



# ORANGE COUNTY WETLAND ORDINANCE REVIEW

LOCAL, STATE, AND FEDERAL WETLAND CODES  
ORDINANCE, AND STATUTES REVIEW (PO #C20906A008)

PREPARED FOR:



PREPARED BY:



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## **EXECUTIVE SUMMARY**

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Applied Ecology, Inc. (AEI) was contracted by Drummond Carpenter, PLLC (DC) on behalf of Environmental Protection Division (EPD) to conduct a detailed review of the County's Wetland Conservation Areas Ordinance found in Chapter 15, Article X, and compare and contrast the County's wetland regulations with other jurisdictions. The regulatory review includes a review of the federal (U.S. Army Corps of Engineers) and State of Florida (e.g., Florida Department of Environmental Protection) wetland regulatory permitting requirements. In addition, the project team performed extensive interviews with the County, EPD staff, environmental staff from six other counties, approximately 10 consultants, and 10 non-governmental organizations (NGOs).



*Photograph of Cypress Wetland.*

The results of the extensive review will provide EPD with recommendations on ways to update, clarify and improve the Ordinance, and streamline regulatory review processes, which include Conservation Area Determinations (CADs), Conservation Area Impact (CAI) permits and others.

Our interviews and research identified numerous areas where the Ordinance is outdated and in need of revision. This report

summarizes AEI's findings and includes extensive recommendations with respect to areas where the updates to the County Ordinance would be beneficial. These recommendations will not only enhance the County Ordinance, but they also provide ways to streamline the permitting review process which will be useful to the County's property owners, consultants, NGOs and staff.

In addition, the County has hired AEI and DC to review the State of the Wetlands (SOTW) in Orange County. The SOTW project is currently ongoing, and our findings have not been determined. Based upon the results of the SOTW project these recommendations may be revisited before finalizing this report.

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## **ACRONYMS AND ABBREVIATIONS**

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%	Percent
AA	Alternative Analysis
AEI	Applied Ecology, Inc
ACOE	U.S. Army Corps of Engineers
BMP	Best Management Practices
BOCC	Board of County Commissioners
CAD	Conservation Area Determinations
CAI	Conservation Area Impacts
CE	Conservation easement
CEQ	Council on Environmental Quality
County	Orange County
DC	Drummond Carpenter, Inc.
DRC	Development Review Committee
Econ River	Econlockhatchee River
EPA	Environmental Protection Agency
EPC	Environmental Protection Commission
EPD	Orange County, Environmental Protection Department
ERCPZ	Econ River Corridor Protection Zone
FAC	Facultative
F.A.C.	Florida Administrative Code
F.S.	Florida Statutes
FDEP	Florida Department of Environmental Protection
FWS	U.S. Fish and Wildlife Service
GP	General Permit
LDC	Land Development Code
LEDPA	Least Environmentally Damaging Practicable Alternative
LOP	Letter of Permission
NEPA	National Environmental Policy Act
NGOs	Non-Governmental Organizations
NWP	Nationwide Permit
OBL	Obligate
OFW	Outstanding Florida Water
Ordinance	Orange County Wetland Conservation Areas Ordinance
Plan	Orange County Comprehensive Plan
RAI	Request for additional information
SOTW	State of the Wetlands
SP	Standard Permit
SDZ	Special development zone
State	State of Florida
UMAM	Uniform Mitigation Assessment Method

U.S.	United States
USDA	U.S. Department of Agriculture
WMD	Water Management District
WOTUS	Waters of the U.S.
WRAP	Wetland Rapid Assessment Procedure
WRPA	Wekiva River Protection Areas

## **INTRODUCTION**

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Applied Ecology, Inc. (AEI) was contracted by Drummond Carpenter, Inc. (DC) on behalf of Orange County to conduct a detailed review of the Orange County (County), Wetland Conservation Areas Ordinance found in Part II, Chapter 15, Article X (Ordinance). The regulatory review also included federal (U.S. Army Corps of Engineers [ACOE]) and the State of Florida (State) wetland regulatory permitting requirements. In addition, the project team performed extensive interviews with County, Environmental Protection Department (EPD) staff, environmental staff from other counties, consultants, and non-governmental organizations (NGOs).

During the kickoff meeting to this project, EPD identified that the new ordinance should be strong enough to protect wetlands while balancing property rights and ensuring sustainable development in the County. The following summarizes the recommended changes that should be considered during the Ordinance update:

- the term “conservation areas” should be changed to “wetlands”
- the updated Ordinance should change from the current “conservation areas” classifications (i.e., Class I, Class II, and Class III) system to a system based on the values utilizing a functional assessment method
- the updated Ordinance should consider both the protection of “wetlands” and other surface waters
- the updated Ordinance should specify mitigation that is scalable and appropriate for the features impacted (e.g., use of in-lieu fees for straight forward projects with relatively minor impacts, off-site acquisition of large areas with similar wetland types and functions for complex projects with large impacts)
- the updated Ordinance should include specifications for required buffer zones for mitigation areas and protect rare/sensitive vegetation communities and habitat for threatened and endangered species
- the updated Ordinance should include language to ensure plantings as part of mitigation area enhancement or on-site restoration are appropriate for the vegetation community and the watershed
- the County should adopt mechanisms in the updated Ordinance to expedite and/or prioritize permit applications with routine or relatively minor impacts
- many definitions and terms should be updated and better defined in the updated Ordinance (e.g., “critical habitat”)
- the legislative findings and purpose sections of the Ordinance need to be updated to be in alignment with County’s Comprehensive Plan
- the updated Ordinance should provide a clear permit review process and timelines
- the updated Ordinance should provide clear requirements and guidelines regarding how to obtain a permit, to ensure permitting consistency and approval predictability
- the updated Ordinance should provide guidance regarding modifications/impacts to established mitigation areas, conservation easements and be strengthened with respect to the enforcement provisions



- the Ordinance needs to include a clear definitions and process for Avoidance and Minimization

## OVERVIEW OF FEDERAL WETLAND REGULATIONS

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The ACOE reviews and processes applications for work in jurisdictional wetlands and “other waters” of the United States (U.S.) pursuant to Section 404 (33 U.S.C. 1344) of the Clean Water Act and Section 10 (33 U.S.C. 403) of the Rivers and Harbors Act and Section 103 of the Marine Protection, Research, and Sanctuaries Act. This review and summary will focus on activities which involve the discharge of dredged or fill material into wetlands subject to Section 404 of the Clean Water Act. (i.e., “other waters” of the U.S. has been omitted from this discussion). In 1970, the U.S. Environmental Protection Agency (EPA) signed into law the National Environmental Policy Act (NEPA) which requires federal agencies to assess a proposed activity’s environmental effects prior to rendering a decision. NEPA involves a detailed systematic approach to reviewing each project along with the environmental impact on sensitive resources and sensitive receptors, and alternatives associated with a proposed project with the findings written in an Environmental Impact Statement, an Environmental Assessment with a Finding of No Significant Impact, or a Categorical Exclusion. In 1978, the President’s Council of Environmental Quality (CEQ) was established to:

- ensure federal agencies meet their obligation under NEPA
- oversee federal agency’s implementation of the environmental impact assessment process
- issue regulations and guidance to federal agencies regarding NEPA

### FEDERAL WETLAND DEFINITION

Under Section 404 of the Clean Water Act, wetlands are areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands in Florida generally include wet prairies, swamps, marshes, bogs, and similar areas.

### FEDERAL WETLAND DELINEATION

Unless an area has been altered, the ACOE must have three parameters: vegetation, soils, and hydrology present for a wetland to be jurisdictional.

- *Vegetation*: Prevalence of hydrophytic vegetation that has the ability to grow in anaerobic soil conditions.
- *Soil*: Hydric soils (i.e., muck and peat)
- *Hydrology*: areas inundated either permanently or periodically at some time during the growing season to support the prevalence of hydrophytic vegetation and hydric soils.

### PERMIT TYPES

The ACOE has several different types of permits for projects that impact (involve the discharge of dredge or fill material) a jurisdictional wetland:

- *No Permit Required:* under some circumstances a No Permit Required determination may be made if the project:
  - Does not involve the discharge of dredged or fill material in waters of the U.S.
  - Is determined to be exempt silviculture, farming, or ranching activity pursuant to 33 CFR Part 323.4
  - If the activity is not regulated – activity is located in non-regulated wetlands, uplands
- *General Permit:* The ACOE has developed General Permits (GP) for projects that have similar type of work, cause minimal individual and cumulative impacts and that are located within the same geographic area (e.g., the State of Florida).
- *Nationwide Permit:* The ACOE has also developed Nationwide Permits (NWP) for projects that have similar type of work, cause minimal individual and cumulative impacts and that are located within the U.S., including U.S. territories.
- *Letter of Permission:* Projects that qualify for the Letter of Permission (LOP) are reviewed in an abbreviated process. Like the GP and NWP, the LOP involves specific types of activities within a geographic area (e.g., Florida, excluding Puerto Rico and U.S. Virgin Islands). For example, a project that may qualify for a LOP if it is not located within an excluded area and would result in no more than 0.2 acre of fill in freshwater wetlands.
- *Standard Permit:* Any proposed project that does not meet the above referenced criteria will require a Standard Permit (SP). The SP captures all other activities and includes longer processing times. The SP process includes in-depth evaluation of whether the project complies with the 404(b)(1) Guidelines and the NEPA, and extensive coordination with the U.S. Fish and Wildlife Service (FWS), National Marine Fishery Service, State Historic Preservation Office, and others. A brief description of the process is explained below in the Federal Wetland Review.

Specific to the State, portions of the Section 404 permitting authority have been delegated to the Florida Department of Environmental Protection (FDEP) for processing. For the purposes of this report the focus is on the overall Section 404 requirements regardless of whether ACOE or FDEP reviews the application.

## **FEDERAL WETLAND REVIEW**

Each ACOE project review must adhere to the 404(b)(1) Guidelines (40 CFR Part 230) and the NEPA (33 CFR Part 325). For the GP, NWP and LOP much of the process has been accomplished through the creation and public notification process associated with each GP and NWP. All GP are reviewed by the ACOE, Jacksonville District and all NWP are reviewed by ACOE, Headquarters, every five years with an assessment of the cumulative impacts associated with each activity along with the public notification process. To qualify for the GP or NWP the applicant's project must be able to adhere to the special conditions that have been developed for these respective authorizations.

During the application review process the ACOE is required to analyze each project adhering to the following sequence:

- Alternative Analysis (AA): The AA includes No Action/No Work Alternative along with alternatives that would allow for the project to achieve the overall project purpose and alternatives that are reasonable and practicable. In addition, it is the applicant's responsibility to clearly demonstrate two presumptions to the ACOE:
  - the project does not have to be in a wetland to meet its basic purpose; and
  - If the project involves a discharge of dredged or fill material into a special aquatic site (e.g., mudflats, vegetated shallows, coral reefs, riffle and pool complexes, sanctuaries, and refuges) a practicable alternative located in uplands is presumed to have less adverse impacts on the aquatic ecosystem.

Every AA includes specific criteria that must be discussed. Each AA has a different level of detail commensurate with the scale of adverse environmental effects. The 404 (b)(1) Guidelines require that the Least Environmentally Damaging Practicable Alternative (LEDPA) be selected. Once the LEDPA has been determined the applicant must demonstrate and provide:

- Avoidance/Minimization: Practicable design alternatives to avoid wetland impacts and minimize adverse effects.
- Compensatory Mitigation to accomplish a no net loss.

## **COMPENSATORY MITIGATION**

Once the LEDPA has been selected and the project design includes direct avoidance and minimization of wetland impacts then the next step in the evaluation process for the ACOE is to determine if compensatory mitigation is required to offset the proposed project's wetland impacts. The goal of compensatory mitigation is to accomplish an overall no net loss of wetland values and functions. Compensatory mitigation is also required to offset a project's secondary or cumulative impacts. Compensatory Mitigation may be accomplished by using the following:

- Mitigation Bank: purchase of federal credits within the service area from a permitted mitigation bank;
- In-Lieu Fee Program: purchase of federal credits within the service area from an approved in-lieu fee program;
- Permittee Responsible through On-Site or Off-Site:
  - Establishment/Creation – altering an existing upland site's physical, chemical, and/or biological characteristics to develop aquatic resources for the creation of a wetland and a net gain in aquatic resources
  - Enhancement – manipulation of an aquatic resource site's physical, chemical, and/or biological characteristics to provide a net improvement to the aquatic resource
  - Preservation – perpetual conservation of wetlands utilizing legal instruments such as a conservation easement to prevent the future decline or impact of the aquatic resources
  - The permittee responsible mitigation includes a watershed approach and is utilized when the proposed project impacts are not located within the service area of a permitted mitigation bank or in-lieu fee program.

## FUNCTIONAL ASSESSMENT



*Photograph of Retention Pond and Cypress Wetlands*

Every project that results in a loss of aquatic resources requires a functional numeric assessment. Currently, the ACOE, Jacksonville District has adopted the Wetland Rapid Assessment Procedure (WRAP) for evaluating wetland impacts and mitigation proposals.

WRAP assigns a score of 0 to 3 for each of six components at an impact site: Wildlife Utilization, Overstory, Ground Cover, Buffer, Hydrology

and Water Quality Input. Each functional assessment is conducted of the wetland's existing condition, project with impacts, and for the mitigation proposal.

Another wetland assessment commonly used in Florida and often accepted by ACOE is the Uniform Mitigation Assessment Methodology (UMAM). The UMAM process assigns a score of 0 to 10 for three components: Location and Landscape Support, Water Environment, and Community Structure. The UMAM process evaluates functions through consideration of an ecological community's current condition, hydrologic connection, uniqueness, location, fish and wildlife utilization, time lag and mitigation risk.

## **CONSIDERATIONS FROM THE FEDERAL REGULATORY REVIEW FOR ORANGE COUNTY**

The ACOE has developed GPs and NWP permits which are specific for common activities conducted in Florida and NWP permits which include common activities that occur within the U.S. These activities, regardless of where they take place, involve similar construction techniques, temporary impacts, and an allowance of a minimal number of permanent impacts. All GPs and most NWP permits require a pre-construction notification (i.e., an application) submittal to the ACOE for review and processing. The GP and NWP permit processes and ACOE authorizations have a consolidated, compressed review timeframe and do not require a detailed project specific NEPA and LEDPA analysis/review.

### **GENERAL PERMITS**

Table 1 below provides several applicable activity types that are covered by the Jacksonville District ACOE GPs. These activities would also require a permit from EPD for wetland/conservation area impacts. These same activities could be developed into a GP by County in their updated Ordinance. If the Ordinance included the creation of GP criteria for activities such as the three below, the immediate result will be time and money savings for everyone involved (applicant, consultant, and County).

**Table 1. Applicable Jacksonville District ACOE General Permits**

<b>GP #</b>	<b>GP Name</b>	<b>Brief Description of Activity Authorized</b>
SAJ-13 <sup>1</sup>	<i>Aerial Transmission Lines</i>	Install, construct, maintain, replace, and repair aerial transmission lines, electrical substations, and access roads. Temporary staging impacts are allowed with restoration to pre-construction contours and plant with native wetland vegetation.
SAJ-14 <sup>1</sup>	<i>Subaqueous Utility and Transmission Lines</i>	Install, maintain, replace, and repair subaqueous utility and transmission lines, outfall and intake structures associated with transmission line. Allows for temporary side cast of materials for up to 90 days. Includes fill limitations for work, threatened and endangered species exclusion and restriction zones and compensatory mitigation.
SAJ-46	<i>Bulkheads and Backfill in Residential Canals</i>	Install up to 300 linear feet bulkhead and associated backfill for lots in residential canals. Bulkhead may not extend waterward of ordinary high-water mark/line; riprap allowed up to 4 feet waterward of ordinary high-water mark/line.

<sup>1</sup> Activity excluded from definition of development pursuant to 380.04(3), F.S.

Based upon the review of the EPD permitting database it appears that similar types of activities could be developed into a GP within the updated Ordinance. The benefits of adopting GPs or a similar permitting mechanism as part of the County’s Ordinance update would include items such as quicker application to permit timeframes, simplified application review by the EPD staff, select criteria to meet the conditions of the GP categories, allow EPD to identify minor and less controversial projects with ease and focus staff on other larger projects that do not qualify for a GP. All these and more benefits would save both EPD and applicants time and money.

## **NATIONWIDE PERMITS**

The ACOE NWP have an impact limit depending on the type of activity and type of jurisdictional feature to be affected, which typically is up to a limit of 0.5 acre of impacts to non-tidal waters of the U.S. (WOTUS), but some NWP can be less. There are eight ACOE NWPs that cover activities in wetlands and depending on the project location and impacts could further qualify as “non-reporting” NWPs (i.e., a permit application would not be needed). To streamline applicant permitting timelines, the Ordinance update could allow for similar permitting mechanisms to expedite application review and approvals. Each of the eight NWPs and their covered activities are summarized below in Table 2.

**Table 2. Applicable ACOE Nationwide Permits**

<b>NWP #</b>	<b>NWP Name</b>	<b>Brief Description of Activity Authorized</b>
NWP 3	<i>Maintenance</i>	The repair, rehabilitation, or replacement of any previously authorized, currently serviceable structure or fill, provided the structure or fill is used for the same purpose. This NWP may also authorize temporary structures, fill and work including temporary mats that may be necessary to perform the maintenance work.
NWP 5	<i>Scientific Measurement Devices</i>	Authorizes the installation of scientific devices to measure and record scientific data.
NWP 6	<i>Survey Activities</i>	Allows for survey activities such as core sampling, seismic exploratory operations, plugging of seismic shot holes and other exploratory type bore holes, soil surveys, sampling, sample plots or transects for wetland delineations and historic resource surveys.
NWP 18	<i>Minor Discharges</i>	Minor discharge of dredge or fill material into WOTUS provided the discharge will not cause the loss of more than 0.10 acre of WOTUS.

<b>NWP #</b>	<b>NWP Name</b>	<b>Brief Description of Activity Authorized</b>
NWP 27	<i>Aquatic Habitat Restoration, Enhancement and Establishment Activities</i>	Activities in WOTUS that involve the restoration, enhancement, and establishment of WOTUS. This NWP has no acreage limit.
NWP 41	<i>Reshaping Existing Drainage and Irrigation Ditches</i>	Allows for discharge of dredge or fill material into non-tidal WOTUS to modify the cross-sectional configuration of currently serviceable drainage ditches constructed in WOTUS for purpose of improving water quality. Includes reshaping the drainage ditch with gentler slopes which can reduce erosion, increase vegetative growth, and increase the uptake of nutrients.
NWP 46	<i>Discharges in Ditches</i>	Allows for discharge of dredge or fill material into non-tidal ditches that are constructed in uplands, receive water from WOTUS and divert water to WOTUS. This NWP has a one-acre impact limitation.
NWP 51	<i>Land-Based Renewable Energy Generation Facilities</i>	Allows for discharge of dredge or fill material into non-tidal WOTUS for the construction, expansion, or modification of land-based renewable energy production facilities, including attendant features. Facilities may include solar power, photovoltaic, wind, biomass, or geothermal energy.



## **OVERVIEW OF STATE REGULATIONS**

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Regarding State wetland regulatory programs, work in wetlands either requires a permit from FDEP or the appropriate Water Management District (WMD). The application review is based upon a memorandum of agreement which specifically identifies the types of activities in wetlands that the FDEP and the WMD will review. In the County there are two WMDs, St. Johns River Water Management



*Photograph of Hydric Pine Flatwoods, a commonly permitted wetland type in Orange County.*

District (SJRWMD) and the South Florida Water Management District (SFWMD). For this report FDEP was referenced. The FDEP reviews and processes applications for work in jurisdictional wetlands pursuant to Part IV of Chapter 373, Florida Statutes (F.S.) and Chapter 62-330, Florida Administrative Code (F.A.C.).

### **STATE WETLAND DEFINITION**

Similar to the federal definition, the State definition includes areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support a prevalence of vegetation typically adapted for life in saturated soil conditions. Florida's wetlands generally include swamps, marshes, bayheads, bogs, cypress domes and strands, sloughs, wet prairies, riverine swamps, hydric seepage slopes, and other similar areas. (Chapter 373.019[27] F.S., 62-340, F.A.C.)

### **STATE WETLAND DELINEATION**

Pursuant to 62-340.300 F.A.C., unless an area has been altered, the State only requires two of the three wetland parameters (vegetation, soils and/or hydrology/hydrologic indicators) present for a wetland to be jurisdictional.

- *Vegetation*: Prevalence of hydrophytic vegetation that has the ability to grow in anaerobic soil conditions. The prevalent vegetation in wetlands generally consists of facultative (FAC) or obligate (OBL) hydrophytic macrophytes that are typically adapted to wetland areas.
- *Soil*: Hydric soils (i.e., muck and peat)
- *Hydrology*: areas inundated either permanently or periodically at some time during the growing season to support the prevalence of hydrophytic vegetation and hydric soils.

The State also delineates wetlands using one of four tests (i.e., A, B, C or D). The following is a simplified overview of the four tests:

- *A Test* – Aerial extent of OBL plants in appropriate vegetative stratum is greater than the aerial extent of all upland plants in that stratum and substrate composed of hydric soils or one or more hydrologic indicators are present
- *B Test* – Areal extent of OBL or FAC wet plants or combination of in the appropriate stratum is equal to or greater than 80 percent (%) of all plants in that stratum, excluding FAC plants and either:
  - Substrate consists of hydric soils
  - One or more hydrologic indicators are present
  - Substrate is non-soil, rock outcrop-soil complex or within an artificially created wetland.
- *C Test* – Other than pine flatwoods and improved pastures with undrained hydric soils where at least one criterion is found:
  - Soils classified by U.S. Department of Agriculture (USDA) Soil Conservation Survey as Umbraqualfs, Sulfaquents, Hydraquents, Humaquepts, Histosols, Argiaquolls, or Umbraquults
  - Saline sands
  - Soil within a hydric mapping unit designated by USDA as frequently flooded or depressional
- *D Test* – One or more of hydrologic indicators are present and hydric soils and/or river wash are present

## PERMITTING TYPES

The FDEP has several different types of permits for projects that impact (involve the discharge of dredge or fill material) a jurisdictional wetland:

- *De Minimis / Minimal Environmental Impact Exemption* – Pursuant to 373.406(6) F.S. The *De Minimis* exemption is rarely used but when used allows an activity to occur that has very little wetland impacts and does not qualify for an exemption.
- *Exemption* – Pursuant to 62-330.051, Florida Administrative Code (F.A.C.)
- *General Permit* – Pursuant to 62-330, F.A.C. The FDEP has developed the GP for projects that have similar type of work, cause minimal individual and cumulative impacts and that are located within the same geographic area.

- *Individual Permit:* Any proposed project that does not meet the above referenced criteria will require an Individual Permit. The Individual Permit captures all other activities and includes longer processing times.

## STATE APPLICATION REVIEW

Each project review must adhere to Chapter 62-330.301, F.A.C. and the applicant must provide reasonable assurance that the construction, alteration, operation, maintenance, removal, or abandonment of the project will not:

- cause adverse water quality impacts to receiving waters and adjacent lands
- cause adverse flooding to on-site or off-site property
- cause adverse impacts to existing surface water storage and conveyance capabilities
- adversely impact the value of functions provided to fish and wildlife and listed species by wetlands and other surface waters
- adversely affect the quality of receiving waters
- cause adverse secondary impacts to water resources
- adversely impact the maintenance of surface or ground water levels or surface water flows.

Each project proposal must demonstrate elimination and reduction of impacts and provide mitigation to offset adverse impacts. For projects that involve work in impaired waters the applicant must also implement mitigation measures that provide a net improvement of water quality to the receiving waters. The applicant must demonstrate that they have financial responsibility to perform the work, including mitigation requirements.

Pursuant to 62-330-302, F.A.C., the applicant must provide reasonable assurance that the construction, alteration, operation, maintenance, repair, removal, and abandonment of a project located in, on, or over wetlands or other surface waters will not be contrary to the public interest or if such activities significantly degrade or are within an Outstanding Florida Water (OFW), are clearly in the public interest by balancing the following criteria:

- whether the activities will adversely affect the public health, safety, or welfare of the property of others
- whether the activities will adversely affect the conservation of fish and wildlife; including endangered or threatened species or their habitats
- whether the activities will adversely affect navigation or the flow of water or cause harmful erosion or shoaling
- whether the activities will adversely affect the fishing or recreational values or marine productivity in the vicinity of the activity
- whether the activities will be of a temporary or permanent nature
- whether the activities will adversely affect or will enhance significant historical and archaeological resources
- will not cause unacceptable cumulative impacts to wetlands and other surface waters

## **COMPENSATORY MITIGATION**

The ecological benefits of a mitigation project should compensate for the functional loss resulting from the permitted wetland impact. Compensatory mitigation is also required to offset a project's secondary or cumulative impacts. Compensatory mitigation may be accomplished by using either a mitigation bank or on/off-site permittee responsible mitigation, or Regional Offsite Mitigation Areas (ROMA) which involve the purchase of State credits with the ROMA service area.

## **FUNCTIONAL ASSESSMENT**

Except for projects that meet the FDEP exemption, every project that results in an unavoidable wetland impact requires wetland mitigation. The functional loss associated with the wetland impact requires a functional numeric assessment. The FDEP adopted the UMAM for evaluating wetland impacts and mitigation proposals. The UMAM process evaluates functions through consideration of an ecological community's current condition, hydrologic connection, uniqueness, location, fish and wildlife utilization, time lag and mitigation risk. The UMAM process assigns a score of 0 to 10 for three components: Location and Landscape Support, Water Environment, and Community Structure.

## CONSIDERATIONS FROM THE STATE REGULATORY REVIEW FOR ORANGE COUNTY

Table 3 below provides several applicable activity types that are covered by FDEP Exemption and GP. Similar to the ACOE GP and NWP types, EPD would also review, and issue permits for these activities in wetlands/conservation areas.

**Table 3. FDEP Applicable Exemptions and General Permits**

F.A.C.	Activity Type	Thresholds/Requirements
<b>Exemptions</b>		
62-330.051(4)(b) F.A.C.	Construction, alteration, or maintenance and operation of culverted driveway or roadway crossing, and bridges of wholly artificial, non-navigable drainage conveyances, provided several factors are met including but not limited to the following:	<ul style="list-style-type: none"> <li>• project area does not exceed one acre and is for a discrete project that is not part of a larger plan of development,</li> <li>• culvert or bridge is sized and installed to pass normal high-water stages without adverse impacts to upstream or downstream property,</li> <li>• culverts shall not be larger than one, 24-inch diameter pipe,</li> <li>• crossing shall not be longer than 30 feet from top-of-bank to top-of-bank,</li> <li>• top width shall be no greater than 20 feet or a less than 40 feet from toe-to-toe width</li> <li>• have side slopes steeper than 3:1</li> <li>• no greater than two crossings on any total land area, with a minimum distance of 500 feet between the crossings</li> <li>• any temporary work, including dewatering shall not cause flooding or impoundment, downstream siltation, erosion, or violations to water quality due to turbidity and restored to preexisting grades, elevations, and conditions.</li> </ul>
62-330.051(7)(e) F.A.C.	Construction and maintenance of swales	<ul style="list-style-type: none"> <li>• IAW 403.813(1)(i), F.S.</li> </ul>
62-330.051(9) F.A.C.	Repair or replacement of pipes or culverts provided several factors are met such as but not limited to:	<ul style="list-style-type: none"> <li>• equivalent pipe capacity,</li> <li>• no change in invert elevation,</li> <li>• pipes extend less than 20 feet in, on, or over wetlands,</li> <li>• outfall is designed to prevent erosion and scour</li> <li>• wetland impacts limited to 0.10 acre and total of 100 cubic yards of dredging/filling</li> </ul>

<b>F.A.C.</b>	<b>Activity Type</b>	<b>Thresholds/Requirements</b>
62-330.051(11) F.A.C.	Sampling and Testing allows for the construction, operation, maintenance and removal of scientific sampling, measurement, and monitoring devices provided several factors are met including but not limited to:	<ul style="list-style-type: none"> <li>• Fill limited to 25 cubic yards</li> <li>• Device is removed at the end of the data collection</li> <li>• Site is restored to pre-construction conditions</li> </ul>
62-330.051(11)(d) F.A.C.	Sampling and Testing for geotechnical investigations including soil test borings, standard penetration tests and other work involving boring, auguring, or drilling to collect geotechnical data including clearing for temporary access corridors to perform the investigations subject but not limited to the following	<ul style="list-style-type: none"> <li>• Each boring, auguring, or coring location is limited to one foot diameter</li> <li>• Total work in wetlands limited to 0.5 acre including temporary access corridors</li> <li>• All drilling fluid or dredge material be removed from wetlands</li> <li>• No work may be for seismographic charges for oil and gas exploration</li> <li>• Turbidity must be controlled</li> <li>• Specifics regarding vehicular access within wetlands including maximum access be limited to 15 feet, removal of mats,</li> <li>• All areas disturbed be returned to preexisting elevations</li> </ul>
62-330.051(14) (a) through (14)(d) F.A.C.	Utilities includes installation of overhead and subaqueous transmission lines including activities to preserve, restore, repair, remove or replace existing communication or utility pole or aerial transmission or distribution lines provided work in wetlands is for removal, replacement of poles, access to site utilizes temporary mats	<ul style="list-style-type: none"> <li>• May not increase voltage of existing power lines</li> <li>• May not relocate existing poles or lines more than 10 feet in any direction</li> <li>• Temporary mats authorized</li> </ul>

F.A.C.	Activity Type	Thresholds/Requirements
62-330.051(14)(e) F.A.C.	Installation, removal, and replacement of utility poles that support telecommunication lines or cables or electric distribution lines of 35kV or less with specific work criteria in wetlands such as but not limited to:	<ul style="list-style-type: none"> <li>• No more than 15 utility poles installed, removed, or replaced in wetlands</li> <li>• No permanent placement of fill other than utility pole</li> <li>• No work within forested wetlands located within 550 feet of Outstanding Florida Waterway (OFW)</li> <li>• Vehicle usage in wetland minimizes tire rutting and erosion</li> <li>• Temporary mats for access within the utility right-of-way in wetlands with restoration to preexisting conditions</li> <li>• Temporary wetland disturbance be limited to 0.50-mile length and 30 feet width and total area of 0.50 acre</li> <li>• Cleared corridor of up to 15 feet wide and total area of 0.25 acre for maintenance of utility right-of-way in wetlands</li> </ul>
62-330.051(14)(f) F.A.C.	Excavation or dredging of temporary trenches to install utilities such as communication cables, water lines and electrical lines provided conditions are met.	<ul style="list-style-type: none"> <li>• Material is not deposited within wetlands or surface waters other than to backfill the trench to restore ground to pre-work grades</li> <li>• Backfill occurs within 24 hours of disturbance</li> </ul>
62-330.051(16) F.A.C.	Construction, alteration, maintenance, or filling of wholly owned artificial surface waters that meet the following:	<ul style="list-style-type: none"> <li>• Are entirely created from uplands</li> <li>• Are isolated and do not connect to any other wetlands or surface waters</li> <li>• Involve less than 0.50 acre of work in wetlands</li> <li>• Do not impound water above surrounding natural elevation</li> <li>• Do not impact an aquifer or karst</li> <li>• Were not created for mitigation</li> <li>• Were not part of a stormwater treatment and management system</li> </ul>
<b>General Permits</b>		
62-330.437 F.A.C.	General Permit for Installation of Fences: to install, maintain or remove a fence in wetlands provided all the conditions in the GP are met including, but not limited to:	<ul style="list-style-type: none"> <li>• Work may not be in OFW</li> <li>• Be constructed of horizontal metal wire attached to posts,</li> <li>• May not include chain-link or other mesh components</li> </ul>

F.A.C.	Activity Type	Thresholds/Requirements
62-330.439 F.A.C.	General Permit for Construction or maintenance of Culverted Driveway or Roadway Crossings and bridges of Artificial Waterways provided all the conditions in the GP are met including, but not limited to:	<ul style="list-style-type: none"> <li>• Located in artificial, non-navigable drainage conveyance</li> <li>• Culvert(s) must be placed under roadway or driveway</li> <li>• Size and number of culvert(s) shall be adequate to pass normal high-water stages</li> <li>• Culvert invert elevation shall be at the existing bottom grade of the artificial waterway</li> <li>• Length limited to 50 feet top of bank to top of bank</li> <li>• Top width limited to 75 feet, and 100 feet toe of slope to toe of slope</li> <li>• Side slopes minimum of 2:1</li> <li>• Maximum of two crossings on a property, with minimum distance of 500 feet apart</li> </ul>
62-330.451 F.A.C.	General Permit to Counties, Municipalities, and other Agencies to Conduct Stormwater Retrofit Activities to construct, operate and maintain stormwater retrofit activities provided all the conditions in the GP are met including, but not limited to:	<ul style="list-style-type: none"> <li>• Work in wetlands limited to 0.50 acre</li> <li>• Provide additional treatment or attenuation capacity to an existing stormwater system</li> <li>• Stabilization of slopes limited to areas experiencing erosion</li> <li>• Provide water quality treatment or flood control to serve new development or redevelopment</li> <li>• Designed as a stand-alone project</li> <li>• Does not adversely affect value of functions provided to fish and wildlife</li> <li>• Does not adversely affect the hydroperiod of adjacent wetlands</li> </ul>
62-330.453 F.A.C.	General Permit for Installation, Maintenance, Repair and Removal of Utility Lines including cable, conduit or pipeline transmitting electricity, communication signals, potable water, raw water, reclaimed water, domestic wastewater, propane, or natural gas provided all the conditions in the GP are met including, but not limited to:	<ul style="list-style-type: none"> <li>• No work in OFW</li> <li>• No work shall be allowed to drain wetlands or surface waters</li> <li>• Maximum width of disturbed corridor is 30 feet</li> <li>• Maximum 0.50-acre impact to forested wetlands per ten miles of utility line</li> <li>• Adhere to the directional drill or jack-and-bore conditions</li> </ul>



F.A.C.	Activity Type	Thresholds/Requirements
62-330.475 F.A.C.	General Permit for Single-family Residential Activities in Isolated Wetlands provided all of the conditions in the GP are met including, but not limited to:	<ul style="list-style-type: none"> <li>• Not part of a larger plan of common development</li> <li>• Work may not occur within the Wekiva River Basin Riparian Habitat Protection Zone or areas of Critical State Concern</li> <li>• Wetland impacts shall be eliminated except where unrestricted uplands are insufficient to support the residence and associated residential improvements</li> <li>• Wherever possible structures shall be built on pilings to minimize wetland fill</li> <li>• No more than 4,000 square feet of isolated wetlands may be dredged or filled and no more than 6,000 square feet of isolated wetlands are cleared</li> <li>• Does not cause violation of water quality standards</li> <li>• Does not impede conveyance of a stream, river, etc. in a manner that would increase off-site flooding</li> <li>• Does not adversely impact aquatic or wetland dependent listed species</li> <li>• Does not drain wetlands</li> <li>• No allowance for successive filling on same parcel which results in the fill thresholds to be exceeded.</li> </ul>
62-330.483 F.A.C.	General Permit to FDEP, Water Management District (WMD) to Conduct Minor Activities – repair, replacement or alteration of any bridge, levee, dam, pump station, culvert, spillway or other water control structure with the same design or a comparable design provided maximum discharge rate capacity and control elevation does not exceed that of the existing structure and provided all the conditions in the GP are met including, but not limited to:	<ul style="list-style-type: none"> <li>• Total dredge/fill in wetlands does not exceed 0.50 acre for any one structure</li> <li>• Canal bank and bottom stabilization necessary to repair erosion damage and restore previously existing canal configuration</li> <li>• Aerial pipeline crossing has maximum width of 200 feet</li> </ul>

F.A.C.	Activity Type	Thresholds/Requirements
62-330.485 F.A.C.	General Permit to FDEP and WMD for Environmental Restoration or Enhancement – for construction, alteration, operation, maintenance, removal, and abandonment of projects to implement environmental restoration or enhancement projects provided any one of the conditions in the GP are met.	<ul style="list-style-type: none"> <li>• Part of Surface Water Improvement and Management Plan</li> <li>• Has been approved by District Board w/ at least one public meeting</li> <li>• Has been approved by FDEP Secretary w/ at least one public meeting</li> <li>• Project is funded through Land Acquisition Trust Fund</li> </ul>
62-330.631 F.A.C.	GP to Governmental Entities for Limited Environmental Restoration or Enhancement Activities – to construct, operate, alter, or maintain projects for environmental restoration or enhancement provided all the conditions in the GP are met including, but not limited to:	<ul style="list-style-type: none"> <li>• Must improve the habitat of wetlands or surface waters for fish and wildlife by eliminating harmful drainage, improving water quality, preventing erosion, stabilizing eroding shorelines, planting wetland vegetation, removing spoil, removing exotic and nuisance vegetation, providing structural habitat, restoring dredged holes to elevation before they were dredged</li> <li>• Planting native wetland vegetation</li> <li>• Project shall not be considered as mitigation for any other project</li> <li>• All disturbed areas shall be stabilized with native vegetation within 72 hours of construction completion</li> <li>• Areas planted and maintained to ensure 33% cover of planted native wetland/upland plant species</li> <li>• Work area shall be maintained free of exotic invasive species</li> </ul>

## RECOMMENDATIONS



The recommendation for the County is to consider the development of GP criteria, in lieu of exemptions to evaluate projects that occur within the county yet provide a more streamlined process for processing these applications. Based upon the interviews with the County staff and stakeholders it appears that everyone acknowledges that some common activities could be processed more expeditiously if a new process was developed. In addition, based upon the interviews with the County staff and stakeholders, many did not favor the creation of exemptions because the exempt projects typically are not reviewed by EPD and there was a compliance concern if projects occurred without some level of EPD review.

# ORANGE COUNTY WETLAND ORDINANCE

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*Photograph of Freshwater Marsh*

## ORANGE COUNTY CONSERVATION ORDINANCE AND COMPREHENSIVE PLAN SUMMARY

The protection and regulation of wetlands and their adjacent uplands within Orange County is primarily governed by the Ordinance and the County's Comprehensive Plan 2010 – 2030 (Plan). These two sources provide the County definition of regulated wetlands, provide guidance on assessing the quality and functionality of wetlands (i.e., "conservation areas" per the ordinance and the plan), identifies requirements for evaluation of impacts to wetlands, and establishes the minimum amount of mitigation necessary to offset proposed impacts. While the Ordinance and the Plan have many similarities in practice and spirit, there are noticeable differences/inconsistencies between the two (e.g., functional assessment methods). The following sections

provide a summary of both the Ordinance and the Plan, an overview of the discrepancies between the two, and recommendations for items to be included or modified in the County's Ordinance update to better protect the County's wetlands while allowing for sustainable development and growth.

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## Conservation Ordinance of Orange County

Chapter 15, Article X of the County Code defines a "wetland" similar to the federal and State definitions. The Ordinance defines wetlands as features that are inundated for a sufficient duration and frequency to support under normal circumstances a prevalence of hydrophytic vegetation, hydric or alluvial soils or possess characteristics associated with reducing soil conditions, similar to the State and federal definitions. Generally, Florida wetlands include freshwater, tidal swamps, marshes, bayheads, bogs, cypress domes and strands, sloughs, wet prairies, and hydric seepage slopes. Longleaf pine (*Pinus palustris*) or slash pine (*Pinus elliottii*) flatwoods with an understory dominated by saw palmetto (*Serenoa repens*) are typically not included as wetlands. The boundary of a wetland is defined by the landward extent of both wetlands and surface waters as delineated pursuant to the unified statewide methodology codified in Chapter 62-340 F.A.C.

Wetlands that provide one of six functions as defined in section 15-379 of Article X are considered "conservation areas" by the County and are protected under the ordinance. Section 15-379 of Article X lists the following functions for a wetland to be considered a conservation area:

1. Wetlands that serve natural biological functions, including food chain production, general habitat and nesting, spawning, rearing and resting sites for aquatic or wetland dependent

- species, including those designated as endangered, threatened, or of special concern pursuant to F.S. § 581.185 and Rules 68A-27.003, 68A-27.004 and 68A-27.005, F.A.C.
2. Wetlands lawfully set aside as local, State or federally designated sanctuaries or refuges.
  3. Wetlands whereby the destruction or alteration of which would materially affect in a detrimental way natural drainage characteristics, sedimentation patterns, flushing characteristics, or other related and significant environmental characteristics.
  4. Wetlands considered natural recharge areas. Natural recharge areas are wetland areas where surface water and the Floridan Aquifer are hydrologically interconnected.
  5. Wetlands where significant and natural water purification occurs.
  6. Wetlands where after development of surrounding, contiguous areas, will continue to provide significant and productive habitat.

Conservation areas within the County are split into either Class I, Class II, or Class III conservation areas depending upon their size and to a degree what function(s) they provide. Definitions for each of the three classes is provided below.

Class I Conservation Area. Wetland areas which meet the following criteria:

- (1) Have a hydrologic connection to natural surface water bodies; or
- (2) Lake littoral zone; or
- (3) Are large isolated uninterrupted wetlands 40 acres or larger; or
- (4) Provide critical habitat for federal and/or State listed threatened or endangered species.

Class II Conservation Area. Wetland areas which meet any of the following criteria:

- (1) Consist of isolated wetlands or formerly isolated wetlands which by way of man's activities have been directly connected to other surface water drainage; and are greater than or equal to 5 acres; or
- (2) Do not otherwise qualify as a Class I conservation area.

Class III Conservation Area. Wetland areas which meet all the following criteria:

- (1) Isolated wetlands less than 5 acres; and
- (2) Do not otherwise qualify as a Class I or Class II conservation area.

Through the permitting process (described in the section below), the County verifies if a wetland is considered a conservation area per the Ordinance, determines the aerial extent of the conservation area, and assigns the feature a classification (i.e., Class I, Class II, or Class III).

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### ***Conservation Area Permits***

Wetlands that meet the definition of a conservation area and the areas immediately adjacent are protected under the County's ordinance from activities that would affect either the wetland's function or productivity. Projects proposing activities that would result in potential adverse effect on a conservation area's function or productivity, would require a permit from the County in accordance with Division 2 and Division 4 of Article X. Activities within conservation areas are exempt from the permit requirements, per section 15-381 and section 15-382 of Article X, if (1) a

development permit by the County for the development of a potential conservation area was issued prior to establishment of the Ordinance; or (2) a development order of binding vested right determination was issued by the County and which addressed modification or alteration of conservation area(s) was issued prior to the establishment of the Ordinance. Similarly, landowners who believe their lands or proposed activities are exempt from the Ordinance can request a binding determination of exemption from the County. The County must act upon the petition within 15 working days of submittal. Any petition for exemption from the County must include at least the following information for the area in question:

1. current county aerial photographs
2. U.S. Geological Survey 7.5-minute topographic quadrangle map(s)
3. map depicting the Federal Emergency Management Agency one-hundred-year flood prone areas
4. map depicting the USDA Soil Conservation Service soil types
5. current conservation maps as amended by the County

For projects where the proposed activities would result in adverse effects on either the function or the productivity of a wetland and are not exempt by the County, a permit is required prior to the activity occurring and must go through either the Informal Review or Formal Review process.

#### Review Process

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As mentioned earlier, the County reviews for the presence and areal limits of wetlands and surface waters, and assigns these features a classification (i.e., Class I, Class II, or Class III) during the permitting process. In instances where impacts to either the function or the productivity of a conservation area may occur, the County also identifies the level of protection or mitigation (if the activities would result in impacts) required. To make these determinations, Section 15-382 of Article X specifies that a project applicant must go through either an informal staff review process, or a formal review process described below and illustrated in Figure 1.

Informal Staff Review. The informal staff review process involves a project applicant preparing an application requesting a determination with the County. The County staff will conduct a site visit with the applicant within 10 working days of the application submittal. County staff will issue a determination in writing asserting if the area(s) are considered a conservation area(s), the corresponding classification(s) for the conservation areas identified and required mitigation. The applicant has 15 working days to respond to the County if they disagree with the staff review.

Formal Review. Should an applicant not agree to the determinations found during the informal review process, including offering differing mitigation or compensation for impacts from the staff determination, an applicant within 15 working days of receipt must follow the formal review process. The formal review process consists of the following steps identified in Section 15-382:

1. The County shall prepare, publish, and provide to every applicant the necessary forms and procedures for the review of an application or the issuance of a binding determination of exemption. Within 5 working days after the filing of any application, the County shall review such application to determine its completeness and shall notify the applicant in

- writing if the application is incomplete or if additional data are required. If the County does not request additional data within that period, the application shall be deemed complete.
2. Where an application for activity within or affecting covered lands is also regulated by other ordinances, or is proposed as a part of a preliminary subdivision plan, commercial site plan or construction plan, including but not limited to the locations and design of streets, culverts, drainage or flood control structures, excavation, dredging, filling, and clearing, the approval of such plans by their respective final reviewing bodies constitutes compliance with the permitting requirements of the ordinance (i.e., Article X).
  3. A complete application for determination shall be reviewed within 30 working days after the filing thereof, unless the deadline is waived by both parties.
  4. The applicant shall have the right to appeal the decision of the environmental protection officer to the Board of County Commissioners. A notice of appeal to the Board of County Commissioners shall be filed with the Environmental Protection Officer (EPO) within 15 days after the decision is rendered. The EPO shall then request a public hearing. Notice of the hearing shall be sent to the applicant by regular U.S. mail at least 10 days before the date of the public hearing. Following the hearing on appeal, the BOCC may reverse, affirm, or modify the decision of the environmental protection officer. The decision of the BOCC shall be final.



*The above described CAD review process defined within the Ordinance has evolved over the years. The current CAD review process utilized by Orange County staff is identified in the Chapter 15 Article X Wetland Conservation Ordinance Applicant's Handbook (Figure 2 below).*

**ORANGE COUNTY CONSERVATION AREA REVIEW PROCESS**

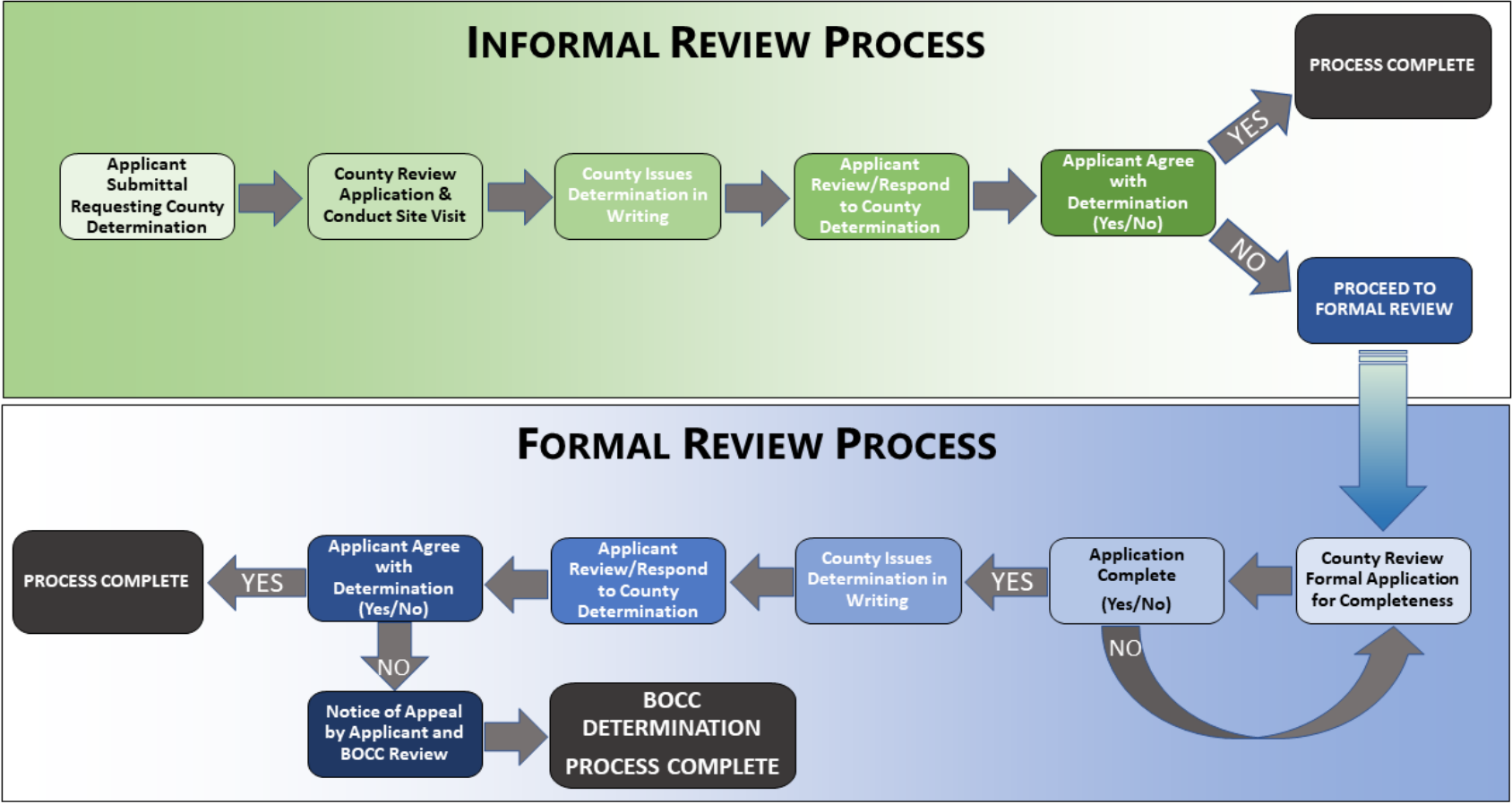


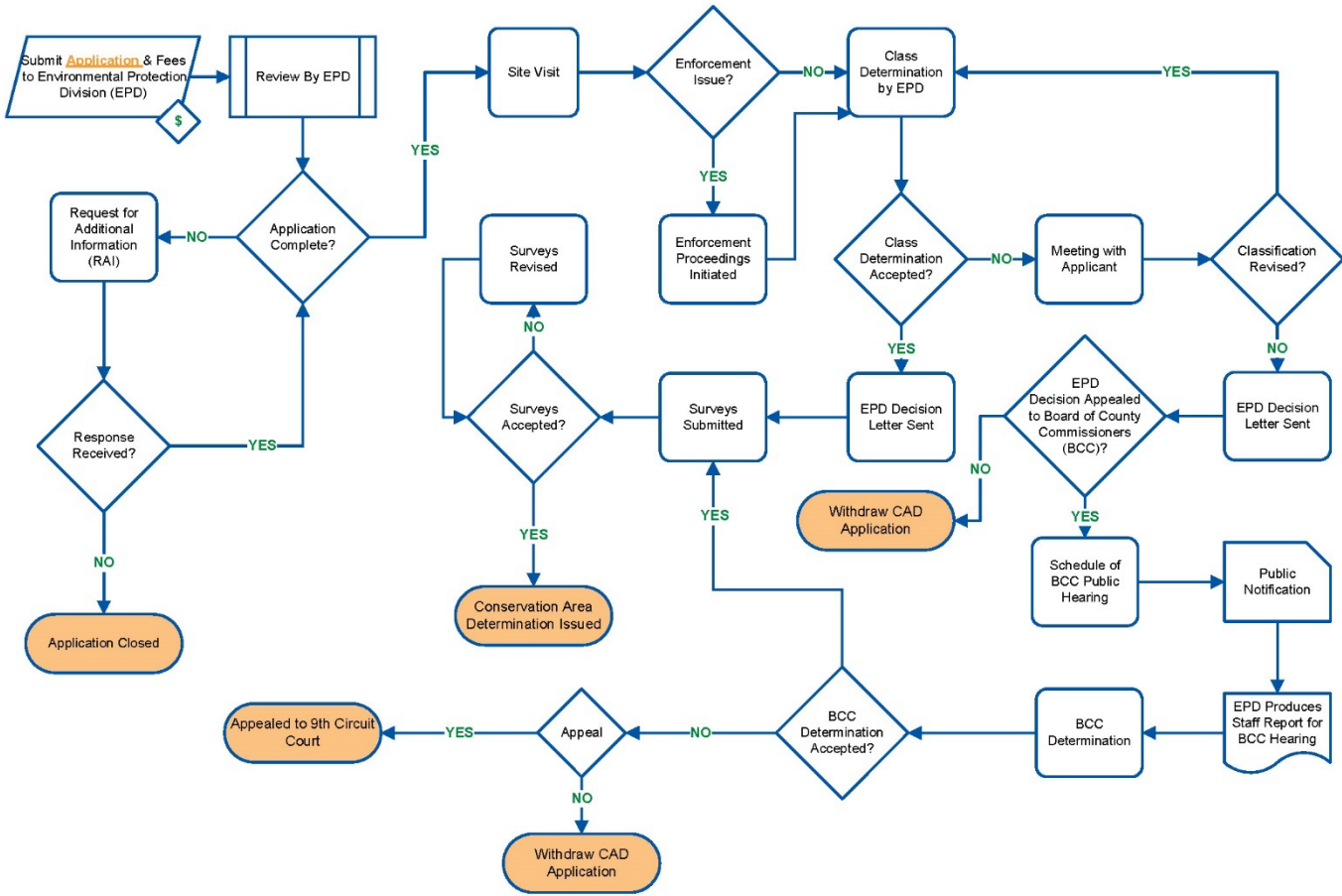
Figure 1. Orange County Conservation Area Determination (CAD) Review Process as described in the current ordinance.





**Environmental Permitting**  
**Conservation Area**  
**Determination (CAD) Process**

O-3



**Figure 2. Conservation Area Determination (CAD) Process according to the Orange County Chapter 15, Article X Wetland Conservation Ordinance Applicants Handbook (pg 83.)**

As part of the review process, Section 15-383 of Article X, specifies that the County staff who are conducting the review will also determine the functional significance, scarcity, replaceability, vulnerability and productivity of the habitat within the areas being evaluated in both pre- and post-developed conditions. Each are described in greater detail below.



*It is recognized that Orange County's no longer performs the vulnerability and scarcity of habitat determination as identified in the Ordinance. It is suggested that this section of the Ordinance be revised.*

Functional Significance and Productivity. The functional significance of a potential conservation area is determined by the degree of biological functions such as food chain production, general habitat and nesting, spawning and rearing, foraging and resting sites for aquatic or wetland dependent species. The significance and productivity of the habitat in a conservation area is evaluated in habitat units using the FWS's Habitat Evaluation methodology (or other method acceptable to the County) and measured by an approved set of evaluation species. The set of species used for the evaluation depends on how common the community/habitat is within the County and the magnitude/scale of the proposed project's impacts. The County will provide a standard list of evaluation species for common community/habitat types for the applicant to accept. For projects with potential impacts on less common community types or where the proposed project affects a large area with multiple community/habitat types the applicant will select representative species from a variety of trophic levels for the County to review and approve.



*It is recognized that Orange County no longer uses FWS's Habitat Evaluation methodology as this process is pre-empted by the State of Florida which requires the implementation of UMAM.*

Scarcity. Habitat scarcity is broken down into the following criteria based on the wetland type: (1) "common", which is applied to cypress wetlands and freshwater marsh wetland types; (2) "uncommon", for bayheads and mixed hardwood swamps; and (3) "scarce", for wet prairies and hydric hammocks.

Vulnerability. Habitat vulnerability is determined through the review of the potential for significant negative change in value as habitat or functionality due to the proximity to unregulated lands that would reduce the natural system values and characteristics of the potential conservation area.

Replaceability. Habitat replaceability is determined through review of other similar or improved habitats that would function to mitigation or compensate for the loss of function and values because of the proposed activities.

Following the review of these key metrics, the conservation area classification rank may be adjusted lower in cases where (1) the conservation area is not functionally significant; (2) the wetland(s) within the conservation area are not scarce; (3) the conservation area is determined to not be vulnerable; and (4) will be replaced.



*The processes outlined below are found in the Ordinance. It is noted that this process is not the current standard practice implemented by OC staff as the process has been pre-empted by the State of Florida requiring the implementation of UMAM. It is recommended that this section of the Ordinance be revised to include reference to UMAM and any processes staff utilizes.*

As part of the application review process the County will consider the number of habitat units existing before and after the proposed activity, the species selected for evaluation (if not chosen by the County for the applicant) and will review and approve the list of species selected for evaluation after the activity is proposed, when they are different from the species evaluated under the existing setting. The values of the selected species will be calculated using the FWS’s Habitat Evaluation methodology taking into account the scarcity, vulnerability, replaceability, and management efforts. The calculated values (i.e., high, medium, or low) will determine the amount of acceptable loss and the amount of preservation or habitat creation required. Table 4 below provides a breakdown of values, the amount of acceptable loss for each rank, and amount of creation required should the project result in impacts over the acceptable limit.

**Table 4. Orange County Habitat Unit Values, Acceptable Loss Thresholds, and Creation Requirements**

<b>Calculated Habitat Unit Value</b>	<b>Acceptable Loss Threshold</b>	<b>Creation Requirements for Unacceptable/Unavoidable Losses</b>
High	Project must result in no loss	Creation of an equal number of habitat units for species of equal or greater value
Medium	Minimal loss (i.e., less-than 10 %) of habitat units	Creation of an equal number of habitat units for other species having the cumulative value and importance
Low	Applicant must demonstrate minimization of the loss of habitat value	No unacceptable losses or habitat unit creation requirements under this category

The ordinance identifies either in-lieu fees or real property as compensation for unavoidable losses. The monies/fees required for compensation is based on the property's value per acre (i.e., total estimated value of the property divided by the total acreage) multiplied by the total acres of conservation area impact. For example, a project impacting 1-acre of conservation area(s) on a 10-acre property valued at \$1 million (i.e., \$100,000 per acre) would require \$100,000 in fees for compensation. For real property compensation, the County, per the Ordinance, has identified areas within the County that could serve as suitable lands for off-site mitigation (i.e., lands to be used as mitigation not located on or near the property(ies) being affected by the project). For real property compensation the applicant will either purchase the required amount of lands as required in the mitigation ratios or will pay the amount of compensation required based on the cost per acre for the lands multiplied by the appropriate mitigation ratio. The wetland type and mitigation ratios are provided in Table 5 below.

**Table 5. Wetland Mitigation Ratios**

<b>Wetland Type</b>	<b>Mitigation Ratio</b>
Freshwater marshes and wet prairies	1.5:1
Cypress wetlands	2.0:1
Hydric hammocks, bayheads, and mixed hardwood swamps	2.5:1

Prior to the submittal of any mitigation proposal the County recommends a pre-application conference with the applicant to determine the types of information that will be required and communicate any early comments/concerns. Each mitigation proposal submitted to the County must include the following: A description of the type and functions of the conservation area being impacted by the proposed development which shall include its acreage, flora, fauna, hydrologic regime.

- (1) A list of all species listed as endangered or threatened which utilize the area and an evaluation of the significance of the area to the listed species.
- (2) A design for and a description of the area proposed for creation, enhancement, restoration, or compensation which shall include its acreage, species to be planted, plant density, source of plants, soils, and hydrologic regime.
- (3) A description of the monitoring and maintenance program. The length and complexity of monitoring depends on the type of mitigation approved but will be no less than 1 year and will last until an 85% coverage rate for all planted areas is achieved.
- (4) An itemized cost estimate of the implementation cost of mitigation consistent with the estimating requirements of the subdivision regulations and subject to the approval of the County. This includes the applicant providing reasonable assurance of financial and institutional stability to carry out the mitigation and monitoring and maintenance requirements. Reasonable assurance is considered type for type mitigation using the ratios identified in Table 5, a security bond in the amount of 110% of the cost estimate, or performance guarantee as part of a project construction guarantee, cash bond or letter of credit from a financial institution, or performance prior to wetland impacts.

- (5) Additional information as may be required by the County to evaluate the mitigation proposal.

Review of mitigation proposals are based on the conservation area ranking system (i.e., Class I, Class II, or Class III). Class I conservation areas impacts are only allowed when no other feasible or practical alternatives exist, or where there is an overriding public benefit. Habitat compensation or mitigation is required as a condition for approval of impacts on Class I conservation areas. Habitat compensation for Class II conservation areas is allowed unless compensation for the impacts is contrary to public interest. Habitat compensation for Class III conservation areas is allowed in all cases.

The amount of impact on wetland function, the potential for the impact to be mitigated, and the feasibility of cost-effective design alternatives are all factors the County considers in determining the acceptability of mitigation. The County also evaluates the expected post-development viability and function performance during their review of mitigation proposals.

All fees or funding provided by applicants as mitigation is deposited into the conservation trust fund, which is used to purchase, improve, create, restore, and replace natural habitat within the county. Funds are not required to be spent on the replacement of identical habitats lost and may be comingled with other funds but must be spent within 5 years.

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**Orange County Comprehensive Plan 2010-2030**

While several objectives in the conservation element of the plan identify requirements to reduce impacts to natural resources and naturalized areas (e.g., reducing urban sprawl, siting development way from sensitive areas), several objectives deal directly with wetlands. Table 6 below, provides a list of the wetland/conservation area objectives and a summary of the policies for each.

**Table 6. Orange County Comprehensive Plan 2010-2030 Wetland/Conservation Area Objectives and Summary of Policies**

<b>Objective Number</b>	<b>Objective</b>	<b>Policy Summary</b>
OBJ C1.2	Orange County shall protect and improve surface waters by identifying sources of pollution and coordinating the development and implementation of pollution abatement devices, methods and programs with local governments, State, and Federal agencies.	Policies under this objective include: <ul style="list-style-type: none"> <li>• protecting water quality through the enforcement of water quality standards</li> <li>• conducting surface water monitoring</li> <li>• reducing the amounts nutrient laden water runoff and percolation</li> <li>• protecting and limiting the removal of native shoreline vegetation</li> <li>• removal of invasive aquatic plants in waterways, and restoration of water quality in lakes.</li> </ul>

Objective Number	Objective	Policy Summary
OBJ C1.4	Orange County shall protect identified wetland areas and existing native wildlife (flora and fauna) habitats.	<ul style="list-style-type: none"> <li>• Identifies that environmentally sensitive lands for the purposes of the plans include conservation areas as defined in the ordinance, and that the County will work with State and federal agencies to identify and regulate areas under their jurisdiction.</li> <li>• Requires compensation or mitigation, preferably within the County, using UMAM for impacts on wetlands or surface waters, including the establishment of a minimum 25-foot upland buffer areas adjacent to wetlands or surface waters.</li> <li>• Adds Preservation and Conservation/Wetland areas in future land use designations and maps</li> </ul>
OBJ C1.12	Orange County shall protect, preserve and enhance its vegetative resources, including, but not limited to, tree species, emergent and submergent aquatic vegetation	<ul style="list-style-type: none"> <li>• Identifies the County will develop incentive programs to conserve existing wetlands</li> </ul>

### **County Wetland Ordinance and Comprehensive Plan Differences**

Approximately 35 years have passed between when the County first adopted the Ordinance in 1987 and when the most recent version of the Plan was adopted in 2021. During those 35 years numerous changes have occurred regarding the regulation of wetlands and surface waters at local, State, and federal levels such as definition changes, regulatory and jurisdictional changes, changes in the understanding of ecological and hydrological processes, changes in population growth and densities and urbanization of rural areas, etc. Even with these changes and the large gap in time between the adoption of the Ordinance and the Plan, both are fairly consistent in their spirit and intent to protect and preserve wetlands and wetland functions. The Plan also references the Ordinance for defining wetlands as conservation areas, the need for compensation and mitigation for impacts, and the need for functional assessments to determine mitigation need/value. The Plan, while more abbreviated and less detailed than the ordinance, given its primary purpose to guide growth and development, differs from the Ordinance in terms of the permit application process, County review requirements, and compensation/mitigation ratios. The plan also includes some conflicting and additional policy requirements not found in the Ordinance including the establishment of upland buffers adjacent to wetlands and surface waters as part of mitigation (similar to the current FDEP requirements) and using UMAM in place of the FWS’s Habitat Evaluation methodology as the functional assessment method in determining the value of conservation areas in the County.

## Recommendations

Based on the review of the wetland related elements in the County's Plan and the current ordinance, updates are required to the ordinance to better protect wetlands and surface waters in the County while still allowing for the sustainable development described in the Plan. The recommendations provided below are intended to act as a guide for County staff to consider for the next update to Article X.

1

The Ordinance should update its functional assessment methodology for conservation areas from FWS's Habitat Evaluation methodology to UMAM, per FDEP requirements. The FWS's Habitat Evaluation methodology is dated from the late 1980's and contains outdated information. Using UMAM will allow for consistency between the County and State determinations.

2

In addition to wetlands, surface waters as defined by current State and federal definitions, should also be protected under the County's ordinance given the interrelationship between wetlands and surface waters in Orange County.

3

All wetlands and surface waters regardless of size or function should be protected from permanent and temporary impacts by the County. Similarly, the term "conservation area" and the conservation area classifications (e.g., Class I, Class II, and Class III) are recommended to be removed and replaced with "wetlands and other surface waters".

4

Mitigation for permanent impacts needs to be updated to utilize UMAM IAW 62-345, F.A.C. In addition, the County needs to include specifics regarding compensatory mitigation especially for those instances where the State (FDEP) or the Federal agency (e.g., ACOE) did not require mitigation. In light of the Mayor's vision of sustainable growth in the County it is recommended that the Ordinance provide a hierarchy for mitigation, with a preference for these mitigation areas to remain in the County.

5

In-lieu fees should be used for projects with relatively minor impacts or for impacts to features with low UMAM scores. The in-lieu fees should be used to fund the County's acquisition of mitigation lands and the restoration/enhancement of County owned lands with similar features.

6

Conversely, in-lieu fees for larger features or features with moderate to high UMAM scores are not recommended or should be applied at the County's discretion, given the potential for the cost to incentivize developers to use only that method for mitigation and to impact large areas of wetlands/waters. Additionally, it creates the potential for fees to not be used for in-kind mitigation in a timely manner to offset impacts.

7

The calculation for determining the amount/cost of in-lieu fee will need to be updated and employ the same approach outlined in the current Ordinance (i.e., average price per acre of land for in-kind mitigation, multiplied by the mitigation ratio). Though the County doesn't current employ this approach, we recommend considering its implementation. The County should also maintain an annual list with the average in-lieu fee price per acre of typical wetland and surface water types.

8

Mitigation for temporary impacts should be limited to on-site restoration of the affected area and annual monitoring for up to 5 years to demonstrate the on-site conditions are the same or better. Restoration should include recontouring the area to match the existing condition, removing invasive species (both flora and fauna) from the project site, revegetation of the disturbed areas with native vegetation with similar community structure/strata as the adjacent areas (where feasible), and establishing attainable success criteria based on the growth habits of the native species to be planted.

9

Applicants with projects affecting relatively small (<0.01 acres or other to be determined threshold) areas or wetlands/surface waters with low UMAM scores should be expedited by the County and should have lower mitigation requirements to incentivize avoidance of wetlands and surface waters by developers (e.g., permanent impacts on more than a 0.10 acre of surface waters or 0.10 acre of wetlands would require compensatory mitigation). The County's review process and timelines described in the ordinance should remain in effect for projects affecting relatively large or high-quality features.



10

The establishment of upland buffers as part of the mitigation provided by applicant should be continued. Upland buffers are critical for protecting water quality and native species. Similar to wetland and surface waters the upland buffer size should be based on location (special protection area) and the UMAM score (e.g., features with high scores receive 100-foot buffer, moderate scores receive a 50-foot buffer, and low scoring areas receive a 25-foot buffer) and implemented as applicable. Specific buffer sizes and appropriate implementation strategies should be established based on consensus from a future working group.

11

Restoration/enhancement of sites should avoid the planting of plant species that are not native to the watershed and appropriate for the wetland ecotype being protected/mitigated for (e.g., only wet prairie species native to the watershed should be planted within the wetland and associated upland buffer).

12

Perpetual exotic and nuisance species removal should be required as a general condition for **all** Orange County permits. Current practice is merely five years of maintenance and monitoring for mitigation sites. The recommendation is for all applicants that obtain a permit be required to have no exotic/nuisance species on their properties. Monitoring and reporting are not recommended to be required for the areas that do not provide compensatory mitigation.

## COUNTY STAFF INTERVIEW FEEDBACK

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For the purpose of this report, six EPD staff were interviewed using a custom developed questionnaire (Appendix A) to obtain their feedback with respect to the Ordinance. The EPD staff responses and recommendations are summarized in the paragraphs below and consolidated in the attached Staff Comments Feedback Matrix (Appendix B).

**Ordinance Language:** All six EPD staff interviewed acknowledged that the Ordinance is outdated and that many areas need to be improved. During the interviews all staff indicated that the permitting process needs to be codified in the Ordinance. In addition, everyone interviewed stated that the classification of wetlands needs to be changed to be based on wetland quality.

**Definitions:** During the interviews the staff mentioned that the definition section of the Code needs to be updated. Staff did not provide too many examples of which definitions require revision or addition. Staff mentioned that the term "wetland" should be used in lieu of "conservation area" and that the definitions provided for Class I, II, and III wetlands be eliminated. To clarify in the application review process staff recommended that EPD develop a definition for "reasonable use". During the interviews AEI noted that some counties have an allowance for reasonable use and uphold the definition when processing applications. For instance, Hillsborough County, EPC defines "reasonable use" shall mean an actual, present use or activity on a parcel of real property or such reasonably foreseeable, nonspeculative land uses which are suitable for the subject parcel of property, and which are compatible with adjacent land uses. Reasonable use does not mean the highest and best use of the property. While staff indicated that they are successful in getting applicants to avoid and minimize impacts to wetlands, they stated that definitions for avoidance and minimization are not found in the Ordinance.

**Classification System:** Staff recommended that the classification system be removed from the Ordinance and replaced with a system that correlated with the UMAM functional assessment. For instance, a UMAM score of eight to ten would correlate to high wetland quality, five to seven would equate to moderate quality, and a UMAM score of four or less would correlate to low quality wetlands.

In the new system the wetland size and type are not as critical in the EPD review as the overall wetland quality using the UMAM evaluation system. The UMAM assessment methodology has been long established and utilized by the FDEP and is a proven method for documenting and comparing wetland systems. In the new assessment methodology, the County may include other important considerations such as water quality, overall location of wetland in the environment, and have a special emphasis on wetlands within special protection areas.

**Application Review Process:** The staff indicated that the permitting process outlined in the updated Ordinance needs to be more protective of the higher quality wetlands and less protective of lower quality wetlands, regardless of the classification. Only half of the staff interviewed thought that the wetland application process should include adjacent property owner notification. The other half of the staff acknowledged that this step may not be needed because adjacent property owner notifications occur in other steps of the process (i.e., zoning changes) In addition, staff

mentioned that the public can sign up to receive notifications when a new application is submitted so notifying the adjacent property owners would not be necessary.

Staff stated that the 30 days for initial review and a total review timeframe of 120 days is sufficient for staff to review. If the project requires BOCC approval, then staff has 180 days to process the application which includes time getting the project on the BOCC agenda.

**Approval Process:** Staff indicated that the applications that must go before the BOCC are extremely time consuming to prepare. Staff recommended that fewer projects go before the BOCC and more projects be approved by management within EPD. The Ordinance does not describe the application process for applicants. Staff recommended that the steps involved be included in the updated Ordinance.

**Buffers:** Staff agreed that the Ordinance should include buffers, but the size of the recommended minimum buffer varied from 25 feet to 50 feet. Staff mentioned that the buffers could vary depending on wetland quality, presence of threatened and endangered species, and location. In addition, half of the staff interviewed recommended the Ordinance include not merely wetland buffers, but also upland buffers in the updated Ordinance.

**Cumulative and Secondary Impacts:** Half of the interviewees recommended that the Ordinance include specific language to protect impacts to regional wetland systems to avoid fragmentation. Only two staff recommended that the application review process in the Ordinance include secondary and cumulative impacts. The remainder of the staff recognized that the ACOE already requires applicants to provide a cumulative and secondary impact analysis and did not see the need to duplicate this effort.

**Mitigation:** Currently, the outdated Ordinance refers to mitigation with ratios. Staff agreed that the Ordinance needs to be updated so that it is consistent with 62-345, F.A.C. and utilize UMAM.

**Exemptions:** Half of those interviewed recommended that the Ordinance include some exemptions. A couple of exemptions that were identified by staff include fences in wetlands, stormwater outfalls, and minor fill. In lieu of incorporating exemptions into the Ordinance, the County could consider the use of General Permits if EPD still wanted to review these types of projects, but in a more streamlined process.

**Enforcement:** Staff recognized that the enforcement process gets bogged down with supervisory oversight. Staff suggested less management review of enforcement documents in an effort to improve response times and protect the wetlands. Over half of the staff recognized that approved document templates would also save EPD staff time in preparation and reviews. Over half of the staff stated that the Ordinance is subjective and difficult to enforce. Staff recommended that the Ordinance be updated to include specific procedures for enforcement cases.

**Recommendations for Improvement:** During the interviews staff were provided an opportunity to provide suggestions for improvement. Overwhelmingly, staff recommended to revise or eliminate the classification system because the existing classification system (i.e., Class I – Class III) does not support protection of all higher quality wetlands. Staff recommended that the Ordinance also be revised to include the Special Districts located within the County. If the Ordinance included Special Districts, then the specific requirement within each district could be clearly identified so

that property owners are aware of any permitting constraints. Staff recognized that all wetlands in the County are important, not merely certain types of wetlands or any particular size and advocated for the Ordinance to protect all wetlands.

Suggestions were made by several staff members to have the process for review included in the Ordinance. If the process is included in the Ordinance, it will make it clearer to the applicants what the application process includes along with time frames so there are no surprises or frustrated applicants.

Several staff suggested that only projects with impacts to the highest quality wetland systems go before the BOCC. All other wetland impact projects would be approved by management within EPD. The EPD staff are all well trained to review, evaluate, and process applications for wetland impacts and are more familiar with wetlands than the BOCC. So, if the application approval took place at the EPD management level those experts are better able to ensure that wetlands remain protected. This would benefit both EDP, BOCC, and applicants by avoiding the lengthy BOCC review and approval process and allow BOCC to focus on other County issues.

Staff also recommended that the application review/approval process be simplified for staff. A more streamlined/simplified application process would minimize consultant/agent conflicts, make it easier for applicants and staff to process the applications in a timely manner, and allow for consistency of review for similar project types.

Staff recommended that the Ordinance should specify a set 50-foot buffer to all wetlands, unless in a riparian habitat protection zone. In addition, several staff recommended that the Ordinance include buffers to protect rare habitats found in the County and habitats that are utilized by threatened and endangered species. Rare or unique native vegetation communities found within the County could be based on the Florida Land Cover Classification System and the percent coverage of the vegetation community found within the County (e.g., a vegetation community with less than 2% coverage in the County would be considered rare) and would be considered as part of the buffer area for wetland mitigation. The vegetation communities for the County would be updated and refined as the Florida Land Cover Classification System is updated.

## **EVALUATION OF ADDITIONAL FEEDBACK**

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### **OTHER COUNTY WETLAND ORDINANCE SUMMARY REVIEW**

In an effort to fully evaluate the Ordinance, EPD requested that the project team review and interview six other county ordinances for comparison using a questionnaire similar to the one prepared for the County staff (Appendix A). One county, Hillsborough was chosen because their population is similar to the County's and Hillsborough County, Environmental Protection Commission (EPC) has been granted FDEP wetland delegation (i.e., EPC was delegated by FDEP to review and process certain wetland applications on behalf of FDEP). Two counties, Leon and Alachua County were chosen after performing a brief evaluation of their ordinance. These two counties have a strong wetland ordinance and both counties have been successful in recently

updating their ordinances. Osceola, Seminole, and Volusia counties were selected given they are adjacent to the County, and centrally located in Florida.

A summary of each of the six county wetland ordinances and information obtained from the interviews is provided below.

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## **Hillsborough**

**Ordinance Adopted/Revised:** Hillsborough County EPC was created in 1967. The EPC ordinance applies to all municipalities within the county. The last revision to the ordinance took place in 2021 to update the basis of review.

**Processing Fee:** The last fee update occurred in January 2022 and typically fees are updated every five years. EPC hired a consultant to perform a fee study which tracked every project and assigned staff, considered salaries, overhead, etc. The EPC has a multi-tiered fee schedule associated with their permits. The fee schedule is based on an average of man hours and includes various fees. There are different fee schedules depending on the type of development. A residential impact fee includes housing fees (i.e., mobility fees) plus school, park, and fire impact fees.

**FDEP Delegation:** EPC has been delegated to review private single-family projects on behalf of the FDEP. The delegation allows EPC to serve as a one-stop shop for the single-family developments and has streamlined the process for those projects. EPC did not add additional staff when they received the delegation. EPC recommended that if a county is contemplating FDEP delegation that they evaluate how many private single-family projects they process every year. EPC mentioned that the Federal delegation of the Section 404 program to the FDEP has created extensive delays in projects being processed. Specifically, the FDEP has a backlog of three months for performing Section 404 jurisdictional determinations. For projects involving federal jurisdictional wetlands, the FDEP still processes the Federal Section 404 review and EPC reviews the project for the County and State. Prior to the delegation the wetland permitting process was much smoother.

**Application Review Process:** Applications are electronically submitted. Two administrative staff perform an initial review to determine type of project which are separated into miscellaneous activities, port authority and services such as delineations, zoning, and mitigation reviews. The EPC manager assigns the application to a staff based upon location and project complexity. If staff has any history with the project, then the application is assigned to that person for continuity and familiarity with the project site. Staff has 30 days to perform the initial review and 30 days once the file is complete to issue; however, affordable housing projects must be authorized within 15 days of completion. All projects are approved by the EPC Executive Director.

**Exemptions:** Hillsborough County EPC has numerous exemptions which are dependent upon activity. Standard exempt activity includes maintenance of all roadway drainage ditches, development in man-made stormwater treatment systems, and impacts of 500 square feet or less for ditch crossings. EPC also has Noticed Exemptions which must be processed within 30 calendar days of receipt. The Noticed Exemptions include the following development activities: work within artificially created ditches, impacts within wholly owned artificially created wetlands or surface waters less than one acre in surface area and impacts to commercial fish ponds. The exemptions

have specific criteria, including: a project will not qualify for an exemption if it has any significant threatened and endangered species habitat, requirement for only clean fill to be used, and the development shall not cause adverse impacts to areas offsite. If a project does not meet the exemption criteria, then it is processed as miscellaneous activities in wetlands or as wetland impact and mitigation proposals.

**Avoidance/Minimization:** Hillsborough County EPC has not developed any buffers. All wetlands are protected, and every applicant must demonstrate avoidance, minimization and then EPC will only authorize reasonable use of the land provided the activity cannot be accomplished without affecting the wetlands. EPC has defined "reasonable use of the land" in Chapter III, 3.2.1 of their ordinance which is defined as:

*... an actual, present use or activity on a parcel of real property or such reasonably foreseeable, non-speculative land uses which are suitable for the subject parcel of property, and which are compatible with adjacent land use. Reasonable use of the land does not mean the highest and best use of the property.*

Some of the reasonable use considerations include current zoning at the time of the application, existing development or use on the property, buildable area with the applicant accessing buildable upland areas on the parcel, documented efforts to redesign proposed project and documented efforts to obtain waivers or variances and "whether the denial of impact would result in a loss of all or substantially all economic value of the property."

If compensatory mitigation is required, it must be located within Hillsborough County. Chapter IV, 4.1 states that "For some projects, off-site areas may be preferable to on-site mitigation areas." EPC encourages the applicant to consider all mitigation options on the project site and within the County, including mitigation banks and off-site regional mitigation areas.

Chapter 1-11.01(1) states that the intent of EPC is to avoid impacts to wetlands in Hillsborough County and to encourage use in wetlands only if it is compatible with their natural functions and environmental benefits. Development requiring mitigation is the last resort and used only when reasonable use of the property is unavailable. EPC evaluates cumulative impacts that a proposed development has to the wetland in combination with other developments that have been or may be proposed in the same drainage basin.

**Enforcement:** Hillsborough County EPC handles approximately 50 enforcement cases per year. EPC has six personnel that handle compliance and enforcement activities with two dedicated enforcement staff and four employees perform compliance and complaint investigation. The EPC process includes the following: compliance staff conducts a site inspection of the parcel, if non-compliance involves vegetation, the compliance staff member can prepare, sign, and send a letter of non-compliance to the property owner. If the non-compliance involves fill, then the project is assigned to the enforcement staff who sends a warning letter. In addition, if compliance is not immediately achieved, then the project is assigned to the enforcement staff. Pursuant to the FDEP delegation, EPC cannot permit any after-the-fact activity.

## Leon

**Ordinance Adopted/Revised:** The Leon County Wetland Ordinance applies to all municipalities within the County. In addition, only the City of Tallahassee has stricter requirements in their ordinance. Leon County's wetland ordinance was updated in 2021 to include criteria for adding County roads to the canopy road system and created Leon County Aquifer Vulnerability Assessment Map (LAVA). The LAVA map identifies the least to most vulnerable aquifers in Leon County. The Leon County wetland ordinance update was accomplished in 6 months due to early outreach with stakeholders early in the process.

**Processing Fee:** Leon County's last fee update occurred back in 2008. The permitting fee is based upon impervious surface of impact, and it was noted that the fee does not cover overhead costs.

**Special Development Requirements:** The Leon County BOCC has designated special development standards for environmentally sensitive zones identified as special development zones (SDZ). The SDZ are adjacent to watercourses or receiving waterbodies or other environmentally sensitive areas within any watershed where additional or more stringent minimum design and development standards shall apply. For instance, the SDZ includes some of the following: maximum building area of 4,000 square feet or 5% of the total wetland area within the parcel, set minimum elevation limitations for development, setbacks for septic systems, natural vegetation protection and motor vehicle prohibitions. The Leon County BOCC has identified numerous SPZs, and most of the county has special protections due to the extensive number of wetland resources that the county seeks to protect.

Leon County also has habitat protection requirements and invasive species control in their ordinance. These habitat requirements are focused on the protection of threatened and endangered species, habitat, and protection from secondary impacts. The invasive exotic plant control requires each applicant to include a management plan for the long-term management of exotic species within the parcel. Each management plan must include how species will be eradicated, a schedule, cost, treatment methods existing and proposed conditions. The goal is that each parcel will have less than 1% exotics.

**Application Review Process:** An applicant may apply online and pay their fees either online or over the phone. An application must include a Natural Features Inventory (NFI) which includes not only wetland information but also 25- and 100-year floodplain elevations, grades over 20%, native forest, historical/archaeological assessment, threatened and endangered species, karst features, canopy road, conservation and preservation areas and drainage basin information. The NFI must be performed by a qualified professional (i.e., a biologist with a minimum of 5 years' experience). Leon County defines a qualified professional as a person who has a minimum of a bachelor's degree in one of the physical or natural sciences, engineering, or related fields; and who possesses, in addition to skill, a special registration, certification, or knowledge, including, but not limited to, registered professional engineers, landscape architects, geologists and hydrologists. Leon County has 10 business days to review wetland applications and 20 business days to issuance once the application is deemed complete. Leon County has a staff of six employees that review applications. All applications are approved by the County Administrator. None of the applications require the Leon County BOCC approval. All permits are issued using a set template with standard conditions

for every project. In 2021, staff was able to issue new single family home building permits in an average of 8 days.

Best management practices (BMPs) are identified in Section 10-4.328 for Leon County's ordinance. The BMPs apply to all redevelopment and new developments and within specified SDZ including within 25 feet of any wetland, waterbody, floodplain, etc. The BMPs provide a layer of management protection to these SDZ. A common example of a BMP is the installation of erosion control at the project site to prevent sediments from eroding into areas that have not been permitted for impacts.

**General Permits:** Leon County has two types of GPs, a utilities GP (overhead and underground) and a GP for routine roadway, shoulder, ditch, stormwater maintenance activities.

**Buffers:** Leon County has established a minimum 50-foot buffer as a requirement from any wetland. In addition, the ordinance has established minimum standards for protection for natural features found in Leon County.

**Avoidance/Minimization:** Leon County requires every applicant to demonstrate avoidance and minimization with a 5% maximum impact. No compensatory mitigation is required; however, a conservation easement (CE) is required over the remaining natural features with a management plan for the CE area that includes invasive species control. Amendments to CE are prohibited unless the natural features are no longer present on the property.

**Enforcement:** Leon County does not have many enforcement cases and they do not have a backlog of enforcement cases. Most of the enforcement cases are from residents altering their property in violation of the ordinance. Leon County has three compliance inspectors that conduct inspections to verify a violation occurred. A Code Enforcement Board handles the enforcement activities. Enforcement fines are \$250/day/offense for first time offenders and \$500/day/offense for repeat offenders. The ordinance includes how enforcement cases are handled with a notice of violation, stop work order and remedial action.

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## **Alachua**

**Ordinance Adopted/Revised:** The Alachua County ordinance applies to all municipalities within the county. The ordinance originated in 1992 and has undergone recent updates. In 2018 Alachua County adopted wetland protection standards that applied countywide in Chapter 77, Article II. In 2021 the Countywide Natural Resources Protection Code was adopted in Chapter 78. Municipalities may have requirements that exceed the ordinance.

**Processing Fee:** Alachua County updates their permitting fees every 5 to 10 years and the last fee change occurred in 2012. Alachua County does not have a separate fee for wetland applications. The fee is based upon land development type and parcel size.

Alachua County has a Countywide Natural Resource Protection Code that has been established to protect threatened and endangered species, significant habitats, listed species habitat, strategic ecosystems, and significant geologic features.



**Application Review Process:** Pre-application meetings are encouraged to determine if there are wetlands, significant habitat or if the parcel is located within a strategic ecosystem. Consultants provide wetland delineation during the preliminary application stage. If the applicant has a wetland jurisdictional determination approved by the State (e.g., FDEP) then that determination is binding on the County. If the project proposal includes wetland or resource impacts and requires mitigation, then the project goes before the Alachua County BOCC for approval. Alachua County EPD staff prepares a report that goes to BOCC for consideration. If the project does not have impacts to resources, then the project proceeds to the final application stage and gets reviewed/approved by the Development Review Committee (DRC). The DRC is made up of three staff from different departments: Alachua County EPD, Growth Management, and Public Works Department.

Alachua County EPD reviews application/verification requests for projects that would impact wetlands or natural resources within 10 business days and processes the preliminary application within 30 days of receipt. The Alachua County BOCC meets twice a month and the DRC reviews projects electronically.

**Special Development Requirements:** Alachua County adopted Strategic Ecosystems Protection Standards to obtain connectivity and minimize fragmentation of natural ecosystems. The goals to these protection standards include conservation, enhancement, management of natural ecosystems ecological integrity to maintain wetlands, floodplains, and associated uplands. Four upland resources are protected in Chapter 78: significant habitat, listed species habitat, strategic ecosystems, and significant geologic features. All wetlands and ecosystems are valued and protected to provide the following benefits: recharge ground water and aquifer, improve water quality, reduce flooding impacts, protect resources, enhance tourism, improve the quality of life for residents.

**Conservation Easements:** Alachua County does not obtain conservation easements from the private single-family parcels (moms/pops) because they do not desire postage stamp size easement areas. Conservation easements are obtained from developments with larger areas with the overall goal to provide connectivity including wildlife corridors within Alachua County.

**Exemptions:** Alachua County has a *de minimis* exemption for alteration provided that the project will have no significant adverse impacts. In addition, Alachua County has numerous exemptions for specific types of work. Exempt activities include invasive vegetation removal, alteration of vegetation for parks and recreation, existing utility and road rights-of-way, operation and maintenance of existing facilities, fences and firebreaks, surveys/tests, parcels less than 2 acres are exempt from onsite protection requirements and for prior approvals, artificial wetlands, and some urban redevelopment projects.

Alachua County has specified buffers for surface waters, wetlands and geologic features ranging from 25 feet to 150 feet. Table 7 below provides a breakdown of the various buffers depending upon the features present.

**Table 7. Alachua County Wetland and Surface Water Buffers**

<b>Surface Waters, Wetlands, and Geologic Features</b>	<b>Buffer Distance (feet)</b>	
	<b>Average Distance</b>	<b>Minimum Distance</b>
Surface waters and wetlands less than or equal to 0.5 acre with no threatened or endangered species	50	35
Surface waters and wetlands greater than 0.50 acre with no threatened or endangered species	75	50
Threatened or endangered species are documented within 300 feet of surface waters or wetlands	100	75
Outstanding Florida Waters	150	100
Sinkholes	75	50
Caves, springs, karst with connection to aquifer, significant geologic features within Outstanding Florida Waters, springs, Priority Focus Areas	150	100
All other significant features	25	NA

**Avoidance/Minimization:** All applicants must demonstrate that the activity cannot be located in the upland portions of the parcel. Once avoidance is demonstrated then applicants must demonstrate that they have minimal impact, overriding public interest and all economically viable use of the property is otherwise precluded. Applicants must demonstrate avoidance and minimization not only to wetlands but also to buffer impacts. Applicants must demonstrate additional criteria are met in order to obtain a permit. Additional criteria, for instance, require that a project have no net loss of wetland values and functions, not adversely impact threatened and endangered species or historical resources, minimize adverse impacts to fish and wildlife, and not violate water quality standards.

If additional compensatory mitigation measures are required beyond the State requirements, (e.g., for buffer impacts) then Alachua County’s preference is that the mitigation occur within county and the within same watershed. Mitigation may include onsite restoration or enhancement, offsite preservation or fee-in-lieu of land. The fee-in-lieu of land involves a cash payment equivalent to 150% of the average per acre appraised market value multiplied by the number of acres of regulated buffer area plus a total cost for management.

**Enforcement:** Alachua County processes approximately fifteen enforcement cases per year. Most of the violations are due to vegetative clearing. Two staff go out to the site to verify a possible violation. Once verified, a warning letter or notice of violation is sent to the property owner. The property owner has 30 days to submit a restoration plan. Large violations go straight to the magistrate for processing. Every month the enforcement team meets with the Code Enforcement Board to discuss pending cases. Enforcement penalties include restoration of impacted area, recovery of economic benefit of noncompliance, administrative fines, and fees to cover site inspections, investigations, labor costs and mitigation for any remaining wetland impacts.

## Osceola

**Ordinance Adopted/Revised:** The Osceola County wetland ordinance was originally written in 2008 and codified in the Land Development Code in 2015. Osceola County has not performed updates to the wetland ordinance because it is a court ordered settlement as a result of a lawsuit with environmental groups. The existing ordinance does not apply to municipalities.

**Processing Fee:** The fee schedule was last updated in 2020 and is updated every few years. The fees for site development are based on man hours to review plans, administrative fees, and include a 2.5% inspection fee added to the total cost.

**Application Review Process:** Applicants submit a site development plan that includes a delineation of wetlands and buffers, which needs to be prepared by an environmental consultant or other qualified individual/entity. The Osceola County Project Coordinator reviews the project for sufficiency and if sufficient the project is then assigned to staff for review. The sufficiency review allows for 2 to 3 days before it must be routed to each department for review. Department staff have 10 days to review, which includes fire, environmental, school, planning, etc. Once an application is deemed complete the applicant pays fees and installs silt fencing prior to a county site inspection. The site development plan application is simultaneously reviewed by every department. Staff assigned to the project review and approve or deny the project with all activity taking place electronically (i.e., no hard copies). Once all department reviews are completed then the application goes to the Development Review Coordinator (DRC) for final approval. The BOCC does not review/approve any wetland applications rather, the approval is conducted by the DRC for all wetland applications.

**Exemptions:** Osceola County recognizes all State regulated exemptions so if the project is exempt by the FDEP/WMD then the project does not come to them for review. Osceola County reviews all wetland impact applications through a site development plan if the project does not meet the State exemption.

**Wetland Categories:** Osceola County has three wetland categories. Class I includes the highest quality wetlands with a UMAM score of 0.8 or higher. Essentially, the only allowed impacts to Class I wetlands are for major roadway projects and if there are no other alternatives for a private single family property owner then they could impact 0.25 acre for a homesite. Class II wetlands are average quality wetlands with a UMAM in the range of 0.5 to 0.7. Typical impacts allowed for Class II wetlands are infrastructure improvements like roadways that can increase value or community connectivity. Class III wetlands are the lowest quality wetlands and typically have a UMAM score of less than 0.4. Osceola County also requires buffers which correlate to the corresponding wetland Class as detailed in Table 8 below.

**Table 8. Osceola County Required Buffers by Wetland Classification**

Wetland Classification	Required Buffer (feet)	
	Average	Minimum
Class I	50	NA
Class II	50	25
Class III	25	15
Econlockhatchee River	250	NA

**Avoidance/Minimization:** Osceola County requires applicants to avoid and minimize wetland impacts. They require applicants to utilize the uplands on the property as much as possible. If the application is for a private single-family residence the goal is to avoid and minimize and allow only enough for the home site, no big yard, or accessory structures.

**Compensatory Mitigation:** Osceola County does not require compensatory mitigation. All mitigation associated with wetland impacts is handled by the ACOE and State (e.g., FDEP). In addition, the only conservation easements are over larger land tracts with easement dedicated to the State or for Homeowner Association with perpetual maintenance.

**Enforcement:** Osceola County does not have a specific wetland enforcement program. Within the Zoning Department is a Code Enforcement Office that handles complaints. Most of the non-compliance are noise or clearing and the activity occurs due to ignorance. If wetland impacts occur Osceola County refers the non-compliance to the State for handling.

## **Seminole County**

**Ordinance Adopted/Revised:** Seminole County wetland ordinance was initially adopted in the early 1980s. The Seminole County wetland protection requirements are found in the Land Development Code (LDC) which was last updated in 1992. Seminole County’s Comprehensive Plan was last updated in 2007 and their Shoreline Protection plan was updated in 2021. Municipalities in Seminole County may have a less stringent wetland ordinance as they do not have to adhere to the LDC.

**Processing Fee:** The Seminole County Board of County Commissioners approves the fee schedule. The fee schedule is evaluated every two years. The fee schedule considers man hours and includes the average rate, number of hours each staff person reviews a project and the permit type.

**Application Review Process:** All applications are submitted electronically; paper copies are also accepted. Staff has 15 working days to review an application. Seminole County has two types of permits: a Site Development Permit and Dredge/Fill Permit. For the Site Development Permit applications, typically for larger projects, each department has 15 days to review the project and finalize with an approval letter which includes any applicable conditions. The Site Development Permit is staffed-approved by the Planning Project Manager and Development Services Engineer. Over 90% of the applications are for dredge/fill projects which typically involve single-family homesites. Staff may approve the dredge/fill applications without supervisory approval. Seminole County has templates for all projects, so their process is quite simple. Wetlands are not required

to be formally delineated on the site plan until engineering plans are submitted. Seminole County accepts the State wetland line if it has already been delineated by the State. Seminole County requires that applicants have a State permit prior to issuance of building permit.

**Exemptions:** Seminole County has an exemption in place for isolated wetlands less than 0.5 acre that are not located within the Econlockhatchee (Econ) River or Wekiva River Protection Areas (WRPA). Seminole County has a standard wetland and 100-year floodplain setback of an average of 25 feet, and a minimum of 15 feet except if projects are located within the WRPA or Econ River Corridor Protection Zone (ERCPZ). The WRPA includes a 200-foot no clearing zone from the Wekiva River streams edge, and a 50-foot average or minimum 25-foot minimum setback from all wetlands and from the 100-year floodplain. The ERCPZ includes 1,100-foot setback from streams edge and a 550-foot setback requirement for any tributaries to the Econ River.

**Special Development Requirements:** Section 40.84 of the LDC states that development shall be located above the 100-year floodplain elevation or wetland line. In addition, Section 40.86(b) states that applicants must consider preserving natural drainage, natural topography wetlands, shorelines, and landscape. Seminole County requires avoidance and minimization of wetland; however, if a project site consists of 100% wetlands, there is an allowance of 10% of the wetlands on the parcel to be impacted by the proposed development.

**Mitigation:** Seminole County does not require compensatory mitigation to offset wetland impacts. All compensatory mitigation is provided through State permitting requirements. Except for private single-family parcels, all post development wetlands must be placed in a perpetual conservation easement dedicated to Seminole County, with a disclosure in homeowners association documents. A standard conservation easement template is used for all wetland easements. The easements are reviewed by the county planner and attorney and then final approval comes from the BOCC with the final plat. Seminole County records all conservation easements. Any requests to vacate a conservation easement must be approved by the BOCC.

The Seminole County Conservation Element Comprehensive Plan, dated January 23, 2018, states that over 43% of Seminole County's 41,000 acres of wetlands are in public ownership. Most of the conservation lands in Seminole County are a result of local and State land acquisition programs that have purchased both environmentally sensitive wetland and uplands.

**Enforcement:** Most of the enforcement cases are from private single-family properties. Seminole County does not have a wetland code enforcement program and all cases are complaint driven. Seminole County has a Code Enforcement Department that handles potential violations. Initially, when handling a non-compliance matter, Seminole County strives to obtain compliance with education and reach an agreement to obtain compliance. If the property owner does not comply with the agreement, then an official notice of violation is sent with a short time frame (14 days) to achieve compliance. If the site is still in non-compliance after a follow-up site inspection, then the case is assigned to the Special Magistrate for processing. Seminole County has eight staff dedicated to all enforcement cases. Five are from Sheriff's Department, two are staff from Environmental Services and one is a Planner. Approximately 25% of the cases go to the Code Enforcement Board and 25% get fined. In a given year approximately 200 cases are backlogged but not all of these involve wetlands.

## Volusia County

**Ordinance Adopted/Revised:** The Volusia County wetland ordinance was originally written in 1989. This ordinance has been updated in 2008 and 2013 but largely has remained unchanged since its inception. All municipalities within Volusia County are required to have at least as stringent wetland permitting requirements as Volusia County.

**Processing Fees:** The Volusia County Wetland Alternation Permit fees have not been recently updated; however, the fee schedule states that the fees shall be adjusted annually on October 1st based upon the percentage of change in the United States Department of Commerce Consumer Price Index for the twelve months ending on June 30th of that year rounded to the nearest whole dollar. In addition to the wetland impact flat fee, Volusia County assesses fees for a mitigation plan review and fees for buffer impacts. The mitigation fees go into the Volusia Environmental Improvement Trust Fund. The mitigation fee is based upon a set fee per square foot multiplied by the mitigation ratio/UMAM score. The Volusia County code is outdated as it refers to mitigation ratios; however, UMAM is used to determine buffers and compensatory mitigation.

**Application Review Process:** Volusia County has two permitting paths; one is for residential sites and the second is applicable to commercial/subdivision sites. Residential applications are received through an online database or in person to the Building Department. Staff conducts a site inspection of the property to review wetlands, natural resources and to verify project as proposed has avoided wetland impacts. Staff may prepare and send requests for additional information without supervisory review. Each staff member can sign their own permits. Typically, residential permits do not have any supervisory review, especially if there are no concerns with the project site or proposal. Pre-application meetings are encouraged regardless of permit type. In 2021, Volusia County staff conducted over 18,000 site visits and processed several hundred wetland permits. Volusia County building code states staff has three days to assess an application completeness but there are no specific time requirements in the wetland code. Most applications are concurrently reviewed between various departments and staff have up to 3 days to review permits for completeness; however, due to the sheer number of applications Volusia County is receiving, staff cannot meet the 3-day completeness review time frame. Currently the environmental staff are approximately 3 weeks behind schedule in reviewing and processing applications. Volusia County uses standard templates for their wetland documents, such as the request for additional information, permits and permit conditions. Once applications are deemed complete staff has 10 working days to authorize the project.

Environmental staff review each application to determine if impacts can be avoided and minimized. Volusia County stated that they can issue a denial if the applicant is not willing to avoid impacts. For private single-family residential parcels, avoidance and minimization is achieved first by avoiding wetland impacts and second by only authorizing a minimal amount of wetland impacts for driveway, septic drainfield and single-family home, but not for accessory structures such as shed, pool, and secondary structures.

**Mitigation:** Volusia County does not require wetland compensatory mitigation for the wetland impacts that are addressed through the State permit process. Volusia County does require

compensatory mitigation for any areas that the State does not require mitigation. The most common type of mitigation Volusia County requires is for buffers.

**Exemptions:** Volusia County has exemptions for the following types of activities: impacts to isolated wetlands less than 0.5-acre, maintenance of ditches, public right of ways, artificial stormwater areas, walking trails up to 6 feet wide, and for mosquito control.

**Buffers:** Volusia County has established a 25-foot minimum wetland buffer. Projects located within a Natural Resource Management Area, and/or the Tomoka River require a 50-foot minimum wetland buffer.

**Conservation Easements:** Volusia County accepts conservation easements over the remaining wetlands found on a commercial project site. Volusia County does not support the vacation of conservation easements.

**Enforcement:** Volusia County has a wetland code enforcement program and staff receives complaints by phone or email. Staff researches complaints, conducts site inspections and if violations are verified, a stop work order is sent to the property owner. If work does not cease, then a notice of violation letter is sent to the property owner and requires a set amount of time to respond. If no reply is received, then staff post the property, and the case is referred to the Code Enforcement Board. Any staff can perform the enforcement activity; however, Volusia County primarily uses two staff to perform this work. The enforcement staff, like the permitting staff, can prepare, sign and send documents such as the stop work and notice of violations. A vast majority of the enforcement cases (approximately 90%) are resolved before going to the Code Enforcement Board. Volusia County has a backlog of approximately 100 unresolved cases from 2021.

## COUNTY COMPARISON

All six of the counties interviewed use the term “wetland” in their ordinance. The very premise for the ordinance is to protect wetlands (and other features that the counties have identified). The State has required that municipalities use the State definition to determine wetlands and that UMAM be used for performing wetland functional assessments. Further, six counties have some sort of exemption, GP, or other type of abbreviated permitting process for small or straight forward projects within relatively minor impacts.

## RECOMMENDATIONS BASED ON OTHER COUNTIES ORDINANCES

Detailed interviews were conducted with six counties. Several of the counties have implemented some very useful tools and considerations in their Ordinance. The summary in Table 9 should be considered by the County in updating the Ordinance.

**Table 9. Summary Based on Other County Ordinances**

<b>County</b>	<b>Ordinance/Requirement</b>
Alachua	<ul style="list-style-type: none"> <li>• Established surface water and wetland buffers with and without the presence of threatened and endangered species, special protection areas or OFW status.</li> <li>• Smallest buffer is 50 feet average and a minimum of 35 feet</li> <li>• Buffers for OFWs 150-foot on average and a minimum of 100-foot buffer</li> <li>• Requirement for avoidance and minimization to wetlands and buffers</li> <li>• Applicant must demonstrate that the activity cannot be located in upland portions of the parcel</li> <li>• Specifies that buffer shall remain undisturbed and if impacted requires restoration with compensatory mitigation</li> <li>• For violations, require reimbursement for investigative costs which includes, the cost of equipment associated with the investigation, materials, laboratory, contract services, waste disposal, and personnel labor time</li> <li>• Any monies recovered from the enforcement violation are placed in a Trust Fund to help manage wetlands under the County's purview</li> <li>• Staff can authorize single family projects</li> <li>• Database tracks number of wetland acres authorized, avoided, placed in Conservation Easement and other features used in annual report to BOCC</li> <li>• Buffer impacts typically only instances when mitigation requirements are different than the State</li> <li>• Cannot exceed 0.5-acre wetland impacts for every 10 acres of uplands</li> </ul>
Hillsborough	<ul style="list-style-type: none"> <li>• Avoidance/minimization and only reasonable use of land</li> <li>• Require mitigation for secondary impacts</li> <li>• Criteria for miscellaneous activities in wetlands that allows for certain type of minimal impacts to wetlands with an Exemption or General Permit</li> <li>• Criteria for exemptions where applicants must submit a written notice of the proposed activity</li> <li>• Land Development Code identifies setback requirements of up to 50 feet</li> <li>• Applications do not require BOCC approval, rather approval from a Director of Mitigation for buffer impacts</li> <li>• Obtain conservation easements on larger properties</li> </ul>
Leon County	<ul style="list-style-type: none"> <li>• Established several goals. For example, Goal 1: To preserve, protect and conserve the ecological value and diversity of natural resources in Tallahassee and Leon County</li> <li>• Requirement for County to compile and maintain natural resource maps that describe natural resources, identify environmental constraints to future development and use</li> <li>• Establish SDZs with specific criteria for avoidance and minimization along with elevation data and preservation</li> <li>• Specific performance standards for development (includes altered floodplains, floodways, closed basins, etc.)</li> <li>• Established tree preservation and protection along with native species planting and exotic species removal</li> <li>• Only allow 5% maximum impact this amount was determined in Leon County as reasonable use</li> </ul>



County	Ordinance/Requirement
	<ul style="list-style-type: none"> <li>• Strong perpetual exotic species management requirement on all properties</li> <li>• Non-controversial permit approvals: staff to supervisor. Controversial: staff to supervisor to county administrator</li> <li>• No applications require BOCC approval</li> </ul>
Osceola County	<ul style="list-style-type: none"> <li>• Buffer minimum 50 feet unless located within ERHPZ</li> <li>• Do not require mitigation above State requirements</li> <li>• Uses classification system based upon functional score with Class I having the highest score and Class III as the lowest score</li> <li>• Does not distinguish or classify wetlands by size or community type</li> <li>• Potential wetland violations referred to State for handling</li> <li>• Entire process electronic, no paper</li> </ul>
Seminole County	<ul style="list-style-type: none"> <li>• Includes both the WRPA and ERHPZ within Seminole County</li> <li>• Establish conservation element preserving the County's natural features</li> <li>• Create countywide and regionally linked corridors</li> <li>• Utilize conservation easements for preserving floodplains, wetland areas and ecologically significant communities</li> <li>• Rely on State to delineate wetlands</li> <li>• No applications require BOCC approval</li> <li>• Buffers (outside of Wekiva River and Econ River) of up to 50-feet</li> <li>• Upland buffer of 25 feet on average and no less than 15 feet.</li> <li>• Other than placing remaining wetland area in a conservation easement, no mitigation requirement above State</li> <li>• No conservation easement required for single family parcels</li> <li>• Electronic submittal for all applications</li> <li>• Utilize templates so review is consolidated into 15 working days</li> </ul>
Volusia County	<ul style="list-style-type: none"> <li>• Establish Natural Resource Management Areas throughout the County that has stronger avoidance/minimization requirements and Tomoka RHPZ</li> <li>• Buffer of 50 feet on average and no less than 25 feet minimum</li> <li>• Require avoidance/minimization measures</li> <li>• Applications submitted online or in-person</li> <li>• Staff may sign their permits with no supervisory review, and enforcement</li> <li>• Staff also can sign stop work orders and notice of violations</li> <li>• Templates have been developed for RAIs, permit conditions and documents</li> <li>• All municipalities must have at least Volusia County's minimum standards</li> </ul>

## CONSULTANT FEEDBACK

As part of the evaluation for this report, the project team contacted and interviewed a list of environmental consulting firms that routinely pull permits for Conservation Area Determinations (CAD) and Conservation Area Impacts (CAI) from the County. Using a custom designed questionnaire for standardization (Appendix A), eight consulting firms were interviewed in all to obtain their feedback regarding the current County Ordinance. Overwhelmingly, all consultants interviewed stated that the County ordinance needs revision. Consultant responses and recommendations are summarized in the paragraphs below and consolidated in the attached Consultant Feedback Matrix, Appendix C.

**Jurisdictional Determinations:** The State requires all municipalities to accept Formal determinations of State wetland jurisdictional line. During the interviews the consultants stated that the County should accept the State wetland line and they should not require a separate jurisdictional determination or CAD to be conducted. The consultants noted that if the County eliminated the CAD process this would save both the applicants' and the County's resources. The consultants recommended that if the project is exempt from the State but not from the County, that the Ordinance should be revised to provide one consolidated, streamlined application process that includes application for impact and the jurisdictional determination. It should be noted that the County does accept the State wetland line when either a Formal Wetlands Determination or a State permit in which the wetland determination is explicitly referred to as binding in a permit condition have been issued. The State also issues Informal Wetlands Determinations that are not binding on local governments.

**Classification System:** The consultants indicated that the County classification system is very problematic. The consultants stated that the classification system does not truly protect the higher quality wetlands found in the County and the classification system places a significance on wetland size which is not scientifically sound. For example, a low-quality conservation area designated by the County as Class I is extremely difficult to permit and requires extensive amounts of additional requirements including approval from the BOCC. On the other end of the spectrum with regard to size, a small, isolated wetland system may provide far more habitat for species yet may be designated by the County as a Class III conservation area. The Class III systems found in the County often have higher functional value yet can be easier to permit because of the County classification



*Photograph of Maple Wetland Forest*

system. Overall, the consultants stated that the classification system should be eliminated since it is outdated. The consultants stated that if the County's goal is to protect higher quality systems, then the use of the classification system should be removed from any future Ordinance and replaced with a more current and widely used classification system (e.g., UMAM).

**Wetland Functional Assessment:** The consultants indicated that the UMAM wetland assessment that has been accepted by the State should also be accepted by EPD. Consultants recommended that rather than submitting separate UMAMs, the County should require applicants submit their State and federal permits to the County, which will also enhance the processing timeframes for the County. If the County utilized the existing jurisdictional determination and UMAM assessment this would streamline the permitting review, eliminate redundancy, and save time and money. It should be noted that the County does accept the UMAM assessment accepted by the State if the applicable State agency with jurisdiction has issued a permit.

**Exemptions:** Most of the consultants that were interviewed stated that the Ordinance should have exemptions. Several consultants recommended that the Ordinance include exemptions for activities that involved the following: upland cut ditch impacts; isolated, small less than 0.5-acre wetland impacts; and man-made surface water impacts. Conversely, several consultants stated that EPD should review all applications for work in wetlands, so that the County can take a more thorough review of the proposed project.

**Wetland Buffers:** All consultants that were interviewed indicated that wetland buffers are important for maintaining wetland health. Several consultants suggested that the Ordinance include a 25-foot average and 15-foot minimum buffer, which is consistent with the State requirements. The consultants recognized that a one size buffer will not be appropriate for all project sites due to existing site conditions. In addition, consultants stated that no buffers should be required for low quality disturbed wetland sites.

**Definitions:** During the interviews several consultants mentioned that the definitions found in Section 15-364 of the Ordinance needs revision. The consultants mentioned that the following needs to be better defined in the Ordinance: avoidance, minimization, significant and productive wetlands, reasonable use, isolated wetlands, habitat suitability index, and wetlands.

**Protect Rare Upland Habitat:** Most of the consultants agreed that the Ordinance should include the protection of upland habitat. Many consultants mentioned that staff does not have the expertise to protect rare upland habitats and as a result the County should rely on State and federal agency experts. Several consultants stated that rare upland habitat protection belonged in the Land Development Code but not in the Wetland Ordinance. Another perspective was that on large development parcels there is more room for buffers. The recommendation for the larger parcels was at the very least include buffers not only for wetlands but also for the protection of rare upland habitats.

**Urban In-fill:** A favorable response was received from the consultants when queried if the Ordinance should include an allowance for wetland impacts in the urban area to increase densities. One consultant firm stated that the County should designate certain portions of the County with a small dense footprint especially as the population in Orlando continues to grow. Positive feedback was provided for urban in-fill in the following circumstances: in hydrologically altered

systems, systems dominated with exotic/nuisance species and in wetlands that have low quality with an extremely low UMAM score. It was noted that urban in-fill may not always be the right solution because many of the urban wetlands provide refuge for birds and other species so if in-fill is located adjacent to a larger system then it would not be warranted. In addition, the urban wetlands may add value and character to a community so the filling of this area would not be advisable.

**Flooding/Floodplain Review:** When queried, the consultants stated that EPD should not include a flooding/floodplain review during the CAI process. All the consultants stated that floodplain reviews should be kept in the Engineering Department and not duplicate efforts for the EPD staff. In addition, the consultants indicated the State has specific language to prevent flooding and engineering calculations are required.

**State Regulatory Assumption:** The consultants did not think that EPD should assume FDEP wetland permitting since it would offer little benefit to EPD or the applicants. The consultants overall thought that EPD taking on the FDEP wetland permitting program would result in: additional staffing needs, EPD staff would need to learn FDEP regulations, and would slow down the permitting process/timelines. Further, the consultants stated that since FDEP assumed the federal Section 404 program there is a huge time delay in getting projects reviewed, site inspections conducted, and applications processed to completion. The FDEP assumption of the Section 404 program has not been beneficial to the community.

**Compensatory Mitigation:** The consultants indicated that EPD should require compensatory mitigation for projects even when the State does not. For instance, a project may qualify for an exemption by the State but requires compensatory mitigation by EPD. The most common fill activities which require mitigation from EPD but not from the State are for impacts in upland cut ditches, man-made surface waters, isolated wetlands less than 0.5 acre in size and for impacts in Class I wetlands.

## NON-GOVERNMENTAL ORGANIZATION FEEDBACK

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Seven NGOs were interviewed as part of the efforts for this report using the same questionnaire as the one developed for the consultants (Appendix A). However, the NGOs interviewed were not familiar with the Ordinance, the County's Comprehensive Plan, or the Applicant's Handbook. Many of the NGOs did briefly review the Ordinance prior to our interview. Responses received from the NGO interviews are summarized in the attached NGO Feedback Matrix (Appendix D) and specific concerns with the Ordinance are identified below. The NGO matrix has a column called "No Feedback". The No Feedback column was added because the NGOs did not have an answer or comment for many of the questions. Based on the information collected during the interviews, the NGOs appear to be very versed in their organization's mission but are not as familiar with the County's specific regulations and policies.

**Definitions:** The NGOs mentioned that several definitions found in the existing Ordinance need to be redefined. Specific definitions that require updates are:

*Conservation areas* – back when the Ordinance was originally written the County avoided the term 'wetland'. Calling wetlands "conservation areas" is extremely confusing to the public. NGOs recommended that there is a need to update the Ordinance and simply use the term "wetland."

*Critical habitat* – Section 15-364(a)(4) of the Ordinance is in lower case but when used by FWS Critical Habitat is capitalized. In addition, the NGOs indicated that there are no areas within the County that have a Critical Habitat designation. The NGO recommendation is that the County consider substituting the word "critical habitat" with 'important' or 'significant' habitat if a designation is needed, so as not to be confused with the FWS definition of "Critical Habitat".

*Habitat suitability* – If the County is using habitat suitability when reviewing applications with wetland impacts, then the County should provide an explanation and correlation for when this should be used and how it affects the processing and approval of applications.

*Hydrologic connection* – The County should provide guidance on how to determine if hydrologic connection occurs an average of 30 or more consecutive days per year for a given feature. The County should also provide rationale for the factors that were considered to determine that 30 consecutive days is sufficient in determining hydrologic connection. Finally, the County should clarify what is meant by "canals constructed through uplands."

*Class I conservation area* – how were isolated wetlands greater than 40 acres determined to be so important? This value needs to be reduced because isolated wetlands are extremely important to a variety of species especially for wading birds.

*Class II conservation area* – "directly connected" needs to be defined; NGO indicated that an artificial connection leads to a less quality system.

*Class III conservation area* – an isolated wetland less than 5 acres needs to have more protection.

*Mitigation* – the Ordinance was written before UMAM and Mitigation Banking. Need to update this definition. Perhaps identify mitigation preference for the County here.

**Habitat scarcity** – Several NGOs identified concerns with Section 15-383 which uses the term *scarcity*. Where does this term come from? What is considered “scarce”? Wetland prairies are scarce but cypress domes in the County are also becoming scarcer. NGOs suggested that the Ordinance needs a better definition to be included.

**Classification:** NGOs stressed that every wetland regardless of size, including isolated wetlands have different functions. The current classification system that establishes minimum acreage sizes does not make scientific sense (comparing apples and oranges). The current class also looks at scarcity and identified habitats that were common or scarce at the time the Ordinance was originally written which may not be the current SOTW in the County.

**Elimination:** Most of the NGOs did not recommend any portion of the Ordinance to be eliminated, with the exception of the term “conservation area” given it is confusing.

**Additions:** Four NGOs suggested that the Ordinance be strengthened to include listed plant species in Section 15-379, include avoidance/minimization requirements and in basin mitigation to keep all mitigation within the County. One NGO suggested that in lieu of impacting a low-quality wetland, a good quality upland area that provides habitat for threatened and endangered species should be saved and protected. An example is for EPD to protect an upland area that has documented presence of gopher tortoise in lieu of impacting a low-quality wetland area on the parcel.



*It is of note that Orange County is pre-empted by State statute from requiring mitigation bank credits be purchased from a bank located in Orange County.*

**Application Approvals:** The NGOs were in favor for staff to be able to authorize most applications and all the routine, non-controversial projects. NGOs stated that the BOCC should only approve the controversial projects and those with lots of wetland impacts. The NGOs stated that the permits should be authorized by EPD staff and not to waste BOCC time.

**State Assumption:** All NGOs stated that EPD should not assume State and federal permitting. The NGOs overwhelmingly stated that a separate review by each regulatory entity is wise and thought that implementing the other regulations would be too expensive, put too much additional work on each EPD employees, and cause projects to become even more political.

**Reasonable Use:** Most of the NGOs did not have a recommendation regarding if the County should consider property owners to implement “reasonable use” of their property.

**Avoidance/Minimization:** Three distinct recommendations were provided when the NGOs were queried about if projects should have to demonstrate avoidance/minimization. These included:

1. Avoidance/minimization need not to apply for projects that meet an exemption.
2. Avoidance/minimization should always be required; and

3. Impacts for public projects, such as a fire station, should be allowed, with compensatory mitigation.

**Application Notification:** Most of the NGOs thought that adjacent property owners should be notified as soon as possible when a wetland application is submitted to EPD. A couple of the NGOs suggested that the notification extend to the immediate or two adjacent property owners.

**Wetland Impacts:** Several NGOs were not in favor of having EPD insert language in the Ordinance to make some wetlands easier to impact. These NGOs indicated that all wetlands are important. However, a couple of NGOs stated that low quality wetlands should be easier to impact. Over 57% of the NGOs had no comment to this question.

In addition, several NGOs were in favor of EPD inserting language in the Ordinance to make some wetlands harder to impact. The NGOs are in favor of making some wetlands harder to impact and provided examples such as rare systems (e.g., wet prairies). The NGOs also recommended that EPD perform an evaluation of historical versus present systems found in the County to determine which systems need more protection. Conversely, when queried if the Ordinance should allow for some wetlands to be easier to impact, several NGOs said not to make some wetlands easier to impact because **all** wetlands are important.

The NGOs were not in favor of EPD adding an allowance to include a percentage of a wetland to be allocated for impacts. The NGOs indicated that the wetlands found in urban areas provide great habitat connectivity and serve as a public amenity. In addition, the wetlands in the urban setting provide stormwater treatment and alleviate some flooding concerns so these wetlands are important. A couple of NGOs suggested that if the wetlands in the urban setting had a low UMAM score and were low quality then those wetlands should be allowed to be impacted.

When the NGOs were queried if the County should protect more valuable wetlands a couple of NGOs suggested that the Ordinance include greater mitigation "ratios" and have the requirement based on UMAM score. In addition, many NGOs recommended that wetlands that have pristine habitats, have a presence of threatened and endangered species, include rare habitats, or have a high functional value be harder to impact and receive greater protection in the Ordinance.

NGOs recommended that the Ordinance include added protection for aquifer recharge areas, Reedy Creek, riverine corridors, larger wetland systems, and specific areas such as the canal connection between Johns Lake to Lake Apopka.

**Buffers:** All NGOs recommended the Ordinance include buffers, but a consensus for the buffer size was not established. Some NGOs favored a 25-foot minimum buffer, while other NGOs felt a 50-foot minimum buffer was more appropriate. Only one NGO thought that all buffers in the Ordinance should be increased to a 50-foot minimum. Some NGOs simply were not sure with regard to the buffer size. Many NGOs were in favor of EPD adopting additional buffers for OFW, protected species habitat, and recognized that these buffers could be utilized for prescribed fire.

**Protect Uplands:** When the NGOs were interviewed regarding whether or not the County should incorporate upland review and protection in the updated Ordinance the response from the NGOs was for the wetland Ordinance to protect wetlands and not include upland habitat. The NGOs

suggestion was to place upland habitat protection in the County Land Use Code and not include such language in the wetland Ordinance.

One NGO supported the continued use of the classification system in the Ordinance and suggested creating a fourth classification in the Ordinance for uplands. This NGO stated this fourth class would protect unique upland scrub habitat (including sandhill and longleaf pine areas) that provided threatened/endangered species habitat. The NGO added that if these upland areas were set aside and protected with buffers then there could be an allowance for density credits to the developer as an incentive to save these areas.

**Amendments to Conservation Easements:** A few of the NGOs thought that the Ordinance should allow for CE amendments but be strict in the verbiage. Two NGOs recommended that EPD keep all CEs without an allowance for changes. The NGOs recognized that if the CE area is not managed with exotic removal and prohibition of certain activities then the wetland quality along with function will decrease.



## SUMMARY AND RECOMMENDATIONS

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In summary, all the stakeholders that were interviewed (i.e., County staff, consultants, and NGOs) agreed that there are extensive areas to the existing Ordinance that need revision. Numerous portions of the Ordinance are outdated with regard to regulatory requirements for delineating wetlands, assessing wetlands, compensatory mitigation, and application processing timelines.



*Photograph of Mixed Hardwood Swamp*

The consultants interviewed recommended that the classification system be removed from the Ordinance while staff recommended that the classification system be revised or eliminated. The consensus is that the wetland 'classifications' need to be based upon wetland quality and not size, or community type. In lieu of including wetland 'classifications' a suggestion is to develop special protection areas similar to that of the ERCPZ and WRPA. A critical protection area lies within the eastern portion of the County especially those areas contiguous with the St. Johns River, and Tosohatchee Creek floodplains. Other counties that were interviewed developed special protection areas based upon various features such as karst, sink holes and OFW status. It is recommended that the County coordinate the development of special protection areas with staff from other adjacent Counties and internal staff that manage lands within County. The County should also engage with stakeholders to ensure that areas incorporated in the Ordinance

are viable areas that align with the County's vision for generations to come.

In addition, overwhelmingly the feedback from the interviews was that the County should not seek delegation to assume State wetland permitting. Reasons for not seeking State delegation include, separate, distinct reviews by different agencies are far better for the resources being protected, and assuming State wetland permitting would overload EPD staff with additional responsibilities and not result in permit time efficiencies for applicants. At present, it is recommended that the County focus on improving the Ordinance and making it consistent with the Comprehensive Plan along with administering the updated Ordinance, and not implement additional duties that are associated with State and federal delegation.

A thorough discussion of all the areas where the Ordinance needs to be revised are provided below in the Recommendations Section.

## RECOMMENDATIONS FOR ORANGE COUNTY ORDINANCE

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### ***Title X***

The Title of the Ordinance, Article X. Wetland Conservation Areas needs to be changed to Article X. Wetland Protection or Wetland Conservation.

### ***Legislative Findings***

Our recommendation is to update the Legislative Findings. Several statements made in Article X, Section 15-362 are not factual. Based upon the current state of the wetlands within the County, it is not easy to simply replace wetlands by creation and enhancement. At present AEI is not aware of any certain circumstance where public health, safety, and welfare may be enhanced by the elimination of isolated non-navigable wetlands.

### ***Purpose***

The current purpose found in Section 15-363 needs to be updated with specifics. The County should update their goals and purposes for this Ordinance. If the Ordinance is to protect wetlands, special protection areas, etc. then the purpose needs to be redefined. This section currently states that the purpose is to establish all conservation areas as Class I, II, or III, to document these areas as natural, altered or developed conditions. The Ordinance fails to state that the goal is to protect wetlands and surface waters, improve water quality, enhance, and protect the public health, safety, and general welfare of the County citizens.

Consider incorporating purpose/goals such as:

- protecting, preserving, conserving the ecological value and diversity of wetlands in the County
- protecting the natural environments found in the County
- protecting water quality
- protecting property owners from flooding
- protecting threatened and endangered species
- creating wildlife corridors
- creating special protection areas for wetland communities
- promoting resiliency

### ***Definitions***

Table 10 below, provides our recommendation for updates/revisions to the definitions found in Section 15-364.

**Table 10. Ordinance Definitions Updates/Revisions**

Definition	Recommended Changes
<b>Eliminations</b>	
Conservation Areas	“Wetlands” the County is required to use the State definition found in 62-340 F.A.C. for wetlands.
Class I, II and III Conservation Areas	Eliminate
Habitat suitability	Eliminate
Habitat unit	Eliminate
Hydrologic connection	Update definition
Mitigation	Update definition
Potential conservation areas	Wetlands
Functional significance of conservation areas	Determine in the Ordinance or Eliminate
<b>Additions</b>	
Critical habitat	<p>Critical habitat is defined in the Endangered Species of 1973 Act as:</p> <ul style="list-style-type: none"> <li>• The specific areas within the geographical area occupied by the species,</li> <li>• at the time it is listed in accordance with the Act, on which are found</li> <li>• those physical or biological features: <ul style="list-style-type: none"> <li>• Essential to the conservation of the species, and</li> <li>• Which may require special management considerations or protection; and</li> </ul> </li> <li>• Specific areas outside the geographical area occupied by the species at the time it is listed, upon a determination that such areas are essential for the conservation of the species</li> </ul>
Wetlands	As identified in 62-340, F.A.C.
Surface Waters	As identified in 62-340, F.A.C.
Scarcity of habitat	The State of the Wetlands report will be documenting the acreages of various wetland communities historically and currently found in the County. What was identified as “common or uncommon or scarce” may not have significance unless the community is located within a special protection area.
Isolated Wetland	Many stakeholders indicated that staff is inconsistent with their definition and application of an isolated wetland
Upland cut ditch	Many stakeholders indicated that staff are inconsistent with their review and determination for upland cut ditches

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### ***Remedies/Enforcement***

Section 15-366 is titled Remedies, consider renaming this to Enforcement.

Likewise, Section 15-367 is titled Financial Responsibility.

Section 15-368 is titled Enforcement Official; orders; restraint; penalties. In this section our suggestion is to include the process for handling enforcement cases.

Based upon the EPD staff interviews our suggestion is that the Ordinance be updated to include the detailed process for handling enforcement cases.

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### ***Applicability; Scope***

In Section 15-376 a reference is made to first obtain a permit prior to impacting a conservation area. The language in this section requires updating so that it clearly states that a permit is required prior to verification of the wetland boundary and impacting any wetland features.

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### ***Potential conservation areas – Determination***

Our recommendation is for Section 15-378 to be eliminated. This section is not necessary provided the revised Ordinance utilizes the term 'wetlands' in lieu of conservation areas. In addition, the word "potential" is not needed. The definition for wetlands is recommended to be included in the definition section of the Ordinance (15-364).

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### ***Functional characteristics of conservation areas***

We recommend removing the term conservation areas from the Ordinance and utilize the term "wetlands." This section of the Ordinance is similar to Section 15-362. We recommend eliminating this section and incorporate text into Section 15-362.

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### ***Exemptions – Determination***

Currently, Section 15-380 provides for two exemptions. The County needs to determine whether they want to develop additional exemptions or create another type of permit such as general permits. The existing section does not mention anything about the agricultural exemption so when the Ordinance is rewritten it is suggested that the State required agricultural exemptions be included.

Since Section 15-380 is titled "Exemptions – Determination" we recommend to include the process of how to obtain an exemption and eliminate Section 15-381.

Another suggestion is that if a property owner obtained a jurisdictional determination from the State that confirmed the property consisted of uplands, that verification would suffice in lieu of filing a petition for a binding determination with the County.

Only five items are currently identified in the existing Ordinance to submit with a request for an Exemption. Suggestion is to identify all the other information that EPD needs in order to quickly verify an exemption request and insert those details in the updated Ordinance.

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### ***Conservation Area Classification Determination***

The title to this section will need to be renamed to Wetland Determination. This section will need to reference that Orange County determines wetlands using 62-340, F.A.C. Many consultants mentioned that if a property owner already has a State (FDEP or WMD) wetland determination that is delineated in accordance with 62-340, F.A.C, there is no need for EPD to duplicate this effort. If a property owner has not attained a jurisdictional determination, then the applicant may obtain an Informal (i.e., staff review) or Formal Review for a wetland determination. If the purpose of this section is solely for the "classification I, II, or III" determination, then this section is recommended for elimination.

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### ***Effects of development***

Section 15-383 of the Ordinance requires updating to replace the term conservation area with "wetland" and to better define what the effects of development are in the County. The terms functional significance, scarcity, vulnerability and replaceability all need to be revised to reflect current conditions in the County if these terms are retained in the Ordinance.

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### ***Adjustments to prior determination of conservation area class designation***

Section 15-384 provides criteria for classifying wetlands to a 'lower' classification. This section will no longer be necessary if the classification system is eliminated. In addition, all wetlands in the County are important, regardless of scarcity or vulnerability or whether they can be replaced. Section 15-384 will be eliminated if the Ordinance eliminates the use of the Classification system.

In addition, Section 15-385, Method of Measurement is not applicable as this section refers to methods that are outdated and the State requires that municipalities in Florida adhere to 62-345, F.A.C. to perform UMAM. Many counties we interviewed have developed special protection areas within their ordinance as a means to protect these uniquely important communities. It is recommended that the County develop additional special protection areas in an effort to help protect wetlands and water quality.

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### ***Habitat Compensation***

Section 15-396 and 15-397 describe methods for applicants to offset habitat loss. It is recommended that this section be updated to eliminate the classification system as a basis for review and eliminate the use of ratios. Since the trust fund has been created it is suggested that more details regarding this fund and the reasonable assurance that monies placed in this fund are solely used for the purchase, enhancement and maintenance of County acquired conservation lands.

Section 15-416 is called Alternatives. This section is vague and appears to mean that applicants simply have to provide compensation if the development will result in an adverse impact on the wetlands. It is recommended that this section be completely rewritten to at least discuss avoidance and minimization is required for projects that involve impacts in wetlands if the County desires to include avoidance and minimization in the Ordinance.

Section 15-417 will require revision as the approved scientific evaluation methods should be defined as UMAM. It is recommended that EPD encourage and conduct preapplication meetings prior to application submittal, not merely at the mitigation proposal stage. Preapplication meetings serve various purposes and answer numerous questions that EPD staff may have, especially with respect to larger or potentially controversial projects. The preapplication meetings may prevent the need for a RAI, allow for discussions regarding the project site, include avoidance and minimization methods and often result in saving the applicant and EPD staff time going back and forth with resubmittals and RAIs.

Section 15-418 and 15-419 will need to be updated with the full list of items that EPD requires for reviewing mitigation proposals. Again, reference to the classification system and ratios will need to be eliminated. It is suggested that the County establish in their Ordinance a requirement for all properties that have permits to perpetually eradicate exotic species from their properties.

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***Process***

Section 15-386 describes how EPD is to review applications and determine the number of habitat units at a project site before development and that will exist after the development. This section will need to be updated and rewritten to reflect the entire application review process more accurately.

We have numerous recommendations with regard to the current way EPD processes applications. The recommendations include changes in the following processes identified in Table 11 below.

**Table 11. Application Processes Recommendations**

<b>Application Process Type</b>	<b>Process Updates</b>
Application Process Clarity/Transparency	In lieu of maintaining 'internal' process work instructions, incorporate standard work instructions into the ordinance so the requirements are clear to everyone. Many stakeholders indicated during the interviews that the process is not clear and that there are inconsistencies amongst staff in processing certain types of activities. In order to alleviate inconsistencies, there is a need to incorporate how applications are processed, timeframes for processing applications and include definitions in the ordinance to improve efficiency, consistency, and permit processing.
County Review Timeline and Review Periods	Once the timeframes for processing applications are incorporated into the Ordinance, the next recommendation is to create document templates for the various types of applications, special/specific conditions, RAIs, etc.; allow experienced staff to send RAIs out without supervisory review; revise the ordinance so that all applications are approved by EPD and eliminate the need for BOCC approval. Create templates for staff to utilize for similar types of projects to streamline reviews. Create special conditions for similar types of projects.
CAD	Stakeholders indicated that the conservation area determination (jurisdictional determination) is a duplicate effort and resources could be best expended elsewhere. Since the State requires all municipalities to adhere to the State methodology for delineating wetlands and the wetland limits are the same, it is recommended to eliminate the CAD process altogether; Recommend conducting a site inspection of the project site to verify conditions and conduct a functional assessment; Elimination of the CAD process will afford staff time to focus on determining wetland quality, threatened and endangered species usage, and processing the application.
Functional Assessment Consistency	Clarification of the ordinance to identify the State approved functional assessment (UMAM) as the means to determine current condition and compensatory mitigation is recommended.

**Permit Type (Exemptions/General Permits/Wetland Impact Permit)**

Based upon the interviews with the stakeholders many indicated that additional exemptions need to be included in the Ordinance. Conversely, County staff and NGOs were concerned that the exemptions would result in additional compliance/enforcement cases. A recommendation is to develop a GP category (similar to the State) that requires a streamlined application review process. Each GP will still require every applicant to demonstrate avoidance and minimization and compensatory mitigation. Table 12 identifies some activity types that are exempt by the State or other counties that the County may consider including in their Ordinance:

**Table 12. Activity Types to be Covered Under a General Permit**

Activity	Description
Fill for private single-family residence	<ul style="list-style-type: none"> <li>• Fill up to 0.5 acre of wetlands</li> <li>• Must be for sole residence on the property</li> <li>• Mitigation is required</li> </ul>
Fill isolated wetland	<ul style="list-style-type: none"> <li>• Isolated wetland is less than 0.5 acre in size and surrounded by development</li> <li>• Wetland system does not serve as habitat for any threatened and endangered species</li> <li>• Fill up to 0.5-acre isolated wetland, provided UMAM functional assessment is low</li> <li>• Mitigation is required</li> </ul>
Fill upland cut drainage ditch	<ul style="list-style-type: none"> <li>• Acreage threshold 0.5 acre</li> <li>• Appropriate size culverts and elevations required to maintain flow within the ditch and prevent flooding</li> <li>• Stabilization requirements</li> <li>• Maximum width to driveway 25 feet</li> </ul>
Fill isolated artificial surface water/pond	<ul style="list-style-type: none"> <li>• Surface water was excavated from uplands</li> <li>• Is isolated from other wetlands or surface waters</li> <li>• Has served as a cattle pond, watering hole, fish pond</li> </ul>
Exotic plant removal	<ul style="list-style-type: none"> <li>• Allowance to remove exotic/nuisance vegetation from wetland/surface waters</li> <li>• Include best management practices for erosion control</li> <li>• Allowance for temporary, no permanent wetland impacts</li> </ul>
Maintenance/repair activities	<ul style="list-style-type: none"> <li>• Repair must be within the same footprint, elevation, contour to the previously authorized areas</li> </ul>
Urban redevelopment or Urban Infill	<ul style="list-style-type: none"> <li>• Impacts may not include any threatened and endangered species</li> <li>• Does not allow impacts to Conservation Easements</li> </ul>



### ***Approval Levels***

Based upon the other county interviews and stakeholder feedback it is recommended that EPD streamline their wetland permit approval process. The following are recommendations to streamline the review process:

- For simple non-controversial projects such as private single family less than 5 acres in size, and for exemptions, allow experienced staff to prepare, process and approve the permit documents.
- For simple projects, including private single-family parcels less than 10 acres, and for GPs, allow staff to prepare all documents and have one supervisory level of review.
- For more complex projects, and projects that have greater than 10 acres of wetland impacts, require the application go through two supervisory reviews.
- For controversial projects (e.g., denials), require the applications go through three supervisory reviews.
- Experienced staff (greater than 3-5 years of experience) should be able to sign their own RAIs without supervisory review.

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### ***Fee Review***

During the interviews with the other counties, staff indicated that the fees they collected for wetland permits do not support the program. However, several counties utilize a broader fee calculation and schedule in order to recover a majority of the expenses. Many of the counties routinely update the fee schedule at least every 3 years. The County may want to update their fee schedule to capture most, if not all costs associated with wetland permitting.

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### ***Buffers***

It is recommended that Orange County consider a set buffer for wetlands and surface waters that is utilized throughout the County. In addition, it is recommended that sites adjacent to OFWs, special protection areas, etc. have an established buffer. Based upon the site inspections conducted in association with the State of the Wetlands study, greater buffer sizes result in a higher wetland community functional score. In addition, it was noted that if a buffer becomes disturbed with exotic species and remains uncontrolled, the wetland community will suffer with exotic encroachment, resulting in a lower wetland community functional score. The majority of the other counties interviewed as part of this study have established a 50-foot buffer from wetlands and a larger buffer for OFWs and special protection zones in their ordinance.

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### ***Wetland Classification***

When the ordinance was originally written, the creation and use of a classification system (e.g., Class I, Class II or Class III) for wetland areas may have been useful. Today, however this classification system is not scientifically based, and allows for an imbalanced approach by placing a hierarchy on connected wetlands or large isolated wetlands but fails to protect isolated wetlands of lesser size and other important wetland areas equally. The stakeholders indicated that all

wetlands deserve protection. In addition, a majority of the stakeholders thought wetlands in the County should be assessed based on at least wetland quality.

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### ***Compensatory Mitigation***

For projects that require additional compensatory mitigation it is recommended that the mitigation be located in the County, within the same watershed in which the proposed impacts occur (within the parameters of State statutes). Many counties require wetland buffer mitigation in addition to the direct wetland impacts.

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### ***Compliance and Enforcement***

The County needs to develop in the Ordinance strict guidelines for enforcement of the wetland Ordinance and then swiftly administer those requirements when a violation is found. The longer the violation remains in place the longer it takes for successful wetland restoration.

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### ***Modifications - Conservation Easement***

During the interviews with County staff, they indicated that they receive occasional requests for modifications to conservation easements from private single family property owners. In addition, many of these small conservation easements (i.e., "postage stamp" mitigation) are a source of non-compliance/enforcement. Some OC staff have indicated that these smaller conservation easements are not currently being accepted. Many counties that were interviewed indicated they do not require conservation easements on the small private single-family properties. As a result, the other counties do not have to review, consider, and process modifications to a conservation easement over these small sites. The other counties are able to focus on current application requests and not be bogged down with conservation easement modifications.

For future development in the County, it is recommended that the Ordinance establish that private single-family parcels will not need to place the remaining on-site wetlands in a conservation easement unless one of the following circumstances exist:

- the project is in a special protection area; or
- unless the remaining area serves as compensatory mitigation

It is suggested that a working group develop a set of criteria when a modification to an existing conservation easement will be granted with compensatory mitigation. These criteria should be clear and specific enough to ensure the enforcement of conservation easements is consistent with long-term wetland protection. It is also suggested that the compensatory mitigation be based on the initial functional assessment not on the impacted site if the conservation area has been altered.

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### ***Effectiveness***

Many of the other counties interviewed do not track the 'effectiveness' of the wetland permitting program. In addition, the stakeholders we interviewed did not see a positive outcome to tracking the effectiveness of the wetland program with an annual report to the BOCC. If the County updates their existing database as recommended below, then it will be far easier to track 'effectiveness' of the County wetland permitting program and many other functions.

### **Database**

Based on the County staff interviews and the State of the Wetlands project, it appears that numerous updates to the wetland permitting database are needed. The following are some of the suggestions for improvements to the database:

- electronic submittal of wetland applications and data
- electronic payment or payment over the telephone for application fees
- track zoning type associated with the wetland application (public, private-single family, multi-family, industrial, commercial, sub-division, etc.)
- track the wetland acreage associated with the proposed impacts, avoided/minimized impacts, and authorized impacts
- identify the wetland community types found on the parcel and permitted for impacts
- identify and track the compensatory mitigation amount, type, and location using GIS data and other current geospatial data collection methods
- clearly provide functional assessment associated with each application
- permit timeline or days it took from application submittal to permit issuance (or denial)
- separate sections of the application by activity for future document review (for instance, Application, RAI, Response to RAI, Meeting, Exhibits, Functional Assessment, Jurisdictional Determination, Biological Report, Modification, Permit)
- GIS files to be included for each application for impact area and mitigation areas
- database should be searchable for most of the parameters mentioned above
- project status that is reported and tracked from initial receipt of the application to closure
- require database to be updated by EPD staff as application is processed

## **Appendix A.**

Questionnaires for County, Consultant, and  
NGOs Interviews

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## Appendix A – Questionnaires for County, Consultant, and NGO Interviews

### Orange County Staff Questionnaire

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#### Orange County Staff Interviews

Date:

Time:

Personnel names and titles interviewed:

#### Introductory Statement:

Orange County is undergoing a process to update the Orange County wetland ordinance and has hired Drummond Carpenter & Applied Ecology to assist with the following:

- Review of Orange County's and six other counties' wetland ordinances to gain perspective as to how Orange County and other similar counties regulate and manage wetlands
- Conduct multiple interviews with important wetland stakeholders, including:
  - Orange County wetland regulatory staff
  - Non-Governmental Organizations (NGOs)
  - Relevant private consultants who perform wetland permitting within Orange County, and
  - Wetland regulatory staff from other Florida counties
- Based on the stakeholder feedback and the wetland regulatory review, work with Orange County staff to develop recommendations for an improved Orange County wetland ordinance

These questions are not meant to test your knowledge of the wetland ordinance/handbook, but rather for our team to learn more about the County's permitting process from Orange County staffs' perspectives and seek any recommendations for improvement (to the ordinance/handbook and/or wetland permitting process). Feedback from these interviews will remain **anonymous**.

For the purpose of these questions, when using the term wetland, we are including the category of surface waters (lakes, streams, ditches, etc.).

1. How long have you been working in the public or private environmental sector and with Orange County?
2. Do you review wetland impact permit applications for Orange County?
  - a. If so, approximately how many permits do you review/process each month, on average? In a year?
  - b. What types of permits do you review most often? (activity & acreage)
  - c. How do you track the wetland impact permit applications that you review?
  - d. If you do not review wetland permit applications, what is your role in terms of wetland permitting?
3. When was the last update of importance/significance to the wetland ordinance? Is there any codified frequency for updating the ordinance?
4. How does Orange County define wetlands?

## Appendix A – Questionnaires for County, Consultant, and NGO Interviews

### Orange County Staff Questionnaire

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5. How does Orange County delineate wetlands?
6. What types of work in wetlands require permits?
7. If applicable, what types of work in wetlands qualify for no permit required/exemptions? What are the exemptions (if any) and are they:
  - e. Based upon wetland size?
  - f. Based upon wetland quality?
  - g. Based upon wetland type or location?
8. Regarding Orange County's fee schedule for permits, how are fees determined? Are they reflective of the actual man-hours spent reviewing an application?
9. Please explain Orange County's wetland impact permit application process.
10. What are the required timeframes for processing applications (if any)?
11. When reviewing wetland impact permit applications, do you require avoidance/minimization of wetland impacts? If so, how do you approach it?
12. Do you require compensatory mitigation over and above state & federal mitigation for wetland impacts, or is one or the other also sufficient to meet Orange County's requirements? If yes, please explain.
13. Is there a hierarch for the type of preferred wetland mitigation (e.g., on -site, off-site, in county, mitigation bank, etc.)?
14. What is the weakest portion of Orange County's wetland ordinance (for instance which portions cause the most non-compliance or the most confusion)?
15. What improvements would you propose to Orange County's wetland ordinance?
16. What are the strongest aspects of Orange County's wetlands ordinance that you think are most effective?
17. How does Orange County try to balance a property owner's reasonable use of their land with wetland protections?
18. Are there any wetland impacts that are simply not allowed in Orange County under any circumstances? If yes, please provide examples of those circumstances.

## Appendix A – Questionnaires for County, Consultant, and NGO Interviews

### Orange County Staff Questionnaire

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19. Do you have special requirements or restrictions for wetland impacts near Outstanding Florida Waters or other extraordinary/significant natural resources? If yes, what are they?
20. Does Orange County restrict the percentage of wetlands that can be impacted on a property? If so, how is the restriction applied?
21. How do you try to make sure that the most valuable wetlands are protected? Do you have a hierarchy or criteria of some kind?
22. What wetland impacts require approval by Orange County's Board of County Commissioners and which can be staff issued (if any)? If so, what is the determining factor for it to be taken to the County's Board of County Commissioners?
23. Do you incentivize in-county mitigation? If so, how does it work?
24. When in the development process timeline does Orange County require a formalized determination of the limits of wetlands?
25. Does Orange County require upland buffers? If yes, what are the minimum and maximum upland buffers required? What criteria does Orange County use to determine the size of the required upland buffer?
26. Why does Orange County have its own wetland ordinance rather than relying on the Water Management District(s) and FDEP for wetland permitting?
27. How does Orange County seek to ensure as much predictability and consistency as possible in the process for applicants, consultants, developers, residents, etc.?
28. How does Orange County evaluate the effectiveness of its ordinance? Are there any studies on the "state of wetlands" in Orange County conducted periodically to inventory wetlands spatially and functionally?
29. Does Orange County provide an annual or periodic report to the Board of County Commissioners on cumulative wetland impacts?
30. Does Orange County provide notification to adjacent property owners or those within a certain distance of proposed wetland impacts? If so, what is the distance, and is it adequate or too expansive?
31. How does Orange County train staff to ensure as much consistency in wetland ordinance interpretation as possible?

## Appendix A – Questionnaires for County, Consultant, and NGO Interviews

### Orange County Staff Questionnaire

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32. How does Orange County evaluate impacts to large or regional wetland systems, including those that may extend offsite (when impacts to just a portion of a wetland are proposed)?
33. Does Orange County have a methodology for requiring permanency of conservation easements for on-site mitigation to avoid developers taking multiple bites at the apple (e.g., developers make concessions that nearby residents want now to get approval and just come back later to expand the project)? If yes, how does Orange County protect conservation easements?
34. Does Orange County take into account issues like tendency for flooding in the local area when considering proposed wetland impacts? If yes, what does Orange County do to account for these issues?
35. Does Orange County's ordinance apply to municipalities within the county? If yes, which municipalities?
36. How does Orange County evaluate the future viability of a wetland system when considering proposed wetland impacts?
37. What types of wetland impacts will almost always be approved (e.g., impacts to upland cut ditches, impacts required for an access road when there are no other alternatives, impacts for outfall pipes, etc.)?
38. Enforcement
  - h. What type of wetland impact activity is most commonly found that requires Orange County enforcement? (What violations are taking up staff time?)
  - i. In your experience, what is the approximate acreage and type of wetland impact that requires enforcement?
  - j. Roughly, how many wetland enforcement cases are processed each year?
  - k. Is enforcement handled by environmental staff or the zoning division (or other)?
  - l. How are staff organized and assigned to enforcement tasks?
  - m. How many staff are required to facilitate enforcement?
  - n. How do staff process enforcement cases?
  - o. Are the provisions set forth in the ordinance and/or the handbook adequate for enforcement? If not, what improvements do you recommend?
  - p. Is there a backlog of cases that staff is unable to address in a reasonable timeframe? If so, please describe how this could be improved.



## Appendix A – Questionnaires for County, Consultant, and NGO Interviews

### Six County Questionnaire

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County Interviewed:

Date/Time:

Personnel names and titles interviewed:

How long have you been working in the public environmental sector (& w/ this agency)?

How many years have you been reviewing environmental permit applications to this County?

Introductory Statement:

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- Review of Orange County's and six other counties' wetland ordinances to gain perspective as to how Orange County and other similar counties regulate and manage wetlands
- Conduct multiple interviews with important wetland stakeholders, including:
  - Orange County wetland regulatory staff
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  - Relevant private consultants who perform wetland permitting within Orange County, and
  - Wetland regulatory staff from other Florida counties
- Based on the stakeholder feedback and the wetland regulatory review, work with Orange County staff to develop recommendations for an improved Orange County wetland ordinance

These questions are not meant to test your knowledge of the wetland ordinance/handbook, but rather for our team to learn more about the County's permitting process from Orange County staffs' perspectives and seek any recommendations for improvement (to the ordinance/handbook and/or wetland permitting process). Feedback from these interviews will remain **anonymous**.

For the purpose of these questions, when using the term wetland, we are including the category of surface waters (ditches and swales, not lakes, streams or rivers).

1. When was the County wetland ordinance originally written? When was the last update of importance/significance? Is there any codified frequency for updating the ordinance?
2. How does your County define wetlands?
3. How does your County delineate wetlands?
4. What types of work in wetlands require permits?
5. If applicable, what types of work in wetlands qualify for no permit required/exemptions? What are the exemptions (if any) and are they:
  - a. Based upon wetland size?

## Appendix A – Questionnaires for County, Consultant, and NGO Interviews

### Six County Questionnaire

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- b. Based upon wetland quality?
  - c. Based upon wetland type or location?
6. Regarding your County's fee schedule for permits, how are fees determined? Are they reflective of the actual man-hours spent reviewing an application? How is the fee schedule updated?
  7. Please explain how your County processes wetland impact permit applications.
  8. What are the required timeframes for processing applications (if any)?
  9. When reviewing wetland impact permit applications, do you require avoidance/minimization of wetland impacts? If so, how do you approach it?
  10. Do you require compensatory mitigation over and above state & federal mitigation for wetland impacts, or is one or the other also sufficient to meet your County's requirements?
  11. If mitigation is required for an impact, what wetland assessment method is used?
  12. Is there a hierarchy for the type of preferred wetland mitigation (e.g., on-site, off-site, in county, mitigation bank, etc.)? Do you incentivize in-county mitigation? If so, how?
  13. What is the weakest portion of your County's wetland ordinance (for instance which portions cause the most non-compliance or the most confusion)?
  14. What improvements would you propose to your County's wetland ordinance?
  15. What are the strongest aspects of your County's wetlands ordinance that you think are most effective?
  16. How does your County try to balance a property owner's reasonable use of their land with wetland protections?
  17. Are there any wetland impacts that are simply not allowed in your County under any circumstances?
  18. Do you have special requirements or restrictions for wetland impacts near Outstanding Florida Waters or other extraordinary/significant natural resources?
  19. Does your County restrict the percentage of wetlands that can be impacted on a property?
  20. How do you try to make sure that the highest quality wetlands within a parcel are protected and not impacted? Do you have a review hierarchy or criteria of some kind?

## Appendix A – Questionnaires for County, Consultant, and NGO Interviews

### Six County Questionnaire

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21. With regard to the permit approval/denial process:
  - a. What type of permits can be staff issued (if any)?
  - b. Do any wetland impact permits require approval by the Board of County Commissioners?
  - c. What is the determining factor for it to be taken to the County's Board of County Commissioners and for their approval?
22. Do you require a formal determination of wetland limits within a parcel? If yes, when in the development process timeline does your County formal wetland determination?
23. Does your County require upland buffers? If yes, what are the minimum and maximum upland buffers required? What criteria do you use to determine the size of the required upland buffer?
24. Why does your County have its own wetland ordinance rather than relying on the Water Management District(s) and FDEP for wetland permitting?
25. How does your County seek to ensure as much predictability and consistency as possible in the process for applicants, consultants, developers, residents, etc.? How does your County train staff to ensure as much consistency in wetland ordinance interpretation as possible?
26. How does your County evaluate the effectiveness of its ordinance? Are there any studies on the "state of wetlands" in your County conducted periodically to inventory wetlands spatially and functionally?
27. Does your County provide an annual or periodic report to the Board of County Commissioners on cumulative wetland impacts?
28. Does your County provide notification to adjacent property owners or those within a certain distance of proposed wetland impacts? If yes, what types of applications require adjacent property owner notification?
29. How does your County evaluate impacts to large or regional wetland systems, including those that may extend offsite (when impacts to just a portion of a wetland are proposed)?
30. Does your County have a methodology for requiring permanency of conservation easements for on-site mitigation to avoid developers taking multiple bites at the apple (e.g., we'll make concessions that nearby residents want now to get approval and just come back later to expand the project)?
31. Does your County consider issues like tendency for flooding in the local area when considering proposed wetland impacts?
32. Does your County's ordinance apply to municipalities within the county?

## Appendix A – Questionnaires for County, Consultant, and NGO Interviews

### Six County Questionnaire

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33. How does your County evaluate the future viability of a wetland system when considering proposed wetland impacts?
34. What types of wetland impacts will almost always be approved (e.g., impacts to upland cut ditches, impacts required for an access road when there are no other alternatives, impacts for outfall pipes, etc.)?
35. Enforcement
  - a. Does your County have a wetland code enforcement program?
  - b. Roughly, how many wetland enforcement cases are processed each year?
  - c. What types of wetland enforcement is most common? (Activity and type of wetland)
  - d. Is enforcement handled by environmental staff or the zoning division (or other)?
  - e. If handled through the environmental staff, how are those staff organized in the organizational chart?
  - f. How many staff are required to facilitate enforcement?
  - g. Is there a backlog of cases that staff is unable to address in a reasonable timeframe?
36. For Hillsborough County:
  - a. How has delegation of permitting authority from the state gone overall?
  - b. What advantages and disadvantages do you see in terms of delegation?
  - c. To what extent (e.g., percentage) did you have to increase staffing to accommodate delegation? Do you issue 2 permits; one for the County ordinance and one for state ERP?
  - d. What advice would you give to another county that is considering requesting delegation?
  - e. How do your customers feel about delegation?

## Appendix A – Questionnaires for County, Consultant, and NGO Interviews

### Consultant Questionnaire

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Company Name being interviewed:

Date/Time:

Personnel names and titles interviewed:

Introductory Statement:

Orange County is undergoing a process to update the Orange County wetland ordinance and has hired Drummond Carpenter & Applied Ecology to assist with the following:

- Review of Orange County's and six other counties' wetland ordinances to gain perspective as to how Orange County and other similar counties regulate and manage wetlands
- Conduct multiple interviews with important wetland stakeholders, including:
  - Orange County wetland regulatory staff
  - Non-Governmental Organizations (NGOs)
  - Relevant private consultants who perform wetland permitting within Orange County, and
  - Wetland regulatory staff from other Florida counties
- Based on the stakeholder feedback and the wetland regulatory review, work with Orange County staff to develop recommendations for an improved Orange County wetland ordinance

How long have you been a consultant (& w/ this consulting firm)?

How many years have you been requesting Conservation Area Impact Permits for wetland and/or surface water impacts in Orange County?

For the purpose of these questions, when using the term wetland, we are including the category of surface waters as it relates to ditches and swales, not canals, tributaries, lakes, streams, or rivers.

1. Do you think that Orange County's Wetland Conservation Ordinance (Chapter 15, Article X) (Code) needs revision?
  - a. If yes, what portion(s) of the Code would you like to see changed/clarified?
  - b. Is any language in the Code unclear or vague?
  - c. What recommendations do you have for strengthening the code?
  - d. Are there any requirements in the Code you would reduce or eliminate?
  - e. In your professional opinion, what do you consider problematic or beneficial about Orange County's current wetland classification system (i.e., Class I, II, and III)?
  - f. Should geographic areas or features (e.g., riverine corridors, karst, etc.) be identified for additional protections in the wetland ordinance (outside the Econ and Wekiva where they are already more protected)?
  - g. Do you think that there should be exemptions for certain types of specific activity in wetlands? If yes, what types of activity?

## Appendix A – Questionnaires for County, Consultant, and NGO Interviews

### Consultant Questionnaire

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- h. Do you think that the wetland classification system in the ordinance should be eliminated? What do you recommend in lieu of the classification system?
2. Have you ever experienced a project where the Code differs from the requirements of state? How did you reconcile those differences?
3. Do you think Orange County should assume all or part(s) of state or federal permitting program(s)?
  - a. What would be the benefits to the assumption?
  - b. Negatives?
  - c. Do you have any specific wetland permitting processes that the state or federal government utilizes that Orange County should adopt?
4. Have you sought permits from another county that has clearer wetland ordinance? If so, which county?
  - a. What language did the county include in their ordinance?
  - b. Was the county ordinance stronger? If so, in what areas?
  - c. Can you describe any permit process differences?
  - d. Which aspects or provisions of other county processes do you recommend that Orange County adopt?
5. Wetland Review: In your professional opinion:
  - a. Is there a hierarchy of wetlands that deserve protection from the most valuable to the least valuable?
  - b. What are your thoughts about allowing wetland impacts in the urban area to allow for increased densities?
  - c. Are there any types of wetland systems that you think should be very difficult to impact? Which types?
  - d. Are there any types of wetland systems that you think should be easier to impact?
  - e. How would you propose making it easier to impact the least valuable wetland systems?
  - f. What criteria would you recommend to ensure that the most valuable wetlands are protected and are more difficult to impact?
  - g. What would help make the permitting process for wetland impacts more predictable in Orange County?
6. What factors do you think are appropriate when weighing a property owner's rights to a reasonable use of their property while protecting wetland systems?
7. Are there any situations where you think avoidance and minimization criteria for wetland impacts need not apply? If so, which ones and why?
8. Should a percentage of wetland impacts compared to total wetland acreage on a site be a reasonable evaluation consideration for permitting? If yes, what do you think is a reasonable percentage?
9. Do you think residents/adjacent property owners should receive notification when someone has applied for a wetland impact permit?
  - a. When in the application process should the notification take place?

## Appendix A – Questionnaires for County, Consultant, and NGO Interviews

### Consultant Questionnaire

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- b. What distance/radius of adjacent property owners should be notified?
  - c. Should letters of no objection be considered?
10. Do you think upland buffers play an important role in the function and health of wetlands?
  - a. If yes, what do you think are appropriate upland buffers to protect the long-term viability and functionality of most wetland systems?
  - b. Should additional buffers be provided for wetlands associated with Outstanding Florida Waters, special protection areas (Wekiva/Econ/ELSP), impaired waters, imperiled species habitat, or other areas of particularly special concern from an environmental perspective?
  - c. Do you think Orange County can do a better job of protecting rare upland habitat or habitat that supports or could support imperiled species (e.g., gopher tortoise, scrub jay, red cockaded woodpecker), particularly when this habitat buffers on wetlands?
  - d. If so, how would you recommend Orange County include the added protection?
  - e. Additional upland buffer requirements (50-foot average width) exist in the Wekiva and Econ Protection Areas. Should these measures be adopted or increased throughout the County?
  - f. Should additional upland habitat preservation requirements be included in ordinance?
11. Currently, property owners can request amendment or release of conservation easements. Likewise, requests are sometimes received to amend a plat to remove a conservation area.
  - a. Does it seem reasonable to have these procedures? Why or why not?
  - b. Can you recommend reasonable ways to provide assurance to nearby neighbors who are concerned about property owners taking “multiple bites at the apple” when it comes to removing or amending conservation easements or platted conservation areas, or areas previously identified as preservation?
  - c. Do you have recommendations for what type of language could be added in the Ordinance or Code to ensure protection of the conservation easements?
12. Do you think UMAM and secondary impacts analyses adequately address impacts to a large or regional wetland system, including those that may extend offsite (when impacts to just a portion of a wetland are proposed)? If not, how do you recommend doing that?
13. Should a cumulative impact analysis be required in County Code? If so, when and under what circumstances?
14. When in the application process should Orange County require a Conservation Area Determination? Why?
15. When in the development process should an applicant seek a Conservation Area Impact permit? Why?
16. Orange County EPD is often asked during Conservation Area Impact (CAI) review about how a project will not worsen flooding in the local community. What is the most appropriate point in the development application process for identifying stormwater controls designed to reduce/alleviate localized flooding and water quality impacts? How should OC EPD address flooding and flood zone concerns in their review and in their ordinance?

## Appendix A – Questionnaires for County, Consultant, and NGO Interviews

### Consultant Questionnaire

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17. Is there a benefit to combining the CAD and CAI process into one?
18. Are you aware of *Orange County's Wetlands Conservation Ordinance Applicant's Handbook*?
  - a. If so, have you used it and did you find it helpful?
  - b. If you have used the handbook, what changes or revisions would make it more user friendly?

### Implementation, Culture and Communication

19. What do you think is a reasonable timeframe from wetland impact permit application submittal to permit issuance?
  - a. Considering workloads, do you think that Orange County staff review and process permit applications for wetland impacts in a timely manner?
  - b. What recommendations do you have (if any) for streamlining the permit review process?
  - c. Which wetland impact applications do you think should be staff issued?
  - d. Which wetland impacts should be brought to the Board of County Commissioners for approval? Via Consent Agenda or Public Hearing?
  - e. Does Orange County EPD staff review permit applications in accordance with the Orange County Wetland Ordinance? If not, how are the applications reviewed?
  - f. Is there rule interpretation consistency between the reviewers?
  - g. Do you have any suggestion on how to improve consistency?
  - h. Do you think OC EPD staff apply 62-340 and 62-345 F.A.C. properly?
  - i. Do you have any concerns if OC EPD would adopt a new wetland classification system based on 62-345 F.A.C.?
20. How do you think Orange County should evaluate whether the Code is effective? What would success look like?
21. Are there any other issues not discussed that you feel are important to identify/share that are important to consider in updating the Orange County wetland code?



## Appendix A – Questionnaires for County, Consultant, and NGO Interviews

### Non-Governmental Organization Questionnaire

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Organization being interviewed:

Date/Time:

Personnel names and titles interviewed:

Introductory Statement:

Orange County is undergoing a process to update the Orange County wetland ordinance and has hired Drummond Carpenter & Applied Ecology to assist with the following:

- Review of Orange County's and six other counties' wetland ordinances to gain perspective as to how Orange County and other similar counties regulate and manage wetlands
- Conduct multiple interviews with important wetland stakeholders, including:
  - Orange County wetland regulatory staff
  - Non-Governmental Organizations (NGOs)
  - Relevant private consultants who perform wetland permitting within Orange County, and
  - Wetland regulatory staff from other Florida counties
- Based on the stakeholder feedback and the wetland regulatory review, work with Orange County staff to develop recommendations for an improved Orange County wetland ordinance

How long have you been involved with this environmental organization (include name of the organization)?

How many years have you been involved in environmental advocacy in Florida (if applicable)?

Please briefly describe your background or experience related to wetland permitting and regulations.

For the purpose of these questions, when using the term wetland, we are including the category of surface waters, as it relates to ditches and swales, but not canals, tributaries, lakes, streams, or rivers.

Thinking about the Code in and of itself, please consider about these following questions:

1. Are you familiar with Orange County's Wetland Conservation Ordinance (Chapter 15, Article X) (Code)?
  - a. If yes, do you have any recommendations for portions of the Code that need to be changed/clarified?
  - b. Is any language in the Code unclear or vague?
  - c. What recommendations do you have for strengthening the Code?
  - d. Do you have any recommendations to reduce or eliminate portions of the Code?
  - e. In your professional opinion what do you consider problematic or beneficial about Orange County's current wetland classification system (i.e., Class I, II, & III)?

## Appendix A – Questionnaires for County, Consultant, and NGO Interviews

### Non-Governmental Organization Questionnaire

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- f. Should geographic areas or features (e.g., riverine corridors, karst, etc.) be identified for additional protections in the wetland ordinance (outside the Econ and Wekiva where they are already more protected)?
    - g. Do you think that there should be exemptions for certain types of specific activity in wetlands? If yes, what types of activity?
  2. Are there aspects of state wetland permitting requirements that you think are better than Orange County's Code?
  3. Do you think Orange County should assume all or part(s) of state or federal permitting program(s)?
    - a. What would be the benefits to the assumption?
    - b. Negatives?
    - c. Do you have any specific wetland permitting processes that the state or federal government utilizes that Orange County should adopt?
  4. Are you aware of another county that has clearer, yet a protective wetland ordinance? If so, which county?
    - a. Can you describe the permit process differences?
    - b. Which aspects or provisions of other local, state, or federal wetlands permitting processes do you recommend that Orange County adopt?
  5. Wetland Review: In your professional opinion:
    - a. Is there a hierarchy of wetlands that deserve protection from the most valuable to the least valuable?
    - b. What are your thoughts about allowing wetland impacts in the urban area to allow for increased densities?
    - c. Are there any types of wetland systems that you think should be very difficult to impact? Which types?
    - d. Are there any types of wetland systems that you think should be easier to impact?
    - e. How would you propose making it easier to impact the least valuable wetland systems?
    - f. What criteria would you recommend to ensure that the most valuable wetlands are protected and are more difficult to impact?
    - g. What would help make the permitting process for wetland impacts more predictable in Orange County?
    - h. What factors do you think are appropriate when weighing a property owner's rights to a reasonable use of their property while protecting wetland systems?
    - i. Are there any situations where you think avoidance and minimization criteria for wetland impacts need not apply? If so, which ones and why?
    - j. Should a percentage of wetland impacts compared to total wetland acreage on a site be a reasonable evaluation consideration for permitting? If yes, what do you think is a reasonable percentage?
  6. Do you think residents/adjacent property owners should receive notification when someone has applied for a wetland impact permit?

## Appendix A – Questionnaires for County, Consultant, and NGO Interviews

### Non-Governmental Organization Questionnaire

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- a. When in the application process should the notification take place?
- b. What distance/radius of adjacent property owners should be notified?
- c. Should letters of no objection be considered?
7. Do you think upland buffers play an important role in the function and health of wetlands?
  - a. If yes, what do you think are appropriate upland buffers to protect the long-term viability and functionality of most wetland systems?
  - b. Should additional buffers be provided for wetlands associated with Outstanding Florida Waters, special protection areas (Wekiva/Econ/ELSP), impaired waters, imperiled species habitat, or other areas of particularly special concern from an environmental perspective?
  - c. Do you think Orange County can do a better job of protecting rare upland habitat or habitat that supports or could support imperiled species (e.g., gopher tortoise, scrub jay, red cockaded woodpecker), particularly when this habitat buffers on wetlands?
  - d. If so, how would you recommend Orange County include the added protection?
  - e. Additional upland buffer requirements (50-foot average width) exist in the Wekiva and Econ Protection Areas. Should these measures be adopted or increased throughout the County?
  - f. Should additional upland habitat preservation requirements be included in ordinance?
8. Currently, property owners can request amendment or release of conservation easements. Likewise, requests are sometimes received to amend a plat to remove a conservation area.
  - a. Does it seem reasonable to have these procedures? Why or why not?
  - b. Can you recommend reasonable ways to provide assurance to nearby neighbors who are concerned about property owners taking “multiple bites at the apple” when it comes to removing or amending conservation easements or platted conservation areas, or areas previously identified as preservation?
  - c. Do you have recommendations for what type of language could be added in the Ordinance or Code to ensure protection of the conservation easements?
9. Do you think UMAM and secondary impacts analyses adequately address impacts to a large or regional wetland system, including those that may extend offsite (when impacts to just a portion of a wetland are proposed)? If not, how do you recommend doing that?
10. Should a cumulative impact analysis be required in County Code? If so, when and under what circumstances?
11. When in the application process should Orange County require a Conservation Area Determination? Why?
12. When in the development process should an applicant seek a Conservation Area Impact permit? Why?
13. Orange County EPD is often asked during Conservation Area Impact (CAI) review about how a project will not worsen flooding in the local community. What is the most appropriate point in the development application process for identifying stormwater controls designed to

## Appendix A – Questionnaires for County, Consultant, and NGO Interviews

### Non-Governmental Organization Questionnaire

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reduce/alleviate localized flooding and water quality impacts? How should OC EPD address flooding and flood zone concerns in their review and in their ordinance?

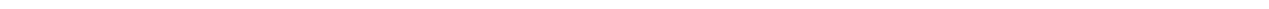
14. Is there a benefit to combining the CAD and CAI process into one?
15. Are you aware of *Orange County's Wetlands Conservation Ordinance Applicant's Handbook*?
  - a. If so, have you used it and did you find it helpful?
  - b. If you have used the handbook, what changes or revisions would make it more user friendly?

### OC Staff Process, Implementation, Culture and Communication

16. What do you think is a reasonable timeframe from wetland impact permit application submittal to permit issuance?
  - a. Considering workloads, do you think that Orange County staff review and process permit applications for wetland impacts in a timely manner?
  - b. What recommendations do you have (if any) for streamlining the permit review process?
  - c. Which wetland impact applications do you think should be staff issued?
  - d. Which wetland impacts should be brought to the Board of County Commissioners for approval? Via Consent Agenda or Public Hearing?
  - e. Does Orange County EPD staff review permit applications in accordance with the Orange County Wetland Ordinance? If not, how are the applications reviewed?
  - f. Is there rule interpretation consistency between the reviewers?
  - g. Do you have any suggestion on how to improve consistency?
  - h. Do you think OC EPD staff apply 62-340 and 62-345 F.A.C. properly?
  - i. Do you have any concerns if OC EPD would adopt a new wetland classification system based on 62-345 F.A.C.?
17. Are there any other issues not discussed that you feel are important to identify/share that are important to consider in updating the Orange County wetland code?

## **Appendix B.**

# Orange County Staff Comments Feedback Matrix



Appendix B. Orange County Staff Comments Feedback Matrix

Category	Staff Comments	Staff 1	Staff 2	Staff 3	Staff 4	Staff 5	Staff 6	Percent
BUFFERS	OC should consider requiring a consistent 50-foot buffer for all wetlands, not just Wekiva and Econ Protection Areas	X			X		X	50%
	Upland buffer language should be added to ordinance	X			X	X		50%
	Larger buffers might be helpful to protect wetlands	X		X	X		X	67%
	Buffer impacts are driving up enforcement cases	X					X	33%
	Butler Chain of Lakes/OFWs need additional protection		X	X	X		X	67%
	Buffers or increased protections near impaired waterbodies should be evaluated	X			X		X	50%
CUMULATIVE and SECONDARY IMPACTS	Secondary and cumulative impacts need to be codified	X					X	33%
	Cumulative impacts should be addressed for out of basin or out of County mitigation	X						17%
	Larger subdivisions should include a review of secondary impacts for docks and seawalls	X						17%
	Include language in code that addresses impacts to regional wetland systems to avoid fragmentation of those systems	X			X		X	50%
CLASSIFICATION SYSTEM	Classification system should be eliminated		X		X			33%
	Classification system should be revised			X	X	X	X	67%
	High quality Class III wetlands are not well protected		X		X	X	X	67%
	Classification of wetlands should be based on wetland quality (hydrologic connection, exotic/invasive species, UMAM score)	X	X	X	X	X	X	100%
WETLAND DEFINITIONS	Wetlands should be defined as 'wetlands' or 'wetlands and surface waters,' NOT as 'conservation areas'		X	X			X	50%
ENFORCEMENT	Code is subjective and difficult to enforce	X	X		X	X		67%
	Enforcement letters should require less oversight by multiple levels of staff	X			X	X		50%
	Different levels of enforcement should be written into code	X	X	X			X	67%
	Monetary penalties for unauthorized impacts should be added to code			X				17%
	Pre-approved templates should be developed for enforcement to streamline review process	X				X	X	50%
	Increase permitting fees for big developments (commercial and residential)		X					17%
	Fees need to be increased in general		X			X		33%
	Permits should be received through Fast Track portal (in addition to mail/email) to streamline staff review		X					17%
	Permitting processes should be more protective of most valuable wetlands and less protective of wetlands with low functional value	X			X	X	X	67%

Appendix B. Orange County Staff Comments Feedback Matrix

Category	Staff Comments	Staff 1	Staff 2	Staff 3	Staff 4	Staff 5	Staff 6	Percent	
PERMITTING PROCESS	OC should assess if wetlands should be easier to impact if included in an infill project or affordable housing development				X			17%	
	Notification of adjacent property owners of proposed impacts should be required and included in code				X	X	X	50%	
	Permit conditions should be a blanket attachment					X		17%	
	Higher level staff should only do thorough reviews on permits for the most important projects				X			17%	
	Avoidance and minimization requirements could be applied differently depending on quality of wetland				X	X	X	50%	
	OC should explore requiring a restriction limiting wetland impacts to a certain percentage				X			17%	
	CAD and CAI should become one streamlined process		X					17%	
	Permitting process could be written only into Handbook, then Handbook could be referenced in code (Easier to change Handbook than ordinance)							X	17%
	A CAD should be required in any rezoning effort or earlier in land development process		X		X				33%
APPROVALS	Board approval should only be required for the highest quality wetlands or large projects				X		X	33%	
	Board approvals are too time consuming for staff		X	X	X	X	X	83%	
EXEMPTIONS	Exemption for pipe outfalls could help lighten staff permit load		X				X	33%	
	OC should establish exemptions		X		X		X	50%	
CODE LANGUAGE	Wetland code should also cover shoreline and open water impacts		X					17%	
	OC code differences from state and WMD should be codified				X	X		33%	
	Permitting process as a whole needs to be codified	X	X	X	X	X	X	100%	
	Language should be added to periodically require a "State of the Wetlands" assessment				X			17%	
	Avoidance and minimization specifics need to be added to the code	X	X		X	X	X	83%	
	Code should be resource-based, not activity-based, similar to WMD and FDEP (Too many different permits for impacts to the same resource)		X					17%	
	Reasonable Use' and associated criteria need to be codified			X		X	X	50%	
	Code definitions need serious improvement; Code is outdated	X	X	X	X	X	X	100%	
	Permanency of conservation easements should be addressed in code		X		X	X		50%	
	Floodplain language does not need to be added into the wetland code; Current collaboration with PWD is sufficient		X					17%	
MITIGATION	Could incentivize in-County or on-site mitigation by increasing applicants allowable development area		X					17%	

Appendix B. Orange County Staff Comments Feedback Matrix

Category	Staff Comments	Staff 1	Staff 2	Staff 3	Staff 4	Staff 5	Staff 6	Percent
CULTURE	Staff have no extra time to make improvements to the program					X	X	33%
	Need more permitting and enforcement staff		X	X		X	X	67%



## **Appendix C.**

### County Comparison Matrix

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**Appendix C: County Comparison**

**C1: General Questions**

Question	Topic	Orange County	Leon County	Alachua County	Hillsborough County EPC	Osceola County	Seminole County	Volusia County
1	Last Ordinance update	1989	1992 original; 2021 most recent update; only took 6 months to complete update because they reached out to stakeholders early with planning update	1992 original; 2018 updated to be city/county wide; 2019 increased buffer	1985; No frequency for updates; Last revision in 2021	Ordinance result of lawsuit in 1980s so can't update; Comp Plan adopted in 2008 & codified in Land Development Code in 2015	1992 last revision to Land Development Code; Shoreline protection updated in 2021; Comp Plan amended in 2007	1989 original; Last update in 2013 but nothing substantive
32	Ordinance apply to municipalities?	Not all	Only the City of Tallahassee has stricter Ordinance	Yes	Yes	No	No (municipal ordinance may be less stringent)	Yes; If municipality wants to have their own must be more stringent
6	Last permitting fee update	Unknown, been a long time ago	2008	2012 (updates done usually every 5-10 years)	Reevaluated every 5 years	Every few years	Fees reviewed every 2 years and approved by BOCC	Have not been updated; Fees are for mitigation: \$1/sf x functional loss
6	How is wetland fee determined? By man hours?	Not on man hours; Processing time is considered but BOCC does not support raising fees; Based on acres of impact & separate fee if PSF	Based upon impervious surface; However, the current fee does not cover overhead	Yes (studies are conducted to track the time spent on each type of application); Fee is based upon land development type & \$38/acre if > than 10 acres	Consultant hired to perform fee study (tracked every project for 3-6 months & determined how much each position is paid vs overhead rate); Use man hour basis; Fee depends on acreage impacts, parcel size, mitigation type, etc.	Fees for site development are based on man hours to review plans & administrative fees, 2.5% inspection fee	Based upon man hours (average rate x # personnel x hours dependent on permit type); Fees reviewed every 2 years and approved by BOCC	No; Mitigation fee \$1.00/sf x functional loss
2	Are wetlands referred to as 'wetlands' in the Ordinance?	No	Yes	Yes	Yes	Yes	Yes	Yes
3	Use 62-340, F.A.C to define & delineate wetlands?	Yes	Yes	Yes	Yes	Yes	Yes (However, the County does not delineate wetland; Up to SJRWMD or FDEP or environmental consultant to delineate wetland)	Yes

Question	Topic	Orange County	Leon County	Alachua County	Hillsborough County EPC	Osceola County	Seminole County	Volusia County
	<b>Wetland Classification Used in Ordinance?</b>	Yes	No	No	No	Yes	No	No
	<b>Type of Wetland Classification</b>	I, II, III	Large portion of County is included in Special Development Zones	None	No	Class I, II, III Class III is lowest quality (UMAM < .4);	No	No
<b>9</b>	<b>Require Avoidance / minimization?</b>	Yes; minimize unavoidable impacts	Yes; must demonstrate avoidance, Comp Plan is stronger than Ordinance	Yes (must demonstrate that you cannot avoid, then minimal impact must be in public interest and economic viability)	Yes; Reasonable use is very strict; Must meet rule or redesign	Yes, minimize for access & available use of uplands; If PSF parcel, only authorize enough for single family home, no amenities	Yes; Avoidance first	Yes; Avoid wetland impacts, shift impacts to minimize; no accessory structures
<b>10</b>	<b>Compensatory mitigation above State requirements?</b>	Yes; For projects where the State did not require mitigation (1/2 acre isolated wetland impact, ditch or cow pond impacts)	No mitigation is required from Leon County; Not specified in Ordinance; CE required over remaining property with exotic plant management	Coordinate with FDEP or WMD; May require additional mitigation for wetland buffer impacts	Only have state delegation for SF parcels (EPC & DEP permit); If something is exempt from FDEP but not EPC then yes, EPC will require mitigation; Typically same mitigation	No; County does not require mitigation; Code enforcement rules exist to prevent tree removal (very expensive to remove trees)	No	No (only for buffers if State did not require mitigation)
<b>20</b>	<b>Highest Quality Wetlands Avoided?</b>	Use UMAM & avoidance/minimization	Goal to impact the area dominated w/ exotics; Categories such as natural forest, high quality successional forest; Hierarchy determined by size & presence of different features and is case by case basis	Look at location & project purpose; No wetland hierarchy; Goal to avoid & minimize	All wetlands are equal; Goal to avoid & reasonable use	Most applicants try to avoid the highest quality wetlands on their parcel	Econ & Wekiva Protection Areas	No
<b>34</b>	<b>Types of wetland impacts always approved?</b>	Class III	Avoidance/minimization; 5% is maximum allowed	Minimal impacts (trails and road crossings)	Wetland crossings; Health/safety projects; Building expansion; Reasonable use projects	Class III with low UMAM score, Isolated system; Exotic systems	State projects, public safety, public right of way	Exemptions & maintenance activities

Question	Topic	Orange County	Leon County	Alachua County	Hillsborough County EPC	Osceola County	Seminole County	Volusia County
17	Any impacts not allowed?	No, however Class I wetland impacts require BOCC approval and are typically difficult to obtain	Yes, sink hole wetland impacts are not allowed	No; Must avoid/minimize all impacts; Only allow impacts if it is a minimal impact if there is an overriding public interest or all economically viable use of property is otherwise precluded	No; Strongly encourage avoidance	Yes. Land locked systems that cannot access property without wetland impacts (Happy Trails subdivision)	Yes; Wekiva River Protection Area - zero impacts allowed plus 50' average/25' minimum upland buffer required from the wetlands; Econ setbacks are greater	No; Goal to protect all wetlands; Avoid & minimize
18	Special restrictions, OFWs?	Econ River and Wekiva River Protection Zones & Environmental Land Stewardship Program; None for OFW's	Yes; Have numerous Special Development Zones (SDZ) with restrictions and Lake Jackson is an OFW	Yes, buffer size 200' average for OFW & 100' for wetlands that contain listed species	EPC does not have any special restrictions; Within 500' of Hillsborough River, Alafia River & Little manatee River has 500' protection area	No special restrictions or extra protection areas	Only Econ River & Wekiva River	Tomoka River
19	Are impacts restricted to a percentage of wetlands?	No	Yes; 5%	Can't exceed 1/2 acre of impact per 10 acres of wetland area	No; Will allow up to 500 sf of impact which does not have to have reasonable use or mitigation	No	No	No

Question	Topic	Orange County	Leon County	Alachua County	Hillsborough County EPC	Osceola County	Seminole County	Volusia County
4	Types of work in wetlands require permits?	Any activity in wetlands	Any activity in wetlands	Any activity in/on including work in buffer; Clearing trees too	Any activity in wetland, including vegetation removal; exotic removal is a zero-fee permit	Any activity in wetlands	Any activity in wetlands	Any activity in wetlands
5	Deminimus Exemptions?	No	No	Yes	No	No	No	No
5	Exemptions	Only for grandfathered provisions & agricultural work	Only state-mandated agricultural activities	Bona fide agricultural activities; invasive vegetation removal, parks/recreation , minor nature trails, treatment wetlands, connection to stormwater facilities, firebreaks and fences	Yes; Upland cut man-made ditch, fish ponds & fill in < 1 acre man-made pond	Bonafide agricultural, federal work	Yes; Isolated wetland < 1/2 acre and not located within the Econ or Wekiva River Protection areas; Agricultural exemption; Seminole County roadway projects are exempt from wetland permitting	Yes; Bona fide agricultural activities, Isolated wetland <1/2 acre, maintenance of: ditches, public right of ways, retention/detention areas, <6' wide walking trails, mosquito control
5	General Permits	No	Yes	No	No	No	No	No

Question	Topic	Orange County	Leon County	Alachua County	Hillsborough County EPC	Osceola County	Seminole County	Volusia County
7	<b>Application Review Process</b>	Application must be uploaded by staff into LDMS, reviewed by supervisor, then assigned to staff; staff reviews for completeness, RAI (if needed) is routed through LDMS (along w/ other documents) numerous supervisory review of all documents; All Class I impacts have to be approved by BOCC; Class II & III can be staff issued	1st: Natural Features Identified (NFI) includes wetland features inventory, GPS & flagging; 2nd: application submitted staff has 10 working days to provide notice of application sufficiency or approval; 3rd: Environmental application permit project details including NFI, stormwater all reflected and staff has 20 days to approve	Conduct pre-app meeting to determine if permit is needed; consultant id wetlands; if there is an impact to wetlands goes to BOCC for approval; Final approval w/ all documents approved by DRC	Two Administrative Staff perform initial review from electronic submittal; Two types of projects: Misc activities & port authority & remainder developmental services (delineations, zoning & mitigation reviews); Manager assigns project to staff based upon location & difficulty & staff history w/ project; Staff review independently	Submit a site development plan: if wetlands are identified, then a consultant must provide; Project Coordinator reviews buffers, boundary and wetland classification, applicant has State permits, plans show erosion control plan (BMP's) & for sufficiency; once complete feeds paid, authorized & inspection occurs to verify erosion control installed	A. Dredge/Fill applications (SF Type projects): planner reviews within 15 working days; approval or corrections/RAI requested; response received then approve by reviewer w/ no supervisor review; B. Site Development Permit: review conducted by all departments w/in 15 working days with approval letter & conditions	Residential process: online submittal, staff inspects parcel verifies line and UMAM; install silt fencing another inspection conducted fees paid permit issued; Commercial process: is similar any RAI is combined w/ land development department; avoidance discussions commence at rezoning
8	<b>Time frames initial review</b>	30 days	10 working days	10 days	30 days	10 working days	15 working days	3 days
8	<b>Time frames complete to issuance</b>	30 days	20 working days	6 weeks to 3 months	30 days (affordable housing projects 15 days)	10 working days	15 working days	10 days
22	<b>Formal JD Required?</b>	Yes	Natural Features Inventory (NFI) is required	Yes	Yes	Yes	No use FDEP or SJWRMD	Yes for future land use change; JD by consultant
22	<b>When Wetland JD required</b>	Before CAI	Beginning	Provided by consultant with application	For wetland impact permit prior to permit issuance	When Site Development Plan is submitted (up front)	Not initially; By Engineering Department review	Concurrent

Question	Topic	Orange County	Leon County	Alachua County	Hillsborough County EPC	Osceola County	Seminole County	Volusia County
21	By Staff	No	No	No	No	All permits (Every department has to approve then goes to Development Review Coordinator for final approval)	Yes, all Private Single Family development	Yes
21	By County Administrator	Yes	Yes	Yes (exemption / deminimus, PSF projects)	Yes (Director or Executive Director)	No	Yes Planning Manager or Development Services Engineer	No
21	Development Review Committee (DRC)	No	No	Yes	No	Yes	No	No
21	By Board of County Commissioners (BOCC)	Yes	No	Yes (those with mitigation)	No	No	Planned Development & Rezoning Requests must be BOCC	No

Question	Topic	Orange County	Leon County	Alachua County	Hillsborough County EPC	Osceola County	Seminole County	Volusia County
23	Require Upland Buffers?	Yes	Yes	Yes	No	Yes	May be used for restoration or enhancement	Yes
	Extra Protection Zones (OFW's)	Yes	Yes (sink holes, OFW's, SDZ)	Yes 200' average/100' minimum	Hillsborough County has special protections, not EPC	Yes (Econ)	Econ River, Wekiva River and Lake Jesup basin	Yes Natural Resource Management Area (NRMA)
	Wetland Buffer Required	No	Yes 50' (if floodplain goes beyond area of the wetlands, then buffer is added on to the floodplain)	75' average/50' minimum; Under 1/2 acre buffers: 50' average/35' minimum	No	Dependent upon wetland classification: Class I: 50' minimum; Class II: 50' average/25' minimum; Class III: 25' average/15' minimum	Yes	Yes
	Buffer Amount from JD Wetland	25'	50'	75' average/50' minimum; Under 1/2 acre buffers: 50' average/35' minimum	No	See above	25' average/15' minimum	25' / 50' NRMA



Question	Topic	Orange County	Leon County	Alachua County	Hillsborough County EPC	Osceola County	Seminole County	Volusia County
11	Wetland Functional Assessment Type	UMAM	UMAM	UMAM	UMAM	UMAM (solely used to determine wetland classification)	None	UMAM for wetlands; Ratio for buffers
12	Mitigation Preference	On-site preservation	On-site preservation	On-site, off-site, in county, in lieu fee, Mitigation Bank	No preference	N/A	Only require what WMD/FDEP requires	No preference; Majority is mitigation bank; Buffer & small impacts go into a Fund
12	Incentive for In-County mitigation?	No	No	No	N/A	N/A	No	No
30	Conservation Easements Required?	Yes	Yes	All protected wetlands areas require a CE or similar tool that runs with the land	Yes	N/A	Yes; Any post development wetlands must be placed in CE dedicated to County; CE standardized language with development rights given to County	Yes
30	Conservation Easement permanent?	No	Can only be amended if the natural features are no longer present (severe slopes); Otherwise amendment prohibited	County no longer accepts CE from PSF property owners; Does not want postage size CE's; CE's are only over larger tracts of land	CE document very strong only 2x in 16 years has CE been revised; CE required for parcels >1/2 acre (creation, mitigation); Inspector goes out every 3 years to look at CE	No; CE on plat dedicated to WMD or HOA for perpetual maintenance; Osceola County does not want to take on that responsibility or ownership	No	Yes

Question	Topic	Orange County	Leon County	Alachua County	Hillsborough County EPC	Osceola County	Seminole County	Volusia County
35 a	Do you have a Code Enforcement Program?	Yes	Yes	Yes	Yes	No, not specific to wetlands	No, not specific to wetlands	Yes; Staff performs research before inspection
35 b	How many wetland enforcement cases/year?	400 - 500	2-3/year	10-15/year, of which 2-3/year go to magistrate	30 - 50/year	System does not distinguish wetland complaint from another	6 cases/year	Several hundred/year
35 c	Most common wetland enforcement?	Lakeshore impacts	Residents altering their property with no regard for County ordinance	Vegetative clearing	Vegetation removal & some fill violations	Not categorized	CE impacts; PSF fill in wetlands & beach fill on waterfront property	Pine flatwoods, swamps, waterfront buffers
35 d	What department handles enforcement?	Environmental Staff	Code Enforcement Board	Environmental staff	EPC staff	Code enforcement; Refer project to State if wetland impacts are involved	Code Enforcement Department	Environmental Staff
35 f	How many staff are needed to facilitate enforcement?	2 to 4	3 Compliance inspectors conducted by Environmental staff; Staff conducts inspection to verify violation, then processed by Code Enforcement Board	2	6 staff in this section: 2 in Enforcement & 4 in compliance/complaint investigations; If compliance is not achieved, then project goes to Enforcement staff	Total of 6 inspectors + 1 supervisor	Total of 8 are allocated (5 Sheriffs, 2 staff from Environmental Services & 1 Planner)	Two, but any environmental staff can handle cases
35 g	Enforcement case backlog?	Yes	No; Process does not allow for a backlog	Rare (most cases resolved within 30 days)	Yes, not sure of #	No	200 cases but not all of these involve wetland impacts (25% of cases go to BOCC of which 25% get fined)	100 cases from last year are still open; 10% of all violations go to Code Enforcement Board
	Enforcement fees	Fees are dependent on violation	\$250/day/offense - 1st time offense and \$500/day/offense for repeat offenders	Fines + Administrative fees (to cover site inspection) + restoration/mitigation	Penalties, plus recovery of economic benefit of non-compliance and reimbursement of costs/expenses	Not for wetlands; Refers to State for enforcement		

Question	Topic	Orange County	Leon County	Alachua County	Hillsborough County EPC	Osceola County	Seminole County	Volusia County
31	Flood prone/Floodplain Protection during Wetland Review	No	Yes	Yes	No	No	No	No
29	Do you evaluate large regional wetland systems? If so how?	No	No	No	Yes; Chapter 1-11 details cumulative & secondary impacts	Yes; Evaluate wetland as a whole, not merely subject parcel; If wetland offsite is Class I, must provide a buffer for the subject parcel	No; Except in Wekiva Areas	No
13	Ordinance Weaknesses	Outdated verbiage, references ratios, not clear on process or avoidance/minimization, Classification system	Agricultural exemptions lead to too much confusion	Addressing agricultural activities that do not follow BMPs	Private owned lakes	UMAM process	Many people are not aware of CE on their parcel & impact the wetland CE area; Need more public education; Buffers are confusing to public	Outdated: References ratios (County uses UMAM), needs to be rewritten to reflect current practices
	Ordinance Weaknesses	Conservation area used in lieu of wetland, need better definitions, lacks resource base for impacts (ex., boat ramp impacts require CAI & shoreline permit)		In 2005, County updated buffer requirements but did not address agriculture so lost buffer protection to agriculture				There is a concern that revising the wetland ordinance may open up the existing rules to be weakened resulting in less protection to wetland systems.
14	Ordinance Improvements?	One Ordinance to cover all proposed activity in wetlands & surface waters; Remove vagueness, improve definitions, consider exemptions	No improvement recommended	Ordinance works well. No improvement recommended.	No improvements recommended.	More stringent rules than state requirements; too many loop holes and complications	Incorporate 15' minimum buffer; Obtain wetland delineation earlier in process (currently, not required until site development application begins)	Increasing buffers to protect species & habitat; CE for remaining wetlands; Clarify that wetlands include surface waters; Clarify buffer language
15	Ordinance Strengths	Mitigation required for all impacts	Strong Comp Plan helps with Ordinance; BOCC must evaluate any appeals with guidance of existing rules it is not subjective	Avoids policy & has strong buffer standards	Chapter 3 - Basis for Review Reasonable Use, Strict avoidance policy	Court backing due to lawsuit	Perpetual CE on larger parcels/subdivisions with standardized template & disclosure to HOA	Avoidance/minimization criteria is strong (found within Chapter 72-887, Article III, Division 11)

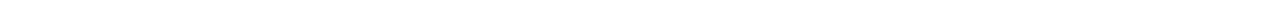
Question	Topic	Orange County	Leon County	Alachua County	Hillsborough County EPC	Osceola County	Seminole County	Volusia County
16	Property owner's reasonable use	For PSF parcel, reasonable use is to build a house	Maximum impact is 5% which has been determined to be a "reasonable amount"	Allowance for minimal economically viable use of property	Chapter 3 - Basis for Review	Conducted on case by case basis; Depending on site, work with each property owner to minimize wetland impact & allow reasonable use	Education	Avoid/minimize
25	Staff Training	Provide mentors; Job shadowing; Constant communication & oversight	Weekly meetings with all staff; Project status w/ staff presenting their projects and open discussion; Fortunate to have very experienced staff	Experienced staff; Consistent w/ training; Shadow co-workers; Attend FDEP/WMD training	Section meetings held every other week; Open discussion of case studies	Experienced staff	Standardized checklists are used; Education with training all staff; Staff meetings	Discussions about projects & any issues & how code applies to the projects; Team approach
25	Process Approach for Predictability & Consistency?	Lots of work instructions for staff; Lots of meetings about projects	Weekly meetings with all staff; Project status w/ staff presenting their projects and open discussion; Fortunate to have very experienced staff	Team up (two people on site inspections)	Keep same staff on project; Staff assigned to geographic locations	Experienced staff with same training	Standardized checklists are used; Education with training all staff; Staff meetings	Hard to guarantee consistency; Rely on Ordinance; Numerous discussions amongst staff
26	Ordinance Effectiveness Evaluated?	Supposed to be evaluated every 10 years but this has not occurred; Has to be outsourced because staff too busy with existing projects	No	Track parameters such as: how many wetlands impacted every year, # of applications, # of acres impacted, # of acreage avoided, # with CE	Charts provided with wetland impacts (proposed vs authorized) with CE acreage	No	No	No, but they do track # of permits & # of acres authorized each year and funds received for buffer impacts
27	Annual Report to BOCC	No	Yes; Annual report to BOCC for all services within the County; Simply big picture of each service area	Yes, since 2018	Yes; To EPC Board every Fall	No	No	No

Question	Topic	Orange County	Leon County	Alachua County	Hillsborough County EPC	Osceola County	Seminole County	Volusia County
28	Notification to Adjacent Property Owners?	No	No (only for site plan/land use/rezoning requests)	Only for proposed development applications; Not for wetlands	No	No; Only for rezoning requests	Not specific to wetlands; Any development project includes 500' notification to adjacent property owners based upon property appraiser website with 15 day comment period	No
33	Do you evaluate future viability of wetland system when considering wetland impacts?	Looks at existing conditions using UMAM	Avoid/minimize then 5% maximum allowed with impacts to low quality wetlands	Not in Ordinance to consider	Yes, but no regulation with respect to this, if remnant wetland will not be viable then request & obtain mitigation	Quality UMAM score takes this into account	Buffers are designed for system to be successful	Not specifically; Simply look at UMAM

Question	Topic	Orange County	Leon County	Alachua County	Hillsborough County EPC	Osceola County	Seminole County	Volusia County
	<b>Summary</b>	Currently Ordinance works and staff is familiar with it; Existing process lacks electronic submittal, LDMS system does not track: proposed, avoided/minimized, authorized acreage, type of system, UMAM score, mitigation etc., Class I, II, & III do not equally protect all wetlands	Applicant's can apply online & pay fee either online or over phone; permits valid for 3 years; No BOCC approval required; Administrator approves all projects; CE with management plan	Value all wetlands; no separate JD process; CE only for large tracts; resolve non-compliance w/in 30 days; buffer protections greater than FDEP/WMD; database tracks acreages (proposed, authorized, minimized & mitigated); annual report to BOCC	Ability to authorize projects in the field w/ carbon copy; Staff can send RAI w/ peer review; Director or Executive Director approval w/in 15 days; strict avoidance, reasonable use and basis for review; Inspector conducts compliance inspection of CE every 3 years	Ordinance is result of lawsuit; Uses Classification system with classification based upon UMAM score; No CE & no mitigation requirements; Buffer requirements based upon wetland classification; staff approval for all project with DRC	CE not required for PSF parcels; Use simple standard templates for all documents (RAI's Permits, CE) In 2022 a Natural Resource Officer was hired after doing without this staff for 14 years.	Staff can: send RAI w/out supervisory review & authorize permits; Staff can write/send stop work order or NOV; Environmental Manager reviews every case that goes before the Code Enforcement Board
	<b>Database</b>	LDMS (Fast Track Portal is where public can view permit); Application must be hand delivered, mailed, or emailed, then OC staff scans & uploads into LDMS	Permits are managed in Accela and boundaries delineated in GIS if a CE is included	County Portal	Electronic application submittal (Database can track: applicant, proposed impact, authorized impact, avoided impacts, CE acreage)	Permits managed in Accela; No hard copies allowed	Application submittal by electronic or hard copy	Electronic (online submittal)

## **Appendix D.**

### Consultant Feedback Matrix



## Appendix D. Consultant Feedback Matrix

Topic:	Recommended Changes to OC Ordinance	Areas of the Ordinance that are unclear
<b>Comments</b>	OC process is redundant to State; Jurisdictional Determination should be same as State; Identify systems that are most valuable in OC & map them; additional requirements should only apply to those valuable areas	Classification system; Ordinance is vague & lots of redundancy; Requirements for mitigation for small isolated wetlands & man-made ditches
	Class I, II, & III are not needed; why is their a tiered system? Why 40 acres? Why 5 acres? What is the science behind the sizes? Suggest streamline more like state/federal isolated vs connected	Habitat suitability index is this done? Everything by UMAM not ratios; habitat conservation not allow is vague unless in public interest; what requires mitigation?, OC requires greater mitigation than state & federal; need clear definitions for when mitigation is required;
	Need better definitions, Ordinance is not enforced as it reads; classification system is outdated; tighten rules up; Classification, mitigation, wetland definition, buffer language in Comp Plan but not in Ordinance	Definitions; Classification & mitigation; Wetland definition is not correctly codified w/ state rule; Buffer language is only in Comp Plan and not in the Ordinance
	Ordinance should be repealed; Many aspects of Ordinance has no merit; Revise definitions; Clearly define when a permit is required, avoidance & minimization requirements, and processing timeframes	Word smith the Ordinance
	Description of isolated vs not isolated wetlands; interpretation of upland parcel w/ small wet prairie on the site once you place a buffer there is no room for any surrounding use by the property owner; small isolated wet prairie lacks hydrology & ecological value; for example permitting in Wedgefield is very confusing	Yes, see above
	Need to focus on areas within OC of high ecological value; Use state definition for wetlands; Some definitions in Ordinance are not enforced at all; Comp Plan is aspirational document & everything in Comp Plan is not in Ordinance which creates a huge disconnect; Mitigation references ratios	Not well defined; OC needs to establish goals & policies; Ordinance needs to match Comp Plan
	Combine CAD & CAI and run concurrently; performing CAD & CAI separately adds time & \$\$ to every project; Need to have the application & JD process as one; Class I, II & II are not conducive to projects and system does not make sense; Exemptions for upland cut surface water or isolated wetlands; Mitigation required by OC when not required by State/Federal process so this increases costs & time; Mitigation banks often do not have small amounts of credits available so can be very costly to purchase	Need definition for significant & productive wetlands; Need to better define avoidance & minimization
	Things have changed a lot in 20 years, classification system is archaic & gives people the idea that a Class I wetland is pristine when this is not always the case; Need to address wetland quality; Class I review currently is very expensive and takes a long time for low quality wetland systems	Avoidance & minimization



## Appendix D. Consultant Feedback Matrix

Topic:	Strengthen Ordinance	Areas of Ordinance to eliminate	Classification Problematic
Comments	Permitting based on wetland condition, size, context in landscape & development; Focus on landscape perspective; Separate code from process related & technical	Eliminate: Classification system, requirements for mitigation for small isolated wetlands & man-made ditches, BOCC approval, CAD & redundancy w/ State process	Eliminate: classification system; eliminate BOCC review; eliminate separate CAD & CAI process; eliminate the need for mitigation for upland cut ditches
	Follow WMD if isolated wetlands <0.50 acre in size; need X from State & Federal and Y from OC, EPD; OC, EPD requires more compensatory mitigation	Remove mitigation ratios from code, this is outdated; Add UMAM; Follow WMD; Clarify what requires mitigation	Yes
	Update code - ratios are not used but still in the Ordinance; State law requires the use of UMAM; Need to get policy & procedures written into the Ordinance	Classification system	Problematic because low quality isolated wetland may be considered Class I; Need to look at quality, not merely location; Pristine conditions should be valued over degraded sites
	Definitions, key terms need to be defined, need to provide process to improve consistency & predictability and how to obtain a permit	Entire Ordinance poorly written; Eliminate the classification system; Be more in line with State process	Class I requiring BOCC approval is problematic; Code does not state that Class I or Class II have to go before the BOCC for approval; Cow ponds are considered Class I wetlands by OC EPD; Very onerous
	Losing too much wetlands in OC especially high quality wetlands	Yes, see above	Difficult to permit low quality Class I site and move forward to BOCC approval, even with a site dominated with exotics (such as cogon grass)
	Currently there is no distinction between wetlands in a pristine area vs wetland in an urbanized area; OC needs to acknowledge climate change and sea level rise and make informed decisions; Orlando could eventually take in climate refugees from South Florida	Yes, eliminate the use of ratios for mitigation and putting money into a fund	Inaccurate way to determine ecological value of wetlands; Small wetland may be very important for species and conversely a large wetland may be low quality
	Remove classification system	Implement exemptions to be more in line with State	Classification by OC does not always make sense; Large, low quality wetland does not necessarily mean the system is worth preserving; If goal is protecting high quality systems, then classification system does not work; Upland cut ditch connected to a system could be considered Class I by OC
	Need to provide applicants a clear code that explains what is permissible	Remove the classification system, use UMAM & look at quality & function of a wetland; CAD process is onerous to property owners; CAD has \$695 fee & no value added	BOCC approvals become problematic with Class I approvals because all Class Is are viewed as pristine (even if not); Very difficult to get OC staff to take a project to BOCC; Takes lots of \$ to develop a package suitable for OC staff to take to BOCC when project should simply be reviewed for avoidance/minimization and permitted by staff

## Appendix D. Consultant Feedback Matrix

Topic:	Eliminate Classification System	Add areas for protection	Add exemptions
Comments	Evaluate wetland systems with regard to values, resources, size, geographic location & quality	Perhaps adding riverine corridors	Upland cut ditch impacts & small isolated wetland impacts; Streamline process similar to ACOE Nationwide Permit; OC staff should review most commonly requested permits; Exempt activities need to be added to Code
	Yes, follow State system isolated or connected and by size and location	Yes and include in definitions	Work that involves replacement; isolated wetlands less than 0.50 acre should not require mitigation but should still require permit
	Yes, system is outdated and needs revision, not sure how it should be accomplished; UMAM does not account for scarcity of a system in OC especially those including protected species	Yes - Karsts, springs & areas that will be susceptible to climate change within OC	No easy out from OC permitting; FDEP/WMD has exemptions so OC has opportunity to take a more vigorous look at the project
	Yes, eliminate classification system	OFWs, Butler Chain of Lakes; Perhaps Wedgefield lots	Yes especially for Wedgefield properties - allow X amount of impact on a platted lot; <1/2 acre isolated wetland, man-made upland cut ditch impacts, man-made surface water impacts
	No, need to have an assessment process where it doesn't require going to the BOCC; Class I should be protective if the system is good quality	Yes, more protections for karst & riverine systems would be good; Econ has some grandfathered areas and there is more pressure to develop in the Econ; Recommends more protections in Wedgefield	No, there are already too many opportunities to lose wetlands and wetland quality; Too easy to fill in Wedgefield where there are many sites that are entirely wetlands
	Revise classification system to evaluate wetland's ecological value	Consider to target certain areas of great ecological value; Include riverine, spring sheds & karst areas too; Orange/Lake County basin has karst & sinkholes; Include special protection areas for spring sheds & include flow characteristics & boundaries; Need to consider climate change	No; Wetlands are important to ecology; Entire industry is regulatory driven
	Yes; Use UMAM & to quantify the quality	Engineering standpoint; Does not need to be added to OC EPD since WMD has increased water quality treatment requirements in certain basins; Protection exists at the state level	Yes, for upland cut ditch and no mitigation requirement; X square feet of fill w/6,000 sf for clearing; 4,000 sf for fill in isolated wetlands for Private Single Family homesite; Ditch/swale crossing for driveway (Wedgefield & many other areas could utilize this)
	Yes	Need more consideration for isolated systems especially within a mosaic of isolated systems	Conveyance systems, ditches cut through uplands; EPD could still review all projects with a different process

## Appendix D. Consultant Feedback Matrix

Topic:	OC assume State Permitting why yes/no	OC adopt State/Fed process	OC wetlands need added protection
<b>Comments</b>	No; OC would need more staff; Too much backlog already; Will be too confusing for OC staff to interpret State & Federal regulations on top of their own	State process is working smoothly; Eliminate redundancy	Large connected wetland & riverine systems have higher ecological value; Isolated wetlands that are embedded in a natural upland community would have high value
	No; Extensive training of staff would be necessary; ACOE requires PN at beginning; State does PN at the end; OC would need extensive training; DEP is already overwhelmed with the Federal assumption	No comment	Riverine systems, forested systems because they take so long to get established, marshes, then isolated systems
	No; Currently, FDEP is having a hard time administering the Federal 404 program; OC does not have enough resources, enough personnel and assumption will be too much of a strain on staff; Assumption will have no benefit to OC or its resources	Adopt General Permits	Need to look at ecological value and replace the classification system with UMAM and other indicators
	No; OC would have no oversight; Need to have higher level to go to if extended review is needed; No basis in rule or science would just become a political process	Include exemptions (1/2 acre isolated wetland & upland cut ditch impacts) & general permits	Every site is different; Goal is no net loss of wetland function; Can't ignore property rights
	Maybe; OC would slow down their permitting ability; OC needs to tighten up their interpretations first before taking this on; Multiple agencies should review projects	isolated vs connected wetlands	More protection for wet prairies
	No advantage to OC for assumption; Federal taxes do not go down because OC assumes the Federal 404 permitting process; Does not make sense from: resource standpoint, efficiency, multiple layers of review are good to keep oversight and agencies in check	No comment	Wekiva/Econ, karst, Butler Chain, Lake Hart, Lake Mary Jane, Boggy Creek, Shingle Creek; Manage wetland for water quality; Need to protect wetlands for potable water; OC needs to determine the important wetlands, map them and include the added protection in OC Ordinance
	No; OC does not have enough staff; no benefits; Timeframes already take long enough; Also already a cluster with FDEP taking over the Federal S404 program	Exemptions, concurrent process for CAD/CAI	All wetlands deserve protection; Look at UMAM score and connected system to larger system should be harder to permit
	No; unless they add staff and use an independent set of eyes to evaluate those permits; Don't wear the OC hat while doing a FDEP permit	Redundant to have to submit for permits for all three entities; Effort should be placed on compliance to make sure permittees are actually doing what they were proposing	Wekiva & Econ have strong protection; Place importance on regional landscape & quality; Larger systems should have a high value if quality is high

## Appendix D. Consultant Feedback Matrix

Topic:	OC wetlands need added protection (Cont)	Increase densities in Urban areas w/ wetland impacts	OC add easier process	Combine CAD/CAI
Comments	Wetland that are connected to larger systems; Osceola County has good language for this	Two Views: Some urban wetlands add value to character of the community; If degraded, low quality wetland is in back of parking lot then infill in urban area	Create exemptions for processing less valuable wetland impacts (upland cut ditches & small low quality isolated wetlands)	Yes
	Large systems, riverine systems, bridge systems to keep wildlife corridors & water quality in lieu of simply filling a wetland	In a dense development could be good; but not good for wildlife; if part of a larger system then no	Wetlands that are less than 0.50 acre, wetlands dominated with exotic/nuisance species, wetlands surrounded by dense development	Yes
	Wetlands that support protected species, consider wetlands types that are rare in OC, or areas with significant recreation opportunities; True high quality wetlands	In-fill preferred over sprawl; Postage stamp wetlands surrounded by development without protected species or special functions should be allowed for fill and encouraged	Opposite of prior response; hydrologically isolated, truly degraded systems, wetlands surrounded by development; could develop a general permit category for systems	No (keep two separate process)
	Larger regional systems & mosaic systems; Ecosystems that can sustain wildlife and diversity over time	In-fill is a good thing; Otherwise promoting urban sprawl	Urban in fill, upland cut ditches, altered systems like cow ponds, isolated wetlands less than 0.50 acre, any that are isolated from natural areas or surrounded by concrete, areas with 70% or greater exotic species	No (too complicated with the way OC handles permitting)
	Riverine systems, lake front, and those that provide wildlife corridors	Depends on wetland quality; If low quality area, lacks hydrology and full of exotic/nuisance vegetation then yes; encourage more infill via exemption	Only small isolated short hydroperiod wet prairies could be considered for less regulations; No wetland systems should be easy to impact	No
	Karst, riverine, systems rare within OC such as sawgrass marsh (by UCF), systems that support protected species, pristine wetlands (scored by UMAM), areas that provide recreational opportunities, areas that affect the aquifer	small dense footprint with efficient use of infrastructure within the urban service area; Orlando area becoming climate refugee need to keep the development within Urban Service area	Areas surrounded by development, hydrologically isolated systems, urban areas, degraded low quality systems, those degraded systems within the Urban Service Area	No (keep separate; first need to know where the wetlands are, then perform site design)
	All wetlands are not created equal; Assess with UMAM and use avoidance & minimization	Especially hydrologically altered systems; development should support infrastructure	No	Yes (concurrent process like the State/Federal process)
	Need to look at wetland quality, location & functional values the system provides	Especially systems with low UMAM score that are low quality; those systems with concrete all around them	OC should consider creating special basins/subbasins map to prioritize areas by region	Yes (should not have to pay for two separate permits; Have one process)

## Appendix D. Consultant Feedback Matrix

Topic:	When should OC perform CAD	When should OC perform CAI	Who should approve permits
Comments	No need for OC wetland delineation if project is getting FDEP/WMD permit as process is redundant and OC process costs time & money	Concurrent with State/Federal application process	Staff review & one supervisory check; Need to empower experienced staff
	Upfront to determine size of wetland and location of wetlands to design project	When site plan is designed & engineered	Isolated wetlands, simple projects & all PSF development, repair/replacement projects
	Upfront; Saves time, design effort and money; Before major actions, ex. before zone and comp plan amendments	After preliminary site design; To better address avoidance/minimization before final design	Smaller projects; Infill urban projects; General Permits
	Upfront; However do not require a CAD if site has no wetlands on the parcel	After site plan is designed; Concurrent with preliminary subdivision plan before submitting to building department; OC should have a condition in land use that says site plan does not mean impacts on site are approved	Staff only: PSF parcels; Staff + Supervisor all other projects; Staff issue all but really large acreage impacts; Ex., in Volusia County, staff issued a project with 182 acres of wetland impacts
	As early as possible; Ideal to do a CAD on all OC parcels so property owners are aware that there are wetlands on the parcel; CAD not needed if parcel is 100% wetland, simply acknowledgement that entire site is wetlands	Before applying for Building Department permit	Staff should issue small, easier projects
	Prior to Planning & Zoning & any Comp Plan Amendments	After preliminary site design & after CAD	Staff should issue projects in urban areas, low quality wetlands regardless of size; eliminate classification system
	Only require a CAD for large development projects, not for small projects; Combine CAD & CAI	One stop within Building Department	Staff + one Supervisor: All projects
	When application is submitted; Handle as part of the permitting process	Current with State & Federal application process	Allow Staff or Supervisor to issue dependent upon wetland impact

## Appendix D. Consultant Feedback Matrix

Topic:	BCC approve permits	Buffer size
Comments	None; Very ineffective political process; BOCC does not review a structural engineer's analysis on a building, why should they review/approve a wetland impact?	One size does not fit all; Need to evaluate: type, size, native natural vegetation; Overall 25' avg w/ 15' min works; use state buffer would not recommend greater than 50' max/15' min
	Controversial projects, large subdivisions & roadways	25' would be consistent with WMD & would streamline review; Buffers not required by Feds; No buffers should be required for disturbed sites; include 50' to filter waters
	Large extraordinary projects, controversial projects	Need to look at where the site is, location size, proximity; every wetland should have some buffer; perhaps 50' mandated with no average
	None; BOCC has no understanding of wetlands; Have BOCC handle disputes	Same as State 15' minimum 25' average; larger buffers on pristine sites and adjacent to OFW's; no buffer on disturbed sites
	None; BOCC review is too time consuming & they do not know enough about the projects or wetlands	Depends on site and location; In Wedgefield 25' buffer may be difficult; Consider fencing & signage to protect wetlands areas too; large developments have more room to accommodate the larger buffers
	Pristine/high quality systems or those in a special type of habitat	Range buffer based upon size & quality; Need consistency with buffers; Wetlands buffer should be proportionate to wetland size
	None; BOCC not familiar w/ the Ordinance or wetlands; Politics is involved with BOCC review	OC requires buffers but they are not in Ordinance; 25' average with 15' minimum is consistent with State
	None; BOCC is wrong entity to review; They have no knowledge of ecological value	Buffers must be maintained & managed; 25' average, 15' minimum works but needs flexibility depending upon location & quality

## **Appendix E.**

# Non-Governmental Organization Feedback Matrix

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Appendix E. Non-Governmental Organization Feedback Matrix

Question	Yes/No	Percentage	No Feedback	Feedback	Suggestion
Familiarity with OC Ordinance	No	100%		Reviewed Ordinance before interview	
Changes needed?	Yes	57%	43%	Conservation area, UMAM, Classification, scarcity of habitat, State wetland definition	
Unclear or Vague?	Yes	14%	86%	inconsistencies btw Ordinance & Handbook	
How should the ordinance be strengthened?	Yes	57%	43%	listed plant species in 15-379, avoidance/minimization, in basin mitigation	
Should any part of the ordinance be eliminated?	No	86%	14%	Conservation area confusing change to wetland	
Should OC keep the classification system?	Yes	43%	29%	Change classification: equal protection for ALL wetlands; size within classification not appropriate; isolated wetlands important regardless of size	
Should additional sensitive features be protected (karst, riverine systems)?	Yes	71%	29%	Add: Reedy Creek; aquifer recharge areas, canal connection between Johns Lake to Lake Apopka, OFWs, riverine corridors, larger systems	
Should exemptions be added?	No	57%	29%	Yes for < 0.5 acre wetland & GP for restoration	
Should requirements be better stated in ordinance?	Yes	29%	43%	From public interest, cumulative impact & UMAM perspectives	
Should OC assume state/federal permitting?	No	100%		separate review is good; too expensive to implement; too much to ask OC employee; too political	
Aware of another county ordinance that is more protective?	No		100%	NGO's not familiar w/ ordinances	
Is there a hierarchy of wetlands that deserve protection?	Yes	57%	14%	No: All wetlands need protection, every wetland has a role; Yes: pristine habitats, t/e species usage, rare habitats, scarcity & historical extent, functional value	
Should wetland impacts be allowed in the urban area to increase densities?	No	57%	14%	No: pocket systems provide habitat connectivity, all wetlands need equal protection, wetlands provide public amenity; Yes: if low UMAM, could provide mitigation incentive if low quality	
Should OC make some wetlands more difficult to impact?	Yes	43%	14%	Yes: rare systems, wet prairies, look at historical vs present type of systems found in OC; systems with greatest loss need greater protection; higher UMAM score, have recharge; No: All wetlands are important	
Should OC make some wetlands easier to impact?	No	29%	57%	No: All wetlands are important; Yes - low quality UMAM score	
Suggestion to protect more valuable wetlands?			43%	greater ratio for mitigation; based upon UMAM score	
Suggestions for wetland impact permit predictability w/ OC?			86%	training	
Factors to be considered for property owner's reasonable use?			71%	Not sure; look at case law; none	
Any instances where Avoidance/Minimization need not apply?	No	29%	57%	Yes - if project is exempt avoidance/minimization not necessary	
Should OC adopt a percentage of wetland impacts?	No	71%	29%	Noted by one NGO as used in Broward County for PSF sites	
Should adjacent property owners be notified?	Yes	71%	14%	Notification: As soon as possible;	
Notification distance?				Distance: immediate adjacent property owners; two adjacent property owners	
Are upland buffers important for wetland protection?	Yes	100%			
Appropriate size buffer?				25' minimum; 50' minimum; not sure	
Should OC adopt additional buffers for OFW, protected species habitat, etc.?	Yes	71%	29%	Yes: for prescribed fire; threatened & endangered species	
Should the OC wetland ordinance protect rare upland habitat?	No	71%	29%	No - focus Ordinance on wetlands; place in land development code;	
Increase all buffers throughout OC to 50'?	Yes	29%	71%	follow FWC; greater is better	
Should conservation easement amendments be allowed?	Yes	43%	29%	Yes: be strict; No - keep CE; problematic if not managed function decreases, exotics take over;	Need one template for CE; Ordinance discourage amendment
UMAM & secondary impact analysis adequate to protect large wetland systems?	Yes	71%	29%		
Should a cumulative impact analysis be required?	Yes	57%	43%	in UMAM; include flooding; Handbook 2.10.8	
Combine CAD & CAI?	Yes	14%	71%	Yes - if you know you have wetlands on the parcel	
When should a CAD be completed?	Yes	43%	57%	As soon as possible	
When should a CAI be completed?	Yes	43%	57%	Before Building Department Permit	
Should the CAI include flooding analysis through EPD?	No	43%	43%	Keep in Engineering Department or w/ Floodplain Manager	
Applicant's Handbook awareness?	No		100%		



Appendix E. Non-Governmental Organization Feedback Matrix

Question	Yes/No	Percentage	No Feedback	Feedback	Suggestion
Applicant's Handbook helpful?			100%	Reviewed Handbook appears useful	
Does OC EPD review applications timely?			100%	Not familiar	
Recommendations for streamlining permit review	No	14%	86%	no streamline process thoughtful review is needed follow procedures	
When should permits be staff issued?	Yes	57%	43%	Yes: routine projects; non-controversial projects, most projects	
When should permits be BOCC issued?	Yes	86%	14%	Controversial projects, lots of wetland impacts, location size or functional value; No - don't waste BOCC time	
Should BOCC-approved permits occur within Consent Agenda?				If BOCC suggest Consent Agenda but allow for appeal	
Should BOCC-approved permits be issued via Public Hearing?				For appeals	
Rule interpretation consistency between OC reviewers?			100%	Not familiar	
Does OC EPD apply 62-340 & 62-345, F.A.C properly?			100%	Not familiar	
Should OC adopt a new classification system?			100%	Not familiar	