Section 9.0
COMMITMENTS

Based on the field and literature reviews outlined in this BA and information received from FWS, FWC, and FNAI, federally- and state-listed species have the potential to occur within both the Fort Hamer Alternative and the Rye Road Alternative. In order to avoid or minimize potential adverse impacts to these species, Manatee County will commit to the following items, depending on the alternative selected for construction:

1. Implement the Sea Turtle and Smalltooth Sawfish Construction Conditions (Appendix E) during all in-water construction phases of the project for the Fort Hamer Alternative.

2. Implement the FWS standard protection measures for the eastern indigo snake (Appendix F) during all construction phases of the project (both build alternatives);

3. Implement the FWS and FWC approved standard manatee construction conditions (Appendix G) during all in-water construction phases of the project (both build alternatives);

4. Coordinate unavoidable wetland impacts with the state and federal permitting agencies (including review agencies) and provide appropriate mitigation to offset adverse impacts to wetland-dependent listed species habitat (both build alternatives);

5. All seagrass boundaries within the chosen build alternative will be marked prior to construction (both build alternatives);

6. Should the Rye Road Alternative be selected as the build alternative, the existing bridge structure will be surveyed for evidence of nesting by species protected by the MBTA. If present, Manatee County will re-initiate consultation with the FWS to minimize the potential for construction impacts to these species or their nests;

7. Prior to construction, Manatee County will survey appropriate habitats in the selected alternative for gopher tortoises, gopher tortoise commensal species, Florida burrowing owls, crested caracara, and Florida sandhill cranes. Manatee County will coordinate with FWS and/or FWC to minimize adverse effects to these species (both build alternatives); and

8. Should the Rye Road Alternative be selected as the build alternative, Manatee County will survey appropriate habitats for the presence of the Florida scrub jay and will coordinate appropriately with the FWS and FWC.

9. Prior to construction, Manatee County will survey appropriate habitats within the study area of the selected alternative for bald eagle and osprey nests. If present, the County will coordinate appropriately with the FWC and FWS (both build alternatives).

Section 10.0
REFERENCES

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Appendix A

Agency Correspondence

APPENDIX A
AGENCY CORRESPONDENCE

Date	Source
10/03/01	Fish and Wildlife Service (FWS) to Florida Department of Transportation (FDOT)
05/06/10	URS Corporation (URS) to Florida Fish and Wildlife Conservation Commission (FWC)
05/06/10	URS to FWS
05/26/10	FWC to URS
07/09/10	Federal Register 39555 and 39556
07/19/10	U.S. Coast Guard (USCG) Project Scoping Meeting Notification
07/20/10	USCG to FWS
07/20/10	USCG to National Marine Fisheries Service (NMFS) Southeast Regional Office
07/20/10	USCG to NMFS Protected Resources Division
07/20/10	USCG to NMFS Southeast Regional Office
07/20/10	USCG to U.S. Army Corps of Engineers (USACE)
07/20/10	USCG to USACE Jacksonville District Regulatory Branch
07/20/10	USCG to U.S. Environmental Protection Agency (EPA) Region 4 South Florida Office Urban Outreach
07/20/10	USCG to EPA Region 4 South Florida Office
07/27/10	NMFS to USCG
07/29/10	USACE to USCG
08/24/10	FWS to USCG
09/20/10	URS to FWC
09/24/10	FWC to URS (emails)
07/24/13	NMFS to USCG
08/09/13	NMFS to USCG
08/27/13	NMFS to USCG
08/27/13	FWS to USCG
08/29/13	NMFS to USCG
09/13/13	USCG to FWS
10/09/13	USCG to NMFS
10/09/13	URS to NMFS
11/29/13	FWS to USCG
12/11/13	NMFS to USCG

333-4.0

United States Department of the Interior

FISH AND WILDLIFE SERVICE
6620 Southpoint Drive South
Suite 310
Jacksonville, Florida 32216-0912

IN REPLY REFER TO:
FWS/R4/ES-JAFL

October 3, 2001

Ms. Gwen Pipkin
Florida Department of Transportation
801 N. Broadway
Bartow, Florida 33830

Re: Draft Wetland Evaluation Report
FWS Log No: 01-1034 (2) (St. Pete)

Dear Ms. Pipkin:

This is in response to your Draft Wetland Evaluation Report provided July 19, 2001, requesting our review and concurrence that the impacts proposed for the Upper Manatee River Road will not adversely impact federally listed species.

The project purpose is to improve north-south traffic circulation between I-75 and Rye Road/C.R. 675 and S.R. 64 and U.S. 301. Four potential corridors have been identified for the project; expansion of I-75, Upper Manatee River Road/Fort Hammer Road, Rye Road/C.R. 675, and Rye Road/Golf Course Road.

The Service finds that the report adequately describes the potential impacts to habitats in the project area. Compensatory mitigation is expected to be accomplished by the Southwest Florida Water Management District via the provisions of Florida Statute 373.4137.

The report discusses indirect impacts to vegetative communities that could be shaded by the bridge The FDOT expects to mitigate for direct impacts to wetlands. The Service will comment on the appropriateness of the mitigation proposed for direct and indirect wetland impacts through the FDOT Mitigation Review process and the Corps' permitting process.

At this time the impacts to sea grasses are minimal and therefore are not likely to adversely affect critical habitat for the West Indian manatee (*Trichecus manatus*).

We appreciate the opportunity to comment. If you have any question please contact Shelley Norton, (727) 570-5398, extension 14.

Sincerely,

Don Palmer

for Peter M. Benjamin
Asst. Field Supervisor

S: palmer\01-1034(2)\scm\10.03.01

URS

May 6, 2010

Ms. MaryAnn Poole
Director of the Office of Policy and Stakeholder Coordination
Florida Fish and Wildlife Conservation Commission
2574 Seagate Drive, Suite 250
Tallahassee, FL 32399

Re: Fort Hamer Bridge, Manatee County, Florida
URS Project No.: 12009385
Protected Species Information Request
Township 34 South, Range 19 East, Sections 5, 8, 17, 19, 20, 29, and 30

Dear Ms. Poole:

URS Corporation Southern has been contracted by Manatee County to conduct an environmental assessment of a proposed bridge corridor across the Manatee River at Fort Hamer Road. The study area extends along the Upper Manatee River Road on the south side of the river to Fort Hamer Road on the north side of the river, in Manatee County, Florida (see attached location map).

In order to better assess potential impacts associated with the proposed project, we are asking for any pertinent information on state listed species and documented bald eagle nest sites that may occur within one mile of the project area shown on the attached map.

We appreciate your assistance with this request. If you have any questions, need additional information, or would like to discuss this request, please call me at (813) 675-6631 or email me at Terry_Cartwright@URSCorp.com.

Sincerely,

URS Corporation Southern

Terry Cartwright

Enclosure

cc: Daren Carriere, URS

URS Corporation
7650 West Courtney
Campbell Causeway
Tampa, FL 33607-1462
Tel: 813.286.1711
Fax: 813.287.8591

URS

May 6, 2010

Mr. Todd Mecklenborg
Fish and Wildlife Biologist
U.S. Fish and Wildlife Service
600 Fourth Street South
St. Petersburg, FL 33701

Re: Fort Hamer Bridge, Manatee County, Florida
URS Project No.: 12009385
Protected Species Information Request
Township 34 South, Range 19 East, Sections 5, 8, 17, 19, 20, 29, and 30

Dear Mr. Mecklenborg:

URS Corporation Southern has been contracted by Manatee County to conduct an environmental assessment of a proposed bridge corridor across the Manatee River at Fort Hamer Road. The study area extends along the Upper Manatee River Road on the south side of the river to Fort Hamer Road on the north side of the river, in Manatee County, Florida (see attached location map).

In order to better assess potential impacts associated with the proposed project, we are asking for any pertinent information on wildlife habitat and federally listed species or candidate species that may occur within one mile of the project area shown on the attached map. In addition, please provide any information on wood stork rookeries that may occur within a 15-mile radius of the proposed project.

We appreciate your assistance with this request. If you have any questions, need additional information, or would like to discuss this request, please call me at (813) 675-6631 or email me at Terry_Cartwright@URSCorp.com.

Sincerely,

URS Corporation Southern

Terry Cartwright

Enclosure

cc: Daren Carriere, URS

URS Corporation
7650 West Courtney
Campbell Causeway
Tampa, FL 33607-1462
Tel: 813.286.1711
Fax: 813.287.8591

May 26, 2010

Mr. Terry Cartwright
URS Corporation
7650 W. Courtney Campbell Causeway
Tampa, Florida 33607-1462

Dear Mr. Cartwright:

This letter is in response to your request for listed species occurrence records and critical habitats for your project (URS No. 12009385) located in Manatee County, Florida. Records from The Florida Fish and Wildlife Conservation Commission's database indicate that listed species occurrence data are located within or adjacent to the project area. Enclosed are 8.5 x 11 maps showing listed species locations, SHCA's for the short-tailed kite and Cooper's hawk, prioritized SHCA's, species richness, priority wetlands for listed species, and land cover for the project area.

This letter and attachments should not be considered as a review or an assessment of the impact upon threatened or endangered species of the project site. It provides FWC's most current data regarding the location of listed species and their associated habitats.

Our SHCA recommendations are intended to be used as a guide. Land development and ownership in Florida is ever-changing and priority areas identified as SHCA might already have been significantly altered due to development or acquired into public ownership. Onsite surveys, literature reviews, and coordination with FWC biologists remain essential steps in documenting the presence or absence of rare and imperiled species and habitats within the project area.

Our fish and wildlife location data represents only those occurrences recorded by FWC staff and other affiliated researchers. It is important to understand that our database does not necessarily contain records of all listed species that may occur in a given area. Also, data on certain species, such as gopher tortoises, are not entered into our database on a site-specific basis. **Therefore, one should not assume that an absence of occurrences in our database indicates that species of significance do not occur in the area.**

The Florida Natural Areas Inventory (FNAI) maintains a separate database of listed plant and wildlife species, please contact FNAI directly for specific information on the location of element occurrences within the project area. Because FNAI is funded to provide information to public agencies only, you may be required to pay a fee for this information. County-wide listed species information can be located at their website (http://www.fnai.org).

Please credit the Florida Fish and Wildlife Conservation Commission in any publication or presentation of these data. If you have any questions or further requests, please contact me at (850) 488-0588 or gisrequests@myfwc.com.

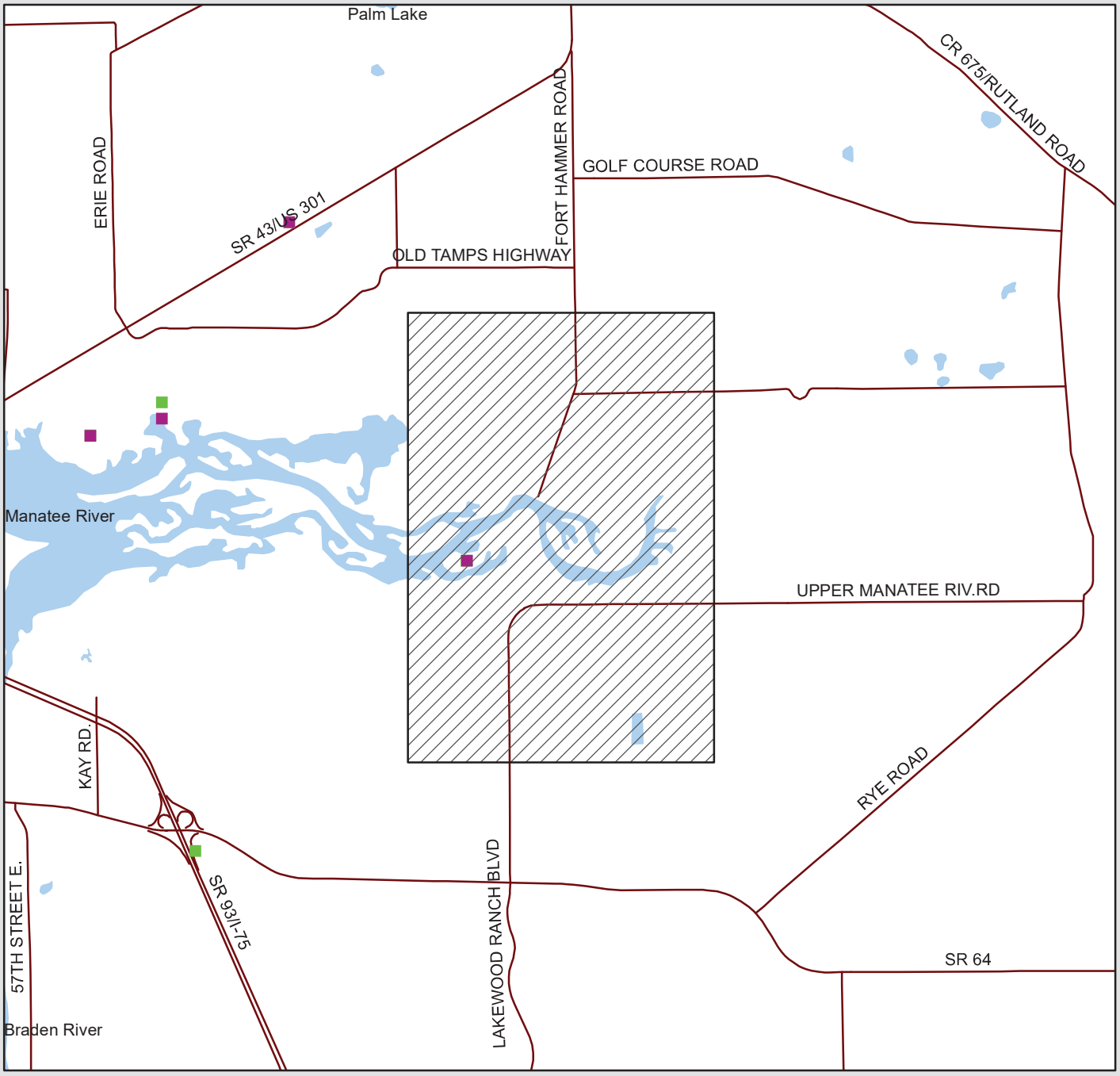
Sincerely,

Jan Stearns
Staff Assistant

js
2010_5524
Enclosures

Species Occurrence

URS Project No.: 12009385



- Eagles Nests
- Florida Natural Inventory Areas
- County Boundary
- Project Site

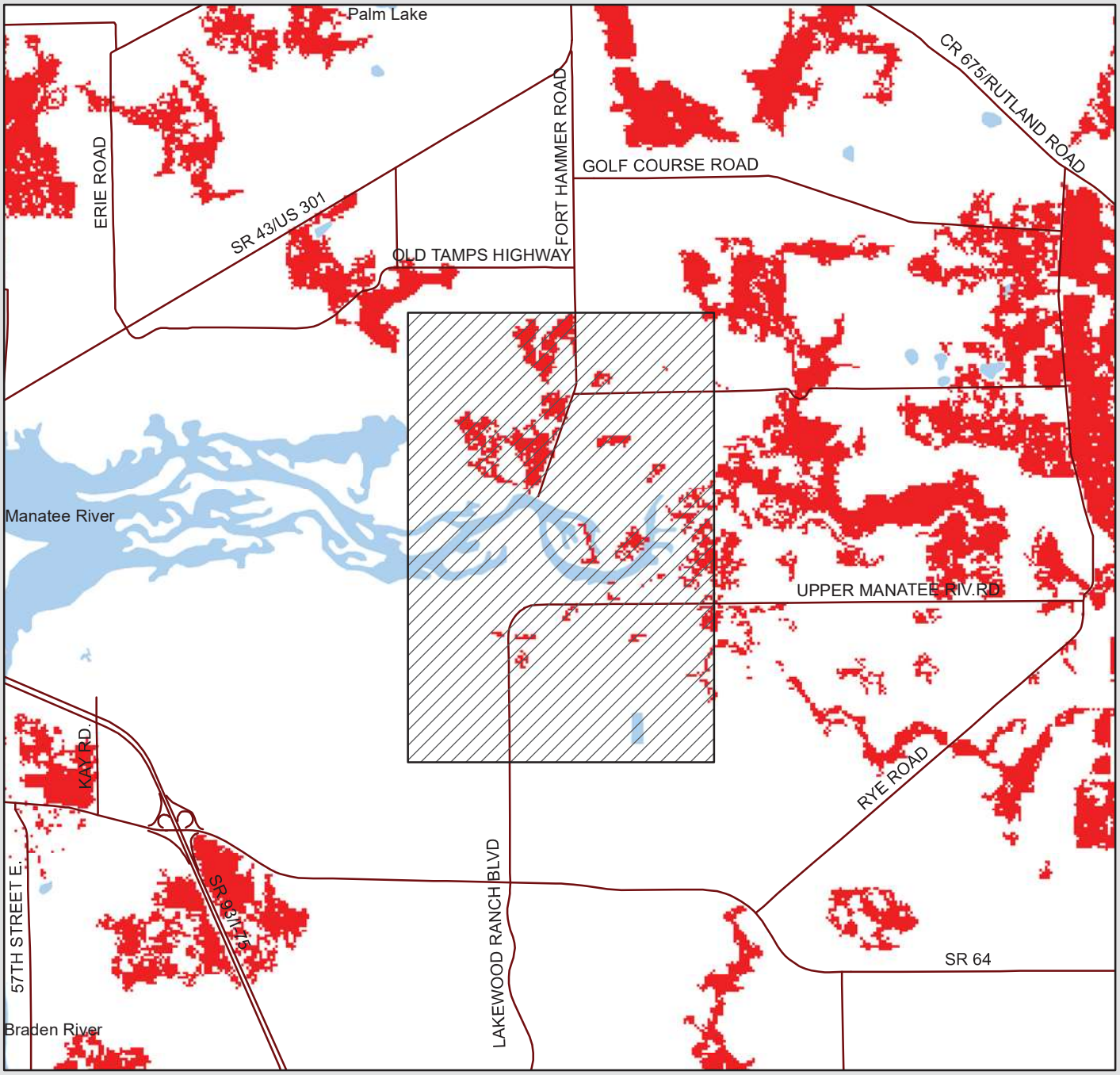
Miles
0 1 2 3

N

2010_5524

Strategic Habitat Conservation Areas

URS Project No.: 12009385



Strategic Habitat Conservation Areas
County Boundary
Project Site

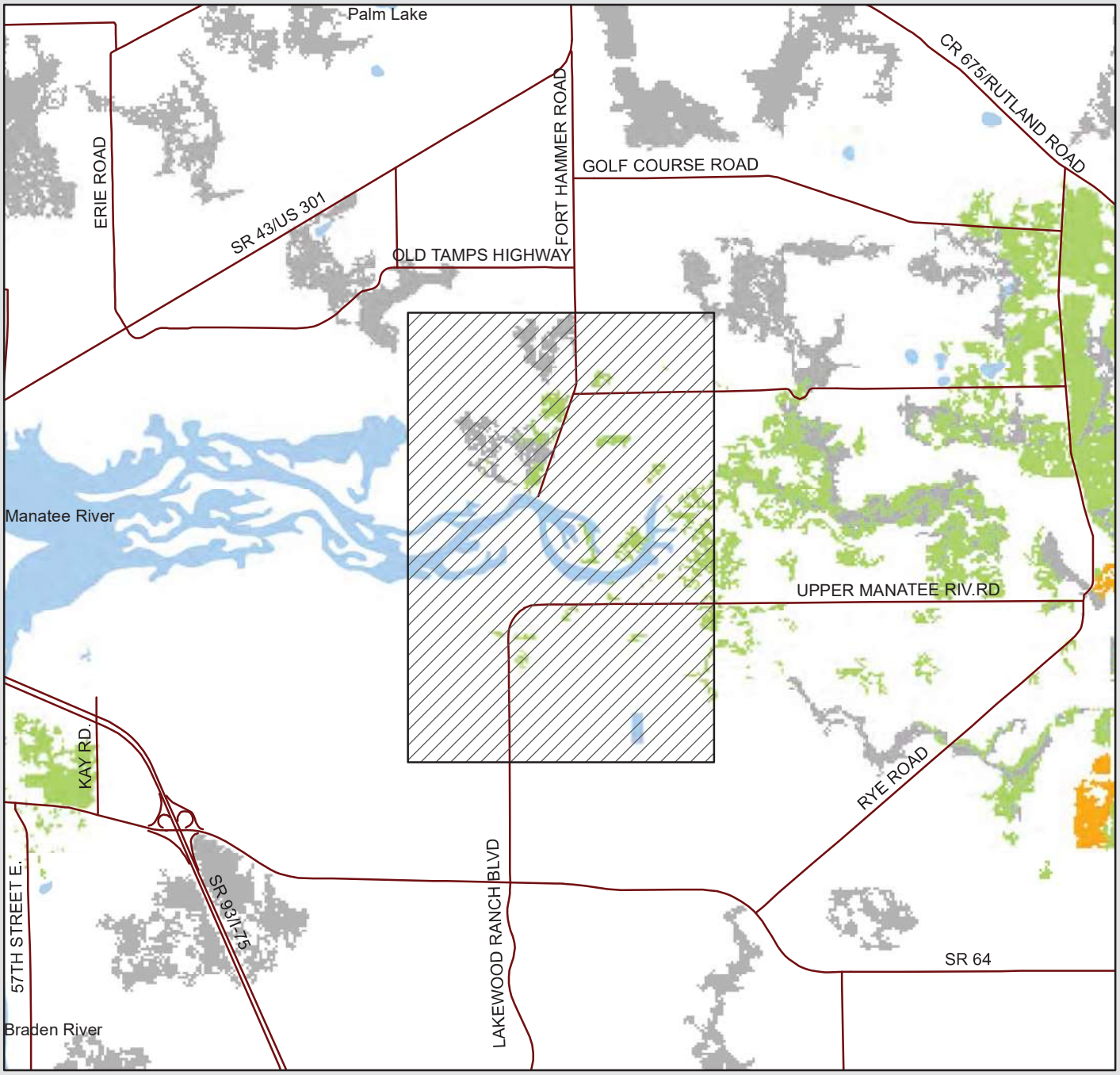
Miles
0 1 2 3

N

2010_5524

Prioritized SHCA's

URS Project No.: 12009385



Prioritized SHCA's
- Priority 1
- Priority 2
- Priority 3
- Priority 4
- Priority 5

County Boundary
Project Site

N

0 1 2 3 Miles

The prioritized SHCA map identifies 5 classes of SHCA based upon Heritage ranking criteria developed by The Nature Conservancy, the Natural Heritage Program Network, and the Florida Natural Areas Inventory. There are 2 possible ranks used to prioritize a species' SHCA: 1) the global rank based on a species worldwide status, and 2) the state rank based upon the species status in Florida. The state and global ranks are based upon many factors such as known occurrence locations, estimated abundance, range, amount of habitat currently protected, perceived levels of threats towards the species, and ecological fragility.

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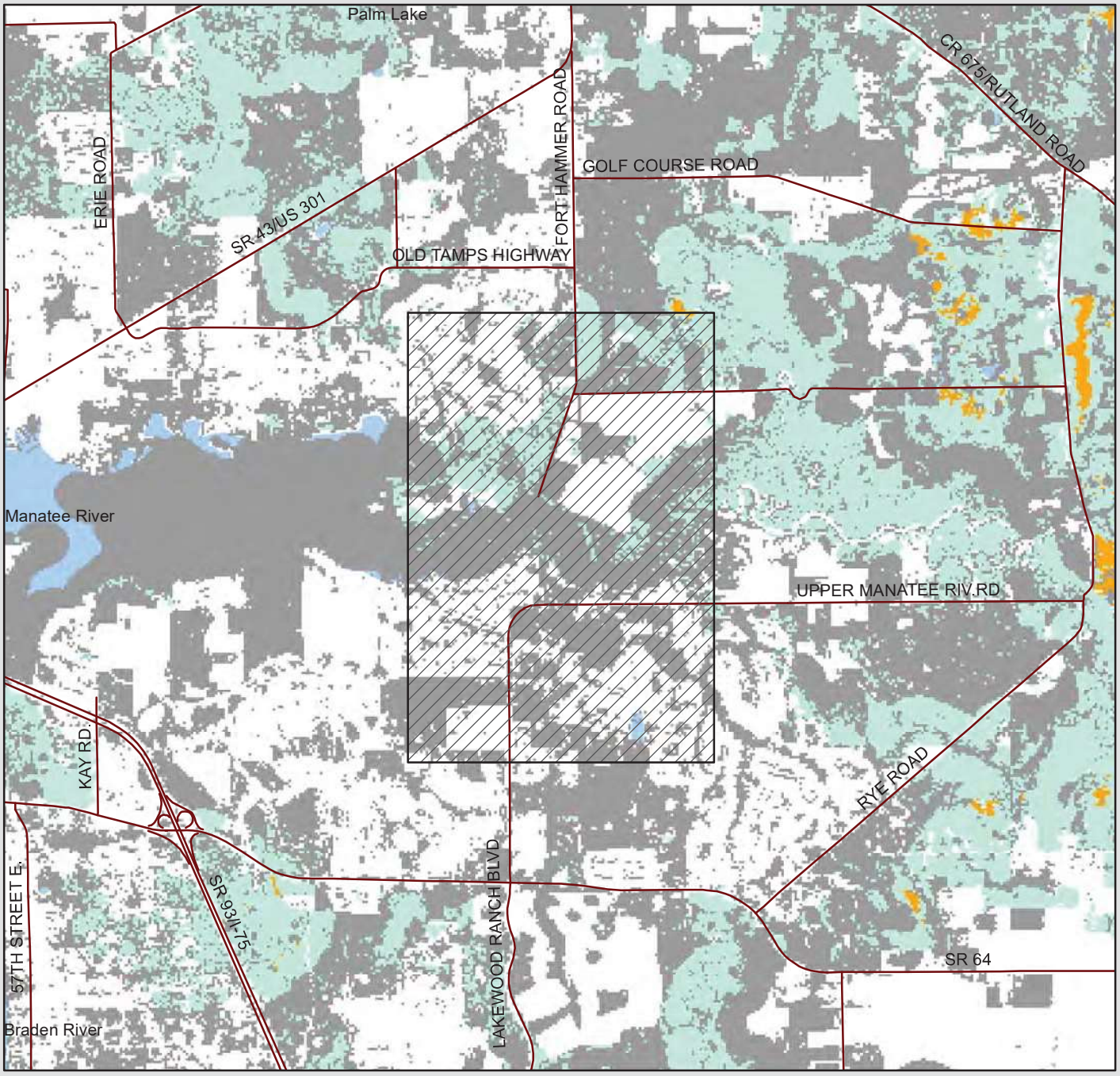
Species Richness

URS Project No.: 12009385



Species Richness
- 1 - 3
- 4 - 6
- 7 - 9
- 10 - 13

County Boundary
Project Site

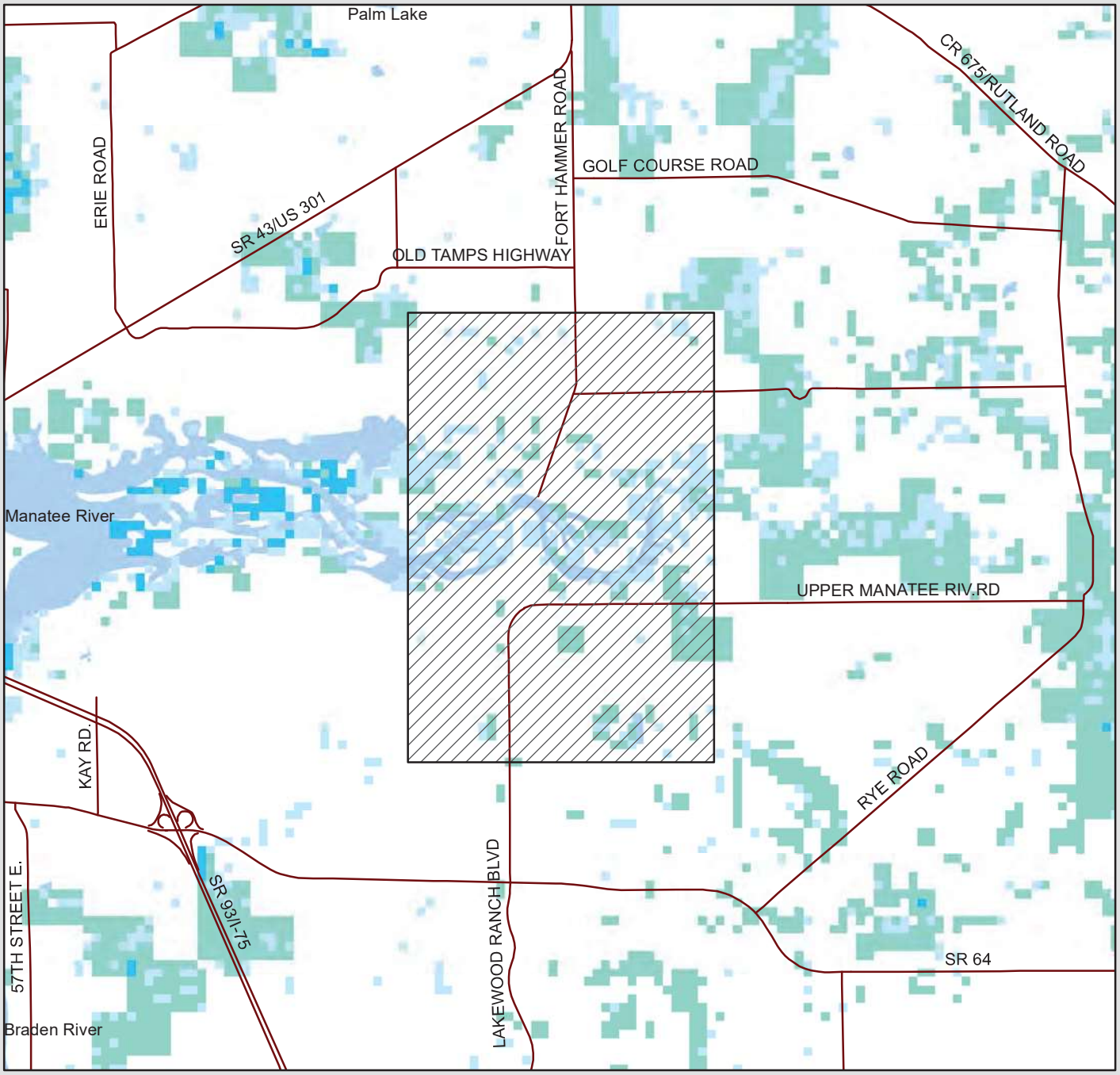
Miles
0 1 2 3

N

2010_5524

Priority Wetlands

URS Project No.: 12009385



Priority Wetlands

- 1-3 species, upland habitat
- 1-3 species, wetland habitat
- 4-6 species, upland habitat
- 4-6 species, wetland habitat
- 7-9 species, wetland habitat

- County Boundary
- Project Site

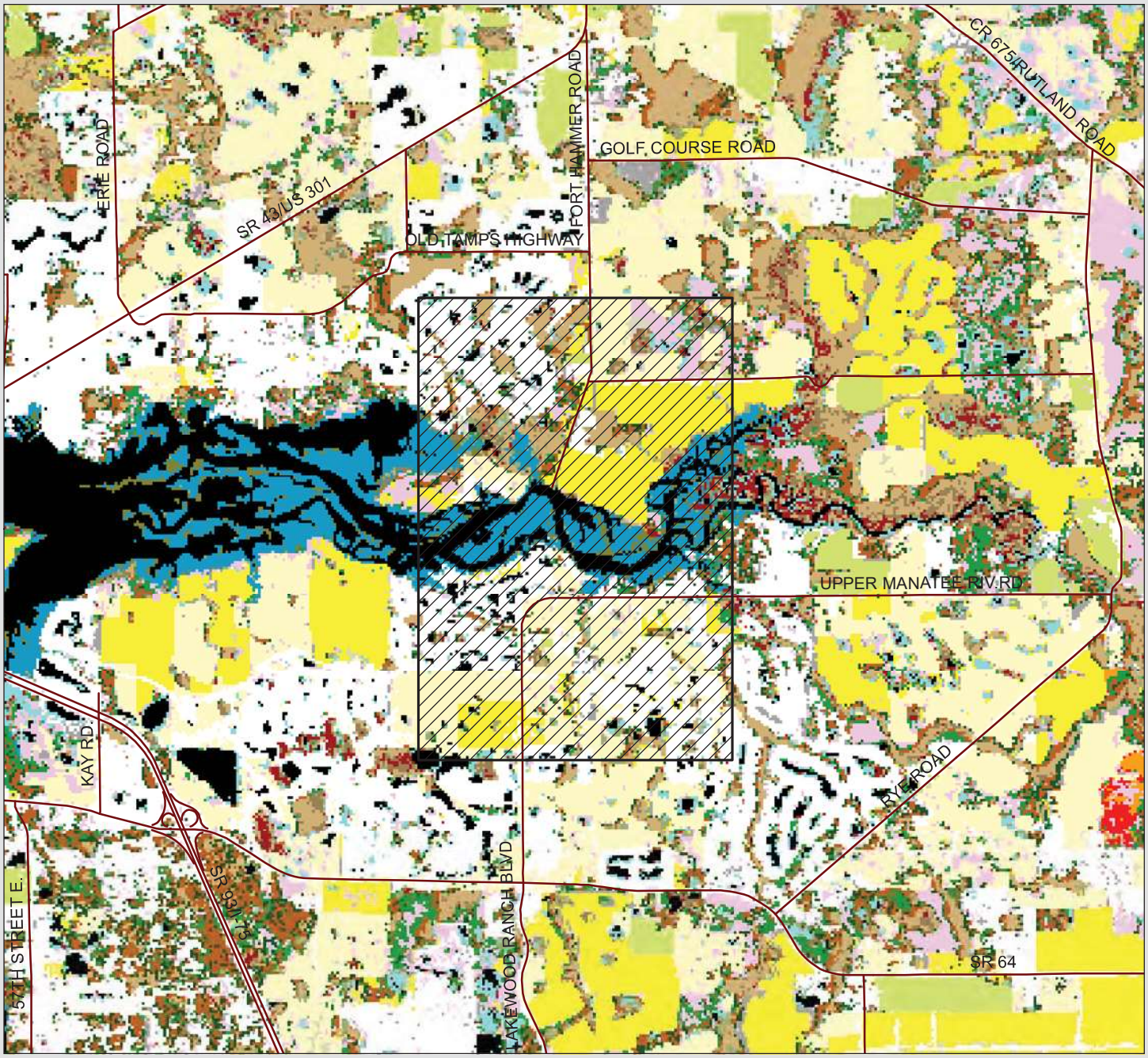
0 1 2 3 Miles

N

2010_5524

Florida Land Cover - 2003

URS Project No.:12009385



Project Site

Major Roads

County Boundary

Miles
0 0.5 1 1.5

- Coastal Strand
- Sand/Beach
- Xeric Oak Scrub
- Sand Pine Scrub
- Sandhill
- Dry Prairie
- Mixed Pine-Hardwood Forest
- Hardwood Hammocks and Forest
- Pinelands
- Cabbage Palm-Live Oak Hammock
- Tropical Hardwood Hammock
- Freshwater Marsh and Wet Prairie
- Sawgrass Marsh
- Cattail Marsh
- Shrub Swamp
- Bay Swamp
- Cypress Swamp
- Cypress/Pine/Cabbage Palm
- Mixed Wetland Forest
- Hardwood Swamp
- Hydric Hammock
- Bottomland Hardwood Forest
- Salt Marsh
- Mangrove Swamp
- Scrub Mangrove
- Tidal Flat
- Open Water
- Shrub and Brushland
- Grassland
- Bare Soil/Clearcut
- Improved Pasture
- Unimproved Pasture
- Other Agriculture
- Citrus
- Exotic Plants
- High and Low Impact Urban
- Extractive

2010 _5524

DEPARTMENT OF HOMELAND SECURITY

Coast Guard

[Docket No. USCG–2010–0455]

Environmental Impact Statement; Fort Hamer Bridge, Manatee County, FL

AGENCY: Coast Guard, DHS.

ACTION: Notice of intent to prepare a National Environmental Policy Act (NEPA) Environmental Impact Statement (EIS); request for comments; notice of public scoping meeting.

SUMMARY: The U.S. Coast Guard announces its intent to prepare an EIS for a proposed new bridge (Fort Hamer Bridge) crossing over the Manatee River in Manatee County, Florida. The proposed location for the Fort Hamer Bridge is in northeast Manatee County adjacent to Fort Hamer Park and will connect Fort Hamer Road and Upper Manatee River Road.

We request your comments on environmental concerns related to a new bridge over the Manatee River in Manatee County, Florida. This includes suggesting analyses, methodologies and possible sources of data or information related to a new bridge.

The Coast Guard will hold a public scoping meeting for citizens to provide oral and written comments relating to the proposed Fort Hamer Bridge and the preparation of an EIS. This meeting will be open to the public.

DATES: *Comment period:* Comments and related material must either be submitted to our online docket via *http://www.regulations.gov* on or before August 23, 2010, or reach the Docket Management Facility by that date.

Public meeting: A public scoping meeting will be held on Tuesday, August 17, from 4 p.m. to 8 p.m. to provide an opportunity for oral comments. If you would like to make an oral presentation at the meeting or submit written materials as part of the meeting record please provide your information identified by docket number USCG–2010–0455 to either the online docket via *http://www.regulations.gov* or the Docket Management Facility no later than August 3, 2010 using any one of the four methods listed under addresses. Requests to make oral comments or to submit written comments and related material may also be submitted to Coast Guard personnel specified at that meeting.

ADDRESSES: The public scoping meeting will be held at the Carlos E. Haile Middle School, 9501 E. State Road 64, Bradenton, Florida 34212–7240 and can be contacted at (941) 714–7240.

You may submit written comments identified by docket number USCG–2010–0455 using any one of the following methods:

(1) *Federal eRulemaking Portal: http://www.regulations.gov.*

(2) *Fax:* 202–493–2251.

(3) *Mail:* Docket Management Facility (M–30), U.S. Department of Transportation, West Building Ground Floor, Room W12–140, 1200 New Jersey Avenue, SE., Washington, DC 20590–0001.

(4) *Hand delivery:* Same as mail address above, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The telephone number is 202–366–9329.

To avoid duplication, please use only one of these methods. For instructions on submitting comments, see the "Public Participation and Request for Comments" portion of the **SUPPLEMENTARY INFORMATION** section below.

FOR FURTHER INFORMATION CONTACT: If you have questions regarding this notice, please contact Mr. Randall Overton, U.S. Coast Guard, telephone 305–415–6749, e-mail *randall.d.overton@uscg.mil.* If you have questions on viewing or submitting material to the docket, call Ms. Renee V. Wright, Program Manager, Docket Operations, telephone 202–366–9826.

SUPPLEMENTARY INFORMATION:

Public Participation and Request for Comments

We encourage you to participate in the scoping process by submitting comments and related material. The purpose of the scoping process is to ensure that the full range of issues related to the proposed action are addressed, and all significant issues identified, comments and suggestions are invited from all interested parties. All comments received will be posted, without change, to *http://www.regulations.gov* and will include any personal information you have provided.

Submitting comments: If you submit a comment, please include the docket number for this notice (USCG–2010–0455) and provide a reason for each suggestion or recommendation. We recommend that you include your name and a mailing address, an e-mail address, or a telephone number in the body of your document so that we can contact you if we have questions regarding your submission. You may submit your comments and material online, or by fax, mail or hand delivery, but please use only one of these means.

To submit your comment online, go to *http://www.regulations.gov,* click on the "submit a comment" box, which will then become highlighted in blue. In the "Document Type" drop down menu select "Notices" and insert "USCG–2010–0455" in the "Keyword" box. Click "Search" then click on the balloon shape in the Actions column. If you submit your comments by mail or hand delivery, submit them in an unbound format, no larger than 8½ by 11 inches, suitable for copying and electronic filing. If you submit them by mail and would like to know that they reached the Facility, please enclose a stamped, self-addressed postcard or envelope. We will consider all comments and material received during the comment period.

Viewing the comments: To view the comments as well as documents submitted to the docket go to *http://www.regulations.gov,* click on the "read comments" box, which will then become highlighted in blue. In the "Keyword" box insert USCG–2010–0455 and click "Search." Click the "Open Docket Folder" in the "Actions" column. You may also view the docket online by visiting the Docket Management Facility in Room W12–140 on the ground floor of the Department of Transportation West Building, 1200 New Jersey Avenue, SE., Washington, DC 20590, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. We have an agreement with the Department of Transportation to use the Docket Management Facility.

Privacy Act: Anyone can search the electronic form of comments received into any of our dockets by the name of the individual submitting the comment (or signing the comment, if submitted on behalf of an association, business, labor union, etc.). You may review a Privacy Act, system of records notice regarding our public dockets in the January 17, 2008 issue of the **Federal Register** (73 FR 3316).

Information on service for individuals with disabilities: For information on facilities or services for individuals with disabilities or to request special assistance at the public meeting contact Mr. Randall Overton, U.S. Coast Guard, telephone 305–415–6749, e-mail *randall.d.overton@uscg.mil.*

Background and Purpose

The proposed bridge crossing is a priority project in the Financially Feasible Plan of the Sarasota-Manatee Metropolitan Planning Organization's (SMMPO) 2030 Long Range Transportation Plan. The project's Web site is *http://www.forthamerbridge.com.* According to the SMMPO, the proposed bridge is needed to provide an alternate

north/south route to the east of Interstate Highway 75 (I–75) and enhance emergency service access to northeast Manatee County. Further, a new bridge will serve to improve the level of service to the existing network of north Manatee County roadways as development expands through the Parrish area and northward in Manatee County. The proposed location for the Fort Hamer Bridge is in northeast Manatee County adjacent to Fort Hamer Park and will connect Fort Hamer Road and Upper Manatee River Road.

Alternatives under consideration include: (1) Taking no action; and (2) various build alternatives that satisfy the purpose and need. Build alternatives may include low, mid, and high-level fixed bridges, alternatives to the east, west and center of the project corridor, and other alternatives that may result from the scoping process. We are requesting your comments on environmental concerns that you may have related to a new bridge in northeast Manatee County. This includes suggesting analyses and methodologies for use in the EIS or possible sources of data or information we should consider.

Public Scoping Meeting

The Public Scoping Meeting is open to the public and will start with an informal open house, followed by an overview presentation and a formal public comment period.

At the open house, Coast Guard personnel will be available to provide more information about the National Environmental Policy Act (NEPA), EIS process, and the Fort Hamer Bridge design project. Project graphics providing basic information about the project and the NEPA EIS process will be on display during the informal portion of the meeting.

Attendees at the meeting, who wish to present testimony and have not previously made a request to do so, will follow those having submitted a request, as time permits. If a large number of persons wish to speak, the presiding officer may limit the time allotted to each speaker. Conversely, the public meeting may end early if all present wishing to speak have done so.

A court reporter will be present during both the informal open house and the formal public comment period to record verbal comments from the public. The public can submit written comments related to the EIS and the proposed action at any time during the meeting. Verbal comments will be recorded and transcribed, and the transcription will be placed in the public docket along with any written statements that may be submitted during the meeting. These comments and statements will be addressed by the Coast Guard as part of the EIS.

Scoping Process

Public scoping is an early and open process for determining the scope of issues to be addressed in this EIS and for identifying the issues related to the proposed action that may have a significant effect on the project environment. The scoping process begins with publication of this notice and ends after the Coast Guard has:

- Invited the participation of Federal, State, and local agencies, any affected Indian tribe, and other interested persons;
- Requested the Environmental Protection Agency, the United States Fish and Wildlife Service, the National Marine Fisheries Service, the Federal Highway Administration, and the United States Army Corps of Engineers to serve as cooperating agencies in the preparation of this EIS. With this Notice of Intent, we are asking Federal, State, and local agencies with jurisdiction or special expertise with respect to environmental issues in the project area, in addition to those we have already contacted, to formally cooperate with us in the preparation of this EIS;
- Determined the scope and the issues to be analyzed in depth in the EIS;
- Allocated responsibility for preparing the EIS components;
- Indicated any related environmental assessments or environmental impact statements that are not part of this EIS;
- Identified other relevant environmental review and consultation requirements, such as Coastal Zone Management Act consistency determinations, and threatened and endangered species and habitat impacts;
- Indicated the relationship between timing of the environmental review and other aspects of the application process; and
- Exercised our option under 40 CFR 1501.7(b) to hold the public scoping meeting announced in this notice.

Once the scoping process is complete, the Coast Guard will prepare a draft EIS, and we will publish a **Federal Register** notice announcing its public availability. If you wish to be mailed or e-mailed the announcement of the EIS's notice of availability, please contact the person named in **FOR FURTHER INFORMATION CONTACT** or send a request to be added to our contact mailing list along with your name and mailing address or an e-mail address online, by fax, mail, or hand delivery according to the "Submitting comments" instructions above. Please include the docket number for this notice (USCG–2010–0455) in your request. If you provide comments on this notice, we will automatically add your contact information to our contact mailing list and you will automatically be sent an announcement of the draft EIS's notice of availability. We will provide the public with an opportunity to review and comment on the draft EIS. After the Coast Guard considers those comments, we will prepare the final EIS and similarly announce its availability and solicit public review and comment.

Dated: July 2, 2010.

Dana A. Goward,

Director, Office of Assessment, Integration and Risk Management.

[FR Doc. 2010–16721 Filed 7–8–10; 8:45 am]

BILLING CODE 9110–04–P

DEPARTMENT OF HOMELAND SECURITY

U.S. Citizenship and Immigration Services

[CIS No. 2489–09; DHS Docket No. USCIS 2010–0032]

RIN 1615–ZA95

Extension of the Designation of El Salvador for Temporary Protected Status and Automatic Extension of Employment Authorization Documentation for Salvadoran TPS Beneficiaries

AGENCY: U.S. Citizenship and Immigration Services, Department of Homeland Security (DHS).

ACTION: Notice.

SUMMARY: This Notice announces that the Secretary of Homeland Security has extended the designation of El Salvador for temporary protected status (TPS) for 18 months from its current expiration date of September 9, 2010, through March 9, 2012. This Notice also sets forth procedures necessary for nationals of El Salvador (or aliens having no nationality who last habitually resided in El Salvador) with TPS to re-register and to apply for an extension of their employment authorization documents (EADs) with U.S. Citizenship and Immigration Services (USCIS). Re-registration is limited to persons who previously registered for TPS under the designation of El Salvador and whose applications have been granted or remain pending. Certain nationals of El Salvador (or aliens having no nationality who last habitually resided in El Salvador) who have not previously

U.S. Department of Homeland Security
United States Coast Guard

Commander (dpb)
Seventh Coast Guard District

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July 19, 2010

PROJECT SCOPING MEETING NOTIFICATION

Subject: **Project Name: Fort Hamer Bridge, Manatee River Crossing**
Project Limits: From approximately 900 feet north of Waterlefe Boulevard on Upper Manatee River Road to 1,600 feet south of Mulholland Road on Fort Hamer Road
County/State: Manatee County, Florida
USCG Docket Number: USCG-2010-0455

The United States Coast Guard (USCG), in conjunction with Manatee County (County), is preparing an Environmental Impact Statement (EIS) on the above referenced project. This letter is an invitation for you or someone from your agency to attend a scoping meeting. The scoping meeting will be held on Tuesday, August 17, 2010 from 4 p.m. to 8 p.m. at Carlos E. Haile Middle School, 9501 E. State Road 64, Bradenton, Florida 34212-7240.

The purpose of this scoping meeting is to:

1. Determine the scope and significance of issues and the degree of analysis required for the EIS. This will also include identification of the range of alternatives and potential impacts to be evaluated.

2. Identify issues which are not significant or which have been covered by prior environmental studies and eliminate them from detailed study. This would narrow discussion in the EIS to a brief description of why they will not have a significant effect on the human environment or providing a reference to their coverage elsewhere.

3. Allocate assignments for sections of the EIS among lead and cooperating agencies with the lead agency (USCG) retaining responsibility for the EIS preparation.

4. Identify any environmental assessments or impact statements, which are being prepared and are related to, but are not part of, the scope of the EIS under consideration.

5. Identify other environmental review and consultation requirements so the lead and cooperating agencies may prepare other required analyses and studies concurrently with, and integrated with, the EIS. Examples of additional requirements include surveys and studies required by the National Historic Preservation Act and the Endangered Species Act.

6. Identify permits, licenses, or entitlements that will be necessary.

7. Determine the relationship between the timing of the preparation of environmental analyses and the agency's tentative planning and decision-making schedule.

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URS Corporation Southern of Tampa, Florida has been retained by the County to develop the EIS and conceptual design features for the proposed project.

The proposed improvements would involve a new bridge crossing over the Manatee River in Manatee County, Florida. The project limits extend from approximately 900 feet north of Waterlefe Boulevard on Upper Manatee River Road to 1600 feet south of Mulholland Road on Fort Hamer Road
Alternatives that have been considered or are currently under consideration include:

1. Taking no action;
2. Constructing a low, mid, or high-level bridge;
3. Alternatives to the east, west and center of the project corridor; and
4. Alternate corridors.

The proposed bridge will provide an alternate north/south route to the east of Interstate Highway 75 (I-75) and enhance emergency service access to northeast Manatee County. The proposed bridge will improve the level of service to north Manatee County roadways as development expands through the Parrish area and northward in Manatee County.

This formal scoping meeting is necessary to aid the USCG and the County in project development and to increase interagency awareness of concerns. An agenda and project location map are enclosed to assist you in studying this project and outlining potential issues. If you have any questions prior to the meeting please contact: Randall Overton, U.S. Coast Guard, telephone 305–415–6749, e-mail *randall.d.overton@uscg.mil.*

Your agency's participation and cooperation in this preliminary issues identification effort is highly encouraged, and the USCG would appreciate being notified by August 3, 2010 whether your agency will attend this meeting.

Sincerely,

BARRY DRAGON
Director, District Bridge Program
U.S. Coast Guard

U.S. Department of Homeland Security

United States Coast Guard

Commander (dpb)
Seventh Coast Guard District

909 SE 1st Ave (Suite 432)
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16475/3889
1932
July 20, 2010

Ms. Linda Walker, Deputy Field Supervisor
U.S. Fish and Wildlife Service
7915 Baymeadows Way, Suite 200
Jacksonville, FL 32256-7517

Re: Invitation to be a Cooperating Agency on an Environmental Impact Statement for the proposed Fort Hamer Bridge across the Manatee River, Manatee County, Florida.

Dear Ms. Walker:

The United States Coast Guard (USCG), in conjunction with Manatee County (County), is preparing an Environmental Impact Statement (EIS) for the proposed Fort Hamer Bridge across the Manatee River, Manatee County, Florida. In accordance with 40 CFR 1501.6, the Council on Environmental Quality's (CEQ) Regulations for Implementing the Procedural Provision of the National Environmental Policy Act, we are requesting you be a Cooperating Agency on this environmental document. This request is based on your Protected Resources and Habitat Conservation Jurisdiction. Designation as a Cooperating Agency does not imply that your agency supports the proposed project.

The proposed bridge crossing is a priority project in the Financially Feasible Plan of the Sarasota-Manatee Metropolitan Planning Organization's (SMMPO) 2030 Long Range Transportation Plan. The project's Web site is *http://www.forthamerbridge.com*. According to the SMMPO, the proposed bridge is needed to provide an alternate north/south route to the east of Interstate Highway 75 (I–75) and enhance emergency service access to northeast Manatee County. Further, a new bridge will serve to improve the level of service to the existing network of north Manatee County roadways as development expands through the Parrish area and northward in Manatee County. The proposed location for the Fort Hamer Bridge is in northeast Manatee County adjacent to Fort Hamer Park and will connect Fort Hamer Road and Upper Manatee River Road. Alternatives under consideration include: (1) Taking no action; and (2) various build alternatives that satisfy the purpose and need. Build alternatives may include low, mid, and high-level fixed bridges, alternatives to the east, west and center of the project corridor, and other alternatives that may result from the scoping process. We are requesting your comments on environmental concerns that you may have related to a new bridge in northeast Manatee County. This includes suggesting analyses and methodologies for use in the EIS or possible sources of data or information we should consider.

Your agency's involvement as a Cooperating Agency should entail those areas under its jurisdiction. Responsibilities of a Cooperating Agency include:

- Participation in the NEPA scoping and environmental review process at the earliest possible time.
- Providing comments on the project's purpose and need, goals and objectives, methodologies, and range of alternatives.
- Assisting in the development of a project coordination plan, including a project schedule.
- Providing (on request of the lead agency) information and assisting with the preparation of environmental analyses including portions of the NEPA documents relevant to your agencies jurisdiction or area of special expertise.
- Providing staff support at the lead agency's request to enhance the latter's interdisciplinary capability.
- Identifying, as early as practicable, any issues that could substantially delay or prevent an agency from granting a permit or other approval that is needed for the transportation project.

In response to a lead agency's request for assistance in preparing an environmental impact statement, a Cooperating Agency may reply that other program commitments preclude any involvement or their degree of involvement.

As a Cooperating Agency, you should expect the NEPA document to enable you to discharge your jurisdictional responsibilities. Likewise, you have the obligation to tell us if, at any point in the process, your agency's requirements are not being met. We expect that, at the end of the NEPA process, the Environmental Impact Statement will satisfy your NEPA requirements including those related to project alternatives, environmental consequences and mitigation. Further, we intend to utilize the Environmental Impact Statement and our subsequent Record of Decision as our decision-making documents.

We look forward to your response to our request for your agency to be a Cooperating Agency and to working with you on this project. The favor of a reply is requested by 12 August 2010. If you have any questions or would like to discuss in more detail the project or our agencies' respective roles and responsibilities during the preparation of this Environmental Impact Statement, please contact Randall D. Overton, USCG, Federal Permit Agent, at randall.d.overton@uscg.mil or 305-415-6749.

Thank you for your cooperation and interest in this project.

Sincerely,

BARRY DRAGON
Director, District Bridge Program
U.S. Coast Guard

U.S. Department of Homeland Security
United States Coast Guard

Commander (dpb)
Seventh Coast Guard District

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July 20, 2010

David Rydene, Ph.D.
National Marine Fisheries Service
Southeast Regional Office
263 13th Avenue South
St. Petersburg, FL 33701

Re: Invitation to be a Cooperating Agency on an Environmental Impact Statement for the proposed Fort Hamer Bridge across the Manatee River, Manatee County, Florida.

Dear Doctor Rydene:

The United States Coast Guard (USCG), in conjunction with Manatee County (County), is preparing an Environmental Impact Statement (EIS) for the proposed Fort Hamer Bridge across the Manatee River, Manatee County, Florida. In accordance with 40 CFR 1501.6, the Council on Environmental Quality's (CEQ) Regulations for Implementing the Procedural Provision of the National Environmental Policy Act, we are requesting you be a Cooperating Agency on this environmental document. This request is based on your Protected Resources and Habitat Conservation Jurisdiction. Designation as a Cooperating Agency does not imply that your agency supports the proposed project.

The proposed bridge crossing is a priority project in the Financially Feasible Plan of the Sarasota-Manatee Metropolitan Planning Organization's (SMMPO) 2030 Long Range Transportation Plan. The project's Web site is *http://www.forthamerbridge.com*. According to the SMMPO, the proposed bridge is needed to provide an alternate north/south route to the east of Interstate Highway 75 (I–75) and enhance emergency service access to northeast Manatee County. Further, a new bridge will serve to improve the level of service to the existing network of north Manatee County roadways as development expands through the Parrish area and northward in Manatee County. The proposed location for the Fort Hamer Bridge is in northeast Manatee County adjacent to Fort Hamer Park and will connect Fort Hamer Road and Upper Manatee River Road. Alternatives under consideration include: (1) Taking no action; and (2) various build alternatives that satisfy the purpose and need. Build alternatives may include low, mid, and high-level fixed bridges, alternatives to the east, west and center of the project corridor, and other alternatives that may result from the scoping process. We are requesting your comments on environmental concerns that you may have related to a new bridge in northeast Manatee County. This includes suggesting analyses and methodologies for use in the EIS or possible sources of data or information we should consider.

Your agency's involvement as a Cooperating Agency should entail those areas under its jurisdiction. Responsibilities of a Cooperating Agency include:

- Participation in the NEPA scoping and environmental review process at the earliest possible time.
- Providing comments on the project's purpose and need, goals and objectives, methodologies, and range of alternatives.
- Assisting in the development of a project coordination plan, including a project schedule.
- Providing (on request of the lead agency) information and assisting with the preparation of environmental analyses including portions of the NEPA documents relevant to your agencies jurisdiction or area of special expertise.
- Providing staff support at the lead agency's request to enhance the latter's interdisciplinary capability.
- Identifying, as early as practicable, any issues that could substantially delay or prevent an agency from granting a permit or other approval that is needed for the transportation project.

In response to a lead agency's request for assistance in preparing an environmental impact statement, a Cooperating Agency may reply that other program commitments preclude any involvement or their degree of involvement.

As a Cooperating Agency, you should expect the NEPA document to enable you to discharge your jurisdictional responsibilities. Likewise, you have the obligation to tell us if, at any point in the process, your agency's requirements are not being met. We expect that, at the end of the NEPA process, the Environmental Impact Statement will satisfy your NEPA requirements including those related to project alternatives, environmental consequences and mitigation. Further, we intend to utilize the Environmental Impact Statement and our subsequent Record of Decision as our decision-making documents.

We look forward to your response to our request for your agency to be a Cooperating Agency and to working with you on this project. The favor of a reply is requested by 12 August 2010. If you have any questions or would like to discuss in more detail the project or our agencies' respective roles and responsibilities during the preparation of this Environmental Impact Statement, please contact Randall D. Overton, USCG, Federal Permit Agent, at randall.d.overton@uscg.mil or 305-415-6749.

Thank you for your cooperation and interest in this project.

Sincerely,

BARRY DRAGON
Director, District Bridge Program
U.S. Coast Guard

U.S. Department of Homeland Security

United States Coast Guard

Commander (dpb)
Seventh Coast Guard District

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July 20, 2010

Mr. David Bernhart Assistant Administrator
National Marine Fisheries Service
Protected Resources Division
263 13th Avenue South
St. Petersburg, FL 33701

Re: Invitation to be a Cooperating Agency on an Environmental Impact Statement for the proposed Fort Hamer Bridge across the Manatee River, Manatee County, Florida.

Dear Mr. Bernhart:

The United States Coast Guard (USCG), in conjunction with Manatee County (County), is preparing an Environmental Impact Statement (EIS) for the proposed Fort Hamer Bridge across the Manatee River, Manatee County, Florida. In accordance with 40 CFR 1501.6, the Council on Environmental Quality's (CEQ) Regulations for Implementing the Procedural Provision of the National Environmental Policy Act, we are requesting you be a Cooperating Agency on this environmental document. This request is based on your Protected Resources and Habitat Conservation Jurisdiction. Designation as a Cooperating Agency does not imply that your agency supports the proposed project.

The proposed bridge crossing is a priority project in the Financially Feasible Plan of the Sarasota-Manatee Metropolitan Planning Organization's (SMMPO) 2030 Long Range Transportation Plan. The project's Web site is *http://www.forthamerbridge.com*. According to the SMMPO, the proposed bridge is needed to provide an alternate north/south route to the east of Interstate Highway 75 (I–75) and enhance emergency service access to northeast Manatee County. Further, a new bridge will serve to improve the level of service to the existing network of north Manatee County roadways as development expands through the Parrish area and northward in Manatee County. The proposed location for the Fort Hamer Bridge is in northeast Manatee County adjacent to Fort Hamer Park and will connect Fort Hamer Road and Upper Manatee River Road. Alternatives under consideration include: (1) Taking no action; and (2) various build alternatives that satisfy the purpose and need. Build alternatives may include low, mid, and high-level fixed bridges, alternatives to the east, west and center of the project corridor, and other alternatives that may result from the scoping process. We are requesting your comments on environmental concerns that you may have related to a new bridge in northeast Manatee County. This includes suggesting analyses and methodologies for use in the EIS or possible sources of data or information we should consider.

Your agency's involvement as a Cooperating Agency should entail those areas under its jurisdiction. Responsibilities of a Cooperating Agency include:

- Participation in the NEPA scoping and environmental review process at the earliest possible time.
- Providing comments on the project's purpose and need, goals and objectives, methodologies, and range of alternatives.
- Assisting in the development of a project coordination plan, including a project schedule.
- Providing (on request of the lead agency) information and assisting with the preparation of environmental analyses including portions of the NEPA documents relevant to your agencies jurisdiction or area of special expertise.
- Providing staff support at the lead agency's request to enhance the latter's interdisciplinary capability.
- Identifying, as early as practicable, any issues that could substantially delay or prevent an agency from granting a permit or other approval that is needed for the transportation project.

In response to a lead agency's request for assistance in preparing an environmental impact statement, a Cooperating Agency may reply that other program commitments preclude any involvement or their degree of involvement.

As a Cooperating Agency, you should expect the NEPA document to enable you to discharge your jurisdictional responsibilities. Likewise, you have the obligation to tell us if, at any point in the process, your agency's requirements are not being met. We expect that, at the end of the NEPA process, the Environmental Impact Statement will satisfy your NEPA requirements including those related to project alternatives, environmental consequences and mitigation. Further, we intend to utilize the Environmental Impact Statement and our subsequent Record of Decision as our decision-making documents.

We look forward to your response to our request for your agency to be a Cooperating Agency and to working with you on this project. The favor of a reply is requested by 12 August 2010. If you have any questions or would like to discuss in more detail the project or our agencies' respective roles and responsibilities during the preparation of this Environmental Impact Statement, please contact Randall D. Overton, USCG, Federal Permit Agent, at randall.d.overton@uscg.mil or 305-415-6749.

Thank you for your cooperation and interest in this project.

Sincerely,

BARRY DRAGON
Director, District Bridge Program
U.S. Coast Guard

U.S. Department of Homeland Security
United States Coast Guard

Commander (dpb)
Seventh Coast Guard District

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16475/3889
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July 20, 2010

Mr. Roy Crabtree Administrator
National Marine Fisheries Service
Southeast Regional Office
263 13th Avenue South
St. Petersburg, FL 33701

Re: Invitation to be a Cooperating Agency on an Environmental Impact Statement for the proposed Fort Hamer Bridge across the Manatee River, Manatee County, Florida.

Dear Mr. Crabtree:

The United States Coast Guard (USCG), in conjunction with Manatee County (County), is preparing an Environmental Impact Statement (EIS) for the proposed Fort Hamer Bridge across the Manatee River, Manatee County, Florida. In accordance with 40 CFR 1501.6, the Council on Environmental Quality's (CEQ) Regulations for Implementing the Procedural Provision of the National Environmental Policy Act, we are requesting you be a Cooperating Agency on this environmental document. This request is based on your Protected Resources and Habitat Conservation Jurisdiction. Designation as a Cooperating Agency does not imply that your agency supports the proposed project.

The proposed bridge crossing is a priority project in the Financially Feasible Plan of the Sarasota-Manatee Metropolitan Planning Organization's (SMMPO) 2030 Long Range Transportation Plan. The project's Web site is *http://www.forthamerbridge.com*. According to the SMMPO, the proposed bridge is needed to provide an alternate north/south route to the east of Interstate Highway 75 (I–75) and enhance emergency service access to northeast Manatee County. Further, a new bridge will serve to improve the level of service to the existing network of north Manatee County roadways as development expands through the Parrish area and northward in Manatee County. The proposed location for the Fort Hamer Bridge is in northeast Manatee County adjacent to Fort Hamer Park and will connect Fort Hamer Road and Upper Manatee River Road. Alternatives under consideration include: (1) Taking no action; and (2) various build alternatives that satisfy the purpose and need. Build alternatives may include low, mid, and high-level fixed bridges, alternatives to the east, west and center of the project corridor, and other alternatives that may result from the scoping process. We are requesting your comments on environmental concerns that you may have related to a new bridge in northeast Manatee County. This includes suggesting analyses and methodologies for use in the EIS or possible sources of data or information we should consider.

Your agency's involvement as a Cooperating Agency should entail those areas under its jurisdiction. Responsibilities of a Cooperating Agency include:

- Participation in the NEPA scoping and environmental review process at the earliest possible time.
- Providing comments on the project's purpose and need, goals and objectives, methodologies, and range of alternatives.
- Assisting in the development of a project coordination plan, including a project schedule.
- Providing (on request of the lead agency) information and assisting with the preparation of environmental analyses including portions of the NEPA documents relevant to your agencies jurisdiction or area of special expertise.
- Providing staff support at the lead agency's request to enhance the latter's interdisciplinary capability.
- Identifying, as early as practicable, any issues that could substantially delay or prevent an agency from granting a permit or other approval that is needed for the transportation project.

In response to a lead agency's request for assistance in preparing an environmental impact statement, a Cooperating Agency may reply that other program commitments preclude any involvement or their degree of involvement.

As a Cooperating Agency, you should expect the NEPA document to enable you to discharge your jurisdictional responsibilities. Likewise, you have the obligation to tell us if, at any point in the process, your agency's requirements are not being met. We expect that, at the end of the NEPA process, the Environmental Impact Statement will satisfy your NEPA requirements including those related to project alternatives, environmental consequences and mitigation. Further, we intend to utilize the Environmental Impact Statement and our subsequent Record of Decision as our decision-making documents.

We look forward to your response to our request for your agency to be a Cooperating Agency and to working with you on this project. The favor of a reply is requested by 12 August 2010. If you have any questions or would like to discuss in more detail the project or our agencies' respective roles and responsibilities during the preparation of this Environmental Impact Statement, please contact Randall D. Overton, USCG, Federal Permit Agent, at randall.d.overton@uscg.mil or 305-415-6749.

Thank you for your cooperation and interest in this project.

Sincerely,

BARRY DRAGON
Director, District Bridge Program
U.S. Coast Guard

U.S. Department of Homeland Security

United States Coast Guard

Commander (dpb)
Seventh Coast Guard District

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16475/3889
1932
July 20, 2010

Mr. John Fellows
U.S. Army Corps of Engineers
10117 Princess Palm Avenue, Suite 120
Tampa, FL 33610-8302

Re: Invitation to be a Cooperating Agency on an Environmental Impact Statement for the proposed Fort Hamer Bridge across the Manatee River, Manatee County, Florida.

Dear Mr. Fellows:

The United States Coast Guard (USCG), in conjunction with Manatee County (County), is preparing an Environmental Impact Statement (EIS) for the proposed Fort Hamer Bridge across the Manatee River, Manatee County, Florida. In accordance with 40 CFR 1501.6, the Council on Environmental Quality's (CEQ) Regulations for Implementing the Procedural Provision of the National Environmental Policy Act, we are requesting you be a Cooperating Agency on this environmental document. This request is based on your Regulatory Jurisdiction. Designation as a Cooperating Agency does not imply that your agency supports the proposed project.

The proposed bridge crossing is a priority project in the Financially Feasible Plan of the Sarasota-Manatee Metropolitan Planning Organization's (SMMPO) 2030 Long Range Transportation Plan. The project's Web site is *http://www.forthamerbridge.com*. According to the SMMPO, the proposed bridge is needed to provide an alternate north/south route to the east of Interstate Highway 75 (I–75) and enhance emergency service access to northeast Manatee County. Further, a new bridge will serve to improve the level of service to the existing network of north Manatee County roadways as development expands through the Parrish area and northward in Manatee County. The proposed location for the Fort Hamer Bridge is in northeast Manatee County adjacent to Fort Hamer Park and will connect Fort Hamer Road and Upper Manatee River Road. Alternatives under consideration include: (1) Taking no action; and (2) various build alternatives that satisfy the purpose and need. Build alternatives may include low, mid, and high-level fixed bridges, alternatives to the east, west and center of the project corridor, and other alternatives that may result from the scoping process. We are requesting your comments on environmental concerns that you may have related to a new bridge in northeast Manatee County. This includes suggesting analyses and methodologies for use in the EIS or possible sources of data or information we should consider.

Your agency's involvement as a Cooperating Agency should entail those areas under its jurisdiction. Responsibilities of a Cooperating Agency include:

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- Providing comments on the project's purpose and need, goals and objectives, methodologies, and range of alternatives.
- Assisting in the development of a project coordination plan, including a project schedule.
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- Providing staff support at the lead agency's request to enhance the latter's interdisciplinary capability.
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In response to a lead agency's request for assistance in preparing an environmental impact statement, a Cooperating Agency may reply that other program commitments preclude any involvement or their degree of involvement.

As a Cooperating Agency, you should expect the NEPA document to enable you to discharge your jurisdictional responsibilities. Likewise, you have the obligation to tell us if, at any point in the process, your agency's requirements are not being met. We expect that, at the end of the NEPA process, the Environmental Impact Statement will satisfy your NEPA requirements including those related to project alternatives, environmental consequences and mitigation. Further, we intend to utilize the Environmental Impact Statement and our subsequent Record of Decision as our decision-making documents.

We look forward to your response to our request for your agency to be a Cooperating Agency and to working with you on this project. The favor of a reply is requested by 12 August 2010. If you have any questions or would like to discuss in more detail the project or our agencies' respective roles and responsibilities during the preparation of this Environmental Impact Statement, please contact Randall D. Overton, USCG, Federal Permit Agent, at randall.d.overton@uscg.mil or 305-415-6749.

Thank you for your cooperation and interest in this project.

Sincerely,

BARRY DRAGON
Director, District Bridge Program
U.S. Coast Guard

U.S. Department of Homeland Security

United States Coast Guard

Commander (dpb)
Seventh Coast Guard District

909 SE 1st Ave (Suite 432)
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1932
July 20, 2010

Col. Paul Grosskruger, District Engineer
U.S. Army Corps of Engineers, Jacksonville District
Regulatory Branch
P.O. Box 4970
Jacksonville, FL 32232-0019

Re: Invitation to be a Cooperating Agency on an Environmental Impact Statement for the proposed Fort Hamer Bridge across the Manatee River, Manatee County, Florida.

Dear Colonel Grosskruger:

The United States Coast Guard (USCG), in conjunction with Manatee County (County), is preparing an Environmental Impact Statement (EIS) for the proposed Fort Hamer Bridge across the Manatee River, Manatee County, Florida. In accordance with 40 CFR 1501.6, the Council on Environmental Quality's (CEQ) Regulations for Implementing the Procedural Provision of the National Environmental Policy Act, we are requesting you be a Cooperating Agency on this environmental document. This request is based on your Regulatory Jurisdiction. Designation as a Cooperating Agency does not imply that your agency supports the proposed project.

The proposed bridge crossing is a priority project in the Financially Feasible Plan of the Sarasota-Manatee Metropolitan Planning Organization's (SMMPO) 2030 Long Range Transportation Plan. The project's Web site is *http://www.forthamerbridge.com*. According to the SMMPO, the proposed bridge is needed to provide an alternate north/south route to the east of Interstate Highway 75 (I–75) and enhance emergency service access to northeast Manatee County. Further, a new bridge will serve to improve the level of service to the existing network of north Manatee County roadways as development expands through the Parrish area and northward in Manatee County. The proposed location for the Fort Hamer Bridge is in northeast Manatee County adjacent to Fort Hamer Park and will connect Fort Hamer Road and Upper Manatee River Road. Alternatives under consideration include: (1) Taking no action; and (2) various build alternatives that satisfy the purpose and need. Build alternatives may include low, mid, and high-level fixed bridges, alternatives to the east, west and center of the project corridor, and other alternatives that may result from the scoping process. We are requesting your comments on environmental concerns that you may have related to a new bridge in northeast Manatee County. This includes suggesting analyses and methodologies for use in the EIS or possible sources of data or information we should consider.

Your agency's involvement as a Cooperating Agency should entail those areas under its jurisdiction. Responsibilities of a Cooperating Agency include:

- Participation in the NEPA scoping and environmental review process at the earliest possible time.
- Providing comments on the project's purpose and need, goals and objectives, methodologies, and range of alternatives.
- Assisting in the development of a project coordination plan, including a project schedule.
- Providing (on request of the lead agency) information and assisting with the preparation of environmental analyses including portions of the NEPA documents relevant to your agencies jurisdiction or area of special expertise.
- Providing staff support at the lead agency's request to enhance the latter's interdisciplinary capability.
- Identifying, as early as practicable, any issues that could substantially delay or prevent an agency from granting a permit or other approval that is needed for the transportation project.

In response to a lead agency's request for assistance in preparing an environmental impact statement, a Cooperating Agency may reply that other program commitments preclude any involvement or their degree of involvement.

As a Cooperating Agency, you should expect the NEPA document to enable you to discharge your jurisdictional responsibilities. Likewise, you have the obligation to tell us if, at any point in the process, your agency's requirements are not being met. We expect that, at the end of the NEPA process, the Environmental Impact Statement will satisfy your NEPA requirements including those related to project alternatives, environmental consequences and mitigation. Further, we intend to utilize the Environmental Impact Statement and our subsequent Record of Decision as our decision-making documents.

We look forward to your response to our request for your agency to be a Cooperating Agency and to working with you on this project. The favor of a reply is requested by 12 August 2010. If you have any questions or would like to discuss in more detail the project or our agencies' respective roles and responsibilities during the preparation of this Environmental Impact Statement, please contact Randall D. Overton, USCG, Federal Permit Agent, at randall.d.overton@uscg.mil or 305-415-6749.

Thank you for your cooperation and interest in this project.

Sincerely,

BARRY DRAGON
Director, District Bridge Program
U.S. Coast Guard

U.S. Department of Homeland Security
United States Coast Guard

Commander (dpb)
Seventh Coast Guard District

909 SE 1st Ave (Suite 432)
Miami, FL 33131-3050
Staff Symbol: dpb
Phone: 305-415-6749
Fax: 305-415-6763
Email: randall.d.overton@uscg.mil

16475/3889
1932
July 20, 2010

Ms. Jan Rogers
Director
U.S. Environmental Protection Agency
Region 4 - South Florida Office Urban Outreach
400 N. Congress Avenue, Suite 120
West Palm Beach, FL 33401

Re: Invitation to be a Cooperating Agency on an Environmental Impact Statement for the proposed Fort Hamer Bridge across the Manatee River, Manatee County, Florida.

Dear Ms. Rogers:

The United States Coast Guard (USCG), in conjunction with Manatee County (County), is preparing an Environmental Impact Statement (EIS) for the proposed Fort Hamer Bridge across the Manatee River, Manatee County, Florida. In accordance with 40 CFR 1501.6, the Council on Environmental Quality's (CEQ) Regulations for Implementing the Procedural Provision of the National Environmental Policy Act, we are requesting you be a Cooperating Agency on this environmental document. This request is based on your Regulatory Jurisdiction. Designation as a Cooperating Agency does not imply that your agency supports the proposed project.

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We look forward to your response to our request for your agency to be a Cooperating Agency and to working with you on this project. The favor of a reply is requested by 12 August 2010. If you have any questions or would like to discuss in more detail the project or our agencies' respective roles and responsibilities during the preparation of this Environmental Impact Statement, please contact Randall D. Overton, USCG, Federal Permit Agent, at randall.d.overton@uscg.mil or 305-415-6749.

Thank you for your cooperation and interest in this project.

Sincerely,

BARRY DRAGON
Director, District Bridge Program
U.S. Coast Guard

U.S. Department of Homeland Security

United States Coast Guard

Commander (dpb)
Seventh Coast Guard District

909 SE 1st Ave (Suite 432)
Miami, FL 33131-3050
Staff Symbol: dpb
Phone: 305-415-6749
Fax: 305-415-6763
Email: randall.d.overton@uscg.mil

16475/3889
1932
July 20, 2010

Mr. Tom Welborn
Director
U.S. Environmental Protection Agency
Region 4 - South Florida Office
61 Forsyth Street, SW
Mail Code 9T25
Atlanta, GA 30303-8960

Re: Invitation to be a Cooperating Agency on an Environmental Impact Statement for the proposed Fort Hamer Bridge across the Manatee River, Manatee County, Florida.

Dear Mr. Welborn:

The United States Coast Guard (USCG), in conjunction with Manatee County (County), is preparing an Environmental Impact Statement (EIS) for the proposed Fort Hamer Bridge across the Manatee River, Manatee County, Florida. In accordance with 40 CFR 1501.6, the Council on Environmental Quality's (CEQ) Regulations for Implementing the Procedural Provision of the National Environmental Policy Act, we are requesting you be a Cooperating Agency on this environmental document. This request is based on your Regulatory Jurisdiction. Designation as a Cooperating Agency does not imply that your agency supports the proposed project.

The proposed bridge crossing is a priority project in the Financially Feasible Plan of the Sarasota-Manatee Metropolitan Planning Organization's (SMMPO) 2030 Long Range Transportation Plan. The project's Web site is *http://www.forthamerbridge.com*. According to the SMMPO, the proposed bridge is needed to provide an alternate north/south route to the east of Interstate Highway 75 (I–75) and enhance emergency service access to northeast Manatee County. Further, a new bridge will serve to improve the level of service to the existing network of north Manatee County roadways as development expands through the Parrish area and northward in Manatee County. The proposed location for the Fort Hamer Bridge is in northeast Manatee County adjacent to Fort Hamer Park and will connect Fort Hamer Road and Upper Manatee River Road. Alternatives under consideration include: (1) Taking no action; and (2) various build alternatives that satisfy the purpose and need. Build alternatives may include low, mid, and high-level fixed bridges, alternatives to the east, west and center of the project corridor, and other alternatives that may result from the scoping process. We are requesting your comments on environmental concerns that you may have related to a new bridge in northeast Manatee County. This includes suggesting analyses and methodologies for use in the EIS or possible sources of data or information we should consider.

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- Assisting in the development of a project coordination plan, including a project schedule.
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We look forward to your response to our request for your agency to be a Cooperating Agency and to working with you on this project. The favor of a reply is requested by 12 August 2010. If you have any questions or would like to discuss in more detail the project or our agencies' respective roles and responsibilities during the preparation of this Environmental Impact Statement, please contact Randall D. Overton, USCG, Federal Permit Agent, at randall.d.overton@uscg.mil or 305-415-6749.

Thank you for your cooperation and interest in this project.

Sincerely,

BARRY DRAGON
Director, District Bridge Program
U.S. Coast Guard

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Southeast Regional Office
263 13th Avenue South
St. Petersburg, Florida 33701-5505
(727) 824-5317; FAX 824-5300

July 27, 2010 F/SER46:DR/mt

Barry Dragon
Director, District Bridge Program
United States Coast Guard
Seventh Coast Guard District
909 SE 1st Avenue, Suite 432
Miami, Florida 33131-3050

Dear Mr. Dragon:

NOAA's National Marine Fisheries Service (NMFS) has received your letter inviting NMFS to be a cooperating agency on the Environmental Impact Statement for the proposed Fort Hamer Bridge across the Manatee River in Manatee County, Florida. While NMFS thanks you for the invitation to be a cooperating agency, we must decline the offer due to manpower limitations. We will have to will have to limit our project activities to participation in conference calls, attending occasional meetings, conducting on-site field investigations, and review of relevant project documents. Thank you again for the invitation. We look forward to coordinating with the Coast Guard on this project.

If you have questions regarding our response please contact me at the letterhead address or by calling (727) 824-5379.

Sincerely,

David R

David Rydene
Fishery Biologist
Habitat Conservation Division

cc:
F/SER4
F/SER46 - Rydene

DEPARTMENT OF THE ARMY
JACKSONVILLE DISTRICT CORPS OF ENGINEERS
10117 PRINCESS PALM AVENUE, SUITE 120
TAMPA, FLORIDA 33610

REPLY TO
ATTENTION OF

July 29, 2010

Tampa Regulatory Office
SAJ-2010-02223 (EIS-JPF)

Mr. Barry Dragon
Director, District Bridge Program
United States Coast Guard
909 SE 1st Avenue (Suite 432)
Miami, Florida 33131-3050

Dear Mr. Dragon:

This letter is written in reference to your correspondence dated July 20, 2010, in which you requested the United States Army Corps of Engineers (Corps) to become a cooperating agency during the review and preparation of the Environmental Impact Statement for the Fort Hamer Bridge across the Manatee River, Manatee County, Florida. The Corps agrees to become a cooperating agency with the United States Coast Guard.

The application has been assigned Corps file number SAJ-2010-02223, and the project has been assigned to John Fellows. Should you have any questions, please contact him at the letterhead address or by telephone (813) 769-7067, by fax (813) 769-7061 or by e-mail at John.P.Fellows@usace.army.mil.

The Corps' Jacksonville District Regulatory Division looks forward to working in tandem with your agency. Should you have any additional questions, please do not hesitate to contact me.

Sincerely,

Stephen R. Sullivan
Chief, South Permits Branch

Copies furnished:
RD
File
Randall Overton, USCG
(Via electronic mail: randall.d.overton@uscg.mil)

United States Department of the Interior
U. S. FISH AND WILDLIFE SERVICE
7915 BAYMEADOWS WAY, SUITE 200
JACKSONVILLE, FLORIDA 32256-7517

IN REPLY REFER TO:

FWS Log No. 41910-2010-R-0397

August 24, 2010

Barry Dragon
Director, District Bridge Program
U.S. Coast Guard
909 SE 1st Avenue (RM 432)
Miami, FL 33187

Dear Mr. Dragon,

On July 20, 2010 our office received a request from the Office of Environmental Policy and Compliance to conduct an environmental review on the Notice of Intent to prepare an Environmental Impact Statement (EIS) for the proposed Fort Hamer Bridge over the Manatee River located in Manatee County, Florida.

To our knowledge, our office has not commented on this proposal through FDOT's Efficient Transportation Decision Making (ETDM) system online or in accordance with the section 7 consultation process under the Endangered Species Act of 1973 (ESA), as amended (16 U.S.C. 1531 *et seq.*)

Based on a cursory review of the study area we expect to have comments as this proposal progresses. Our environmental concerns are likely to include potential impacts to submerged aquatic vegetation (SAV) in the Manatee River as a result of the construction activities, the shading effects and the project footprint from a new bridge; impacts to Florida manatees during construction; impacts to unique freshwater marshes in the area; increased turbidity, sedimentation and nutrient loading in the Manatee River which is designated as an Outstanding Florida Waterway (OFW); contaminants entering the waterway from road run off; increased road kill; increased residential development and further fragmentation of wildlife habitat in a rural area; new connector roads, and/or road widening and hardening as an indirect result of a new bridge providing access to undeveloped areas.

We look forward to the opportunity to review the draft EIS as well as provide comments through the consultation process. Thank you for allowing us to comment early in the consultation process. We regret that we are unable to participate in the development of the EIS as a cooperating agency.

Sincerely,

for David L. Hankla
Field Supervisor

URS

September 20, 2010

Ms. MaryAnn Poole
Director of the Office of Policy and Stakeholder Coordination
Florida Fish and Wildlife Conservation Commission
2574 Seagate Drive, Suite 250
Tallahassee, FL 32399

Re: Fort Hamer Bridge, Manatee County, Florida
URS Project No.: 12009385
Protected Species Information Request
Township 34 South, Range 19 East, Sections 5, 8, 17, 19, 20, 29, and 30

Dear Ms. Poole:

URS Corporation Southern has been contracted by Manatee County to prepare an Environmental Impact Statement (EIS) for a proposed bridge across the Manatee River at Fort Hamer Road. The study area extends along the Upper Manatee River Road on the south side of the river to Fort Hamer Road on the north side of the river, in Manatee County, Florida (see attached location map).

In 1999, this project was being proposed by the Florida Department of Transportation (FDOT), who prepared a Draft EIS for the project. During the EIS process, the Florida Fish and Wildlife Conservation Commission provided a letter, dated August 26, 1999, that indicated the Manatee River is a suspected birthing area for the West Indian manatee. A copy of the letter is attached to this letter for reference. In order to better assess potential impacts associated with the proposed project, we are asking for any pertinent and/or updated information on the Florida manatee and documented birthing/calves in the Manatee River within one mile of the project area shown on the attached map.

We appreciate your assistance with this request. If you have any questions, need additional information, or would like to discuss this request, please call me at (813) 675-6631 or email me at Terry_Cartwright@URSCorp.com.

Sincerely,

URS Corporation Southern

Terry Cartwright

Enclosure

cc: Daren Carriere, URS

URS Corporation
7650 West Courtney
Campbell Causeway
Tampa, FL 33607-1462
Tel: 813.286.1711
Fax: 813.287.8591

From:	Richards, Anne
To:	Terry_Cartwright@urscorp.com
Subject:	Fort Hammer Bridge information request
Date:	09/24/2010 02:06 PM

Hi Terry,

We received your request regarding information about manatee use of the Manatee River. Below are links to FWRI's website where data and other information pertaining to manatees is available:

http://research.myfwc.com/features/default.asp?id=1001

http://research.myfwc.com/manatees/

Please contact us if you have additional questions.

Anne

Anne Richards
Environmental Specialist
Fish and Wildlife Conservation Commission
Imperiled Species Management Section
620 South Meridian St. 6A
Tallahassee, FL 32399
Phone: 850-528-1309
Fax: 850-922-4338
anne.richards@myfwc.com

From:	Richards, Anne
To:	Terry_Cartwright@URSCorp.com
Subject:	RE: Fort Hammer Bridge information request
Date:	09/24/2010 03:40 PM
Attachments:	Westcoast Telemetry Request form.pdf

We get that kind of information from a number of sources, such as observations logged during aerial surveys, telemetry data that tracks the movements of parts of the population and mortality data. Telemetry data is available by request and I've attached a form for that. Mortality data is available at the links I supplied. I will forward the most recent are aerial survey data for area in another email.

From: Terry_Cartwright@URSCorp.com [mailto:Terry_Cartwright@URSCorp.com]
Sent: Friday, September 24, 2010 2:39 PM
To: Richards, Anne
Subject: Re: Fort Hammer Bridge information request

Good afternoon Anne -

Thanks for FWRI links. I added them to my favorites for future use. Do you have any other specific data regarding the Manatee River being used as a manatee nursery? The FWC comments from 1999 indicated that the Manatee River may be a birthing area. We are trying to get all of the available information FWC may have on this issue so we don't miss anything in our review.

Thanks.

Terry Cartwright
Environmental Scientist
URS Corporation
7650 W. Courtney Campbell Causeway
Tampa, FL 33607-1462
Phone: (813) 286-1711, ext. 6631
Direct: 813-675-6631
Fax:(813) 286-6587

"Richards, Anne" <anne.richards@MyFWC.com>

"Richards, Anne" <anne. richards@MyFWC. com>	To"Terry_Cartwright@urscorp.com" <Terry_Cartwright@urscorp.com>
09/24/2010 02:05 PM	cc
	SubjectFort Hammer Bridge information request

Hi Terry,

We received your request regarding information about manatee use of the Manatee River. Below are links to FWRI's website where data and other information pertaining to manatees is available:

http://research.myfwc.com/features/default.asp?id=1001

http://research.myfwc.com/manatees/

Please contact us if you have additional questions.

Anne

Anne Richards
Environmental Specialist
Fish and Wildlife Conservation Commission
Imperiled Species Management Section
620 South Meridian St. 6A
Tallahassee, FL 32399
Phone: 850-528-1309
Fax: 850-922-4338
anne.richards@myfwc.com

From:	Richards, Anne
To:	Terry_Cartwright@URSCorp.com
Subject:	FW: Manatee County aerial survey data 1985-86
Date:	09/24/2010 03:54 PM
Attachments:	Manatee_1985_1986_FWC_40Flights.dbf Manatee_1985_1986_FWC_40Flights.prj Manatee_1985_1986_FWC_40Flights.sbn Manatee_1985_1986_FWC_40Flights.sbx Manatee_1985_1986_FWC_40Flights.shp Manatee_1985_1986_FWC_40Flights.shx Manatee_Path_1985_1986_FWC.dbf Manatee_Path_1985_1986_FWC.prj Manatee_Path_1985_1986_FWC.sbn Manatee_Path_1985_1986_FWC.sbx Manatee_Path_1985_1986_FWC.shp Manatee_Path_1985_1986_FWC.shx WR_MMR_Manatee_DistributionSurvey_NManatee.htm

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Terry,

This is earlier GIS data for Manatee County aerial surveys. The shapefile is attached, along with the flight path. This survey was from May 1985-Dec 1986 and had 40 flights. **Metadata** for this data set is also attached as: WR_MMR_Manatee_DistributionSurvey_NManatee.htm

Anne

Anne Richards
Environmental Specialist
Fish and Wildlife Conservation Commission
Imperiled Species Management Section
620 South Meridian St. 6A
Tallahassee, FL 32399
Phone: 850-528-1309
Fax: 850-922-4338
anne.richards@myfwc.com

From:	Richards, Anne
To:	Terry_Cartwright@URSCorp.com
Subject:	FW: Manatee County Aerial Survey Data 2005-2008
Date:	09/24/2010 03:44 PM
Attachments:	manatee_county_flightpath.sbx manatee_county_flightpath.shp manatee_county_flightpath.shx manatee_county_flightpath.dbf manatee_county_flightpath.prj manatee_county_flightpath.sbn Manatee_July2005_Sept2008_Mote_62Flights.sbn Manatee_July2005_Sept2008_Mote_62Flights.sbx Manatee_July2005_Sept2008_Mote_62Flights.shp Manatee_July2005_Sept2008_Mote_62Flights.shx Manatee_July2005_Sept2008_Mote_62Flights.dbf Manatee_July2005_Sept2008_Mote_62Flights.prj ManateeAerialSurvey_Mote_Manatee2005to2008_Metadata.pdf

Terry,

The Manatee County aerial survey data attached is in GIS format. A shapefile is attached, along with the flight path. This survey was conducted from July 2005-Sept 2008 and had 62 flights. **Metadata** for this data set is also attached.

Anne

Anne Richards
Environmental Specialist
Fish and Wildlife Conservation Commission
Imperiled Species Management Section
620 South Meridian St. 6A
Tallahassee, FL 32399
Phone: 850-528-1309
Fax: 850-922-4338
anne.richards@myfwc.com

From:	Richards, Anne
To:	Terry_Cartwright@URSCorp.com
Subject:	FW: Tampa Bay area aerial survey data 1987-1994
Date:	09/24/2010 04:02 PM
Attachments:	TampaBay_Path_1987_1994_FWC.shx TampaBay_1987_1994_FWC_88Flights_One2dayFlight.dbf TampaBay_1987_1994_FWC_88Flights_One2dayFlight.prj TampaBay_1987_1994_FWC_88Flights_One2dayFlight.sbn TampaBay_1987_1994_FWC_88Flights_One2dayFlight.sbx TampaBay_1987_1994_FWC_88Flights_One2dayFlight.shp TampaBay_1987_1994_FWC_88Flights_One2dayFlight.shx TampaBay_Path_1987_1994_FWC.dbf TampaBay_Path_1987_1994_FWC.prj TampaBay_Path_1987_1994_FWC.sbn TampaBay_Path_1987_1994_FWC.sbx TampaBay_Path_1987_1994_FWC.shp WR_MMR_Manatee_DistributionSurvey_TampaBay.htm

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The Manatee County aerial survey data shapefile is attached, along with the flight path.
This survey was from Nov 1987 – May 1994 and had 88 flights.

Metadata for this data set is also attached as:
WR_MMR_Manatee_DistributionSurvey_TampaBay.htm

From:	Richards, Anne
To:	Terry_Cartwright@URSCorp.com
Subject:	FW: Tampa Bay area aerial survey data 1995-97
Date:	09/24/2010 04:02 PM
Attachments:	WR_MMR_Manatee_DistributionSurvey_TampaBay#2.htm TampaBay_1995_1997_FWC_33Flights.dbf TampaBay_1995_1997_FWC_33Flights.prj TampaBay_1995_1997_FWC_33Flights.sbn TampaBay_1995_1997_FWC_33Flights.sbx TampaBay_1995_1997_FWC_33Flights.shp TampaBay_1995_1997_FWC_33Flights.shx

---

The Manatee County aerial survey data shapefile is attached. This survey was from Jan 1995 – June 1997 and had 33 flights.

Metadata for this data set is also attached as: WR_MMR_Manatee_DistributionSurvey_TampaBay#2.htm

Pride, Tom

From: Randall.D.Overton@uscg.mil on behalf of Overton, Randall D CIV <Randall.D.Overton@uscg.mil>
Sent: Wednesday, July 24, 2013 10:48 AM
To: Pride, Tom; Peate, Martin
Subject: FW: ESA Section 7 Consultation Request
Attachments: USFWS ESA Section 7consultation request.pdf; WER Supplemental Update_19July2013.pdf; BA Supplemental Update_19July2013.pdf

I also sent consultation request to USFWS

-----Original Message-----
From: Overton, Randall D CIV
Sent: Wednesday, July 24, 2013 10:39 AM
To: 'dawn_jennings@fws.gov'; 'teresa_calleson@fws.gov'
Cc: Sugarman, Shelly CIV; Dragon, Barry CIV; Mullen, Kevin P CTR
Subject: ESA Section 7 Consultation Request

Please find attached a request for ESA Section 7 Consultation for a proposed bridge construction project across the Manatee River. The proposed new bridge would be constructed across the Manatee River approximately 15 miles upstream from the mouth of the river. The bridge and associated roadway would be between Upper Manatee River Road (south of the Manatee River) to Fort Hamer Road (north of the Manatee River), near Parrish, Manatee County, Florida. Latitude 27o 31.165' N, Longitude 82o 25.720' W.

The attached letter "USFWS ESA Section 7consultation request" contains web links to the Wetland Evaluation Report (WER) and Biological Opinion (BA) prepared for the proposed project. WER and BA supplemental updates which slightly refine the WER and BA are attached to this email.

I look forward to hearing from you.

Thank you,

Randall Overton
Federal Permit Agent USCG
909 SE 1st Ave Suite 432
Miami, Fl 33131
(305) 205-0795 Cell
(305) 415-6736 Office

U.S. Department of Homeland Security
United States Coast Guard

Commander
Seventh Coast Guard District

909 S. E. First Avenue (Rm 432)
Miami, Fl 33131
Staff Symbol: (dpb)
Phone: (305) 415-6736
Fax: (305) 415-6763
Email: randall.d.overtont@uscg.mil

16450
July 24, 2013

U. S. Fish & Wildlife Service
North Florida Ecological Services Office
7915 Baymeadows Way, Suite 200
Jacksonville, FL 32256-7517

Ms Dawn Jennings:

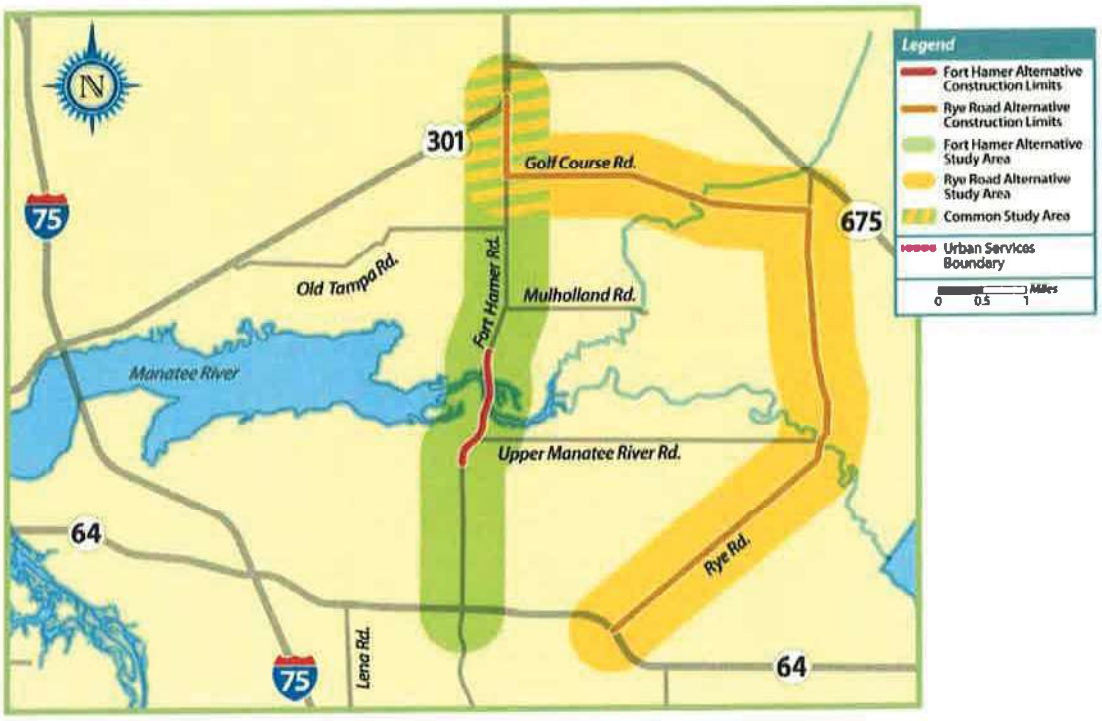
Through this letter, the U.S. Coast Guard wishes to initiate consultation in accordance with Section 7 of the Endangered Species Act (ESA).

The Coast Guard is the Lead Federal Agency (LFA) for a proposed bridge construction project in Manatee County, Florida. A Wetlands Evaluation Report (WER) and Biological Assessment (BA) were completed in conjunction with the proposed project. The WER and BA were included as appendices D and E of the Draft Environmental Impact Statement (DEIS) for the project (dated June 21, 2013). The DEIS can be found at http://www.uscg.mil/hq/cg5/cg551/CGLeadProjects.asp

Direct link to the WER:
http://www.uscg.mil/hq/cg5/cg551/CGLeadProjects_files/Fort%20Hamer%20DEIS%20June%202013/Appendix_D.pdf
Direct link to the BA:
http://www.uscg.mil/hq/cg5/cg551/CGLeadProjects_files/Fort%20Hamer%20DEIS%20June%202013/Appendix_E.pdf

Subsequent to publication of the DEIS, WER and the BA, in June, further refinements of the project design have necessitated minor revisions to the WER and the BA. The WER supplemental update and BA supplemental update are attached to the email which transmitted this letter.

The DEIS studies three alternatives. In addition to the No Build Alternative, two build alternatives were analyzed; the Fort Hamer Road Alternative, and the Rye Road Alternative. These two build alternatives are depicted on the next page.



Manatee County has submitted a preliminary bridge permit application for the Fort Hamer Alternative as their Locally Preferred Alternative (LPA). Therefore, this consultation request will focus on the impacts reasonably likely to be associated with the Fort Hamer Road Alternative (LPA).

The Fort Hamer Alternative consists of a new two-lane bridge crossing the Manatee River connecting the existing two-lane Upper Manatee River Road with the existing two-lane Fort Hamer Road. The construction limits of this alternative extend from just north of the back entrance of the Waterlefe subdivision to the north side of the Manatee River, a total of approximately 1.4 miles. The proposed bridge length is 2,570 feet. The study area for this alternative extends south to SR 64 and north to US 301 (6 miles) because of the increased traffic between these points that would result from this alternative.

Wetland and Essential Fish Habitat Impact:

Permanent unavoidable wetland impacts of the LPA occur in four wetland sites and total 4.34 acres (ac) (2.05 ac fill, 1.01 ac shading, 1.28 ac secondary); see Supplemental WER Update 2. The impacted wetland types include scrub, mixed hardwood swamp, salt marsh, mangrove, and stream (bottomland).

Temporary impacts to wetlands: It is anticipated that a temporary work trestle would be constructed across portions of the Manatee River to facilitate construction of the new bridge. It is anticipated that the temporary trestle would be 28 feet wide and would temporarily impact approximately 0.62 acres of wetland due to shading. Upon completion of construction the work trestle would be removed in its entirety.

Impacts to Essential Fish Habitat (EFH) with the LPA would total 2.91 ac of EFH (1.01 ac shading and 0.15 ac fill), principally to saltmarsh and bottomland, see Supplemental WER Update 9.

Compensatory wetland mitigation described in the proposed conceptual mitigation plan consists of onsite wetland creation by excavation and planting at three riverbank locations to provide approximately 2.2 ac of mixed hardwood swamp, 2.1 ac of tidal saltmarsh, and 0.2 ac of mangrove wetlands.

Proposed Construction Methodology and Potential Impacts:

(Excerpted from the Supplemental Update to BA– Update 1)
The Manatee River provides suitable habitat for the West Indian manatee in the Fort Hamer Alternative. Although no manatees were observed during field reviews, FNAI, FWS, and FWC have indicated that manatees are known to frequent the Manatee River and local residents have reported sightings of manatees in the vicinity of the Fort Hamer Alternative. The Manatee River within both build alternatives is designated as Critical Habitat for the manatee below the Lake Manatee Dam.

Potential threats to the manatee as a result of implementation of the Fort Hamer Alternative include collision with construction vessels and acoustic impacts during construction. The segment of river immediately downstream of the proposed location of the Fort Hamer Alternative Bridge is a posted "Idle Speed/No Wake" zone. In addition to observing all posted speed zones in the river, all construction vessels will be required to operate at "Idle Speed/No Wake" speeds within 0.5-mile upstream and downstream of the construction site. Additionally, the selected construction contractor will be required to implement the *Standard Manatee Conditions for In-Water Work* (Appendix F) for all construction activities within the river.

Acoustical effects on marine mammals, including manatees and dolphins – both of which have the potential to occur within the Fort Hamer Alternative Study Area, are an increasing concern with coastal and marine construction activities. Acoustic sources during bridge construction include blasting, boat motors, and installation of bridge piles. Blasting can be a significant acoustic source during bridge demolition; however, since demolition is not part of the Fort Hamer Alternative, no blasting will occur.

The use of motorized tugboats and support vessels will be required for construction of the Fort Hamer Alternative. However, the commitment to operate all vessels at "Idle Speed/No Wake" speeds will minimize potential motorized noise impacts to manatees and other marine fauna present in the river.

The installation of bridge pilings with hydraulic hammers (i.e., pile-driving) can generate acoustic vibrations within the water column. Although detailed construction methodologies for the Fort Hamer Alternative have not been developed, it is likely that many, if not all, of the bridge support pilings would be driven with a hydraulic hammer. A total of 54 24-in^2 pre-

stressed concrete pilings will be installed in the river channel, and an additional 137 24-in^2 concrete pilings will be installed in the adjacent wetlands and shallow embayment between Wetland 3 and Wetland 4 (part of River 1). To minimize potential adverse effects to manatees and dolphins observers will be in place to observe the river during all pile-driving operations. If any manatees or dolphins are observed in the river within a 0.25-mile radius of the hammer location, pile-driving operations will cease until the animal(s) has exited the 0.25-mile buffer on its own. To facilitate observation of manatees and dolphins (and to accommodate nearby human residents), all pile-driving activities will be conducted during daylight hours only. Finally, floating turbidity barriers with skirt lengths sufficient to reach the river bottom (approximately 12 feet maximum) will be placed around each piling during pile-driving operations. In addition to controlling turbidity, the barriers will lessen, though not eliminate, the acoustical vibrations generated during pile driving. With these commitments, it has been determined that the Fort Hamer Alternative "may affect, but is not likely to adversely affect" (MANLAA) the West Indian manatee.

Listed Species Impacts (information excerpted from BA):

Plants

Although federally- and state-listed plant species have been documented within Manatee County, none have been documented within 1 mile of either alternative and none were observed during field reviews. Based on this information, it has been determined that both the will have no effect on any federally- or state-listed plant species.

Fish

Mangrove Rivulus
State Species of Special Concern
While suitable habitat exists for the mangrove rivulus within the LPA, none were observed during the April 2010 field reviews and none have been documented within 1 mile of the alternative. Total impacts (shading, fill, and secondary) to mangrove habitat will be 0.20 acre. The conceptual wetlands mitigation for the project will result in the creation of 0.20 acres of mangrove habitat. (See the Wetlands Evaluation Report in Appendix D of the DEIS for a description of the proposed conceptual mitigation.) Therefore, a determination of MANLAA was made for the mangrove rivulus.

Reptiles and Amphibians:

Eastern Indigo Snake
Federally Threatened
While no eastern indigo snakes were observed during field reviews, suitable habitat for this species does exist within both build alternatives. The FWS and FWC approved standard protection measures for the eastern indigo snake (Appendix E of the BA) will be implemented during the clearing and construction phases for the selected alternative. As a result of this commitment, a determination of MANLAA was made for the eastern indigo snake.

Gopher Tortoise and Commensal Species
State Threatened/Species of Special Concern
Suitable habitat is available within the LPA for the gopher tortoise (state-listed as Threatened), Florida mouse (SSC), gopher frog (SSC), and pine snake (SSC). Gopher tortoise burrows were observed north of the Manatee River adjacent to the. The Florida mouse, gopher frog, and pine snake have not been documented within 1 mile of the LPA and none were observed during field reviews. Approximately 17 acres of suitable habitat (uplands) within the LPA construction limits will need to be surveyed for the presence of gopher tortoise burrows prior to construction. If gopher tortoises or their burrows are found in or within 25 feet of the construction limits of the selected alternative, Manatee County will coordinate with the FWC to secure permits needed to relocate the gopher tortoises and associated commensal species prior to construction. With this commitment, a determination of MANLAA was made for the gopher tortoise, Florida mouse, gopher frog, and pine snake.

Birds

Florida Scrub Jay
Federally Threatened
Suitable habitat for the Florida scrub jay does not exist within the Study Area and no scrub jays are reported within the study area. For these reasons, implementation of the LPA will have no effect on the Florida scrub jay.

Other Wading Birds
State Species of Special Concern
No wading bird rookeries are located within either alternative; however, the little blue heron, reddish egret, snowy egret, limpkin, tricolored heron, white ibis, and roseate spoonbill have the potential to forage in the drainage ditches and wetlands within both of the alternatives. A little blue heron, white ibis, snowy egret, and tricolored heron were observed in the LPA. The primary concern for impacts to these wading birds is the loss of habitat (wetlands) for foraging. All wetland impacts will be mitigated to prevent a net loss of wetland functions and values. Because lost foraging habitat would be replaced through wetland mitigation, a determination of no effect was made for these wading bird species.

Florida Burrowing Owl
State Species of Special Concern
Potentially suitable nesting and foraging habitat for the Florida burrowing owl exists within the limits of both build alternatives. However, no burrowing owls or their burrows were observed during field reviews and none have been documented within 1 mile of the two build alternatives. To avoid potential impacts to this species, Manatee County will resurvey appropriate upland habitats within the study area of the selected alternative for burrowing owls or their burrows prior to construction. If any burrows are located in the study area, Manatee County will coordinate with FWC to develop and implement the appropriate protection criteria prior to construction. With this commitment, a determination of no effect was made for the Florida burrowing owl.

Crested Caracara
Federally Threatened
The LPA is not located within the FWS consultation area for the crested caracara; however, suitable foraging and marginal nesting habitat exist. No crested caracara were observed during field reviews and none have been documented within 1 mile of this alternative. A determination has been made that the LPA will have no effect on the crested caracara.

Southeastern American Kestrel
State Threatened
While suitable nesting and foraging habitat exists for the southeastern American kestrel within the limits of both alternatives, no kestrels were observed during the field reviews. Due to its mobility and ability to use adjacent areas for nesting and foraging, it has been determined that LPA will have no effect the southeastern American kestrel.

Florida Sandhill Crane
State Threatened
Suitable nesting and foraging habitat is available within both build alternatives for the Florida sandhill crane. Sandhill cranes were observed within both build alternatives during field reviews. For both of the alternatives, wetland impacts would be mitigated to prevent a net loss of wetland functions and values. In addition, Manatee County will resurvey the selected alternative's study area for Florida sandhill crane nests prior to construction. If Florida sandhill crane nests are found within the study area, Manatee County will coordinate with the FWC to ensure project construction will not adversely impact this species. With this commitment, a determination of no effect was made for the Florida sandhill crane.

Wood Stork
Federally Endangered
Suitable nesting and foraging habitat for the wood stork is available within both build alternatives. Based on FWS data (2010a), both alternatives are located within the 15-mile CFA of two wood stork rookeries (see Figure 5). In order to make a determination of the build alternatives' potential effects on the wood stork, the construction impacts resulting from both build alternatives were assessed using the Wood Stork Effect Determination Key (FWS, 2010b). A review of FNAI and FWS information indicates that neither alternative is located within 2,500 feet of an active wood stork colony site; however, both alternatives are located within the CFA of two active wood stork nesting colonies. Either build alternative would impact more than 0.5 acre of suitable foraging habitat (SFH) (0.5 acre is the threshold for a "not likely to adversely affect" determination). The LPA would result in fill and shading impacts to 4.68 acres of SFH. To minimize adverse effects to the wood stork, the FWS recommends compensation be provided for impacts to foraging habitat (FWS, 2010b). Wetlands offered as compensation should be of the same hydroperiod and located within the CFAs of the affected wood stork colonies. To compensate for the loss of SFH, implementation of the selected alternative 1) will include creation of habitat and foraging function equal, at a minimum, to that being impacted; 2) will not be contrary to the FWS Habitat Management Guidelines for the Wood Stork in the Southeast Region (Ogden, 1990), and 3) will be in accordance with the Clean Water Act, Section 404(b)1 guidelines. Based on this assessment, and with this commitment, a determination of MANLAA was made for the wood stork.

Brown Pelican
State Species of Special Concern
Suitable nesting and foraging habitat exists for the brown pelican within the LPA and brown pelicans were observed flying over this alternative during the April 2010 field reviews. However, due to its mobility and ability to use adjacent surface waters and proposed mitigation sites for foraging, it has been determined that the LPA will have no effect on the brown pelican. Suitable nesting and foraging habitat does not exist for the brown pelican within the Rye Road Alternative. Therefore, it has been determined that the Rye Road Alternative will have no effect on the brown pelican.

Mammals:

Florida Mouse
See description under Gopher Tortoise and Commensal Species above.

Sherman's Fox Squirrel
State Species of Special Concern
While suitable nesting and foraging habitat exists for the Sherman's fox squirrel within both build alternatives, none were observed during the field reviews and none have been documented within 1 mile of either alternative. Due to its mobility and ability to use adjacent upland habitats for nesting and foraging, it has been determined that both the Fort Hamer Alternative and the Rye Road Alternative will have no effect on the Sherman's fox squirrel.

West Indian Manatee
Federally Endangered
The Manatee River provides suitable habitat for the West Indian manatee in the LPA. Though no manatees were observed during field reviews, FNAI, FWS, and FWC have indicated that manatees are known to frequent the Manatee River and local residents have reported sightings of manatees in the vicinity of the LPA. The Manatee River within both alternatives is designated as Critical Habitat for the manatee below the Lake Manatee Dam. To minimize potential adverse impacts to the manatee as a result of construction of the LPA, Manatee County will utilize the FWS and FWC approved *Standard Manatee Conditions for In-Water Work* (Appendix F) for all construction activities within the Manatee River. Manatee County will also coordinate with the FWS and the FWC to determine the appropriate, site-specific manatee protection measures to be implemented during construction (see above). With these commitments, a determination of MANLAA was made for the West Indian manatee

Proposed Avoidance, Minimization, Mitigation Measures:

Eastern Indigo Snake
Federally Threatened
While no eastern indigo snakes were observed during field reviews, suitable habitat for this species does exist within both build alternatives. The FWS and FWC approved standard protection measures for the eastern indigo snake (Appendix E-of the BA) will be implemented during the clearing and construction phases for the selected alternative.

West Indian Manatee
Federally Endangered
The Manatee River provides suitable habitat for the West Indian manatee in the LPA. The segment of river immediately downstream of the proposed bridge location is a posted "Idle Speed/No Wake" zone. In addition to observing all posted speed zones in the river, all construction vessels will be required to operate at "Idle Speed/No Wake" speeds within 0.5-mile upstream and downstream of the construction site. Additionally, the selected construction contractor will be required to implement the *Standard Manatee Conditions for In-Water Work* (Appendix F) for all construction activities within the river.

Acoustical effects on marine mammals, including manatees and dolphins – both of which have the potential to occur within the LPA Study Area, are an increasing concern with coastal and marine construction activities. Acoustic sources during bridge construction may include blasting, boat motors, and installation of bridge supports (pile-driving). Blasting can be a significant acoustic source during bridge demolition; however, since demolition is not part of the proposed action, no blasting will occur.

The use of motorized tugboats and support vessels will be required for construction of the LPA. However, the commitment to operate all vessels at "Idle Speed/No Wake" speeds will minimize potential motorized noise impacts to manatees and other marine fauna present in the river. To minimize potential adverse effects to manatees and dolphins observers will be in place to observe the river during all pile-driving operations. If any manatees or dolphins are observed in the river within a 0.25-mile radius of the hammer location, pile-driving operations will cease until the animal(s) has exited the 0.25-mile buffer on its own. To facilitate observation of manatees and dolphins (and to accommodate nearby human residents), all pile-driving activities will be conducted during daylight hours only. Also, floating turbidity barriers with skirt lengths sufficient to reach the river bottom (approximately 12 feet maximum) will be placed around each piling during pile-driving operations. In addition to controlling turbidity, the barriers will lessen, though not eliminate, the acoustical vibrations generated during pile driving.

Wood Stork
Federally Endangered
To compensate for the loss of SFH, implementation of the selected alternative 1) will include creation of habitat and foraging function equal, at a minimum, to that being impacted; 2) will not be contrary to the FWS Habitat Management Guidelines for the Wood Stork in the Southeast Region (Ogden, 1990), and 3) will be in accordance with the Clean Water Act, Section 404(b)1 guidelines.

Gopher Tortoise and Commensal Species
State Threatened/Species of Special Concern
Suitable habitat is available within the LPA for the gopher tortoise (state-listed as threatened), Florida mouse (SSC), gopher frog (SSC), and pine snake (SSC). Gopher tortoise burrows were observed north of the Manatee River adjacent to the LPA. The Florida mouse, gopher frog, and pine snake have not been documented within 1 mile of the LPA, and none were observed during field reviews. Approximately 17 acres of suitable habitat (uplands) within the LPA construction

limits will need to be surveyed for the presence of gopher tortoise burrows prior to construction. If gopher tortoises or their burrows are found in or within 25 feet of the construction limits of the selected alternative, Manatee County will coordinate with the FWC to secure permits needed to relocate the gopher tortoises and associated commensal species prior to construction

Summary of Coast Guard Determinations:

Based on the information contained in the BA and WER, including the supplemental updates, the Coast Guard determines:

For Federally-listed species, the listed species effect determination for the LPA (Fort Hamer Road Alternative) includes "may affect, but is not likely to adversely affect" or MANLAA, for three Federally-listed faunal species (Eastern indigo snake, West Indian manatee [Critical Habitat], and wood stork). A determination of No Effect was applied to one floral species and three avian species (Florida goldenaster, Florida scrub jay, Florida grasshopper sparrow, and crested caracara). See Appendix E (BA), Table 8, page E-49.

The listed species effect determination for this alternative includes "may affect, but is not likely to adversely affect" MANLAA for four Florida state-listed faunal species (gopher tortoise, pine snake, Florida mouse, and gopher frog). A determination of No Effect was applied to nine floral species and thirteen faunal species. See Appendix E (BA), Table 8, page E-49, 50.

Sincerely,

OVERTON.RANDALL.D.1111176970

RANDALL D. OVERTON
Bridge Management Specialist
U.S. Coast Guard

Enclosure: Wetland Evaluation Report (WER) as an embedded link
Biological Assessment (BA) as an embedded link
WER Supplemental update as an email attachment
BA Supplemental update as an email attachment

Copy: CGHQ-BRG-2 as an email

DEPARTMENT OF HOMELAND SECURITY
U.S. COAST GUARD

PROPOSED NEW BRIDGE ACROSS THE MANATEE RIVER, MILE 15.0,
AT PARRISH, MANATEE COUNTY, FLORIDA

SUPPLEMENTAL UPDATE

TO

BIOLOGICAL ASSESSMENT (JUNE 2013)

SUPPLEMENT UPDATE PREPARED
JULY 19, 2013

OVERVIEW: In June 2013 Manatee County, in conjunction with the United States Coast Guard, prepared a Draft Environmental Impact Statement (DEIS) to document a study of proposed improvements to north/south traffic movements in eastern Manatee County. For the purposes of the DEIS, two build alternatives were evaluated (in addition to a No-Build Alternative). Appendix E of the DEIS contains a Biological Assessment (BA) which describes the habitats and listed species potentially present within each build alternative and the effects that implementation of each build alternative would have on listed species and critical habitat. Since publication of the DEIS and BA, additional design details of the preferred alternative (the Fort Hamer Alternative) have become available and allow refinement of the habitat impacts and effects that would result from implementation of the Fort Hamer Alternative. This Supplemental Update provides construction methodologies (as known to-date) and a revised description of habitat impacts and effects on the West Indian manatee.

Update 1: Section 5.5, page 5-5 and 5-6. The discussion of the West Indian manatee is revised as follows:

West Indian Manatee

Federally Endangered

The Manatee River provides suitable habitat for the West Indian manatee in the Fort Hamer Alternative. Although no manatees were observed during field reviews, FNAI, FWS, and FWC have indicated that manatees are known to frequent the Manatee River and local residents have reported sightings of manatees in the vicinity of the Fort Hamer Alternative. The Manatee River within both build alternatives is designated as Critical Habitat for the manatee below the Lake Manatee Dam.

Potential threats to the manatee as a result of implementation of the Fort Hamer Alternative include collision with construction vessels and acoustic impacts during construction. The segment of river immediately downstream of the proposed location of the Fort Hamer Alternative Bridge is a posted "Idle Speed/No Wake" zone. In addition to observing all posted speed zones in the river, all construction vessels will be required to operate at "Idle Speed/No Wake" speeds within 0.5-mile upstream and downstream of the construction site. Additionally, the selected construction contractor will be required to implement the *Standard Manatee Conditions for In-Water Work* (Appendix F) for all construction activities within the river.

Acoustical effects on marine mammals, including manatees and dolphins – both of which have the potential to occur within the Fort Hamer Alternative Study Area, are an increasing concern with coastal and marine construction activities. Acoustic sources during bridge construction include blasting, boat motors, and installation of bridge piles. Blasting can be a significant acoustic source during bridge demolition; however, since demolition is not part of the Fort Hamer Alternative, no blasting will occur.

The use of motorized tugboats and support vessels will be required for construction of the Fort Hamer Alternative. However, the commitment to operate all vessels at "Idle Speed/No Wake" speeds will minimize potential motorized noise impacts to manatees and other marine fauna present in the river.

The installation of bridge pilings with hydraulic hammers (i.e., pile-driving) can generate acoustic vibrations within the water column. Although detailed construction methodologies for the Fort Hamer Alternative have not been developed, it is likely that many, if not all, of the bridge support pilings would be driven with a hydraulic hammer. A total of 54 24-in^2 prestressed concrete pilings will be installed in the river channel. An additional 137 24-in^2 concrete pilings will be installed in the adjacent wetlands and shallow embayment between Wetland 3 and Wetland 4. To minimize potential adverse effects to manatees and dolphins observers will be in place to observe the river during all pile-driving operations. If any manatees or dolphins are observed in the river within a 0.25-mile radius of the hammer location, pile-driving operations will cease until the animal(s) has exited the 0.25-mile buffer on its own. To facilitate observation of manatees and dolphins (and to accommodate nearby human residents), all pile-driving activities will be conducted during daylight hours only. Finally, floating turbidity barriers with

skirt lengths sufficient to reach the river bottom (approximately 12 feet maximum) will be placed around each piling during pile-driving operations. In addition to controlling turbidity, the barriers will lesson, though not eliminate, the acoustical vibrations generated during pile driving. With these commitments, it has been determined that the Fort Hamer Alternative "may affect, but is not likely to adversely affect" the West Indian manatee.

With the Rye Road Alternative, it is very unlikely for manatees to inhabit the river adjacent to the Rye Road Bridge due to the shallow nature and narrow confines of the river at this location. Due to these restrictions, no water-borne vessels would be used to construct the Rye Road Alternative Bridge; all construction would be land-based. For these reasons, it has been determined that the Rye Road Alternative "may affect, but is not likely to adversely affect" the West Indian manatee.

Pride, Tom

From: Randall.D.Overton@uscg.mil on behalf of Overton, Randall D CIV <Randall.D.Overton@uscg.mil>
Sent: Friday, August 09, 2013 9:34 AM
To: Peate, Martin; Pride, Tom
Subject: FW: NMFS comments on the Fort Hamer Road Bridge DEIS (Docket # USCG -2010-0455)
Attachments: Ft Hamer Rd Bridge_NMFS Proposed Alternative Alignments.docx; NMFS response to Ft Hamer Bridge 2013 DEIS.docx

Please take a look at the NMFS commits attached and below. The issue concerning alignment was raised by NMFS in the past; we should take a closer look and discuss

From: david.rydene@noaa.gov [mailto:david.rydene@noaa.gov]
Sent: Thursday, August 08, 2013 12:14 PM
To: Overton, Randall D CIV
Subject: NMFS comments on the Fort Hamer Road Bridge DEIS (Docket # USCG -2010-0455)

Hi Randy,

The two attached documents represent NMFS comments on the Draft Environmental Impact Statement regarding the proposed new Fort Hamer Road Bridge crossing the Manatee River in Manatee County, Florida. I can provide the comments in a letter format if you prefer.

I had a couple of editorial comments that are not included in our response. In "Section 1.2 PURPOSE AND NEED FOR ACTION", the first sentence reads "The purpose of this Proposed Action **it** to provide...", but it should be "The purpose of this Proposed Action **is** to provide...".

Also, they use both the terms "secondary impacts" and "indirect impacts" in the document. They should probably just stick with "indirect impacts" throughout the document.

Give me a call or email if you have any questions.

Thanks, Dave

--

David Rydene, Ph.D.
Fish Biologist
National Marine Fisheries Service
Habitat Conservation Division
263 13th Avenue South
St. Petersburg, FL 33701
Office (727) 824-5379
Cell (813) 992-5730
Fax (727) 824-5300

NMFS response to 2013 Fort Hamer Bridge DEIS (Docket Number USCG-2010-0455)

NOAA's National Marine Fisheries Service (NMFS) staff has reviewed the Draft Environmental Impact Statement (DEIS) published on July 5, 2013, for the proposed new bridge crossing the Manatee River in the vicinity of Fort Hamer Road in Manatee County, Florida. NMFS offers the following comments on the DEIS.

Cited studies (i.e. the Sarasota/Manatee Metropolitan Planning Organization's Long Range Transportation Needs Plan) indicate that a total of 28 lanes crossing the Manatee River will be needed to meet the area's transportation needs by 2035. At present only 16 lanes cross the river and the addition of the proposed bridge would only bring the total number of lanes to 18. This will only marginally improve the envisioned 2035 traffic situation. Another 10 lanes crossing the river would be needed to meet the predicted 2035 traffic needs, as either the construction of new bridges or the widening of existing bridges. The DEIS states that even if the proposed Fort Hamer Bridge is built, two more lanes east of I-75 will be needed by 2035 (Section 1.2.1). The DEIS does not indicate whether these two additional lanes would be added to the Rye Road Bridge or the Fort Hamer Bridge.

NMFS continues to believe that impacts to the salt marsh/mangrove peninsula are avoidable, and that the Fort Hamer Alternative, as proposed, does not represent the Least Environmentally Damaging Practicable Alternative. In addition, if the bridge (as proposed) is built and then widened at some point in the future, even further impacts to these important estuarine wetlands would result. NMFS proposes two slightly different alignments that would avoid direct impacts to the salt marsh/mangrove peninsula (see attached document).

NMFS recommends that an Endangered Species Act Section 7 consultation on smalltooth sawfish (*Pristis pectinata*) be conducted. This listed species has the potential to occur in the project area. The use of smalltooth sawfish construction conditions should required during construction activities. A section on this smalltooth sawfish should be added to the Biological Assessment portion of the DEIS.

The bridge should be designed to convey all stormwater off the bridge and into appropriate stormwater treatment systems. This will prevent degraded water from being discharged into the Manatee River and reaching estuarine habitats at the project site and downstream. A commitment to convey stormwater off the bridge for treatment at upland facilities is made in Section 4.3.7 of the DEIS.

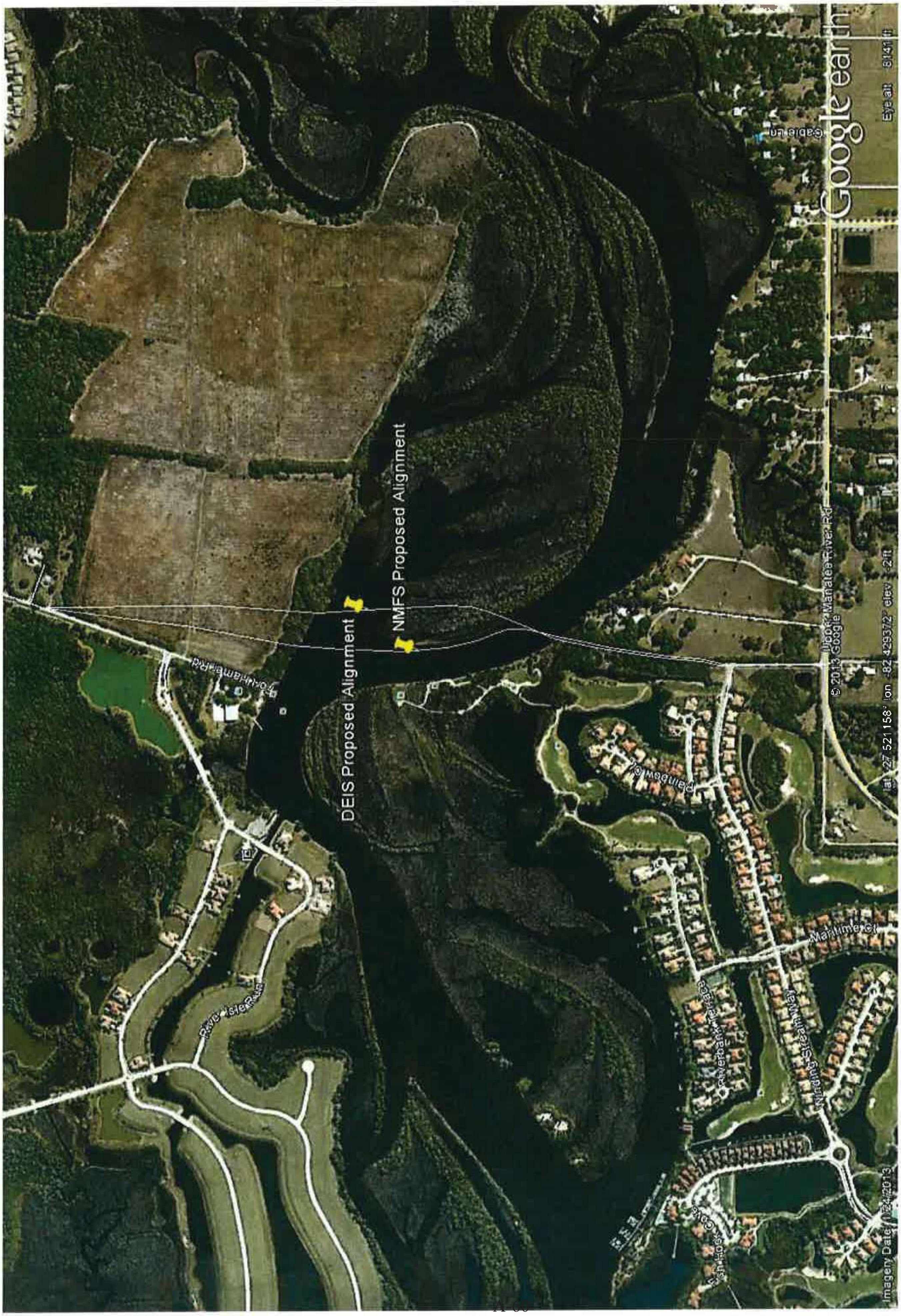
Before mitigation is finalized and permits are issued, a better effort must be made to quantify the amount of mangroves that are interspersed within those areas identified now (in the DEIS Wetland Evaluation Report) as simply salt marshes (FLUCFCS code 642). These mixed salt marsh/mangrove areas are found on both the peninsular area and on the southern shore of the river where the bridge would make landfall.

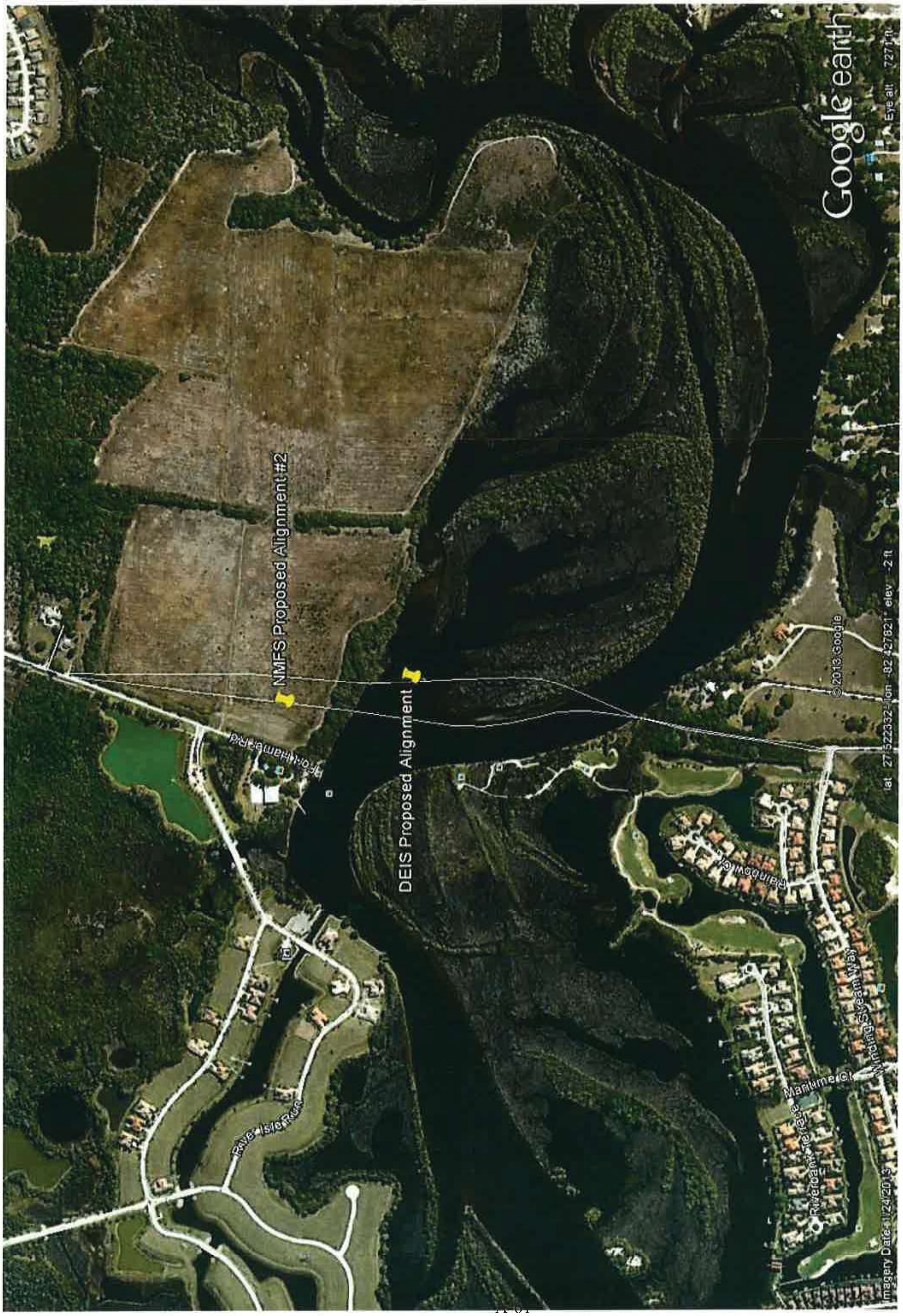
Although some wetland impacts will be temporary (e.g. from the work trestle) and these wetlands may recover after some period of time, the loss of ecological function during this recovery period should be factored into the compensatory mitigation scheme as a time lag metric. A thorough review of the UMAM scores and proposed compensatory mitigation should be conducted with all involved resource

and permitting agencies in an effort to reach consensus on the final scores and compensatory mitigation scenario.

A statement is made in Section 4.5.1 of the Essential Fish Habitat portion of the Wetland Evaluation Report (Appendix D) that the project will result in "*de minimus* to minimal adverse impacts to red drum, gray snapper, pink shrimp, and stone crab populations and their prey species." with no explanation of how the conclusion was reached. Some explanation of the analysis used to reach the conclusion should be provided.

Thank you for the opportunity to review the DEIS and provide comments related to NMFS trust resources.


DEIS Proposed Alignment
NMFS Proposed Alignment
Upper Manatee River Rd
Winding Stream Way
Gable Ln
Google earth
© 2013 Google


NMFS Proposed Alignment #2
DEIS Proposed Alignment
Fort Hamer Rd
Rainbow Ct
Winding Stream Way
Maritime Ct
Google earth
© 2013 Google

Pride, Tom

From: David Rydene - NOAA Federal <david.rydene@noaa.gov>
Sent: Tuesday, August 27, 2013 2:21 PM
To: Overton, Randall D CIV
Cc: Pride, Tom
Subject: Re: NMFS comments on the Fort Hamer Road Bridge DEIS (Docket # USCG -2010-0455)

Hi Randy,

I need an estimate of how the long the overall bridge construction should take, and how long the in-water pile driving should take.

Thanks, Dave

On Thu, Aug 22, 2013 at 1:42 PM, Overton, Randall D CIV <Randall.D.Overton@uscg.mil> wrote:

Dave,

Here's what I got from the project consultants:

The installation of bridge pilings with hydraulic hammers (i.e., pile-driving) can generate acoustic vibrations within the water column. Although detailed construction methodologies for the Fort Hamer Alternative have not been developed, it is likely that many, if not all, of the bridge support pilings would be driven with a hydraulic hammer. A total of 54 24-in^2 pre-stressed concrete pilings will be installed in the river channel, and an additional 137 24-in^2 concrete pilings will be installed in the adjacent wetlands and shallow embayment between Wetland 3 and Wetland 4 (part of River 1).

Thanks,

Randy

From: david.rydene@noaa.gov [mailto:david.rydene@noaa.gov]
Sent: Thursday, August 22, 2013 1:21 PM

To: Overton, Randall D CIV
Subject: Re: NMFS comments on the Fort Hamer Road Bridge DEIS (Docket # USCG -2010-0455)

Hi Randy,

Do you have any information on the Ft. Hamer bridge's design details in terms of the anticipated number of piles that will be driven, size and type of piles (e.g. Bridge Engineering Report), or would someone with Manatee County or their consultants have something along those lines ?

Thanks, Dave

On Tue, Aug 13, 2013 at 10:45 AM, Overton, Randall D CIV <Randall.D.Overton@uscg.mil> wrote:

Dave,
Thank you for your input on the DEIS. We are working with the consultant to address all your concerns and comments. Additional I submitted a consultation request for section 7 of ESA and EFH under MSFCA via the NMFS SERO website. Have you seen the consultation request?

Thanks again,
Randy

-----Original Message-----
From: david.rydene@noaa.gov [mailto:david.rydene@noaa.gov]
Sent: Thursday, August 08, 2013 12:14 PM
To: Overton, Randall D CIV
Subject: NMFS comments on the Fort Hamer Road Bridge DEIS (Docket # USCG -2010-0455)

Hi Randy,

The two attached documents represent NMFS comments on the Draft Environmental Impact Statement regarding the proposed new Fort Hamer Road Bridge crossing the Manatee River in Manatee County, Florida. I can provide the comments in a letter format if you prefer.

I had a couple of editorial comments that are not included in our response. In "Section 1.2 PURPOSE AND NEED FOR ACTION", the first sentence reads "The purpose of this Proposed Action it to provide...", but it should be "The purpose of this Proposed Action is to provide...".

Also, they use both the terms "secondary impacts" and "indirect impacts" in the document. They should probably just stick with "indirect impacts" throughout the document.

Give me a call or email if you have any questions.

Thanks, Dave

--
David Rydene, Ph.D.
Fish Biologist
National Marine Fisheries Service
Habitat Conservation Division

263 13th Avenue South
St. Petersburg, FL 33701
Office (727) 824-5379
Cell (813) 992-5730
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--

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Fax (727) 824-5300

Pride, Tom

From: Randall.D.Overton@uscg.mil on behalf of Overton, Randall D CIV <Randall.D.Overton@uscg.mil>
Sent: Thursday, August 29, 2013 1:25 PM
To: david.rydene@noaa.gov
Cc: Pride, Tom
Subject: RE: NMFS comments on the Fort Hamer Road Bridge DEIS (Docket # USCG -2010-0455)

Dave,
I will send a new consultation letter and included the smalltooth sawfish. I will also get the pile driving information for the temporary work trestle and incorporate the information into the new letter.

Thanks,
Randy

From: david.rydene@noaa.gov [mailto:david.rydene@noaa.gov]
Sent: Thursday, August 29, 2013 11:52 AM
To: Overton, Randall D CIV
Subject: Re: NMFS comments on the Fort Hamer Road Bridge DEIS (Docket # USCG -2010-0455)

Hi Randy,

I was looking at the USCG Section 7 consultation request letter again today and noticed that it does not include a determination or request for smalltooth sawfish consultation. Could you send a modified letter or addendum ?

Also, I will need pile driving information for the temporary work trestle, as was provided for the actual bridge pile driving.

Thanks, Dave

On Thu, Aug 22, 2013 at 1:42 PM, Overton, Randall D CIV <Randall.D.Overton@uscg.mil> wrote:

Dave,

Here's what I got from the project consultants:

The installation of bridge pilings with hydraulic hammers (i.e., pile-driving) can generate acoustic vibrations within the water column. Although detailed construction methodologies for the Fort Hamer Alternative have not been developed, it is likely that many, if not all, of the bridge support pilings would be driven with a hydraulic hammer. A total of 54 24-in^2 pre-stressed concrete pilings will be installed in the river channel, and an additional 137 24-in^2 concrete pilings will be installed in the adjacent wetlands and shallow embayment between Wetland 3 and Wetland 4 (part of River 1).

Thanks,

Pride, Tom

From: Randall.D.Overton@uscg.mil on behalf of Overton, Randall D CIV <Randall.D.Overton@uscg.mil>
Sent: Wednesday, October 09, 2013 10:13 AM
To: Pride, Tom
Cc: Peate, Martin
Subject: FW: Consultation letter for Ft. Hamer and response to NMFS Comments to DEIS
Attachments: NMFS ESA Section 7and EFHrevisedconsultation request - SEP2013.pdf; Sea Turtle and Smalltooth Sawfish Construction Conditions.pdf

This is the email that transmitted the revised NMFS consultation letter

-----Original Message-----
From: Overton, Randall D CIV
Sent: Wednesday, September 18, 2013 2:58 PM
To: 'david.rydene@noaa.gov'
Subject: Consultation letter for Ft. Hamer and response to NMFS Comments to DEIS

Dave,
I have attached a revised consultation letter for the Ft Hamer project.
Included in the attached letter is consultation request for the smalltooth sawfish, as requested. I've learned a lot about the smalltooth sawfish from this project and research after our discussion.

Also included as an attachment to the letter is a response to your comments to the DEIS for the project.

Please let me know if I can provide anything else.

Thank you,

Randall Overton
Federal Permit Agent USCG
909 SE 1st Ave Suite 432
Miami, Fl 33131
(305) 205-0795 Cell
(305) 415-6736 Office

U.S. Department of Homeland Security
United States Coast Guard

Commander
Seventh Coast Guard District

909 S. E. First Avenue (Rm 432)
Miami, Fl 33131
Staff Symbol: (dpb)
Phone: (305) 415-6736
Fax: (305) 415-6763
Email: randall.d.overtont@uscg.mil

16450
September 18, 2013

David Rydene, Ph.D.
National Marine Fisheries Service
Southeast Regional Office
263 13th Avenue South
St. Petersburg, FL 33701-5505

Dear Dr. Rydene,

On July 24, 2013, the U.S. Coast Guard requested initiation of consultation in accordance with Section 7 of the Endangered Species Act (ESA) and to initiate consultation under the Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA) for Essential Fish Habitat for the proposed new bridge over the Manatee River in Manatee County, Florida. Project related documents made available to the NMFS included the Draft Environmental Impact Statement (DEIS), Wetlands Evaluation Report (WER) and subsequent update, and Biological Assessment (BA) and subsequent update.

On August 8, 2013, your office provided comments on the above-referenced documents and requested additional information for NMFS' review. Attachment A to this letter contains a copy of your comments and responses to those comments as prepared by the project consultant.

Comment No. 3 of the NMFS comments recommends that an ESA Section 7 consultation on smalltooth sawfish (*Pristis pectinata*) be conducted as the species has the potential to occur in the project area. Also, in an email dated August 29, 2013 the NMFS requested a modified consultation request that addresses the smalltooth sawfish. Through this letter the Coast Guard requests initiation of ESA Section 7 consultation for the smalltooth sawfish. We have included the following information regarding the smalltooth sawfish to facilitate your review of the project and to further the consultation process. This same information is being incorporated into the revised BA which will be included in the Final EIS.

Smalltooth Sawfish *(Pristis pectinata):*
ESA Endangered [U.S. - Distinct Population Segment (DPS) listed April 1, 2003]
Smalltooth sawfish inhabit shallow coastal waters of tropical seas and estuaries throughout the world. They are usually found in shallow waters (less than 32 ft (10 m)), very close to shore over muddy and sandy bottoms. They are often found in sheltered bays, on shallow banks, and in estuaries or river mouths. They prefer warmer water temperature of 22-28 degrees Celsius. They are known to ascend inland in river systems, and have been shown to have a salinity preference of 18-24 parts per thousand. In September 2009 NMFS issued a Final Rule (74 FR 45353) to designate critical habitat for the U.S. distinct population segment (DPS) of smalltooth sawfish (*Pristis pectinata*). The critical habitat consists of two units: the Charlotte Harbor

Estuary Unit, which comprises approximately 221,459 acres of coastal habitat; and the Ten Thousand Islands/Everglades Unit (TTI/E), which comprises approximately 619,013 acres of coastal habitat. The two units are located along the southwestern coast of Florida between Charlotte Harbor and Florida Bay (*NMFS OPR website*). Neither the Fort Hamer Alternative nor the Rye Road Alternative occurs within the vicinity of designated critical habitat for the smalltooth sawfish.

Potentially suitable habitat for the smalltooth sawfish occurs along the sandy bottom of the Manatee River within the Fort Hamer Alternative. No smalltooth sawfish have been documented in the Manatee River by the Florida Natural Areas Inventory (FNAI) and none were observed during field reviews for the project. Potential threats to the smalltooth sawfish as a result of implementation of the Fort Hamer Alternative include collision with construction vessels and entanglement in lines and floating turbidity barriers.

Due to the very shallow depths and narrow confines of the river at the Rye Road Alternative, potentially suitable habitat for the smalltooth sawfish is considered non-existent within the Rye Road Alternative. As a result, the Coast Guard has determined that implementation of the Rye Road Alternative will have no effect on the smalltooth sawfish.

Other species under NMFS purview (Sea turtles, Shortnose and Gulf sturgeon, North Atlantic right whales and other whales, Johnson seagrass, Elkhorn and Staghorn Coral): The Coast Guard has made a No-Effect determination for the above-listed species because the project is being proposed outside the known range and habitat of these species. A note will be made to the project files documenting the no-effect determination.

Proposed Avoidance, Minimization, Mitigation Measures:

To minimize potential impacts and interaction with the smalltooth sawfish the applicant (Manatee County) has committed to the implementation of standard NMFS (SERO) approved Sea Turtle and Smalltooth Sawfish Construction Conditions (Revised: March 23, 2006). – Attached to transmittal email.

Summary of Coast Guard Determinations:

Based on the information and commitments contained in this consultation letter, the BA and WER, including the supplemental updates, the Coast Guard determines:

The LPA (Fort Hamer Bridge Alternative) May Affect, but is not Likely to Adversely Affect (MANLAA) the smalltooth sawfish.

Additional Information Regarding Proposed Construction Methodology and Potential Impacts:

16450
18 September 2013

In emails dated August 27 and 29, 2013 the NMFS requested additional information regarding the length of work and the temporary work trestle. The following information is provided in response to these requests.

It is anticipated that construction of the proposed bridge for the Fort Hamer Alternative will take a total of twenty (20) months, including approximately six (6) months of in-water work for pile-driving and construction of the pile caps.

The design of the temporary work trestle is dependent upon contractor needs and will be finalized following selection of the construction contractor. However, for such work platforms contractors typically use steel pipe piles, 18 to 24 inches in diameter, driven in place with a hydraulic hammer. Based on the consultant's preliminary layout of the temporary work trestle, approximately 136 steel piles would be needed to support the structure. It is expected that the temporary structure would remain in place for 14 to 18 months during construction of the bridge.

Sincerely,

RANDALL D. OVERTON
Bridge Management Specialist
U.S. Coast Guard

Enclosure: 1) Attachment A – Responses to NMFS comments dated August 8, 2013
2) Sea Turtle and Smalltooth Sawfish Construction Conditions (Revised: March 23, 2006) as an email attachment

Copy: CGHQ-BRG-2 as an email

ATTACHMENT A

NMFS response to 2013 Fort Hamer Bridge DEIS (Docket Number USCG-2010-0455)

Transmitted via email on 8 August 2013 by David Rydene (NMFS) to Randy Overton (USCG)

URS responses to NMFS comments are shown in **Bold.**

NOAA's National Marine Fisheries Service (NMFS) staff has reviewed the Draft Environmental Impact Statement (DEIS) published on July 5, 2013, for the proposed new bridge crossing the Manatee River in the vicinity of Fort Hamer Road in Manatee County, Florida. NMFS offers the following comments on the DEIS.

Comment No. 1: Cited studies (i.e. the Sarasota/Manatee Metropolitan Planning Organization's Long Range Transportation Needs Plan) indicate that a total of 28 lanes crossing the Manatee River will be needed to meet the area's transportation needs by 2035. At present only 16 lanes cross the river and the addition of the proposed bridge would only bring the total number of lanes to 18. This will only marginally improve the envisioned 2035 traffic situation. Another 10 lanes crossing the river would be needed to meet the predicted 2035 traffic needs, as either the construction of new bridges or the widening of existing bridges. The DEIS states that even if the proposed Fort Hamer Bridge is built, two more lanes east of I-75 will be needed by 2035 (Section 1.2.1). The DEIS does not indicate whether these two additional lanes would be added to the Rye Road Bridge or the Fort Hamer Bridge.

Response: At this time it is unknown where additional lanes would be added in the future. The current project is funded solely by Manatee County and the County currently does not have additional lanes funded. Likewise, the FDOT currently has no plans to add additional lanes east of I-75. The addition of any lanes across the river following construction of the Fort Hamer Alternative would require additional studies and documentation in accordance with NEPA.

Comment No. 2: NMFS continues to believe that impacts to the salt marsh/mangrove peninsula are avoidable, and that the Fort Hamer Alternative, as proposed, does not represent the Least Environmentally Damaging Practicable Alternative. In addition, if the bridge (as proposed) is built and then widened at some point in the future, even further impacts to these important estuarine wetlands would result. NMFS proposes two slightly different alignments that would avoid direct impacts to the salt marsh/mangrove peninsula (see attached document).

Response: With any design it is best to have the bridge as perpendicular to the river as possible for several reasons:

1. **There are fewer piers in the water which provides a better "line-of-sight" between piers for the boaters;**
2. **In consideration of line-of-sight, currents, and wind, it is easier and safer to navigate between piers that are arranged perpendicular to the river, thus providing a safer condition for boaters;**
3. **With fewer piers there will be less scour and degradation of the river bottom;**
4. **A greater number of piers is more likely to result in a tailwater condition, i.e., upstream flooding due to greater restriction;**

5. **The channel span length is shorter, which provides for a more economical bridge;**

6. **The vertical profile is lower due to a shallower superstructure depth;**

7. **Long-term maintenance costs are reduced due to simpler geometrics and materials.**

The alignments suggested by NMFS will require a longer channel span due to the heavy skew at the centerline of river in order to provide the USCG minimum 75-foot horizontal clearance. The channel span length will increase from approximately 145 feet to 260 feet. Longer and heavier beams at large skews are much more complicated and difficult to erect. These longer lengths will require steel to be used for the beams which requires constant maintenance painting due to the close proximity of the brackish water. The increase in bridge costs for the NMFS alignment will be approximately $6 million dollars. In addition there will be approximately twice as many piers in the water compared to the Fort Hamer alignment shown in the DEIS. Although not currently planned, if the bridge is ever widened to four lanes, it will effectively obstruct one third of the river width for a length of almost one thousand feet. Finally, a relatively sharp curve on the bridge as suggested by the NMFS proposed alignment would introduce additional safety concerns for bridge users and would require substantial vehicle speed restrictions. As a result of these considerations, alternative bridge alignments are not considered practicable.

Comment No. 3: NMFS recommends that an Endangered Species Act Section 7 consultation on smalltooth sawfish (*Pristis pectinata*) be conducted. This listed species has the potential to occur in the project area. The use of smalltooth sawfish construction conditions should required during construction activities. A section on this smalltooth sawfish should be added to the Biological Assessment portion of the DEIS.

Response: We have conducted an evaluation of the potential project effects on the smalltooth sawfish. The Coast Guard is submitting this information to the NMFS along with a request for ESA Section 7 consultation on the species. The use of NMFS' Sea Turtle and Smalltooth Sawfish Construction Conditions during construction will be a commitment in the Final EIS.

Comment No. 4: The bridge should be designed to convey all stormwater off the bridge and into appropriate stormwater treatment systems. This will prevent degraded water from being discharged into the Manatee River and reaching estuarine habitats at the project site and downstream. A commitment to convey stormwater off the bridge for treatment at upland facilities is made in Section 4.3.7 of the DEIS.

Response: The stormwater conveyance system has been designed to capture and treat all stormwater from the bridge. No water will be discharged from the bridge to the Manatee River.

Comment No. 5: Before mitigation is finalized and permits are issued, a better effort must be made to quantify the amount of mangroves that are interspersed within those areas identified now (in the DEIS Wetland Evaluation Report) as simply salt marshes (FLUCFCS code 642). These mixed salt marsh/mangrove areas are found on both the peninsular area and on the southern shore of the river where the bridge would make landfall.

Response: We have revisited the project area in an effort to further quantify the extent of mangroves in these areas. Within Wetland 2 both red and black mangroves occur within the 0.59-acre area identified as wetland scrub. The mangroves occur sporadically in this area and are interspersed with

salt bush, wax myrtle, and Brazilian pepper. The total area occupied by mangroves within this area is estimated at 0.1 acre.

The saltmarsh portion of the peninsula north of the river contains very widely scattered red mangrove trees with most being less than three feet tall. Of the 1.58 acres of saltmarsh identified in this area, less than 200 square feet is estimated to consist of mangroves.

Comment No. 6: Although some wetland impacts will be temporary (e.g. from the work trestle) and these wetlands may recover after some period of time, the loss of ecological function during this recovery period should be factored into the compensatory mitigation scheme as a time lag metric. A thorough review of the UMAM scores and proposed compensatory mitigation should be conducted with all involved resource and permitting agencies in an effort to reach consensus on the final scores and compensatory mitigation scenario.

Response: We will factor a time lag into the UMAM scoring for the temporary wetland impacts. Application has been made for environmental permits from the SWFWMD and USACE; both of these agencies are reviewing the UMAM scoring for the proposed impact and mitigation areas and the acceptability of the proposed mitigation.

Comment No. 7: A statement is made in Section 4.5.1 of the Essential Fish Habitat portion of the Wetland Evaluation Report (Appendix D) that the project will result in "*de minimus* to minimal adverse impacts to red drum, gray snapper, pink shrimp, and stone crab populations and their prey species." with no explanation of how the conclusion was reached. Some explanation of the analysis used to reach the conclusion should be provided.

Response: The first paragraph of Section 4.5.1 is being revised as follows and as an explanation of the analysis used to reach the conclusion referenced above:

4.5.1 FORT HAMER ALTERNATIVE

The presence of bridge pilings/footings within the wetlands and open water portion of the Manatee River would result in 0.15 acre of fill. These impacts are not expected to adversely affect populations of red drum, gray snapper, pink shrimp, stone crab, and their prey populations.

A total of 1.01 acres of Wetlands 2, 3, and 4 would be subjected to permanent shading impacts from the bridge (all of which qualifies as designated EFH). These impacts would not affect the hydrology of the affected wetlands but may result in a decrease of vegetation and secondary productivity beneath the bridge. As stated previously, approximately 48 percent of the structure would have a height-width ratio of 0.7 or greater, including that portion of the structure over the saltmarsh and mangroves in Wetland 3. The mid-point of the bridge, and consequently the highest part of the bridge, occurs over these marsh/mangrove habitats and allows stormwater to flow in equal volumes from the bridge to the stormwater ponds located at each end of the structure. Thus, 75 percent of the total permanent shading area (0.76 acre of the 1.01 acres) occurs beneath that portion of the bridge with a height-width ratio of 0.7 or greater. The remaining 25 percent of shading area (0.25 acre) occurs beneath portions of the bridge with a height-width ratio of less than 0.7.

Broome et al. (2005) report that above-ground biomass, stem height, stem count, number of flowers, and basal area were greatly reduced beneath bridges at height-width ratios less than 0.5. At a height-width ratio of 0.68 adverse bridge shading effects on vegetation were still detected although greatly

diminished. Likewise, they showed a strong correlation of bridge height-width ratio with secondary productivity with benthic invertebrate density and diversity significantly lower beneath bridges with a height-width ratio less than 0.7. Broome et al. (2005) concluded, "Data indicates that shading by bridges having height-width ratios greater than 0.7 do not adversely impact the productivity or function of the underlying marsh..." Based on this analysis, the 0.25 acre of permanent shading area beneath the proposed bridge would be expected to result in reduced productivity and ecological function beneath the bridge. The remaining 0.76 acre of shading would have minimally reduced productivity and function. Shading beneath the bridge may be further reduced due to the north-south orientation of the bridge; more sunlight will be present under the bridge during the morning and late afternoon hours compared to a bridge with an east-west axis. Based on this information, we conclude that the 1.01 acres of permanent shading beneath the bridge will have minimal adverse effects to red drum, gray snapper, pink shrimp, and stone crab populations and their prey species.

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Southeast Regional Office
263 13th Avenue South
St. Petersburg, FL 33701

SEA TURTLE AND SMALLTOOTH SAWFISH CONSTRUCTION CONDITIONS

The permittee shall comply with the following protected species construction conditions:

a. The permittee shall instruct all personnel associated with the project of the potential presence of these species and the need to avoid collisions with sea turtles and smalltooth sawfish. All construction personnel are responsible for observing water-related activities for the presence of these species.

b. The permittee shall advise all construction personnel that there are civil and criminal penalties for harming, harassing, or killing sea turtles or smalltooth sawfish, which are protected under the Endangered Species Act of 1973.

c. Siltation barriers shall be made of material in which a sea turtle or smalltooth sawfish cannot become entangled, be properly secured, and be regularly monitored to avoid protected species entrapment. Barriers may not block sea turtle or smalltooth sawfish entry to or exit from designated critical habitat without prior agreement from the National Marine Fisheries Service's Protected Resources Division, St. Petersburg, Florida.

d. All vessels associated with the construction project shall operate at "no wake/idle" speeds at all times while in the construction area and while in water depths where the draft of the vessel provides less than a four-foot clearance from the bottom. All vessels will preferentially follow deep-water routes (e.g., marked channels) whenever possible.

e. If a sea turtle or smalltooth sawfish is seen within 100 yards of the active daily construction/dredging operation or vessel movement, all appropriate precautions shall be implemented to ensure its protection. These precautions shall include cessation of operation of any moving equipment closer than 50 feet of a sea turtle or smalltooth sawfish. Operation of any mechanical construction equipment shall cease immediately if a sea turtle or smalltooth sawfish is seen within a 50-ft radius of the equipment. Activities may not resume until the protected species has departed the project area of its own volition.

f. Any collision with and/or injury to a sea turtle or smalltooth sawfish shall be reported immediately to the National Marine Fisheries Service's Protected Resources Division (727-824-5312) and the local authorized sea turtle stranding/rescue organization.

g. Any special construction conditions, required of your specific project, outside these general conditions, if applicable, will be addressed in the primary consultation.

Revised: March 23, 2006
O:\forms\Sea Turtle and Smalltooth Sawfish Construction Conditions.doc

Pride, Tom

From: David Rydene - NOAA Federal <david.rydene@noaa.gov>
Sent: Wednesday, October 09, 2013 10:04 AM
To: Pride, Tom
Subject: Re: Bridge over Manatee River at Ft Hamer - additional NMFS questions

Thanks Tom !

On Wed, Oct 9, 2013 at 7:52 AM, Pride, Tom <tom.pride@urs.com> wrote:

David,

On October 2 you had called and asked for clarifying information regarding the temporary trestle and pile-driving associated with the proposed bridge over the Manatee River at Fort Hamer. Each question is listed below followed by our response:

- What is the length of the temporary trestle on the south side of the river and the length of the temporary trestle on the north side of the river? **Response: The south side trestle is approximately 270 feet and the north side trestle is approximately 1,650 feet.**

- Other than the pilings/piers are there any other structures or rip-rap to be placed in the river or wetlands adjacent to the river? **Response: There are no other structures planned in the river. At the end bents, the Preliminary Bridge Hydraulic Report recommends sod or equivalent geotextile/armoring for the slope at the wetland/upland interface. The current design does not include any rip-rap or other armoring below the wetland boundary. If, during construction, it is determined that riprap armoring is required below the wetland boundary a permit modification for the additional impact and required mitigation will be submitted.**

- How long (approximately) will it take to drive each concrete pile for the main bridge and how long will it take to drive each pipe pile for the temporary trestle? How many of each can be driven each day? **Response: It varies throughout Florida depending on the soil conditions and hammer used by the contractor. Concrete piles can be driven in as quickly as 15 minutes or as long as 45-90 minutes. Assuming 60 minutes per pile, approximately 6 to 8 concrete piles could be driven in one day. The steel pipe piles are vibrated in place and take between 15 and 45 minutes each. Assuming 30 minutes for each pile, approximately 14 to 16 steel pipe piles can be driven per day.**

- Is there a potential for the contractor to use water jetting to start the piles? **Response: The Geotechnical Report recommends preformed pile holes to start the piles, but there is always the potential that the contractor may want to use water jetting to start the piles.**

I hope this information is helpful for your review. Please do not hesitate to contact me with any questions or if you need additional information.

Thank you,

Tom Pride

Manager, Environmental Sciences

URS Corporation

7650 W Courtney Campbell Causeway

Tampa, FL 33607-1462

Direct: 813-636-2154

Cell: 813-748-7315

Tom.pride@urs.com

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David Rydene, Ph.D.
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Habitat Conservation Division
263 13th Avenue South
St. Petersburg, FL 33701
Office (727) 824-5379
Cell (813) 992-5730
Fax (727) 824-5300

Pride, Tom

From: Randall.D.Overton@uscg.mil on behalf of Overton, Randall D CIV <Randall.D.Overton@uscg.mil>
Sent: Tuesday, August 27, 2013 7:28 AM
To: Pride, Tom
Cc: Peate, Martin; Sugarman, Shelly CIV; Mullen, Kevin P CTR
Subject: FW: ESA Section 7 Consultation Request -Fort Hamer Bridge

Initial response from FWS concerning ESA consultation.

-----Original Message-----
From: peter_plage@fws.gov [mailto:peter_plage@fws.gov]
Sent: Friday, August 23, 2013 2:45 PM
To: Overton, Randall D CIV
Cc: Teresa Calleson
Subject: RE: ESA Section 7 Consultation Request -Fort Hamer Bridge

Randal,

I have been working on your ESA request as well as getting some project background through the Draft EIS. In addition, I have spoken to the Corps and FWC. The Corps in regard to how their permit process will relate to yours (they have a permit application from the County). My assumption is that formal ESA consultation for all of our (FWS) species will be through USCG and not through the Corps permit. On the other hand, the Corps 404 permit may provide us a more straightforward way of FWS influencing impacts to wetlands and non-ESA species.

I have a call scheduled Monday with FWC to discuss potential for additional manatee conditions. In Appendix K (2007) FWC requested a manatee observer be present for all in-water work. FDOT agreed to that condition, but it is not in the current plans. The BA addendum added an observer during pile driving, but I'm not sure that is a condition FWS or FWC regularly asks for. Was it prompted by NMFS? FWS and FWC will discuss this Monday as well. Eastern Indigo Snake, and Wood Stork may require additional information for our concurrence. Realize that gopher tortoise is a federal candidate species under the ESA. This affords no special protection, but it should be recognized.

As an aside, I don't see reference to sawfish or swimming marine turtles that are under NMFS ESA jurisdiction. If there are dolphin concerns this far up river, I assume that these marine species should be addressed in some fashion.

Once I get a better perspective on some of these issues we will move toward a formal response. Thanks for your patience and please get in touch if you have questions.

Peter Plage
U.S. Fish and Wildlife Service

600 Fourth Street South
St. Petersburg, FL 33701
904-731-3085
727-803-8747, ex. 3107 (Office)
www.fws.gov/northflorida

-----Original Message-----

From: Teresa Calleson [mailto:teresa_calleson@fws.gov]
Sent: Wednesday, July 24, 2013 3:40 PM
To: Randall.D.Overton@uscg.mil
Cc: Dawn Jennings; Peter Plage
Subject: RE: ESA Section 7 Consultation Request

Hi Randall,

Thank you very much for the recent submittal! I will be taking a look at this one myself but it will be formally assigned to Pete Plage in our office (who is located down in this general geographic area). He will be on leave for the next week or so but we will discuss this one when he returns. What is your timeline for review? Thanks.

Terri Calleson
Fish and Wildlife Biologist
U.S. Fish and Wildlife Service
7915 Baymeadows Way, Suite 200
Jacksonville, Florida 32256-7517
904-731-3286 (office)
850-922-4330 (main)
850-922-4338 (fax)
Email: Teresa_Calleson@fws.gov
http:/www.fws.gov/northflorida

-----Original Message-----
From: Randall.D.Overton@uscg.mil [mailto:Randall.D.Overton@uscg.mil]
Sent: Wednesday, July 24, 2013 10:39 AM
To: dawn_jennings@fws.gov; teresa_calleson@fws.gov
Cc: Sugarman, Shelly CIV; Dragon, Barry CIV; Mullen, Kevin P CTR
Subject: ESA Section 7 Consultation Request

Please find attached a request for ESA Section 7 Consultation for a proposed bridge construction project across the Manatee River. The proposed new bridge would be constructed across the Manatee River approximately 15 miles upstream from the mouth of the river. The bridge and associated roadway would be between Upper Manatee River Road (south of the Manatee River) to Fort Hamer Road (north of the Manatee River), near Parrish, Manatee County, Florida. Latitude 27o 31.165' N, Longitude 82o 25.720' W.

The attached letter "USFWS ESA Section 7consultation request" contains web links to the Wetland Evaluation Report (WER) and Biological Opinion (BA) prepared for the proposed project. WER and BA supplemental updates which slightly refine the WER and BA are attached to this email.

I look forward to hearing from you.

Thank you,

Randall Overton
Federal Permit Agent USCG
909 SE 1st Ave Suite 432
Miami, Fl 33131
(305) 205-0795 Cell
(305) 415-6736 Office

Pride, Tom

From: Randall.D.Overton@uscg.mil on behalf of Overton, Randall D CIV <Randall.D.Overton@uscg.mil>
Sent: Thursday, September 19, 2013 9:39 AM
To: Pride, Tom
Cc: Mullen, Kevin P CTR
Subject: FW: ESA Section 7 Consultation Request -Fort Hamer Bridge
Attachments: Consultation ESA & CH reasoning and decisions chart Manatee River Ft Hamer.pdf

FYI - I responded to FWS initial comments to the consultation request. Please read at your convenience. One item of note is the gopher tortoise, FWS pointed out that the gopher tortoise is a candidate species under ESA. FWS stated that while being a candidate species does not necessarily afford special protection, we should recognize that it is a candidate species; perhaps a shout-out in the FEIS.

-----Original Message-----
From: Overton, Randall D CIV
Sent: Friday, September 13, 2013 11:09 AM
To: 'peter_plage@fws.gov'
Cc: Teresa Calleson
Subject: RE: ESA Section 7 Consultation Request -Fort Hamer Bridge

Peter,
I apologize for the delay in getting back to you but I was working through some wetland delineation and permitting issues with the ACOE and my headquarters office; looks like we have everything resolved. You are correct concerning consultation; the Coast Guard is the Lead Federal Agency (LFA) and is responsible for ensuring all consultations are completed (ESA, EFH, Section 106 etc.), but as you appropriately point out in your email the Corps 404 permit may provide a more straightforward approach to wetland and other impacts. A question that has come-up is whether the consultation will be "formal or informal" and the expected timeline on consultation in either case.

I have attached a very basic flow chart which I pulled from a ESA consultation workshop slide presentation. I understand that the chart is elementary and certainly not the determining factor but if I applied the chart correctly it appears that the consultation would be informal. Again, I will defer to your expertise in making the determination as to the level of consultation but I wanted to at least start the dialog. Please let me know your thoughts.

Concerning the BA addendum adding an observer during pile driving, this was added to the BA addendum by the consultant, URS, unilaterally and not was not requested from NMFS.
Concerning the gopher tortoise as a federal candidate species under the ESA, the state has the gopher tortoise listed as a "State Threatened/Species of Special Concern" which has prompted a commitment from the applicant (Manatee County) to survey approximately 17 acres of suitable upland habitat within the project limits and if burrows are found within 25 feet of construction limits the county will coordinate with the FWC to secure permits to relocate the gopher tortoise and associated commensal species (Florida mouse (SSC), gopher frog (SSC) and pine snake (SSC). You state that it should be recognized that the gopher tortoise is a candidate species under the ESA. I'm not sure exactly how to officially make this recognition, I could send an addendum or revision to the consultation letter which makes this recognition if desired. Or, it may be that you wanted to call my attention to the candidate species status for future project if/when the tortoise is listed.
Concerning the smalltooth sawfish and sea turtles, I am coordinating these species with NMFS (David Rydene). We have added the construction conditions for these species.
Concerning dolphins, to my knowledge there are no dolphin concerns this far up the river (15 miles), but I will touch base with the consultants and research a bit deeper (salinity level at the project location, possible past observations etc.)

Please let me know if you any addition information needed concerning the Eastern Indigo Snake, and Wood Stork.

Thank you and please call or email at any time, Randy

Randall Overton
Federal Permit Agent USCG
909 SE 1st Ave Suite 432
Miami, Fl 33131
(305) 205-0795 Cell
(305) 415-6736 Office

-----Original Message-----
From: peter_plage@fws.gov [mailto:peter_plage@fws.gov]
Sent: Friday, August 23, 2013 2:45 PM
To: Overton, Randall D CIV
Cc: Teresa Calleson
Subject: RE: ESA Section 7 Consultation Request -Fort Hamer Bridge

Randal,

I have been working on your ESA request as well as getting some project background through the Draft EIS. In addition, I have spoken to the Corps and FWC. The Corps in regard to how their permit process will relate to yours (they have a permit application from the County). My assumption is that formal ESA consultation for all of our (FWS) species will be through USCG and not through the Corps permit. On the other hand, the Corps 404 permit may provide us a more straightforward way of FWS influencing impacts to wetlands and non-ESA species.

I have a call scheduled Monday with FWC to discuss potential for additional manatee conditions. In Appendix K (2007) FWC requested a manatee observer be present for all in-water work. FDOT agreed to that condition, but it is not in the current plans. The BA addendum added an observer during pile driving, but I'm not sure that is a condition FWS or FWC regularly asks for. Was it prompted by NMFS? FWS and FWC will discuss this Monday as well. Eastern Indigo Snake, and Wood Stork may require additional information for our concurrence. Realize that gopher tortoise is a federal candidate species under the ESA. This affords no special protection, but it should be recognized.

As an aside, I don't see reference to sawfish or swimming marine turtles that are under NMFS ESA jurisdiction. If there are dolphin concerns this far up river, I assume that these marine species should be addressed in some fashion.

Once I get a better perspective on some of these issues we will move toward a formal response. Thanks for your patience and please get in touch if you have questions.

Peter Plage
U.S. Fish and Wildlife Service

600 Fourth Street South
St. Petersburg, FL 33701
904-731-3085
727-803-8747, ex. 3107 (Office)
www.fws.gov/northflorida

-----Original Message-----

From: Teresa Calleson [mailto:teresa_calleson@fws.gov]
Sent: Wednesday, July 24, 2013 3:40 PM
To: Randall.D.Overton@uscg.mil
Cc: Dawn Jennings; Peter Plage
Subject: RE: ESA Section 7 Consultation Request

Hi Randall,

Thank you very much for the recent submittal! I will be taking a look at this one myself but it will be formally assigned to Pete Plage in our office (who is located down in this general geographic area). He will be on leave for the next week or so but we will discuss this one when he returns. What is your timeline for review? Thanks.

Terri Calleson
Fish and Wildlife Biologist
U.S. Fish and Wildlife Service
7915 Baymeadows Way, Suite 200
Jacksonville, Florida 32256-7517
904-731-3286 (office)
850-922-4330 (main)
850-922-4338 (fax)
Email: Teresa_Calleson@fws.gov
http:/www.fws.gov/northflorida

-----Original Message-----
From: Randall.D.Overton@uscg.mil [mailto:Randall.D.Overton@uscg.mil]
Sent: Wednesday, July 24, 2013 10:39 AM
To: dawn_jennings@fws.gov; teresa_calleson@fws.gov
Cc: Sugarman, Shelly CIV; Dragon, Barry CIV; Mullen, Kevin P CTR
Subject: ESA Section 7 Consultation Request

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The attached letter "USFWS ESA Section 7consultation request" contains web links to the Wetland Evaluation Report (WER) and Biological Opinion (BA) prepared for the proposed project. WER and BA supplemental updates which slightly refine the WER and BA are attached to this email.

I look forward to hearing from you.

Thank you,

Randall Overton
Federal Permit Agent USCG
909 SE 1st Ave Suite 432
Miami, Fl 33131
(305) 205-0795 Cell
(305) 415-6736 Office

Informal Consultation: Reasoning and Decision - Listed Species

81

Step	Apply the available evidence to determine if	Is the Statement...	Action
A	The Action is not an attempt to engage in any form of "take" or it does not represent an intentional act that would otherwise violate section 9 of the ESA	True	Go to B
		False	Formal
B	The Action is not likely to produce stressors that have direct or indirect adverse consequence on the environment	True	End
		False	Go to C
C	Listed individuals are not likely be exposed to one or more of those stressors or one or more of the direct or indirect consequences of the Action	True	NLAA (1)
		False	Go to D
D	Listed Individuals are not likely to respond upon being exposed to one or more of the stressors produced by the Action	True	NLAA (2)
		False	Go to E
E	Any responses are not likely to constitute "take" or reduce the fitness of the individuals that have been exposed	True	NLAA (3)
		False	Go to F

w/ manatee conditions standard + any special conditions

Informal Consultation: Reasoning and Decision - Critical Habitat

82

Step	Apply the available evidence to determine if	Is the Statement...	Action
A	The Action is not likely to produce stressors that have direct or indirect adverse consequence on the environment	True	End
		False	Go to B
B	Areas of designated critical habitat are not likely be exposed to one or more of those stressors or one or more of the direct or indirect consequences of the Action	True	NLAA (1)
		False	Go to C
C	The quantity, quality, or availability of one or more Constituent Elements of critical habitat are not likely to be reduced upon being exposed to one or more of the stressors produced by the Action	True	NLAA (2)
		False	Go to D
D	Any reductions in the quantity, quality, or availability of one or more Constituent Elements of critical habitat are not likely to reduce the Conservation Value of the exposed area	True	-
		False	Go to E
E	Any reductions in the Conservation Value of the exposed area of critical habitat are not likely to reduce the Conservation Value of the Critical Habitat designation	True	No AD MOD
		False	AD MOD

I'm not clear on Constituent Elements of the CH However I think that the minor Reduction to CE may Reduce CV of exposed Area but NOT the CV of the CH as a whole

United States Department of the Interior
U. S. FISH AND WILDLIFE SERVICE
7915 BAYMEADOWS WAY, SUITE 200
JACKSONVILLE, FLORIDA 32256-7517

IN REPLY REFER TO:
FWS Log No. 41910-2013-1-0229

November 29, 2013

Rear Admiral John H. Korn, Commander
Seventh U.S. Coast Guard District
909 SE 1st Avenue
Miami, Florida 33131
(Attn.: Randall Overton)

Dear Commander:

The Fish and Wildlife Service (Service) received the U.S. Coast Guard's (USCG's) letter dated July 24, 2013, regarding a bridge construction project proposed by Manatee County, Florida. You stated that, as lead federal agency for the project, the USCG wished to initiate consultation with the Service under section 7 of the Endangered Species Act of 1973 (Act), as amended (16 U.S.C. 1531 *et seq.).* Included in the letter were links to a Biological Assessment (BA) and Wetland Evaluation Report (WER) that are appendices to a July 5, 2013, Draft Environmental Impact Statement (DEIS) for the project. In addition, supplemental updates to the BA and WER were submitted with your letter. You provided determinations of "may affect, not likely to adversely affect" for the West Indian (Florida) manatee *(Trichechus manatus latirostris),* wood stork *(Mycteria americana), and* for the eastern indigo snake *(Drymarchon corais couperi).* In an email dated November 20, 2013, the USCG informed the Service of additional site-specific manatee protection measures to be implemented during construction. We provide the following comments in accordance with the Act, the Fish and Wildlife Coordination Act (FWCA) (16 U.S.C. 661 *et seq.),* and the Marine Mammal Protection Act of 1972 (MMPA), as amended (16 U.S.C. 1461 *et seq.).*

The proposed bridge, referred to in the DEIS as the Fort Hamer Alternative, consists of a new, two-lane, mid-level, fixed span bridge crossing the Manatee River and approaches that would connect the existing Manatee River Road with the existing Fort Hamer Road. The proposed bridge would cross the Manatee River approximately 15 miles upstream of its mouth, near Parish, Manatee County (27.5194N, -82.4286 W). The proposed bridge length is 2,570 feet. The construction limits for the project extend 1.4 miles and the study area (described as the area of potentially increased traffic) extends for 6 miles and 0.5 mile outward from the proposed center line.

West Indian manatees utilize the Manatee River for calving, mating, foraging, resting, and as a travel corridor. The Manatee River from the Manatee Lake Dam to Tampa Bay, including waters at the project site, is designated as manatee critical habitat. Aerial surveys by the Florida Fish and Wildlife Conservation Commission indicate that the Manatee River receives substantial use by manatees year-round.

Potential project threats to the West Indian manatee include collision with construction vessels and acoustic impacts of pile driving with hydraulic hammers during construction. In order to reduce the effects of the project on the manatee, Manatee County has committed to implementing the "Standard Manatee Conditions for In-Water Activities" developed by the FWC. In addition to observing all posted speed zones on the Manatee River, construction vehicles will be required to operate at "slow speed/no wake" within 0.5 mile upstream and downstream of the construction site. Qualified manatee observers will be stationed in place to observe the river during all in-water construction and have authority to cease project operations when appropriate. All pile driving will occur during daylight hours. If a manatee or a dolphin is observed within 0.25-mile buffer of a pile driving operation, work will cease until the animal leaves the area on its own. Additional conservation measures include; movement of barges and other vessels will be minimized during nighttime hours; grating will be installed over any existing or proposed pipes or culverts 8 inches to 8 feet in diameter that may be accessible to manatees; and, mooring bumpers (fenders) will be in place between vessels where there is a possibility of a manatee being crushed between two moored vessels.

With the incorporation of standard manatee construction conditions and other conditions committed to in the USCG's email of November 20, 2013, above, it is our position that the likelihood of take of a manatee or its habitat is insignificant or discountable. As such, we concur with any revised USCG's determination that the project "may affect, but is not likely to adversely affect," the manatee or its designated critical habitat. In addition, because no incidental take of manatees is anticipated, no such authorizations under the MMPA will be needed.

While no wood stork rookeries are located within 2,500 feet of the project site, two active wood stork rookeries are located within 15 miles. Therefore, suitable foraging habitat on the project site is within the Core Foraging Area of these two colonies. The Fort Hamer Bridge project as currently proposed would impact an estimated 4.34 acre of wetlands, including suitable foraging habitat for the wood stork. It appears that some of the wetland types potentially impacted would not constitute suitable foraging habitat for wood storks. Wetlands offered as compensation for suitable foraging habitat impacted will include, at minimum, foraging function for wood storks equal to those habitats impacted. Given this commitment, we concur with a "may affect, but not likely to adversely affect" determination for the wood stork.

Minimal habitat suitable to support the eastern indigo snake is present within the project area. However, gopher tortoise *(Gopherus polyphemus)* burrows have been observed north of the Manatee River within the project area. Wherever the eastern indigo snake occurs in xeric habitats, it is closely associated with gopher tortoise burrows, which provide shelter from winter cold and summer heat. Suitable gopher tortoise habitat is limited in the project area and only 17 acres of uplands are present within the proposed construction limits. We note that standard construction precautions for the eastern indigo snake (Appendix of the BA) are proposed. These precautions should be updated to conform to conform to the Service's August 12, 2013, Standard Protection Measures for the Eastern Indigo Snake (available at http://www.fws.gov/nmihflorida/Tools2Use/consult-landowner-refs.htm). Evaluation based on the Service's 2010 Eastern Indigo Snake Programmatic Effect Determination Key (as modified

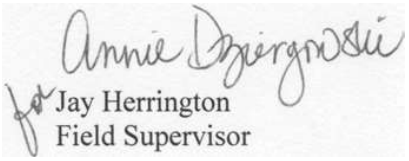
in 2013) indicates a "may affect, not likely to adversely affect" determination for the eastern indigo snake is appropriate, since the proposed project appears unlikely to impact more than 25 active and inactive gopher tortoise burrows or 25 acres of scrub habitat. Based on the information provided, we concur on the "may affect, not likely to adversely affect" determination for the eastern indigo snake.

Although this does not represent a biological opinion as described in section 7 of the Act, it does fulfill the requirements of the Act and no further action is required unless modifications are made to the project that affect listed species; additional information involving potential effects to listed species becomes available; the applicant fails to comply with the permit conditions; or if take of a listed species occurs during the construction of this facility, in which case consultation will be reinitiated.

The U.S. Army Corps of Engineers has received an application for the Fort Hamer Bridge project. We anticipate additional Service review of some aspects of the proposed project and its impacts to fish and wildlife, and potentially providing comments to the Corps consistent with provisions of the FWCA.

We appreciate commitments by Manatee County to conserve fish and wildlife. If you have any questions regarding this letter or to further coordinate with the Service regarding this matter, please contact Peter Plage at (904)731-3085.

Sincerely,



cc: John Fellows, Corps (Tampa Regulatory Office)
Mary Duncan, FWC (Tallahassee)

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Southeast Regional Office
263 13th Avenue South
St. Petersburg, Florida 33701-5505
http://sero.nmfs.noaa.gov

F/SER46:DR
SER-2013-11912

DEC 11 2013

Commander (dpb)
United States Coast Guard
Seventh Coast Guard District
Bridge Administration Branch
909 SE 1st Avenue, Suite 432
Miami, Florida 33131-3050

Attn: Randall D. Overton, Bridge Management Specialist

Ref.: US Coast Guard Public Notice (11-13) Fort Hamer Road Bridge (new bridge), Manatee County, Florida

Dear Mr. Overton:

This responds to your letter dated September 18, 2013, requesting National Marine Fisheries Service (NMFS) concurrence with your project-effect determinations under Section 7 of the Endangered Species Act (ESA) for the above-referenced project. You determined that the project may affect, but is not likely to adversely affect, smalltooth sawfish. Our findings on the project's potential effects are based on the project descriptions in this response. Changes to the proposed action for the project may negate our findings and may require reinitiating consultation.

After reviewing the project's Draft Environmental Impact Statement (DEIS), NMFS sent comments to the U.S. Coast Guard (USCG) on August 8, 2013, including a recommendation that smalltooth sawfish be consulted on under Section 7 of the ESA and that a supplemental section on that species be added to the DEIS's Biological Assessment. NMFS requested information on pile driving activities on August 22, 2013, and received the information that day. NMFS requested additional information on pile driving related to the installation of a temporary work trestle on August 29, 2013. NMFS received a revised ESA/Essential Fish Habitat consultation request letter from the USCG on September 19, 2013, that included a "Not Likely to Adversely Affect" determination for smalltooth sawfish. The letter also included information on temporary work trestle pile driving activities.

The proposed new bridge project site is located at 27.522423°N, 82.428585°W over the Manatee River in Manatee County, Florida (Figure 1). This portion of the Manatee River is tidally influenced, and salt marsh and mangroves are present within the limits of proposed construction. Some submerged aquatic vegetation (widgeon grass, *Ruppia maritima*), a salt-tolerant freshwater species, also occurs in the area. There is currently no bridge structure at the site. Manatee County (the applicant) proposes the construction of a new two-lane bridge. The northern end of the bridge would connect with existing Fort Hamer Road, and the southern end would tie into Upper Manatee Road/Lakewood Ranch Boulevard. The project length would be approximately 2,318 feet. At its highest point the bridge would be 26 feet above Mean High Water.

Figure 1. Proposed Fort Hamer Road Bridge location.

Two temporary work trestles would be installed as part of the project. Each trestle would be 28 feet wide. The southside trestle would be about 270 feet long, and the northside trestle about 1,650 feet long. The trestles would be supported by steel pipe piles in the range of 18-24 inches in diameter. A total of 136 pipe piles would be installed. The pipe piles would be vibrated into place. It will take an average of 30 minutes to install each pipe pile, and about 14-16 pipe piles could be installed each day. Therefore, active pipe pile installation would take about 9-10 days. The trestle components, including the pipe piles, would be removed following completion of the new bridge. The work trestles are estimated to be in place for 14-18 months.

Construction of the bridge itself would require driving 191 pre-cast, pre-stressed 24-inch square concrete piles using a hydraulic impact hammer. These piles would be driven in the river bed and also in the salt marsh peninsula that juts into the river. The piles would initially be placed into pre-formed holes in the river bed, and it is possible that water jetting may also be used to seat the piles before driving begins. The majority of the pile driving would be done from the work trestles, although pile driving at the river channel may require the use of barges. In this instance, two barges would be used: one barge would store materials and the other would carry the pile driving equipment. It is estimated that each pile would take approximately 60 minutes to drive, and that about 6-8 piles could be driven per day. This would translate to about 24-32 days of active pile driving. Overall pile driving-related activities are estimated to take 6 months to complete. Pile driving will only occur during daylight hours.

Heavy equipment such as cranes, backhoes, and dump trucks will be used to accomplish land-based construction activities. There are no plans to place riprap or other armoring components on the river's shorelines. The entire project is expected to take approximately 20 months to complete. The applicant will use turbidity controls and comply with NMFS's *Sea Turtle and Smalltooth Sawfish*

Construction Conditions dated March 23, 2006. Mangrove losses due to the project are estimated to be less than 0.3 acre.

We believe that smalltooth sawfish could be present in the action area and may be affected by the project. However, there are no records of smalltooth sawfish (adults or juveniles) in the vicinity of the project area in the National Sawfish Encounter Database (1999 to 2008). The closest record of a sawfish to the project area occurs 6 miles downstream. There are only three records of smalltooth sawfish in the entire Manatee River in the encounter database. While this does not necessarily preclude the possibility of sawfish occurring near the project, it suggests that they are very uncommon in this part of the Manatee River, if they occur there at all. The project area is not located in critical habitat for this listed species. We have identified the following potential effects to the species and concluded the species are not likely to be adversely affected.

1. Effects to smalltooth sawfish include the risk of injury from in-water construction machinery (e.g., pile driving and jetting equipment, barges and work boats, anchors, etc.) or piling installation, which will be discountable due to the species' ability to move away from the project site if disturbed. The applicant's compliance with NMFS's *Sea Turtle and Smalltooth Sawfish Construction Conditions* will provide an additional measure of protection.

2. Smalltooth sawfish may be affected by daytime pile driving noise associated with the bridge construction. The project involves the installation of 18-to 24-inch steel pipe piles and 24-inch square concrete piles using a vibratory hammer and an impact hammer, respectively. Based on data from the Federal Highway Administration (2012)[1] on vibratory and impact hammer pile driving noise threshold levels for fish, this project's noise levels should be below the threshold for injury. However, maximum pile driving noise levels at the source (approximately 185 dB Root Mean Square or RMS) will likely exceed the threshold for potential behavioral effects to fish (150 dB RMS for fish). Based on this information, fish may exhibit behavioral changes when within a 215-meter radius of the project's active pile driving.

   Due to their expected avoidance of project noise and activity, we would not expect a sawfish to remain stationary within 215 meters of a pile during installation operations. The project has adequate avenues for a sawfish to escape or avoid the project area during pile driving activities, and the project area could still be used by the species during early evening and night hours when pile driving will not occur. Also, the likelihood that smalltooth sawfish will be present in the project area is low since the highest densities of the smalltooth sawfish in the Gulf of Mexico occur from Charlotte Harbor and southward, and smalltooth sawfish are relatively rare in the Manatee River system. In addition, the USCG will require the applicants (as a permit condition) to adhere to NMFS's *Sea Turtle and Smalltooth Sawfish Construction Conditions,* which require them to stop work if a sawfish is spotted within 50 feet of construction activities. We believe that piling installation noise generated by this project will have insignificant effects on smalltooth sawfish.

3. The loss of 0.3 acre of mangroves as potential refuge and foraging habitat for juvenile smalltooth sawfish in the area does lessen the overall available habitat to the species. However, the loss of red and black mangroves will have an insignificant effect given the

[1] Federal Highway Administration. 2012. Technical Guidance for Assessment and Mitigation of the Hydroacoustic Effects of Pile Driving on Fish. Final. February (ICF 645.10). Prepared by ICF International, Seattle, WA.

extensive mangrove habitat available around the project area and elsewhere in the Manatee River system.

In conclusion, we concur with your determinations that the proposed actions are unlikely to adversely affect the listed species or their critical habitat. This concludes the USCG's consultation responsibilities under the ESA for species under NMFS's purview. Consultation must be reinitiated if a take occurs or new information reveals effects of the action not previously considered, or the identified action is subsequently modified in a manner that causes an effect to the listed species or critical habitat in a manner or to an extent not previously considered, or if a new species is listed or critical habitat designated that may be affected by the identified action.

Additional relevant information is enclosed for your review. We look forward to further cooperation with you on other projects to ensure the conservation of our threatened and endangered marine species and designated critical habitat. If you have any questions on this consultation, please contact Dr. Dave Rydene, consultation biologist, at (727) 824-5379, or by e-mail at David.Rydene@noaa.gov.

Sincerely,

Miles M. Croom

for Roy E. Crabtree, Ph.D.
Regional Administrator

Enc.: 1. *Sea Turtle and Smalltooth Sawfish Construction Conditions* (Revised March 23, 2006)
2. *PCTS Access and Additional Considerations for ESA Section 7 Consultations* (Revised June 11, 2013)

File: 1514-22.H

SEA TURTLE AND SMALLTOOTH SAWFISH CONSTRUCTION CONDITIONS

The permittee shall comply with the following protected species construction conditions:

a. The permittee shall instruct all personnel associated with the project of the potential presence of these species and the need to avoid collisions with sea turtles and smalltooth sawfish. All construction personnel are responsible for observing water-related activities for the presence of these species.

b. The permittee shall advise all construction personnel that there are civil and criminal penalties for harming, harassing, or killing sea turtles or smalltooth sawfish, which are protected under the Endangered Species Act of 1973.

c. Siltation barriers shall be made of material in which a sea turtle or smalltooth sawfish cannot become entangled, be properly secured, and be regularly monitored to avoid protected species entrapment. Barriers may not block sea turtle or smalltooth sawfish entry to or exit from designated critical habitat without prior agreement from the National Marine Fisheries Service's Protected Resources Division, St. Petersburg, Florida.

d. All vessels associated with the construction project shall operate at "no wake/idle" speeds at all times while in the construction area and while in water depths where the draft of the vessel provides less than a four-foot clearance from the bottom. All vessels will preferentially follow deep-water routes (e.g., marked channels) whenever possible.

e. If a sea turtle or smalltooth sawfish is seen within 100 yards of the active daily construction/dredging operation or vessel movement, all appropriate precautions shall be implemented to ensure its protection. These precautions shall include cessation of operation of any moving equipment closer than 50 feet of a sea turtle or smalltooth sawfish. Operation of any mechanical construction equipment shall cease immediately if a sea turtle or smalltooth sawfish is seen within a 50-ft radius of the equipment. Activities may not resume until the protected species has departed the project area of its own volition.

f. Any collision with and/or injury to a sea turtle or smalltooth sawfish shall be reported immediately to the National Marine Fisheries Service's Protected Resources Division (727-824-5312) and the local authorized sea turtle stranding/rescue organization.

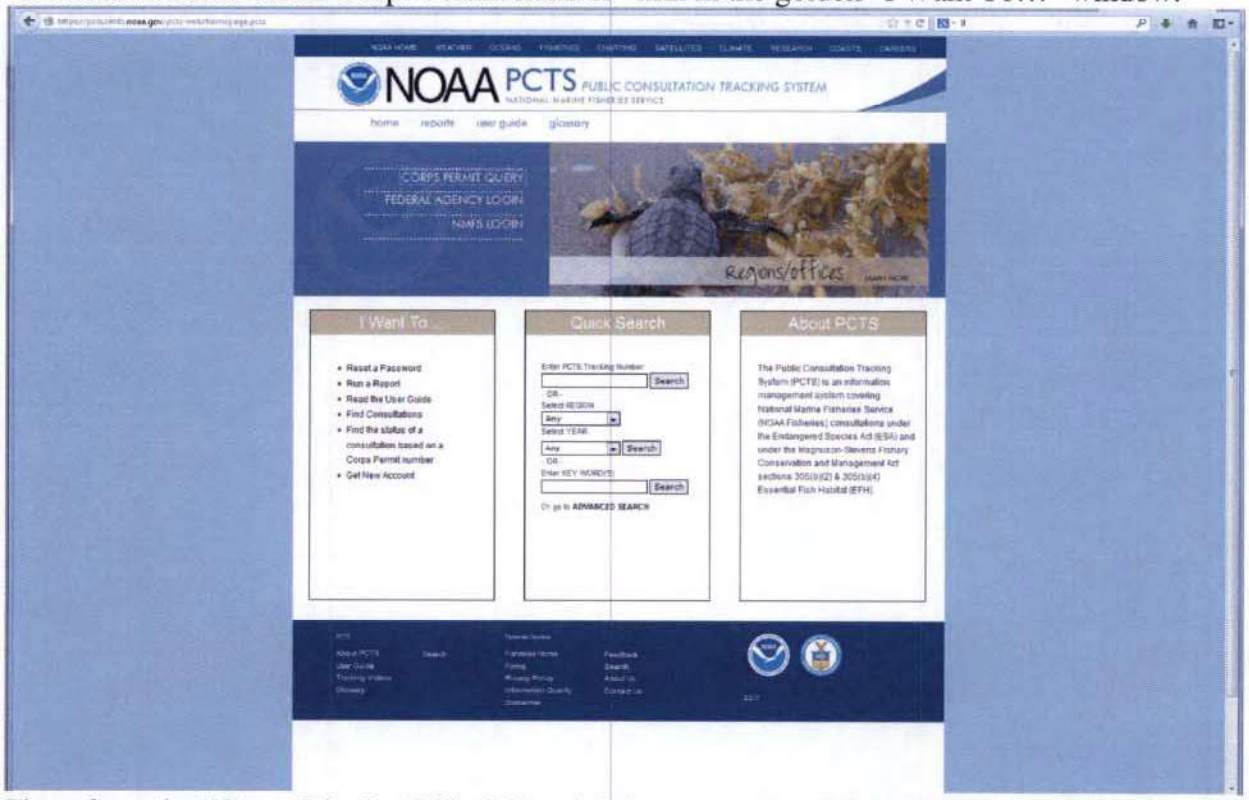
g. Any special construction conditions, required of your specific project, outside these general conditions, if applicable, will be addressed in the primary consultation.

Revised: March 23, 2006

PCTS Access and Additional Considerations for ESA Section 7 Consultations
(Revised 6-11-2013)

Public Consultation Tracking System (PCTS) Guidance: PCTS is a Web-based query system at **https://pcts.nmfs.noaa.gov/** that allows all federal agencies (e.g., U.S. Army Corps of Engineers - USACE), project managers, permit applicants, consultants, and the general public to find the current status of NMFS's Endangered Species Act (ESA) and Essential Fish Habitat (EFH) consultations which are being conducted (or have been completed) pursuant to ESA Section 7 and the Magnuson-Stevens Fishery Conservation and Management Act's (MSA) Sections 305(b)2 and 305(b)(4). Basic information including access to documents is available to all.

The PCTS Home Page is shown below. For USACE-permitted projects, the easiest and quickest way to look up a project's status, or review completed ESA/EFH consultations, is to click on either the "Corps Permit Query" link (top left); or, below it, click the "Find the status of a consultation based on the Corps Permit number" link in the golden "I Want To…" window.



Then, from the "Corps District Office" list pick the appropriate USACE district. In the "Corps Permit #" box, type in the 9-digit USACE permit number identifier, with no hyphens or letters. Simply enter the year and the permit number, joined together, using preceding zeros if necessary after the year to obtain the necessary 9-digit (no more, no less) number. For example, the USACE Jacksonville District's issued permit number SAJ-2013-0235 (LP-CMW) must be typed in as 201300235 for PCTS to run a proper search and provide complete and accurate results. For querying permit applications submitted for ESA/EFH consultation by other USACE districts, the procedure is the same. For example, an inquiry on Mobile District's permit MVN201301412 is entered as 201301412 after selecting the Mobile District from the "Corps District Office" list. PCTS questions should be directed to Eric Hawk at Eric.Hawk@noaa.gov or (727) 551-5773.

EFH Recommendations: In addition to its protected species/critical habitat consultation requirements with NMFS' Protected Resources Division pursuant to Section 7 of the ESA, prior to proceeding with the proposed action the action agency must also consult with NMFS' Habitat Conservation Division (HCD) pursuant to the MSA requirements for EFH consultation (16 U.S.C. 1855 (b)(2) and 50 CFR 600.905-.930, subpart K). The action agency should also ensure that the applicant understands the ESA and EFH processes; that ESA and EFH consultations are separate, distinct, and guided by different statutes, goals, and time lines for responding to the action agency; and that the action agency will (and the applicant may) receive separate consultation correspondence on NMFS letterhead from HCD regarding their concerns and/or finalizing EFH consultation.

Marine Mammal Protection Act (MMPA) Recommendations: The ESA Section 7 process does not authorize incidental takes of listed or non-listed marine mammals. If such takes may occur an incidental take authorization under MMPA Section 101 (a)(5) is necessary. Please contact NMFS' Permits, Conservation, and Education Division at (301) 713-2322 for more information regarding MMPA permitting procedures.

Appendix B

FNAI Information

FLORIDA
Natural Areas
INVENTORY

1018 Thomasville Road
Suite 200-C
Tallahassee, FL 32303
850-224-8207
fax 850-681-9364
www.fnai.org

March 16, 2011

Terry Cartwright
URS Corporation
7650 West Courtney Campbell Causeway
Tampa, FL 33607

Dear Terry,

Thank you for requesting information from the Florida Natural Areas Inventory (FNAI). We have compiled the following information for your project area.

Project: Fort Hamer Bridge Site
Date Received: 03/11/2011
Location: Manatee County

Element Occurrences

A search of our maps and database indicates that currently we have several element occurrences mapped within the vicinity of the study area (see enclosed map and element occurrence table). Please be advised that a lack of element occurrences in the FNAI database is not a sufficient indication of the absence of rare or endangered species on a site.

No documented wood stork occurrences exist within 15 miles of the project site. However, potential wood stork habitat and species-unspecific bird rookeries do exist within this region. (See attached maps.)

The element occurrences data layer includes occurrences of rare species and natural communities. The map legend indicates that some element occurrences occur in the general vicinity of the label point. This may be due to lack of precision of the source data, or an element that occurs over an extended area (such as a wide ranging species or large natural community). For animals and plants, element occurrences generally refer to more than a casual sighting; they usually indicate a viable population of the species. Note that some element occurrences represent historically documented observations which may no longer be extant. Extirpated element occurrences will be marked with an 'X' following the occurrence label on the enclosed map.

*Several of the species and natural communities tracked by the Inventory are considered **data sensitive**. Occurrence records for these elements contain information that we consider sensitive due to collection pressures, extreme rarity, or at the request of the source of the information. The Element Occurrence Record has been labeled "Data Sensitive." We request that you not publish or release specific locational data about these species or communities without consent from the Inventory. If you have any questions concerning this please do not hesitate to call.*

Likely and Potential Rare Species

In addition to documented occurrences, other rare species and natural communities may be identified on or near the site based on habitat models and species range models (see enclosed Biodiversity Matrix Report). These species should be taken into consideration in field surveys, land management, and impact avoidance and mitigation.

Florida Resources
and Environmental
Analysis Center

Institute of Science
and Public Affairs

The Florida State University

Tracking Florida's Biodiversity

FNAI habitat models indicate areas, which based on land cover type, offer suitable habitat for one or more rare species that is known to occur in the vicinity. Habitat models have been developed for approximately 300 of the rarest species tracked by the Inventory, including all federally listed species.

FNAI species range models indicate areas that are within the known or predicted range of a species, based on climate variables, soils, vegetation, and/or slope. Species range models have been developed for approximately 340 species, including all federally listed species.

The FNAI Biodiversity Matrix Geodatabase compiles Documented, Likely, and Potential species and natural communities for each square mile Matrix Unit statewide.

Florida Scrub-jay Survey – U.S. Fish and Wildlife Service

This survey was conducted by staff and associates of the Archbold Biological Station from 1992 to 1996. An attempt was made to record all scrub-jay (*Aphelocoma coerulescens*) groups, although most federal lands were not officially surveyed. Each map point represents one or more groups.

This data layer indicates that there are potential scrub-jay populations near your site. For additional information:

Fitzpatrick, J.W., B. Pranty, and B. Stith, 1994, Florida scrub jay statewide map, 1992-1993. U. S. Fish and Wildlife Service Report, Cooperative Agreement no. 14-16-004-91-950.

Managed Areas

Portions of the site appear to be located within the Rye Wilderness Park, managed by Manatee County.

The Managed Areas data layer shows public and privately managed conservation lands throughout the state. Federal, state, local, and privately managed conservation lands are included.

The Inventory always recommends that professionals familiar with Florida's flora and fauna conduct a site-specific survey to determine the current presence or absence of rare, threatened, or endangered species.

Please visit www.fnai.org/trackinglist.cfm for county or statewide element occurrence distributions and links to more element information.

The database maintained by the Florida Natural Areas Inventory is the single most comprehensive source of information available on the locations of rare species and other significant ecological resources. However, the data are not always based on comprehensive or site-specific field surveys. Therefore this information should not be regarded as a final statement on the biological resources of the site being considered, nor should it be substituted for on-site surveys. Inventory data are designed for the purposes of conservation planning and scientific research, and are not intended for use as the primary criteria for regulatory decisions.

Information provided by this database may not be published without prior written notification to the Florida Natural Areas Inventory, and the Inventory must be credited as an information source in these publications. FNAI data may not be resold for profit.

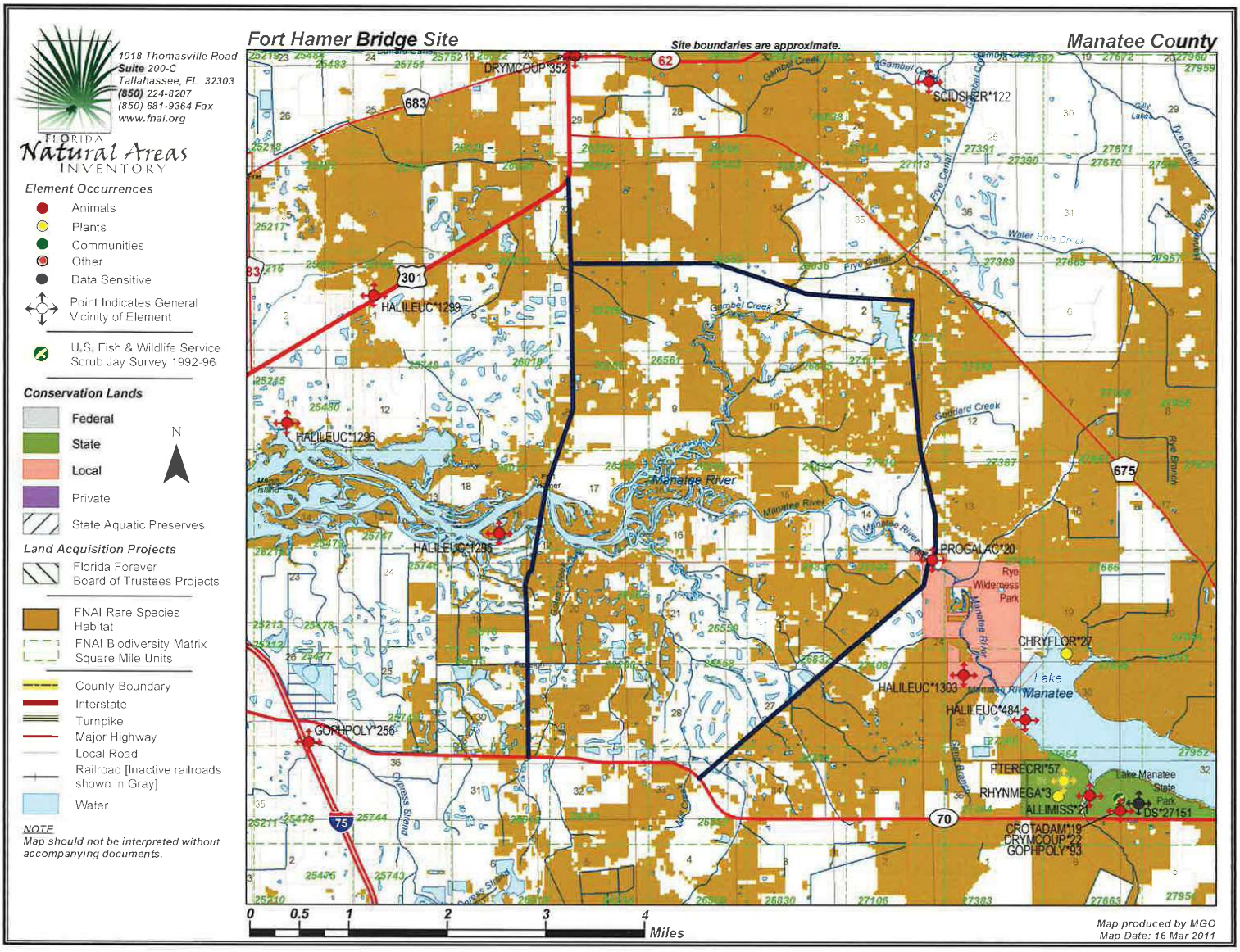
Thank you for your use of FNAI services. An invoice will be mailed separately. If I can be of further assistance, please give me a call at (850) 224-8207.

Sincerely,

Michael O'Brien

Michael O'Brien
Data Services Analyst

Encl


Fort Hamer Bridge Site
Site boundaries are approximate.
Manatee County
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Tallahassee, FL 32303
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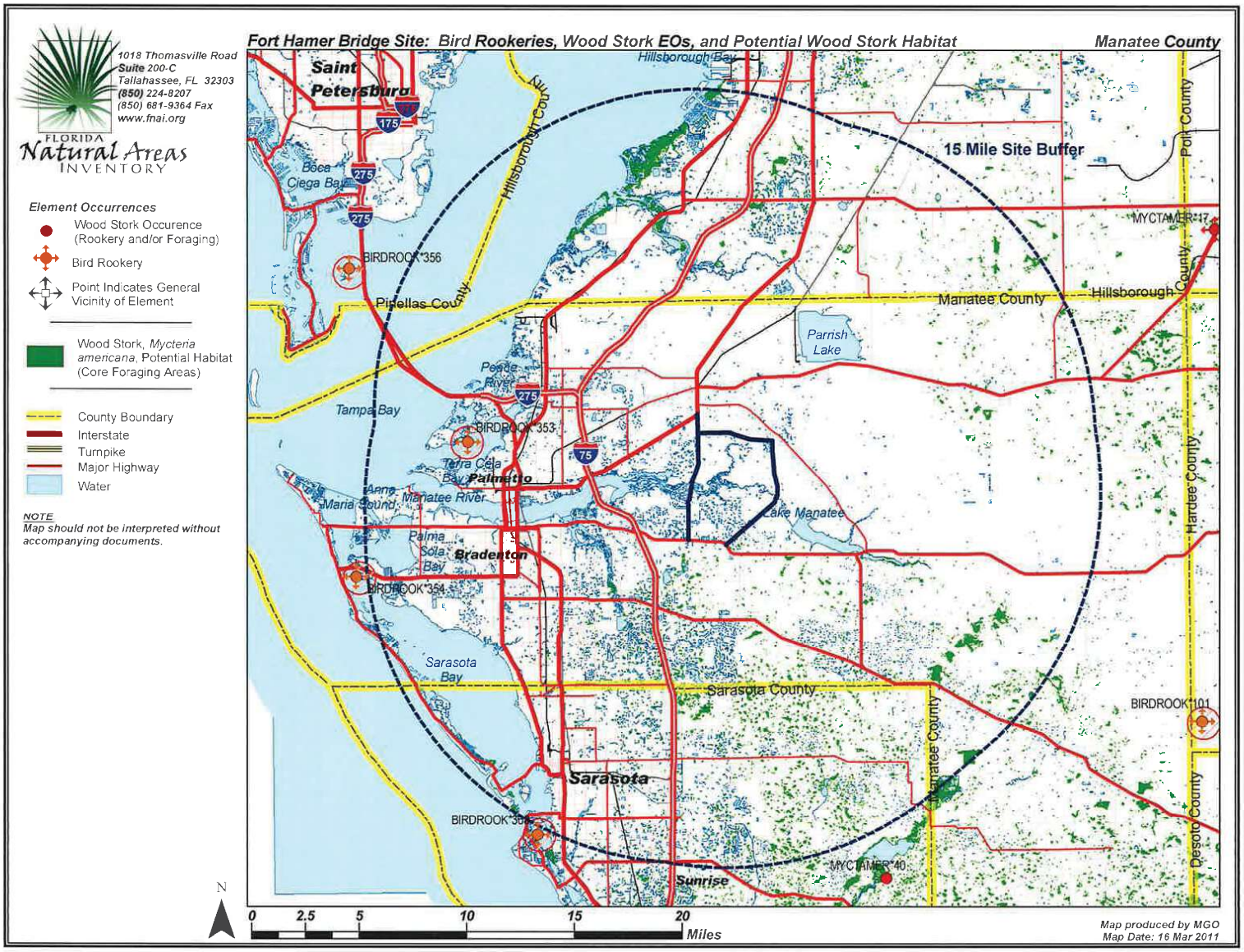
FLORIDA
Natural Areas
INVENTORY
Element Occurrences
Animals
Plants
Communities
Other
Data Sensitive
Point Indicates General Vicinity of Element
U.S. Fish & Wildlife Service Scrub Jay Survey 1992-96
Conservation Lands
Federal
State
Local
Private
State Aquatic Preserves
Land Acquisition Projects
Florida Forever Board of Trustees Projects
FNAI Rare Species Habitat
FNAI Biodiversity Matrix Square Mile Units
County Boundary
Interstate
Turnpike
Major Highway
Local Road
Railroad [Inactive railroads shown in Gray]
Water
NOTE
Map should not be interpreted without accompanying documents.
N
DRYMCOUP*352
SCIDSHER*122
HALILEUC*1299
HALILEUC*1296
HALILEUC*1295
PROGALAC*20
CHRYFLOR*27
HALILEUC*1303
HALILEUC*484
GOPHPOLY*256
PTERECRI*57
RHYNMEGA*3
ALLIMISS*21
DS*27151
CROTADAM*19
DRYMCOUP*22
GOPHPOLY*93
Manatee River
Lake Manatee
Rye Wilderness Park
Lake Manatee State Park
62
683
301
675
70
75
0 0.5 1 2 3 4 Miles
Map produced by MGO
Map Date: 16 Mar 2011


Fort Hamer Bridge Site: Bird Rookeries, Wood Stork EOs, and Potential Wood Stork Habitat
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Tallahassee, FL 32303
(850) 224-8207
(850) 681-9364 Fax
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FLORIDA Natural Areas INVENTORY
Element Occurrences
Wood Stork Occurence (Rookery and/or Foraging)
Bird Rookery
Point Indicates General Vicinity of Element
Wood Stork, Mycteria americana, Potential Habitat (Core Foraging Areas)
County Boundary
Interstate
Turnpike
Major Highway
Water
NOTE
Map should not be interpreted without accompanying documents.
15 Mile Site Buffer
Saint Petersburg
Hillsborough Bay
Boca Ciega Bay
BIRDROOK*356
Pinellas County
Hillsborough County
Polk County
MYCTAMER*17
Manatee County
Parrish Lake
Peace River
Tampa Bay
BIRDROOK*353
Terra Ceia Bay
Palmetto
Anna Maria Sound
Manatee River
Lake Manatee
Palma Sola Bay
Bradenton
BIRDROOK*354
Sarasota Bay
Sarasota County
Hardee County
BIRDROOK*101
Sarasota
BIRDROOK*355
MYCTAMER*40
Sunrise
Desoto County
N
0 2.5 5 10 15 20
Miles
Map produced by MGO
Map Date: 16 Mar 2011

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FLORIDA Natural Areas INVENTORY

Florida Natural Areas Inventory

ELEMENT OCCURRENCES DOCUMENTED ON OR NEAR
Fort Hamer Bridge Site

Map Label	Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing	Observation Date	Description	EO Comments
ALLIMISS*21	*Alligator mississippiensis*	American Alligator	G5	S4	SAT	FT(S/A)	1984	ALONG LAKE SHORE.	NO POPULATION ESTIMATE, BUT REGULARLY SEEN (P84ALV01).
CHRYFLOR*27	*Chrysopsis floridana*	Florida Goldenaster	G1	S1	LE	LE	1988-01-06	1988-01-06: Open edge of old xeric oak area, invaded by Paspalum notatum (S88DELSFFLUS; A02DEL01FLUS).	1988-01-06: Plants present on site (S88DELSFFLUS; A02DEL01FLUS).
CROTADAM*19	*Crotalus adamanteus*	Eastern Diamondback Rattlesnake	G4	S3	N	N	1992-09-25	1990-01-04: Flatwoods (U94FPS01FLUS).	1992-09-25 - 1990-01-04: four snakes observed between Jan. 4, 1990 and Sept. 25, 1992. 1992-09-25: Kempton observed snake crossing dam into park on Sept. 25, 1992. Snake was ca. 5 ft. long and 9" in diameter. 1992-06: snake observ
DRYMCOUP*22	*Drymarchon couperi*	Eastern Indigo Snake	G3	S3	LT	FT	1983	1984-PRE: OBSERVED IN SCRUB AND SANDHILL AREAS (PNDALV01FLUS, U83DRP01FLUS).	1984-PRE: NO POPULATION ESTIMATE, BUT REGULARLY SEEN IN PARK (PNDALV01FLUS, U83DRP01FLUS).
DRYMCOUP*352	*Drymarchon couperi*	Eastern Indigo Snake	G3	S3	LT	FT	1971-08-07	No general description given	MUSEUM SPECIMEN: G. WOOLFENDEN, 7 AUG 1971 (USF).
DS*27151	*Data Sensitive Element*	Data Sensitive	G1	S1	LE	LE	2009-12-21	Data Sensitive	Data Sensitive
GOPHPOLY*256	*Gopherus polyphemus*	Gopher Tortoise	G3	S3	N	ST	1987-PRE	No general description given	1987-pre: dead on road (U86DIE01FLUS).
GOPHPOLY*93	*Gopherus polyphemus*	Gopher Tortoise	G3	S3	N	ST	1984	IN SAND PINE SCRUB AND SANDHILLS.	NO POPULATION ESTIMATE, BUT AT LEAST SEVERAL ACTIVE BURROWS (P84ALV01).
HALILEUC*1295	*Haliaeetus leucocephalus*	Bald Eagle	G5	S3	N	N	2003	2005-07-12: Source does not provide a description.	Nest status: Active, 2003, 2002, 2001, 2000, 1999;(U03FWC01FLUS)
HALILEUC*1296	*Haliaeetus leucocephalus*	Bald Eagle	G5	S3	N	N	2003	2005-07-12: Source does not provide a description.	Nest status: Active, 2003, 2002, 2001, 2000, 1999;(U03FWC01FLUS)
HALILEUC*1299	*Haliaeetus leucocephalus*	Bald Eagle	G5	S3	N	N	2003	2005-07-12: Source does not provide a description.	Nest status: Active, 2003, 2002, 2001; Unknown status or not assessed, 2000, 1999;(U03FWC01FLUS)
HALILEUC*1303	*Haliaeetus leucocephalus*	Bald Eagle	G5	S3	N	N	2003	2005-07-12: Source does not provide a description.	Nest status: Active, 2003, 2002; Unknown status or not assessed, 2001, 2000, 1999;(U03FWC01FLUS)

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Florida Natural Areas Inventory

ELEMENT OCCURRENCES DOCUMENTED ON OR NEAR
Fort Hamer Bridge Site

Map Label	Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing	Observation Date	Description	EO Comments
HALILEUC*484	*Haliaeetus leucocephalus*	Bald Eagle	G5	S3	N	N	1990	No general description given	Nest status 1999-2003: Unknown/not assessed - 2003, 2002, 2001, 2000, 1999; Status 1995-98: Unknown/not assessed - 1998, 1997, 1996, 1995; (U03FWC01FLUS). Previous data (note different format) NEST: 1991: DESTROYED; 1990: PRODUCTIVITY UNKNOWN; 1989: INAC
PROGALAC*20	*Progomphus alachuensis*	Tawny Sanddragon	G3	S3	N	N	1982-05-03	1982-05-03: No description given (U09DEP01FLUS).	1982-05-03: Staff from the Florida Department of Environmental Protection collected this species on this date and on the following dates: 1981-05-05, 1981-04-06 (U09DEP01FLUS).
PTERECRI*57	*Pteroglossaspis ecristata*	Giant Orchid	G2G3	S2	N	LT	2000-08-27	2000-08-27: This population inhabits a good quality scrub habitat characterized by Pinus clausa in the overstory and a shrubby understory comprised of Serenoa repens, Quercus geminata, Quercus myrtifolia, and Licania michauxii. Principal herbs include Ar	2000-08-27: A population of 7 plants (71% flowering) found with marginal vigor in scrub habitat(U03SCH03FLUS).
RHYNMEGA*3	*Rhynchospora megaplumosa*	Large-plumed Beaksedge	G2	S2	N	LE	1993-07-30	1993-07-30: VERY LOCALIZED IN FREQUENTLY BURNED SANDY OPENINGS IN SCRUBBY FLATWOODS; POMELLO SOILS (ARENIC HAPLAQUODS) (A00BRI01FLUS).	1993-07-30: NONE GIVEN (A00BRI01FLUS).
SCIUSHER*122	*Sciurus niger shermani*	Sherman's Fox Squirrel	G5T3	S3	N	SSC	1988-05-10	Flatwoods pasture; small islands of Sandhill in general vicinity, but none closer than 0.5 mile.	1988-05-10: B.A. Millsap, GFC, observed 1 adult female in flatwoods pasture.

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Florida Natural Areas Inventory

ELEMENT OCCURRENCES DOCUMENTED ON OR NEAR
Fort Hamer Bridge Site: Bird Rookery and Wood Stork Information

Map Label	Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing	Observation Date	Description	EO Comments
BIRDROOK*101	Bird Rookery		GNR	SNR	N	N	1988-05-24	COLONY SITE IS WILLOWHEAD & MARSHY POND SURROUNDED BY FRESHWATER MARSH & PASTURE LAND. NESTS ARE IN MEDIUM HEIGHT SHRUBS (MOSTLY DEAD) OVER WATER. >0.8 KM FROM HUMANS (U82NES01).	MULTI-SPECIES ROOKERY, 9 SPECIES. 11-100 BIRDS 1978-07, 101-250 BIRDS 1988-04-07, 11-100 BIRDS 1988-05-24 (FIRST SURVEY), >1000 BIRDS 1988-05-24 (SECOND SURVEY). GREAT EGRET PRESENT 1978, 1988-04-07, 1988-05-24; SNOWY EGRET PRESENT 1988-05-24; LITTLE BLU
BIRDROOK*353	Bird Rookery		GNR	SNR	N	N	1989	Colony site is non-barrier coastal island; habitat surrounding colony is water; nesting substrate is mangroves over high ground (U82NES01).	Multi-species rookery, 15 species. 751-1,000 birds 1976-04, >5,000 birds 1976-06, 501-750 birds 1977-04, >1,000 birds 1978-04 and 1978-07, Brown Pelican present 1987-04-26 (no estimate of abundance), >1,000 birds 1987 (date not specified), 501-750 birds
BIRDROOK*354	Bird Rookery		GNR	SNR	N	N	1989	Colony site is non-barrier coastal island; habitat surrounding colony is water; nesting substrate is mangroves over water.	Multi-species rookery, 11 species. 501-750 birds 1976-04, 251-500 birds 1976- 06, >1,000 birds 1977-04, 501-750 birds 1978-04, 101-250 birds 1978-07, Brown Pelican present 1987-04-26 (no estimate of abundance), 501-750 birds 1987 (date not specified), >1
BIRDROOK*356	Bird Rookery		GNR	SNR	N	N	1989-04-26	Colony site is non-barrier coastal island; habitat surrounding colony is water; nesting substrate is mangroves over high ground (U82NES01).	Multi-species rookery, 10 species. 251-500 birds 1976-04, 11-100 birds 1976-06, 751-1,000 birds 1977-04 and 1978-04, 101-250 birds 1978-07, Brown Pelican present 1987-04-26 (no estimate of abundance), >5,000 birds 1988-04-21, Brown Pelican present 1989-0
BIRDROOK*368	Bird Rookery		GNR	SNR	N	N	1989-04-26	Colony site is coastal spoil island surrounded by water; nesting substrate is mangroves over high ground (U82NES01).	Multi-species rookery, 7 species. 501-750 birds 1976-06, 11-100 birds 1977-04, 251-500 birds 1978-04, 101-250 birds 1978-07, Brown Pelican present 1987-04-26 but no estimate of abundance, 501-750 birds 1988-04-07, 751-1,000 birds 1988-04-27, Brown Pelica
MYCTAMER*17	*Mycteria americana*	Wood Stork	G4	S2	LE	FE	1976-04	WATER IMPOUNDMENT SURROUNDED BY DEAD TREES; NESTING IN DEAD TREES OVER WATER; HUMAN DISTURBANCE <0.8 KM.	1976-04: 4 NESTING PAIRS; ABSENT 1978-04, 1977-04 (COLONY EMPTY), 1976-06.

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FLORIDA Natural Areas INVENTORY

Florida Natural Areas Inventory

ELEMENT OCCURRENCES DOCUMENTED ON OR NEAR

Fort Hamer Bridge Site: Bird Rookery and Wood Stork Information

Map Label	Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing	Observation Date	Description	EO Comments
MYCTAMER*40	*Mycteria americana*	Wood Stork	G4	S2	LE	FE	1989-02-10	SHALLOW, OPEN POOL WITHIN FW MARSH ADJACENT TO PARK ROAD.	3 WOODSTORKS OBSERVED FEEDING,

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FLORIDA Natural Areas INVENTORY

Florida Natural Areas Inventory

Biodiversity Matrix Report

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Matrix Unit ID: 26014					
Likely					
Grus canadensis pratensis	Florida Sandhill Crane	G5T2T3	S2S3	N	ST
Mesic flatwoods		G4	S4	N	N
Mycteria americana	Wood Stork	G4	S2	LE	FE
Potential					
Calopogon multiflorus	Many-flowered Grass-pink	G2G3	S2S3	N	LE
Centrosema arenicola	Sand Butterfly Pea	G2Q	S2	N	LE
Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	FT
Eumops floridanus	Florida bonneted bat	G1	S1	C	ST
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	ST
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Nemastylis floridana	Celestial Lily	G2	S2	N	LE
Pteroglossaspis ecristata	Giant Orchid	G2G3	S2	N	LT
Rana capito	Gopher Frog	G3	S3	N	SSC
Rhynchospora megaplumosa	Large-plumed Beaksedge	G2	S2	N	LE
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	SSC
Zephyranthes simpsonii	Redmargin Zephyrlily	G2G3	S2S3	N	LT
Matrix Unit ID: 26015					
Likely					
Grus canadensis pratensis	Florida Sandhill Crane	G5T2T3	S2S3	N	ST
Mesic flatwoods		G4	S4	N	N
Potential					
Bonamia grandiflora	Florida Bonamia	G3	S3	LT	LE
Calopogon multiflorus	Many-flowered Grass-pink	G2G3	S2S3	N	LE
Centrosema arenicola	Sand Butterfly Pea	G2Q	S2	N	LE
Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	FT
Eumops floridanus	Florida bonneted bat	G1	S1	C	ST
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	ST
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Nemastylis floridana	Celestial Lily	G2	S2	N	LE
Pteroglossaspis ecristata	Giant Orchid	G2G3	S2	N	LT
Rana capito	Gopher Frog	G3	S3	N	SSC
Rhynchospora megaplumosa	Large-plumed Beaksedge	G2	S2	N	LE
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	SSC
Zephyranthes simpsonii	Redmargin Zephyrlily	G2G3	S2S3	N	LT
Matrix Unit ID: 26016					
Likely					
Grus canadensis pratensis	Florida Sandhill Crane	G5T2T3	S2S3	N	ST
Trichechus manatus	Manatee	G2	S2	LE	FE
Potential					
Acipenser oxyrinchus desotoi	Gulf Sturgeon	G3T2	S2	LT	FT

Definitions: *Documented - Rare species and natural communities documented on or near this site.*
Documented-Historic - Rare species and natural communities documented, but not observed/reported within the last twenty years.
Likely - Rare species and natural communities likely to occur on this site based on suitable habitat and/or known occurrences in the vicinity.
Potential - This site lies within the known or predicted range of the species listed.

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FLORIDA Natural Areas INVENTORY

Florida Natural Areas Inventory

Biodiversity Matrix Report

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Andropogon arctatus	Pine-woods Bluestem	G3	S3	N	LT
Bonamia grandiflora	Florida Bonamia	G3	S3	LT	LE
Calopogon multiflorus	Many-flowered Grass-pink	G2G3	S2S3	N	LE
Centrosema arenicola	Sand Butterfly Pea	G2Q	S2	N	LE
Dendroica discolor paludicola	Florida Prairie Warbler	G5T3	S3	N	N
Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	FT
Eragrostis pectinacea var. tracyi	Sanibel Lovegrass	G5T1	S1	N	LE
Eretmochelys imbricata	Hawksbill	G3	S1	LE	FE
Eumops floridanus	Florida bonneted bat	G1	S1	C	ST
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	ST
Lechea cernua	Nodding Pinweed	G3	S3	N	LT
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Nemastylis floridana	Celestial Lily	G2	S2	N	LE
Pteroglossaspis ecristata	Giant Orchid	G2G3	S2	N	LT
Rallus longirostris scottii	Florida Clapper Rail	G5T3?	S3?	N	N
Rana capito	Gopher Frog	G3	S3	N	SSC
Rhynchospora megaplumosa	Large-plumed Beaksedge	G2	S2	N	LE
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	SSC
Zephyranthes simpsonii	Redmargin Zephyrlily	G2G3	S2S3	N	LT

Matrix Unit ID: 26017

Documented

Haliaeetus leucocephalus	Bald Eagle	G5	S3	N	N

Likely

Grus canadensis pratensis	Florida Sandhill Crane	G5T2T3	S2S3	N	ST
Trichechus manatus	Manatee	G2	S2	LE	FE

Potential

Acipenser oxyrinchus desotoi	Gulf Sturgeon	G3T2	S2	LT	FT
Andropogon arctatus	Pine-woods Bluestem	G3	S3	N	LT
Bonamia grandiflora	Florida Bonamia	G3	S3	LT	LE
Calopogon multiflorus	Many-flowered Grass-pink	G2G3	S2S3	N	LE
Centrosema arenicola	Sand Butterfly Pea	G2Q	S2	N	LE
Charadrius melodus	Piping Plover	G3	S2	LT	FT
Dendroica discolor paludicola	Florida Prairie Warbler	G5T3	S3	N	N
Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	FT
Eragrostis pectinacea var. tracyi	Sanibel Lovegrass	G5T1	S1	N	LE
Eretmochelys imbricata	Hawksbill	G3	S1	LE	FE
Eumops floridanus	Florida bonneted bat	G1	S1	C	ST
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	ST
Lechea cernua	Nodding Pinweed	G3	S3	N	LT
Matelea floridana	Florida Spiny-pod	G2	S2	N	LE
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Nemastylis floridana	Celestial Lily	G2	S2	N	LE
Pteroglossaspis ecristata	Giant Orchid	G2G3	S2	N	LT
Rallus longirostris scottii	Florida Clapper Rail	G5T3?	S3?	N	N
Rana capito	Gopher Frog	G3	S3	N	SSC
Rhynchospora megaplumosa	Large-plumed Beaksedge	G2	S2	N	LE

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FLORIDA Natural Areas INVENTORY

Florida Natural Areas Inventory

Biodiversity Matrix Report

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	SSC
Matrix Unit ID: 26288					
Likely					
Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	FT
Grus canadensis pratensis	Florida Sandhill Crane	G5T2T3	S2S3	N	ST
Trichechus manatus	Manatee	G2	S2	LE	FE
Potential					
Acipenser oxyrinchus desotoi	Gulf Sturgeon	G3T2	S2	LT	FT
Andropogon arctatus	Pine-woods Bluestem	G3	S3	N	LT
Bonamia grandiflora	Florida Bonamia	G3	S3	LT	LE
Calopogon multiflorus	Many-flowered Grass-pink	G2G3	S2S3	N	LE
Centrosema arenicola	Sand Butterfly Pea	G2Q	S2	N	LE
Charadrius melodus	Piping Plover	G3	S2	LT	FT
Chrysopsis floridana	Florida Goldenaster	G1	S1	LE	LE
Dendroica discolor paludicola	Florida Prairie Warbler	G5T3	S3	N	N
Eragrostis pectinacea var. tracyi	Sanibel Lovegrass	G5T1	S1	N	LE
Eretmochelys imbricata	Hawksbill	G3	S1	LE	FE
Eumops floridanus	Florida bonneted bat	G1	S1	C	ST
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	ST
Lechea cernua	Nodding Pinweed	G3	S3	N	LT
Matelea floridana	Florida Spiny-pod	G2	S2	N	LE
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Nemastylis floridana	Celestial Lily	G2	S2	N	LE
Pteroglossaspis ecristata	Giant Orchid	G2G3	S2	N	LT
Rallus longirostris scottii	Florida Clapper Rail	G5T3?	S3?	N	N
Rana capito	Gopher Frog	G3	S3	N	SSC
Rhynchospora megaplumosa	Large-plumed Beaksedge	G2	S2	N	LE
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	SSC
Zephyranthes simpsonii	Redmargin Zephyrlily	G2G3	S2S3	N	LT
Matrix Unit ID: 26289					
Likely					
Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	FT
Grus canadensis pratensis	Florida Sandhill Crane	G5T2T3	S2S3	N	ST
Mesic flatwoods		G4	S4	N	N
Trichechus manatus	Manatee	G2	S2	LE	FE
Potential					
Andropogon arctatus	Pine-woods Bluestem	G3	S3	N	LT
Bonamia grandiflora	Florida Bonamia	G3	S3	LT	LE
Calopogon multiflorus	Many-flowered Grass-pink	G2G3	S2S3	N	LE
Centrosema arenicola	Sand Butterfly Pea	G2Q	S2	N	LE
Eumops floridanus	Florida bonneted bat	G1	S1	C	ST
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	ST
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Nemastylis floridana	Celestial Lily	G2	S2	N	LE

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Pteroglossaspis ecristata	Giant Orchid	G2G3	S2	N	LT
Rana capito	Gopher Frog	G3	S3	N	SSC
Rhynchospora megaplumosa	Large-plumed Beaksedge	G2	S2	N	LE
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	SSC
Zephyranthes simpsonii	Redmargin Zephyrlily	G2G3	S2S3	N	LT

Matrix Unit ID: 26290

Likely

Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	FT
Grus canadensis pratensis	Florida Sandhill Crane	G5T2T3	S2S3	N	ST

Potential

Andropogon arctatus	Pine-woods Bluestem	G3	S3	N	LT
Bonamia grandiflora	Florida Bonamia	G3	S3	LT	LE
Calopogon multiflorus	Many-flowered Grass-pink	G2G3	S2S3	N	LE
Centrosema arenicola	Sand Butterfly Pea	G2Q	S2	N	LE
Eumops floridanus	Florida bonneted bat	G1	S1	C	ST
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	ST
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Nemastylis floridana	Celestial Lily	G2	S2	N	LE
Pteroglossaspis ecristata	Giant Orchid	G2G3	S2	N	LT
Rana capito	Gopher Frog	G3	S3	N	SSC
Rhynchospora megaplumosa	Large-plumed Beaksedge	G2	S2	N	LE
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	SSC
Zephyranthes simpsonii	Redmargin Zephyrlily	G2G3	S2S3	N	LT

Matrix Unit ID: 26291

Likely

Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	FT
Mesic flatwoods		G4	S4	N	N

Potential

Andropogon arctatus	Pine-woods Bluestem	G3	S3	N	LT
Bonamia grandiflora	Florida Bonamia	G3	S3	LT	LE
Calopogon multiflorus	Many-flowered Grass-pink	G2G3	S2S3	N	LE
Centrosema arenicola	Sand Butterfly Pea	G2Q	S2	N	LE
Corynorhinus rafinesquii	Rafinesque's Big-eared Bat	G3G4	S2	N	N
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	ST
Lechea cernua	Nodding Pinweed	G3	S3	N	LT
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Nemastylis floridana	Celestial Lily	G2	S2	N	LE
Pteroglossaspis ecristata	Giant Orchid	G2G3	S2	N	LT
Rana capito	Gopher Frog	G3	S3	N	SSC
Rhynchospora megaplumosa	Large-plumed Beaksedge	G2	S2	N	LE
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	SSC
Zephyranthes simpsonii	Redmargin Zephyrlily	G2G3	S2S3	N	LT

Matrix Unit ID: 26557

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FLORIDA Natural Areas INVENTORY

Florida Natural Areas Inventory

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Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Likely					
Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	FT
Grus canadensis pratensis	Florida Sandhill Crane	G5T2T3	S2S3	N	ST
Mesic flatwoods		G4	S4	N	N
Mycteria americana	Wood Stork	G4	S2	LE	FE
Potential					
Andropogon arctatus	Pine-woods Bluestem	G3	S3	N	LT
Calopogon multiflorus	Many-flowered Grass-pink	G2G3	S2S3	N	LE
Centrosema arenicola	Sand Butterfly Pea	G2Q	S2	N	LE
Chrysopsis floridana	Florida Goldenaster	G1	S1	LE	LE
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	ST
Lechea cernua	Nodding Pinweed	G3	S3	N	LT
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Nemastylis floridana	Celestial Lily	G2	S2	N	LE
Panicum abscissum	Cutthroat Grass	G3	S3	N	LE
Pteroglossaspis ecristata	Giant Orchid	G2G3	S2	N	LT
Rana capito	Gopher Frog	G3	S3	N	SSC
Rhynchospora megaplumosa	Large-plumed Beaksedge	G2	S2	N	LE
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	SSC
Zephyranthes simpsonii	Redmargin Zephyrlily	G2G3	S2S3	N	LT
Matrix Unit ID: 26558					
Likely					
Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	FT
Grus canadensis pratensis	Florida Sandhill Crane	G5T2T3	S2S3	N	ST
Mesic flatwoods		G4	S4	N	N
Potential					
Andropogon arctatus	Pine-woods Bluestem	G3	S3	N	LT
Bonamia grandiflora	Florida Bonamia	G3	S3	LT	LE
Calopogon multiflorus	Many-flowered Grass-pink	G2G3	S2S3	N	LE
Centrosema arenicola	Sand Butterfly Pea	G2Q	S2	N	LE
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	ST
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Nemastylis floridana	Celestial Lily	G2	S2	N	LE
Pteroglossaspis ecristata	Giant Orchid	G2G3	S2	N	LT
Rana capito	Gopher Frog	G3	S3	N	SSC
Rhynchospora megaplumosa	Large-plumed Beaksedge	G2	S2	N	LE
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	SSC
Zephyranthes simpsonii	Redmargin Zephyrlily	G2G3	S2S3	N	LT
Matrix Unit ID: 26562					
Likely					
Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	FT
Grus canadensis pratensis	Florida Sandhill Crane	G5T2T3	S2S3	N	ST
Mesic flatwoods		G4	S4	N	N

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Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Trichechus manatus	Manatee	G2	S2	LE	FE
Potential					
Andropogon arctatus	Pine-woods Bluestem	G3	S3	N	LT
Bonamia grandiflora	Florida Bonamia	G3	S3	LT	LE
Calopogon multiflorus	Many-flowered Grass-pink	G2G3	S2S3	N	LE
Centrosema arenicola	Sand Butterfly Pea	G2Q	S2	N	LE
Chrysopsis floridana	Florida Goldenaster	G1	S1	LE	LE
Corynorhinus rafinesquii	Rafinesque's Big-eared Bat	G3G4	S2	N	N
Dendroica discolor paludicola	Florida Prairie Warbler	G5T3	S3	N	N
Eumops floridanus	Florida bonneted bat	G1	S1	C	ST
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	ST
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Nemastylis floridana	Celestial Lily	G2	S2	N	LE
Pteroglossaspis ecristata	Giant Orchid	G2G3	S2	N	LT
Rana capito	Gopher Frog	G3	S3	N	SSC
Rhynchospora megaplumosa	Large-plumed Beaksedge	G2	S2	N	LE
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	SSC
Zephyranthes simpsonii	Redmargin Zephyrlily	G2G3	S2S3	N	LT
Matrix Unit ID: 26832					
Likely					
Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	FT
Grus canadensis pratensis	Florida Sandhill Crane	G5T2T3	S2S3	N	ST
Mesic flatwoods		G4	S4	N	N
Potential					
Andropogon arctatus	Pine-woods Bluestem	G3	S3	N	LT
Bonamia grandiflora	Florida Bonamia	G3	S3	LT	LE
Calopogon multiflorus	Many-flowered Grass-pink	G2G3	S2S3	N	LE
Centrosema arenicola	Sand Butterfly Pea	G2Q	S2	N	LE
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	ST
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Nemastylis floridana	Celestial Lily	G2	S2	N	LE
Pteroglossaspis ecristata	Giant Orchid	G2G3	S2	N	LT
Rana capito	Gopher Frog	G3	S3	N	SSC
Rhynchospora megaplumosa	Large-plumed Beaksedge	G2	S2	N	LE
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	SSC
Zephyranthes simpsonii	Redmargin Zephyrlily	G2G3	S2S3	N	LT
Matrix Unit ID: 26836					
Likely					
Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	FT
Mesic flatwoods		G4	S4	N	N
Potential					
Andropogon arctatus	Pine-woods Bluestem	G3	S3	N	LT
Bonamia grandiflora	Florida Bonamia	G3	S3	LT	LE

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Calopogon multiflorus	Many-flowered Grass-pink	G2G3	S2S3	N	LE
Centrosema arenicola	Sand Butterfly Pea	G2Q	S2	N	LE
Chrysopsis floridana	Florida Goldenaster	G1	S1	LE	LE
Dendroica discolor paludicola	Florida Prairie Warbler	G5T3	S3	N	N
Eumops floridanus	Florida bonneted bat	G1	S1	C	ST
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	ST
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Nemastylis floridana	Celestial Lily	G2	S2	N	LE
Podomys floridanus	Florida Mouse	G3	S3	N	SSC
Pteroglossaspis ecristata	Giant Orchid	G2G3	S2	N	LT
Rana capito	Gopher Frog	G3	S3	N	SSC
Rhynchospora megaplumosa	Large-plumed Beaksedge	G2	S2	N	LE
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	SSC
Trichechus manatus	Manatee	G2	S2	LE	FE
Zephyranthes simpsonii	Redmargin Zephyrlily	G2G3	S2S3	N	LT

Matrix Unit ID: 27108

Likely

Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	FT
Grus canadensis pratensis	Florida Sandhill Crane	G5T2T3	S2S3	N	ST
Mesic flatwoods		G4	S4	N	N
Mycteria americana	Wood Stork	G4	S2	LE	FE

Potential

Andropogon arctatus	Pine-woods Bluestem	G3	S3	N	LT
Aphelocoma coerulescens	Florida Scrub-jay	G2	S2	LT	FT
Bonamia grandiflora	Florida Bonamia	G3	S3	LT	LE
Calopogon multiflorus	Many-flowered Grass-pink	G2G3	S2S3	N	LE
Centrosema arenicola	Sand Butterfly Pea	G2Q	S2	N	LE
Chrysopsis floridana	Florida Goldenaster	G1	S1	LE	LE
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	ST
Heterodon simus	Southern Hognose Snake	G2	S2	N	N
Lechea cernua	Nodding Pinweed	G3	S3	N	LT
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Nemastylis floridana	Celestial Lily	G2	S2	N	LE
Panicum abscissum	Cutthroat Grass	G3	S3	N	LE
Podomys floridanus	Florida Mouse	G3	S3	N	SSC
Pteroglossaspis ecristata	Giant Orchid	G2G3	S2	N	LT
Rana capito	Gopher Frog	G3	S3	N	SSC
Rhynchospora megaplumosa	Large-plumed Beaksedge	G2	S2	N	LE
Schizachyrium niveum	Scrub Bluestem	G1G2	S1S2	N	LE
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	SSC
Zephyranthes simpsonii	Redmargin Zephyrlily	G2G3	S2S3	N	LT

Matrix Unit ID: 27109

Documented-Historic

Progomphus alachuensis	Tawny Sanddragon	G3	S3	N	N

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Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	FT
Grus canadensis pratensis	Florida Sandhill Crane	G5T2T3	S2S3	N	ST
Mesic flatwoods		G4	S4	N	N
Scrub		G2	S2	N	N
Potential					
Acipenser oxyrinchus desotoi	Gulf Sturgeon	G3T2	S2	LT	FT
Andropogon arctatus	Pine-woods Bluestem	G3	S3	N	LT
Aphelocoma coerulescens	Florida Scrub-jay	G2	S2	LT	FT
Bonamia grandiflora	Florida Bonamia	G3	S3	LT	LE
Calopogon multiflorus	Many-flowered Grass-pink	G2G3	S2S3	N	LE
Centrosema arenicola	Sand Butterfly Pea	G2Q	S2	N	LE
Chrysopsis floridana	Florida Goldenaster	G1	S1	LE	LE
Eumops floridanus	Florida bonneted bat	G1	S1	C	ST
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	ST
Lechea cernua	Nodding Pinweed	G3	S3	N	LT
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Nemastylis floridana	Celestial Lily	G2	S2	N	LE
Pteroglossaspis ecristata	Giant Orchid	G2G3	S2	N	LT
Rana capito	Gopher Frog	G3	S3	N	SSC
Rhynchospora megaplumosa	Large-plumed Beaksedge	G2	S2	N	LE
Schizachyrium niveum	Scrub Bluestem	G1G2	S1S2	N	LE
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	SSC
Zephyranthes simpsonii	Redmargin Zephyrlily	G2G3	S2S3	N	LT
Matrix Unit ID: 27110					
Likely					
Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	FT
Grus canadensis pratensis	Florida Sandhill Crane	G5T2T3	S2S3	N	ST
Mesic flatwoods		G4	S4	N	N
Potential					
Acipenser oxyrinchus desotoi	Gulf Sturgeon	G3T2	S2	LT	FT
Andropogon arctatus	Pine-woods Bluestem	G3	S3	N	LT
Aphelocoma coerulescens	Florida Scrub-jay	G2	S2	LT	FT
Bonamia grandiflora	Florida Bonamia	G3	S3	LT	LE
Calopogon multiflorus	Many-flowered Grass-pink	G2G3	S2S3	N	LE
Centrosema arenicola	Sand Butterfly Pea	G2Q	S2	N	LE
Chrysopsis floridana	Florida Goldenaster	G1	S1	LE	LE
Eumops floridanus	Florida bonneted bat	G1	S1	C	ST
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	ST
Lechea cernua	Nodding Pinweed	G3	S3	N	LT
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Nemastylis floridana	Celestial Lily	G2	S2	N	LE
Panicum abscissum	Cutthroat Grass	G3	S3	N	LE
Podomys floridanus	Florida Mouse	G3	S3	N	SSC
Pteroglossaspis ecristata	Giant Orchid	G2G3	S2	N	LT

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Rana capito	Gopher Frog	G3	S3	N	SSC
Rhynchospora megaplumosa	Large-plumed Beaksedge	G2	S2	N	LE
Schizachyrium niveum	Scrub Bluestem	G1G2	S1S2	N	LE
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	SSC
Zephyranthes simpsonii	Redmargin Zephyrlily	G2G3	S2S3	N	LT
Matrix Unit ID: 27111					
Likely					
Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	FT
Grus canadensis pratensis	Florida Sandhill Crane	G5T2T3	S2S3	N	ST
Mesic flatwoods		G4	S4	N	N
Potential					
Andropogon arctatus	Pine-woods Bluestem	G3	S3	N	LT
Bonamia grandiflora	Florida Bonamia	G3	S3	LT	LE
Calopogon multiflorus	Many-flowered Grass-pink	G2G3	S2S3	N	LE
Centrosema arenicola	Sand Butterfly Pea	G2Q	S2	N	LE
Chrysopsis floridana	Florida Goldenaster	G1	S1	LE	LE
Eumops floridanus	Florida bonneted bat	G1	S1	C	ST
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	ST
Lechea cernua	Nodding Pinweed	G3	S3	N	LT
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Nemastylis floridana	Celestial Lily	G2	S2	N	LE
Panicum abscissum	Cutthroat Grass	G3	S3	N	LE
Podomys floridanus	Florida Mouse	G3	S3	N	SSC
Pteroglossaspis ecristata	Giant Orchid	G2G3	S2	N	LT
Rana capito	Gopher Frog	G3	S3	N	SSC
Rhynchospora megaplumosa	Large-plumed Beaksedge	G2	S2	N	LE
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	SSC
Zephyranthes simpsonii	Redmargin Zephyrlily	G2G3	S2S3	N	LT
Matrix Unit ID: 27112					
Likely					
Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	FT
Grus canadensis pratensis	Florida Sandhill Crane	G5T2T3	S2S3	N	ST
Mesic flatwoods		G4	S4	N	N
Potential					
Andropogon arctatus	Pine-woods Bluestem	G3	S3	N	LT
Athene cunicularia floridana	Florida Burrowing Owl	G4T3	S3	N	SSC
Bonamia grandiflora	Florida Bonamia	G3	S3	LT	LE
Calopogon multiflorus	Many-flowered Grass-pink	G2G3	S2S3	N	LE
Centrosema arenicola	Sand Butterfly Pea	G2Q	S2	N	LE
Chrysopsis floridana	Florida Goldenaster	G1	S1	LE	LE
Eumops floridanus	Florida bonneted bat	G1	S1	C	ST
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	ST
Lechea cernua	Nodding Pinweed	G3	S3	N	LT
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N

Definitions: *Documented - Rare species and natural communities documented on or near this site.*
Documented-Historic - Rare species and natural communities documented, but not observed/reported within the last twenty years.
Likely - Rare species and natural communities likely to occur on this site based on suitable habitat and/or known occurrences in the vicinity.
Potential - This site lies within the known or predicted range of the species listed.

1018 Thomasville Road
Suite 200-C
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(850) 224-8207
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Florida Natural Areas Inventory

Biodiversity Matrix Report

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Nemastylis floridana	Celestial Lily	G2	S2	N	LE
Panicum abscissum	Cutthroat Grass	G3	S3	N	LE
Podomys floridanus	Florida Mouse	G3	S3	N	SSC
Pteroglossaspis ecristata	Giant Orchid	G2G3	S2	N	LT
Rana capito	Gopher Frog	G3	S3	N	SSC
Rhynchospora megaplumosa	Large-plumed Beaksedge	G2	S2	N	LE
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	SSC
Zephyranthes simpsonii	Redmargin Zephyrlily	G2G3	S2S3	N	LT

Definitions: *Documented - Rare species and natural communities documented on or near this site.*
Documented-Historic - Rare species and natural communities documented, but not observed/reported within the last twenty years.
Likely - Rare species and natural communities likely to occur on this site based on suitable habitat and/or known occurrences in the vicinity.
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FLORIDA Natural Areas INVENTORY

Florida Natural Areas Inventory

Managed Area Summary
Rye Wilderness Park

SCIENTIFIC NAME	COMMON NAME	Global Rank	State Rank	Federal Status	State Listing
BIRDS					
Haliaeetus leucocephalus	Bald Eagle	G5	S3	N	N
INVERTEBRATES					
Progomphus alachuensis	Tawny Sanddragon	G3	S3	N	N

Note: *Summary includes all occurrence records currently in the FNAI database.*

Elements and Element Occurrences

An **element** is any exemplary or rare component of the natural environment, such as a species, natural community, bird rookery, spring, sinkhole, cave, or other ecological feature.

An **element occurrence (EO)** is an area of land and/or water in which a species or natural community is, or was, present. An EO should have practical conservation value for the Element as evidenced by potential continued (or historical) presence and/or regular recurrence at a given location.

Element Ranking and Legal Status

Using a ranking system developed by NatureServe and the Natural Heritage Program Network, the Florida Natural Areas Inventory assigns two ranks for each element. The global rank is based on an element's worldwide status; the state rank is based on the status of the element in Florida. Element ranks are based on many factors, the most important ones being estimated number of Element Occurrences (EOs), estimated abundance (number of individuals for species; area for natural communities), geographic range, estimated number of adequately protected EOs, relative threat of destruction, and ecological fragility.

FNAI GLOBAL ELEMENT RANK

G1 = Critically imperiled globally because of extreme rarity (5 or fewer occurrences or less than 1000 individuals) or because of extreme vulnerability to extinction due to some natural or man-made factor.
G2 = Imperiled globally because of rarity (6 to 20 occurrences or less than 3000 individuals) or because of vulnerability to extinction due to some natural or man-made factor.
G3 = Either very rare and local throughout its range (21-100 occurrences or less than 10,000 individuals) or found locally in a restricted range or vulnerable to extinction from other factors.
G4 = Apparently secure globally (may be rare in parts of range).
G5 = Demonstrably secure globally.
GH = Of historical occurrence throughout its range, may be rediscovered (e.g., ivory-billed woodpecker).
GX = Believed to be extinct throughout range.
GXC = Extirpated from the wild but still known from captivity or cultivation.
G#? = Tentative rank (e.g., G2?).
G#G# = Range of rank; insufficient data to assign specific global rank (e.g., G2G3).
G#T# = Rank of a taxonomic subgroup such as a subspecies or variety; the G portion of the rank refers to the entire species and the T portion refers to the specific subgroup; numbers have same definition as above (e.g., G3T1).
G#Q = Rank of questionable species - ranked as species but questionable whether it is species or subspecies; numbers have same definition as above (e.g., G2Q).
G#T#Q = Same as above, but validity as subspecies or variety is questioned.
GU = Unrankable; due to a lack of information no rank or range can be assigned (e.g., GUT2).
GNA = Ranking is not applicable because the element is not a suitable target for conservation (e.g. a hybrid species).
GNR = Element not yet ranked (temporary).
GNRTNR = Neither the element nor the taxonomic subgroup has yet been ranked.

FNAI STATE ELEMENT RANK

S1 = Critically imperiled in Florida because of extreme rarity (5 or fewer occurrences or less than 1000 individuals) or because of extreme vulnerability to extinction due to some natural or man-made factor.
S2 = Imperiled in Florida because of rarity (6 to 20 occurrences or less than 3000 individuals) or because of vulnerability to extinction due to some natural or man-made factor.
S3 = Either very rare and local in Florida (21-100 occurrences or less than 10,000 individuals) or found locally in a restricted range or vulnerable to extinction from other factors.
S4 = Apparently secure in Florida (may be rare in parts of range).
S5 = Demonstrably secure in Florida.
SH = Of historical occurrence in Florida, possibly extirpated, but may be rediscovered (e.g., ivory-billed woodpecker).
SX = Believed to be extirpated throughout Florida.
SU = Unrankable; due to a lack of information no rank or range can be assigned.
SNA = State ranking is not applicable because the element is not a suitable target for conservation (e.g. a hybrid species).
SNR = Element not yet ranked (temporary).

FEDERAL LEGAL STATUS

Legal status information provided by FNAI for information only. For official definitions and lists of protected species, consult the relevant federal agency.

Definitions derived from U.S. Endangered Species Act of 1973, Sec. 3. Note that the federal status given by FNAI refers only to Florida populations and that federal status may differ elsewhere.

C = Candidate species for which federal listing agencies have sufficient information on biological vulnerability and threats to support proposing to list the species as Endangered or Threatened.
LE = Endangered: species in danger of extinction throughout all or a significant portion of its range.
LE, LT = Species currently listed endangered in a portion of its range but only listed as threatened in other areas
LE, PDL = Species currently listed endangered but has been proposed for delisting.
LE, PT = Species currently listed endangered but has been proposed for listing as threatened.
LE, XN = Species currently listed endangered but tracked population is a non-essential experimental population.
LT = Threatened: species likely to become Endangered within the foreseeable future throughout all or a significant portion of its range.
SAT = Treated as threatened due to similarity of appearance to a species which is federally listed such that enforcement personnel have difficulty in attempting to differentiate between the listed and unlisted species.
SC = Not currently listed, but considered a "species of concern" to USFWS.

STATE LEGAL STATUS

Provided by FNAI for information only. For official definitions and lists of protected species, consult the relevant state agency.

Animals: Definitions derived from "Florida's Endangered Species and Species of Special Concern, Official Lists" published by Florida Fish and Wildlife Conservation Commission, 1 August 1997, and subsequent updates.

FE = Listed as Endangered Species at the Federal level by the U. S. Fish and Wildlife Service
FT = Listed as Threatened Species at the Federal level by the U. S. Fish and Wildlife Service
F(XN) = Federal listed as an experimental population in Florida
FT(S/A) = Federal Threatened due to similarity of appearance
ST = State population listed as Threatened by the FFWCC. Defined as a species, subspecies, or isolated population which is acutely vulnerable to environmental alteration, declining in number at a rapid rate, or whose range or habitat is decreasing in area at a rapid rate and as a consequence is destined or very likely to become an endangered species within the foreseeable future. (ST* for Ursus americanus floridanus (Florida black bear) indicates that this status does not apply in Baker and Columbia counties and in the Apalachicola National Forest. ST* for Neovison vison pop.1 (Southern mink, South Florida population) indicates that this status applies to the Everglades population only.)
SSC = Listed as Species of Special Concern by the FFWCC. Defined as a population which warrants special protection, recognition, or consideration because it has an inherent significant vulnerability to habitat modification, environmental alteration, human disturbance, or substantial human exploitation which, in the foreseeable future, may result in its becoming a threatened species. (SSC* indicates that a species has SSC status only in selected portions of its range in Florida. SSC* for Pandion haliaetus (Osprey) indicates that this status applies in Monroe county only.)
N = Not currently listed, nor currently being considered for listing.

Plants: Definitions derived from Sections 581.011 and 581.185(2), Florida Statutes, and the Preservation of Native Flora of Florida Act, 5B-40.001. FNAI does not track all state-regulated plant species; for a complete list of state-regulated plant species, call Florida Division of Plant Industry, 352-372-3505 or see: http://www.doacs.state.fl.us/pi/.

LE = Endangered: species of plants native to Florida that are in imminent danger of extinction within the state, the survival of which is unlikely if the causes of a decline in the number of plants continue; includes all species determined to be endangered or threatened pursuant to the U.S. Endangered Species Act.
LT = Threatened: species native to the state that are in rapid decline in the number of plants within the state, but which have not so decreased in number as to cause them to be Endangered.
N = Not currently listed, nor currently being considered for listing.

Element Occurrence Ranking

FNAI ranks of quality of the element occurrence in terms of its viability (EORANK). Viability is estimated using a combination of factors that contribute to continued survival of the element at the location. Among these are the size of the EO, general condition of the EO at the site, and the conditions of the landscape surrounding the EO (e.g. an immediate threat to an EO by local development pressure could lower an EO rank).

A = Excellent estimated viability
A? = Possibly excellent estimated viability
AB = Excellent or good estimated viability
AC = Excellent, good, or fair estimated viability
B = Good estimated viability
B? = Possibly good estimated viability
BC = Good or fair estimated viability
BD = Good, fair, or poor estimated viability
C = Fair estimated viability
C? = Possibly fair estimated viability
CD = Fair or poor estimated viability
D = Poor estimated viability
D? = Possibly poor estimated viability
E = Verified extant (viability not assessed)
F = Failed to find
H = Historical
NR = Not ranked, a placeholder when an EO is not (yet) ranked.
U = Unrankable
X = Extirpated

*For additional detail on the above ranks see: http://www.natureserve.org/explorer/eorankguide.htm

FNAI also uses the following EO ranks:

H? = Possibly historical
F? = Possibly failed to find
X? = Possibly extirpated

The following offers further explanation of the H and X ranks as they are used by FNAI:

The rank of H is used when there is a lack of recent field information verifying the continued existence of an EO, such as (a) when an EO is based only on historical collections data; or (b) when an EO was ranked A, B, C, D, or E at one time and is later, without field survey work, considered to be possibly extirpated due to general habitat loss or degradation of the environment in the area. This definition of the H rank is dependent on an interpretation of what constitutes "recent" field information. Generally, if there is no known survey of an EO within the last 20 to 40 years, it should be assigned an H rank. While these time frames represent suggested maximum limits, the actual time period for historical EOs may vary according to the biology of the element and the specific landscape context of each occurrence (including anthropogenic alteration of the environment). Thus, an H rank may be assigned to an EO before the maximum time frames have lapsed. Occurrences that have not been surveyed for periods exceeding these time frames should not be ranked A, B, C, or D. The higher maximum limit for plants and communities (i.e., ranging from 20 to 40 years) is based upon the assumption that occurrences of these elements generally have the potential to persist at a given location for longer periods of time. This greater potential is a reflection of plant biology and community dynamics. However, landscape factors must also be considered. Thus, areas with more anthropogenic impacts on the environment (e.g., development) will be at the lower end of the range, and less-impacted areas will be at the higher end.

The rank of X is assigned to EOs for which there is documented destruction of habitat or environment, or persuasive evidence of eradication based on adequate survey (i.e., thorough or repeated survey efforts by one or more experienced observers at times and under conditions appropriate for the Element at that location).

FLORIDA
Natural Areas
INVENTORY

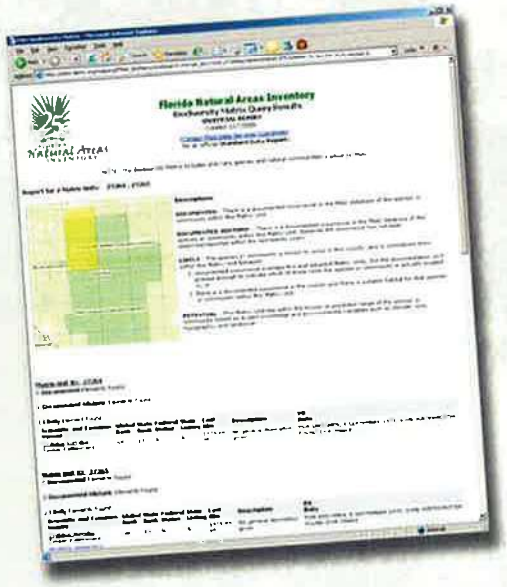
Technical Assistance Provided by:

FREAC
FLORIDA RESOURCES & ENVIRONMENTAL ANALYSIS CENTER
AT THE FLORIDA STATE UNIVERSITY

FOR IMMEDIATE RELEASE

FNAI's Biodiversity Matrix Online

The Biodiversity Matrix Map Server is a new **screening tool** from FNAI that provides **immediate, free access** to rare species occurrence information statewide. This tool allows you to zoom to your site of interest and create a report listing documented, likely, and potential occurrences of rare species and natural communities.



The FNAI Biodiversity Matrix offers **built-in interpretation** of the likelihood of species occurrence for each 1-square-mile Matrix Unit across the state. The report includes a site map and list of species and natural communities by occurrence status: Documented, Documented-Historic, Likely, and Potential.

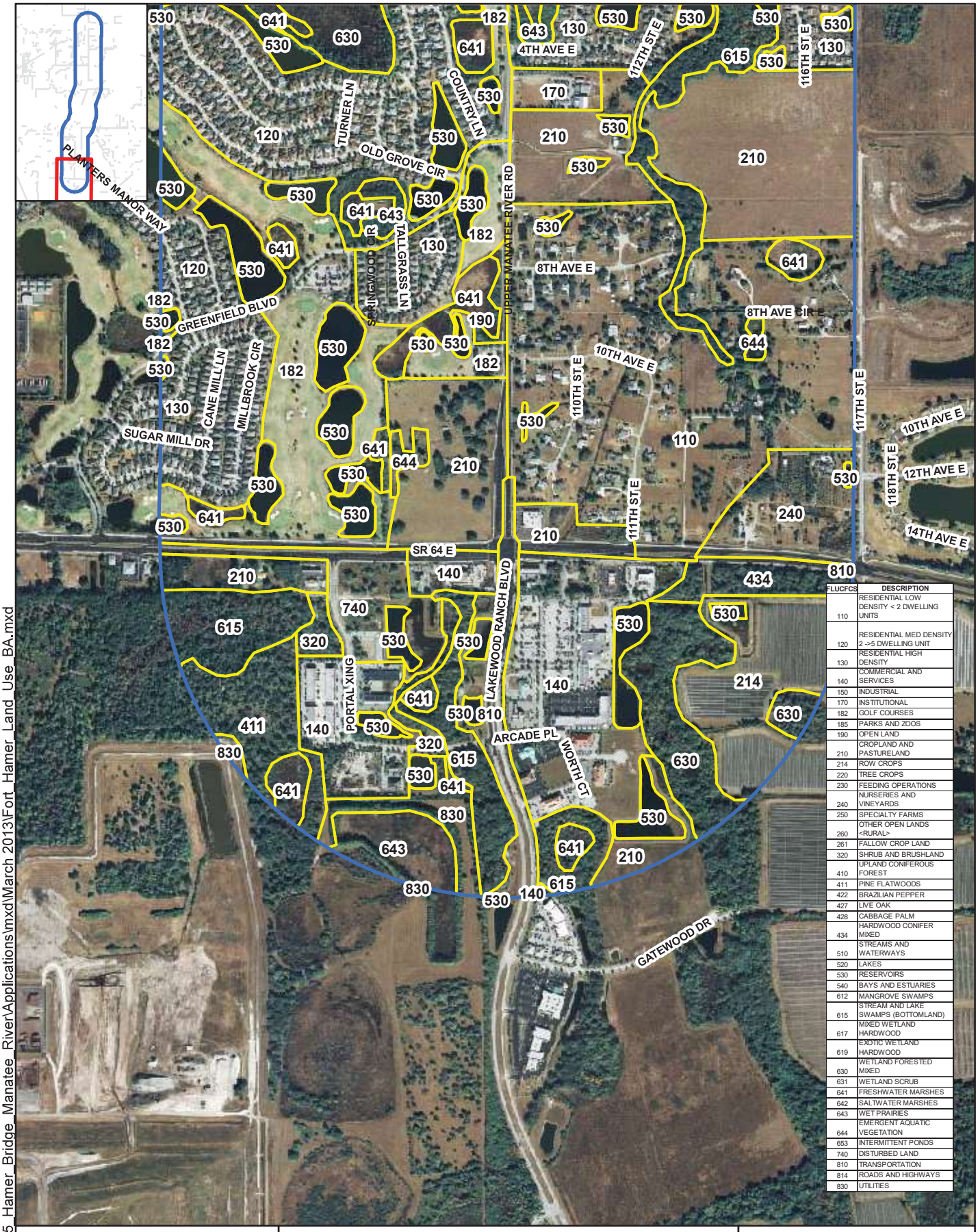
Try it today:

www.fnai.org/biointro.cfm

Please note: FNAI will continue to offer our Standard Data Report service as always. The Standard Data Report offers the most comprehensive information available on rare species, natural communities, conservation lands, and other natural resources.

Appendix C

Land Use/Vegetative Communities within the Fort Hamer Alternative Study Area (Figures C1 though C5)



FLUCFCS	DESCRIPTION
110	RESIDENTIAL LOW DENSITY < 2 DWELLING UNITS
120	RESIDENTIAL MED DENSITY 2 ->5 DWELLING UNIT
130	RESIDENTIAL HIGH DENSITY
140	COMMERCIAL AND SERVICES
150	INDUSTRIAL
170	INSTITUTIONAL
182	GOLF COURSES
185	PARKS AND ZOOS
190	OPEN LAND
210	CROPLAND AND PASTURELAND
214	ROW CROPS
220	TREE CROPS
230	FEEDING OPERATIONS
240	NURSERIES AND VINEYARDS
250	SPECIALTY FARMS
260	OTHER OPEN LANDS <RURAL>
261	FALLOW CROP LAND
320	SHRUB AND BRUSHLAND
410	UPLAND CONIFEROUS FOREST
411	PINE FLATWOODS
422	BRAZILIAN PEPPER
427	LIVE OAK
428	CABBAGE PALM
434	HARDWOOD CONIFER MIXED
510	STREAMS AND WATERWAYS
520	LAKES
530	RESERVOIRS
540	BAYS AND ESTUARIES
612	MANGROVE SWAMPS
615	STREAM AND LAKE SWAMPS (BOTTOMLAND)
617	MIXED WETLAND HARDWOOD
619	EXOTIC WETLAND HARDWOOD
630	WETLAND FORESTED MIXED
631	WETLAND SCRUB
641	FRESHWATER MARSHES
642	SALTWATER MARSHES
643	WET PRAIRIES
644	EMERGENT AQUATIC VEGETATION
653	INTERMITTENT PONDS
740	DISTURBED LAND
810	TRANSPORTATION
814	ROADS AND HIGHWAYS
830	UTILITIES

Legend

- Construction Limits
- Ft Hamer Alternative Study Area
- 631 FLUCFCS Boundary and Code

Sources:
Aerial- FDOT, 2011
FLUCFCS- SWFWMD, 2009 & URS Field Reviews

Figure C1
Land Use/ Vegetative Communities within the Fort Hamer Alternative Study Area

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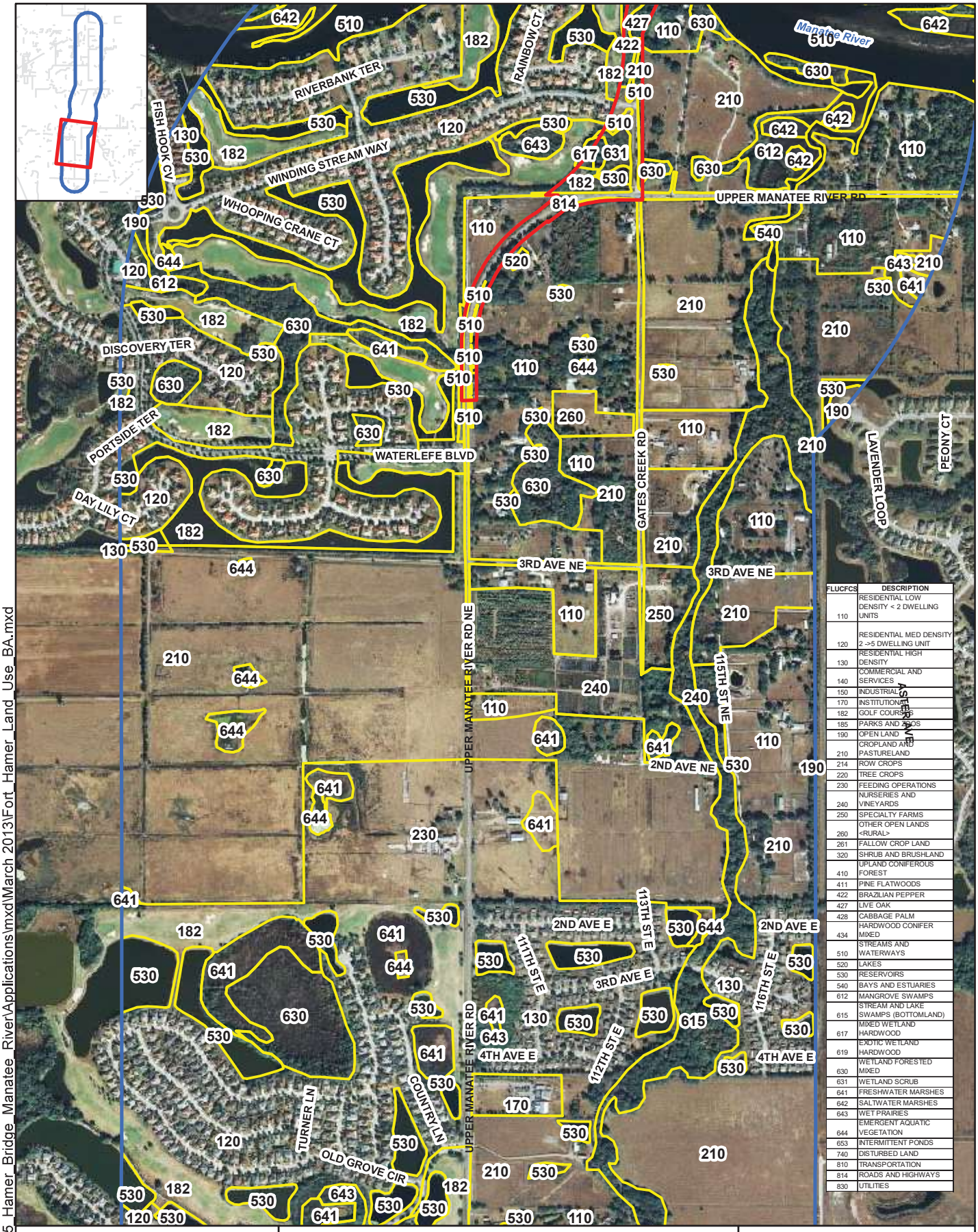

FLUCFCS	DESCRIPTION
110	RESIDENTIAL LOW DENSITY < 2 DWELLING UNITS
120	RESIDENTIAL MED DENSITY 2 ->5 DWELLING UNIT
130	RESIDENTIAL HIGH DENSITY
140	COMMERCIAL AND SERVICES
150	INDUSTRIAL
170	INSTITUTIONAL
182	GOLF COURSES
185	PARKS AND RECS
190	OPEN LAND
210	CROPLAND AND PASTURELAND
214	ROW CROPS
220	TREE CROPS
230	FEEDING OPERATIONS
240	NURSERIES AND VINEYARDS
250	SPECIALTY FARMS
260	OTHER OPEN LANDS <RURAL>
261	FALLOW CROP LAND
320	SHRUB AND BRUSHLAND
410	UPLAND CONIFEROUS FOREST
411	PINE FLATWOODS
422	BRAZILIAN PEPPER
427	LIVE OAK
428	CABBAGE PALM
434	HARDWOOD CONIFER MIXED
510	STREAMS AND WATERWAYS
520	LAKES
530	RESERVOIRS
540	BAYS AND ESTUARIES
612	MANGROVE SWAMPS
615	STREAM AND LAKE SWAMPS (BOTTOMLAND)
617	MIXED WETLAND HARDWOOD
619	EXOTIC WETLAND HARDWOOD
630	WETLAND FORESTED MIXED
631	WETLAND SCRUB
641	FRESHWATER MARSHES
642	SALTWATER MARSHES
643	WET PRAIRIES
644	EMERGENT AQUATIC VEGETATION
653	INTERMITTENT PONDS
740	DISTURBED LAND
810	TRANSPORTATION
814	ROADS AND HIGHWAYS
830	UTILITIES

Legend

- Construction Limits
- Ft Hamer Alternative Study Area
- 631 FLUCFCS Boundary and Code

Sources:
Aerial- FDOT, 2011
FLUCFCS- SWFWMD, 2009 & URS Field Reviews

Figure C2
Land Use/ Vegetative Communities within the Fort Hamer Alternative Study Area

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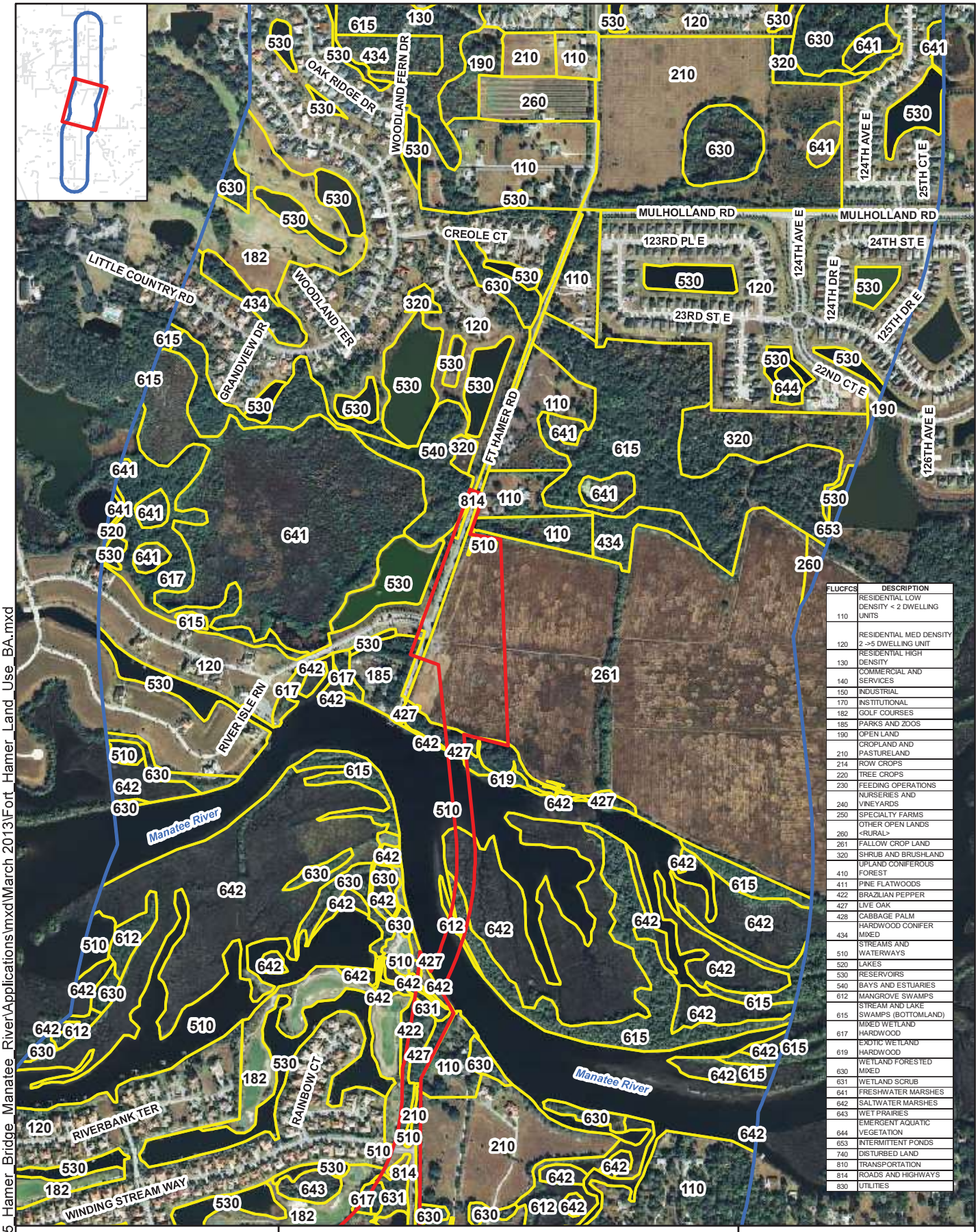

FLUCFCS	DESCRIPTION
110	RESIDENTIAL LOW DENSITY < 2 DWELLING UNITS
120	RESIDENTIAL MED DENSITY 2 ->5 DWELLING UNIT
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140	COMMERCIAL AND SERVICES
150	INDUSTRIAL
170	INSTITUTIONAL
182	GOLF COURSES
185	PARKS AND ZOOS
190	OPEN LAND
210	CROPLAND AND PASTURELAND
214	ROW CROPS
220	TREE CROPS
230	FEEDING OPERATIONS
240	NURSERIES AND VINEYARDS
250	SPECIALTY FARMS
260	OTHER OPEN LANDS <RURAL>
261	FALLOW CROP LAND
320	SHRUB AND BRUSHLAND
410	UPLAND CONIFEROUS FOREST
411	PINE FLATWOODS
422	BRAZILIAN PEPPER
427	LIVE OAK
428	CABBAGE PALM
434	HARDWOOD CONIFER MIXED
510	STREAMS AND WATERWAYS
520	LAKES
530	RESERVOIRS
540	BAYS AND ESTUARIES
612	MANGROVE SWAMPS
615	STREAM AND LAKE SWAMPS (BOTTOMLAND)
617	MIXED WETLAND HARDWOOD
619	EXOTIC WETLAND HARDWOOD
630	WETLAND FORESTED MIXED
631	WETLAND SCRUB
641	FRESHWATER MARSHES
642	SALTWATER MARSHES
643	WET PRAIRIES
644	EMERGENT AQUATIC VEGETATION
653	INTERMITTENT PONDS
740	DISTURBED LAND
810	TRANSPORTATION
814	ROADS AND HIGHWAYS
830	UTILITIES

Legend

- Construction Limits
- Ft Hamer Alternative Study Area
- 631 FLUCFCS Boundary and Code

Sources:
Aerial- FDOT, 2011
FLUCFCS- SWFWMD, 2009 &
URS Field Reviews

Figure C3
Land Use/ Vegetative Communities within the Fort Hamer Alternative Study Area

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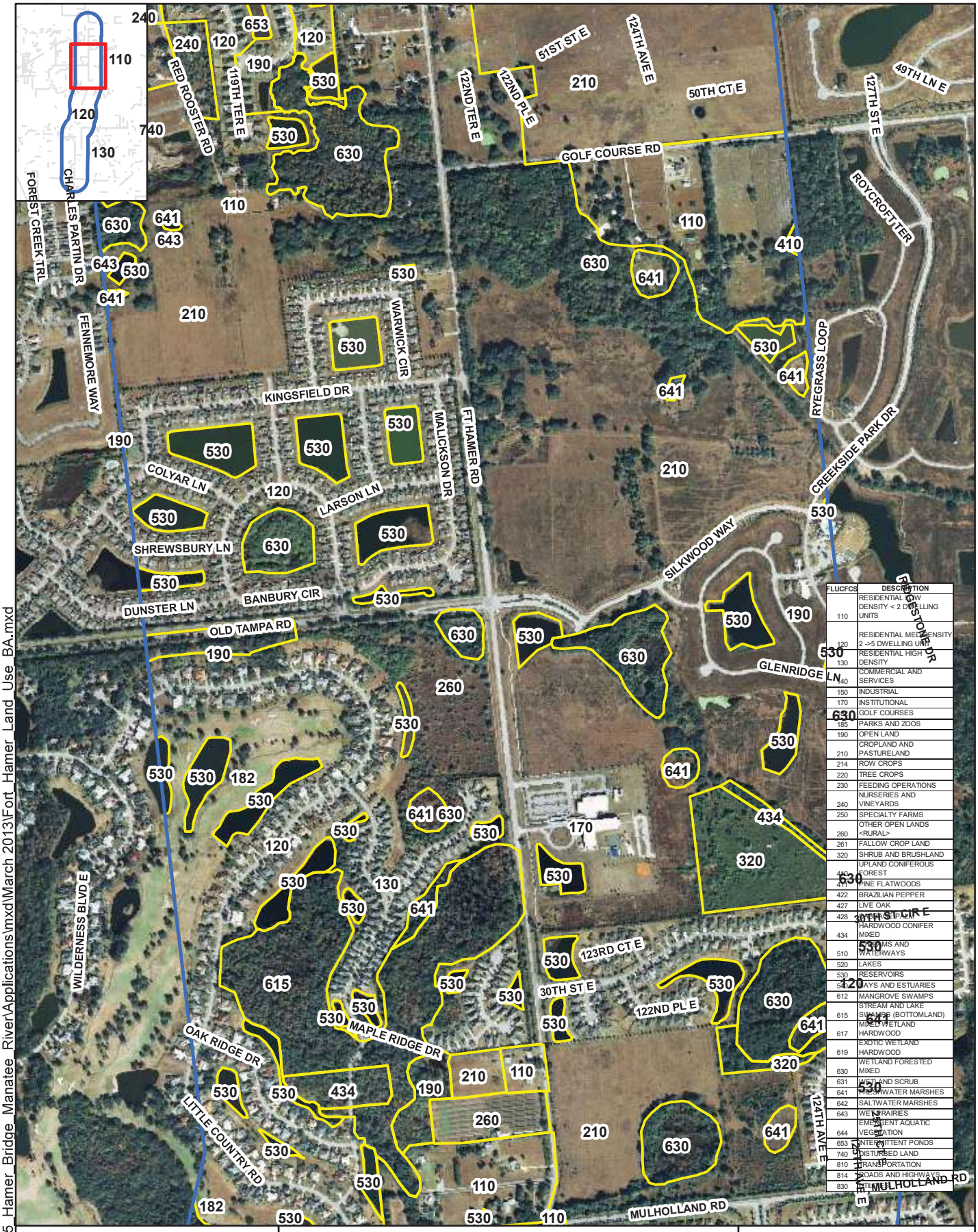

FLUCFCS	DESCRIPTION
110	RESIDENTIAL LOW DENSITY < 2 DWELLING UNITS
120	RESIDENTIAL MED DENSITY 2 ->5 DWELLING UNITS
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140	COMMERCIAL AND SERVICES
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220	ROW CROPS
230	TREE CROPS
240	FEEDING OPERATIONS
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428	BRAZILIAN PEPPER
434	LIVE OAK
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520	STREAMS AND WATERWAYS
530	LAKES
540	RESERVOIRS
612	BAYS AND ESTUARIES
615	MANGROVE SWAMPS
617	STREAM AND LAKE SWAMPS (BOTTOMLAND)
619	MIXED WETLAND HARDWOOD
630	EXOTIC WETLAND HARDWOOD
631	WETLAND FORESTED MIXED
641	WETLAND SHRUB
642	FRESHWATER MARSHES
643	SALTWATER MARSHES
644	WET PRAIRIES
653	EMERGENT AQUATIC VEGETATION
740	INTERMITTENT PONDS
810	DISTURBED LAND
814	TRANSPORTATION
830	ROADS AND HIGHWAYS
	UTILITIES

Legend

- Construction Limits
- Ft Hamer Alternative Study Area
- 631 FLUCFCS Boundary and Code

Sources:
Aerial- FDOT, 2011
FLUCFCS- SWFWMD, 2009 & URS Field Reviews

Figure C4
Land Use/ Vegetative Communities within the Fort Hamer Alternative Study Area

N W E S

0 500 1,000 Feet

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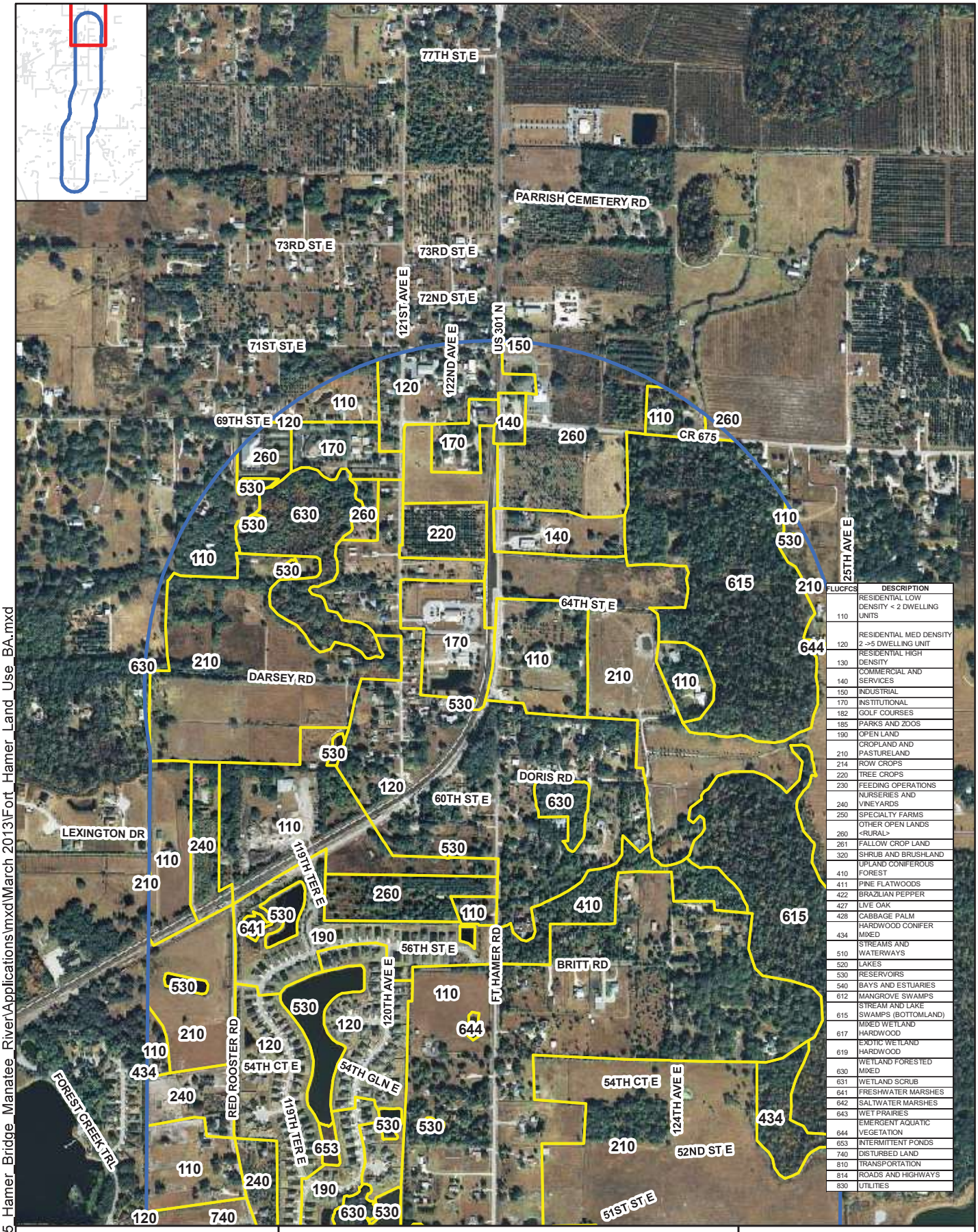

FLUCFCS	DESCRIPTION
110	RESIDENTIAL LOW DENSITY < 2 DWELLING UNITS
120	RESIDENTIAL MED DENSITY 2 ->5 DWELLING UNIT
130	RESIDENTIAL HIGH DENSITY
140	COMMERCIAL AND SERVICES
150	INDUSTRIAL
170	INSTITUTIONAL
182	GOLF COURSES
185	PARKS AND ZOOS
190	OPEN LAND
210	CROPLAND AND PASTURELAND
214	ROW CROPS
220	TREE CROPS
230	FEEDING OPERATIONS
240	NURSERIES AND VINEYARDS
250	SPECIALTY FARMS
260	OTHER OPEN LANDS <RURAL>
261	FALLOW CROP LAND
320	SHRUB AND BRUSHLAND
410	UPLAND CONIFEROUS FOREST
411	PINE FLATWOODS
422	BRAZILIAN PEPPER
427	LIVE OAK
428	CABBAGE PALM
434	HARDWOOD CONIFER MIXED
510	STREAMS AND WATERWAYS
520	LAKES
530	RESERVOIRS
540	BAYS AND ESTUARIES
612	MANGROVE SWAMPS
615	STREAM AND LAKE SWAMPS (BOTTOMLAND)
617	MIXED WETLAND HARDWOOD
619	EXOTIC WETLAND HARDWOOD
630	WETLAND FORESTED MIXED
631	WETLAND SCRUB
641	FRESHWATER MARSHES
642	SALTWATER MARSHES
643	WET PRAIRIES
644	EMERGENT AQUATIC VEGETATION
653	INTERMITTENT PONDS
740	DISTURBED LAND
810	TRANSPORTATION
814	ROADS AND HIGHWAYS
830	UTILITIES

Legend

- Construction Limits
- Ft Hamer Alternative Study Area
- 631 FLUCFCS Boundary and Code

Sources:
Aerial- FDOT, 2011
FLUCFCS- SWFWMD, 2009 & URS Field Reviews

Figure C5
Land Use/ Vegetative Communities within the Fort Hamer Alternative Study Area

N
W E
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Feet

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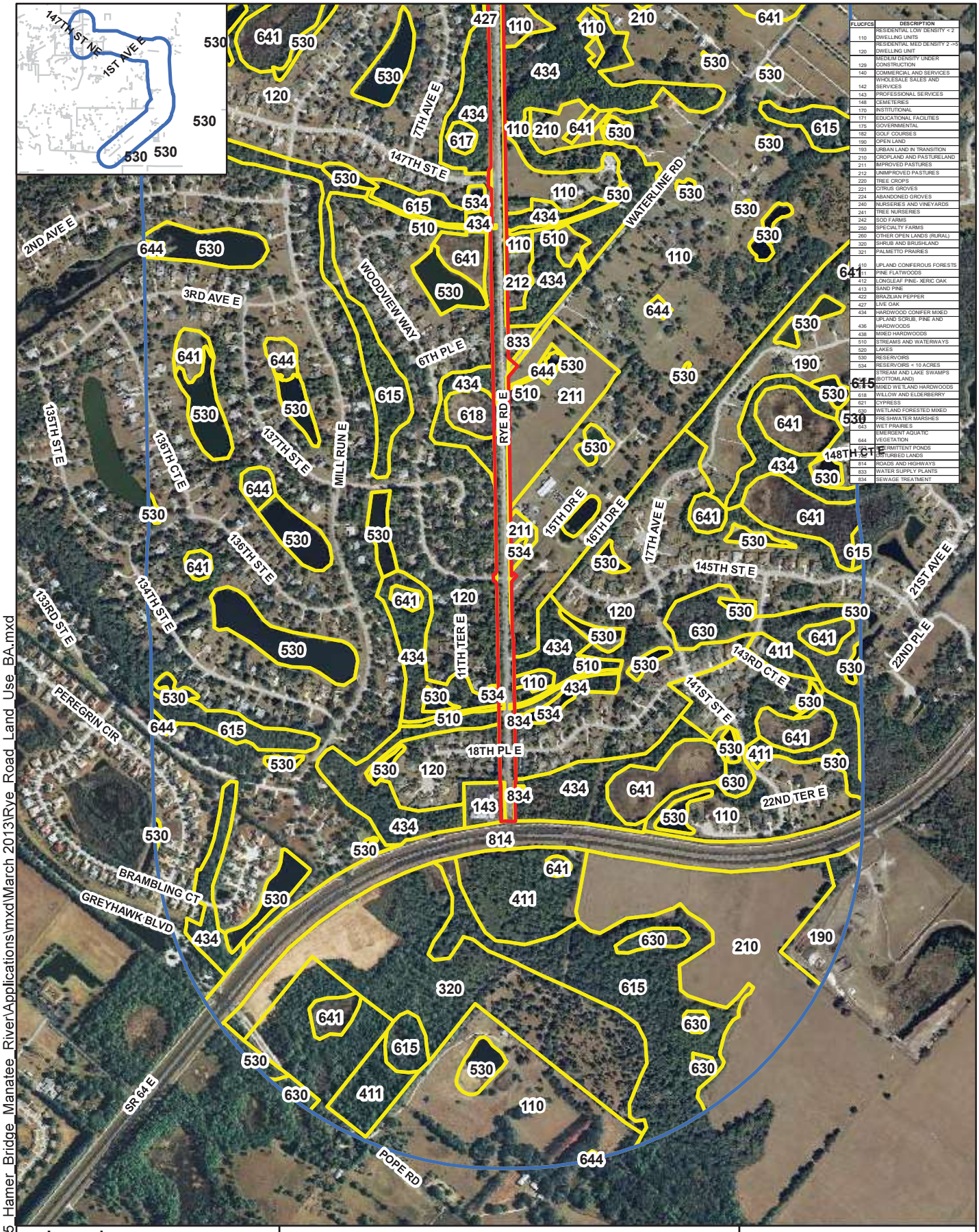
Appendix D

Land Use/Vegetative Communities within the Rye Road Alternative Study Area (Figures D1 though D8)



FLUCFCS	DESCRIPTION
110	RESIDENTIAL LOW DENSITY < 2 DWELLING UNITS
120	RESIDENTIAL MED DENSITY 2 ->5 DWELLING UNIT
129	MEDIUM DENSITY UNDER CONSTRUCTION
140	COMMERCIAL AND SERVICES
142	WHOLESALE SALES AND SERVICES
143	PROFESSIONAL SERVICES
148	CEMETERIES
170	INSTITUTIONAL
171	EDUCATIONAL FACILITIES
175	GOVERNMENTAL
182	GOLF COURSES
190	OPEN LAND
193	URBAN LAN IN TRANSITION
210	CROPLAND AND PASTURELAND
211	IMPROVED PASTURES
212	UNIMPROVED PASTURES
220	TREE CROPS
221	CITRUS GROVES
224	ABANDONED GROVES
240	NURSERIES AND VINEYARDS
241	TREE NURSERIES
242	SOD FARMS
250	SPECIALTY FARMS
260	OTHER OPEN LANDS (RURAL)
320	SHRUB AND BRUSHLAND
321	PALMETTO PRAIRES
410	UPLAND CONIFEROUS FORESTS
411	PINE FLATWOODS
412	LONGLEAF PINE- XERIC OAK
413	SAND PINE
422	BRAZILIAN PEPPER
427	LIVE OAK
434	HARDWOOD CONIFER MIXED
436	UPLAND SCRUB, PINE AND HARDWOODS
438	MIXED HARDWOODS
510	STREAMS AND WATERWAYS
520	LAKES
530	RESERVOIRS
534	RESERVOIRS < 10 ACRES
615	STREAM AND LAKE SWAMPS (BOTTOMLAND)
618	MIXED WETLAND HARDWOODS
621	WILLOW AND ELDERBERRY
630	CYPRESS
631	WETLAND FORESTED MIXED
643	FRESHWATER MARSHES
644	WET PRAIRIES
814	EMERGENT AQUATIC VEGETATION
833	INTERMITTENT PONDS
834	DISTURBED LANDS
	ROADS AND HIGHWAYS
	WATER SUPPLY PLANTS
	SEWAGE TREATMENT

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Legend

- Construction Limits
- Rye Road Alternative Study Area
- 814 FLUCFCS Boundary and Code

Sources:
Aerial- FDOT, 2011
FLUCFCS- SWFWMD, 2009 &
URS Field Reviews

Figure D1
Land Use/ Vegetative Communities within the Rye Road Alternative Study Area

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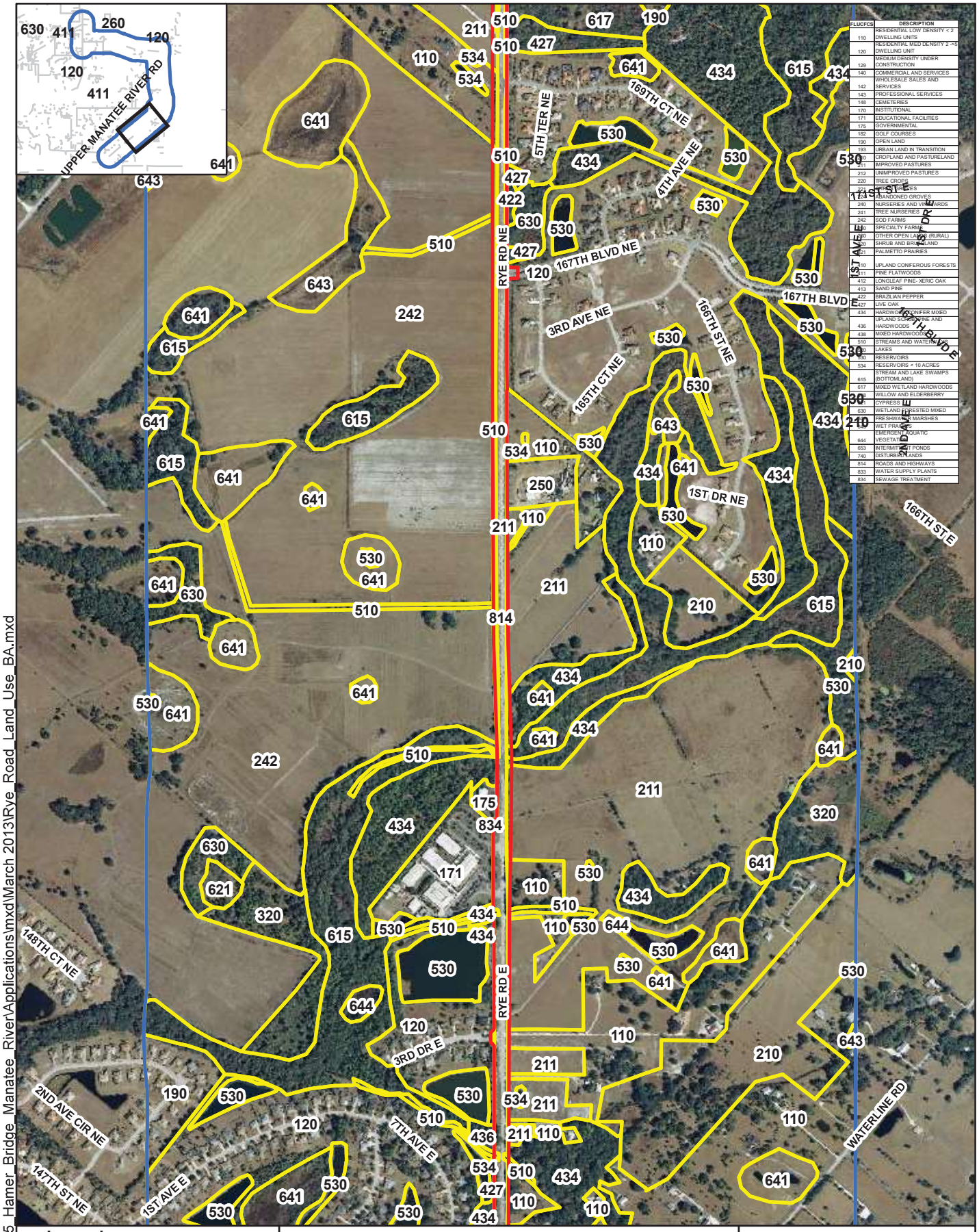
Feet



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175	GOVERNMENTAL
182	GOLF COURSES
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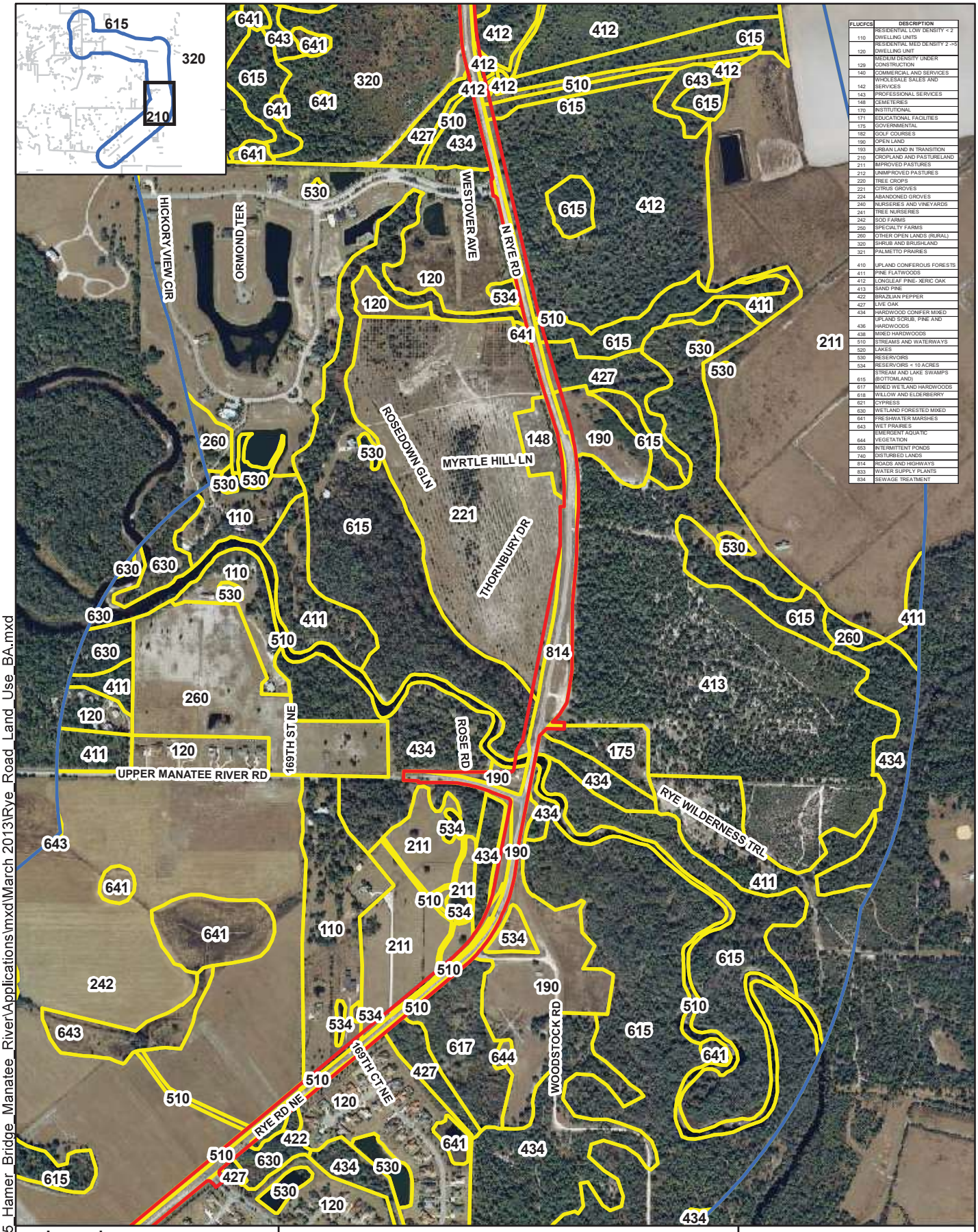
740	DISTURBED LANDS
814	ROADS AND HIGHWAYS
833	WATER SUPPLY PLANTS
834	SEWAGE TREATMENT



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Legend

- Construction Limits
- Rye Road Alternative Study Area
- 814 FLUCFCS Boundary and Code

Sources:
Aerial- FDOT, 2011
FLUCFCS- SWFWMD, 2009 &
URS Field Reviews

Figure D3
Land Use/ Vegetative Communities within the Rye Road Alternative Study Area

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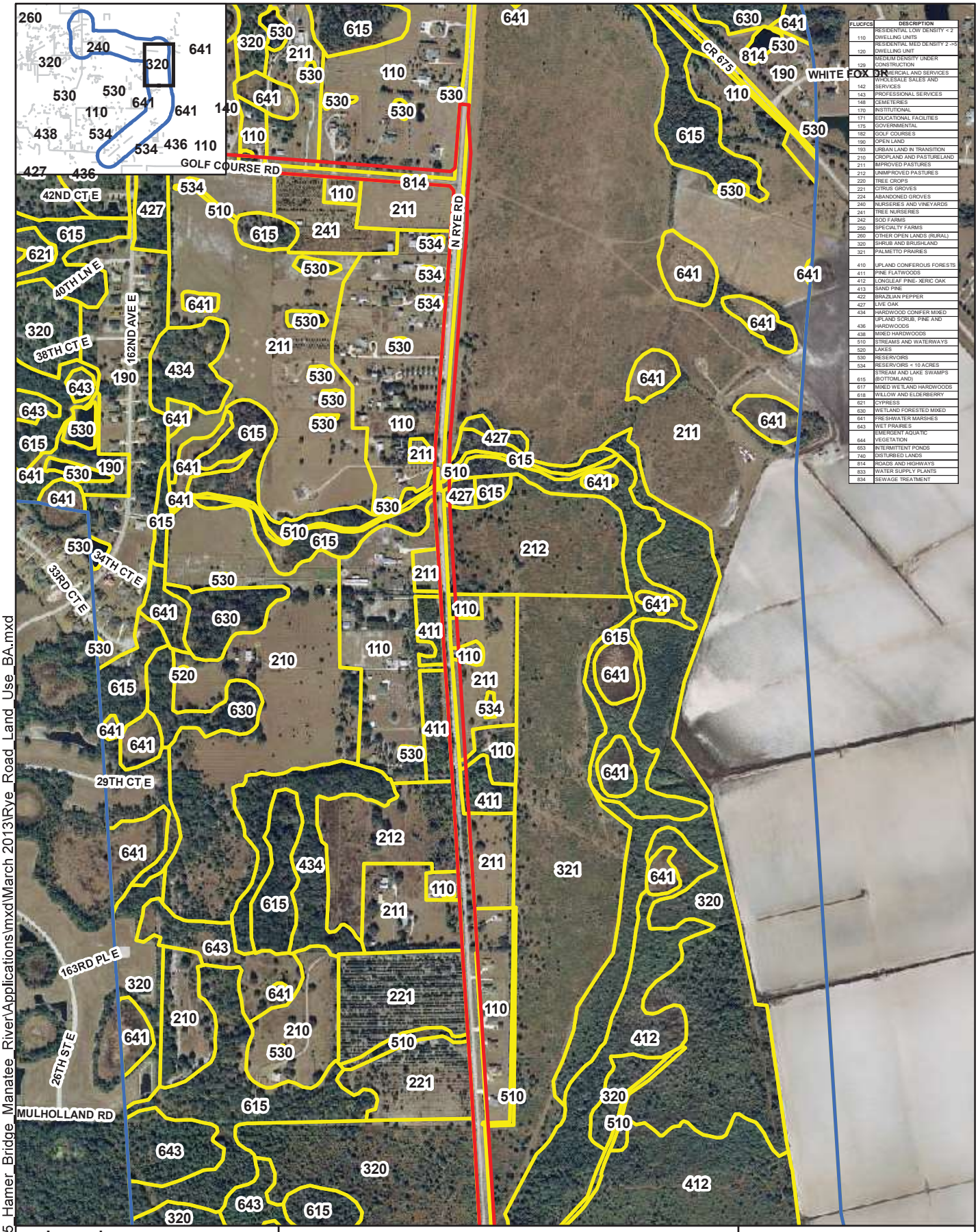
Feet



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Legend

- Construction Limits
- Rye Road Alternative Study Area
- 814 FLUCFCS Boundary and Code

Sources:
Aerial- FDOT, 2011
FLUCFCS- SWFWMD, 2009 & URS Field Reviews

Figure D4
Land Use/ Vegetative Communities within the Rye Road Alternative Study Area

N
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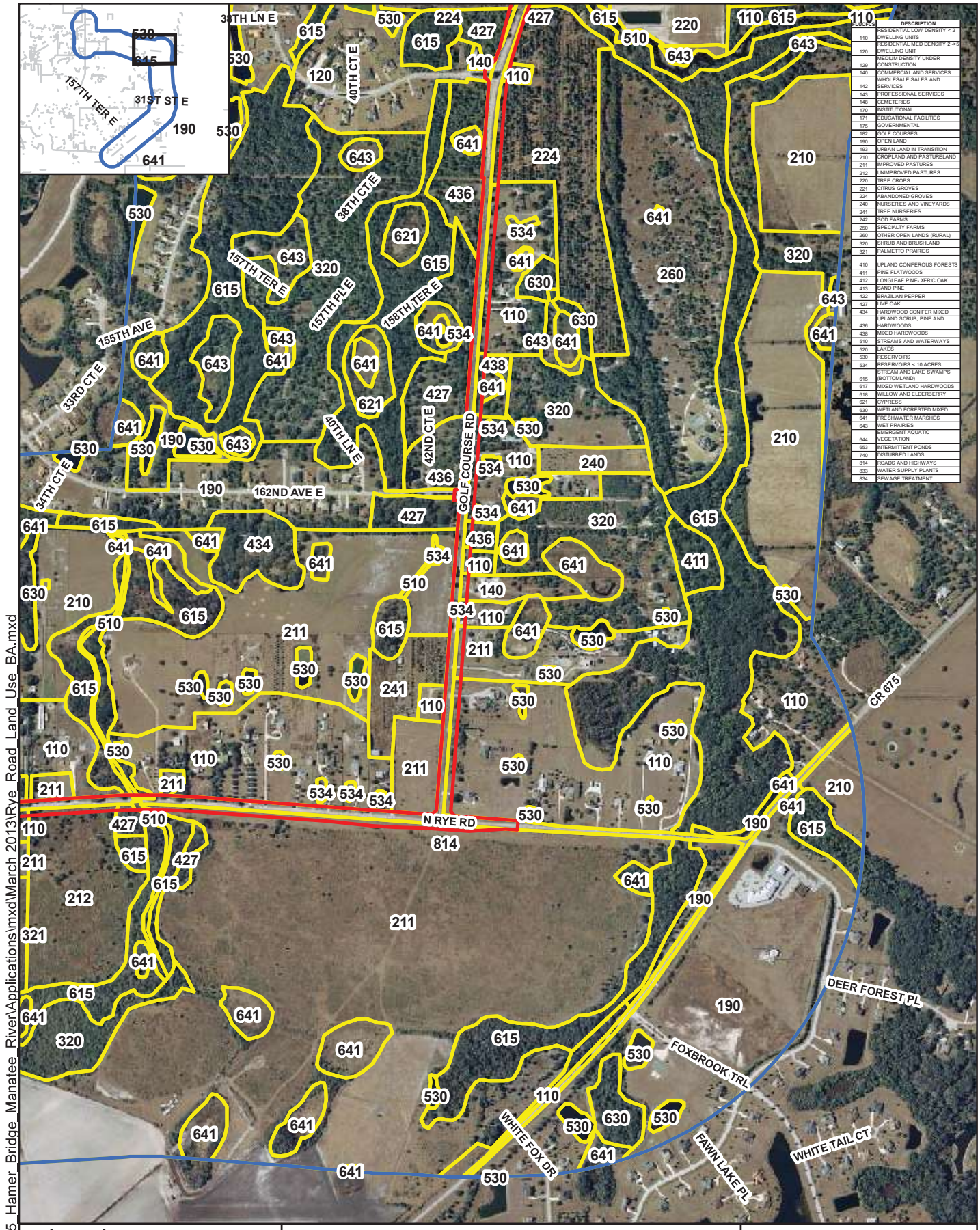
Feet



FLUCFCS	DESCRIPTION
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120	RESIDENTIAL MED DENSITY 2 ->5 DWELLING UNIT
129	MEDIUM DENSITY UNDER CONSTRUCTION
140	COMMERCIAL AND SERVICES
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143	PROFESSIONAL SERVICES
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170	INSTITUTIONAL
171	EDUCATIONAL FACILITIES
175	GOVERNMENTAL
182	GOLF COURSES
190	OPEN LAND
193	URBAN LAND IN TRANSITION
210	CROPLAND AND PASTURELAND
211	IMPROVED PASTURES
212	UNIMPROVED PASTURES
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241	TREE NURSERIES
242	SOD FARMS
250	SPECIALTY FARMS
260	OTHER OPEN LANDS (RURAL)
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643	WET PRAIRIES
644	EMERGENT AQUATIC VEGETATION
653	INTERMITTENT PONDS
740	DISTURBED LANDS
814	ROADS AND HIGHWAYS
833	WATER SUPPLY PLANTS
834	SEWAGE TREATMENT

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Legend

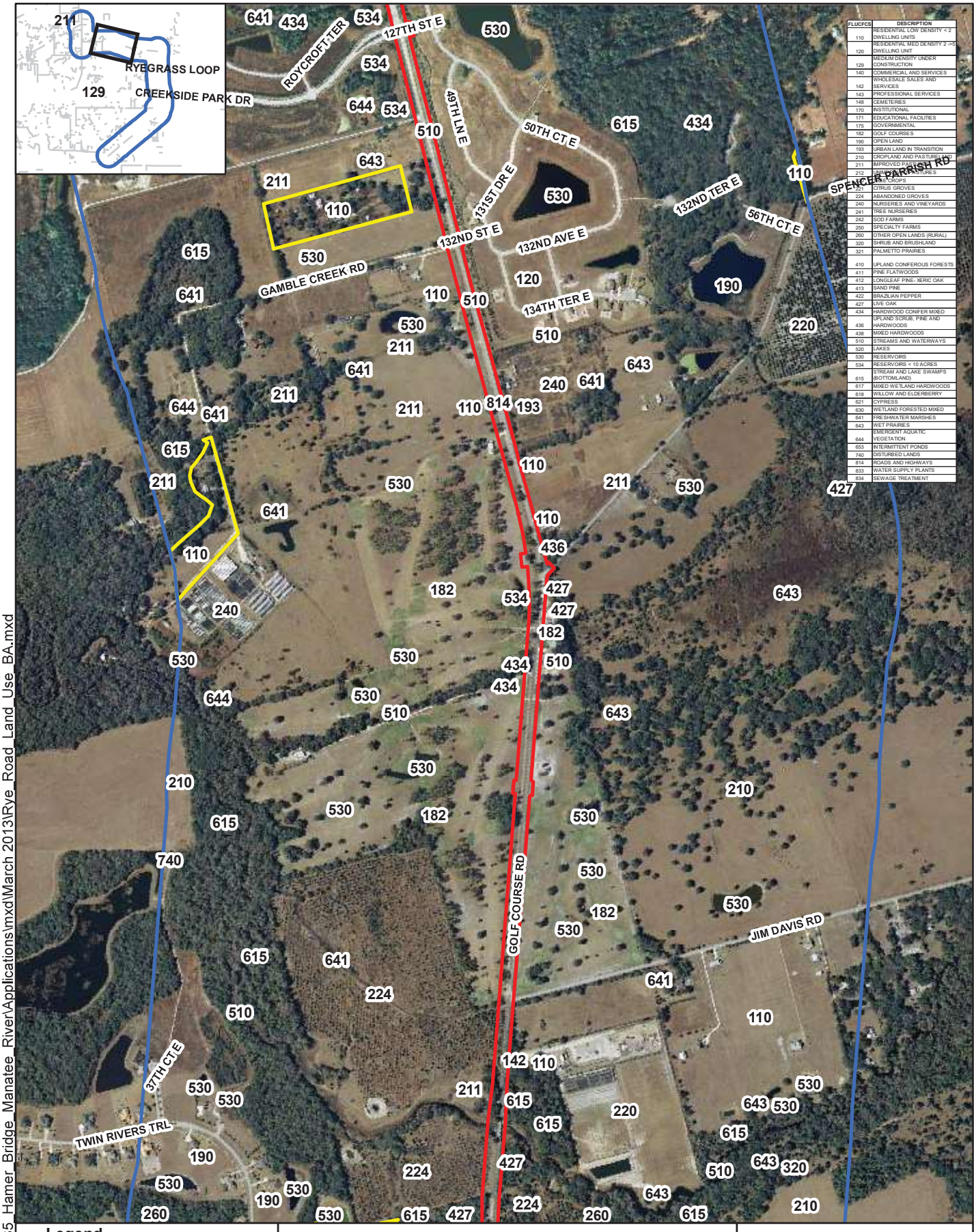
- Construction Limits
- Rye Road Alternative Study Area
- 814 FLUCFCS Boundary and Code

Sources:
Aerial- FDOT, 2011
FLUCFCS- SWFWMD, 2009 &
URS Field Reviews

Figure D5
Land Use/ Vegetative Communities within the Rye Road Alternative Study Area

W S N E

0 500 1,000 Feet



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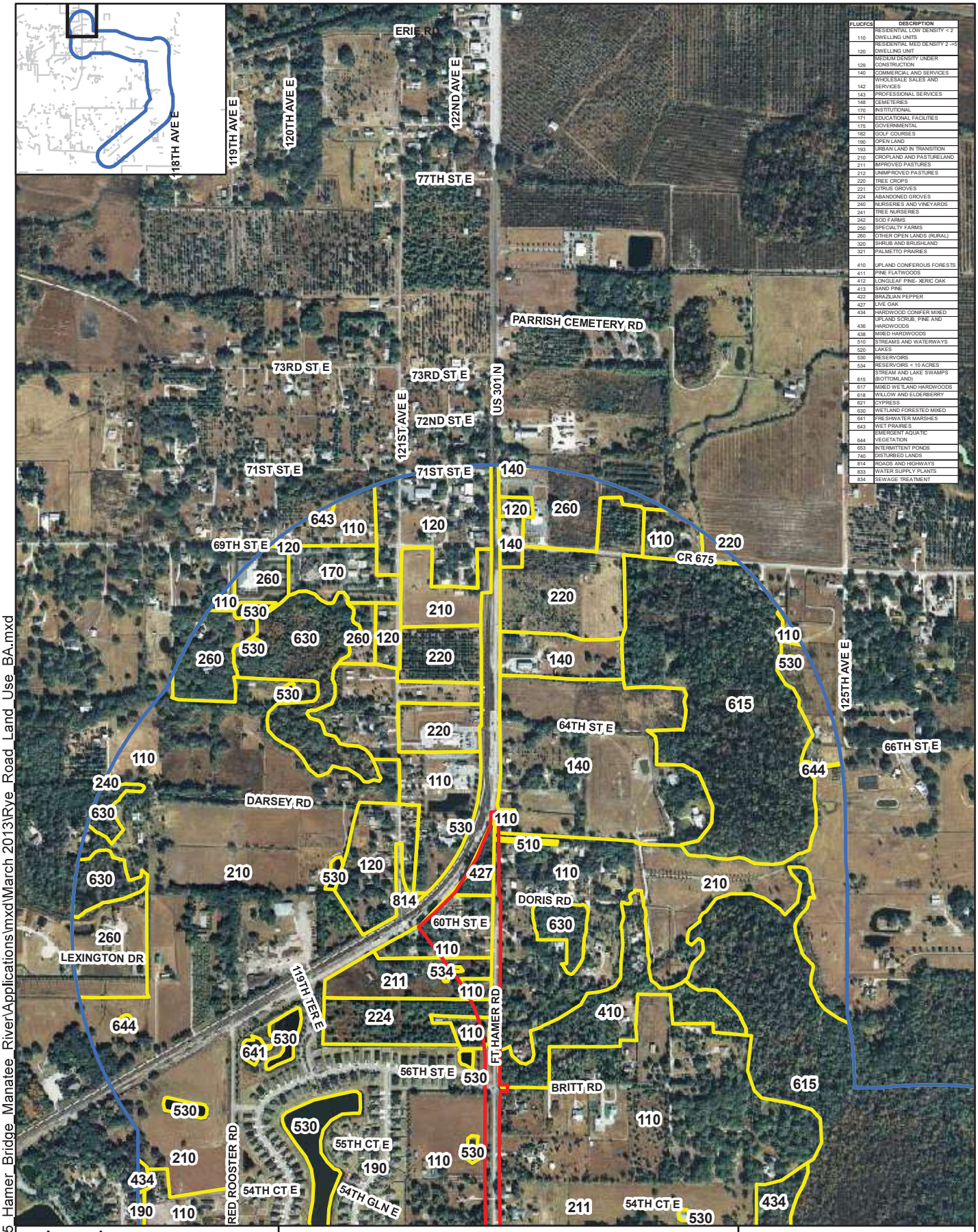
Legend

- Construction Limits
- Rye Road Alternative Study Area
- 814 FLUCFCS Boundary and Code

Sources:
Aerial- FDOT, 2011
FLUCFCS- SWFWMD, 2009 &
URS Field Reviews

Figure D6
Land Use/ Vegetative Communities within the Rye Road Alternative Study Area

0 500 1,000 Feet



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Legend

- Construction Limits
- Rye Road Alternative Study Area
- 814 FLUCFCS Boundary and Code

Sources:
Aerial- FDOT, 2011
FLUCFCS- SWFWMD, 2009 &
URS Field Reviews

Figure D7
Land Use/ Vegetative Communities within the Rye Road Alternative Study Area

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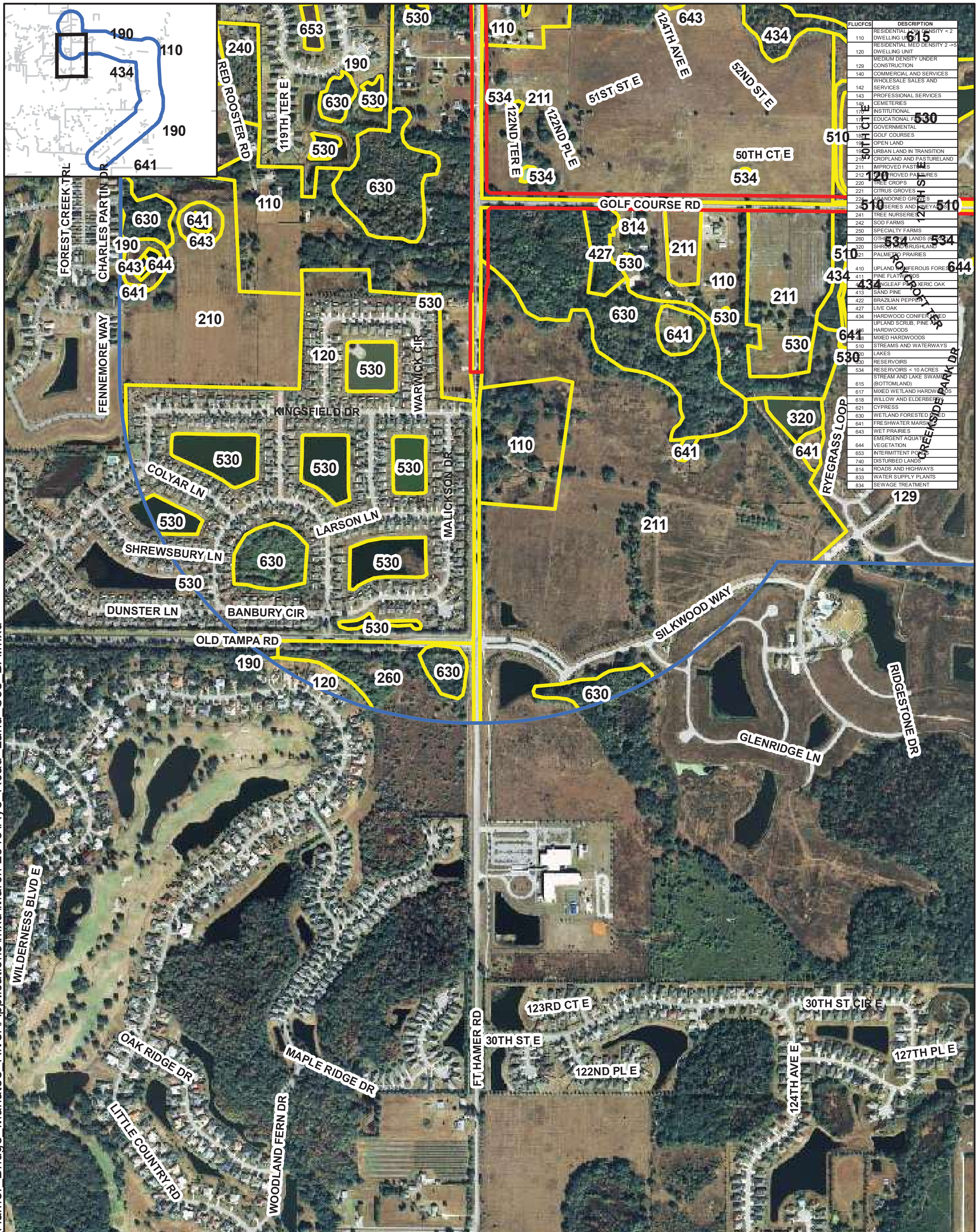
Feet



FLUCFCS	DESCRIPTION
110	RESIDENTIAL LOW DENSITY < 2 DWELLING UNITS
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833	WATER SUPPLY PLANTS
834	SEWAGE TREATMENT

Legend

- Construction Limits
- Rye Road Alternative Study Area
- 814 FLUCFCS Boundary and Code

Sources:
Aerial- FDOT, 2011
FLUCFCS- SWFWMD, 2009 &
URS Field Reviews

Path: I:\Projects\12009385_Hamer_Bridge_Manatee_River\Applications\mxd\March 2013\Rye_Road_Land_Use_BA.mxd

Figure D8
Land Use/ Vegetative Communities within the Rye Road Alternative Study Area

N E S W

0 500 1,000 Feet

Appendix E

Sea Turtle and Smalltooth Sawfish Construction Conditions

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Southeast Regional Office
263 13th Avenue South
St. Petersburg, FL 33701

SEA TURTLE AND SMALLTOOTH SAWFISH CONSTRUCTION CONDITIONS

The permittee shall comply with the following protected species construction conditions:

a. The permittee shall instruct all personnel associated with the project of the potential presence of these species and the need to avoid collisions with sea turtles and smalltooth sawfish. All construction personnel are responsible for observing water-related activities for the presence of these species.

b. The permittee shall advise all construction personnel that there are civil and criminal penalties for harming, harassing, or killing sea turtles or smalltooth sawfish, which are protected under the Endangered Species Act of 1973.

c. Siltation barriers shall be made of material in which a sea turtle or smalltooth sawfish cannot become entangled, be properly secured, and be regularly monitored to avoid protected species entrapment. Barriers may not block sea turtle or smalltooth sawfish entry to or exit from designated critical habitat without prior agreement from the National Marine Fisheries Service's Protected Resources Division, St. Petersburg, Florida.

d. All vessels associated with the construction project shall operate at "no wake/idle" speeds at all times while in the construction area and while in water depths where the draft of the vessel provides less than a four-foot clearance from the bottom. All vessels will preferentially follow deep-water routes (e.g., marked channels) whenever possible.

e. If a sea turtle or smalltooth sawfish is seen within 100 yards of the active daily construction/dredging operation or vessel movement, all appropriate precautions shall be implemented to ensure its protection. These precautions shall include cessation of operation of any moving equipment closer than 50 feet of a sea turtle or smalltooth sawfish. Operation of any mechanical construction equipment shall cease immediately if a sea turtle or smalltooth sawfish is seen within a 50-ft radius of the equipment. Activities may not resume until the protected species has departed the project area of its own volition.

f. Any collision with and/or injury to a sea turtle or smalltooth sawfish shall be reported immediately to the National Marine Fisheries Service's Protected Resources Division (727-824-5312) and the local authorized sea turtle stranding/rescue organization.

g. Any special construction conditions, required of your specific project, outside these general conditions, if applicable, will be addressed in the primary consultation.

Revised: March 23, 2006
O:\forms\Sea Turtle and Smalltooth Sawfish Construction Conditions.doc

Appendix F

Standard Protection Measures for the Eastern Indigo Snake

STANDARD PROTECTION MEASURES FOR THE EASTERN INDIGO SNAKE

1. An eastern indigo snake protection/education plan shall be developed by the applicant or requestor for all construction personnel to follow. The plan shall be provided to the Service for review and approval at least 30 days prior to any clearing activities. The educational materials for the plan may consist of a combination of posters, videos, pamphlets, and lectures (*e.g.*, an observer trained to identify eastern indigo snakes could use the protection/education plan to instruct construction personnel before any clearing activities occur). Informational signs should be posted throughout the construction site and along any proposed access road to contain the following information:

    a. a description of the eastern indigo snake, its habits, and protection under Federal Law;
    b. instructions not to injure, harm, harass or kill this species;
    c. directions to cease clearing activities and allow the eastern indigo snake sufficient time to move away from the site on its own before resuming clearing; and,
    d. telephone numbers of pertinent agencies to be contacted if a dead eastern indigo snake is encountered. The dead specimen should be thoroughly soaked in water and then frozen.

2. If not currently authorized through an Incidental Take Statement in association with a Biological Opinion, only individuals who have been either authorized by a section 10(a)(1)(A) permit issued by the Service, or by the State of Florida through the Florida Fish Wildlife Conservation Commission (FWC) for such activities, are permitted to come in contact with an eastern indigo snake.

3. An eastern indigo snake monitoring report must be submitted to the appropriate Florida Field Office within 60 days of the conclusion of clearing phases. The report should be submitted whether or not eastern indigo snakes are observed. The report should contain the following information:

    a. any sightings of eastern indigo snakes and
    b. other obligations required by the Florida Fish and Wildlife Conservation Commission, as stipulated in the permit.

Revised February 12, 2004

Appendix G

Standard Manatee Conditions for In-Water Work

STANDARD MANATEE CONDITIONS FOR IN-WATER WORK

2009

The permittee shall comply with the following conditions intended to protect manatees from direct project effects:

a. All personnel associated with the project shall be instructed about the presence of manatees and manatee speed zones, and the need to avoid collisions with and injury to manatees. The permittee shall advise all construction personnel that there are civil and criminal penalties for harming, harassing, or killing manatees which are protected under the Marine Mammal Protection Act, the Endangered Species Act, and the Florida Manatee Sanctuary Act.

b. All vessels associated with the construction project shall operate at "Idle Speed/No Wake" at all times while in the immediate area and while in water where the draft of the vessel provides less than a four-foot clearance from the bottom. All vessels will follow routes of deep water whenever possible.

c. Siltation or turbidity barriers shall be made of material in which manatees cannot become entangled, shall be properly secured, and shall be regularly monitored to avoid manatee entanglement or entrapment. Barriers must not impede manatee movement.

d. All on-site project personnel are responsible for observing water-related activities for the presence of manatee(s). All in-water operations, including vessels, must be shutdown if a manatee(s) comes within 50 feet of the operation. Activities will not resume until the manatee(s) has moved beyond the 50-foot radius of the project operation, or until 30 minutes elapses if the manatee(s) has not reappeared within 50 feet of the operation. Animals must not be herded away or harassed into leaving.

e. Any collision with or injury to a manatee shall be reported immediately to the FWC Hotline at 1-888-404-FWCC. Collision and/or injury should also be reported to the U.S. Fish and Wildlife Service in Jacksonville (1-904-731-3336) for north Florida or Vero Beach (1-772-562-3909) for south Florida.

f. Temporary signs concerning manatees shall be posted prior to and during all in-water project activities. All signs are to be removed by the permittee upon completion of the project. Awareness signs that have already been approved for this use by the Florida Fish and Wildlife Conservation Commission (FWC) must be used (see MyFWC.com). One sign which reads *Caution: Boaters* must be posted. A second sign measuring at least 81/2" by 11" explaining the requirements for "Idle Speed/No Wake" and the shut down of in-water operations must be posted in a location prominently visible to all personnel engaged in water-related activities.

CAUTION: MANATEE HABITAT

All project vessels

IDLE SPEED / NO WAKE

When a manatee is within 50 feet of work
all in-water activities must

SHUT DOWN

Report any collision with or injury to a manatee:

Wildlife Alert:

1-888-404-FWCC(3922)

cell *FWC or #FWC

DEPARTMENT OF HOMELAND SECURITY
U.S. COAST GUARD FINAL ENVIRONMENTAL IMPACT STATEMENT

FOR

PROPOSED NEW BRIDGE ACROSS THE MANATEE RIVER, MILE 15.0,
AT PARRISH, MANATEE COUNTY, FLORIDA

APPENDIX F

NOISE STUDY REPORT

JUNE 2013

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LIST OF APPENDICES

LIST OF TABLES

LIST OF FIGURES

METHODOLOGY

This traffic noise analysis was prepared in accordance with Title 23 Code of Federal Regulations (CFR) Part 772, *Procedures for Abatement of Highway Traffic Noise and Construction Noise*. The evaluation also uses methodologies established by the Florida Department of Transportation (FDOT) and documented in the *Project Development and Environment (PD&E) Manual*, Part 2, Chapter 17 (May 24, 2011). The predicted noise levels presented in this report are expressed in decibels (dB) on the A-weighted scale (dB(A)). This scale most closely approximates the response characteristics of the human ear to traffic noise. All noise levels are reported as equivalent levels (Leq(h)), which is the equivalent steady-state sound level that contains the same acoustic energy as a time-varying sound level over a period of 1 hour.

The noise analysis for this Environmental Impact Statement (EIS) was performed using the Federal Highway Administration's (FHWA's) computer model for highway traffic noise prediction and analysis – the Traffic Noise Model (TNM Version 2.5). The TNM propagates sound energy, in one-third octave bands, between highways and nearby receptors taking the intervening ground's acoustical characteristics/topography and other natural and manmade features into account.

Two build alternatives were analyzed for potential highway noise impacts:

- Upper Manatee River Road/Fort Hamer Road Alternative (Fort Hamer Alternative) and
- Rye Road/Golf Course Road/Fort Hamer Road Alternative (Rye Road Alternative).

Figure 1 depicts these alternatives.

TRAFFIC DATA

The existing and forecast future (year 2035) traffic data used in the TNM to predict noise levels within the Fort Hamer Alternative Study Area are presented in **Table 1**. Traffic data for the Rye Road Alternative Study Area is presented in **Table 2**. The study area of each build alternative is defined as the area contained within a 0.5-mile buffer of the alternative's centerline.

Because noise levels are low when traffic volumes are low [Level of Service (LOS) A or B] or when traffic is so congested that movement is slow (LOS D, E, or F), the maximum hourly noise level occurs between these two conditions. Therefore, traffic volumes used in the analysis reflect the demand volume (if forecast demand levels meet the LOS A or B criteria) or the design LOS C volumes, whichever is less. Vehicle speeds are based on posted speed limits.

FIGURE 1
RECOMMENDED ALTERNATIVES

TABLE 1
TRAFFIC DATA – FORT HAMER ALTERNATIVE

Roadway	Roadway Segment	Scenario	Demand AADT	LOS C ADT	Directional Split (%)	K (%)	Posted Speed (mph)
Upper Manatee River Road/Fort Hamer Road	Waterlefe Boulevard to Winding Stream Way	Existing 2011	5,500	12,375	59	10.0	45
		Future No-Build 2035	10,600	12,375	59	10.0	
		Future Build 2035	38,900	12,375	60	10.0	
Upper Manatee River Road/Fort Hamer Road	Winding Stream Way to River Isles/Hidden Harbour Entrance	Existing 2011	300	12,375	59	10.0	45
		Future No-Build 2035	2,100	12,375	60	10.0	
		Future Build 2035	39,100	12,375	60	10.0	

TABLE 2
TRAFFIC DATA – RYE ROAD ALTERNATIVE

Roadway	Roadway Segment	Scenario	Demand AADT	LOS C ADT	Directional Split (%)	K (%)	Posted Speed (mph)
Rye Road	SR 64 to Upper Manatee River Road	Existing 2011	5,700	12,300	60	10	55
		Future No-Build 2035	10,400	12,300	60	10	55
		Future Build 2035	23,200	32,000	60	10	45
Rye Road	Upper Manatee River Road to Golf Course Road	Existing 2011	2,800	12,300	60	10	55
		Future No-Build 2035	15,500	12,300	60	10	55
		Future Build 2035	28,000	32,000	60	10	45
Golf Course Road	Rye Road to Fort Hamer Road	Existing 2009	1,700	12,300	60	10	45
		Future No-Build 2035	10,600	12,300	60	10	
		Future Build 2035	25,800	32,000	60	10	
Fort Hamer Road	Golf Course Road to US 301	Existing 2011	1,900	12,300	60	10	45
		Future No-Build 2035	10,600	12,300	60	10	
		Future Build 2035	21,900	32,000	60	10	

NOISE-SENSITIVE SITES

Noise-sensitive sites are properties where frequent human use occurs and where a lowered noise level would be of benefit. To evaluate traffic noise, the FHWA established the Noise Abatement Criteria (NAC). As shown in **Table 3**, the criteria vary according to a property's activity category.

When predicted traffic noise levels "approach" or exceed the NAC, or when predicted noise levels increase substantially, the FHWA requires that noise abatement measures be considered. The term "approach" is considered to mean within 1 dB(A) of the NAC. This criteria was used to determine impacted receptors. For a substantial increase to occur, noise levels must increase 15 or more dB(A) above existing as a direct result of the transportation improvement project.

Within the Fort Hamer Alternative, 39 noise-sensitive sites were determined to have the potential to be affected by traffic noise with the proposed improvements. The 39 sites consist of 37 residences and a park (two sites). Within the Rye Road Alternative, 181 noise-sensitive sites were determined to have the potential to be affected by traffic noise with the proposed improvements. The 181 sites consist of 175 residences, an elementary school (Gene Witt Elementary School, two sites), and a park (Rye Preserve, four sites).

TABLE 3
FHWA NOISE ABATEMENT CRITERIA

Activity Category	Description	$L_{eq(h)}$[1]
A	Lands on which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose.	57 dB(A) (Exterior)
B[2]	Residential	67 dB(A) (Exterior)
C[2]	Active sports areas, amphitheaters, auditoriums, campgrounds, cemeteries, day care centers, hospitals, libraries, medical facilities, parks, picnic areas, places of worship, playgrounds, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, recreational areas, Section 4(f) sites, schools, television studios, trails, and trail crossings.	67 dB(A) (Exterior)
D	Auditoriums, day care centers, hospitals, libraries, medical facilities, places of worship, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, schools, and television studios.	52 dB(A) (Interior)
E[2]	Hotels, motels, offices, restaurants/bars, and other developed lands, properties or activities not included in A-D or F.	72 dB(A) (Exterior)
F	Agriculture, airports, bus yards, emergency services, industrial, logging, maintenance facilities, manufacturing, mining, rail yards, retail facilities, shipyards, utilities (water resources, water treatment, electrical), and warehousing.	N/A
G	Undeveloped lands that are not permitted.	N/A

(Based on Table 1 of 23 CFR Part 772)

[1] The $L_{eq(h)}$ Activity Criteria values are for impact determination only and are not design standards for noise abatement measures. $L_{eq(h)}$ is expressed in dB(A).

[2] Includes undeveloped lands permitted for this activity category.

Note: A substantial noise increase occurs when the existing noise level is predicted to be exceeded by 15 dB(A) or more as a result of the transportation improvement project. When this occurs, the requirement for abatement consideration will be followed.

All sites were considered as Activity Category B or C, and as such exterior noise levels were evaluated.

MEASURED NOISE LEVELS

Existing and future noise levels (with and without the Proposed Action) were modeled using the TNM. To ensure that these predictions are as accurate as possible, the computer model was validated using measured noise levels at locations adjacent to the project corridors. Traffic and meteorological data including motor vehicle volumes, vehicle mix, vehicle speeds, and wind/cloud conditions were recorded during each measurement period.

The field measurements for this EIS were conducted in accordance with the FHWA's *Measurement of Highway-Related Noise*. The field measurements were obtained using a Metrosonics dB-3100. The Dosimeter was calibrated before and after each monitoring period with a Metrosonics cl-304 Calibrator.

The recorded traffic data were used as input for the TNM to determine if, given the topography and actual site conditions of the area, the computer model could "re-create" the measured levels. A noise prediction model is considered within the accepted level of accuracy if measured and predicted noise levels are within a tolerance standard of 3 dB(A).

Table 4 presents the field measurements and the validation results for the Fort Hamer Alternative. As shown, the ability of the model to accurately predict noise levels for the project was confirmed. Documentation in support of the validation is located in Appendix B.

TABLE 4
VALIDATION DATA – FORT HAMER ALTERNATIVE

Location	Measurement Period	Noise Level (dB(A))			Valid
		Modeled	Measured	Difference	
Upper Manatee River Road	1	60.0	57.9	2.1	Yes
	2	60.5	58.2	2.3	Yes
	3	59.7	58.2	1.5	Yes
Fort Hamer Road	1	45.8	48.7	-2.9	Yes
	2	46.6	48.0	-1.4	Yes
	3	47.1	48.9	-1.8	Yes

Source: URS Corporation.

Table 5 presents the field measurements and the validation results for the Rye Road Alternative. As shown, the ability of the model to accurately predict noise levels for the project was confirmed. Documentation in support of the validation is located in Appendix B.

TABLE 5
VALIDATION DATA – RYE ROAD ALTERNATIVE

Location	Measurement Period	Noise Level (dB(A))			Valid
		Modeled	Measured	Difference	
Rye Road at Country Creek	1	62.0	60.6	1.4	Yes
	2	61.7	60.6	1.1	Yes
	3	62.7	61.1	1.6	Yes
Golf Course Road west of 167th Avenue East	1	56.0	53.7	2.3	Yes
	2	56.7	54.0	2.7	Yes
	3	57.6	55.9	1.7	Yes

Source: URS Corporation.

RESULTS OF THE NOISE ANALYSIS

Table 6 details the results of the traffic noise analysis for the proposed improvements to the Fort Hamer Alternative. Since the portion of the road between Receptors 13W to 35W and at Receptor 4E is on new alignment, measured background noise levels were used to represent existing and No-Build Alternative noise levels for these receptor sites. These measured noise levels are denoted by an asterisk (*). Documentation supporting the measured background levels is included in Appendix B. Aerial maps showing the locations of the noise-sensitive receptors are included in Appendix A.

TABLE 6
EXISTING/FUTURE NO-BUILD/FUTURE BUILD NOISE LEVELS
FORT HAMER ALTERNATIVE

Receptor	Number of Residences Represented	Activity Category	Existing (2011) Levels (dB(A))	Future 2035 No-Build Levels (dB(A))	Future 2035 Build Levels (dB(A))	Increase/ Decrease Existing to Future Build	Level Approaches, Meets, or Exceeds NAC	Substantial Increase
1W	1	Residential	37.5	40.4	42.6	5.1	No	No
2W	1	Residential	38.3	41.2	43.4	5.1	No	No
3W	1	Residential	39.2	42.1	44.5	5.3	No	No
4W	1	Residential	39.5	42.3	44.8	5.3	No	No
5W	1	Residential	39.6	42.4	44.9	5.3	No	No
6W	1	Residential	41.4	44.3	46.7	5.3	No	No
7W	1	Residential	40.4	43.2	45.6	5.2	No	No
8W	1	Residential	39.7	42.6	45.1	5.4	No	No
9W	1	Residential	39.7	42.5	45	5.3	No	No
10W	1	Residential	38.9	41.8	44.3	5.4	No	No
11W	1	Residential	38.1	40.9	43.5	5.4	No	No
12W	1	Residential	47.8	50.7	52.7	4.9	No	No
13W	1	Residential	44.5*	44.5*	62	17.5	No	Yes
14W	1	Residential	44.5*	44.5*	56.5	12	No	No
15W	1	Residential	44.5*	44.5*	53.6	9.1	No	No
16W	1	Residential	44.5*	44.5*	51.8	7.3	No	No
17W	1	Residential	44.5*	44.5*	50.7	6.2	No	No
18W	1	Residential	44.5*	44.5*	48.9	4.4	No	No
19W	1	Residential	44.5*	44.5*	55.8	11.3	No	No
20W	1	Residential	44.5*	44.5*	51.5	7	No	No
21W	1	Residential	44.5*	44.5*	50	5.5	No	No
22W	1	Residential	44.5*	44.5*	48.5	4	No	No
23W	1	Residential	44.5*	44.5*	56.9	12.4	No	No
24W	1	Residential	44.5*	44.5*	54.7	10.2	No	No
25W	1	Residential	44.5*	44.5*	51.6	7.1	No	No
26W	1	Residential	44.5*	44.5*	47.3	2.8	No	No
27W	1	Residential	44.5*	44.5*	47.5	3	No	No
28W	1	Residential	44.5*	44.5*	47.6	3.1	No	No
29W	1	Residential	44.5*	44.5*	48.2	3.7	No	No
30W	1	Residential	44.5*	44.5*	49.1	4.6	No	No
31W	1	Residential	44.5*	44.5*	51.2	6.7	No	No
32W	1	Residential	44.5*	44.5*	50.7	6.2	No	No
33W	1	Residential	44.5*	44.5*	48.4	3.9	No	No
34W	1	Park	48.2*	48.2*	53	4.8	No	No
35W	1	Park	48.2*	48.2*	53.2	5	No	No
1E	1	Residential	43.2	46	48.2	5	No	No
2E	1	Residential	51.7	54.5	56.4	4.7	No	No
3E	1	Residential	54.5	57.4	51.9	2.6	No	No
4E	1	Residential	44.5*	44.5*	55.9	11.4	No	No

* Measured background level.

As shown, existing exterior traffic noise levels are predicted to range from 37.5 to 54.5 dB(A). The results of the analysis indicate that existing traffic noise levels did not approach, meet, or exceed the NAC at any of the noise-sensitive receptors.

As also shown, in the future (year 2035) without the proposed improvements (No-Build Alternative), exterior traffic noise levels are predicted to range from 40.4 to 57.4 dB(A). These levels do not approach, meet, or exceed the NAC.

Finally, with the proposed improvements (2035 Build), exterior traffic noise levels are predicted to range from 42.6 to 62.0 dB(A) at the 39 noise-sensitive sites evaluated. These levels do not approach, meet, or exceed the NAC. The results also indicate that one site (13W) is predicted to experience noise levels that substantially exceed existing noise levels (an increase of 15 dB(A) or more).

Note that traffic noise levels at Fort Hamer Park are not expected to approach, meet, or exceed NAC under the existing condition or in the future with either the two build alternatives or the No-Build Alternatives.

Table 7 details the results of the traffic noise analysis for the proposed improvements to the Rye Road Alternative. As shown, existing exterior traffic noise levels are predicted to range from 40.8 to 61.5 dB(A). The results of the analysis indicate that existing traffic noise levels did not approach, meet, or exceed the NAC at any of the noise-sensitive receptors.

TABLE 7
EXISTING (YEAR 2010) AND FUTURE (YEAR 2035) NO-BUILD AND BUILD NOISE LEVELS
RYE ROAD ALTERNATIVE

Receiver	Number of Residences Represented	Activity Category	Traffic Noise Levels (dB(A))			Increase/ Decrease Existing to Build	Build Approaches, Meets, or Exceeds NAC	Build Level Increases Substantially
			Existing (2011)	Future (2035)				
				No-Build	Build			
1	1	Residential	60.7	63.3	67.8	7.1	Yes	No
2	1	Residential	55.3	57.9	61.1	5.8	No	No
3	1	Residential	52.8	55.4	58.5	5.7	No	No
4	1	Residential	51.9	54.5	57.6	5.7	No	No
5	1	Residential	59.1	61.8	65.9	6.8	No	No
6	1	Residential	54.7	57.4	60.6	5.9	No	No
7	1	Residential	51.9	54.5	57.6	5.7	No	No
8	1	Residential	50.1	52.7	55.8	5.7	No	No
9	1	Residential	48.3	50.9	53.8	5.5	No	No
10	1	Residential	55.4	58	61.5	6.1	No	No
11	1	Residential	50.2	52.9	56.1	5.9	No	No
12	1	Residential	47.7	50.3	53.2	5.5	No	No
13	1	Residential	56.9	59.5	63.3	6.4	No	No
14	1	Residential	55	57.6	61.1	6.1	No	No
15	1	Residential	54.4	57	60.4	6	No	No
16	1	Residential	55.1	57.7	61.3	6.2	No	No

TABLE 7 (CONTINUED)
EXISTING (YEAR 2010) AND FUTURE (YEAR 2035) NO-BUILD AND BUILD NOISE LEVELS
RYE ROAD ALTERNATIVE

Receiver	Number of Residences Represented	Activity Category	Traffic Noise Levels (dB(A))			Increase/ Decrease Existing to Build	Build Approaches, Meets, or Exceeds NAC	Build Level Increases Substantially
			Existing (2011)	Future (2035)				
				No-Build	Build			
17	1	Residential	55.2	57.9	61.5	6.3	No	No
18	1	Residential	56.3	59	62.8	6.5	No	No
19	1	Residential	48.3	51	54.4	6.1	No	No
20	1	Residential	47.8	50.4	53.8	6	No	No
21	1	Residential	61.5	64.2	69	7.5	Yes	No
22	1	Residential	53.7	56.4	59.9	6.2	No	No
23	1	Residential	49.9	52.5	56.1	6.2	No	No
24	1	Residential	48.3	50.9	54.5	6.2	No	No
25	1	Residential	57.8	60.4	64.3	6.5	No	No
26	1	Residential	50.8	53.4	56.9	6.1	No	No
27	1	Residential	47.3	50	53.4	6.1	No	No
28	1	Residential	47.2	49.8	53.3	6.1	No	No
29	1	Residential	58.3	60.9	64.8	6.5	No	No
30	1	Residential	55.7	58.3	61.9	6.2	No	No
31	1	Residential	55.3	57.9	61.4	6.1	No	No
32	1	Residential	52.1	54.7	58	5.9	No	No
33	1	Residential	49	51.6	55	6	No	No
34	1	Residential	61.1	63.9	65.6	4.5	No	No
35	1	Residential	55.4	58.1	60.8	5.4	No	No
36	1	Residential	53.2	55.9	58.5	5.3	No	No
37	1	Residential	51.6	54.2	56.9	5.3	No	No
38	1	Residential	60.2	62.9	64.7	4.5	No	No
39	1	Residential	54.7	57.4	59.9	5.2	No	No
40	1	Residential	50.9	53.6	56.4	5.5	No	No
41	1	Residential	49.3	52	54.9	5.6	No	No
42	1	Residential	54.2	56.9	59.5	5.3	No	No
43	1	Residential	56.4	59.2	61.9	5.5	No	No
44	1	Residential	54.9	57.6	60.3	5.4	No	No
45	1	Residential	58.6	61.3	63.4	4.8	No	No
47	1	Residential	48.9	51.5	55.1	6.2	No	No
48	1	Residential	51.2	53.9	57.2	6	No	No
49	1	Residential	55.9	58.5	62	6.1	No	No
50	1	Residential	57.1	59.7	63.3	6.2	No	No
51	1	Residential	53.4	56	59.2	5.8	No	No
52	1	Residential	49	51.6	55	6	No	No
53	1	Residential	49	51.6	53.1	4.1	No	No
54	1	Residential	51.9	54.5	58.1	6.2	No	No
55	1	Residential	49.1	51.7	54.8	5.7	No	No
56	1	Residential	47.1	49.7	52.8	5.7	No	No
57	1	Residential	47.5	50.2	52.8	5.3	No	No
58	1	Residential	47.6	50.2	53	5.4	No	No

TABLE 7 (CONTINUED)
EXISTING (YEAR 2010) AND FUTURE (YEAR 2035) NO-BUILD AND BUILD NOISE LEVELS
RYE ROAD ALTERNATIVE

Receiver	Number of Residences Represented	Activity Category	Traffic Noise Levels (dB(A))			Increase/ Decrease Existing to Build	Build Approaches, Meets, or Exceeds NAC	Build Level Increases Substantially
			Existing (2011)	Future (2035)				
				No-Build	Build			
59	1	Residential	48.4	51	53.8	5.4	No	No
60	1	Residential	49	51.6	54.4	5.4	No	No
61	1	Residential	49.8	52.4	55.3	5.5	No	No
62	1	Residential	50.9	53.6	56.8	5.9	No	No
63	1	Residential	51.7	54.3	57.9	6.2	No	No
64	1	Residential	52.5	55.1	58.8	6.3	No	No
65	1	Residential	53.6	56.2	60.1	6.5	No	No
66	1	Residential	53.1	55.7	59.5	6.4	No	No
67	1	Residential	52.7	55.3	59	6.3	No	No
68	1	Residential	52	54.6	58.3	6.3	No	No
69	1	Residential	51.1	53.7	57.2	6.1	No	No
70	1	Residential	50	52.6	56.1	6.1	No	No
71	1	Residential	49.1	51.7	55.1	6	No	No
72	1	Residential	48.1	50.8	54.1	6	No	No
73	1	Residential	47.2	49.8	53.6	6.4	No	No
74	1	Residential	55.1	57.7	68.3	13.2	Yes	No
75	1	Residential	53	55.6	61	8	No	No
76	1	Residential	51.1	53.7	57.9	6.8	No	No
77	1	Residential	49.3	52	55.7	6.4	No	No
78	1	Residential	48.5	51.2	54.6	6.1	No	No
79	1	Residential	55.5	58.1	66.1	10.6	Yes	No
80	1	Residential	53	55.6	60.1	7.1	No	No
81	1	Residential	50	52.7	56.5	6.5	No	No
82	1	Residential	48.9	51.5	55.3	6.4	No	No
83	1	School	57.8	60.4	62.1	4.3	No	No
84	1	School	45.6	48.2	50.9	5.3	No	No
85	1	Residential	54.2	56.9	59.7	5.5	No	No
86	1	Residential	49.4	52.1	55.2	5.8	No	No
87	1	Residential	51.3	54	56.8	5.5	No	No
88	1	Residential	51.7	54.3	57.1	5.4	No	No
89	1	Residential	49.3	52	55	5.7	No	No
90	1	Residential	49.3	51.6	54.6	5.3	No	No
91	1	Residential	49.5	51.8	55.1	5.6	No	No
93	1	Residential	56.1	58.2	59.1	3	No	No
94	1	Residential	48.9	51.4	53.6	4.7	No	No
95	1	Residential	48.8	51.4	53.8	5	No	No
96	1	Residential	50.7	53.3	55.6	4.9	No	No
97	1	Residential	55.3	57.9	57.6	2.3	No	No
98	1	Residential	48.9	51.6	53.9	5	No	No
99	1	Residential	48.7	51.3	54	5.3	No	No
101	1	Residential	50.8	53.5	55.7	4.9	No	No

TABLE 7 (CONTINUED)
EXISTING (YEAR 2010) AND FUTURE (YEAR 2035) NO-BUILD AND BUILD NOISE LEVELS
RYE ROAD ALTERNATIVE

Receiver	Number of Residences Represented	Activity Category	Traffic Noise Levels (dB(A))			Increase/ Decrease Existing to Build	Build Approaches, Meets, or Exceeds NAC	Build Level Increases Substantially
			Existing (2011)	Future (2035)				
				No-Build	Build			
102	1	Residential	55.4	58.1	59.8	4.4	No	No
103	1	Residential	54.6	57.6	58.9	4.3	No	No
104	1	Residential	54.8	57.5	58.9	4.1	No	No
105	1	Residential	54.7	57.5	59	4.3	No	No
106	1	Residential	54.3	57	58.9	4.6	No	No
107	1	Residential	48.9	51.6	53.9	5	No	No
108	1	Residential	48.4	51.1	53.4	5	No	No
109	1	Residential	48.5	51.3	53.4	4.9	No	No
110	1	Residential	48.3	51	53.3	5	No	No
111	1	Residential	54.4	57.1	59.4	5	No	No
112	1	Residential	52.5	55.2	57.3	4.8	No	No
113	1	Residential	49.1	51.8	54.3	5.2	No	No
114	1	Residential	47.4	50.1	52.7	5.3	No	No
115	1	Residential	49.4	52.1	56.2	6.8	No	No
116	1	Park	57.7	62.5	62.8	5.1	No	No
117	1	Park	59.5	64.8	64.7	5.2	No	No
118	1	Park	53.7	61.2	62.2	8.5	No	No
119	1	Park	46.5	54.2	55.2	8.7	No	No
121	1	Residential	56.4	62.5	64.7	8.3	No	No
122	2	Residential	58.1	64.3	67.2	9.1	Yes	No
123	1	Residential	59	65.3	68.8	9.8	Yes	No
124	1	Residential	59.3	65.4	68.6	9.3	Yes	No
125	1	Residential	59.5	65.6	68.8	9.3	Yes	No
126	1	Residential	51.5	57.7	59.6	8.1	No	No
127	1	Residential	44.9	51.4	54	9.1	No	No
128	1	Residential	53.9	60.4	61.7	7.8	No	No
129	1	Residential	49.9	56.5	59.8	9.9	No	No
130	1	Residential	55.9	62.5	66.6	10.7	Yes	No
131	1	Residential	52.3	58.7	61.9	9.6	No	No
132	1	Residential	51.9	58.4	61.6	9.7	No	No
133	1	Residential	48.4	55	57	8.6	No	No
134	1	Residential	48.5	55	56.7	8.2	No	No
135	1	Residential	51.6	58.1	58.7	7.1	No	No
136	1	Residential	50.1	56.6	57.6	7.5	No	No
137	1	Residential	52.2	58.7	59.4	7.2	No	No
138	1	Residential	47.9	54.5	56.7	8.8	No	No
139	1	Residential	46.1	52.6	55.1	9	No	No
140	1	Residential	50.1	56.7	58.7	8.6	No	No
141	1	Residential	46.9	53.6	56.4	9.5	No	No
142	1	Residential	48	54.6	57.3	9.3	No	No
143	1	Residential	49.2	55.9	58.6	9.4	No	No

TABLE 7 (CONTINUED)
EXISTING (YEAR 2010) AND FUTURE (YEAR 2035) NO-BUILD AND BUILD NOISE LEVELS
RYE ROAD ALTERNATIVE

Receiver	Number of Residences Represented	Activity Category	Traffic Noise Levels (dB(A))			Increase/ Decrease Existing to Build	Build Approaches, Meets, or Exceeds NAC	Build Level Increases Substantially
			Existing (2011)	Future (2035)				
				No-Build	Build			
144	1	Residential	52.2	59.4	63.1	10.9	No	No
145	1	Residential	50.5	57.1	54.1	3.6	No	No
146	1	Residential	47.1	54.5	58.4	11.3	No	No
147	1	Residential	45.2	52.9	58.2	13	No	No
148	1	Residential	49	56.9	63.7	14.7	No	No
149	1	Residential	50.4	58.3	64.8	14.4	No	No
150	1	Residential	49.3	57.2	62.9	13.6	No	No
151	1	Residential	42.6	50.4	56	13.4	No	No
152	1	Residential	46.7	54.6	60.7	14	No	No
153	1	Residential	42.7	50.6	56.4	13.7	No	No
154	1	Residential	48.4	56.4	63.4	15	No	Yes
155	1	Residential	45.2	53.2	60.1	14.9	No	No
156	1	Residential	40.8	48.7	52.9	12.1	No	No
157	1	Residential	51.8	59.7	63.4	11.6	No	No
158	1	Residential	52.9	60.8	64.9	12	No	No
159	1	Residential	50.1	58	61.7	11.6	No	No
160*	1	Commercial	54.8	62.7	66.2	11.4	N/A	N/A
161*	1	Commercial	57.9	65.8	69.2	11.3	N/A	N/A
162	1	Residential	51	58.9	65.1	14.1	No	No
163	1	Residential	49.7	57.7	64.8	15.1	No	Yes
164	1	Residential	42.8	50.7	56.1	13.3	No	No
165	1	Residential	52.7	60.7	62.8	10.1	No	No
166	1	Residential	46.3	54.2	57.2	10.9	No	No
167	1	Residential	45.2	49.6	53.8	8.6	No	No
168	1	Residential	45.2	53.1	57.9	12.7	No	No
169	1	Residential	46.9	54.6	58	11.1	No	No
170	1	Residential	52.6	60.2	58.8	6.2	No	No
171	1	Residential	55.3	62.8	63.4	8.1	No	No
172	1	Residential	47.2	54.8	64.7	17.5	No	Yes
173	1	Residential	47.4	55.1	57.8	10.4	No	No
174	1	Residential	53.2	60.8	57.9	4.7	No	No
175	1	Residential	46.4	54	62.9	16.5	No	Yes
176	1	Residential	44.3	52	56.6	12.3	No	No
177	1	Residential	51.9	59.4	55.1	3.2	No	No
178	1	Residential	50.1	57.7	60.4	10.3	No	No
179	1	Residential	52	59.6	61.1	9.1	No	No
180	1	Residential	53.1	60.7	61.8	8.7	No	No
181	1	Residential	51.9	59.5	58.7	6.8	No	No
182	1	Residential	45.2	52.8	56.7	11.5	No	No
183	1	Residential	52.3	59.9	66.1	13.8	Yes	No
184	1	Residential	48.4	56.1	56	7.6	No	No

TABLE 7 (CONTINUED)
EXISTING (YEAR 2010) AND FUTURE (YEAR 2035) NO-BUILD AND BUILD NOISE LEVELS
RYE ROAD ALTERNATIVE

Receiver	Number of Residences Represented	Activity Category	Traffic Noise Levels (dB(A))			Increase/ Decrease Existing to Build	Build Approaches, Meets, or Exceeds NAC	Build Level Increases Substantially
			Existing (2011)	Future (2035)				
				No-Build	Build			
185	1	Residential	46.2	53.8	57.3	11.1	No	No
186	1	Residential	43.4	51.1	59.9	16.5	No	Yes

* These sites were identified as vacant commercial landscape/nursery structures, and as such, were not evaluated for noise abatement measures.

As also shown, in the future (year 2035) without the proposed improvements (No-Build Alternative), exterior traffic noise levels are predicted to range from 48.2 to 65.6 dB(A), none of which approach, meet, or exceed the NAC.

Results for the design (year 2035) Rye Road Alternative indicate that exterior noise levels are predicted to range from 52.7 to 69.2 dB(A) at 183 noise-sensitive sites with levels predicted to approach, meet, or exceed the NAC at 13 noise-sensitive sites. As indicated in Table 7, Sites 160 and 161, that exceeded NAC, were field verified and identified as abandoned commercial landscape/nursery structures. As such, these sites were not evaluated for noise abatement. Of the remaining 11 impacted sites, two are residences in Mill Creek subdivision (Sites 1 and 21), two are residences in Country Creek (Sites 74 and 79), five are residences in Rye Acres (Sites 122-125), and two are considered scattered residences (Sites 130 and 183). Additionally, traffic noise levels for five noise-sensitive sites (Sites 154, 163, 172, 175, and 186) are predicted to increase substantially as a result of the Rye Road Alternative. All are scattered single-family residences.

Note that traffic noise levels at Rye Preserve are not expected to approach, meet, or exceed NAC under the existing condition or in the future with either of the two build alternatives or the No-Build Alternative.

Aerial maps showing the locations of the noise-sensitive receptors are included in Appendix A.

EVALUATION OF NOISE ABATEMENT ALTERNATIVES

The FHWA requires that noise abatement measures be considered when predicted traffic noise levels approach or exceed the NAC. The measures considered for the FHWA's Fort Hamer Bridge PD&E Study were traffic management, alternative roadway alignment, buffer zones, and noise barriers. The following discusses the feasibility (e.g., amount of noise reduction, engineering considerations) and reasonableness (e.g., number of noise-sensitive sites benefited, absolute noise levels, cost, etc.) of the measures.

Traffic Management

Traffic management measures that limit motor vehicle speeds and reduce volumes can be effective noise mitigation measures. However, these measures also negate a project's ability to accommodate forecast traffic volumes. For example, if the posted speed were reduced, the capacity of the roadway to handle the forecast motor vehicle demand would also be reduced. Therefore, reducing traffic speeds and/or traffic volumes is inconsistent with the goal of improving the ability of the roadway to handle the forecast volumes. Although feasible, traffic management measures are not considered a reasonable noise mitigation measure for the project.

Alternative Roadway Alignment

The proposed alignment seeks to minimize the need for additional right-of-way (ROW) within the project corridor. Maintaining the alignment within the existing ROW, where feasible, will minimize impacts to surrounding noise-sensitive sites located both east and west of the roadway.

Noise Buffer Zones

Providing a buffer between a roadway and future noise-sensitive land uses is an abatement measure that can minimize/eliminate noise impacts in areas of future development. To encourage use of this abatement measure through local land use planning, noise contours have been developed and are further discussed under the Noise Contours section at the end of this report.

Noise Barriers

Noise barriers have the potential to reduce noise levels by blocking the sound path between the motor vehicles on the roadway (the source) and the noise-sensitive sites adjacent to the roadway. To be effective in reducing traffic noise, a noise barrier must be relatively long, continuous (without intermittent openings), and sufficiently tall to provide the necessary reduction in noise levels. In order for a barrier to be considered both feasible and reasonable, the barrier should:

1. Provide a minimum insertion loss (IL) or noise reduction of 5 dB(A) with a design goal of 7 dB(A) or more being desirable,

2. Cost no more than $42,000 per benefited receptor (a benefited receptor is a site that receives at least a 5 dB(A) reduction in noise from the barrier), and

3. Benefit at least two impacted noise sensitive receptors, with one or more meeting the design goal of 7 dB(A).

The current estimated cost to construct a noise barrier (materials and labor) is $30.00 per square foot.

Feasibility factors that relate to noise barriers include driver/pedestrian sight distance (safety), ingress and egress requirements to and from affected properties, ROW requirements including

access rights and easements for construction and/or maintenance, impacts on existing/planned utilities, and drainage.

After considering the amount of reduction that may be provided and the cost reasonableness, additional factors must also be considered when evaluating a noise barrier as a potential noise abatement measure. These factors address both the feasibility of a barrier (given site-specific details, can a barrier actually be constructed) and the reasonableness of a barrier.

Reasonableness factors can include:

- The relationship of the predicted future noise levels to the NAC (do the predicted levels approach, meet, or far surpass the NAC);
- Land use stability (are the noise-sensitive land uses likely to remain for an indefinite period of time);
- Antiquity (the amount of development that has occurred before and after the initial construction of a roadway);
- The desires of the affected property owners to have a noise barrier adjacent to their property; and
- Aesthetics.

NOISE BARRIER ANALYSIS

The TNM (Version 2.5) was used to evaluate the effectiveness of noise barriers to reduce traffic noise levels at the affected noise-sensitive sites. The noise barrier lengths were optimized to maintain at least a 5 dB(A) reduction at the affected receivers while reducing excess barrier length.

As previously stated, during the year 2035 with the proposed improvements (the two build alternatives), noise levels are predicted to approach, meet or exceed the NAC at 11 sites (along the Rye Road Alternative), and traffic noise levels are predicted to increase substantially at six noise-sensitive sites (one on the Fort Hamer Alternative and five on the Rye Road Alternative). The following discusses the feasibility and reasonableness of providing noise barriers for the 17 affected noise-sensitive sites.

Fort Hamer Road Alternative

As previously stated, traffic noise levels are not predicted to approach, meet, or exceed the NAC at any of the noise-sensitive sites along the Fort Hamer Alternative. One noise-sensitive site was predicted to experience a substantial increase in traffic noise levels – Receptor 13W located on Winding Stream Way at the back entrance into the Waterlefe subdivision. However, in order for a noise barrier to be considered feasible, two or more impacted receptors must achieve a 5 dB(A) or greater reduction. No other receptors are impacted; therefore, a noise barrier is not considered a feasible noise abatement measure at this location.

Rye Road Alternative

As previously stated, during the design year 2035 for the Rye Road Alternative, traffic noise levels are predicted to approach, meet, or exceed the NAC at 11 sites, of which 10 sites are located along Rye Road and the remaining site is on Fort Hamer Road. In addition, traffic noise levels are predicted to increase substantially at five noise-sensitive sites, two on Golf Course Road, and three on Fort Hamer Road. Barriers were not modeled for Receptors 1, 21, 74, 79, 130, 154, 163, 172, 175, 183, and 186 because they are single impacted receptors (no other nearby receptors are impacted) and, as such, barriers are not considered reasonable. One noise barrier was analyzed for the Rye Road Alternative, at Rye Acres.

Barrier 1E: Residences at Rye Acres Subdivision

Barrier 1E was evaluated for the five affected residences (Receptors 122-125) located in the Rye Acres subdivision along the east side of Rye Road approximately 1 mile south of Golf Course Road. Receptor 122 represents two residences. The predicted future noise levels are as follows: Receptor 122 - 67.2 dB(A) (two sites), Receptor 123 - 68.8 dB(A), Receptor 124 - 68.6 dB(A), and Receptor 125 - 68.8 dB(A). A noise barrier was evaluated located 5 feet inside the east ROW line for Rye Road. The length of the barrier was optimized within the TNM in an attempt to provide at least 5 dBA of traffic noise reduction and to meet the design goal of at least 7 dB(A) of traffic noise reduction for at least two of the affected residences. The height of the barrier was evaluated from 8 to 22 feet in 2-foot increments.

The affected residences are located somewhat closely together facing the highway with driveways opening directly on the highway. As such, the barrier included openings for these driveways, which reduced the overall effectiveness of the barrier.

The results of Barrier 1E are provided in **Table 8**. As shown, the desired goal of reducing predicted traffic noise levels by 7 dB(A) or more could be achieved for a wall height of 16 feet at the two sites designated as Receptor 122. One additional receptor, Receptor 121, received a benefit of 5.5 dB(A). At a height of 16 feet, the total cost to construct the barrier is $546,232 and the cost per benefitted receptor is $136,558. The cost per benefitted receiver greatly exceeds the cost reasonable guideline, therefore, Barrier Rye 1E is not considered reasonable.

TABLE 8
BARRIER 1E: RESIDENCES AT RYE ACRES SUBDIVISION
(SITES 121-125)

Barrier Height (ft)	Affected Residences with Insertion Loss of (dB(A))						Number of Benefited Residences			Total Estimated Cost**	Cost Per Benefited Residence	Cost Reasonable Yes/No
	5	6	7	8	9	10 or >	Affected	Other*	Total			
8	0	0	0	0	0	0	0	0	0	NA	NA	No
10	1	2	0	0	0	0	3	0	3	$341,395	$113,798	No
12	2	2	0	0	0	0	3	1	4	$409,674	$102,419	No
14	1	3	0	0	0	0	3	1	4	$477,953	$119,488	No
16	1	1	2	0	0	0	3	1	4	$546,232	$136,558	No
18	1	1	2	0	0	0	3	1	4	$614,511	$153,628	No
20	1	1	2	0	0	0	3	1	4	$682,790	$170,698	No
22	1	1	2	0	0	0	3	1	4	$751,069	$187,767	No

*Other = Receivers determined to be unaffected by the Build Alternative (traffic noise levels less than 66 dB(A), but benefited by the noise barrier.
**Current FDOT estimated cost to construct a noise barrier (materials and labor) is $30.00 per square foot.

An aerial photograph showing the modeled noise barrier location at Rye Acres is included in Appendix A.

SUMMARY OF NOISE BARRIER ANALYSIS

Although feasible, traffic management, alternative roadway alignments, and noise buffer zones were determined to be unreasonable methods to reduce the predicted traffic noise impacts for the 17 impacted sites. Noise barriers were evaluated to determine if barriers would be a feasible and reasonable noise abatement measure. One barrier was analyzed for the five impacted noise-sensitive sites at Rye Acres. The results of the analysis indicate that construction of the noise barrier appears feasible, however, the barrier is not considered reasonable. The effectiveness of the barrier was affected due to required property access (driveways) and the cost per benefitted receptor greatly exceeded the cost reasonable guideline.

Based on the noise analyses performed to date, there appears to be no apparent solutions available to mitigate the noise impacts at the locations identified previously in Tables 6 and 7.

CONSTRUCTION NOISE AND VIBRATION

Construction of roadway improvements may have a temporary impact on noise-sensitive sites adjacent to the project corridor. Trucks, earth moving equipment, pumps, and generators are construction noise and vibration sources. Construction noise and vibration impacts will be minimized by adherence to best management practices and current standard specifications for road and bridge construction. Special provisions can be included in the construction contract that relate to the control of noise.

NOISE CONTOURS

Land uses such as residences, schools, churches, auditoriums, recreation areas, and parks are considered incompatible with highway noise levels above 66 dB(A). In order to reduce the possibility of additional noise related impacts, noise level contours were developed for the future improved roadway facility. These noise contours delineate the distance from the improved roadway's edge-of-travel lane to where the 66 dB(A) (based on FHWA Activity Categories B and C) is expected to occur in the year 2035 with the proposed improvements.

As shown in **Table 9** and **Figure 2**, from Waterlefe Boulevard to River Isles Run entrance along the Fort Hamer Alternative, the 66 dB(A) noise level extends 56 feet from the improved roadway's edge-of-travel lane. As also shown in Table 9 and Figure 2, along the Rye Road Alternative the 66 dB(A) noise level extends from 69 to 86 feet from the improved roadway's edge-of-travel lane.

TABLE 9
NOISE CONTOURS

Roadway Segment	Distance to 66 dB(A)* – Feet From Edge-of-Travel Lane
Fort Hamer Alternative	
Waterlefe Boulevard to River Isles Run	**56**
Rye Road Alternative	
SR 64 to Upper Manatee River Road	**73**
Upper Manatee River Road to Golf Course Road	**86**
Golf Course Road from Rye Road to Fort Hamer Road	**80**
Fort Hamer Road from Golf Course Road to US 301	**69**

* Distances do not reflect any reduction in noise levels that would result from existing structures (shielding).

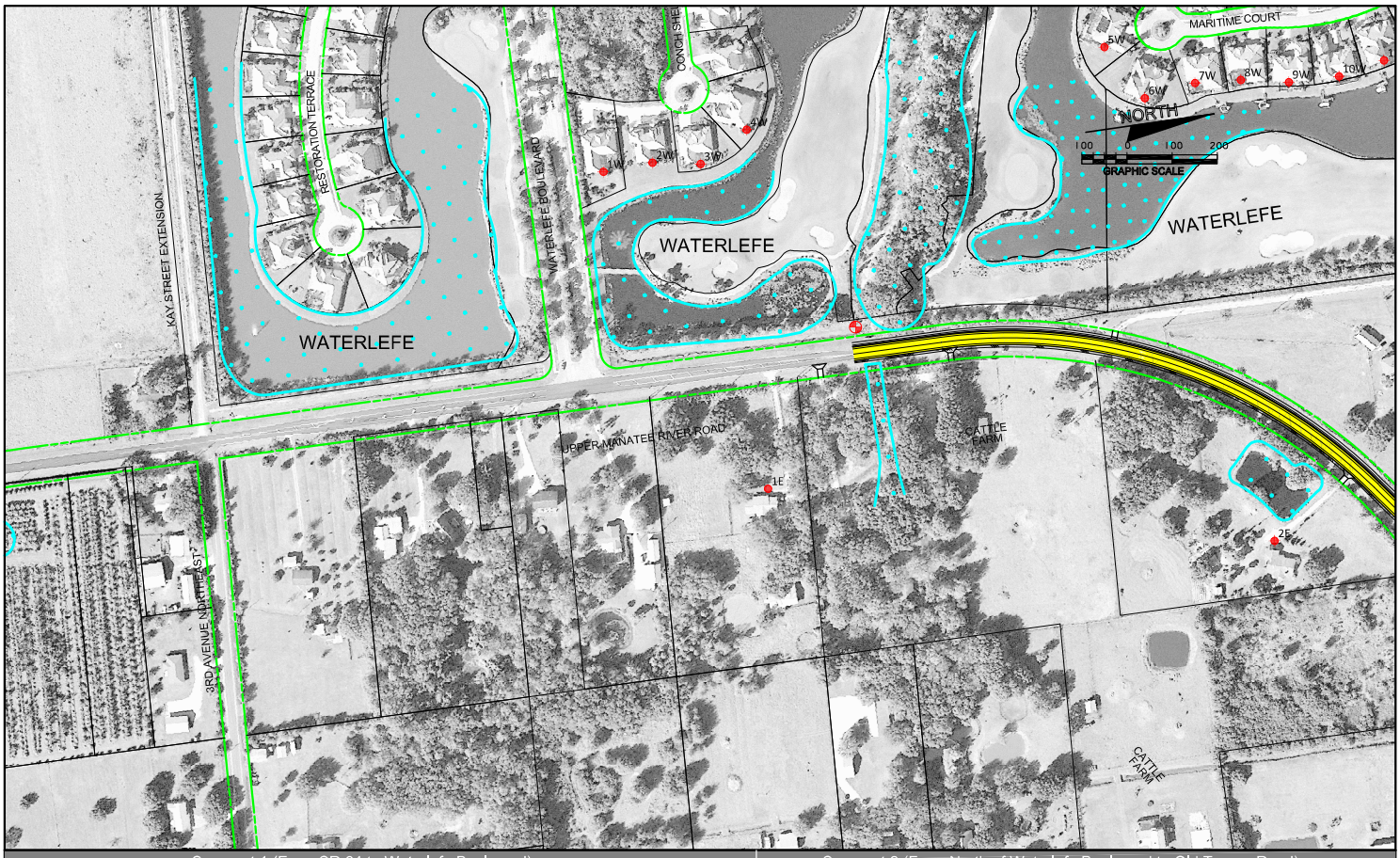
FIGURE 2
PREDICTED NOISE CONTOURS

	Roadway Segment	Distance to 66 dB(A)* Feet from Edge-of-Travel Lane
	Fort Hamer Alternative	
A	Waterlefe Boulevard to River Isles Run	56
	Rye Road Alternative	
B	SR 64 to Upper Manatee River Road	73
C	Upper Manatee River Road to Golf Course Road	86
D	Golf Course Road from Rye Road to Fort Hamer Road	80
E	Fort Hamer Road from Golf Course Road to US 301	69

* Distances do not reflect any reduction in noise levels that would result from existing structures (shielding).

APPENDIX A

AERIAL CONCEPT PLANS



Segment 1 (From SR 64 to Waterlefe Boulevard) | Segment 2 (From North of Waterlefe Boulevard to Old Tampa Road)

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

URS Corporation Southern
7650 West Courtney
Campbell Causeway
Tampa, FL 33607-1462
No. 00000002

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
	MANATEE	199668 1 22 01

FORT HAMER BRIDGE NEPA STUDY
MANATEE RIVER ROAD/FORT HAMER ROAD ALTERNATIVE
From S.R. 64 to U.S. 301

SHEET NO. 4

#DATE# #TIME# #FILE#

Segment 2 (From Waterlefe Boulevard to Old Tampa Road)

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

URS Corporation Southern
7650 West Courtney
Campbell Causeway
Tampa, FL 33607-1462
No. 00000002

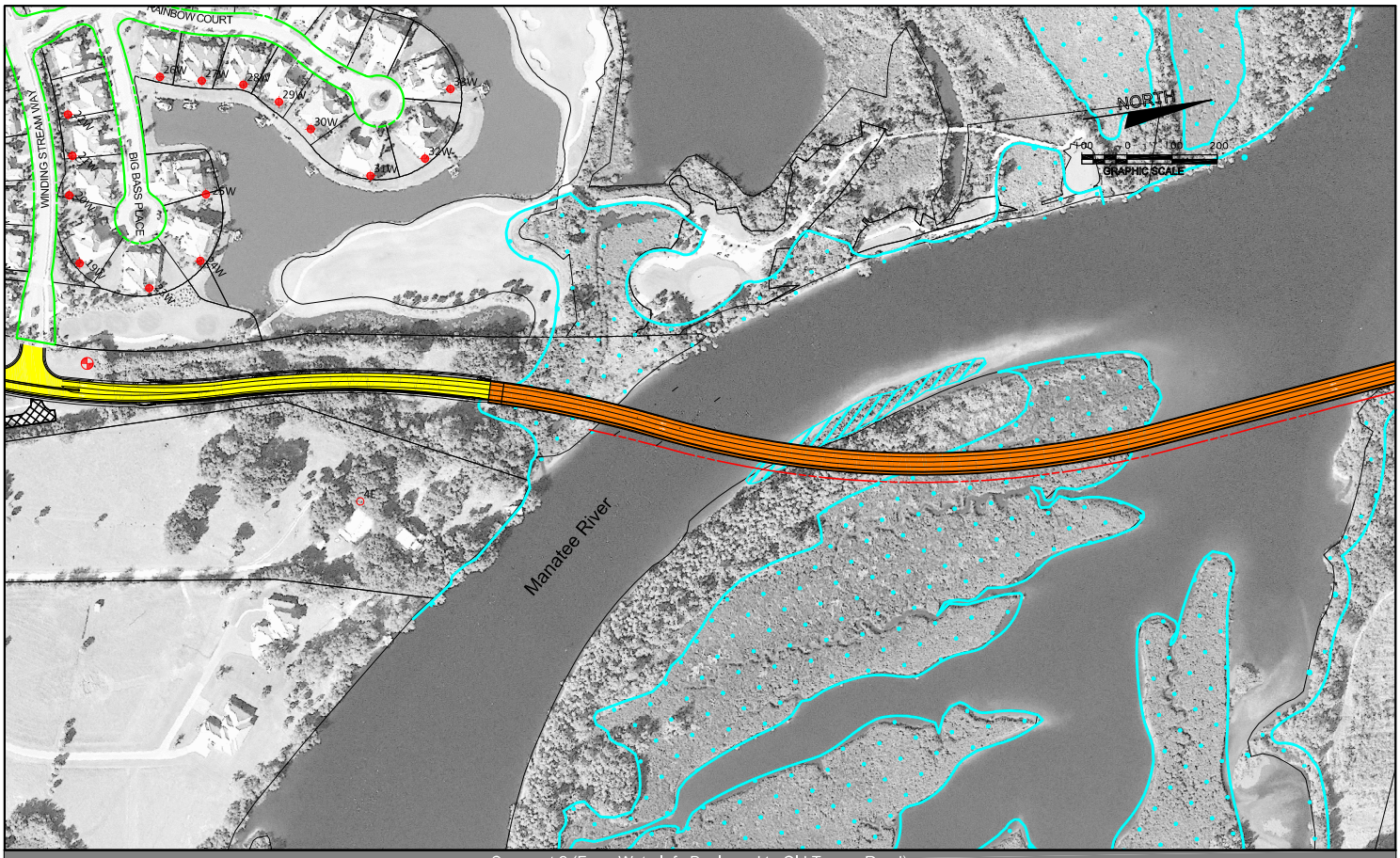
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
	MANATEE	199668 1 22 01

FORT HAMER BRIDGE NEPA STUDY
MANATEE RIVER ROAD/FORT HAMER ROAD ALTERNATIVE
From S.R. 64 to U.S. 301

SHEET NO. 5

#DATE# #TIME# #FILE#



Segment 2 (From Waterlefe Boulevard to Old Tampa Road)

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

URS Corporation Southern
7650 West Courtney
Campbell Causeway
Tampa, FL 33607-1462
No. 00000002

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
	MANATEE	199668 1 22 01

FORT HAMER BRIDGE NEPA STUDY
MANATEE RIVER ROAD/FORT HAMER ROAD ALTERNATIVE
From S.R. 64 to U.S. 301

SHEET NO. 6

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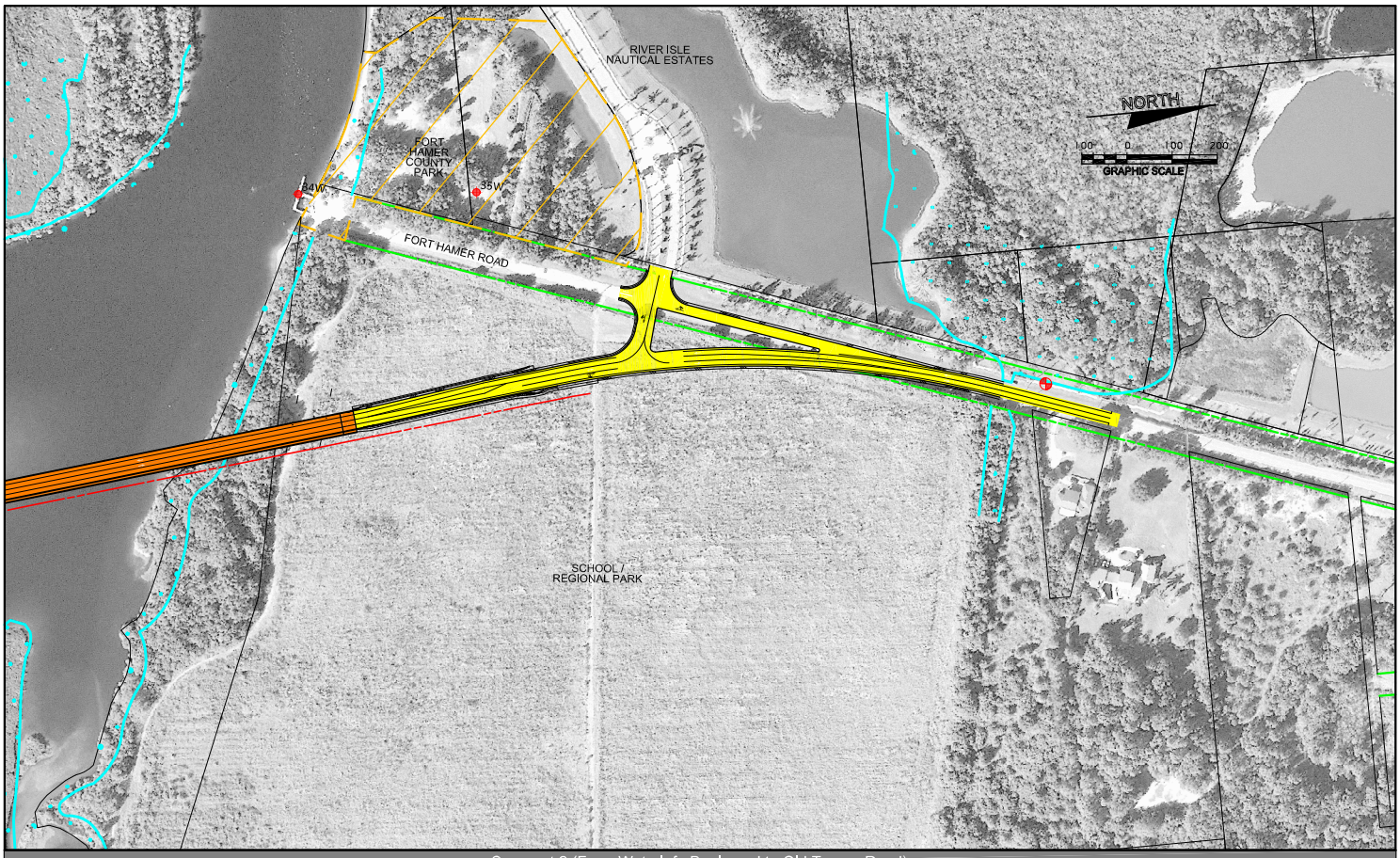

Segment 2 (From Waterlefe Boulevard to Old Tampa Road)

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

URS Corporation Southern
7650 West Courtney
Campbell Causeway
Tampa, FL 33607-1462
No. 00000002

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
	MANATEE	199668 1 22 01

FORT HAMER BRIDGE NEPA STUDY
MANATEE RIVER ROAD/FORT HAMER ROAD
ALTERNATIVE
From S.R. 64 to U.S. 301

SHEET NO. 7

$DATE$ $TIME$ $FILE$

APPENDIX B

TNM OUTPUT

<<< TABULAR TIME HISTORY REPORT FROM FILE 2356FH >>> Temp 72
RH 65%
Test Location..... Ft Hamer Rd - North of River Wilderness entrance Winds NE 10
Employee Name.....bo/vs
Employee Number...
Department.....
Comment.....

Calibrator Type & Serial MS 3100 #...2356
Calibrator Calibration Date.. 10/6/2010

METROSOI db-3100 SN 2356 V1.7
REPORT PRINTED 10/7/2010 AT 10:48:16
OF PERIODS: 179 MODE: CONTINUOUS
PERIOD LENGTH: 0:00:10
TIME HISTORY CUTOFF: NONE
Ln(1): 10.00% Ln(2): 90.00%

DATE: 10/7/2010

INT	TIME	Lav	energy	Lmx	L1	L2
Start AM Run						
122	10:23:10	47.4	54954.09	47.6	47	47
123	10:23:20	47.8	60255.96	48.4	48	47
124	10:23:30	49.2	83176.38	54.3	51	47
125	10:23:40	58.7	741310.2	64.2	63	48
126	10:23:50	47.6	57543.99	47.9	47	47
127	10:24:00	47.8	60255.96	47.9	47	47
128	10:24:10	47.5	56234.13	47.8	47	47
129	10:24:20	47.3	53703.18	47.5	47	47
130	10:24:30	47.2	52480.75	47.3	47	47
131	10:24:40	47.1	51286.14	47.2	47	47
132	10:24:50	47.2	52480.75	47.6	47	47
133	10:25:00	47.3	53703.18	47.6	47	47
134	10:25:10	47.3	53703.18	47.6	47	47
135	10:25:20	47.7	58884.37	48.6	48	47
136	10:25:30	48.1	64565.42	49.8	49	47
137	10:25:40	47.5	56234.13	47.9	47	47
138	10:25:50	50.3	107151.9	57	53	47
139	10:26:00	53.2	208929.6	58.3	57	47
140	10:26:10	47.2	52480.75	47.5	47	47
141	10:26:20	47.1	51286.14	47.2	47	47
142	10:26:30	47.1	51286.14	47.2	47	47
143	10:26:40	47.1	51286.14	47.2	47	47
144	10:26:50	47.3	53703.18	47.6	47	47
145	10:27:00	47.3	53703.18	47.6	47	47
146	10:27:10	49	79432.82	50.9	50	47
147	10:27:20	47.9	61659.5	48.4	48	47
148	10:27:30	51.2	131825.7	54	53	48
150	10:27:50	50.4	109647.8	56.9	53	47
151	10:28:00	47.3	53703.18	47.6	47	47
152	10:28:10	47.2	52480.75	47.4	47	47
153	10:28:20	47.5	56234.13	47.8	47	47
154	10:28:30	47.5	56234.13	47.9	47	47
155	10:28:40	47.4	54954.09	47.8	47	47
156	10:28:50	47.4	54954.09	47.6	47	47
157	10:29:00	47.4	54954.09	47.6	47	47
158	10:29:10	47.4	54954.09	47.5	47	47
159	10:29:20	47.2	52480.75	47.4	47	47
160	10:29:30	47.2	52480.75	47.4	47	47
161	10:29:40	47.2	52480.75	47.4	47	47

162	10:29:50	47.1	51286.14	47.2	47	47	
163	10:30:00	47.2	52480.75	47.3	47	47	
164	10:30:10	47.1	51286.14	47.2	47	47	
165	10:30:20	47.1	51286.14	47.2	47	47	
166	10:30:30	47.1	51286.14	47.2	47	47	
167	10:30:40	47.2	52480.75	47.7	47	47	
168	10:30:50	47.2	52480.75	47.4	47	47	
169	10:31:00	47.3	53703.18	47.4	47	47	
170	10:31:10	47.3	53703.18	47.4	47	47	
171	10:31:20	47.2	52480.75	47.4	47	47	
172	10:31:30	47.1	51286.14	47.2	47	47	
173	10:31:40	47.1	51286.14	47.6	47	47	
174	10:31:50	47	50118.72	47.1	47	46	
175	10:32:00	47.6	57543.99	48	47	47	
176	10:32:10	48	63095.73	48.3	48	47	
177	10:32:20	48	63095.73	48.3	48	47	
178	10:32:30	47.8	60255.96	48.1	47	47	
179	10:32:40	48	63095.73	49.4	48	47	
End AM Run			48.7	64.2			yes
Start PM Run							
2	16:05:39	48.1	64565.42	52.2	49	45	
3	16:05:49	46.8	47863.01	48.7	48	45	
4	16:05:59	45.8	38018.94	47.4	46	45	
5	16:06:09	45.4	34673.69	46.1	45	45	
6	16:06:19	45.3	33884.42	45.5	45	45	
7	16:06:29	45.3	33884.42	45.5	45	45	
8	16:06:39	45.2	33113.11	45.4	45	45	
9	16:06:49	45.6	36307.81	47.5	46	45	
10	16:06:59	47	50118.72	49.2	48	45	
11	16:07:09	45.3	33884.42	45.5	45	45	
12	16:07:19	45.5	35481.34	45.8	45	45	
13	16:07:29	45.6	36307.81	45.8	45	45	
14	16:07:39	45.8	38018.94	47.3	46	45	
15	16:07:49	45.6	36307.81	46.7	46	45	
16	16:07:59	48.2	66069.34	51.1	50	46	
17	16:08:09	46.1	40738.03	46.5	46	45	
18	16:08:19	51.6	144544	56.2	55	46	
19	16:08:29	49.4	87096.36	52.2	50	47	
20	16:08:39	46.2	41686.94	48.2	47	45	
21	16:08:49	45.8	38018.94	46.2	46	45	
22	16:08:59	45.7	37153.52	46.4	45	45	
23	16:09:09	45.5	35481.34	45.7	45	45	
24	16:09:19	45.7	37153.52	46.3	46	45	
25	16:09:29	45.4	34673.69	45.6	45	45	
26	16:09:39	45.8	38018.94	47.5	47	45	
27	16:09:49	45.5	35481.34	46.6	46	45	
28	16:09:59	45.2	33113.11	45.4	45	45	
29	16:10:09	45.4	34673.69	45.6	45	45	
30	16:10:19	45.3	33884.42	45.5	45	45	
31	16:10:29	45.5	35481.34	45.9	45	45	
32	16:10:39	45.5	35481.34	46	45	45	
33	16:10:49	45.3	33884.42	45.5	45	45	
34	16:10:59	45.6	36307.81	45.7	45	45	
35	16:11:09	45.6	36307.81	45.9	45	45	
36	16:11:19	45.7	37153.52	46.1	45	45	
37	16:11:29	45.7	37153.52	45.9	45	45	
38	16:11:39	45.6	36307.81	46.4	46	45	
39	16:11:49	45.7	37153.52	46.5	46	45	
40	16:11:59	46.1	40738.03	46.7	46	45	
41	16:12:09	47	50118.72	49.5	48	45	
42	16:12:19	48	63095.73	50.2	49	46	
43	16:12:29	47.7	58884.37	49.2	48	46	

	44	16:12:39	47.9	61659.5	49.2	48	47
	47	16:13:09	45.9	38904.51	48	47	45
	48	16:13:19	45.3	33884.42	45.5	45	45
	49	16:13:29	45.4	34673.69	45.6	45	45
	50	16:13:39	45.5	35481.34	45.6	45	45
	51	16:13:49	46.3	42657.95	47.9	47	45
	52	16:13:59	46.9	48977.88	48.2	47	45
	53	16:14:09	45.5	35481.34	45.9	45	45
	54	16:14:19	45.4	34673.69	45.9	45	45
	55	16:14:29	45.5	35481.34	45.7	45	45
	56	16:14:39	45.9	38904.51	46.4	46	45
	57	16:14:49	47.1	51286.14	50	47	46
	58	16:14:59	54	251188.6	64.5	57	47
	59	16:15:09	60.1	1023293	67.1	65	46
	60	16:15:19	46.2	41686.94	47.1	46	45
	61	16:15:29	45.6		45.8	45	45
End PM Run				48.0	67.1		yes
Start PM Run 2							
	62	16:15:39	45.6	36307.81	45.8	45	45
	63	16:15:49	45.7	37153.52	46.4	46	45
	64	16:15:59	46.1	40738.03	47	46	45
	65	16:16:09	46	39810.72	47.1	46	45
	66	16:16:19	45.5	35481.34	46	45	45
	67	16:16:29	45.5	35481.34	45.8	45	45
	68	16:16:39	45.4	34673.69	45.8	45	45
	69	16:16:49	45.4	34673.69	45.6	45	45
	70	16:16:59	45.2	33113.11	45.4	45	45
	71	16:17:09	45.2	33113.11	45.5	45	45
	72	16:17:19	45.4	34673.69	45.7	45	45
	73	16:17:29	45.3	33884.42	45.8	45	45
	74	16:17:39	45.4	34673.69	45.9	45	45
	75	16:17:49	45.5	35481.34	46.1	45	45
	76	16:17:59	45.2	33113.11	45.5	45	45
	77	16:18:09	45.3	33884.42	45.7	45	45
	78	16:18:19	45.1	32359.37	45.3	45	45
	79	16:18:29	45.3	33884.42	45.7	45	45
	80	16:18:39	45.4	34673.69	45.7	45	45
	81	16:18:49	45.4	34673.69	45.6	45	45
	82	16:18:59	45.4	34673.69	45.6	45	45
	83	16:19:09	45.4	34673.69	45.7	45	45
	84	16:19:19	45.4	34673.69	45.8	45	45
	85	16:19:29	45.4	34673.69	45.5	45	45
	86	16:19:39	46.9	48977.88	49.8	48	45
	87	16:19:49	48	63095.73	50.8	49	45
	88	16:19:59	45.5	35481.34	45.9	45	45
	89	16:20:09	45.4	34673.69	45.6	45	45
	90	16:20:19	45.5	35481.34	45.8	45	45
	91	16:20:29	45.3	33884.42	45.4	45	45
	92	16:20:39	45.4	34673.69	45.7	45	45
	93	16:20:49	50	100000	51.6	51	46
	94	16:20:59	52.2	165958.7	52.7	52	51
	95	16:21:09	48.9	77624.71	52.7	52	45
	96	16:21:19	46	39810.72	46.4	46	45
	97	16:21:29	47.2	52480.75	48.4	48	46
	98	16:21:39	47.4	54954.09	48.6	48	46
	99	16:21:49	58.4	691831	64.2	63	49
	100	16:21:59	46.7	46773.51	49.4	48	45
	101	16:22:09	45.3	33884.42	45.6	45	45
	102	16:22:19	45.6	36307.81	45.9	45	45
	103	16:22:29	45.6	36307.81	45.8	45	45
	104	16:22:39	45.4	34673.69	45.6	45	45
	105	16:22:49	45.7	37153.52	46.1	45	45

	106	16:22:59	45.5	35481.34	46.1	45	45	
	107	16:23:09	45.2	33113.11	45.4	45	45	
	108	16:23:19	45.3	33884.42	45.5	45	45	
	109	16:23:29	45.4	34673.69	45.5	45	45	
	110	16:23:39	45.4	34673.69	45.6	45	45	
	111	16:23:49	45.3	33884.42	45.4	45	45	
	112	16:23:59	45.4	34673.69	45.6	45	45	
	113	16:24:09	45.7	37153.52	46.3	46	45	
	114	16:24:19	46.1	40738.03	46.6	46	45	
	115	16:24:29	47	50118.72	47.6	47	46	
	116	16:24:39	46.5	44668.36	47.4	47	45	
	117	16:24:49	61.8	1513561	67.7	66	48	
	118	16:24:59	49.6	91201.08	56.6	53	46	
	119	16:25:09	45.6	36307.81	46.2	46	45	
	120	16:25:19	45.3	33884.42	45.5	45	45	
	121	16:25:29	45.3	33884.42	45.5	45	45	
End PM Run 2				48.9	67.7			yes

<<< TABULAR TIME HISTORY REPORT FROM FILE 2356UMRI >>>

Test Location.....Upper Manatee River Rd north of Waterlefe entrance
Employee Name.....od/vs
Employee Number...
Department.....
Comment.....

Calibrator Type & Serial MS31000 #...2356
Calibrator Calibration Date.. ########

METROSOI db-3100 SN 2356 V1.7
REPORT PRINTED ######## AT 15:18:15
OF PERIODS: 545 MODE: CONTINUOUS
PERIOD LENGTH: 0:00:10
TIME HISTORY CUTOFF: NONE
Ln(1): 10.00% Ln(2): 90.00%

DATE: ########

INT	TIME	Lav	Lmx	L1	L2
1	9:57:04	58.2	61.9	61	51

DATE: ########

INT	TIME	Lav	energy	Lmx	L1	L2	UMRR
180	12:22:17	55.2	331131.1	60	59	49	
181	12:22:27	51	125892.5	58.6	55	41	
182	12:22:37	39.9	9772.372	43.7	41	39	
183	12:22:47	43.2	20892.96	46.2	45	40	
184	12:22:57	57.9	616595	60.4	59	50	
185	12:23:07	53.1	204173.8	58.7	58	45	
186	12:23:17	58.3	676083	60.7	60	45	
187	12:23:27	50.8	120226.4	57.7	55	44	
188	12:23:37	58.1	645654.2	63.1	62	52	
189	12:23:47	57.9	616595	62.6	61	48	
190	12:23:57	46.3	42657.95	54.7	48	43	
191	12:24:07	54.9	309029.5	59.7	59	42	
192	12:24:17	40.2	10471.29	41.4	40	39	
193	12:24:27	54.5	281838.3	60.6	60	42	
194	12:24:37	56.4	436515.8	63.5	59	49	
195	12:24:47	61.9	1548817	65.6	65	49	
196	12:24:57	43.1	20417.38	46.8	45	41	
197	12:25:07	54.4	275422.9	58.2	57	47	
198	12:25:17	56.4	436515.8	59	58	52	
199	12:25:27	56.5	446683.6	59	58	48	
200	12:25:37	46	39810.72	53.1	49	41	
201	12:25:47	56.3	426579.5	59.9	59	47	
202	12:25:57	41	12589.25	45.3	43	39	
203	12:26:07	39.6	9120.108	40.7	40	39	

204	12:26:17	45.2	33113.11	52.3	49	40	
205	12:26:27	58.8	758577.6	63.3	62	52	
206	12:26:37	62.4	1737801	69.4	69	48	
207	12:26:47	64.9	3090295	69.1	67	55	
208	12:26:57	58.9	776247.1	63.7	63	52	
209	12:27:07	56.2	416869.4	59.5	58	51	
210	12:27:17	47.8	60255.96	54.4	52	43	
211	12:27:27	58.4	691831	63.6	63	45	
212	12:27:37	51.5	141253.8	58.5	56	43	
213	12:27:47	56	398107.2	61.3	60	46	
214	12:27:57	50.7	117489.8	59.1	55	43	
215	12:28:07	53.8	239883.3	59.4	58	47	
216	12:28:17	59.6	912010.8	64.4	63	49	
217	12:28:27	47	50118.72	52.2	48	44	
218	12:28:37	56.7	467735.1	59.1	58	52	
219	12:28:47	67.7	5888437	73	72	51	
220	12:28:57	65.6	3630781	70	68	53	
221	12:29:07	45.6	36307.81	50.5	48	42	
222	12:29:17	42.3	16982.44	44.1	43	41	
223	12:29:27	41.1	12882.5	42.9	42	39	
224	12:29:37	41.6	14454.4	43.6	42	39	
225	12:29:47	42.4	17378.01	44.8	43	41	
226	12:29:57	56.8	478630.1	60.7	60	41	
227	12:30:07	57.9	616595	59.8	59	55	
228	12:30:17	49.2	83176.38	56.3	53	43	
229	12:30:27	41.8	15135.61	43.3	42	41	
230	12:30:37	51	125892.5	59	57	42	
231	12:30:47	55.4	346736.9	59.1	58	47	
232	12:30:57	53.9	245470.9	58.3	58	44	
233	12:31:07	45.9	38904.51	50.6	49	43	
234	12:31:17	68.2	6606934	75.2	74	41	
235	12:31:27	60.1	1023293	69.5	65	43	
236	12:31:37	41	12589.25	42.7	41	40	
237	12:31:47	41.8	15135.61	44	42	40	
238	12:31:57	55.1	323593.7	60.5	60	44	
239	12:32:07	51.4	138038.4	59.2	56	43	
End Run 1			57.9	75.2			yes
Start Run 2							
362	14:15:17	63.5	2238721	73	53	47	
363	14:15:27	58.2	660693.4	62.2	61	53	
364	14:15:37	53.1	204173.8	59.4	58	44	
365	14:15:47	49.9	97723.72	53.4	51	46	
366	14:15:57	51.4	138038.4	56.7	54	49	
367	14:16:07	56.3	426579.5	61.2	59	52	
368	14:16:17	61.4	1380384	65.2	64	52	
369	14:16:27	56.2	416869.4	62.5	62	47	
370	14:16:37	58.3	676083	61.8	61	49	
371	14:16:47	55.6	363078.1	61.9	60	46	
372	14:16:57	58.7	741310.2	61.9	61	52	
373	14:17:07	57.8	602559.6	61.1	60	51	

374	14:17:17	57.3	537031.8	60.4	60	51	
375	14:17:27	45.7	37153.52	49.9	48	43	
376	14:17:37	49.3	85113.8	51.8	51	46	
377	14:17:47	51.9	154881.7	55.6	53	50	
378	14:17:57	58.8	758577.6	61.8	61	54	
379	14:18:07	51.6	144544	58.3	55	47	
380	14:18:17	57.8	602559.6	61	60	53	
381	14:18:27	45.5	35481.34	53.1	50	40	
382	14:18:37	51.9	154881.7	59.7	57	41	
383	14:18:47	58.3	676083	60.7	60	50	
384	14:18:57	43.4	21877.62	47.6	45	40	
385	14:19:07	49.2	83176.38	50	50	47	
386	14:19:17	46.4	43651.58	49.6	49	40	
387	14:19:27	47.9	61659.5	57.4	53	40	
388	14:19:37	57.9	616595	62.8	61	51	
389	14:19:47	64.8	3019952	68.4	68	61	
390	14:19:57	55.5	354813.4	61.4	61	46	
391	14:20:07	43.9	24547.09	45.8	45	42	
392	14:20:17	60.4	1096478	66.2	65	43	
393	14:20:27	49.4	87096.36	57.7	54	41	
394	14:20:37	51.3	134896.3	60.9	56	40	
395	14:20:47	56.9	489778.8	62	61	43	
396	14:20:57	40.6	11481.54	42	41	39	
397	14:21:07	40.6	11481.54	44.9	42	39	
398	14:21:17	54.7	295120.9	59.4	59	45	
399	14:21:27	55.7	371535.2	58.7	58	46	
400	14:21:37	55.5	354813.4	58.3	58	52	
401	14:21:47	50.1	102329.3	51	50	49	
402	14:21:57	46.4	43651.58	50.7	50	39	
403	14:22:07	39.4	8709.636	39.8	39	39	
404	14:22:17	39.6	9120.108	39.9	39	39	
405	14:22:27	41.7	14791.08	43.6	43	39	
406	14:22:37	54.3	269153.5	59	58	45	
407	14:22:47	43.7	23442.29	46.3	46	41	
408	14:22:57	48.9	77624.71	49.6	49	48	
409	14:23:07	49.7	93325.43	50.4	50	48	
410	14:23:17	49.5	89125.09	50.2	49	49	
411	14:23:27	52.2	165958.7	55.7	54	50	
412	14:23:37	63.9	2454709	70.4	67	57	
413	14:23:47	72.1	16218101	74.6	74	66	
414	14:23:57	59.8	954992.6	64.2	62	57	
415	14:24:07	54	251188.6	58	57	47	
416	14:24:17	49.3	85113.8	58.6	53	44	
417	14:24:27	56.5	446683.6	61.9	61	46	
418	14:24:37	48.9	77624.71	49.6	49	47	
419	14:24:47	49	79432.82	49.4	49	48	
420	14:24:57	52.2	165958.7	59.1	57	45	
421	14:25:07	52.8	190546.1	59.3	58	42	
End Run 2			58.2	74.6			yes
Start Run 3							

482	14:35:17	49	79432.82	49.6	49	48
483	14:35:27	49.1	81283.05	49.4	49	48
484	14:35:37	49.8	95499.26	51.2	50	48
485	14:35:47	50.5	112201.8	51.7	51	50
486	14:35:57	49.6	91201.08	50.3	50	49
487	14:36:07	49	79432.82	50.6	50	44
488	14:36:17	40.1	10232.93	41.8	40	39
489	14:36:27	49.2	83176.38	56.9	53	42
490	14:36:37	66.9	4897788	71.6	71	59
491	14:36:47	61.3	1348963	63.6	63	58
492	14:36:57	57.2	524807.5	59.4	58	54
493	14:37:07	64.8	3019952	68.7	68	60
494	14:37:17	58.1	645654.2	61.6	61	52
495	14:37:27	50.5	112201.8	51.5	51	50
496	14:37:37	55.6	363078.1	59.6	59	50
497	14:37:47	49.6	91201.08	50.4	50	49
498	14:37:57	59	794328.2	62.8	62	50
499	14:38:07	57.7	588843.7	61.2	60	52
500	14:38:17	53.2	208929.6	56.9	56	49
501	14:38:27	56.9	489778.8	59.8	59	50
502	14:38:37	56.3	426579.5	60.6	60	44
503	14:38:47	56.6	457088.2	61.1	60	46
504	14:38:57	41.3	13489.63	44.5	43	40
505	14:39:07	56.6	457088.2	61.6	61	41
506	14:39:17	47.5	56234.13	55	52	40
507	14:39:27	40.2	10471.29	41.4	41	39
508	14:39:37	56.1	407380.3	62.1	60	41
509	14:39:47	56.7	467735.1	62.9	62	44
510	14:39:57	42.7	18620.87	43.2	43	42
511	14:40:07	53.6	229086.8	63.4	58	43
512	14:40:17	65.7	3715352	70.6	70	57
513	14:40:27	50.2	104712.9	55.3	54	44
514	14:40:37	54.2	263026.8	60.4	60	44
515	14:40:47	52.4	173780.1	59.3	56	47
516	14:40:57	56.1	407380.3	59.9	59	50
517	14:41:07	55	316227.8	59.6	59	49
518	14:41:17	56.3	426579.5	60.6	59	50
519	14:41:27	50	100000	51.2	50	49
520	14:41:37	58.1	645654.2	60.6	60	51
521	14:41:47	61	1258925	64.8	64	56
522	14:41:57	57.6	575439.9	64.6	63	50
523	14:42:07	49.7	93325.43	50.2	50	49
524	14:42:17	50.2	104712.9	51.1	50	50
525	14:42:27	54.3	269153.5	57.3	57	49
526	14:42:37	43.7	23442.29	46.7	45	42
527	14:42:47	58.5	707945.8	65.8	62	49
528	14:42:57	67.2	5248075	71.5	71	57
529	14:43:07	57.7	588843.7	60.6	60	50
530	14:43:17	55.3	338844.2	59	58	50
531	14:43:27	56.1	407380.3	58.8	58	50

532	14:43:37	56.7	467735.1	60.6	60	50	
533	14:43:47	50.1	102329.3	51.3	51	48	
534	14:43:57	54.6	288403.2	57.1	57	51	
535	14:44:07	60.4	1096478	62.2	61	57	
536	14:44:17	63.5	2238721	68.6	68	54	
537	14:44:27	62.9	1949845	67	65	54	
538	14:44:37	50.7	117489.8	53.4	52	49	
539	14:44:47	49.9	97723.72	50.8	50	49	
540	14:44:57	49	79432.82	52.1	51	45	
541	14:45:07	60.3	1071519	64.1	63	52	
End Run 3			58.2	71.6			yes

URS 24-Apr-13
vs TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: Ft Hamer Bridge
RUN: Site 1 AM Run
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Receiver1	1	1	0	45.8	66	45.8	10	----	45.8	0	8	-8

Dwelling Units	# DUs	Noise Reduction Min dB	Avg dB	Max dB
All Selected	1	0	0	0
All Impacted	0	0	0	0
All that meet NR Goal	0	0	0	0

URS 24-Apr-13
vs TNM 2.5

INPUT: TRAFFIC FOR LAeq1h Volumes
PROJECT/CONTRACT: Ft Hamer Bridge
RUN: Site 1 AM Run

Roadway Name	Points Name	No.	Segment Autos V veh/hr	S mph	MTrucks V veh/hr	S mph	HTrucks V veh/hr	S mph	Buses V veh/hr	S mph	Motorcycles V veh/hr	S mph	
SB Ft Hamer Rd	point4	4	6	40	0	0	0	0	0	0	0	0	
	point5	5											
NB Ft Hamer Rd	point6	6	12	40	0	0	0	0	0	0	0	0	
	point7	7											

URS 24-Apr-13
vs TNM 2.5
Calculated with TNM 2.5

RESULTS: S
PROJECT/C Ft Hamer Bridge
RUN: Site 1 PM Run
BARRIER D INPUT HEIGHTS
ATMOSPHI 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h		Increase over existing		Type Impact	With Barrier Calculated Noise Reduction			
				Calculated	Crit'n	Calculated	Crit'n Sub'l Inc		LAeq1h	Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Receiver1	1	1	0	46.6	66	46.6	10	----	46.6	0	8	-8

Dwelling Units	# DUs	Noise Reduction Min dB	Avg dB	Max dB
All Selected	1	0	0	0
All Impacted	0	0	0	0
All that meet NR Goa	0	0	0	0

URS 24-Apr-13
vs TNM 2.5

INPUT: TRA
PROJECT/C Ft Hamer Bridge
RUN: Site 1 PM Run

Roadway Name	Points Name	No.	Segment Autos V veh/hr	Autos S mph	MTrucks V veh/hr	MTrucks S mph	HTrucks V veh/hr	HTrucks S mph	Buses V veh/hr	Buses S mph	Motorcycles V veh/hr	Motorcycles S mph	
SB Ft Ham	point4	4	12	44	0	0	0	0	0	0	0	0	0
	point5	5											
NB Ft Han	point6	6	0	0	0	0	0	0	0	0	0	0	0
	point7	7											

URS 24-Apr-13
vs TNM 2.5
Calculated with TNM 2.5

RESULTS: S
PROJECT/C Ft Hamer Bridge
RUN: Site 1 PM Run 2
BARRIER D INPUT HEIGHTS
ATMOSPHI 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n	Type Impact Sub'l Inc	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Receiver1	1	1	0	47.1	66	47.1	10	----	47.1	0	8	-8

Dwelling Units	# DUs	Noise Reduction Min dB	Avg dB	Max dB
All Selected	1	0	0	0
All Impacted	0	0	0	0
All that meet NR Goa	0	0	0	0

URS 24-Apr-13
vs TNM 2.5

INPUT: TRA
PROJECT/C Ft Hamer Bridge
RUN: Site 1 PM Run 2

Roadway Name	Points Name	No.	Segment Autos V veh/hr	S mph	MTrucks V veh/hr	S mph	HTrucks V veh/hr	S mph	Buses V veh/hr	S mph	Motorcycles V veh/hr	S mph	
SB Ft Ham	point4	4	12	42	0	0	0	0	0	0	0	0	0
	point5	5											
NB Ft Han	point6	6	6	42	0	0	0	0	0	0	0	0	0
	point7	7											

URS 24-Apr-13
vs TNM 2.5
Calculated with TNM 2.5

RESULTS: S
PROJECT/C Fort Hamer Bridge
RUN: Site 3 PM Run
BARRIER D INPUT HEIGHTS
ATMOSPHI 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h		Increase over existing		Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
				Calculated	Crit'n	Calculated	Crit'n Sub'l Inc					
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Receiver1	1	1	0	60	66	60	10	----	60	0	8	-8

Dwelling Units	# DUs	Noise Reduction Min dB	Avg dB	Max dB
All Selected	1	0	0	0
All Impacted	0	0	0	0
All that meet NR Goa	0	0	0	0

URS 24-Apr-13
vs TNM 2.5

INPUT: TRA
PROJECT/C Fort Hamer Bridge
RUN: Site 3 PM Run

Roadway Name	Points Name	No.	Segment Autos V veh/hr	S mph	MTrucks V veh/hr	S mph	HTrucks V veh/hr	S mph	Buses V veh/hr	S mph	Motorcycles V veh/hr	S mph	
SB Upper	point21	21	132	50	12	44	0	0	0	0	0	0	
	point22	22											
NB Upper	point23	23	180	50	6	44	0	0	0	0	0	0	
	point24	24											

URS 24-Apr-13
vs TNM 2.5
Calculated with TNM 2.5

RESULTS: S
PROJECT/C Fort Hamer Bridge
RUN: Site 3 PM Run 2
BARRIER D INPUT HEIGHTS
ATMOSPHI 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h		Increase over existing		Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
				Calculated	Crit'n	Calculated	Crit'n Sub'l Inc					
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Receiver1	1	1	0	60.5	66	60.5	10	----	60.5	0	8	-8

Dwelling Units	# DUs	Noise Reduction Min dB	Avg dB	Max dB
All Selected	1	0	0	0
All Impacted	0	0	0	0
All that meet NR Goa	0	0	0	0

URS 24-Apr-13
vs TNM 2.5

INPUT: TRA
PROJECT/C Fort Hamer Bridge
RUN: Site 3 PM Run 2

Roadway Name	Points Name	No.	Segment Autos V veh/hr	Autos S mph	MTrucks V veh/hr	MTrucks S mph	HTrucks V veh/hr	HTrucks S mph	Buses V veh/hr	Buses S mph	Motorcycles V veh/hr	Motorcycles S mph
SB Upper	point21	21	150	47	0	0	0	0	6	47	12	45
	point22	22										
NB Upper	point23	23	132	47	12	37	12	21	0	0	0	0
	point24	24										

URS 24-Apr-13
vs TNM 2.5
Calculated with TNM 2.5

RESULTS: S
PROJECT/C Fort Hamer Bridge
RUN: Site PM Run 3
BARRIER D INPUT HEIGHTS
ATMOSPHI 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Receiver1	1	1	0	59.7	66	59.7	10	----	59.7	0	8	-8

Dwelling Units	# DUs	Noise Reduction Min dB	Avg dB	Max dB
All Selected	1	0	0	0
All Impacted	0	0	0	0
All that meet NR Goa	0	0	0	0

URS 24-Apr-13
vs TNM 2.5

INPUT: TRA
PROJECT/C Fort Hamer Bridge
RUN: Site 3 PM Run 3

Roadway Name	Points Name	No.	Segment Autos V veh/hr	S mph	MTrucks V veh/hr	S mph	HTrucks V veh/hr	S mph	Buses V veh/hr	S mph	Motorcycles V veh/hr	S mph	
SB Upper	point21	21	114	45	0	0	0	0	6	41	0	0	
	point22	22											
NB Upper	point23	23	234	45	12	43	6	44	3	41	0	0	
	point24	24											

<<< TABULAR TIME HISTORY REPORT FROM FILE 4043SITE >>>

Test Location..... Rye Road Site 1
Employee Name..... O'Donnell/Purcell
Employee Number...
Department.....
Comment.....

Calibrator Type & Serial #... Metrosonics cl-304 /3979
Calibrator Calibration Date..

METROSOI db-3100 SN 4043 V1.7
REPORT PRINTED 4/14/2011 AT 9:46:11
OF PERIODS: 311 MODE: CONTINUOUS
PERIOD LENGTH: 0:00:10
TIME HISTORY CUTOFF: NONE
Ln(1): 10.00% Ln(2): 99.90%

DATE: 4/14/2011

INT	TIME	Lav	energy	Lmx	Lpk	L1	L2
Start Rye Morning Run							
162	9:11:00	65.5	3548134	71.1	70	47	
163	9:11:10	55	316227.8	64.6	61	47	
164	9:11:20	61.6	1445440	67.9	67	46	
165	9:11:30	54.7	295120.9	63.7	60	48	
166	9:11:40	61.7	1479108	69.3	68	48	
167	9:11:50	64.2	2630268	67.4	66	59	
168	9:12:00	60.4	1096478	68.4	67	51	
169	9:12:10	60.8	1202264	65.9	65	50	
170	9:12:20	45.4	34673.69	50.3	47	42	
171	9:12:30	61.5	1412538	66.2	65	48	
172	9:12:40	52.1	162181	57	54	49	
173	9:12:50	55.9	389045.1	67.4	65	47	
174	9:13:00	65.2	3311311	68.5	68	59	
175	9:13:10	50.5	112201.8	59.7	56	43	
176	9:13:20	42	15848.93	43.2	42	41	
177	9:13:30	42.3	16982.44	43.3	43	41	
178	9:13:40	44.8	30199.52	45.8	45	43	
179	9:13:50	51.9	154881.7	65.2	59	45	
180	9:14:00	61.2	1318257	68.2	67	45	
181	9:14:10	44.2	26302.68	46.4	45	43	
182	9:14:20	57.9	616595	70.1	68	44	
183	9:14:30	60.9	1230269	69.9	67	53	
184	9:14:40	69.1	8128305	75	74	57	
185	9:14:50	51.5	141253.8	57.7	56	46	
186	9:15:00	53.3	213796.2	65.4	62	45	
187	9:15:10	57	501187.2	65.8	64	43	
188	9:15:20	55.8	380189.4	65.2	64	43	
189	9:15:30	57.7	588843.7	65.2	64	47	
190	9:15:40	45.7	37153.52	47.4	47	42	
191	9:15:50	42.6	18197.01	43.9	43	41	

192	9:16:00	58.9	776247.1	67.4	67	43
193	9:16:10	63	1995262	68.5	68	51
194	9:16:20	51.3	134896.3	54.1	53	46
195	9:16:30	48	63095.73	50	49	46
196	9:16:40	66.5	4466836	71.8	71	49
197	9:16:50	66	3981072	70.9	70	58
198	9:17:00	54.3	269153.5	62.7	59	47
199	9:17:10	47	50118.72	49.7	49	41
200	9:17:20	40.9	12302.69	41.6	41	40
201	9:17:30	40.4	10964.78	40.8	40	40
202	9:17:40	42.7	18620.87	46	45	40
203	9:17:50	61.6	1445440	67.5	67	46
204	9:18:00	49.6	91201.08	58.1	55	41
205	9:18:10	41	12589.25	41.8	41	40
206	9:18:20	40.1	10232.93	40.6	40	39
207	9:18:30	40.3	10715.19	41.4	41	39
208	9:18:40	41	12589.25	41.4	41	40
209	9:18:50	40	10000	40.4	40	39
210	9:19:00	51.3	134896.3	64.5	59	39
211	9:19:10	60.5	1122018	67.5	67	44
212	9:19:20	42.8	19054.61	44.6	43	42
213	9:19:30	54.5	281838.3	65.3	61	42
214	9:19:40	69.8	9549926	75.1	74	62
215	9:19:50	59.7	933254.3	62.9	61	57
216	9:20:00	64.7	2951209	68.6	68	54
217	9:20:10	49	79432.82	54.3	52	46
218	9:20:20	59.7	933254.3	69.7	69	47
219	9:20:30	64.3	2691535	68.5	65	62
220	9:20:40	60.5	1122018	65.3	65	50
221	9:20:50	48.8	75857.76	53.1	50	47
222	9:21:00	67.3	5370318	73.1	72	53
End Rye Morning Run			60.6	75.1		
Begin Rye Morning 2 Run						
234	9:23:00	45.4	34673.69	49.3	48	43
235	9:23:10	42	15848.93	43.5	43	41
236	9:23:20	42.3	16982.44	43.8	43	40
237	9:23:30	42.9	19498.45	45.6	44	41
238	9:23:40	62.3	1698244	67.8	67	45
239	9:23:50	52.6	181970.1	60.6	57	47
240	9:24:00	49.1	81283.05	57.9	54	45
241	9:24:10	70.9	12302688	77.3	76	58
242	9:24:20	55.4	346736.9	61.9	59	50
243	9:24:30	65.2	3311311	73.7	73	51
244	9:24:40	61.4	1380384	71.5	68	54
245	9:24:50	60.3	1071519	65.6	65	53
246	9:25:00	51.3	134896.3	58.8	55	46
247	9:25:10	49.4	87096.36	51.4	50	46
248	9:25:20	65.7	3715352	71.7	71	51
249	9:25:30	52.7	186208.7	61.8	58	46
250	9:25:40	48.1	64565.42	51.2	50	46
251	9:25:50	54.9	309029.5	58	57	51
252	9:26:00	58.8	758577.6	59.6	59	57
253	9:26:10	56.4	436515.8	59.2	58	51

254	9:26:20	50.1	102329.3	51.9	51	48
255	9:26:30	47	50118.72	48.3	48	45
256	9:26:40	45.7	37153.52	46.5	46	44
257	9:26:50	53.4	218776.2	64.6	60	44
258	9:27:00	58.4	691831	65.2	64	48
259	9:27:10	63.3	2137962	69.6	69	48
260	9:27:20	66.6	4570882	73.7	73	51
261	9:27:30	64.4	2754229	72.1	69	57
262	9:27:40	66.5	4466836	69.5	69	59
263	9:27:50	55	316227.8	63.5	60	46
264	9:28:00	45.3	33884.42	47	46	44
265	9:28:10	52.9	194984.5	65.3	61	44
266	9:28:20	63.9	2454709	69	68	53
267	9:28:30	58.3	676083	62.6	62	49
268	9:28:40	45.2	33113.11	49.3	48	42
269	9:28:50	42.3	16982.44	43.2	43	41
270	9:29:00	41.3	13489.63	42.9	42	40
271	9:29:10	57.5	562341.3	65.5	64	42
272	9:29:20	57.9	616595	65.6	64	45
273	9:29:30	42.4	17378.01	45.3	44	40
274	9:29:40	40.1	10232.93	40.9	40	39
275	9:29:50	39.9	9772.372	41.2	40	39
276	9:30:00	39.9	9772.372	42.4	41	39
277	9:30:10	39.9	9772.372	42.4	41	39
278	9:30:20	39.4	8709.636	40	39	39
279	9:30:30	41.1	12882.5	44.3	42	39
280	9:30:40	60.1	1023293	65.1	64	44
281	9:30:50	61.7	1479108	66.7	66	53
282	9:31:00	48	63095.73	57.8	55	39
283	9:31:10	39.7	9332.543	40.8	40	39
284	9:31:20	41.6	14454.4	44.7	43	40
285	9:31:30	57.5	562341.3	63.8	63	44
286	9:31:40	54.5	281838.3	63.2	61	43
287	9:31:50	50.2	104712.9	60.4	55	43
288	9:32:00	62.7	1862087	66.7	66	51
289	9:32:10	46.7	46773.51	51.7	49	44
290	9:32:20	62.6	1819701	70	69	45
291	9:32:30	64.6	2884032	68.8	68	57
292	9:32:40	69.4	8709636	73.8	73	57
293	9:32:50	68.4	6918310	71.4	71	61
294	9:33:00	60.6	1148154	67.3	66	51
295	9:33:10	59.5	891250.9	67.2	67	45
296	9:33:20	47.3	53703.18	56	53	43
297	9:33:30	59.1	812830.5	63.9	63	50
298	9:33:40	60.3	1071519	66	65	50
299	9:33:50	47.1	51286.14	50.1	49	45
End Rye Morning 2 Run			60.6	77.3		
Begin Rye Afternoon Run						
198	13:33:08	61.6	1445440	69	68	47
199	13:33:18	54.3	269153.5	62.9	59	49
200	13:33:28	51.8	151356.1	64	56	46
201	13:33:38	62.2	1659587	68.2	67	53
202	13:33:48	69.2	8317638	72	71	58

203	13:33:58	60.6	1148154	69.5	67	48
204	13:34:08	49.1	81283.05	50.7	50	47
205	13:34:18	48.6	72443.6	52.9	51	46
206	13:34:28	62.4	1737801	68.1	67	51
207	13:34:38	49.2	83176.38	53.3	51	46
208	13:34:48	61	1258925	67.5	66	49
209	13:34:58	46.4	43651.58	49.2	48	45
210	13:35:08	62.5	1778279	69.1	68	47
211	13:35:18	55.1	323593.7	66.4	59	47
212	13:35:28	63	1995262	68.9	68	54
213	13:35:38	68.2	6606934	71.3	70	60
214	13:35:48	67.9	6165950	71.5	70	61
215	13:35:58	63.7	2344229	67.6	67	57
216	13:36:08	58.5	707945.8	66.3	65	51
217	13:36:18	58.6	724436	66.1	65	48
218	13:36:28	47.7	58884.37	49.1	48	46
219	13:36:38	63.1	2041738	67.7	67	48
220	13:36:48	64	2511886	71.3	70	52
221	13:36:58	63.2	2089296	69.1	68	47
222	13:37:08	52	158489.3	65.5	59	45
223	13:37:18	61.2	1318257	68	67	50
224	13:37:28	56.7	467735.1	60.1	59	51
225	13:37:38	62.5	1778279	69.3	68	51
226	13:37:48	51.2	131825.7	60.1	57	44
227	13:37:58	43.9	24547.09	45.7	45	42
228	13:38:08	43.6	22908.68	44.7	44	42
229	13:38:18	61.7	1479108	69.3	68	43
230	13:38:28	58.3	676083	66.3	63	50
231	13:38:38	66.3	4265795	68.2	67	63
232	13:38:48	60.9	1230269	68.4	67	51
233	13:38:58	56.3	426579.5	67.7	63	50
234	13:39:08	60.6	1148154	68.5	68	48
235	13:39:18	45.7	37153.52	49.1	48	43
236	13:39:28	44.8	30199.52	45.6	45	43
237	13:39:38	59.9	977237.2	67.3	66	44
238	13:39:48	62.9	1949845	67.7	66	55
239	13:39:58	62.1	1621810	67.8	67	53
240	13:40:08	61.7	1479108	67.7	67	49
241	13:40:18	47.4	54954.09	49.9	49	45
242	13:40:28	44.9	30902.95	45.5	45	44
243	13:40:38	50.5	112201.8	60.8	56	44
244	13:40:48	65.8	3801894	68.3	67	59
245	13:40:58	52.1	162181	58.8	56	48
246	13:41:08	62.9	1949845	68.8	68	52
247	13:41:18	58	630957.3	63.3	63	50
248	13:41:28	56.6	457088.2	65.5	63	48
249	13:41:38	59.1	812830.5	65.9	65	51
250	13:41:48	48.8	75857.76	52	50	46
251	13:41:58	51.8	151356.1	63.1	58	47
252	13:42:08	64.4	2754229	69	68	53
253	13:42:18	53.5	223872.1	65.6	59	49
254	13:42:28	61.1	1288250	68.5	67	49
255	13:42:38	47.3	53703.18	49.4	48	45

256	13:42:48	54.9	309029.5	66.8	63	46
257	13:42:58	58.7	741310.2	67	65	49
End Rye Afternoon Run			61.1	72.0		

<<< TABULAR TIME HISTORY REPORT FROM FILE 2005GOLF >>>

Test Location..... Golf Course Rd site 2
Employee Name..... O'Donnell/Purcell
Employee Number...
Department.....
Comment.....

Calibrator Type & Serial #... Metrosonics cl-304 /3979
Calibrator Calibration Date..

METROSONICS db-3100 SN 2005 V1.7
REPORT PRINTED 4/14/2011 AT 15:20:47
OF PERIODS: 494 MODE: CONTINUOUS
PERIOD LENGTH: 0:00:10
TIME HISTORY CUTOFF: NONE
Ln(1): 10.00% Ln(2): 99.90%

DATE: 4/14/2011

INT	TIME	Lav	energy	Lmx	Lpk	L1	L2
Begin Golf Course PM Run							
276	14:40:53	48.5	70794.578	57.5	44	44	
277	14:41:03	40.8	12022.644	44.1	42	39	
278	14:41:13	59.9	977237.22	66.5	65	42	
279	14:41:23	53.6	229086.77	67.1	60	47	
280	14:41:33	64.2	2630268	71.4	70	46	
281	14:41:43	42.4	17378.008	45.9	44	41	
282	14:41:53	56.7	467735.14	64.3	63	42	
283	14:42:03	44.9	30902.954	54.7	51	39	
284	14:42:13	39.3	8511.3804	39.3	39	39	
285	14:42:23	39.4	8709.6359	39.8	39	39	
286	14:42:33	40.1	10232.93	44.3	42	39	
287	14:42:43	59.4	870963.59	66.3	65	44	
288	14:42:53	42.9	19498.446	48.7	46	40	
289	14:43:03	52.4	173780.08	64.8	62	40	
290	14:43:13	54.3	269153.48	64.6	62	41	
291	14:43:23	55.4	346736.85	63.5	62	41	
292	14:43:33	47.9	61659.5	58.6	54	39	
293	14:43:43	43.1	20417.379	48.4	46	39	
294	14:43:53	56	398107.17	62.1	61	48	
295	14:44:03	52.4	173780.08	58.4	57	44	
296	14:44:13	55.4	346736.85	61.3	60	44	
297	14:44:23	41.6	14454.398	44	42	40	
298	14:44:33	39.7	9332.543	41.1	40	39	
299	14:44:43	39.3	8511.3804	39.4	39	39	
300	14:44:53	39.3	8511.3804	39.3	39	39	
301	14:45:03	39.3	8511.3804	39.3	39	39	
302	14:45:13	39.3	8511.3804	40	39	39	
303	14:45:23	49.4	87096.359	58.1	55	39	
304	14:45:33	53.8	239883.29	60.1	59	45	
305	14:45:43	55.8	380189.4	59.6	59	43	
306	14:45:53	42.2	16595.869	44	43	40	
307	14:46:03	54.2	263026.8	59.6	59	44	
308	14:46:13	55.7	371535.23	61.1	60	45	
309	14:46:23	44.3	26915.348	50.2	48	39	
310	14:46:33	43.3	21379.621	46.7	46	40	
311	14:46:43	44.8	30199.517	48.8	47	41	
312	14:46:53	41	12589.254	42.8	42	39	

	313	14:47:03	41.1	12882.496	42.1	41	39
	314	14:47:13	44.2	26302.68	46.8	45	41
	315	14:47:23	50.6	114815.36	59	55	46
	316	14:47:33	65.4	3467368.5	70.6	70	53
	317	14:47:43	46.7	46773.514	53.1	50	41
	318	14:47:53	40.2	10471.285	41.4	41	39
	319	14:48:03	39.3	8511.3804	39.3	39	39
	320	14:48:13	39.3	8511.3804	39.3	39	39
	321	14:48:23	39.3	8511.3804	40	39	39
	322	14:48:33	39.3	8511.3804	39.3	39	39
	323	14:48:43	39.3	8511.3804	39.3	39	39
	324	14:48:53	40.3	10715.193	45.8	43	39
	325	14:49:03	54.3	269153.48	60.2	59	43
	326	14:49:13	53.7	234422.88	63.2	62	41
	327	14:49:23	58	630957.34	63.3	62	49
	328	14:49:33	55.4	346736.85	61.2	60	43
	329	14:49:43	41.9	15488.166	43	42	40
	330	14:49:53	54.6	288403.15	64.2	63	40
	331	14:50:03	57	501187.23	64.5	63	48
	332	14:50:13	54	251188.64	63.9	61	41
	333	14:50:23	40.5	11220.185	42.5	41	39
	334	14:50:33	51.5	141253.75	59.4	59	40
	335	14:50:43	55.2	331131.12	58.3	57	51
	336	14:50:53	48.3	67608.298	55.1	54	39
End Golf Course PM Run				54.0	71.4		
Begin Golf Course PM 2 Run							
	343	14:52:03	39.9	9772.3722	41.3	40	39
	344	14:52:13	41.4	13803.843	47.8	44	39
	345	14:52:23	58	630957.34	63.4	63	45
	346	14:52:33	44.6	28840.315	48.4	48	39
	347	14:52:43	42	15848.932	48.4	45	39
	348	14:52:53	56.9	489778.82	63.6	63	44
	349	14:53:03	56.9	489778.82	64.3	63	44
	350	14:53:13	41.5	14125.375	45.4	43	39
	351	14:53:23	39.6	9120.1084	41.4	40	39
	352	14:53:33	39.3	8511.3804	41	39	39
	353	14:53:43	41.9	15488.166	43.8	43	40
	354	14:53:53	42.5	17782.794	49.5	45	39
	355	14:54:03	56.4	436515.83	60.6	60	46
	356	14:54:13	43.6	22908.677	46.7	45	42
	357	14:54:23	58.6	724435.96	66.8	66	42
	358	14:54:33	55	316227.77	64.8	62	45
	359	14:54:43	58.2	660693.45	65.3	64	44
	360	14:54:53	44.7	29512.092	47.4	46	43
	361	14:55:03	58.4	691830.97	63.7	63	47
	362	14:55:13	58.9	776247.12	65.7	62	53
	363	14:55:23	69.3	8511380.4	70.5	70	66
	364	14:55:33	60.6	1148153.6	67.7	66	52
	365	14:55:43	49.1	81283.052	52.7	52	46
	366	14:55:53	45.4	34673.685	46.8	46	44
	367	14:56:03	42.3	16982.437	44.1	43	40
	368	14:56:13	42.9	19498.446	46.8	45	40
	369	14:56:23	58.7	741310.24	63.9	63	47
	370	14:56:33	44.9	30902.954	50.9	48	41
	371	14:56:43	53.8	239883.29	59.6	59	43
	372	14:56:53	50.2	104712.85	61.4	57	42
	373	14:57:03	53.9	245470.89	62.1	61	41
	374	14:57:13	45.7	37153.523	49.7	49	40
	375	14:57:23	42.1	16218.101	48.8	44	39
	376	14:57:33	45.4	34673.685	50.5	49	39
	377	14:57:43	39.3	8511.3804	39.3	39	39

378	14:57:53	39.3	8511.3804	39.5	39	39
379	14:58:03	40.6	11481.536	42.5	41	39
380	14:58:13	41.8	15135.612	42.7	42	40
381	14:58:23	50.7	117489.76	58.4	57	42
382	14:58:33	51.2	131825.67	58.4	57	44
383	14:58:43	42.8	19054.607	44.5	43	40
384	14:58:53	42	15848.932	43.1	42	41
385	14:59:03	60.3	1071519.3	74.9	69	43
386	14:59:13	65	3162277.7	74.9	72	51
387	14:59:23	50.7	117489.76	62.3	57	43
388	14:59:33	59.8	954992.59	66.6	66	45
389	14:59:43	41.9	15488.166	45.4	43	40
390	14:59:53	55.6	363078.05	63.5	62	42
391	15:00:03	47.3	53703.18	57.2	53	41
392	15:00:13	56.7	467735.14	63.4	62	42
393	15:00:23	41.3	13489.629	48.2	45	39
394	15:00:33	39.3	8511.3804	39.3	39	39
395	15:00:43	39.3	8511.3804	39.3	39	39
396	15:00:53	46.2	41686.938	57.9	54	39
397	15:01:03	40.8	12022.644	47.3	43	39
398	15:01:13	39.7	9332.543	41.8	40	39
399	15:01:23	55.6	363078.05	63.9	63	39
400	15:01:33	47.2	52480.746	57.9	54	39
401	15:01:43	39.9	9772.3722	42.5	41	39
402	15:01:53	39.8	9549.9259	41.3	40	39
403	15:02:03	47.4	54954.087	59.9	54	39
End Golf Course PM 2 Run			55.9	74.9		
Begin Golf Course AM Run						
312	10:05:06	49.2	83176.377	58.3	45	45
313	10:05:16	48.9	77624.712	59.2	55	43
314	10:05:26	44.7	29512.092	45.2	45	44
315	10:05:36	44.6	28840.315	45.2	44	44
316	10:05:46	45.6	36307.805	46.8	46	44
317	10:05:56	56.7	467735.14	61.9	61	46
318	10:06:06	62	1584893.2	65.5	65	54
319	10:06:16	48.7	74131.024	54.5	51	46
320	10:06:26	54.9	309029.54	59.8	59	46
321	10:06:36	49	79432.823	56.7	53	45
322	10:06:46	45.8	38018.94	46.7	46	44
323	10:06:56	46.3	42657.952	47	46	45
324	10:07:06	46.3	42657.952	46.9	46	45
325	10:07:16	46.3	42657.952	47	46	45
326	10:07:26	46.1	40738.028	46.7	46	45
327	10:07:36	45.8	38018.94	46.5	46	45
328	10:07:46	46.2	41686.938	46.8	46	45
329	10:07:56	45.7	37153.523	46.5	46	44
330	10:08:06	45.8	38018.94	46.4	46	45
331	10:08:16	46	39810.717	46.9	46	45
332	10:08:26	46.5	44668.359	47.1	46	45
333	10:08:36	46.3	42657.952	46.9	46	45
334	10:08:46	46.8	47863.009	47.4	47	46
335	10:08:56	46.9	48977.882	47.8	47	46
336	10:09:06	46.9	48977.882	47.8	47	46
337	10:09:16	46.3	42657.952	47.3	47	45
338	10:09:26	47.4	54954.087	54.5	50	45
339	10:09:36	62	1584893.2	65.4	65	53
340	10:09:46	47.7	58884.366	53.4	51	45
341	10:09:56	45.5	35481.339	46.3	46	45
342	10:10:06	45.2	33113.112	45.7	45	44
343	10:10:16	47.1	51286.138	55.4	51	44
344	10:10:26	52.1	162181.01	57.3	57	45

	345	10:10:36	45.6	36307.805	46.2	45	44
	346	10:10:46	44.8	30199.517	45.3	45	44
	347	10:10:56	44.9	30902.954	45.2	45	44
	348	10:11:06	45	31622.777	46.1	45	44
	349	10:11:16	45.1	32359.366	45.6	45	44
	350	10:11:26	44.9	30902.954	45.3	45	44
	351	10:11:36	45	31622.777	45.5	45	44
	352	10:11:46	45	31622.777	45.4	45	44
	353	10:11:56	47.7	58884.366	54.2	51	45
	354	10:12:06	53.4	218776.16	58.9	58	46
	355	10:12:16	56.4	436515.83	63.6	62	46
	356	10:12:26	51.6	144543.98	57.8	54	49
	357	10:12:36	49	79432.823	51.1	49	48
	358	10:12:46	53.2	208929.61	56.2	55	50
	359	10:12:56	53.4	218776.16	58.9	57	49
	360	10:13:06	52.9	194984.46	54.4	54	51
	361	10:13:16	54.4	275422.87	57.4	55	52
	362	10:13:26	64.8	3019951.7	71	70	56
	363	10:13:36	61	1258925.4	68.7	65	55
	364	10:13:46	58	630957.34	63.6	63	52
	365	10:13:56	53.5	223872.11	58.1	56	49
	366	10:14:06	51.6	144543.98	55.2	53	48
	367	10:14:16	58.6	724435.96	62.8	62	50
	368	10:14:26	55.2	331131.12	59.9	59	50
	369	10:14:36	51.2	131825.67	59	57	45
	370	10:14:46	44.7	29512.092	45.6	45	44
	371	10:14:56	43.9	24547.089	44.5	44	43
End Golf Course AM Run				53.7	71.0		

URS 12-Jul-11
O'DONNELL TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: FT HAMER/RYE RD
RUN: Val Site 1 Run AM
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h		Increase over existing		Type Impact	With Barrier Calculated Noise Reduction			
				Calculated	Crit'n	Calculated	Crit'n Sub'l Inc		LAeq1h	Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
	50	6	1	0	62	66	62	10 ----		62	0	8 -8

Dwelling Units	# DUs	Noise Reduction Min dB	Avg dB	Max dB
All Selected	1	0	0	0
All Impacted	0	0	0	0
All that meet NR Goal	0	0	0	0

URS 12-Jul-11
O'DONNELL TNM 2.5

INPUT: TRAFFIC FOR LAeq
PROJECT/CONTRACT: FT HAMER/RYE RD
RUN: Val Site 1 Run AM

Roadway Name	Points Name	No.	Segment Autos V veh/hr	Autos S mph	MTrucks V veh/hr	MTrucks S mph	HTrucks V veh/hr	HTrucks S mph	Buses V veh/hr	Buses S mph	Motorcycles V veh/hr	Motorcycles S mph	
Roadway1	point1	1	108	47	0	0	6	46	0	0	0	0	
	point2	2											
Roadway2	point3	3	72	50	0	0	6	39	0	0	0	0	
	point4	4											

URS 12-Jul-11
O'DONNELL TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: FT HAMER/RYE RD
RUN: Val Site 1 Run AM 2
BARRIER DESIGN: INPUT HEIGHTS

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

ATMOSPHERICS: 68 deg F, 50% RH

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h		Increase over existing		Type Impact	With Barrier Calculated Noise Reduction			
				Calculated	Crit'n	Calculated	Crit'n Sub'l Inc		LAeq1h	Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
	50	6	1	0	61.7	66	61.7 10	----	61.7	0	8	-8

Dwelling Units	# DUs	Noise Reduction Min dB	Avg dB	Max dB	
All Selected	1	0	0	0	
All Impacted	0	0	0	0	
All that meet NR Goal	0	0	0	0	

URS 12-Jul-11
O'DONNELL TNM 2.5

INPUT: TRAFFIC FOR LAeq1
PROJECT/CONTRACT: FT HAMER/RYE RD
RUN: Val Site 1 Run AM 2

Roadway Name	Points Name	No.	Segment Autos V veh/hr	S mph	MTrucks V veh/hr	S mph	HTrucks V veh/hr	S mph	Buses V veh/hr	S mph	Motorcycles V veh/hr	S mph	
Roadway1	point1	1	90	46	0	0	6	44	0	0	0	0	
	point2	2											
Roadway2	point3	3	90	43	6	40	6	41	0	0	0	0	
	point4	4											

URS 12-Jul-11
O'DONNELL TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVE
PROJECT/CONTRACT: FT HAMER/RYE RD
RUN: Val Site 1 Run PM
BARRIER DESIGN: INPUT HEIGHTS

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

ATMOSPHERICS: 68 deg F, 50% RH

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h		Increase over existing		Type Impact	With Barrier Calculated Noise Reduction			
				Calculated	Crit'n	Calculated	Crit'n Sub'l Inc		LAeq1h	Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
	50	6	1	0	62.7	66	62.7	10 ----	62.7	0	8	-8
	-50	12	1	0	62.6	66	62.6	10 ----	62.6	0	8	-8

Dwelling Units	# DUs	Noise Reduction Min dB	Avg dB	Max dB
All Selected	2	0	0	0
All Impacted	0	0	0	0
All that meet NR Goal	0	0	0	0

URS 12-Jul-11
O'DONNELL TNM 2.5

INPUT: TRAFFIC FOR LA
PROJECT/CONTRACT: FT HAMER/RYE RD
RUN: Val Site 1 Run PM

Roadway Name	Points Name	No.	Segment Autos V veh/hr	Autos S mph	MTrucks V veh/hr	MTrucks S mph	HTrucks V veh/hr	HTrucks S mph	Buses V veh/hr	Buses S mph	Motorcycles V veh/hr	Motorcycles S mph	
Roadway1	point1	1	126	47	6	37	0	0	0	0	0	0	
	point2	2											
Roadway2	point3	3	108	46	6	45	12	27	0	0	0	0	
	point4	4											

URS 12-Jul-11
O'DONNELL TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: FT HAMER/RYE RD
RUN: Val Site 2 AM Run
BARRIER DESIGN: INPUT HEIGHTS

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

ATMOSPHERICS: 68 deg F, 50% RH

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h		Increase over existing		Type Impact	With Barrier Calculated Noise Reduction			
				Calculated	Crit'n	Calculated	Crit'n Sub'l Inc		LAeq1h	Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
50 From centerline	6	1	0	56	66	56	10	----	56	0	8	-8

Dwelling Units	# DUs	Noise Reduction Min dB	Avg dB	Max dB
All Selected	1	0	0	0
All Impacted	0	0	0	0
All that meet NR Goal	0	0	0	0

URS 12-Jul-11
O'DONNELL TNM 2.5

INPUT: TRAFFIC FOR LAeq1
PROJECT/CONTRACT: FT HAMER/RYE RD
RUN: Val Site 2 AM Run

Roadway Name	Points Name	No.	Segment Autos V veh/hr	Autos S mph	MTrucks V veh/hr	MTrucks S mph	HTrucks V veh/hr	HTrucks S mph	Buses V veh/hr	Buses S mph	Motorcycles V veh/hr	Motorcycles S mph
Roadway1	point1	1	24	31	0	0	0	0	0	0	6	29
	point2	2										
Roadway2	point3	3	48	36	0	0	6	29	0	0	0	0
	point4	4										