbing Devices

Promote water conservation by requiring that all new construction and major remodeling activities utilize fixtures conforming to the Florida Building Code standards for water efficiency and conservation. The City shall continue to require the following water conserving fixtures for new construction:

- a. Low volume water closets.
- b. Low volume urinals.
- c. Water efficient showerheads.
- d. Water efficient faucets.

4.9 Septic Tank Stipulations

The city shall only allow septic tanks in areas where public sewer is unavailable and only upon issuance of a Brevard County Health Department permit.

4.10 Backflow Preventers

The city shall continue to require the installation of backflow preventers on water services for all non-residential uses to protect the city's water system from contamination.

4.11 Emergency Water Conservation Coordination

The city shall continue to adhere to any emergency water conservation measures imposed by the St. Johns River Water Management District.

4.12 Abandoned Artesian Wells

The city shall notify the SJRWMD of the presence of any abandoned free-flowing artesian wells identified within its jurisdiction and to record their existence.

4.13 Inverted Rate Structure

The City shall maintain its current inverted water rate structure to ensure conservation of potable water, but shall periodically assess the water rate structures and connection fees.

Objective 5: Surface Waters and Groundwater Recharge Areas

Protect surface waters and groundwater recharge areas from the intrusion of pollutants.

Policies

5.1 Stormwater Runoff Standards

In accordance with the LOS standard established for stormwater management, the amount of post-development runoff shall not exceed the amount of predevelopment runoff.

5.2 Control and Monitoring of Water Pollutants

The city shall protect the water quality of its wetlands, and natural water bodies by coordinating with Brevard County on the monitoring and elimination of point and non point sources of pollution to the city's waterways.

5.3 Groundwater Recharge Area Protection

If groundwater recharge areas are identified in the city, the city shall protect groundwater recharge areas by utilizing the city's site and development processes to implement green space, landscaping, stormwater management, and erosion control land development practices.

5.4 Stormwater Management Ordinance Enforcement

Maintain water quality and protect natural water bodies by utilizing the site plan and development approval process to implement and enforce the city's stormwater management ordinance.

- a. During construction, erosion and sedimentation controls shall be enforced and side lot drainage areas shall be required.
- b. Direct channeling of surface water runoff into water bodies shall be prohibited.
- c. Maintenance of stormwater management facilities shall be enforced.
- d. For those development projects requiring a SJRWMD permit, the city shall not issue building permits until a copy of the SJRWMD permit has been submitted.

5.5 Runoff Filtration Methods

The city shall utilize appropriate stormwater filtration processes to purify stormwater runoff before the runoff filters into surface waters and natural water systems. Methods to be utilized include:

- a. Requiring stormwater retention or detention systems as appropriate
- b. Bio-retention strips or rain gardens (i.e., grass buffers, sand beds, and ponding areas).
- c. Vegetative buffers, swales, and filter strips.
- d. Disconnected impervious areas and separate localized water detention cells.
- e. Cistern collection systems.

- f. Regular sweeping of paved surfaces areas.

5.6 Hazardous Substances in Floodplain

The storage of hazardous or acutely hazardous substances or wastes are prohibited within the floodplain of any watercourse or within the vicinity of wetlands associated with any watercourse.

5.7 Wastewater Treatment Plant Operations

The city shall continue to comply with all effluent standards in the operation of the Sanitary Sewer treatment plant.

5.8 Deep Well Injection System

The city shall continue to operate the deep well injection system, thereby alleviating pollution to the Indian River Lagoon.

5.9 Melbourne-Tillman Water Control District

The city shall continue to support the Melbourne-Tillman Water Control District in its efforts to divert flow of the Melbourne-Tillman drainage system to the west to reduce the adverse effects to the Indian River. The resulting discharge to the St. Johns River will also not cause adverse impacts to that water body.

Objective 6: Regional Environment Coordination

Utilize intergovernmental partnerships to expand the city’s ability to protect, enhance, and maintain its open spaces and natural resources.

Policies

6.1 Funding Resources

Pursue funding from county, regional, state, or federal sources to expand, maintain, and implement the West Melbourne’s community’s open space and natural resource conservation efforts.

6.2 Regional Environmental Protection

Partner with Brevard County and other local, regional, state, and federal environmental organizations to identify, protect, and enhance significant open space and natural resource areas, particularly those habitats and species identified as either endangered or threatened.

6.3 Air Quality Monitoring

Continue to support all local, state, and federal efforts to maintain a comprehensive air quality monitoring and analysis program.

6.4 Clean Air Standards and Regulations

The city shall adhere to all minimum air quality standards and comply with all state and federal laws regulation clean air in order to ensure that

6.5 Emergency Water Conservation

The city shall continue to implement emergency water conservation practices in accordance with the SJRWMD. Such directives include the implementation of water management plans and emergency conservation directives.

6.6 Mining Regulatory Oversight

Coordinate with local, regional, state, and federal mining regulatory agencies to ensure that new and existing mining operations meet all governmental requirements.

6.7 Sanitary Sewer Oversight

The city shall continue to provide to the State agencies, complete monitoring reports of the sanitary sewer treatment plant.