ENRAC Wetland Protection Discussion – Working Document for August 4, 2023

1. Define implementation of avoidance and minimization

Sec. 72-885. Standards for review.

(a) Review criteria. In determining whether the development is permissible under the provisions of this division, the EMD shall consider but not be limited to the following criteria:

(1) The ability of the wetland to receive, store and discharge surface water runoff so as to contribute to hydrological stability and control of flooding and erosion.

(2) The ability of the wetland to recharge the groundwater as demonstrated by reliable available information.

(3) The ability of the wetland to provide filtration and nutrient assimilation from surface water runoff.

(4) The ability of the wetland to provide habitat and significant ecological function in the life cycle for fish, wildlife or other forms of animal or plant life.

(5) The ability of the wetland to function as an integral part of any waters, water body or watercourse.

(6) The cumulative impacts of the proposed development on the wetland system in combination with other developments which have been permitted or constructed in the same drainage basin.

(7) The technical feasibility of any proposed wetland mitigation plans and the likelihood of their success in restoring or replacing the environmental benefit altered by the development.

(8) The capacity of the existing wetland to provide environmental benefits because of such factors as maturity, size, degree of prior alteration, physical relationship to other water systems and adjacent land uses.

(9) The degree or magnitude of the impact of the proposed alteration on the wetland and how such impact shall be minimized through mitigation measures, either off-site or on-site, or both, and recommendations concerning the appropriate location of said mitigation.

(10) Whether and the extent to which a proposed project must be located within a wetland or water body in order to perform the project's basic functions.

(11) Whether the wetlands impacted by the proposed activity are protected or used in a manner which does not adversely impact their beneficial functions as provided in section 72-881.

(12) The ability of the wetland to continue to function after development is completed.

(13) Whether the proposed project and the wetland impacts are consistent with the policies in the comprehensive plan.

Sec. 72-887. Mitigation.

(a) *Mitigation requirements.*

1. Mitigation plans shall consider the following methods, in order of priority in which they should be utilized:
    a. Avoiding the impact altogether by not taking a certain action or parts of an action;
    b. Minimizing impacts by limiting the degree or magnitude of the action or its implementation;
    c. Rectifying the impact by repairing, rehabilitating, or restoring the affected environment;
    d. Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action;
    e. Compensating for the impact by replacing or providing substitute resources or environments through creation of new wetlands, enhancement of existing wetlands or reestablishment of wetlands which are no longer functioning due to significant attention [alteration] in the past.
2. The purpose of mitigation is to compensate for unavoidable adverse impacts by replacing or providing substitute resources or environments through the creation of new wetlands, enhancement of existing wetlands, or reestablishment of wetlands which are no longer functioning due to significant alteration in the past.

2. Examples of opportunities for Comprehensive Plan consistency

Future Land Use Element B. 1. a. Natural Resource Management Areas (NRMA) - In circumstances where a property is located in both NRMA and ECO overlays the most restrictive environmental protection standards shall apply. Volusia County contains expanses of relatively uninterrupted environmentally sensitive areas which need to be managed as part of a system. Among the functions these areas support are 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 that have become an integral part of the quality of life for Volusia County residents. It is the intent of the Natural Resource Management Area Overlay to ensure that the development that occurs within its boundaries does not adversely impact the quality and quantity of existing resources. Development standards established for land use activities within the NRMA are more restrictive than for the same uses falling outside the NRMA. The environmental standards and safeguards are set forth in the Conservation Element and County Code of Ordinances. In effect, the NRMA provides a mechanism to protect environmental site features without depriving a landowner the use of their property. NRMA lands are identified on the Future Land Use Map.

(1) The County has established criteria and standards for an Environmental Impact Assessment (EIA), to ensure protection of the Natural Resources Management Areas (NRMA). The EIA shall provide for a multi-level application process, depending on the scope and location of proposed land development projects. At minimum, the EIA shall incorporate into a single package the permitting requirements for: wetlands protection; tree protection; surface and stormwater management; land clearance; air quality; protection of environmentally sensitive lands and critical habitats; and protection of endangered species.

(2) Proposed activities within the NRMA shall avoid adverse impacts to wetlands and their associated natural physical and biological functions, except in cases where it can be demonstrated to be in the overriding public interest. In such cases, appropriate mitigation shall be required. Wetlands which are shown to be functionally degraded shall be targeted for restoration.

(3) Increased natural buffer zones shall be required landward of all protected wetlands occurring within the NRMA as provided for in the County's Code of Ordinances.

Comp plan policies to include in Chapter 72:

SG 1.2.1 (e) By 2010, the County shall adopt regulations, standards, and procedures pursuant to Sec. 202.04 of the Volusia County Charter to apply specific minimum environmental standards

to the Environmental Core Overlay to protect it as a functional ecological unit. Specific regulations shall be adopted within ECO for wetlands protection, watershed protection, aquifer protection, and for conservation of trees and native habitat.

12.1.2.1 Natural shoreline buffers or setbacks shall remain established for surface water bodies, the extent of which will depend on, at minimum: existing soils; cover and type of vegetation; topography; wildlife habitat; ambient water quality; and the protective status of the water body.

12.1.2.3 Removal or control of submerged, emergent, or floating vegetation shall continue to be limited to that necessary to provide reasonable access, and aquatic weed control as defined by the appropriate agencies. Any use of chemical herbicides for such purposes shall ensure that water quality and ecological integrity are not degraded.

12.1.2.4 Vertical seawalls and bulkheads along the banks and shorelines of naturally occurring surface water bodies shall continue to be limited to those instances where serious threat to life or property can be demonstrated. In such cases, utilization of sloping stabilization methods combined with vegetation shall be used as an alternative to vertical seawalls and bulkheads where feasible.

12.1.3.5 The expansion of navigable waterways shall be prohibited in Volusia County. Maintenance dredging of existing waterways must comply with the Manatee Protection Plan and Land Development Code.

12.2.4.1 The County's geographic information systems mapping will be used as base data for determining the presence of listed wildlife species and related habitat. Other information, including field visits will be used to determine the presence of listed wildlife within the County. This information shall help determine type and occurrence of critical wildlife habitat, and boundaries of the NRMA and ESC's.

3. Buffer width suggestions and research

Current language:

Sec. 72-886. - Buffer requirements.

(a) **A buffer not less than 25 feet in width shall be established adjacent to and surrounding all wetlands** except adjacent to and surrounding all wetlands designated as Outstanding Florida Waters (OFW), or Natural Resource Management Area (NRMA). Wetland buffers greater than 25 feet in width may be required by the EMD if the upland activity adversely impacts the wetlands beneficial functions as provided for in section 72-881. The buffer may coincide with the setback on a lot under the zoning ordinance [article II of this chapter] or may coincide with environmental system corridors designated in the comprehensive plan. Provided, however, there shall be no development in the buffer, except for direct access to water bodies.

(b) Development activities or construction which do not have a significant adverse effect on the natural function of the buffer may be allowed within the buffer. Proposed activities within the buffer may be permitted in accordance with the requirements of this division. The activities or construction which may be permitted include, but are not limited to, pruning, planting of suitable native vegetation, removal of exotic and nuisance pioneer plant species, and the creation and maintenance of walking trails.

(c) **A buffer not less than 50 feet in width shall be established adjacent to and surrounding all wetlands designated as OFW and NRMA**. Provided, however, the buffer shall be a minimum of 25 feet in width if it is located on a lot with less than ten acres of area and is located within an approved subdivision recorded or exempted from the provisions of division 2 of this article prior to November 1, 1990.

Research:

Calculating Buffer Zone Widths for Protection of Wetlands and Other Environmentally Sensitive Lands in St. Johns County. Brown and Hamman, 2000.

"From the scientific literature and county-specific calculations, a buffer width of 300 feet was determined to be the distance necessary to protect a viably functioning wetland ecosystem. A 300-foot buffer would also protect approximately 50 percent of the wetland-dependent wildlife species in freshwater wetlands and protect water quality from erosion of course and fine sands. . . . Any reduction in the buffer width below 300 feet can impose adverse impacts to the wetland, particularly wetland-dependent wildlife species that require a wide surrounding upland area in which to feed, forage, and use as a protection from human disturbances."

Tomoka River and Spruce Creek Riparian Habitat Protection Zone. M.T. Brown and J. Orell, 1995.

"in landscapes typical of the Tomoka River and Spruce Creek, recommended buffer widths [for] aquatic and wetland wildlife protection were between 322 feet and 550 for freshwater riverine systems, and 322 feet for salt water (salt marsh) systems"

Staff suggestions:

Increase buffers to better protect wetlands and wildlife – graduated protection in NRMA and ECO

- Increase buffer width for lands in both ECO and NRMA to minimum of 100 feet
- Increase buffer width in ECO or NRMA to 75 feet
- Increase buffer width in all other areas to 50 feet
- Include the Florida Wildlife Corridor lands and any established RHPZ's to ECO map
- Include all Outstanding Florida Waters (OFW) and aquatic preserves in NRMA map

4. Example of buffer disturbances for residential accessory structures and ways to strengthen requirements.

Strengthen regulations for disturbance to buffers

- Buffers associated with naturally occurring waterbodies shall not be impacted by accessory structures or impervious surfaces. For seawalls and revetment use language in 12.1.2.4
- Buffers associated with naturally occurring wetlands may be impacted up to 25% of the required buffer for accessory structures or impervious surfaces subject to all other requirements of this division
- Buffers associated with manmade waterbodies or wetlands may impact up to 50% of the required buffer for accessory structures or impervious surfaces subject to all other requirements of this division
- Increase in buffer mitigation to $2.00 a square foot
- Require restoration for degraded wetland and buffer areas associated with a wetland alteration permit and reduce the mitigation in half
- Limit Non-mechanical clearing exemption to 6 feet wide
- Clarify that the buffer starts at the top of bank

Other potential changes

Remove FDEP permit exemption language from minimum standard
Require permitting and mitigation upon conversion of agricultural land to another use utilize the rebuttable presumption language in the tree ordinance
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