

**BALD EAGLE HABITAT MANAGEMENT PLAN
BALD EAGLE NEST SJ-(TBD)
HyDry East at Nocatee**

**ST. JOHNS COUNTY, FLORIDA
November 2018**

I. INTRODUCTION

This Bald Eagle Habitat Management Plan (“Plan”) for bald eagle nest SJ-(TBD) is presented on behalf of Hydry Company, LLC (“Owner”) for the HyDry East at Nocatee project. The Plan is submitted in accordance with Subsections 4.01.10(C)(4) and (5) of the St. Johns County Land Development Code (“Code”) as an alternative, site-specific Bald Eagle Management Plan for an approved Development of Regional Impact (“DRI”).

The HyDry East project represents approximately 544 acres located in Sections 20, 41, 49, 51, 66, 67, 68 and 69, Township 4 South, Range 26 East in St. Johns County, Florida (**Figure 1**). Further, the site lies north of Nocatee Parkway (“County Road 210”) and immediately west of the Intracoastal Waterway (“ICW”).

On 30 May, 2018, biologists from Environmental Services, Inc. (“ESI”) confirmed in the field a nest location and that the nest displayed characteristics consistent with those of an eagle’s nest. The ESI biologists did not observe any eagles at the nest site on 30 May 2018. However, a representative of the landowner has observed at least one (1) bald eagle visiting the nest. The property has been evaluated many times in the last eight (8) years, and the nest was not previously observed. The 2017/2018 nesting season appears to be the first attempt at nesting at this location.

II. NEST LOCATION AND DESCRIPTION

Bald eagle nest SJ-(TBD) has been located by global positioning system. The nest is located at approximate latitude 30.1408 North and longitude 81.3918 West, approximately 120 feet west of the shoreline of the ICW. The nest is located in a live slash pine (*Pinus elliottii*) tree, approximately 120 feet tall and 27 inches diameter breast height (“DBH”). The nest is approximately four (4) feet in diameter and three (3) feet in depth. The nest is densely constructed of small hardwood and pine branches and is located about 80 feet above the ground, below the canopy of the slash pine. The nest is located in a mixed pine-mesic hardwood upland area adjacent to mixed forested wetlands associated with the shoreline of the ICW. Other slash pines in the vicinity are of the same approximate height as the nest tree.

III. BALD EAGLE HABITAT MANAGEMENT PLAN

The Owner has developed this Plan in accordance with Code Subsections 4.01.10(C)(4) and (5). Those subsections provide if a new (not previously or historically documented) bald eagle nest is identified on undeveloped land within an approved DRI, development of the land shall proceed in accordance with either: (i) the standards and guidelines of Code Section 4.01.10; (ii) an alternative, site-specific Eagle Management Plan approved by the County Commission; or (iii) a vesting determination. The Plan is in conformance with the second provision set forth above.

The Owner has developed this Plan in accordance with the May 2007 U.S. Fish and Wildlife Service (“USFWS”) National Bald Eagle Management Guidelines, September 2007 Bald Eagle Monitoring Guidelines, and through consultation with the USFWS to maintain an environment suitable for joint use by eagles and man. The details of this Plan are outlined in the following sections.

IV. MANAGEMENT GUIDELINES

The intent of this section is to outline measures intended to maintain and/or improve the environmental conditions for bald eagle nest SJ-(TBD) in St. Johns County by minimizing potential detrimental impacts, particularly during the nesting season, defined as beginning on October 1st or when eagles are present for nesting purposes, and as ending on the earlier of May 15th or the date of fledging (“Nesting Season”). Bald eagle nest SJ-(TBD) will be protected by a Protection Zone (Figure 2), which will have specific use restrictions, as set forth below.

A. Protection Zone

The Protection Zone is defined as the approximately 31.4-acre area consisting of a Conservation Zone and a Residential Area lying within a radius of 660 feet from the base of the bald eagle nest tree. Of the approximately 31.4 acres within the Protection Zone, only approximately 19.26 acres are controlled by the Owner. Approximately 11.24 acres of the Protection Zone are within the ICW, and approximately one (1) acre of the Protection Zone is in residential development east of the ICW and outside the Owner’s control.

Of the approximately 19.26 acres within the Protection Zone controlled by the Owner, approximately 5.67 acres occur within the Conservation Zone, which lies within a 330-foot radius of the nest tree where no development or construction activity is proposed. Approximately 13.59 acres occur within the Protection Zone, which lies within a radius of 330-feet to 660-feet from the nest tree. Within the Protection Zone, approximately 9.21 acres of single-family residential development is proposed (the “Residential Area”). This Residential Area will consist of all or a portion of approximately 17 residential lots and an access road serving those lots and additional lots to the south.

No vegetation removal, other than the minimal clearing necessary to construct all or portions of the residential lots, the associated stormwater system and the access road will be permitted in the Protection Zone Residential Area. Appropriate covenants and restrictions advising lot owners within and adjacent to the Residential Area of the conditions and restrictions set forth in this Plan will be recorded in the Public Records of St. Johns County and provided upon the sale or transfer of each lot.

Activities in the Protection Zone (which includes the Protection Zone Conservation Area and the Protection Zone Residential Area) are as follows:

Protection Zone Conservation Area (0 to 330-foot radius)

1. Prohibited activities shall at all times include:
 - a. Use of chemicals toxic to wildlife.
 - b. Residential, commercial or industrial development, including but not limited to buildings, accessory uses, roads, sidewalks, bike paths, trails and recreational areas.
 - c. The platting of lots except for the platting of open space. Open space includes buffers, common areas, Environmentally Sensitive Areas, Significant Natural Communities Habitat, conservation areas, preservation areas and similar areas.
 - d. Unauthorized human entry. The portion of the Conservation Area controlled by the Owner will be prominently posted with no trespassing/no access signage to minimize human intrusion or disturbance of this area.
 - e. Helicopter or fixed-wing aircraft operation within 1,000 horizontal feet from the nest, to the extent the Owner has control of such operation.
 - f. The shining of searchlights or spotlights into the Conservation Area to the extent that the Owner has control, unless necessary at the request of and in the aid of emergency service personnel. Lighting within the adjacent Protection Zone Residential Area will be down-shielded to minimize light shining into the Protection Zone Conservation Area.
 - g. Removal of native trees or disturbance of native vegetation. Removal of exotic or invasive nuisance vegetation may occur outside of the Nesting Season.

Protection Zone Residential Area (330 to 660-foot radius)

1. Prohibited activities during the Nesting Season include:
 - a. Helicopter or fixed-wing aircraft operation within 1,000 vertical feet and 1,000 horizontal feet from the nest, to the extent the Owner has control of such operation.
 - b. Sound or noise which exceeds the County noise standards, measured at the base of the nest tree. The intent of this standard is to decrease the loud and abrupt noise associated with some types of construction activities, specifically including the banging of dump truck beds and vehicle tailgates.
 - c. All construction activities except those specifically listed in Section 3. a. through m., below. The Owner may request specific permission from St. Johns County Growth Management staff, on a case by case basis, for activities not specifically addressed in Section 3. It is the responsibility of the Owner to demonstrate that any proposed activity is consistent with the May 2007 U.S. Fish and Wildlife Service ("USFWS") National Bald Eagle Management Guidelines, September 2007 Bald Eagle Monitoring Guidelines, and will not pose a risk of disturbance to the nesting eagles.
2. Allowed activities in the Residential Area during the current Nesting Season if the bald eagles have not returned to the nest by February 1st and during the Non-Nesting Season include:
 - a. Infrastructure installation, land clearing and grading, installation of utilities, stormwater facility construction, paving, and similar activities.
 - b. Exterior home construction, including exterior framing, siding, roofing, land clearing and landscaping.
3. Allowed activities in the Residential Area with monitoring as required in accordance with standard protocol, as described in the USFWS *Bald Eagle Monitoring Guidelines* (USFWS, September 2007) (Attachment B) and with additional requirements as described in Section V hereof, *MONITORING*, shall at all times include:
 - a. Surveying and related activities to prepare for construction, with monitoring during the active nesting season (see Monitoring and Reporting sections that follow regarding actions that will be taken

to suspend work activities that may be responsible for observed behavior by bald eagles that is interpreted as abnormal).

- b. Stucco installation. No impact tools or compressor driven air tools are permitted.
- c. Exterior door and window installation. No impact tools or compressor driven air tools are permitted.
- d. Deliveries of materials in support of allowed activities. The use of large cranes for unloading of materials is not permitted.
- e. Driveway or patio concrete pour and finishing. No impact tools or compressor driven air tools are permitted.
- f. Pool deck installation and pool finishing. No impact tools or compressor driven air tools are permitted.
- g. Screen enclosure installation and gutter installation. No impact tools or compressor driven air tools are permitted.
- h. Individual residential lot landscaping and irrigation installation.
- i. Exterior house painting with brush or roller only. No compressor driven sprayers permitted.
- j. Curb and gutter installation. No impact tools or compressor driven air tools permitted. Alternative safety methods for backing will be utilized other than audible back-up alarms for all trucks and equipment.
- k. Movement of soil material with off-road dump trucks (any dirt hauling vehicle that is not street legal in order to be efficient for hauling through rough terrain and is designed with a fixed tailgate). Alternative safety methods for backing will be utilized other than audible back-up alarms for all trucks and equipment.
- l. Normal household and residential activities and uses including, but not limited to, yard landscaping and maintenance, minor house repair, vehicular and pedestrian ingress and egress and passive recreation.

B. Additional Development Standards

- 1. Only the minimal clearing necessary for the development of residential lots, a stormwater system and access road will occur in the Residential

Area. Each lot will be assessed prior to clearing to identify and clearly mark all canopy trees and undergrowth vegetation that will remain undisturbed, and no lot will be entirely cleared of trees and undergrowth vegetation. Within the Residential Area, at a minimum, 50 percent of canopy vegetation and 30 percent of understory vegetation shall be preserved on the lots in the area that lies outside of the building envelopes. This requirement will provide for large trees to remain, thereby additionally shielding the nest tree from residential ground activity and providing an effective visual buffer from the existing and proposed development within the Protection Zone.

2. The Owner will record Covenants, Conditions and Restrictions over portions of the HyDry property within the Protection Zone that regulate the activities listed below. Such Covenants, Conditions and Restrictions shall be recorded in the Public Records of St. Johns County and shall be provided to every homeowner within the Residential Area of the HyDry project area, prior to such owners purchasing their homes. The Owner or a homeowners' association shall be responsible for enforcing the provisions of such covenants. The regulated activities are the following:
 - a. Homes will be 45 feet in height or less; provided, however, that there be no exterior access from above 35 feet.
 - b. Homes constructed within the Residential Area must be painted with colors that blend into the natural environment. All such colors must be approved by a homeowners' association established by the Owner prior to being applied to a residence to ensure compliance with this requirement.
 - c. Activities such as setting off fireworks and other explosive devices, playing music louder than permitted by St. Johns County ordinances, and other activities that cause excessive noise levels shall be prohibited during the Nesting Season.
 - d. Signs notifying residents of the presence of the eagle nest will be posted on lands within the Protection Zone, including along the access road. Such signs shall also be posted on a decorative fence that will be installed along the entire east side of the access road (the side closest to the nest) to minimize entry into the area adjacent to the nest.
3. The number of light fixtures proposed for roadways shall be the minimum for human safety and shall be positioned, mounted and down-shielded in a manner such that the point source of light or any reflective surface of the light fixture is the least intrusive into the Protection Zone.
4. Prior to any construction occurring on the property within the Protection Zone during the Nesting Season, the Owner or its successors will ensure that: (1) construction crews are briefed on methods to minimize

disturbance to the eagles; (2) construction crews understand that they have the obligation to stop work if and when the eagles become disturbed; and (3) construction crews understand that the monitor shall have written authority from the Owner to stop construction at any time the eagles become disturbed. The Owner shall require all on-site construction personnel to read and shall post on all construction sites within the HyDry East property the "Construction Site Protocol" attached as Attachment A. Failure for any construction company or construction personnel to adhere to the protection measures in this Plan shall be reason for dismissal.

C. Other Protection Opportunities

1. The Owner does not own all of the property within the Protection Zone and thus cannot require the homeowners living east of the ICW to comply with the protection standards set forth above.
2. Pursuant to federal regulations and in accordance with Code Section 4.01.10(C)(3), the use restrictions may be released by FWS and the County at any time within a period of five (5) years following abandonment of the nest.

V. MONITORING

Bald eagle activities will be monitored within 660 feet of the nest tree in accordance with standard protocol as described in the USFWS *Bald Eagle Monitoring Guidelines* (USFWS, September 2007) (Attachment B) while construction activities are occurring during the Nesting Season.

- A. The monitoring protocol must be actively implemented during any Nesting Season in which construction activities in the Protection Zone occur during the Nesting Season. Monitoring will be conducted by a biologist that is qualified to recognize key behavioral activities of bald eagles and to properly record those observations on the standard field form. The number of individual monitors will be kept to a minimum in an effort to maintain continuity.
- B. Monitoring will begin prior to each Nesting Season no later than September 15th of each year and continue through May 15th or date of fledging, whichever occurs first. Monitoring will continue each Nesting Season until construction is completed; although the need for further monitoring and/or intensity of monitoring may be re-evaluated following any complete year of monitoring upon written request to the USFWS, Florida Fish and Wildlife Conservation Commission ("FFWCC") and the County. The initial monitoring should be conducted a minimum of two (2) days per week for two (2) hours each day, starting one-half hour before sunrise, to document when eagles return to their territory and resume nesting behavior. Nesting bald eagles will be monitored a

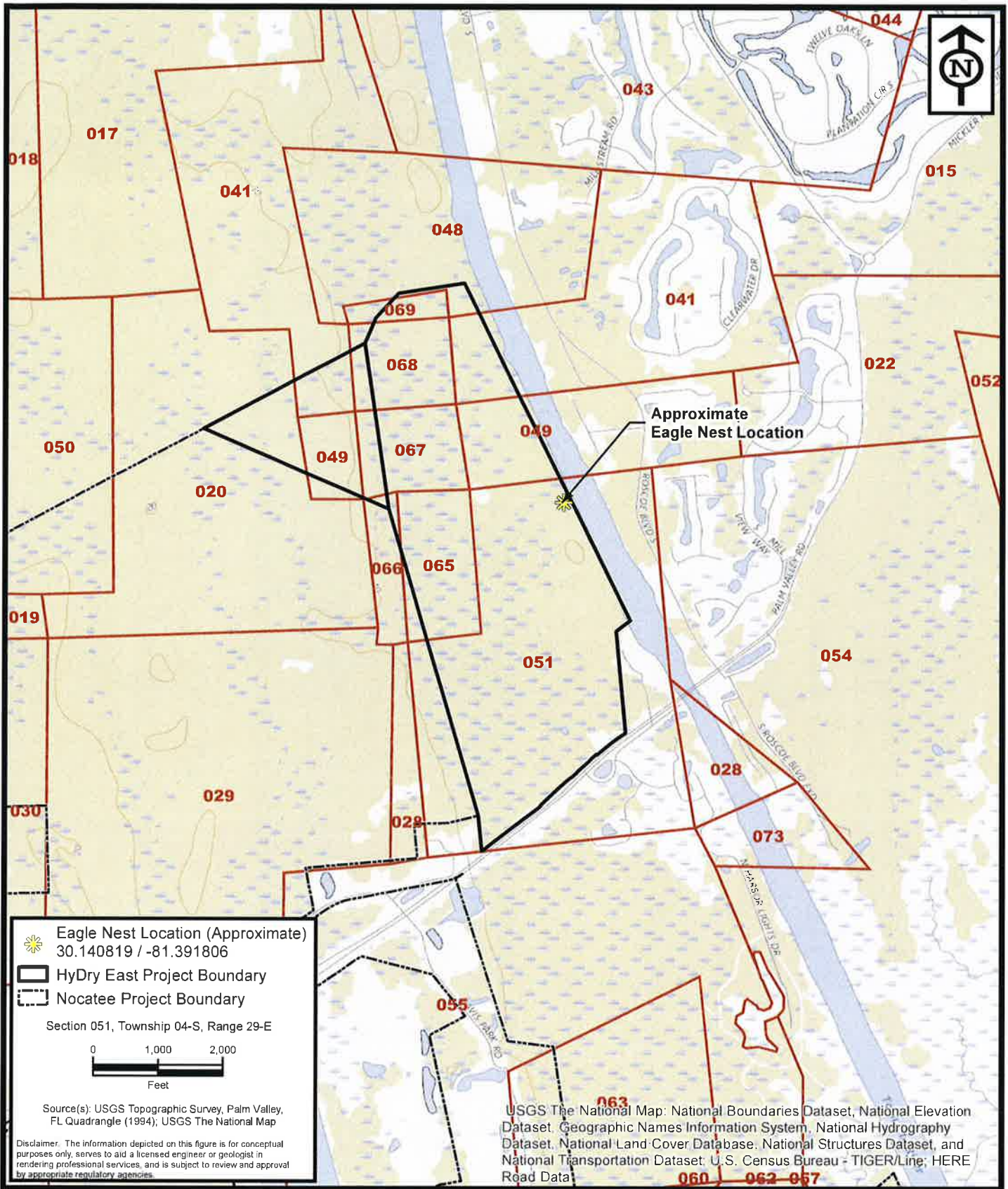
minimum of three (3) days each week and four (4) hours each day from onset of nesting behavior through fourth week post-hatchling. Monitoring is not required on days when no infrastructure development, exterior building construction, or other human activities referenced in this Plan occurs within the Protection Zone. Monitoring frequency may be reduced to one (1) day each week for four (4) hours each day, starting one-half hour before sunrise, beginning five (5) weeks post-hatching and continue until fledging occurs or May 15th, whichever occurs first.




- C. The monitor shall be positioned to observe the nest and construction activities and noise, yet far enough from the nest (*e.g.*, more than 660 feet where possible) to not cause disturbance to the eagles. Monitoring will be conducted from a standard location that allows both monitoring of bald eagle activities on the territory and construction activities that could be interpreted as causative factors.
- D. Additional monitoring may be required if changes in feeding schedule, along with other behavioral indicators of stress, are observed.
- E. The monitoring and construction plans for any nesting territory may be re-evaluated for modifications, possibly eliminating monitoring requirements and permitting all development allowed by this Plan during the Non-nesting Season during any year, if eagles have not been observed using the territory by February 1st of that year or if great horned owls (*Bubo virginianus*) have assumed occupancy of the nest.
- F. The monitor shall keep daily records on the approved data sheet and should use a site plan of the project to prepare monthly maps (emailed) to FFWCC, USFWS and the County, on which to document the specific construction activities occurring within 660 feet of the nest tree.
- G. The monitor shall have written authority from the Owner to stop construction at any time the bald eagles become disturbed.
- H. Pursuant to federal regulations and in accordance with Code Section 4.01.10(C)(3), the use restrictions may be released by USFWS and the County at any time within a period of five years following abandonment of the nest.

VI. REPORTING

The monitor has the obligation to submit a confirmation of nest territory occupancy report within one (1) week of finding positive evidence of bald eagle nest territory occupancy. The monitor will send monitoring reports by e-mail to FFWCC on a monthly basis and to the County on a weekly basis, when construction is occurring within the Protection Zone and during the Nesting Season. The monitor will archive daily monitoring reports for a period of five (5) years. The monitor has the obligation to immediately report (within 24 hours) any suspension of work activities and/or any documented abnormal behavior of bald eagles to USFWS, FFWCC, the

County and the developer. USFWS, FFWCC and the County will coordinate a review of the reported behavior and circumstances associated with any suspension of work activities to make a verbal determination whether construction should resume or be modified, or if monitoring frequency should be increased, followed up by a written recommendation.



 Eagle Nest Location (Approximate)
 30.140819 / -81.391806
 HyDry East Project Boundary
 Nocatee Project Boundary
 Section 051, Township 04-S, Range 29-E
 0 1,000 2,000
 Feet
 Source(s): USGS Topographic Survey, Palm Valley, FL Quadrangle (1994); USGS The National Map
 Disclaimer: The information depicted on this figure is for conceptual purposes only, serves to aid a licensed engineer or geologist in rendering professional services, and is subject to review and approval by appropriate regulatory agencies.

USGS The National Map: National Boundaries Dataset, National Elevation Dataset, Geographic Names Information System, National Hydrography Dataset, National Land Cover Database, National Structures Dataset, and National Transportation Dataset; U.S. Census Bureau - TIGER/Line; HERE Road Data
060 062 067



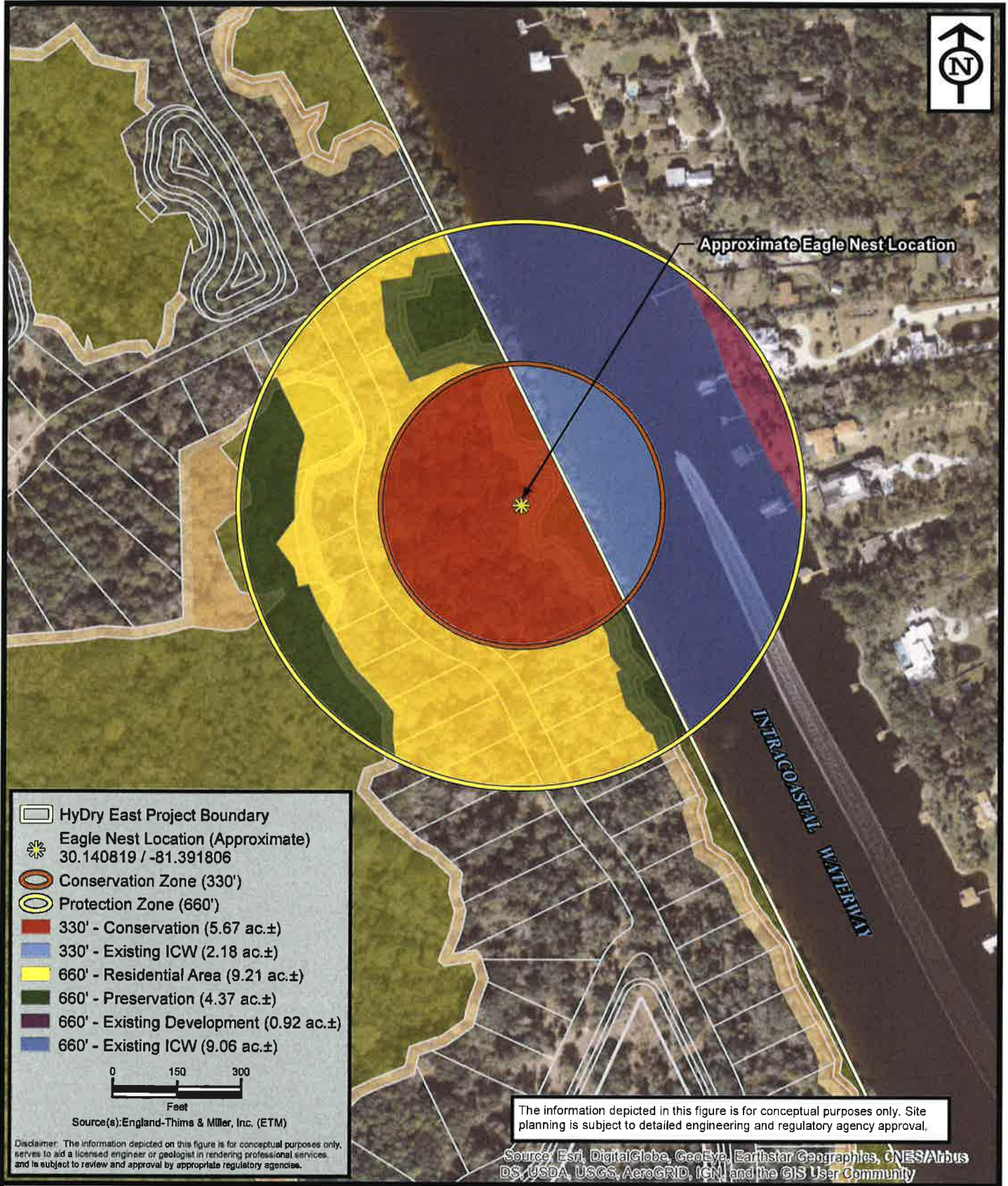
ENVIRONMENTAL SERVICES, INC.
 7220 Financial Way, Suite 100
 Jacksonville, Florida 32256
 (904) 470-2200
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Project Location
HyDry East
 St. Johns County, Florida

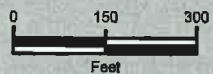
Project:	EJ16325.01
Date:	Jun 2018
Drawn By:	JRN
Checked By:	PCP
Approved By:	PCP
Figure:	1



Approximate Eagle Nest Location



- HyDry East Project Boundary
- Eagle Nest Location (Approximate)
30.140819 / -81.391806
- Conservation Zone (330')
- Protection Zone (660')
- 330' - Conservation (5.67 ac.±)
- 330' - Existing ICW (2.18 ac.±)
- 660' - Residential Area (9.21 ac.±)
- 660' - Preservation (4.37 ac.±)
- 660' - Existing Development (0.92 ac.±)
- 660' - Existing ICW (9.06 ac.±)



Source(s): England-Thims & Miller, Inc. (ETM)

Disclaimer: The information depicted on this figure is for conceptual purposes only, serves to aid a licensed engineer or geologist in rendering professional services, and is subject to review and approval by appropriate regulatory agencies.

The information depicted in this figure is for conceptual purposes only. Site planning is subject to detailed engineering and regulatory agency approval.

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



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Eagle Nest Conservation and Protection Zones

HyDry East

St. Johns County, Florida

Project:	EJ16325.01
Date:	Jun 2018
Drawn By:	JRN
Checked By:	PCP
Approved By:	PCP
Figure:	2

ATTACHMENT A

HyDry East at Nocatee Construction Protocol (June 2018)

1. A bald eagle nest tree is located on this property. The bald eagle is a protected bird under the St. Johns County Land Development Code, under federal and state law, and pursuant to rules and regulations promulgated by the U.S. Fish and Wildlife Service and by the Florida Fish and Wildlife Conservation Commission. Any disturbance to bald eagles is prohibited particularly during the Nesting Season. The Nesting Season is October 1st through May 15th or date of fledging of the eaglet(s), whichever is the latest date, or when eagles are present for nesting purposes.
2. A “Bald Eagle Habitat Management Plan” has been approved for the protection of these bald eagles and the nest tree. This document shall be reviewed by all construction personnel, and all construction activities shall adhere to the Plan. Failure of any construction company or construction personnel to adhere to the protection measures in the Plan shall be reason for dismissal.
3. A bald eagle monitor has been employed to monitor the bald eagles and the nest tree during the Nesting Season to determine if the construction activities that may be taking place are disturbing the bald eagles.
4. The bald eagle monitor has written authority from the Owner to stop construction at any time the bald eagles become disturbed. Once notification that the bald eagles are disturbed has been given by the bald eagle monitor, ALL construction activities within the Protection Zone must cease. Verbal notification is sufficient. Activities may only resume upon the bald eagle monitor issuing a resume work notification.
5. No playing of vehicle radios, portable radios, boom boxes or other audio equipment shall be permitted at any time within the Protection Zone Residential Area during the nesting season.
6. No discharging of firearms, fireworks, explosives or other similar devices shall be permitted at any time within the Protection Zone Residential Area during the nesting season.
7. Vehicle parking is permitted only within designated areas and not within Conservation Zone, preserved vegetation areas or green spaces.
8. Construction crews must clean up all debris on the site at the end of each day and place it in a dumpster. Crews must also break down all boxes and place them in a dumpster.
9. Pets are prohibited on all construction sites.
10. No consumption of alcoholic beverages or illegal drugs shall be permitted at any time.
11. No smoking or consumption of tobacco products shall be permitted at any time.

BALD EAGLE MONITORING GUIDELINES

Prepared For

United States Fish and Wildlife Service

September 2007

(Revision of Bald Eagle Monitoring Guidelines Issued September 2006)

PREFACE

The U.S. Fish and Wildlife Service's (Service) Florida Ecological Services Field Offices (FO's) in Jacksonville, Panama City and Vero Beach received and reviewed monitoring reports for more than five years as prescribed by our Bald Eagle Monitoring Guidelines (pre-2002 draft, 2002, 2005) (Monitoring Guidelines) for applicants proposing construction activities occurring within 1500 feet of an active bald eagle nest during the nesting season. The cumulative result of those monitoring reports was that the Service did not observe from the data any indicators of disturbance, abnormal or atypical behavior, or nest abandonment that would have caused the applicant and/or the Service to halt construction activities during the nesting season. Consequently, the Service and the Florida Fish and Wildlife Conservation Commission (FWC) jointly concluded that monitoring of construction and nesting activities occurring from 750 feet to 1500 feet (secondary zone) was no longer warranted for projects involving construction within those distances from an active nest during nesting season.

The Service's Florida FO's revised the 2005 Monitoring Guidelines again in September 2006 to incorporate modifications that would be applicable to the draft National Bald Eagle Management Guidelines that would be implemented under the Bald and Golden Eagle Protection Act (Eagle Act) once delisting of the bald eagle was finalized. These National Management Guidelines addressed construction and a variety of other human activities that can potentially interfere with bald eagles, affecting their ability to forage, nest, roost, breed, or raise young.

The Service published a notice of availability in the Federal Register (72 Fed.Reg. 31332) on June 5, 2007, finalizing the National Management Guidelines (dated May 2007), followed by the announcement on June 28, 2007 to remove the bald eagle from the Federal List of Endangered and Threatened species effective August 8, 2007. As such, it is necessary to make additional revisions to the September 2006 Monitoring Guidelines to assure consistency with these recent policy and regulatory changes.

These revised 2007 Monitoring Guidelines accordingly are now applicable for human activities that have potential to cause disturbance within 660 feet of an active nest. Additional criteria for disturbance are defined by the codified definition of "disturb" under the Eagle Act at 50 CFR 22.3. Monitoring generally is not recommended for projects when activities occur beyond 660 feet of an active nest, as those data are no longer required. However, additional criteria for

monitoring may be indicated in previously issued Biological Opinions that reference these Monitoring Guidelines, or in such cases where public safety issues exist related to airport operations and activities, electrical facilities and communication tower facilities where monitoring is required in order to determine the most appropriate action to avoid a safety hazard to both the public and the bald eagles. A number of Federal and State laws and/or regulations prohibit, cumulatively, such acts as harassing, harming, disturbing, molesting, pursuing, etc. bald eagles, or destroying their nests. The purpose of these Monitoring Guidelines is to provide a scientific standard for documenting and evaluating bald eagle response to human activities. Such activities may lead to an alteration of otherwise normal nesting behavior and ultimately to nest abandonment and/or death of eggs or eaglets. These Monitoring Guidelines are advisory in nature.

The FWC maintains a database of all known bald eagle territories in Florida (<http://wld.fwc.state.fl.us/eagle/eaglenests/>), which should be consulted to determine the specific nest number and nesting history. It should be noted that: 1) the nest locations (latitude/longitude coordinates) in this database are approximate and should not be relied upon to establish accurate distances from proposed construction activities, 2) some territories have alternate nests that may not be reported in the database, and 3) many bald eagle territories are unknown and/or may support new active nests that have been established in recent years. Any bald eagle nest discrepancies or new nest locations should be reported to the FWC bald eagle database coordinator at 352-955-2230.

The development of this document is a collaborative effort by Federal, State and private biologists who have extensive experience in the research and management of bald eagles in the Southeastern United States. J. Steve Godley¹ prepared the initial draft and all attachments, while Tom H. Logan^{2, 3} served as editor and coordinator of technical and editorial reviews of subsequent drafts. Candace Martino⁴ provided invaluable coordination to facilitate necessary input from each of the authors, and contributed technical and editorial comments for this latest edition. Dan Sullivan² provided editorial comments that were critical to the completion and technical quality of this document, as did Stephen A. Nesbitt², John H. White², Al Begazo⁴, and Tony Steffer⁵ for earlier editions of these Monitoring Guidelines.

¹ Biological Research Associates, LLC

² Florida Fish and Wildlife Conservation Commission

³ Breedlove, Dennis & Associates, Inc.

⁴ U.S. Fish and Wildlife Service

⁵ Raptor Management Consultants, Inc.

BALD EAGLE MONITORING GUIDELINES

A. Introduction

The Service and FWC recommend biological monitoring of the nesting territory if new activities which include construction of buildings, roads, trails, canals, power lines, and other linear utilities; new or expanded operations of agriculture and aquaculture, alteration of shorelines or wetlands, installation of docks or moorings, marinas, water impoundment, and mining and associated activities is proposed to occur within 660 feet of the nest tree during the nesting season (October 1 - May 15, Service 1987). The Service also recommends that monitoring be conducted where an eagle's nest is located on or adjacent to, in close proximity of, electrical transmission towers, communication towers, airport runways, or other locations where they may create hazards to themselves or humans. These circumstances may require more intense monitoring, which may include increased frequency and hours of monitoring. These resulting data are deemed necessary for the Service to make appropriate decisions as to whether nest removal or relocation is warranted and subsequently permissible under new proposed regulations under 50 CRF 22.27 for Eagle Nest Take under the Eagle Act.

These Monitoring Guidelines have been developed to provide agency personnel and others a scientific standard for gathering data that may be used to evaluate eagle responses to human and development activities, which may indicate an alteration of otherwise normal nesting behavior. The Monitoring Guidelines 1) describe normal nesting behavior of bald eagles, 2) identify specific behavioral responses of adult and young eagles that may warrant cessation of activities, 3) propose the type and level of monitoring necessary to detect a change in normal behavior, and 4) develop a procedure for reporting the observations to the USFWS/FWC, which may be used for halting or modifying the above described activities, if necessary.

Buehler (2000) and references cited therein provide excellent summaries of the biology and nesting behavior of bald eagles. Nesting behavior and response of individual eagle pairs to human activities may vary, but nesting chronology and otherwise normal behavior are relatively fixed and predictable. The probability that a pair of bald eagles will abandon their nest increases with the intensity and proximity of human activities to their nest, and decreases with the time and energy the adult eagles have invested in the eggs or young and to what extent the adult birds may habituate to human activities. This is based upon the ecological parental investment theory (e.g., Trivers 1972, Wilson 1975, Dawkins 1977) and practical experience gained from observing bald eagle/human interactions over the past two decades in Florida (e.g., Wood 1992, Nesbitt et al. 1993, Wood and Collopy 1995, Millsap et al. 2004). Accordingly, the need for appropriate monitoring and concern for disturbance is highest prior to egg laying, the closer and more intense development activities occur to the nest tree, and for nesting territories in more rural environments.

All infrastructure development, exterior building construction, and other referenced activities within 660 feet of the nest tree should, as a general rule, be completed during the non-nesting season. Infrastructure construction includes all land and lot clearing; fill work; construction of roads, drainage, sewer and storm water facilities; and installation of water, electricity and other

utilities. However, it often is not possible to complete these above-referenced activities and other human related actions during the non-nesting season. These guidelines are applicable to those circumstances where these activities must be conducted during nesting season from 330-660 feet of the nest tree. **Please Note: The Service recommends that none of the above-referenced activities be conducted from 0-330 feet during nesting season, even when a buffer zone of less than 330 feet is established in accordance with the National Bald Eagle Management Guidelines; therefore, monitoring in these instances is not applicable.**

B. Monitoring Requirements

The Monitor is defined as personnel formally educated in the biological sciences, well experienced in recognizing specific patterns and changes of eagle behavior and capable of recording those observations in a scientific manner, and is contracted by the landowner, company or entity (Responsible Party) responsible for having the activity monitored. Continuity of monitoring, data collection and reporting is best maintained if one person conducts all monitoring for a specific project site. Close coordination is essential if more than one monitor is required. Monitoring should be conducted from a location that provides a clear vantage point of the nest and the surroundings (including the referenced activities), yet far enough from the nest (e.g., > 660 feet where possible) to ensure monitoring does not cause disturbance to the eagles. Monitoring from closer locations could cause disturbance and should be avoided. Conducting the monitoring from inside a parked vehicle or from a portable blind can further minimize observer disturbance. Monitoring should be conducted using both binoculars and a high-powered spotting scope during periods when referenced activity is occurring during the nesting season (generally October 1 – May 15) and within 660 feet of the nest tree, or as specified otherwise, by Service or FWC technical assistance.

The purpose of monitoring is to detect any abnormal behavior of the adult eagles or their chicks that may be elicited in response to human activities occurring within 660 feet of the nest tree and that potentially could result in disturbance as defined under 50 CFR 22, abandonment of the nest (and/or territory), or death of the eggs or eaglets. **In cases where the Responsible Party is relying upon conditions/recommendations specified in a Biological Opinion or agency document, procedures should be established between the Monitor and the Responsible Party for suspension of work and immediate notification to the Service and FWC upon observation of such abnormal behavior of nesting eagles (see Section D for details).** Once an applicant agrees to monitor in accordance with these Monitoring Guidelines, they are held to *all* requirements of these Monitoring Guidelines.

Monitoring should begin no later than October 1 and continue through fledging, if activity is anticipated or planned to occur within 660 feet of the nest tree during the nesting season. Fledging is considered to have occurred at that age when young of the year have achieved the ability to sustain flight (see Section C.7 for details).

- **Initial Monitoring to Confirm Occupancy of the Nesting Territory:** Bald eagles are considered to have returned to the territory when one or both members of the pair appears, flies, perches, roosts, exhibits courtship, carries nest material, begins repair of the existing nest and/or begins construction of a new nest on the territory. The regulated

protection zone is considered to be the area within a 660-foot radius of the nest tree; although, some pairs may construct a new, alternate nest at farther distances. All eagle nests are protected unless declared "abandoned" in accordance with provisions of the National Bald Eagle Management Guidelines (May 2007). All alternate nests should be monitored until such time as the eagles have been observed incubating in one of the nests on the territory. Monitoring can then cease for the alternate nests in which nesting does not occur. However, if the nest in which nesting begins is lost prior to February 1, monitoring of all alternate nests should be re-initiated to determine if re-nesting occurs on the territory.

Initial monitoring of eagles to determine territory occupancy shall be conducted a minimum of one day per week and consist of in sequence: 1) nest tree observations for a minimum of two hours starting ½ hour before sunrise, followed by 2) nest tree inspection for indirect evidence of eagle use if no adults are observed. *Never* approach a nest tree if adult eagles are observed on the territory on that day. The following shall constitute positive indirect evidence that bald eagles have returned to the nesting territory: 1) fresh moss or green tree branches placed or interwoven into the nest top, or 2) fresh droppings ("whitewash") on vegetation or the ground beneath the nest tree. Such droppings typically are deposited below the nest cup or favored perch branches. Do not confuse white, dried pine resin with eagle droppings: droppings rub off upon touch, whereas resin does not. Direct or indirect evidence of territory occupancy by adult eagles triggers the requirement for more intensive monitoring (see Monitoring During Early Phases of the Nesting Cycle, below). The results of both direct bald eagle observations and nest tree inspections must be recorded each week on the Bald Eagle Monitoring Data Sheet (Figure 1). A Confirmation of Nest Territory Occupancy Report describing the basis for the determination shall be submitted to the Service and the FWC (see Section D for reporting details) within one week of finding positive evidence of bald eagle nest territory occupancy. **This report also shall include a specific schedule of dates planned for monitoring during the next month.** Each subsequent monthly report submitted to the Service and FWC shall contain a schedule of monitoring dates for the upcoming month, with the understanding that any scheduling changes shall be reported to the agencies by email as soon as possible.

- **Monitoring During Early Phases of the Nesting Cycle:** The normal cycle of bald eagle nesting behavior is described below. Once a territory is determined to be occupied, it should be considered active, and nesting eagles should, at that time, be monitored a minimum of three days each week and four hours each day (beginning at 1/2 hour before sunrise) from onset of nesting behavior through the fourth week post-hatching and care of eaglets. **Monitoring is *not* required on days when no infrastructure development, exterior building construction, or other human activities referenced in the National Management Guidelines occurs within 660 feet of the nest tree.** Monitoring should be scheduled to occur on the days that are representative of all major phases of these activities at times when they will occur.
- **Monitoring During Last Phase of the Nesting Cycle:** Monitoring frequency for activities may be reduced to one day each week (four hours beginning 1/2 hour before sunrise) beginning five weeks post-hatching and continue until fledging occurs or May

15, whichever occurs first. However, this once a week monitoring event should occur on days that are representative of all major phases of these activities at times when they will occur.

- **Special Circumstances:** Additional monitoring may be appropriate should special circumstances arise as described in Section C.6. The monitoring and construction plans for any nesting territory may be re-evaluated for modifications during any year. Weekly nest territory monitoring may cease after February 1 of that nesting season if: 1) no adult bald eagles are observed on the territory or 2) if an eagle was observed on the territory, but nesting was not attempted, or a nest attempt was documented to have failed and re-nesting was not attempted. Additionally, monitoring may cease if great horned owls (*Bubo virginianus*) are documented to have occupied the nest and there are no alternate nest sites available to the eagles within 660 feet of the project, and no evidence of eagles constructing a new nest within 660 feet of the project. Evidence must be clear from information recorded in the Bald Eagle Monitoring Data Sheets and/or provision of additional data, that circumstances exist that would warrant any modification of planned monitoring (i.e. increase, decrease or termination of monitoring).
- **General Comments:** Residential and commercial development is the most common form of human activity that requires monitoring. Single-family homes typically may require a minimum of 5 months for completion of construction, and all major stages of construction (described below), except truss placement, occur over multiple days. Monitoring should be timed to include truss placement. In all cases, the Monitor should use a site plan of the project to prepare weekly maps on which to document the specific construction activities that are occurring within 660 feet of the nest tree. Recorded construction activities should include, but not be limited to, the stage of construction of each home (i.e., fill placement, slab pouring, sidewall construction, truss placement, roofing, external finish work, internal finish work and landscaping). All observations of construction and eagle behavior *must* be recorded using the attached data sheet (Figure 1).

The following nest cycle activities must be documented and monitored for comparison with normal nesting behavior (see Section C for details) and for detecting and evaluating behavior that may be indicative of disturbance and/or pending risk:

1. Temporal patterns of nest attendance by the adults.
2. Observations of courtship, mating and nest building/maintenance.
3. Incubation and brooding behavior.
4. Feeding, growth and care of the eaglet(s).
5. Flight patterns to and from the nest tree.
6. Fledging of the eaglet(s).

All behavioral data and construction activities should be recorded within 15 minute intervals to facilitate analysis as a basis for detecting and evaluating behavior which may indicate pending risk. Figure 2 summarizes the typical nesting chronology of bald eagles in Florida. Please note that egg laying typically occurs during mid-December in Florida, but may vary by year, pair and latitude, and can extend from October through April, with most late nesters likely representing

second breeding attempts (Buehler 2000). Figure 3 provides a typical pattern of nest attendance and phenology of a pair of eagles in Sarasota County, Florida, monitored over a three-year period during one 4-hour observation period each week from October through May.

Nesting behavior which may be interpreted as abnormal, a response to construction activities and/or indicative of pending risk may include, but not be limited to: 1) adults raising or standing up over the nest, 2) increased time spent away from the nest by the adults that is not associated with normal nesting phenology, 3) changes in flight patterns or perch tree use, 4) distress calls, 5) flushing behavior from the nest tree or perch trees, 6) changes in the feeding schedule of the eaglet(s) and 7) premature fledging of the eaglet(s). Descriptions of specific behaviors that would warrant concern and may be indicative of pending risk are described below. Such behaviors occasionally result from factors other than human disturbance, such as death of an adult, sterility or immaturity (i.e., one member of the pair not in definitive plumage), entrance of a foreign adult eagle or great horned owls into the territory, inadequate food supply for the number of eaglets present, etc. Therefore, it is very important that observations of any abnormal behavior be reported immediately to assure proper interpretation and appropriate courses of action (see Section D for details).

C. Normal Nesting Behavior and Indicators of Disturbance

1. Adult Behavior at the Nest

Eagles often assume an alert posture in response to an unusual event. This behavior also may be accompanied by distress calls and ultimately result in flushing behavior (Fraser et al. 1985, Buehler et al. 1991, McGerigal et al. 1991). Incubating adults may react to a distraction or an annoyance by rising from their incubation posture and standing over their eggs. They also may step off the eggs and stand on the side of the nest. They may or may not vocalize in conjunction with this behavior. Such standing behavior may be seen prior to flying and as an indication that the bird may flush from the nest in response to a distraction. The bird also may settle back down into incubation posture without flying, once the distraction has passed or the bird has decided the distraction is not a sufficient threat to warrant flushing from the nest. This behavior (whether the adult flushes or not) does indicate that the disturbance is great enough to interfere with normal behavior and is of concern. This posture could be confused with stretching or egg turning which are normal parts of incubation behavior. It will be the responsibility of the monitoring biologist to accurately judge whether a bird is exhibiting normal behavior or is reacting to a distraction or an annoyance that could be interpreted as "disturbance."

2. Patterns of Nest Attendance

Figure 3 provides a representative example of normal baseline nest attendance by at least one adult eagle during the nesting season. Please note that attendance may be sporadic early in the nesting season, but increases dramatically immediately prior to egg-laying. At least one adult is present almost 100% of the time during the 35-day incubation period and the first 2-3 weeks post-hatching (Fraser 1981, Wallin 1982). Females average about 1/5 larger in size than males, and the sexes are distinguishable when the pair is together. The female does the majority of the incubation and early nestling attendance, although the male participates in both activities. One

adult (usually female) broods constantly during inclement (i.e., cool or rainy) weather, and will shade the young to avoid heat stress until a chick(s) is approximately 4 weeks of age (Jenkins 1989, Herrick 1924). Nest attendance declines sharply after 5-6 weeks, and the adults often roost and loaf away from the nest.

Nest attendance would be considered abnormal if: 1) at least one adult is not present during two consecutive, 4-hour (minimum) monitoring days prior to egg laying or 2) both adults are absent for more than two consecutive 15-minute periods during incubation, early brooding or inclement weather prior to 4 weeks post-hatch.

3. Flight Patterns Between Nest and Feeding Areas

Florida eagles generally nest in proximity to water, and flight paths to and from the nest often are relatively direct to their feeding areas. Flight information should include recording the direction of each flight to and from the nest in the eight cardinal directions. Simple chi-square or other non-parametric statistics can be used to test if flight patterns are random, directed towards foraging areas or away from on-going human activity.

4. Vocalizations on the Nesting Territory

Verner and Lehman (1982) describe three distinctive calls of nesting birds that are typical responses to human approaches: 1) a "chatter call" described as consisting of 3-4 introductory notes separated by short gasps of silence (<1s) followed by a rapid sequence of descending notes, usually 6-9 notes in sequence (*kwit kwit kwit kwit kee-kee-kee-kee-kee*), 2) a "peal" consisting of a high-pitched, prolonged, gull-like cry, often repeated 3-5 times and 3) a "wails" call that is seldom given (Buehler 2000). Variants of these calls may also be given in response to an intruding adult eagle or other raptors, such as great horned owls, and the chatter call also is often given upon approach to the nest tree by a member of the pair, independent of human disturbance. Any distress call must be investigated to determine cause, and **any construction or human activity that may be responsible for the distress call, must be halted or modified immediately.**

5. Flushing Behavior

Adult eagles may flush from the nest tree, particularly if humans are on foot (Fraser et al. 1985, Buehler et al. 1991, Grubb and King 1991, McGarigal et al. 1991, Grubb et al. 1992). Risk increases with the duration and frequency of events. The sensitivity of eagles to human disturbance varies between individuals and across populations, as measured by experimental flushing studies (e.g., Stalmaster and Newman 1978, Knight and Knight 1984, Fraser et al. 1985, Buehler et al. 1991, McGarigal et al. 1991). Unfortunately, no similar studies have been conducted in Florida. The response of individual eagles may range from temporary agitation (alert posture) to flushing from the nest or perch tree, to permanent displacement. Humans in vehicles generally elicit a much lower response than those on foot. Additionally, eagles that nest in proximity to existing human activities may habituate and be more tolerant to forms of human activity than they may have previously experienced.

Flushing behavior is more typically in response to human approach to the nest on foot; therefore, it is imperative that the monitor attempt to stop all such approaches. **Any construction or other human activities that appear to have caused flushing should be halted immediately.**

6. Feeding Schedule of the Eaglet(s)

Although both sexes secure food and feed the young, the male provides most of the food in the first two weeks, while the female tends the young in the nest (Wallen 1982, Gerrard and Bortolotti 1988). The female often delivers as much prey as the male after 3-4 weeks. Adults typically bring the food to the nest and tear off small pieces to feed the young. Eaglets are able to tear off food and feed themselves at approximately 6 weeks of age, although the adults often dismember larger prey (Palmer et al. 1988). Adults typically deliver food 2-8 times per day (mean = 4), and the early morning period accounts for proportionately more food deliveries (Herrick 1924). Food delivery rates also typically decrease as eaglets mature and or eaglet numbers decline with normal attrition. Therefore, deliveries may not be observed during some monitoring periods for older broods. The nutritional requirements of eaglets have not been reported in the literature (Buehler 2000), but free ranging adult bald eagles in Washington at 5°C were reported to consume about 77.3 g/kg per day (425.5 kJ/kg per day), slightly less than 10% of their body weight per day (Stalmaster and Gessaman 1984). Nestlings may use food that accumulates at the nest for more than one day, unless fresh food is provided (Herrick 1993). Both adults and chicks are capable of storing food in their crop, then digesting the food over time. **Additional monitoring may be appropriate should an abnormal reduction in feeding rates be observed; if accompanied by other behavioral indicators of stress (i.e., flushing and/or distress calls), the Monitor should suspend construction or other human activities and report these observations (see Section D).**

Mean brood size for successful nests in Florida bald eagles is 1.55 young per brood, with 3 young not uncommon (Nesbitt et al. 2002). One egg is laid per day, although often not always on successive days. Hatching is asynchronous and differential growth between the sexes can lead to differential mass among siblings, facilitating competition and fratricide (Bortolotti 1986). Sibling competition and mortality is greatest early in the nestling period, when size differences are greatest. The largest chick typically gets the majority of food in clutches with more than one chick. Brood reduction from starvation of the youngest chick may occur in broods of any size, unless food is abundant (Gerrard and Bortolotti 1988).

It is important to quantify, to the extent possible, the size and type of prey brought to the nest during all observation periods. These data may be useful for determining if the eaglet(s) is receiving adequate food and if human activity may be interfering with food delivery schedules.

7. Fledging of the Eaglet(s)

Eaglets typically fledge at approximately 11 weeks of age in Florida (Wood 1992), but nest departure can occur at 8-14 weeks (Buehler 2000). The eaglets usually begin to move about the nest and branches of the nest tree at least 2 weeks before fledging, flapping and developing muscle strength, flight coordination and landing ability in preparation for their first flight from the nest tree. These eaglets are referred to as "branchers." Fledging typically is considered to have occurred when the eaglets have begun to make extended flights from the nest to adjacent

trees, have begun to soar and/or are seen flying around the territory with the parents. It is not uncommon for up to half of initial nest departures to be unsuccessful, with the eaglet falling to and remaining on the ground for days or weeks before regaining flight ability; in most cases, the parents will continue to feed these young (Kussman 1977, Fraser 1981). **Successful fledging, for purposes of these Guidelines, is defined as the time at which the eaglet(s) has near fully developed primaries and is capable of strong, coordinated, independent flight.**

Care must be taken to confirm that any premature fledging is, in fact, human related, since premature fledging is a common occurrence that may be independent of human activity.

D. Reporting Requirements

The purpose of monitoring bald eagles and eaglets at their nests under these Guidelines is to **minimize the occurrence of disturbance leading to nest abandonment and/or death of eggs or eaglets**, and avoid potential violations of the Eagle Act. As such, monitoring is a serious obligation. Falsification of monitoring reports can lead to criminal prosecution of both the Monitor and the Responsible Party that is contracted to conduct the monitoring. The Monitor and their supervisor *must* sign and date each completed monitoring sheet (Figure 1) beneath the statement, which reads: "I have read and understand the Bald Eagle Monitoring Guidelines. This report represents a true, accurate and representative description of the site conditions and eagle behavior at the time of monitoring".

As long as the Monitor has not detected any, irregularities or abnormalities as described above, then **Only** a summary report of monitoring results (See Figure 4) should be mailed via hardcopy or email to the appropriate Service Field Office and FWC (Endangered Species Coordinator, Tallahassee) on a monthly basis when the Monitor has not detected any irregularities, or abnormalities as described above. Individual Bald Eagle Monitoring Data Sheets should be retained on file by the Monitor for a minimum of 3 years for reference, should such need occur. **A final report that summarizes monitoring results and the fate of any reproductive effort must be sent to the reviewing agencies within one month of the conclusion of monitoring.** The Monitor has the obligation to immediately report any suspension of work activities and/or any documented abnormal behavior, as defined in Section C above, to the Responsible Party and the Service and FWC, **and subsequently send the individual Bald Eagle Monitoring Data Sheets describing all relevant activities to all parties.** The Service and FWC will coordinate a review within a week of the reported behavior and circumstances associated with any suspension of work activities. A verbal determination followed by a written recommendation will be issued in a timely manner as to whether construction should resume or be modified, or if monitoring frequency should be increased.

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Bald Eagle Monitoring Data Report

Nest #: _____ Start Time: _____ Name of Monitor: _____

Date: _____ End Time: _____ Name of Supervisor: _____

Tree Status¹: _____ Tree type²: _____ # Adult Present: _____ # Young Present: _____

Time	Behavioral activity observed (list all that apply):				
	Weather conditions	T:	W:	C:	P:
	Description of ongoing construction events:				
	Notes/Comments:				
Time	Behavioral activity observed (list all that apply):				
	Weather conditions	T:	W:	C:	P:
	Description of ongoing construction events:				
	Notes/Comments:				
Time	Behavioral activity observed (list all that apply):				
	Weather conditions	T:	W:	C:	P:
	Description of ongoing construction events:				
	Notes/Comments:				
Time	Behavioral activity observed (list all that apply):				
	Weather conditions	T:	W:	C:	P:
	Description of ongoing construction events:				
	Notes/Comments:				

Sworn Affidavit: I have read and understand the USFWS Bald Eagle Monitoring Guidelines. This report represents a true, accurate, and representative description of the site conditions and eagle behavior at the time of monitoring.

Signature of Monitor

Signature of Supervisor

Date

Nest #: _____ Monitoring Date: _____ Monitor's signature: _____
 Supervisor's signature: _____

Time	Behavioral activity observed (list all that apply):				
	Weather conditions	T:	W:	C:	P:
	Description of ongoing construction events:				
	Notes/Comments:				
Time	Behavioral activity observed (list all that apply):				
	Weather conditions	T:	W:	C:	P:
	Description of ongoing construction events:				
	Notes/Comments:				
Time	Behavioral activity observed (list all that apply):				
	Weather conditions	T:	W:	C:	P:
	Description of ongoing construction events:				
	Notes/Comments:				
Time	Behavioral activity observed (list all that apply):				
	Weather conditions	T:	W:	C:	P:
	Description of ongoing construction events:				
	Notes/Comments:				

Sworn Affidavit: I have read and understand the USFWS Bald Eagle Monitoring Guidelines. This report represents a true, accurate, and representative description of the site conditions and eagle behavior at the time of monitoring.

Signature of Monitor

Signature of Supervisor

Date

Nest #:

Monitoring Date:

Monitor's signature: _____

Supervisor's signature: _____

Time	Behavioral activity observed (list all that apply):				
	Weather conditions	T:	W:	C:	P:
	Description of ongoing construction events:				
	Notes/Comments:				
Time	Behavioral activity observed (list all that apply):				
	Weather conditions	T:	W:	C:	P:
	Description of ongoing construction events:				
	Notes/Comments:				
Time	Behavioral activity observed (list all that apply):				
	Weather conditions	T:	W:	C:	P:
	Description of ongoing construction events:				
	Notes/Comments:				
Time	Behavioral activity observed (list all that apply):				
	Weather conditions	T:	W:	C:	P:
	Description of ongoing construction events:				
	Notes/Comments:				

Sworn Affidavit: I have read and understand the USFWS Bald Eagle Monitoring Guidelines. This report represents a true, accurate, and representative description of the site conditions and eagle behavior at the time of monitoring.

Signature of Monitor

Signature of Supervisor

Date

Nest #:

Monitoring Date:

Page 4

Time	Behavioral activity observed (list all that apply):				
	Weather conditions	T:	W:	C:	P:
	Description of ongoing construction events:				
	Notes/Comments:				
Time	Behavioral activity observed (list all that apply):				
	Weather conditions	T:	W:	C:	P:
	Description of ongoing construction events:				
	Notes/Comments:				
Time	Behavioral activity observed (list all that apply):				
	Weather conditions	T:	W:	C:	P:
	Description of ongoing construction events:				
	Notes/Comments:				
Time	Behavioral activity observed (list all that apply):				
	Weather conditions	T:	W:	C:	P:
	Description of ongoing construction events:				
	Notes/Comments:				

Sworn Affidavit: I have read and understand the USFWS Bald Eagle Monitoring Guidelines. This report represents a true, accurate, and representative description of the site conditions and eagle behavior at the time of monitoring.

Signature of Monitor

Signature of Supervisor

Date

Instruction for completing the Bald Eagle Monitoring Data Report

1. Insert the nest identification number, date for which the monitoring is occurring, Start time is the time at which monitoring is initiated, and end time is when the daily monitoring is completed. The monitor and the monitor's supervisor should print their name on the first page, a sign all other pages.
2. Tree Status is either L = live, D = dead, or A = artificial structure.
3. Tree type is either P = native pine, H = native hardwood, E = exotic.
4. All data reports should have an attached map of the nest territory that includes the location of the project. Major territory flights, including the time of the flight, should be drawn on this map.
5. Record all behavior events observed during the monitoring period. The following abbreviations should be used. CT = courtship; MAT = breeding/mating; NR = nest repair; INC = incubating; BRO = brooding; AF = adult feeding; YF = young being fed; TD = territory defense; STD/DV going from incubation to standing associated with distress calls; FL/DV = flushing with distress calls; DC = distress calls not associated with standing or flushing; PF = premature fledging. A monitoring event that observed nest repair, courtship and adult feeding may be recorded as NR-CT-AF. Any other behavior can be listed or described. Any abnormal behavior should be noted and described in the notes section if more space is required.
6. Enter the current weather conditions for each observation period in the appropriate place. On the data report, T = Temperature (EF); W = Wind speed & direction; C = Cloud Cover (%); P = Precipitation.
7. Record all ongoing construction/project activities that occur during the monitoring period. The following abbreviations should be used for common activities (unlisted activities should be described):
 - FP = fill placement,
 - SP = slab pouring,
 - SC = sidewall construction,
 - TP = truss placement,
 - R = roofing,
 - EW = external finish work,
 - IW = internal finish work;
 - IFR = infrastructure work;
 - HE = heavy equipment work;
 - CRN = work involving a crane.Provide details on infrastructure and heavy equipment work.
8. Any information that needs further explanation or any unusual event should be record in the Notes/Comments section. If more space is required, a supplemental sheet can be attached to this monitoring report. This supplemental sheet should clearly indicate the nest involved, the date of the monitoring, the monitoring time period to which the comment belongs (especially if needed for more than one monitoring time period), and should be signed by the monitor and supervisor.
9. In the appropriate place at the top of page 1, record the number of adults present at the nest during the entire monitoring period.
10. In the appropriate place at the top of page 1, record the number of young present at the nest during the entire monitoring period.

Nesting Chronology of Bald Eagles in Florida (typical)

Figure 2

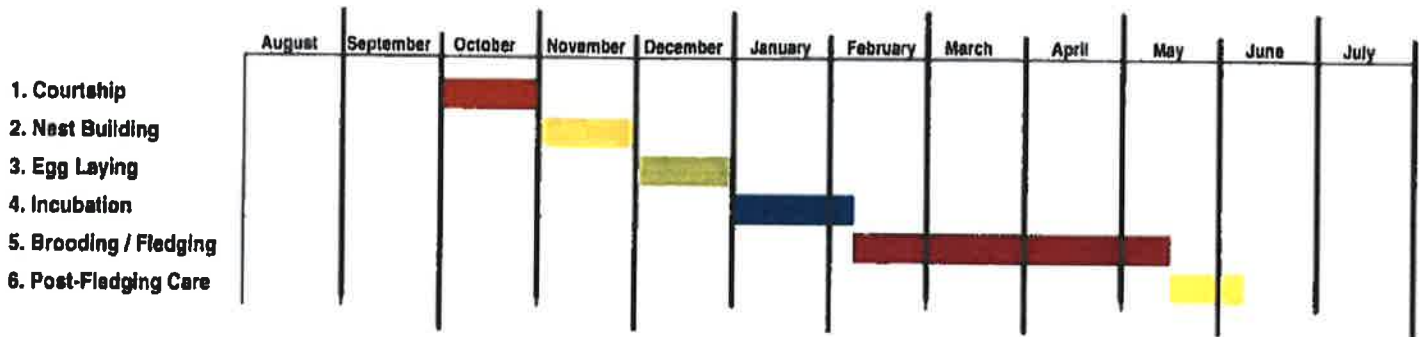


Figure 3: NEST ATTENDANCE BY AT LEAST ONE ADULT EAGLE DURING 15-MINUTE INCREMENTS OF 4-HOUR OBSERVATIONAL PERIODS

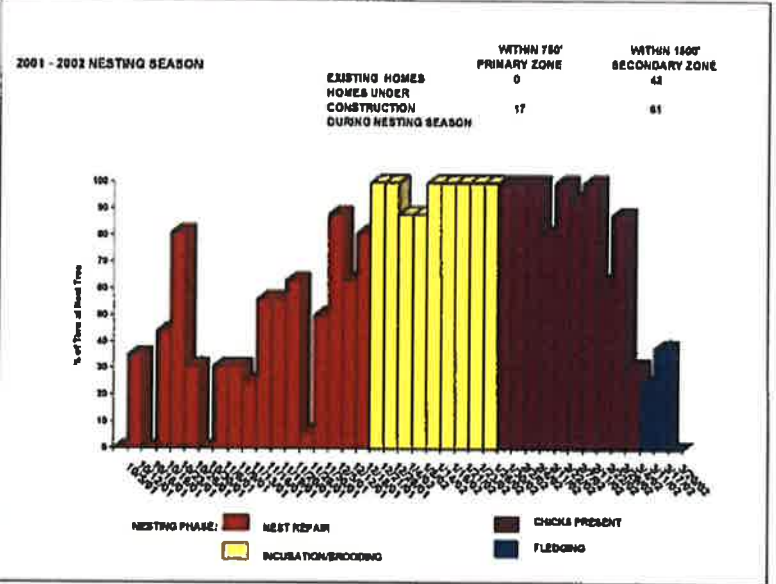
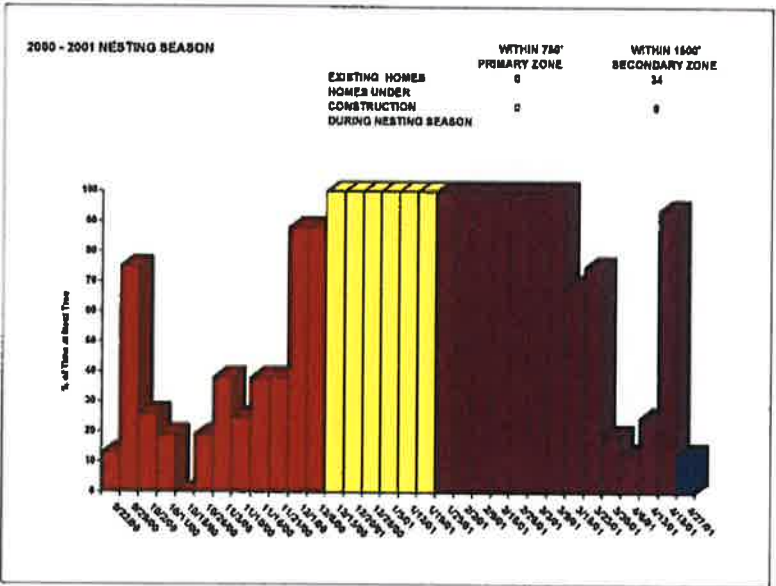
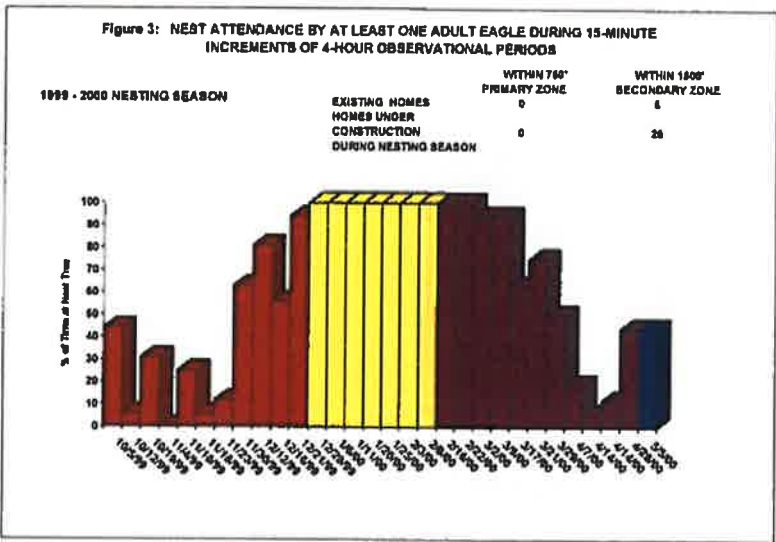


Figure 4

Please send monitoring reports by facsimile or e-mail to the appropriate USFWS Field Office and FWC (Endangered Species Coordinator, Tallahassee) on a monthly basis to:

U. S. Fish and Wildlife Service North Florida

Candace Martino

Tel: (904) 731-3142

Fax: (904) 731-3045

E-mail: candace_martino@fws.gov

U. S. Fish and Wildlife Service South Florida

Alfredo Begazo

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THE ST. AUGUSTINE RECORD
Affidavit of Publication

ROGERS, TOWERS
ATTN: TINA
1301 RIVERPLACE BLVD, STE 1500
JACKSONVILLE, FL 32207

ACCT: 15669
AD# 0003125390-01
PO#

PUBLISHED EVERY MORNING SUNDAY THROUGH SATURDAY
ST. AUGUSTINE AND ST. JOHNS COUNTY, FLORIDA

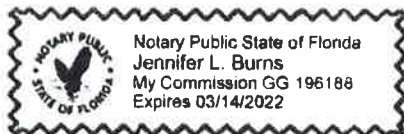
STATE OF FLORIDA
COUNTY OF ST. JOHNS

Before the undersigned authority personally appeared MELISSA RHINEHART who on oath says he/she is an Employee of the St. Augustine Record, a daily newspaper published at St. Augustine in St. Johns County, Florida; that the attached copy of advertisement being a **NOTICE OF HEARING** in the matter of **NZVAR-2018000011** was published in said newspaper on **12/19/2018**.

Affiant further says that the St. Augustine Record is a newspaper published at St. Augustine, in St. Johns County, Florida, and that the said newspaper heretofore has been continuously published in said St. Johns County, Florida each day and has been entered as second class mail matter at the post office in the City of St. Augustine, in said St. Johns County, Florida for a period of one year preceding the first publication of the attached copy of advertisement; and affiant further says the he/she has neither paid nor promised any person, firm or corporation any discount, rebate, commission, or refund for the purpose of securing this advertisement for publication in said newspaper.

Sworn to and subscribed before me this DEC 19 2018 day of December
by Jennifer L. Burns who is personally known to me
or who has produced as identification

Jennifer L. Burns
(Signature of Notary Public)



NOTICE OF A PROPOSED NON ZONING VARIANCE

NOTICE IS HEREBY GIVEN that a public hearing will be held on 1/16/2019 at 9:00 am before the Board of County Commissioners in the St. Johns County Auditorium located at 500 San Sebastian View, St. Augustine, Florida to consider a request for a Non-Zoning Variance to obtain a Bald Eagle Management Plan for a new Bald Eagle Nest located within the Nocatee PUD, north of Palm Valley Road and west of the Intracoastal Waterway.

The subject property is located north of Palm Valley Road and west of the Intracoastal Waterway. See attached map (Exhibit A). This file is maintained in the Planning and Zoning Division of the Growth Management Department located at the St. Johns County Permit Center, 4040 Lewis Speedway, St. Augustine, Florida 32084 and may be inspected by interested parties prior to said public hearing. Items not heard by 6 pm shall automatically be continued until 9 am the following day, unless otherwise directed by the Board.



If a person decides to appeal any decision made with respect to any matter considered at such meeting or hearing, he or she will need a record of the proceedings, and for such purpose, he or she may need to ensure that a verbatim record of the proceedings is made, which record includes the testimony and evidence upon which the appeal is to be based.

This matter is subject to court imposed quasi-judicial rules of procedure. Interested parties should limit contact with the Board of County Commissioners or the Planning and Zoning Agency members on this topic, except in compliance with Resolution 95-126, to properly noticed public hearings or to written communication, care of SJC Planning and Zoning Section, 4040 Lewis Speedway, St. Augustine, Florida, 32084.

NOTICE TO PERSONS NEEDING SPECIAL ACCOMMODATIONS AND TO ALL HEARING IMPAIRED PERSONS: In accordance with the Americans with Disabilities Act, persons needing special accommodations or an interpreter to participate in this proceeding should contact the County's ADA Coordinator at (904) 209-0650 or at the County Administration Building, 500 Sebastian View, St. Augustine, Florida, 32084. Hearing impaired persons, call Florida Relay Service (1 800 955 8770), no later than 5 days prior to the meeting.

BOARD OF COUNTY COMMISSIONERS
ST. JOHNS COUNTY, FLORIDA
PAUL M. WALDRON, CHAIR
FILE NUMBER: NZVAR-2018000011

0003125390 December 19, 2018