

Environment and Natural Resources Committee



July 19, 2023

Outline

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- I. Wetland Protection Presentation-Staff
 - I. Minimum Standards
 - II. Implementing Ordinance
- II. Committee Discussion

Environmental Minimum Standards and Implementing Ordinance

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Forester

The importance of wetlands

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- ❑ Wetlands filter pollution and help clean surface water.
- ❑ An acre of wetland can store and treat 1-1.5 million gallons of flood water
- ❑ 75% of commercially harvested fish and shellfish, and 90% of recreational fish in the U.S are dependent on wetlands for their reproductive cycle
- ❑ One-half of all North American bird species nest or feed in wetlands

Estimated economic value of wetlands

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Total annual economic value of wetlands in North America (in 2000 \$)

- ▣ Mangroves - \$30M
- ▣ Unvegetated sediment - \$550 M
- ▣ Salt/Brackish marsh – 30M
- ▣ Freshwater marsh – 1.7 M
- ▣ Freshwater wooded – \$64M
- ▣ **Total - \$677M**

Why are minimum standards important?

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From 1990 to 2020 Volusia County's population grew from **370,712** to **553,543**.

This is an increase of:

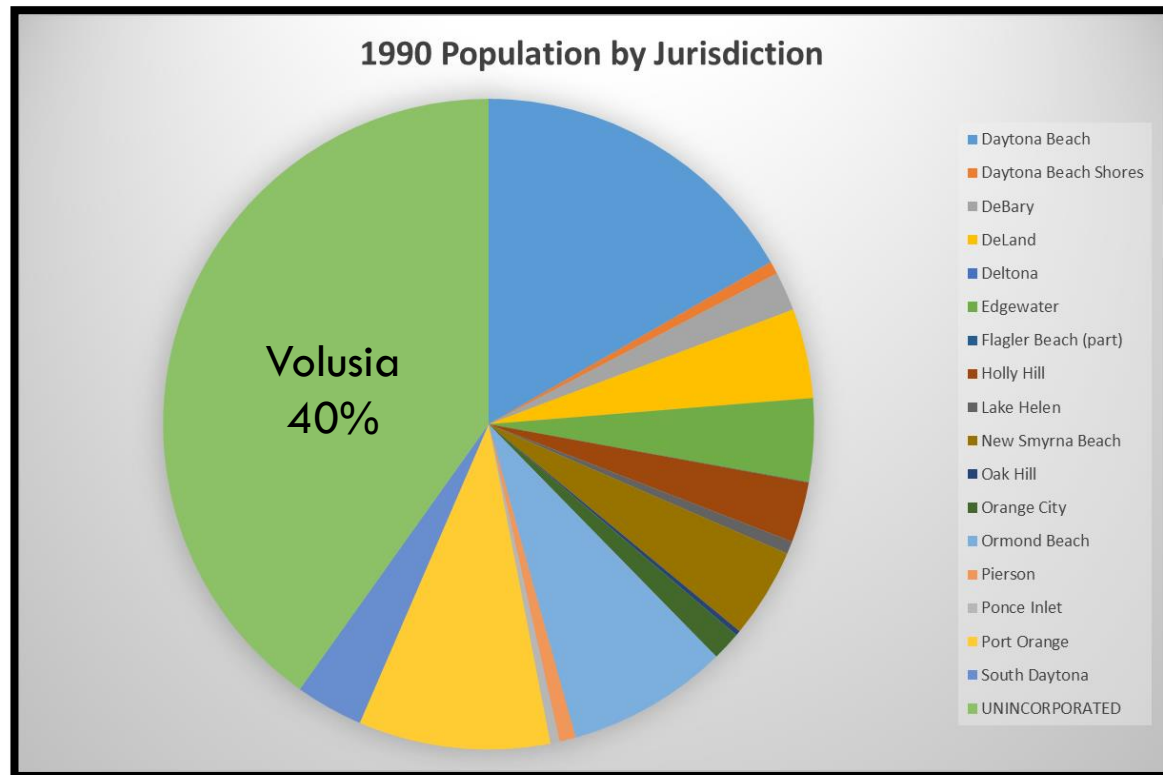
- ✓ 182,831 people,
- ✓ Approximately 81,000 homes
- ✓ Approximately 18 million gallons of water per day and 15 million gallons of wastewater, and
- ✓ Approximately 730,000 new trips on the roads.

Why are minimum standards important?

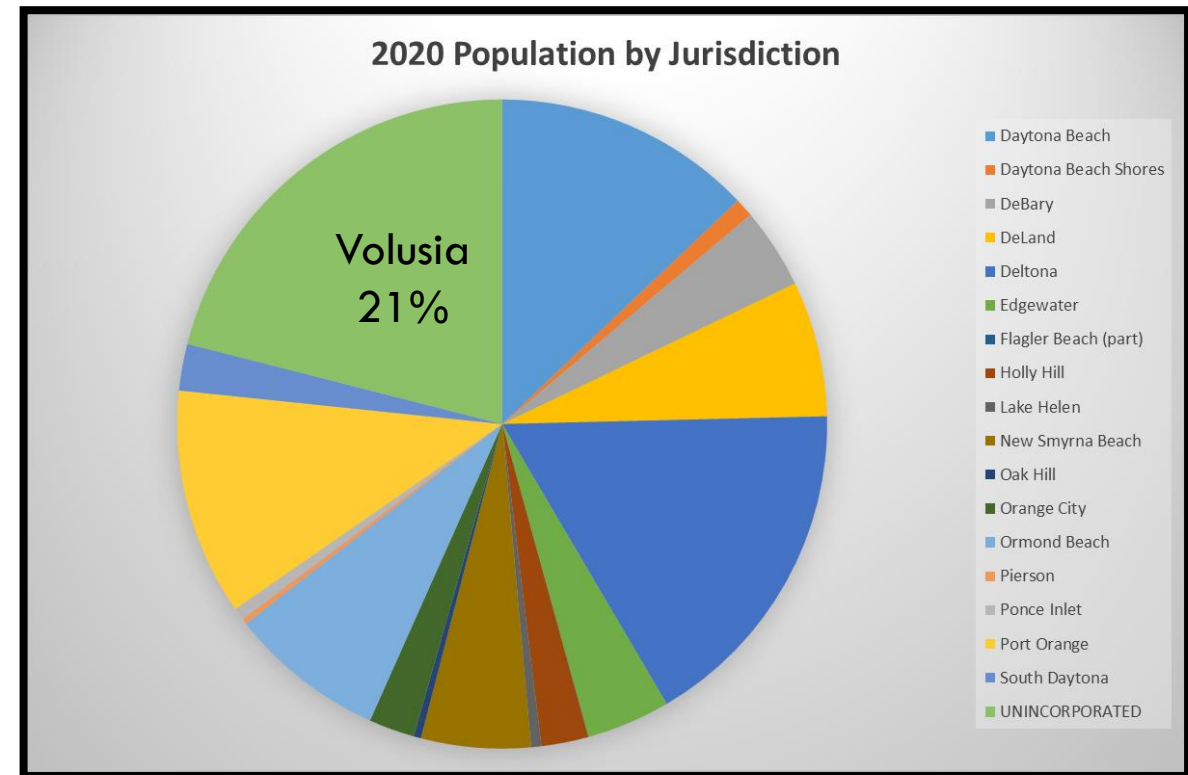
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Where we are living has changed – a move to the cities.

1990 Population of all 15 cities:
221,857 (60% of total)



2020 Population of all 16 cities:
437,146 (79% of total)



Wetland Minimum Standards

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- ❑ Adopted in 1989 and revised in 1996 and in 1999
- ❑ Establishes a policy of no net loss of wetland acreage or function(50-204)
- ❑ Requires a wetland alteration permit for alteration of any wetland on single family residential lots, and non-residential if not permitted by a state agency (50-209)
- ❑ Establishes mitigation requirements including avoidance and minimization of impacts(50-213)
- ❑ Requires a minimum 25-foot upland buffer (50-214)

Wetland Minimum Standards Exemptions

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There are exemptions (50-206) to the wetland standard that include:

- ❑ Cleared walking trails having no structural components
- ❑ Timber catwalks and docks four feet wide or less
- ❑ Bona fide agricultural uses
- ❑ Utility crossings
- ❑ Maintenance in ditches, retention and detention areas, public road and other rights-of-way, and other related drainage systems
- ❑ Bona fide mosquito control activities
- ❑ Wetlands one-half acre or smaller
- ❑ Developments that have obtained a valid environmental resource permit from the Florida Department of Environmental Protection

Wetland Standards in the LDC

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- ❑ Eliminates the exemption for state permitted impacts (72-883)
- ❑ All wetland and buffer impacts (unless specifically exempted) require a wetland alteration permit and mitigation (72-884)
- ❑ Mandates avoidance and minimization of impacts (72-887)
- ❑ Buffers are increased to 50 feet in NRMA, ECO and adjacent to Outstanding Florida Waters (72-886)



Wetland Protection

Potential Improvements

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- ❑ Establish guidelines to better define avoidance and minimization
- ❑ Remove FDEP permit exemption language from minimum standard
- ❑ Require permitting and mitigation upon conversion of agricultural land to another use within a certain timeframe (10 years?)
- ❑ Increase buffers to better protect wetlands and wildlife – graduated protection in NRMA and ECO?
- ❑ Update to include current mitigation assessment method
- ❑ Make changes to provide consistency with the comprehensive plan
- ❑ Strengthen regulations for disturbance to buffers

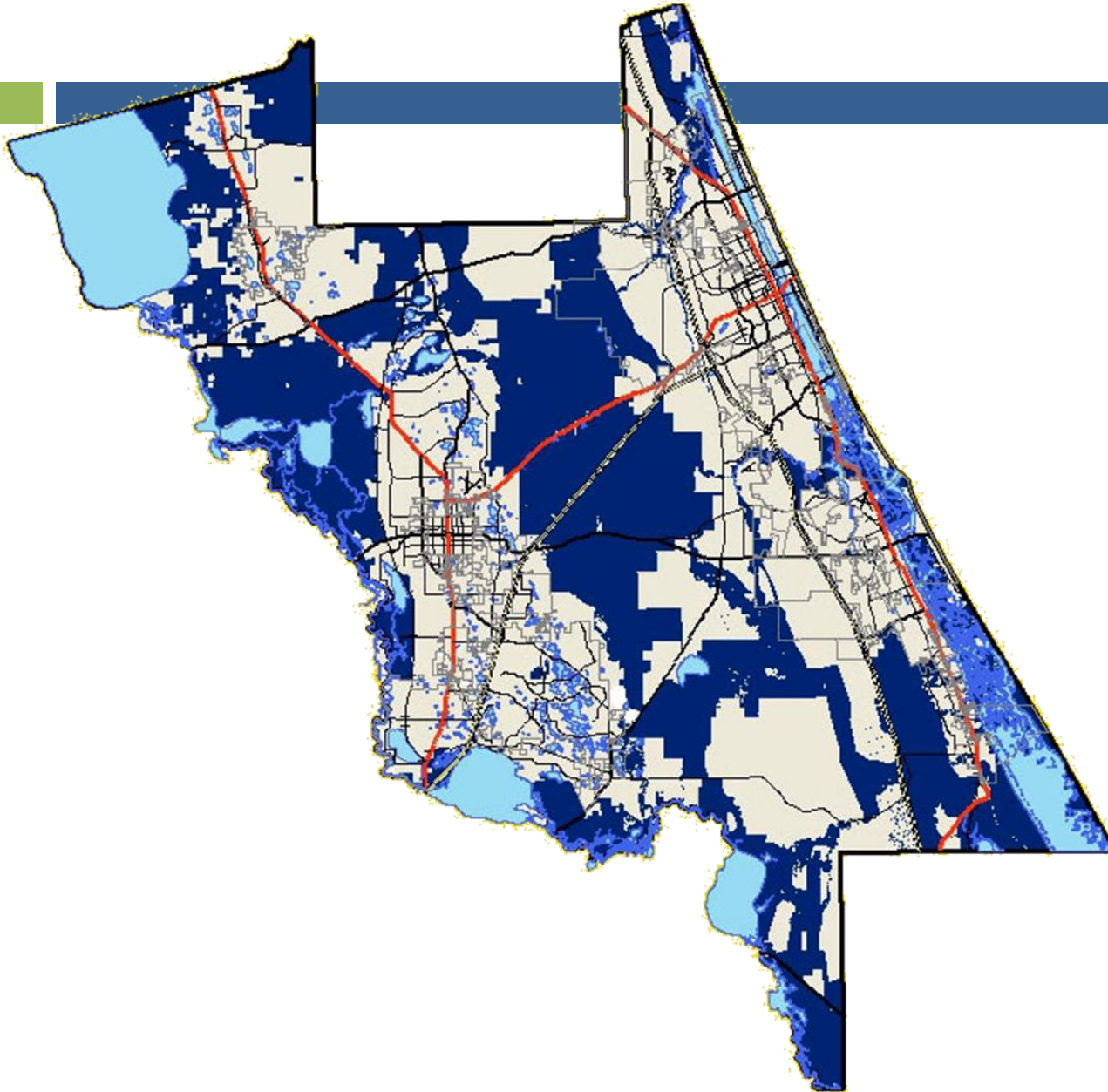
Other potential changes

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- ❑ Re-order to make the code flow better
- ❑ Add language for clarity
- ❑ Make it clear which sections apply to which types of development
- ❑ Remove redundancies

Environmental Corridor Overlay

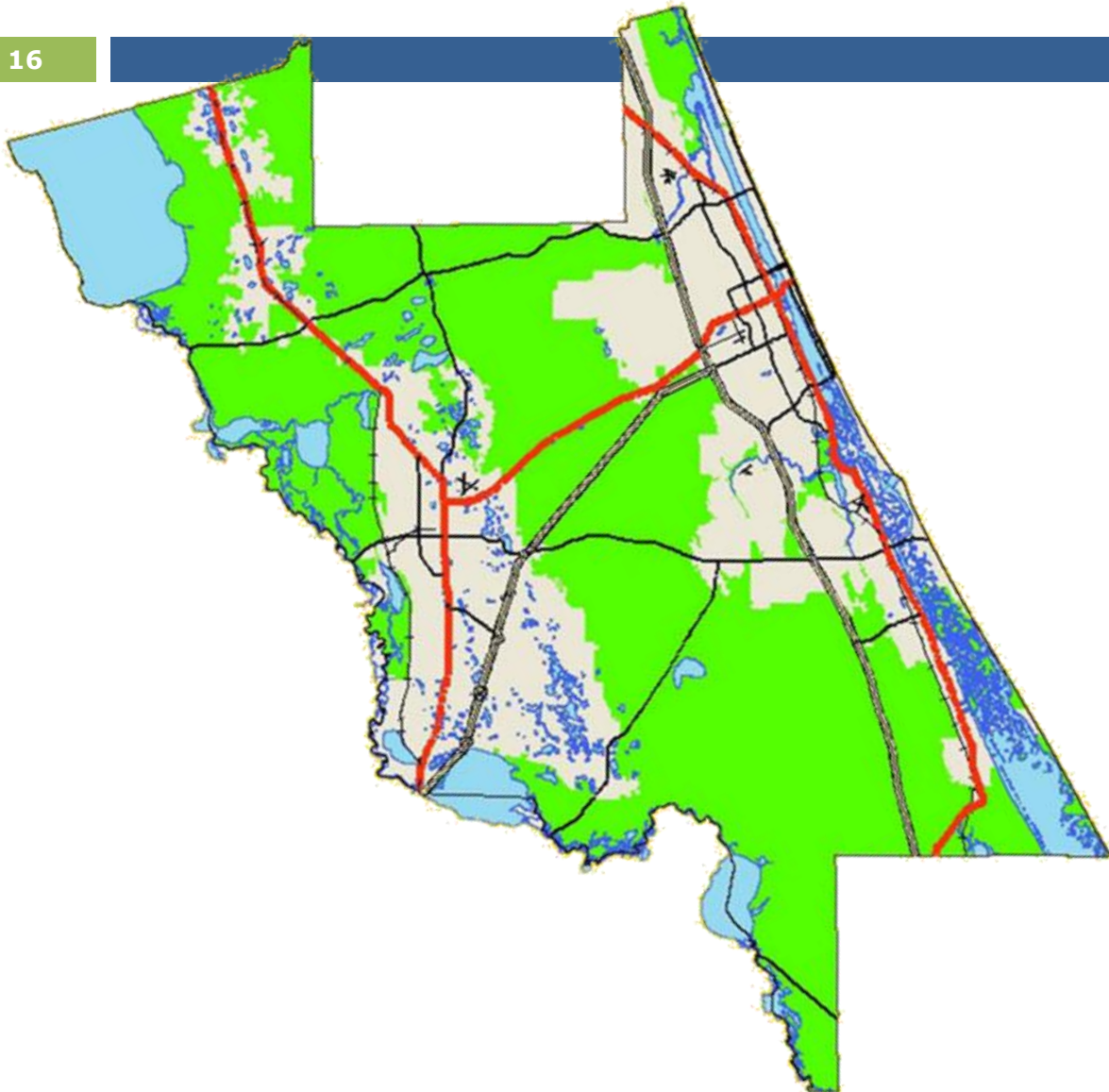
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- An area of interconnected natural systems of environmentally sensitive lands, including public and private conservation areas and lands linking these areas
- Intended to achieve wildlife and habitat connectivity
- Represents land areas that should receive the greatest degree of protection and suffer the least impacts from development.

Natural Resource Management Area Overlay

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- expanses of relatively uninterrupted environmentally sensitive areas, which need to be managed as part of a system
- support a wide range of wildlife species; continually help recharge the County's groundwater supply; ensure high quality surface waters; and provide recreation, aesthetic and open space areas
- Development activities within NRMA are intended to be more restrictive than for the same activities outside of NRMA

Council work program, cont.

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Topic	Issue	Direction
Wetlands	Require avoidance and minimization of impacts in minimum standard and establish guidelines to better define minimization	
	Require permitting and mitigation upon conversion of agricultural land to another use within a certain timeframe (10 years?)	
	Increase buffers to better protect wetlands and wildlife – graduated protection in NRMA and ECO?	
	Update to include current mitigation assessment method and mitigation banks as option	
	Clarify that impacts to surface waters and buffers require mitigation	
	Strengthen regulations for disturbance to buffers	
	Add exemptions for fences, public road projects with state permits, land management activities on publicly owned conservation lands	
Protected species	Protected Species ordinance that protects habitat of Threatened and Endangered species.	
Stormwater and Low Impact Development (LID)	Utilize grant funding to hire East Central Florida regional Planning Council and University of Florida to develop recommendations for LID implementation.	
	Modify Conservation Subdivision and Cluster Subdivision regulations to encourage LID.	
	Study the need to add nutrient reduction standards to the stormwater regulations.	

Comparison State vs VC

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	State Standard (DEP or SJRWMD)	Volusia County Standard	Discussion
Purpose and Intent		To minimize the disturbance of wetlands in the county and to encourage their use only for the purposes which are compatible with their natural functions and environmental benefits. No net loss of wetlands.	
Delineation Method	Rule 62-340 Florida Administrative Code.	Rule 62-340 Florida Administrative Code.	No difference.
Wetland Size Exemption	No minimum size. Exempts 4000 square foot of fill or less in wetlands.	One-half acre or smaller.	State standard is more restrictive.
Docks	Permit required only for docks over 1000 square feet, or 500 square feet in Outstanding Florida Waters. Mitigation not required.	Permit and mitigation required for wetland impacts for all docks.	Cumulatively, docks have a significant impact. The state standard results in a net loss of wetland acreage and function.
Seawalls and Revetments	Permit required for seawalls and revetments only on natural shorelines. Mitigation not required.	Permit and mitigation required for wetland impacts for all seawalls and revetments.	Cumulatively, seawalls and revetments have a significant impact. The state standard results in a net loss of wetland acreage and function.
Buffers	Commercial projects only - minimum of 15 feet, average of 25 feet. Permit and mitigation not required.	Minimum of 25 feet, 50 feet adjacent to Outstanding Florida Waters or NRMA. Permit and mitigation required for buffer impacts.	County has a higher protection for wetland buffers.

Comparison State vs VC

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Avoidance Criteria	Applicants do not have to avoid or minimize impacts to low functioning wetlands or if the proposed mitigation is regionally significant such as a mitigation bank.	Considers whether a proposed project must be located within a wetland or waterbody in order to perform the project's basic functions. Order of priority: avoiding the impact altogether, minimizing impacts, and compensating for the impact (mitigation).	County has a higher standard of avoidance and minimization of wetland impacts. The state standard results in a net loss of wetland acreage and function.
Mitigation Method	Uniform Mitigation Assessment Method, based on wetland function.	Code requires mitigation plan and replacement based on acreage. Use UMAM per state requirement.	County code should be updated to include UMAM.
Enforcement	Self certification for many permits, few compliance inspections. Backlog for enforcement of violations.	Compliance inspection conducted on all projects. Responsive enforcement of violations	County provides higher standard of compliance and enforcement.
Mangrove Trimming	Permit required.	No county standard.	State standard is more restrictive.

Additional Considerations:

The county does not require mitigation in excess of the state for the same impact.

The county does not determine wetland boundaries on projects for which a state determination is required.

Questions?