



## United States Department of the Interior

FISH AND WILDLIFE SERVICE  
South Florida Ecological Services Office  
1339 20<sup>th</sup> Street  
Vero Beach, Florida 32960



September 18, 2012

Alan M. Dodd, Colonel  
U.S. Army Corps of Engineers  
Fort Myers Regulatory Office  
1520 Royal Palm Square Boulevard, Suite 310  
Fort Myers, Florida 33919

Service Federal Activity Code: 41420-2006-FA-1500  
Service Consultation Code: 41420-2006-F-0674-R002  
Corps Application No.: SAJ-2000-01926 (IP-HWB)-Mod 1  
Date Received: April 23, 2012  
Applicant: I.M. Collier Joint Venture  
Project: Mirasol Development  
County: Collier

Dear Colonel Dodd:

The U.S. Fish and Wildlife Service (Service) has reviewed the U.S. Army Corps of Engineers' (Corps) request to reinitiate consultation dated April 23, 2012, for the permit modification listed above. This letter is submitted in accordance with section 7 of the Endangered Species Act of 1973, as amended (Act) (87 Stat. 884; 16 U.S.C. 1531 *et seq.*) and the provisions of the Fish and Wildlife Coordination Act (FWCA) of 1958, as amended (48 Stat. 401; 16 U.S.C. 661 *et seq.*).

Corps Permit No. SAJ-2000-01926 (IP-HWB) was issued on July 28, 2011, and authorized the discharge of dredge or fill material to waters of the United States. On February 8, 2012, the Service received correspondence from the applicant that the project was being modified with the addition of 322 residential units and the addition of 85 acres of onsite preserve (total project acreage increased from 1,713.45 acres to 1,798.35 acres). Additional information was provided to the Service on March 15, 2012, and the Corps requested reinitiation of consultation on April 23, 2012. The project site is located north of Immokalee Road and east of Interstate 75 in Sections 10, 11, 15, and 22; Township 48 South; Range 26 East; in Collier County, Florida (Figure 1).

### Consultation History

The consultation history for the Mirasol Development spans a 12-year period and is detailed in Service Biological Opinions dated February 21, 2003; March 9, 2005; March 1, 2007; May 3, 2007; April 22, 2011; and June 3, 2011. Therefore, the consultation history referenced in this reinitiation request is specific to the project as permitted by the Corps on July 28, 2011, including the Service's consultation for the permitted project. Additional detail is reviewable in any of the referenced Biological Opinions.



On May 11, 2010, the Corps, requested consultation with the Service and provided determinations of “may affect” for the endangered Florida panther (*Puma concolor coryi*) and the endangered wood stork (*Mycteria americana*) and “may affect, not likely to adversely affect” (MANLAA) for the endangered red-cockaded woodpecker (RCW; *Picoides borealis*) and the threatened eastern indigo snake (*Drymarchon corais couperi*). The project proposed impacts to 773 acres (645 acres of wetlands) and the preservation of 941 acres (831 acres of wetlands) onsite (total acreage is 1,713.45 acres). The applicant also proposed the acquisition of 27.68 wetland credits on 82 acres at Panther Island Mitigation Bank (PIMB) and the acquisition of the equivalent of 2,330 panther habitat units (PHUs), which is approximately 291 acres in the panther Primary Zone.

On April 22, 2011, the Service provided a Biological Opinion (Service Log No. 41420-2006-F-0674) concluding that the proposed project was not likely to jeopardize the survival and recovery of the Florida panther and wood stork and concurred with MANLAA determinations for the RCW and eastern indigo snake. The April 22, 2011, Biological Opinion was revised on June 3, 2011, clarifying several consultation history dates and a discrepancy in the onsite compensation acreage.

On July 28, 2011, the Corps issued permit SAJ-2000-01926 (IP-HWB) to I.M. Collier Joint Venture for the project known as “Mirasol.” The permitted site plan included 799 residential units, a 36-hole golf course, a clubhouse, lakes, an entrance road, and onsite preserves. The project area was about 1,713.45 acres and included 772.98 acres of development, 36.86 acres of preserves and buffers internal to the development and not accessible to the Florida panther (total panther impact 809.84 acres), and 903.66 acres of additional preserves and buffers onsite, external to the development and available to the Florida panther. In addition to the above compensation, the permit requires the applicant to purchase and protect about 291.10 acres (the equivalent of 2,330 PHUs) within the panther Primary Zone, and to purchase 27.68 wetland credits (about 82.21 acres representing 709 PHUs) from PIMB. The total compensation proposal, including both onsite and offsite properties, provided protection and restoration of about 1,276.97 acres of panther habitat in areas surrounded by previously restored and protected panther habitat (903.66 acres onsite, 82.21 acres in PIMB, and 291.10 acres in the Primary Zone).

On February 8, 2012, the applicant met with the Service and provided information on proposed revisions to the permitted project. During applicant discussions with various Conservation Organizations, additional wood stork foraging improvements were agreed upon. Two upland mesic pine areas will be scraped down and contoured to provide depression areas, which will concentrate forage fish as water levels recede. The current proposal for modification entails the following:

- Approximately 85 acres are being added into the project boundary as additional preserve (project boundary change from 1,713.45 acres to 1,798.35 acres).
- The maximum number of residential units will increase from 799 to 1,121.
- 18 holes of golf are being eliminated.
- The pass-through system of lakes currently permitted is being modified to an open channel that will run along the western development boundary.
- The development (impact) footprint is being reduced from 809.84 to 709.76 acres.

- Wetland impacts associated with the project are being reduced from 645.35 acres to 561.87 acres.
- Wetland creation will occur on the southern uplands that were previously in the development footprint but are now within the new preserve area.
- Removal of the berm around the farm field and creation of depressions within the existing farm field and adjacent upland areas will be undertaken to create improved wood stork foraging opportunities.

During the February 8, 2012, meeting, the applicant provided current site information that supports the Corps' original determination that the project "may affect" the Florida panther and wood stork and MANLAA the eastern indigo snake and RCW. Due to the amount of changes proposed by the applicant, the Service requested a reevaluation of the pre- and post-project panther PHU calculations, and pre- and post-project wood stork foraging biomass calculations. The Service also requested updated data on the Florida panther population and panther/vehicle mortality within a 5-mile radius, as well as an updated traffic pattern model projection for the proposed additional residential units. Details were requested on the proposed wetlands to be created in the southwestern portion of the project site.

On February 23, 2012, the Service received an updated figure of the traffic pattern model projections from Turrell, Hall & Associates, Inc. (THA).

On March 26, 2012, the Service received correspondence from the Collier County Audubon Society and Florida Wildlife Federation, providing supporting reviews of the proposed permit modification.

On April 30, 2012, the Service received the updated traffic pattern model projections from JMB Transportation Engineering, Inc. (JMBT).

On July 13, 2012, additional data was received from THA. Data provided by THA (2012) included updated Panther PHU and wood stork biomass calculations, and site drawings showing proposed contours for the proposed wetlands to be created in the southwestern portion of the project site. The data also included information on overall changes in the status of the Florida panther within and around the project site.

On August 10, 2012, the Service received additional details on the pass-through flow-way and offsite regional drainage effects.

On August 14, 2012, the Service received correspondence from Collier County Audubon Society providing supporting reviews of the revised flow-way design.

### **BIOLOGICAL OPINION REINITIATION**

On April 23, 2012, the Corps requested reinitiation with the Service for Formal consultation on the Florida panther and wood stork and provided determinations of MANLAA for the eastern indigo snake and RCW.

## **Eastern Indigo Snake**

The Corps' determination for the eastern indigo snake is supported through the Corps' application of the Service's Eastern Indigo Snake Programmatic Determination Key (2012) (A→B→C→D→E→MANLAA) and the Corps commitment to include the Service's (2004) *Standard Protection Measures for the Eastern Indigo Snake* as a permit condition.

## **Red-cockaded Woodpecker**

The Corps' determination for the RCW is also appropriate. The Service provided a concurrence determination of MANLAA as a component of the June 3, 2011, Biological Opinion. Although the surveys were conducted in 2010 and several nesting and foraging seasons have passed, habitat conditions that were present on the project site that adversely affect RCW foraging and nesting suitability (mid-story vegetation density and dominance by exotic species) continues to adversely affect habitat suitability for the RCW. The restoration component proposed for the onsite preserve, (*i.e.*, the removal of the exotic vegetation and the implementation of the management plan) is expected to provide improved foraging and nesting habitat for the RCW. In addition, although not a project requirement, the applicant has expressed interest in reintroduction of RCWs into the onsite preserve. This could include translocation of donor birds from a recipient site or installation of artificial nest cavity boxes and/or pre-drilling suitable pines as surrogate nest sites to allow for passive RCW migration from adjacent colonies. The Service is supportive of efforts to reintroduce the RCW into the onsite preserve and welcomes the opportunity to further assist the applicant in this effort.

## **Florida Panther**

In order to assess if adverse effects will occur to the Florida panther in a manner or extent not previously considered in the Service's June 3, 2011, Biological Opinion, we requested additional traffic data on the proposed increase in residential units from 799 units to 1,121 units, and updated information on overall changes in the status of the Florida panther within and around the project site. Data was specifically requested on population and mortality data within a 5-mile radius of the project and an assessment of PHUs pre- and post-development.

The PHU assessment was modified for the project as currently proposed. According to the modified PHU assessment (THA 2012), the revised project will impact 709.77 acres (Figure 2), result in a loss of about 3,493.21 PHUs, and provide a recommended compensation of 8,733.88 PHUs. The onsite mitigation area (Figure 3), which includes about 1,088.56 acres of preserves, following restoration, will generate 7,936.30 PHUs. The applicant proposes to purchase an additional 797.58 PHUs from the Panther Passage Conservation Bank (Bank) to comply with the recommended compensation. The PHU acquisition from the Bank represents an equivalent of 33.22 acres (24.01 PHUs/acre) of habitat preservation. The applicant will provide a certificate of purchase from the Bank to the Service within 90 days of permit issuance and/or prior to any onsite land clearing; whichever is earliest. Total preserves, including the offsite compensation, are 1,121.78 acres.

The onsite preserve for the Mirasol project will be placed under a conservation easement granted to the South Florida Water Management District (District), with enforcement rights granted to the Service and Corps. Once the exotic vegetation has been removed and the native vegetation

restored, the preserve lands outside of the development footprint (about 1,089 ac) are to be maintained by the applicant or the homeowner's association until they can be donated to the CREW Trust, or another appropriate public entity capable of providing such services, and approved by the Service. The land transfer to the public management entity is to be completed within 6 months of final agency sign-off on the mitigation activities referenced in the Corps/District permit applications.

In addition to the donation of the property to an appropriate entity, a non-wasting escrow fund for the perpetual maintenance and monitoring of the preserve shall be established. The amount of the endowment will be determined at the time the preserve is transferred to the public management entity, and will be based on the perpetual management, maintenance and monitoring needs as determined and approved through coordinated discussions with the land recipient and the Service at the time of the proposed transfer. The amount of the endowment funds and the entity to receive the funds must be determined prior to the final agency sign-off on the mitigation activities referenced in the Corps/South Florida Water Management District permit applications. The monies generated from the non-wasting endowment fund will be sufficient to fund all land management costs including: site fencing and fire break maintenance, taxes, liability insurance (if necessary), site management and maintenance, monitoring reports, escrow holder handling fee, and a 10 percent contingency. A capitalization rate will be determined in coordination with, and approved by, the Service at the time the property is turned over to insure that the endowment fund is non-wasting.

To assist the Service in further assessing indirect affects to the Florida panther (*i.e.*, those affects not directly tied to habitat loss), the Service reviewed the additional traffic data provided on the proposed increase in residential units from 799 units to 1,121 units, and updated information on overall changes in the status of the Florida panther within and around the project site.

The revised traffic report compared the traffic model for the site plan reflected in the Corps' permit (*i.e.*, 799 residential units with 36 holes of golf) and the current traffic model for the revised site plan (*i.e.*, 1,121 residential units and one 18-hole golf course). The April 30, 2012, traffic report prepared by JMBT (2012) noted the original traffic profile would result in 5,433 average weekday trip-ends. The revised development proposal is expected to generate a traffic profile of 8,051 average weekday trip-ends, which is an increase of 2,608 weekday trip-ends over the permitted project. The report suggests 4 percent of this increase will travel east or west on Immokalee Road east of CR 951, with the remainder travelling north or south on Collier Boulevard (CR 951) or east and west on Immokalee Road west of the project site. The new project trips will constitute about 0.3 percent increase of the total traffic load on Immokalee Road and a 1.1 percent increase on Collier Boulevard. We believe the minimal increases in traffic on Immokalee Road and Collier Boulevard are insignificant in terms of the overall traffic already present on these roadways, and will have no additional adverse impacts to any protected species above and beyond those assessed in the June 3, 2011, Biological Opinion.

Another component of the Service's assessment of indirect effects to the Florida panther is consideration of a project's proposed actions to minimize traffic effects and reduce vehicle-caused panther mortalities in the adjacent Florida panther core lands. Such actions can include both

installation of fencing and/or wildlife underpasses in traffic/panther mortality hot-spots and development density reduction programs that allow for the transfer of development densities (transfer of development rights - TDR) from lands in the panther core lands to lands proposed for development in more urban settings. One such program in Collier County is the Rural Lands Assessment (RLA), which was adopted in 2002. This program established Rural Lands Stewardship Areas and Rural Fringe Mixed Use Overlay Districts. Within these designations, undeveloped lands not designated as conservation or in public ownership could be designated as either Sending Lands or Receiving Lands. Sending Lands have the highest degree of environmental value and sensitivity, with significant wetlands, uplands, and habitat for listed species. Sending Lands are principal targets for acquisition, preservation, and conservation. Receiving Lands have a significantly lesser degree of environmental or listed species habitat value and have been determined to be most appropriate for development. A third classification, Neutral Lands, falls in the middle in terms of value between Receiving Lands and Sending Lands; Neutral Lands generally retain the development rights that existed when the Rural Assessment was undertaken.

The proposed Mirasol Development crosses three different zoning districts. Section 22 is in the Urban Residential Subdistrict with a base density of 4 units per acre and is outside of the boundaries of the RLA program. Sections 10 and 15 are in the RLA program and are designated as Rural Fringe Mixed Use "Neutral" Lands with a base density of 1 unit per 5 acres. Section 11 is also in the RLA program and is designated as Rural Fringe Mixed Use "Sending" Lands with a base density of 1 unit per 5 acres and bonuses associated with the TDR program.

The County Planned Unit Development zoning defines the property boundary as the lands within Sections 22, 10, and 15. Section 11 is accounted for as off-site lands and Section 11 is the only one associated with the TDRs. Density calculations for the original project include 425.76 acres in Section 22 or 1,703 units ( $425.76 \times 4 = 1,703$ ) and 1,212.79 acres within Sections 10 and 15 or 242.6 units ( $1,212.79 / 5 = 242.6$ ) for a total maximum density of 1,945.6 residential units ( $1,703 + 242.6 = 1,945.6$ ). The applicant previously committed to only construct 799 units. The additional 322 units now being requested are generated from the 80 additional acres being added to the preserve from Section 22 ( $80 \times 4 = 320$ ) and 10 additional acres being added from Section 15 ( $10 / 5 = 2$ ). The density request for this project is now the 799 originally permitted plus the extra 322, for a total of 1,121 units.

Because Section 11 is designated as Sending Lands, the density from these 159.79 acres can only be transferred to Receiving Lands through the TDR program. Since there are no Receiving Lands associated with the Mirasol project, the TDR credits from Section 11 have to be severed and held (banked) until such time as they may be transferred to a project in the Receiving Lands area. The Section 11 Sending Lands are eligible for Base Density Credits (1 TDR credit per 5 acres or 31.95 credits) plus Early Entry Bonus (1 bonus credit per TDR credit, or 31.95 credits) plus Restoration & Maintenance Bonus (also 1 bonus credit per TDR credit) plus Conveyance Bonus (also 1 bonus credit per TDR credit). Therefore, the total number of TDRs that have been banked and eligible for density development credit for a future project in the Rural Fringe Mixed Use Overlay Districts is 127.8 TDRs. Although the Service generally does not support transferring development rights from lands that are being protected for conservation by one project to another future project, the Service understands the use of the TDRs in this instance and is supportive of

Collier County's Rural Lands Assessment and Density Reduction program. However, should a future project using the 127.8 TDRs result in impacts to listed species, compensation for those impacts will be required in a manner consistent with the then-current science. Since the Section 11 lands are part of the Mirasol project, they will not be considered compensation to offset future impacts to listed species from use of the TDRs.

The Service, during the February 8, 2012, meeting, also requested information regarding overall changes in the status of the Florida panther within and around the project site. Specifically, we requested panther population and mortality data within a 5-mile radius around the project to determine if the population and mortalities increased or decreased in this area from when the project was reviewed and permitted in 2011 (Service Biological Opinion: June, 3, 2011) compared to the species current status in 2012 (July 30, 2012). No new telemetry data since the previous Biological Opinion is available to the Service. However FP186 (male) was reported as alive in the previous Biological Opinion and died from intraspecific aggression on June 20, 2011, 6.1 miles northeast of the project. Historically, eight radio-collared male and female panthers were recorded on 53 occasions based on telemetry data from February 1981 through May 13, 2011. In our 2011 Biological Opinion, the closest and most-recent occurrence of a live, radio-collared panther was FP186, recorded on May 13, 2011, 4.50 miles northeast of the project. Since FP186 is now dead, the most recent occurrence of a live, radio-collared panther is FP159, recorded on April 28, 2008, 3.7 miles northeast of the project. In addition, an un-collared male panther was reported on July 18, 2012, adjacent to the southwest border of the site on Rose Boulevard. The Service believes the project site, as determined in the previous Biological Opinion, may occasionally be used by collared and other non-collared panthers because it contains habitat types used by panthers and their prey, and the project vicinity has been used historically by panthers as indicated by telemetry locations. Therefore, the Service believes the conclusions provided in the June 3, 2011, Biological Opinion are applicable to the project as modified and concludes the revised project will have no additional adverse impacts to the Florida panther greater than those previously addressed by the Service.

### **Wood Stork**

In order to assess if adverse effects will occur to the wood stork in a manner or extent not previously considered in the Service's June 3, 2011, Biological Opinion, we requested additional data on wood stork foraging biomass and changes in wetland impacts. The project as originally permitted proposed impact to 645.35 acres and a loss of 190.06 kilograms (kg) of foraging biomass. The permitted project proposed the protection and restoration of 831.35 acres of onsite preserve with a biomass gain following restoration of 2,181.87 kg. The net change following project development would be an increase of 1,991.81 kg ( $2,181.87 - 190.06 = 1,991.81$  kg).

The revised project proposes impacts to 561.87 acres and a loss of 160.87 kg of foraging biomass. The revised project also proposes the protection and restoration of 949.56 acres and the creation of 14.55 acres, totaling 964.11 acres, with a biomass gain following restoration and creation of 1,441.24 kg. The net change following project development will be an increase of 1,280.37 kg ( $1,441.24 - 160.87 = 1,280.37$  kg).

The previously permitted project included an internal conveyance flow-way that consisted of a series of lakes, swales, and pipes. The conveyance ran from an intake weir at the northern development boundary, through the project development area, and eventually outfalling into the Cocohatchee Canal at the southern development boundary. This conveyance system covered approximately 38.4 acres and was designed to ensure that water levels outside of the project development footprint were not elevated during the wet season over the existing pre-development levels.

The current proposal still includes an internal conveyance flow-way, but it has been re-designed as an open swale instead of a series of connected lakes, and it has been relocated to run along the western property boundary instead of through the center of the development (Figure 4). The conveyance will still originate at the intake weir at the northern development boundary and outfall into the Cocohatchee Canal at the southern development boundary. The currently proposed conveyance will cover approximately 25.1 acres and will ensure that water levels outside of the project development footprint are not elevated over the existing pre-development levels. The Service has reviewed the data provided and concludes the revised project does not propose adverse effects to the wood stork in a manner or extent not previously considered in the Service's June 3, 2011, Biological Opinion.

In summary, the Service concurs with the Corps' determinations of "may affect, but not likely to adversely affect" for the eastern indigo snake and RCW. The Service has reviewed the information and determinations in the June 3, 2011, Biological Opinion and concludes that the effects to the Florida panther and wood stork resulting from the proposed project modifications do not exceed those effects evaluated in a manner or extent not previously considered. All reasonable and prudent measures and terms and conditions referenced in the June 3, 2011, Biological Opinion are also applicable to this consultation. This concludes Formal consultation for the Florida panther and wood stork.

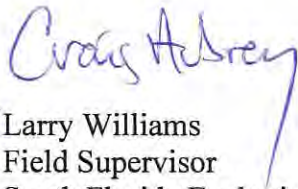
### **REINITIATION NOTICE**

As provided in 50 CFR § 402.16, reinitiation of formal consultation is required where discretionary Federal agency involvement or control over the action has been retained (or is authorized by law) and if: (1) the amount or extent of incidental take is exceeded; (2) the agency action is subsequently modified in a manner that causes an effect to the listed species or critical habitat not considered in this opinion; (3) new information reveals effects of the agency action that may affect listed species or critical habitat in a manner or to an extent not considered in this opinion; or (4) a new species is listed or critical habitat designated that may be affected by the action. In instances where the amount or extent of incidental take is exceeded, any operations causing such take must cease pending reinitiation.



Thank you for your cooperation in the effort to protect fish and wildlife resources. If you have any questions regarding this project, please contact Allen Webb at 772-469-4246.

Sincerely yours,

  
for Larry Williams  
Field Supervisor  
South Florida Ecological Services Office

cc: electronic only

Corps, Fort Myers, Florida (Monika Dey)

EPA, West Palm Beach, Florida (Ron Meidema)

FWC, Naples, Florida (Darrell Land)

FWC, Tallahassee, Florida (FWC-CPS, Kipp Frohlich)

Service, Atlanta, Georgia (Ken Graham)

Service, Florida Panther NWR, Naples, Florida (Kevin Godsea)

## LITERATURE CITED

JMB Transporation Engineering, Inc. 2012. Traffic impact statement for Mirasol PUD Amendment. Revised April 30, 2012. Naples Florida.

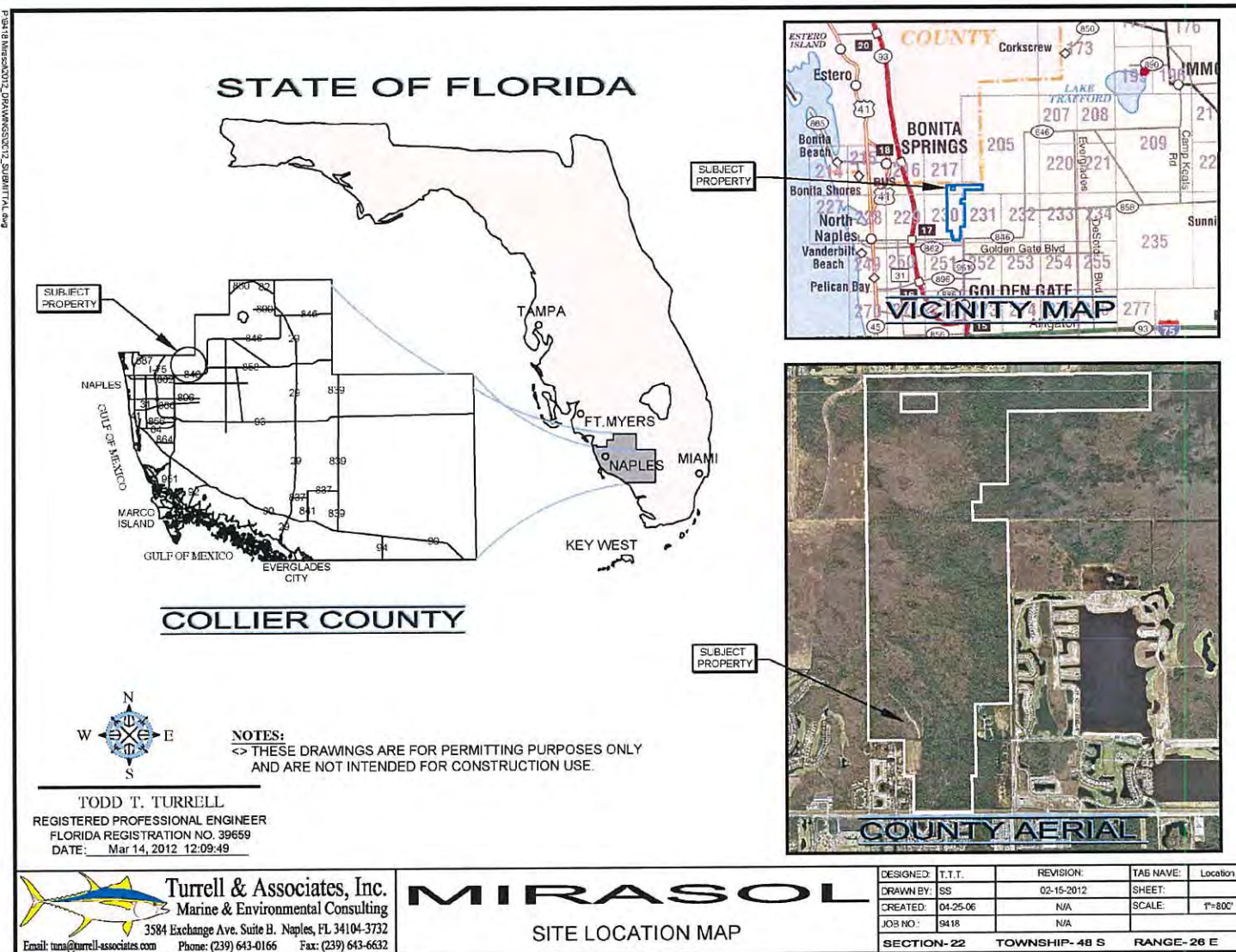
Turrell, Hall & Associates, Inc. 2012. Biological assessment updating Florida panther mortality data, panther habitat units, wood stork biomass data, created wetland couture data, and vehicle traffic projections for the Mirasol Development. Naples, Florida.

U.S. Fish and Wildlife Service. 2004. Standard protection measures for the eastern indigo snake. South Florida Ecological Services Office; Vero Beach, Florida.

U.S. Fish and Wildlife Service. 2011. Biological opinion, Mirasol Golf Club, Collier County, Florida. South Florida Ecological Services Office; Vero Beach, Florida.

U.S. Fish and Wildlife Service. 2012. Eastern Indigo Programmatic Effect Determination Key. South Florida Ecological Services Office; Vero Beach, Florida.

Figure 1. Regional Aerial







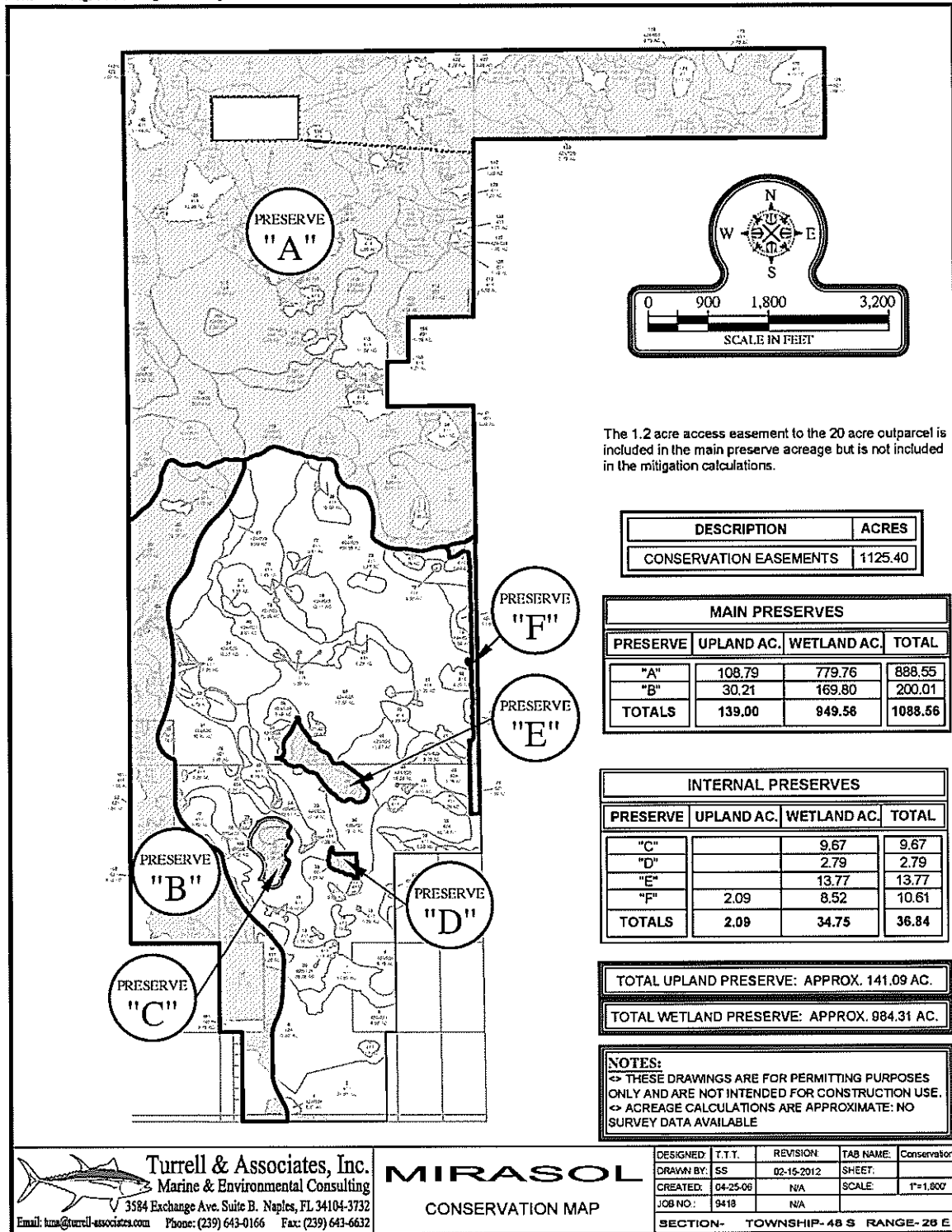


Figure 3. 2012 - Site Plan Preserves

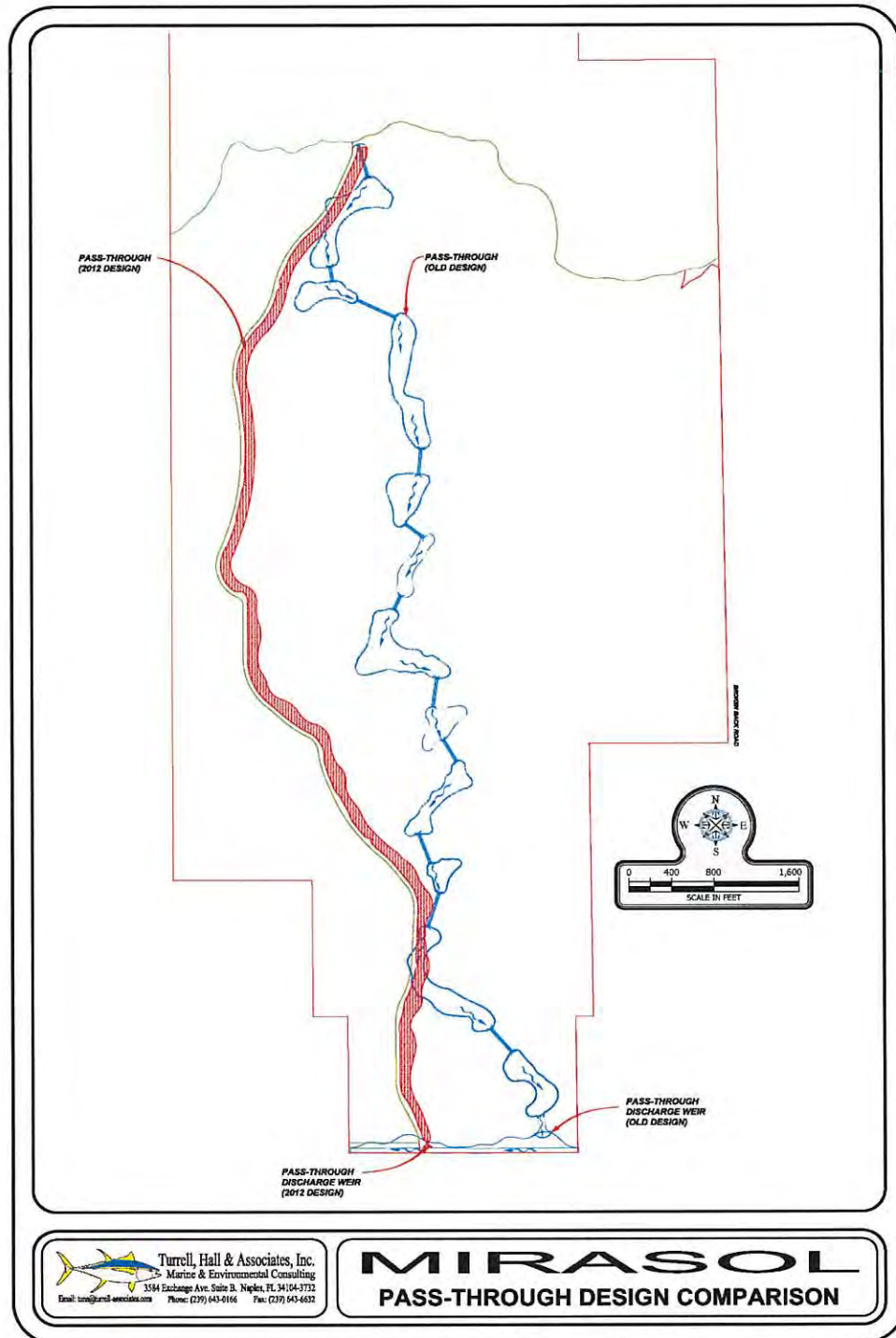


Figure 4. 2012 – Pass-Through Flow way Design