





SR 869 (SAWGRASS EXPRESSWAY) WIDENING PROJECT DEVELOPMENT & ENVIRONMENT (PD&E) STUDY

From West of US 441 (SR 7) to Powerline Road (SR 845) FPID No.: 437153-1-22-01 • ETDM No.: 14280 • Broward County

STATE ENVIRONMENTAL IMPACT REPORT

り以外は FEBRUARY 2024













STATE ENVIRONMENTAL IMPACT REPORT

Florida Department of Transportation

PD&E WIDEN SAWGRASS S OF US 441 TO POWERLINE (MP18-22)

District: Florida's Turnpike Enterprise

County: Broward County

ETDM Number: 14280

Financial Management Number: 437153-1-22-01

Project Manager: Jazlyn Heywood

This project has been developed without regard to race, color, national origin, age, sex, religion, disability, or family status.

The SEIR reflects consideration of the PD&E Study and the public hearing.

	_ Date:
District Secretary or Designee	

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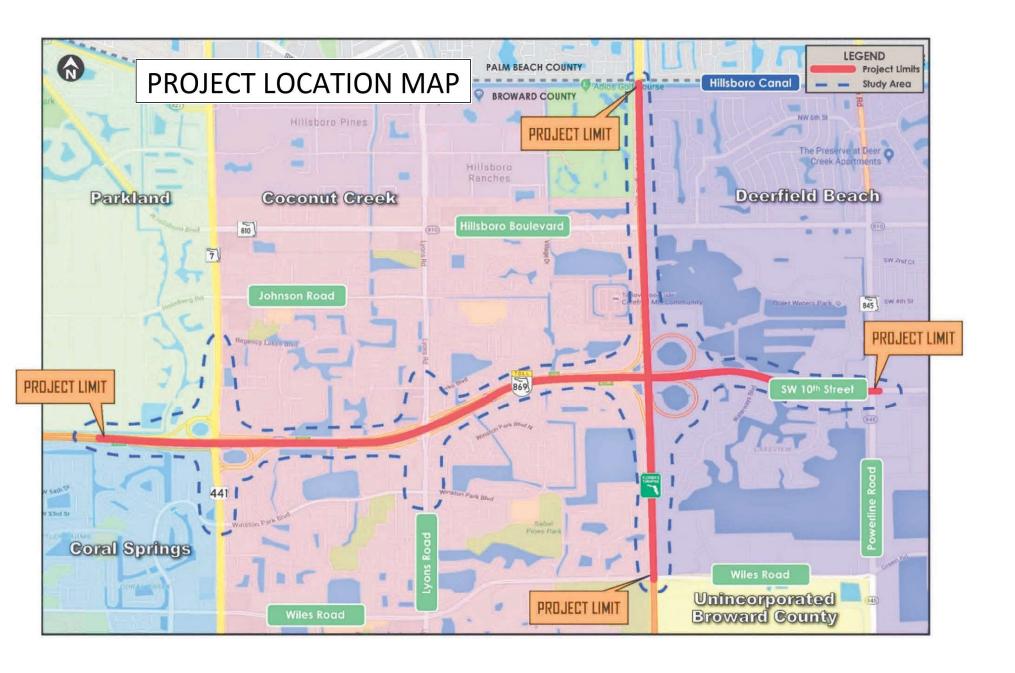
Prime Consulting Firm: The Corradino Group

Consulting Project Manager: Ryan Solis-Rios

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1. Project Information

1.1 Project Description

The Florida Department of Transportation (FDOT), Florida's Turnpike Enterprise (FTE), is performing a Project Development and Environment (PD&E) Study for State Road 869 (SR 869)/Sawgrass Expressway from west of US 441/SR 7 to Powerline Road (SR 845), a distance of approximately 4 miles. The objective of this PD&E Study is to evaluate corridor modifications to improve operations and interchange access. The proposed improvements will address existing and future traffic needs, improve travel time reliability, enhance safety, and provide long-term mobility options along the corridor. The study is evaluating additional lanes, new collector distributor roadway systems and interchange improvements.

The study also includes 2.7 miles of the Florida's Turnpike (SR 91) from Wiles Road to the Broward/Palm Beach County Line. The study area is located in Broward County and traverses the cities of Parkland, Coral Springs, Coconut Creek, and Deerfield Beach, as well as an area of unincorporated Broward County.

The Sawgrass Expressway is a tolled 21-mile limited access facility located in northern Broward County. Between west of US 441 and the Florida's Turnpike, the corridor consists primarily of six travel lanes (three in each direction). This segment of the corridor is functionally classified as a Divided Urban Principal Arterial Expressway and has a posted speed limit of 65 miles per hour. Between the Florida's Turnpike and Powerline Road the corridor changes to SW 10th Street with primarily six non-tolled travel lanes (three in each direction) and a functional classification of Urban Principal Arterial Other. The posted speed of this section is 45 miles per hour. The access management classification of the corridor is Class 1.

The Florida's Turnpike is also a tolled limited access facility that runs north-south from Interstate 95 to Interstate 75. Between Wiles Road and the County Line, the corridor consists primarily of six travel lanes (three in each direction). This segment of the corridor is functionally classified as a Divided Urban Principal Arterial Expressway and has a posted speed limit of 65 miles per hour. The access management classification of the corridor is Class 1.

1.2 Purpose and Need

The primary purpose of this project is to add lanes to meet future transportation demand, improve travel time reliability and provide long-term mobility options. The project also includes operational and safety enhancements to the US 441, Lyons Road, and Florida's Turnpike interchanges.

The need for the project is based on the following factors:

Capacity - A *Systems Interchange Modification Report* dated January 2024 was prepared by FTE for this PD&E Study. In 2016, the Sawgrass Expressway carried an Average Annual Daily Traffic (AADT) volume of 86,200 vehicles west of US 441 and 81,700 vehicles between US 441 and Lyons Road. The segment between Lyons Road and Florida's Turnpike carried 81,700 vehicles and the segment east of Florida's Turnpike up to Powerline Road carried 37,700 vehicles.

The 2045 AADT forecast estimate is 131,100 vehicles west of US 441 and 128,900 vehicles between US 441 and Lyons Road. The segment between Lyons Road and Florida's Turnpike is estimated to carry 138,900 vehicles and the segment east of Florida's Turnpike up to Powerline Road is estimated at 71,900 vehicles. The 2045 AADT volumes represent a 52-

91% increase in traffic from the year 2016 to 2045.

According to the *Systems Interchange Modification Report*, additional lanes are needed along the Sawgrass Expressway corridor by the year 2025. West of US 441, one additional lane is needed by the year 2025 and two additional lanes are needed by the year 2033. Between US 441 and Lyons Road, one additional lane is needed by the year 2025 and two lanes by 2028. Between Lyons Road and Florida's Turnpike, one additional lane is needed by the year 2025 and two additional lanes are needed by the year 2028. Between Florida's Turnpike and Powerline Road, one additional lane is needed by the year 2025.

According to the *Systems Interchange Modification Report*, additional lanes are needed along the Florida's Turnpike corridor by the year 2025. South of the Sawgrass Expressway, one additional lane is needed by the year 2026, and north of the Sawgrass Expressway, one additional lane is needed by the year 2025 and two additional lanes by 2045.

Several interchanges and adjacent intersections are operating at an unacceptable level of service. If additional lanes are not added to the corridor, the congestion within the project limits will get considerably worse with longer peak periods, more crashes and deteriorating travel time reliability.

Travel Time Reliability - In urban areas, many motorists have accepted traffic congestion as an unpleasant fact and have adjusted their schedules or allowed extra time for work, school, and other time-sensitive trips. However, they are less tolerant of unexpected delays that cause them to be late for work or important meetings, miss appointments, or lose money due to disruption of shipping and just-in-time deliveries.

Travel time reliability measures the extent of this unexpected delay. Travel time reliability is defined as the consistency or dependability in travel times, as measured from day-to-day and/or across different times of the day.

To gauge travel reliability on the Sawgrass Expressway, the average travel speeds between US 441 and Florida's

Turnpike were obtained for a 7-day period (March 14, 2016 through March 20, 2016) and plotted. The average travel speeds in the northbound/eastbound direction are dropping below 50 miles per hour during the morning peak with 95th percentile dropping to below 20 miles per hour.

Traffic volumes along the Sawgrass Expressway are expected to increase by 52% to 91% in the next 25 years. Without any improvements, the increasing traffic congestion will further deteriorate travel reliability along the corridor. Residents and workers will avoid destinations along the Sawgrass Expressway negatively affecting the economic vitality of the area.

System Linkage - Continuity in the transportation system is essential for efficient vehicle movements, travel patterns and safety. The Sawgrass Expressway is part of the State's Strategic Intermodal System (SIS) and the National Highway System (NHS) providing connectivity to Interstate 595, Interstate 75, Florida's Turnpike, and Interstate 95. The corridor also connects the local multi-modal transportation network by providing access to the Sunrise Park and Ride at the Amerant Bank Arena (formerly known as BB&T Center) and linking the existing Express Bus service along I-595 to Downtown Fort Lauderdale and Downtown Miami.

Additional lanes are proposed on the Sawgrass Expressway from south of Sunrise Boulevard to west of US 441 and on Florida's Turnpike both north and south of the Sawgrass Expressway. The segment corridor from US 441 to Florida's Turnpike is the last segment missing the needed additional lanes to continue to provide a reliable system linkage with the Florida's Turnpike and to the east.

Modal Interrelationships - The Sawgrass Expressway is part of the SIS and NHS networks. Additional lanes along the corridor will enhance the mobility of goods by alleviating current and future congestion along the corridor and surrounding freight and transit networks.

Transportation Demand - The continued growth within Broward County, particularly by the number of Developments of Regional Impact that have been approved in western Broward County, will drive the need for further infrastructure improvements including the widening of the Sawgrass Expressway. The existing 2016 AADT volumes measured along the corridor range from 37,700 between Florida's Turnpike and Powerline Road to as high as 86,200 west of US 441. The 2045 AADT forecasts show this traffic will grow to 71,900 between Florida's Turnpike and Powerline Road and to as high as 131,100 between US 441 and Lyons Road. This increase in demand reflects a 52% to 91% increase in future traffic necessitating capacity and operational improvement strategies to address this need.

Social Demands and Economic Development - The Sawgrass Expressway connects the cities of Coral Springs, City of Parkland, Coconut Creek, and Deerfield Beach to the Florida's Turnpike. Travel demand on the Sawgrass Expressway is directly related to population and employment changes within Broward County and the cities within the corridor.

The population of Broward County is expected to increase by 15% from 2020 to 2045 while the cities directly adjacent to the Sawgrass Expressway are projected to grow between 6% and 12%, except for the City of Parkland. This projected increase in population will result in increased traffic on Sawgrass Expressway and adjacent roadway network.

Emergency Evacuation - Sawgrass Expressway serves as part of the emergency evacuation route network designated by the Florida Division of Emergency Management and by Broward County. This corridor is critical in facilitating traffic movement during emergency evacuation periods as it connects to other major arterials and highways of the state evacuation route network (i.e., I-595, I-75, Florida's Turnpike and to I-95 via the arterial portion of SR 869 known as SW 10th Street to the east). Increasing the capacity of the Sawgrass Expressway will reduce evacuation times needed for residents of Broward County during emergency and hurricane evacuations.

Long Term Mobility Option - Sawgrass Expressway, within the project limits, is currently operating at LOS D or better with several intersections operating at LOS F. The 2045 traffic forecasts, based on population and employment projections, show an increase of 43% to 91% in future traffic volumes. A long-term mobility option is needed that will not only serve current traffic volumes but will accommodate future projected growth. Without this option, the residents and workers in the surrounding area will face severe congestion leading to decreasing productivity that would affect the economic viability of cities surrounding the Sawgrass Expressway.

1.3 Planning Consistency

The project includes improvements to Florida's Turnpike (SR 91) and Sawgrass Expressway (SR 869).

Segment Description: SR 869 - Sawgrass Expressway Widening

Currently Adopted LRTP-CFP	COMMENTS
165	Broward MPO Commitment 2045 Metropolitan Transportation Plan Amendment #3 2-9-23 \$405,922,308 FY 2026-2030

	Currently Approved	\$	FY	COMMENTS			
PE (Final Design)							
TIP	Y	3,900,000 12,500,000	2024 2025	TIP FY 2024-2028			
STIP	Y	\$18,949	2024	STIP FY 2023/24-2026/27 Funding needs to be updated by FTE			
R/W							
TIP	N						
STIP	N						
Constructio	Construction						
TIP	N						
STIP	Y	\$10,079	2024	STIP FY 2023/24-2026/27 Funding needs to be updated by FTE			

Segment Description: Florida's Turnpike Widening

Currently Adopted LRTP-CFP	COMMENTS Broward MPO Commitment 2045 Metropolitan Transportation Plan Amendment #3 2-9-23						
Yes							
	\$65,331,538 FY 2026-2030						
	Currently Approved	\$	COMMENTS				
PE (Final D	esign)	•					
TIP	Y \$7,3000,000 2027 TIP FY 2024-2028						
STIP	Υ	\$3,617,432	2024	STIP FY 2023/24-2026/27 Funding needs to be updated by FTE			
R/W							
TIP	N						
STIP	Y	\$19,500	2024	STIP FY 2023/24-2026/27 Funding needs to be updated by FTE			
Construction	on						
TIP	N						
STIP	Y \$54,365 2024 STIP FY 2023/24-2026/27 Funding needs to be updated by FTE						

2. Environmental Analysis Summary

			S	Substan	itial Impact	ts?*
	lss	ues/Resources	Yes	No	Enhance	Nolnv
3.		cial and Economic		∇		
	1. 2.	Social Economic	H		H	
	3.	Land Use Changes				
	4.	Mobility			\boxtimes	
	5.	Aesthetic Effects		\boxtimes		
	6.	Relocation Potential				\boxtimes
4.	Cul	Itural Resources				
	1.	Florida Historical Resources Act (FHRA), Chapter 267, Florida Statutes (F.S.)		\boxtimes		
	2.	Section 6(f) of the Land and Water Conservation Fund Act of 1965				\boxtimes
_	3.	Recreational Areas and Protected Lands	Ш			
5.	Nat	tural Resources				
	1.	Wetlands and Other Surface Waters	H		님	
	2.	Aquatic Preserves and Outstanding Florida Waters	H		H	\boxtimes
	3. 4.	Water Resources Wild and Scenic Rivers	DН		H	
	4 . 5.	Floodplains	H	\boxtimes	H	
	6.	Coastal Barrier Resources				\boxtimes
	7.	Protected Species and Habitat		\boxtimes		
	8.	Essential Fish Habitat (EFH)				\boxtimes
6.	Phy	ysical Resources				
	1.	Highway Traffic Noise		\boxtimes		
	2.	Air Quality	Ц	\boxtimes		
	3.	Contamination				
	4.	Utilities and Railroads		\boxtimes		
	5. 6	Construction Ricycles and Pedestrians				
	6. 7.	Bicycles and Pedestrians Navigation	H	H		
		1 ta rigation				

^{*} Impact Determination: Yes = Substantial Impact; No = No Substantial Impact; Enhance = Enhancement; NoInv = Issue absent, no involvement. Basis of decision is documented in the following sections.

3. Social and Economic

3.1 Social

The study area contains low income and Limited English Proficiency (LEP) populations. Within the study area, multiple census blocks have higher averages of percent population living below the poverty level than surrounding communities. Six census blocks have a greater percentage of the population that speaks English less than 'very well' when compared to the county (17% in Broward County and 15% in Palm Beach County). LEP services are required for this project to comply with Title VI of the Civil Rights Act of 1964.

There were no special cases identified on this project such as handicapped or disabled displacements that warrant special assistance. The project is not expected to contribute to social isolation of any special populations of elderly, handicapped, minority or transit-dependent groups. No relocations are proposed under the Preferred Alternative.

Based on the analysis conducted during this PD&E Study, the Preferred Alternative would not cause disproportionately high and adverse effects on any minority or low-income populations in accordance with the provisions of Executive Order 12898 and Federal Highway Administration (FHWA) Order 6640.23a. No further Environmental Justice analysis is required. Based on public engagement activities, no controversy is anticipated for the project. For all the reasons outlined above, it was determined that the project will have no substantial impact on Social resources.

3.2 Economic

During the PD&E Study, a review of potential impacts to commerce and the tax base was conducted. The study determined that there would be no relocations or displacements under the Preferred Alternative, so no significant negative economic impacts are anticipated.

BUSINESS AND EMPLOYMENT - Businesses are located adjacent to the project area on local roads connected via interchanges, however no business access will be changed as a result of this project. These businesses provide employment opportunities for residents in the study area and contribute to the quality of life in the community. The Preferred Alternative does not require any business relocations and only temporary impacts to businesses during construction are anticipated. Access to businesses will be maintained during construction. Therefore, no significant impacts on business or employment are anticipated.

TAX BASE - The Preferred Alternative will not require any relocations and therefore would not have an impact on the tax base.

TRAFFIC PATTERNS - Long-term traffic patterns are expected to improve under the Preferred Alternative, due to the increased capacity and enhanced mobility. There would be minor, short-term impacts during construction.

SPECIAL NEEDS PATRONS - No special needs patrons were identified within the study area.

For all the reasons outlined above, it was determined that the project will have no substantial impact on Economic resources.

3.3 Land Use Changes

During this PD&E Study, a review of potential impacts to land use patterns, planning consistency, and growth trends was conducted. The Preferred Alternative will not result in a change in the character or aesthetics of the existing landscape and is not anticipated to be the driver of land use changes in the region. The overall Degree of Effect assigned to land use changes by FTE during the Efficient Transportation Decision Making process was *Minimal*.

PLAN CONSISTENCY - The project is compatible with each community's development goals and portions of the project are included on the Broward County Transportation Improvement Program (TIP) Project Maps by specific municipality. According to Future Land Use Maps surrounding the project area, the project will continue to support the noted land uses.

The project is included in the current FDOT State TIP and the FTE Fiscal Year 2025-2029 Tentative Five-Year Work Program. The project is also listed in the Broward County 2045 Metropolitan Transportation Plan.

GROWTH TRENDS AND ISSUES - The continued growth within Broward County, specifically western Broward County, will drive the need for infrastructure improvements. Travel demand on the Sawgrass Expressway is directly related to population and employment changes within Broward County and the cities within the project area. The Preferred Alternative would increase capacity and is expected to accommodate anticipated growth trends. The project is not expected to increase or decrease employment opportunities in the local economy. Regional employment opportunities will not be enhanced or diminished as a result of the project.

COMMUNITY FOCAL POINTS - Sawgrass Expressway study area includes a variety of community focal points, including Quiet Waters Park, religious facilities, childcare facilities, and educational facilities. The Preferred Alternative will help improve access to these focal points by improving mobility and safety.

For all the reasons outlined above, it was determined that the project will have no substantial impact on Land Use.

3.4 Mobility

The overall Degree of Effect assigned to mobility by FTE during the Efficient Transportation Decision Making process was Enhanced.

MOBILITY CHOICES - Mobility features within the study area include Broward Transit routes. Travel patterns are expected to remain the same as the existing patterns under the Preferred Alternative, though short-term impacts during construction are anticipated. There would be no long-term impacts to access or capacity.

ACCESSIBILITY - The Preferred Alternative would improve capacity and mobility for the study area and is therefore expected to improve long-term access to adjacent homes, businesses, or community features.

CONNECTIVITY - The Preferred Alternative would increase capacity and improve access to the project area, therefore improvements to connectivity are anticipated. Short term impacts are anticipated during construction but would not sever connectivity.

TRAFFIC PATTERNS - Because the Preferred Alternative would improve vehicle movement efficiency through the project area, long-term improvements to traffic patterns are anticipated. Short-term impacts are anticipated during construction.

PUBLIC PARKING - There are no public parking facilities within the project area, so no impacts are anticipated.

BICYCLES AND PEDESTRIANS - Sawgrass Expressway and Florida's Turnpike are limited access facilities. Therefore, the preferred alternative does not include bicycle or pedestrian accommodations. Bicycle and pedestrian accommodations will be maintained at the two Sawgrass Expressway interchanges, US 441, and Lyons Road, and adjacent signalized intersections. At the Lyons Road Interchange, the bicycle lanes will be extended north of the Sawgrass Expressway to Serko Boulevard. This improvement will provide full multimodal connectivity under the Sawgrass Expressway and a safer route for bicyclists, enhancing the mobility within the corridor. Bicycle and pedestrian accommodations will also be maintained along SW 10th Street (as proposed by the SW 10th Street Connector project) and the Wiles Road and Hillsboro Boulevard bridges over Florida's Turnpike. Crosswalks and ADA compliant curb ramps will be provided at all intersections impacted by the project.

For all the reasons outlined above, it was determined that the project will enhance mobility.

3.5 Aesthetic Effects

During this PD&E Study, a review of the potential noise/vibration impacts, viewshed, and compatibility issues was conducted. The Degree of Effect assigned to aesthetics by FTE during the Efficient Transportation Decision Making process was *Minimal*.

NOISE/VIBRATION - Short term noise/vibration impacts are anticipated during any construction activities. A Noise Study Technical Memorandum is being prepared as part of this PD&E Study and this section will be updated to reflect the findings of that study.

VIEWSHED - The Preferred Alternative follows an existing roadway corridor and would not introduce any unnatural or unusual elements into the surrounding viewshed. Florida's Turnpike currently crosses Sawgrass Expressway with overpasses. The proposed project would introduce additional ramps and fly-overs at this intersection, which is adjacent to Quiet Waters Park. It is also anticipated that concurrent FDOT project will be constructing ramps and fly-overs at this intersection. These elevated structures have the ability to affect a larger viewshed because they are at higher elevations than existing structures. However, because of the urban nature of the area and the location along a major transportation corridor with similar infrastructure at major interchanges, these impacts will not change the character of the viewshed and are compatible with intended use of these transportation corridors. Alternatives analysis included evaluating multiple options and reduced impacts by reducing the elevation of structures as much as practicable. For these reasons, the impacts to the viewshed are anticipated to be insignficant.

COMPATIBILITY - The Preferred Alternative would not introduce any structures or improvements that are incompatible with local aesthetics or would appear unusual in the current setting.

For all the reasons outlined above, it was determined that the project will have no substantial impact on Aesthetics.

3.6 Relocation Potential

Becuase there are no relocations associated with the proposed project, it was determined that the project would have no involvement with relocation.

The proposed project, as presently conceived, will not displace any residences or businesses within the community. Should this change over the course of the project, the Florida Department of Transportation will carry out a Right of Way and Relocation Assistance Program in accordance with Florida Statute 421.55, Relocation of displaced persons.

4. Cultural Resources

4.1 Florida Historical Resources Act (FHRA), Chapter 267, Florida Statutes (F.S.).

A Cultural Resource Assessment Survey (CRAS), conducted in accordance with 36 CFR Part 800, was performed for the project, and the resources listed below were identified within the project Area of Potential Effect (APE). FDOT found that some of these resources meet the eligibility criteria for inclusion in the National Register of Historic Places (NRHP), and State Historic Preservation Officer (SHPO) has concurred with this determination. After application of the Criteria of Adverse Effect, and in consultation with SHPO, FDOT has determined that the proposed project will have No Adverse Effect on these resources.

No archaeological sites were identified within the project APE for cultural resources. Six shovel tests were excavated. No cultural material was recovered. Subsurface testing could not be conducted within most of the APE due to existing pavement, berm, landscaping, and buried utilities. Subsurface testing was not conducted within Quiet Waters Park. When permission to survey within the park is received from Broward County, the results of the survey will be reported in a CRAS addendum. The historic resources survey resulted in the identification of six historic resources consisting of three previously identified resources and three newly identified resources (8BD9434-8BD9436). The three previously recorded historic resources are comprised of one historic canal, Hillsboro Canal (8BD3229), one bridge, FDOT Bridge 860184 (8BD4647), and one structure, 3165-3175 SW 10th Street (8BD6685). The newly identified resources (8BD9434-8BD9436) are all structures. The historic canal, the Hillsboro Canal (8BD3229), has been determined National Register eligible by the State Historic Preservation Officer (SHPO) based on its association with the Everglades Drainage District (EDD). The bridge, FDOT Bridge 860184, is a c. 1956 bridge that was evaluated in 2010 and was determined National Register ineligible by the SHPO (PBS&J 2009). The previously recorded structure (8BD6685) was determined National Register ineligible by the SHPO in 2018 (Janus Research 2018). The previously identified resources have not been altered since their most recent evaluations, therefore the Florida Master Site File (FMSF) forms were not updated. The newly identified structure at 232-248 Newport O (8BD9436) is a multi-unit condominium building located within the gated. Century Village complex. The historic structure on the parcel is obscured from the public right-of-way (ROW) by vegetation and other non-historic structures. Janus Research field crew attempted to gain access to the community but was denied permission to enter. Therefore, the FMSF form and mapping are based on photographs available through the Broward County Property Appraiser and modern aerial photographs available through Google Earth. The structure is a typical Masonry Vernacular mid-century structure that has no significant historical associations. Based on its common architectural type and lack of historic associations, it is considered National Register ineligible individually and as a contributing resource to a historic district. The remaining two newly identified historic resources (8BD9434-8BD9435) also exhibit common architecture and design types found throughout South Florida, lack known associations with significant people or events, or exhibit modifications that affect their historic physical integrity. Therefore, these newly recorded historic resources are considered National Register ineligible, individually and as contributing resources.

Based on the results of the background research and field survey, the project will have no adverse effect on any known archaeological or historical resources that are listed, determined eligible or considered potentially eligible for listing in the National Register of Historic Places. This finding is contingent on future subsurface testing in Quiet Waters Park that could not be performed because permission was not yet provided by Broward County at the time of this writing. Future testing will be documented in a CRAS Addendum.

For the reasons outlined above, FDOT has determined that the proposed project will have No Adverse Effect on the resources evaluated, contingent on future testing during the design phase in Quiet Waters Park. The date of SHPO concurrence will be noted here once recieved.

4.2 Section 6(f) of the Land and Water Conservation Fund Act of 1965

There are no properties in the project area that are protected pursuant to Section 6(f) of the Land and Water Conservation Fund of 1965.

4.3 Recreational Areas and Protected Lands

Quiet Waters Park is owned by Broward County and is located immediately northeast of the Sawgrass Expressway/Florida's Turnpike Interchange. Adding the proposed new ramp connections at the Sawgrass Expressway/Florida's Turnpike Interchange will impact approximately 4.88 acres of Quiet Wates Park. The impact areas include parts of two man-made lakes and mountain bike trails. The lakes are considered Other Surface Waters and the impacts will be relatively small in size and are not anticipated to conflict with recreational park use. Modification of some mountain bike trails, and closure of others, is anticipated under the proposed project. Mitigation strategies have been identified for the right-of-way impacts to mountain bike trails in the park. These strategies include assisting with the reconstruction of the trails and land swaps with adjacent FDOT lands that could host additional trails to replace impacted trails. These mitigation strategies are currently being coordinated with Broward County Parks and Recreation and with local mountain bike groups. For all the reasons outlined above, it was determined that the project will have no substantial impact on recreational areas and protected lands.

5. Natural Resources

5.1 Wetlands and Other Surface Waters

The following evaluation was conducted pursuant to Presidential Executive Order 11990 of 1977 as amended, Protection of Wetlands and the USDOT Order 5660.1A, Preservation of the Nation's Wetlands.

No wetland impacts are anticipated under the preferred alternative. Lakes in Quiet Waters Park that would be impacted are mandmade and are considered Other Surface Waters. No mitigation for impacts to wetlands or Other Surface Waters will be required. For all the reasons outlined above, it was determined that the project will have no substantial impact on wetlands and Other Surface Waters.

5.2 Aquatic Preserves and Outstanding FL Waters

There are no aquatic preserves or Outstanding Florida Waters (OFW) in the project area.

5.3 Water Resources

The project is within the Broward County MS4 system and within the boundaries of the Pine Tree Water Control District, Cocomar Water Control District, and Broward County Water Control District #2. The project would discharge into the Hillsboro Canal. The project sits atop the Biscayne Sole Source Aquifer. Public Water Supply Wells were identified using FDEP Map Direct. FDEP sets assessment areas for each well, and five public water supply wells have assessment areas that overlap the project. Those five areas are all located along Florida's Turnpike, north of Sawgrass Expressway. The portion of the project west of Florida's Turnpike is within a Water Preserve Area, which requires additional 50% treatment volume for added impervious area. A Water Quality Impact Evaluation is being compelted as part of this project and standard Best Management Practices will be implemented reduce erosion and sedimentation, protections downstream water resources. For all the reasons outlined above, it was determined that the project will have no substantial impact on water resources.

5.4 Wild and Scenic Rivers

There are no designated Wild and Scenic Rivers or other protected rivers in the project area.

5.5 Floodplains

Floodplain impacts resulting from the project were evaluated pursuant to Executive Order 11988 of 1977, Floodplain Management.

A Location Hydraulics Report was prepared for the project and identified 48.24 acre-ft of 100-year floodplain encroachment resulting from the proposed improvements. Floodplain impacts will be fully compensated for and will meet all FDOT and South Florida Water Management District criteria. There will be no net increases to floodplains as a result of this project. All required Environmental Resource Permits will be obtained during the Design phase. For all the reasons outlined above, it was determined that the project will have no substantial impact on floodplains.

5.6 Protected Species and Habitat

The following evaluation was conducted pursuant to Section 7 of the Endangered Species Act of 1973 as amended as well as other applicable federal and state laws protecting wildlife and habitat.

The extent of potential impacts from the Preferred Alternative were assessed by overlaying habitat types onto the project corridor, which represents the footprint of direct impacts. No adverse impacts are anticipated to any listed species. A determination of May Affect, Not Likely to Adversely Affect is made for eastern indigo snake, Everglade snail kite, and wood stork. No Effects are anticipated to beach jacquemontia and tiny polygala and no impacts are anticipated for bald eagle. A determination of No Adverse Effect Anticipated is made for burrowing owl. Under the Preferred Alternative, 0.8 acres of unavoidable impacts are anticipated to wetlands that form wood stork Suitable Foraging Habitat. Those wetlands are within the current bounds of Quiet Waters Park.

A bald eagle previously nested at two locations within 660 feet of the proposed project, by the loop ramp in the northeast quadrant of the interchange of Sawgrass Expressway and Florida's Turnpike. However, those nests were destroyed in storms and since the 2019/2020 nesting season, bald eagles in this territory are using a tree on an island inside Quiet Waters Park. This most recently active nest location inside the park is greater than 660 feet from the proposed project, so no additional consultations or special construction conditions are anticipated regarding bald eagles.

For all the reasons outlined above, it was determined that the project will have no substantial impact on Protected Species and Habitat.

5.7 Essential Fish Habitat (EFH)

There is no Essential Fish Habitat (EFH) in the project area.

6. Physical Resources

6.1 Highway Traffic Noise

The following evaluation was conducted pursuant to 23 CFR 772 Procedures for Abatement of Highway Traffic Noise and Construction Noise, and Section 335.17, F.S., State highway construction; means of noise abatement.

A Noise Study Report (NSR) was prepared for this project and the findings of the study are provided below. For the year 2045 proposed build conditions, noise levels were modeled in the Federal Highway Administration (FHWA) Traffic Noise Model (TNM) at 1,269 receptor locations representing 3,660 residential and 262 special land use noise sensitive sites. Noise levels at 1,584 residences and 130 nonresidential "special land use" sites are predicted to approach or exceed the Noise Abatement Criteria (NAC) for the year 2045 Preferred Alternative and are therefore considered "impacted."

Within the study area, twelve existing or planned noise barriers will be retained in the future design. To determine if noise barriers were feasible and reasonable in areas with existing/planned barriers, the base condition for determining impacts and benefits in the barrier analysis assumed no barriers as part of the Preferred Alternative.

Within the study area, twelve existing or planned noise barriers on adjoining projects (Florida's Turnpike Widening project FPID# 415927-4 from the Sawgrass Expressway to the Broward/Palm Beach County Line and FDOT District 4 SW 10th Street Connector Lanes project FPID# 436964-1) will be retained in the future design. To determine if noise barriers were feasible and reasonable in areas with existing/planned barriers, the Existing Noise Barrier Methodology was used to analyze an area with an existing/planned barrier or where a noise barrier system will be in place in the design year.

The first step in this analysis was to determine if there are impacts behind existing or planned noise barriers in the future build condition. For five barrier locations no impacts were predicted behind existing or planned noise barriers. Those five existing or planned noise barriers were considered fully effective and no additional noise analyses were conducted for those areas.

Existing or planned noise barriers in seven other locations still had impacts that were not benefited by the existing or planned noise barriers. In these locations the base condition for determining impacts and benefits in the barrier analysis assumed no barriers as part of the Preferred Alternative. For consistency with other FDOT projects, the criteria for reasonableness and feasibility were applied to a future condition that included both existing and new barriers compared against this "no-barrier" condition. It should be noted that not all the existing barriers are adequate by themselves to eliminate all noise impacts behind those barriers within this project. Therefore, additional new barriers were considered to supplement these existing noise barriers being retained, where applicable.

Analyses of the impacted locations were performed to determine if noise abatement was feasible and reasonable under FDOT policy, including the no-barrier analysis of existing noise barriers. The noise barrier analysis performed to date indicates that noise barriers could potentially provide reasonable and feasible noise abatement for 1,381 of the 1,584 impacted residences (including existing barrier "no-barrier" analysis impacts), as well as provide a 5 dB(A) noise reduction benefit to 810 non-impacted residences. Noise abatement was not determined feasible and reasonable for any of the 130 impacted special use sites; however, some of the special use locations will receive incidental benefits from noise barriers for the residential areas.

The Florida Department of Transportation is committed to the construction of feasible and reasonable noise abatement measures at the noise impacted locations identified in Table 4.1 of the Noise Study Report contingent upon the following conditions:

- 1. Final recommendations on the construction of abatement measures is determined during the project's final design and through the public involvement process;
- 2. Detailed noise analyses during the final design process support the need, feasibility and reasonableness of providing abatement:
- 3. Cost analysis indicates that the cost of the noise barrier(s) will not exceed the cost reasonable criterion;
- 4. Community input supporting types, heights, and locations of the noise barrier(s) is provided to the District Office; and
- 5. Safety and engineering aspects as related to the roadway user and the adjacent property owner have been reviewed and any conflicts or issues resolved.

For all the reasons outlined above, it was determined that the project will have no substantial impact on noise.

6.2 Air Quality

This project is not expected to create adverse impacts on air quality because the project area is in attainment for all National Ambient Air Quality Standards (NAAQS) and because the project is expected to improve the Level of Service (LOS) and reduce delay and congestion on all facilities within the study area.

Construction activities may cause short-term air quality impacts in the form of dust from earthwork and unpaved roads. These impacts will be minimized by adherence to applicable state regulations and to applicable FDOT Standard Specifications for Road and Bridge Construction.

For all the reasons outlined above, it was determined that the project will have no substantial impact on air quality.

6.3 Contamination

A Contamination Screening Evaluation Report was prepared as part of this PD&E Study. A total of 19 sites of potential contamination risk were identified, including zero High Risk, 7 Medium Risk, and 12 Low Risk sites. None of these potentially contaminated sites are proposed for ROW acquisition. Level II Contamination Assessment investigations will be recommended during the design phase based on activities anticipated to construct the project, such as dewatering or subsurface work (e.g., pole foundations, drainage features, soil excavation, etc.) in proximity to any sites rated High or Medium Risk. A dewatering plan will be necessary to avoid potential exacerbation of any contamination plumes. For all the reasons outlined above, it was determined that the project will have no substantial impact on contamination.

6.4 Utilities and Railroads

No railroads are present and no involvement with railroads is anticipated. A preliminary evaluation of potential impacts to utilities was performed based on the proposed improvements. Additional conflicts may be identified during the Design phase due to proposed drainage, lighting, noise walls, signals, foundations, or any other future design changes that are not included in the Preferred Alternative. Subsurface Utility Engineering for vertical and horizontal information will provide the necessary data to make decisions regarding relocations for potential utility conflicts.

Most of the Utility Agency Owner (UAO) facilities appear located in FTE right of way by permit, except for the Florida Gas Transmission (FGT) pipelines, AT&T Corporation long lines, and Florida Power and Light (FPL) transmission facilities. The FGT gas pipelines are in the FTE right of way under the August 2013 Agreement and Global Settlement. More than 90 percent of the total utility relocation costs result from the relocation of the FGT gas pipelines.

The Florida's Turnpike corridor proposed widening will impact the two existing FGT gas pipelines east of the corridor. To accommodate the additional lanes, the pipelines are proposed to be moved east mostly within existing right of way, preserving the required 60-foot wide specified width in accordance with the August 2013 Agreement and Global Settlement. Within the Sawgrass Expressway Interchange, the pipelines will be moved about 45' underground within the existing right of way for a distance of one mile. The FGT relocation costs will be funded 50% by FGT and 50% by FTE. Additional coordination with FGT will continue during the Design phase to identify the final locations of the gas pipelines.

AT&T Corporation long line facilities are in an easement in the Florida's Turnpike median and will also be impacted. All impacted utilities will be relocated prior to construction. Coordination with all the UAOs will continue through the Design phase.

Most utility conflicts were identified at major intersections where facilities cross below proposed retaining walls, bridges, and areas with roadway being widened. Drainage swales and ponds also contribute to the anticipated relocation costs.

To help avoid and minimize impacts to utilities, final design activities should consider the following:

- The accurate location and designation of all underground and aerial facilities to confirm or clear each conflict.
- Design improvements that avoid existing utilities where possible and minimize the impact to these facilities, particularly at major intersections.
- Phasing of utility relocation work to clear utility conflicts before construction starts in each segment of the project.
- Plans to minimize the duration of service disruptions to the community due to relocation work. These disruptions should only be allowed during periods of minimum usage.
- Removing Occupational Safety and Health Administration (OSHA) crane conflicts, utilize appropriate low overhead construction techniques/operations.

For all the reasons outlined above, it was determined that the project will have no substantial impact on utilities or railroads.

6.5 Construction

During the construction phase, the project will comply with the FDOT Standard Specifications to Road and Bridge Construction to avoid and minimize impacts. Construction phase impacts are anticipated to be short-term in duration and localized around the site of construction. For all the reasons outlined above, it was determined that the project will have no substantial impacts from construction.

6.6 Bicycles and Pedestrians

Sawgrass Expressway and Florida's Turnpike are limited access facilities. Therefore, the preferred alternative does not include bicycle or pedestrian accommodations. Bicycle and pedestrian accommodations will be maintained at the two Sawgrass Expressway interchanges, US 441, and Lyons Road, and adjacent signalized intersections. At the Lyons Road Interchange, the bicycle lanes will be extended north of the Sawgrass Expressway to Serko Boulevard. This improvement will provide full multimodal connectivity under the Sawgrass Expressway and a safer route for bicyclists enhancing the mobility within the corridor. Bicycle and pedestrian accommodations will also be maintained along SW 10th Street (as proposed by the SW 10th Street Connector project) and the Wiles Road and Hillsboro Boulevard bridges over Florida's Turnpike. Crosswalks and ADA compliant curb ramps will be provided at all intersections impacted by the project. For all the reasons outlined above, it was determined that the project will enhance bicycle and pedestrian resources.

6.7 Navigation

The project does not cross any navigable waters and there would be no impacts to navigation under the proposed project. For this reason, it was determined that the project would have no involvement with navigation.

7. Permits

The following environmental permits are anticipated for this project:

State Permit(s)

DEP or WMD Environmental Resource Permit (ERP)
DEP National Pollutant Discharge Elimination System Permit

Status

To be acquired To be acquired

8. Engineering Analysis Support

The engineering analysis supporting this environmental document is contained within the Preliminary_Engineering_Report_Volume_1.



9. Commitments Summary

To minimize the impacts of this project to the social, cultural, natural and physical environment, Florida Department of Transportation (FDOT) has identified the following commitments:

- 1. Minimize adverse impacts to the eastern indigo snake during construction, by implementing the USFWS *Standard Protection Measures for the Eastern Indigo Snake* (USFWS 2021).
- 2. Provide compensatory mitigation for unavoidable impacts to wood stork Suitable Foraging Habitat at a USFWS approved mitigation bank, in accordance with the USFWS Wood Stork Effect Determination Key.
- 3. The commitments list is currently underway by FTE. This section will be updated once the list is completed and approved

10. Approved for Public Availability

HADY 6/12200

Environmental or Project Development Manager

Z/5/2024

11. Public Involvement

The following is a summary of public involvement activities conducted for this project:

Summary of Activities Other than the Public Hearing

Efficient Transportation Decision Making (ETDM) comments were used to provide the Environmental Technical Advisory Team (ETAT) feedback for all PD&E environmental impact topics. ETAT comments were considered with the environmental analysis that was conducted for the Preferred Alternative. The comments provided gave us preliminary insight to the perceived environmental concerns within the project area. Each comment was addressed through the analysis of the respective environmental impact topic and the results of the analysis was used to develop the alternatives to avoid and/or minimize the potential for significant environmental impacts to result from construction. In addition, if impacts were determined to be unavoidable, the ETDM comments assisted the PD&E Study team with analyzing potential mitigation options for any unavoidable impacts.

A Public Involvement Plan (PIP) was developed and implemented for this PD&E Study. The PIP incorporated the public involvement policies and techniques during the life of the project. The PIP outlined the public involvement approach and activities required to be undertaken with the project, including lists of the contact persons, such as citizens, private groups (residential/business), officials, agencies, stakeholders, media, and the means used to involve them in the process.

Briefings were held with the following elected officials, agencies, and stakeholders prior to the scheduled public meetings:

- FDOT D4 District Interchange Review Committee (DIRC)
- Broward Metropolitan Planning Organization (MPO)
- Broward County
- City of Coral Springs
- · City of Parkland
- Broward County Parks & Recreation
- Quiet Waters Park Mountain Bike Trail Group
- · City of Deerfield Beach
- City of Coconut Creek
- · S.O.S. Children's Villages

A PD&E Study project presentation and project exhibits were displayed and provided during these briefings.

Public information meetings began in the winter of 2017 and were continued throughout the study process. Exhibits and project information have been provided for public review and comment at each meeting. Exhibits and project information were also available on the project website. FDOT representatives have been available at each meeting to discuss the project and answer questions, as well as members of the consultant team.

Elected Officials/Agencies/Stakeholders Briefings - Briefings have been held with the previously listed Elected Officials/Agencies/Stakeholders prior to the Kick-Off Meetings.

Kick-Off Meetings - Both an Elected Officials/Agency and Public Kick-Off Meetings were held in November 2016 in Broward County. The purpose of these meetings was to provide the officials and the community a forum through which to learn about the improvements being studied as well as the PD&E Study process in general, and to provide FTE with initial

concerns and areas to investigate as part of the study. Numerous exhibits and project information were provided for public review. A project newsletter describing the PD&E Study was distributed to all the attendees.

The following is a summary of the items discussed in the meeting:

- PD&E Study Process
- Project Study Area
- Needs of the Project
- No-Build Alternative Conditions
- · Existing Conditions
- Adjacent Projects
- PD&E Study Milestone Schedule

The Kick-off meetings were held on Tuesday, November 15, 2016, at the Fort Lauderdale Marriott Coral Springs Hotel located at 11775 Heron Bay Boulevard, Coral Springs, Florida 33076. A total of seven written comments were received at these meetings. Approximately 58 people attended these meetings.

The following are some of the comment topics provided at the meetings:

- Noise Walls
- · Project Schedule

Elected Officials/Agencies/Stakeholders Briefings - Briefings have been held with the previously listed Elected Officials/Agencies/Stakeholders prior to the Alternatives Public Information Meeting.

Alternatives Public Information Meeting - A hybrid (Virtual and In-Person) Alternatives Public Information Meeting was held in January 2023 in Broward County. The purpose of this meeting was to present the PD&E Study Build Alternatives considered within the study area. Numerous exhibits and project information were provided for review. A project newsletter with information on the PD&E Study to date was distributed to all the attendees.

The following is a summary of the items discussed in the meeting:

- PD&E Study Process
- Project Study Area
- Needs of the Project
- Existing Conditions
- No-Build Alternative Conditions
- Milestone Project Schedule
- Alternatives Considered
- Roadway Typical Sections
- Evaluation Matrix
- Environmental Features

The virtual meeting was held on Monday, January 30, 2023, on the GoToWebinar Platform. A total of 11 comments were received at this meeting. Approximately 65 people attended the meeting.

The in-person meeting was held on Tuesday, January 31, 2023, at the Fort Lauderdale Marriott Coral Springs Hotel located at 11775 Heron Bay Boulevard, Coral Springs, Florida 33076. A total of 11 written comments were received at this meeting. An additional 556 comments were received through the project website. Approximately 57 people attended the meeting.

The following are some of the comment topics provided at the meetings:

- Over 500 comments were about impacts to Quiet Waters Park
- · Traffic Noise
- Visual Impacts
- Missing Interchange Movements

12. Technical Materials

The following technical materials have been prepared to support this environmental document.

Cultural_Resources_Assessment_Survey
Pond_Siting_Report
Location_Hydraulics_Memorandum
Preliminary_Engineering_Report_Volume_1
Public_Information_Records

Attachments

Planning Consistency

Planning_Consistency

Social and Economic

Land_Use_Map_East Wetlands_Map_West Future_Land_Use

Natural Resources

Wetlands_Map_East
Wetlands_Map_West
Flooplains_Maps_and_Tables
Natural_Resources_Map

Physical Resources

Noise_Table
Utility_Impact_Estimate_Table
Contamination_Map_West
Contamination_Map_East
Contamination_Table

Planning Consistency Appendix

Contents:

Planning_Consistency



Table 5-4: 2045 Roadway Plan (2025–2045) (Funded and Unfunded Projects) (cont'd)

Ref.	Project Sponsor	Jurisdiction	Project Name	Project Limits	Project Description	Total Cost (2019\$)	Timeframe for Implementation			
ID							2025	2026/30	2031/35	2036/45
10	FDOT	State SIS	I-95	Miami-Dade/ Broward Co. Line to North of Griffin	Interchange justification/ modification	\$271,812,045		Х	х	
11	FDOT	State SIS	I-595 Managed Lanes	E of I-75 to W of I-95	Continue payout agreement for managed lanes on I-595.	\$975,311,642	х	х	х	Х
12	Turnpike	Turnpike	Southern Turnpike Mainline/SR- 91	MP 47 - Turnpike Ext/ SR-821 to MP 51 - Johnson St	Widen to 10 lanes with managed lanes; includes interchange improvements at MP 47 - Turnpike Extension @ SR-821 and MP 49 - Hollywood Blvd/Pines Blvd @ SR-820.	\$152,630,769		×		
13	Turnpike	Turnpike	Southern Turnpike Mainline/SR- 91	MP 51 - Johnson St to MP 53 - Griffin Rd/SR 818	Widen to 10 lanes with managed lanes; includes interchange improvement at MP 53 - Orange Dr/Griffin Rd/SR-818.	\$146,563,077		х		
14	Turnpike	Turnpike	Southern Turnpike Mainline/SR- 91	MP 71 - Sawgrass Expwy/SR-869 to MP 73 - Broward/ Palm Beach County Line	Widen to 10 lanes with managed lanes.	\$65,331,538		×		
15	Turnpike	Turnpike	Sawgrass Expressway/ SR-869	MP 18 - US 441/ SR-7 to MP 22 - Powerline Rd	Widen from 6 to 10 lanes; includes interchange improvements at MP 18 - US 441 @ SR-7; MP 19 - Lyons Rd; MP 21 - Southern Turnpike Mainline/SR -91/SW 10th St.	\$405,922,308		X		





PAGE 4074 FLORIDA DEPARTMENT OF TRANSPORTATION DATE RUN: 07/05/2023 AS-OF DATE: 07/01/2023 OFFICE OF WORK PROGRAM TIME RUN: 10.36.56 STIP REPORT MBRSTIP-1 _____ TURNPIKE PHASE: CONSTRUCTION / RESPONSIBLE AGENCY: MANAGED BY FDOT PKYI 9,648 0 7,837,048 1,426 9,648 TOTAL <N/A> 0 0 0 7,838,474 7,837,048 7,837,048 0 0 0 7,838,474 TOTAL 435763 1 1,426 0 7,838,474 TOTAL Project: 1,426 ITEM NUMBER: 437153 1 PROJECT DESCRIPTION: PD&E WIDEN SAWGRASS S OF US 441 TO POWERLINE (MP18-22) DISTRICT: 04 COUNTY: BROWARD PROJECT LENGTH: 3.135MI TYPE OF WORK: PD&E/EMO STUDY GREATER FUND THAN THAN AT₁T₁ 2025 2026 2024 2027 YEARS FEDERAL PROJECT NUMBER: <N/A> PHASE: P D & E / RESPONSIBLE AGENCY: MANAGED BY FDOT PKYI 6,674,894 502,129 0 0 7,177,023 PHASE: PRELIMINARY ENGINEERING / RESPONSIBLE AGENCY: MANAGED BY FDOT PKYI 15,723 3,226 0 0 0 18,949 PHASE: CONSTRUCTION / RESPONSIBLE AGENCY: MANAGED BY FDOT PKYI 10,079 0 0 0 10,079 TOTAL <N/A> 6,700,696 505,355 TOTAL 437153 1 6,700,696 505,355 TOTAL Project: 6,700,696 505,355 0 0 0 7,206,051 0 0 0 7,206,051 7,206,051 ITEM NUMBER: 437155 1 PROJECT DESCRIPTION: WIDEN SAWGRASS (SR869) SUNRISE BLVD TO OAKLAND PARK (MPO.5-4.1) (6TO10LN) *SIS* DISTRICT:04 COUNTY: BROWARD PROJECT LENGTH: 9.381MI TYPE OF WORK: ADD LANES & RECONSTRUCT LESS GREATER **FUND** THAN THAN ALL CODE 2024 2024 2025 2026 2027 YEARS FEDERAL PROJECT NUMBER: <N/A> PHASE: PRELIMINARY ENGINEERING / RESPONSIBLE AGENCY: MANAGED BY FDOT 7,000,000 0 22,100,539 1,001,118 7,000,000 0 23,101,657 PHASE: RIGHT OF WAY / RESPONSIBLE AGENCY: MANAGED BY FDOT PKLF 0 1,000 0 0 0 1,000 4,847,183 PKYI 707,359 24,177,634 29,732,176 PAGE 4067 AS-OF DATE: 07/01/2023

FLORIDA DEPARTMENT OF TRANSPORTATION OFFICE OF WORK PROGRAM STIP REPORT

DATE RUN: 07/05/2023 TIME RUN: 10.36.56 MBRSTIP-1

TURNPIKE

ITEM NUMBER: 415927 1 PROJECT DESCRIPTION: WIDEN TPK(SR91) N OF SAWGRASS TO PALM BEACH C/L (MP71.8-73.1) W/MNGD LNS *SIS* TYPE OF WORK: ADD LANES & RECONSTRUCT DISTRICT:04 COUNTY:BROWARD PROJECT LENGTH: 1.577MI GREATER FUND THAN THAN 2024 2025 2026 CODE 2024 2027 YEARS FEDERAL PROJECT NUMBER: <N/A> PHASE: P D & E / RESPONSIBLE AGENCY: MANAGED BY FDOT PKYI 2,099,965 2,446 2,102,411 PHASE: PRELIMINARY ENGINEERING / RESPONSIBLE AGENCY: MANAGED BY FDOT PKYI 3,616,050 1,382 0 3,617,432 PHASE: RIGHT OF WAY / RESPONSIBLE AGENCY: MANAGED BY FDOT PKYI 1,931 17,569 0 0 19,500 PHASE: CONSTRUCTION / RESPONSIBLE AGENCY: MANAGED BY FDOT PKYI 53,462 903 0 0 0 54,365 TOTAL <N/A>
TOTAL 415927 1 5,793,708 5,771,408 22,300 0 0 0 0 5,771,408 22,300 Ω 5,793,708 ITEM NUMBER:415927 5 PROJECT DESCRIPTION:BRIDGE STRENGTHENING (SR91) IN BROWARD CNTY, MP 73.1 (BRIDGE # 860184) *SIS* DISTRICT:04 COUNTY:BROWARD PROJECT LENGTH: .047MI TYPE OF WORK:BRIDGE REHABILITATION LESS GREATER THAN FUND THAN ALLCODE 2024 2024 2025 2026 2027 2027 YEARS FEDERAL PROJECT NUMBER: <N/A> PHASE: PRELIMINARY ENGINEERING / RESPONSIBLE AGENCY: MANAGED BY FDOT PKYI 62,257 1,129 0 63,386 PHASE: CONSTRUCTION / RESPONSIBLE AGENCY: MANAGED BY FDOT PKYI 4,736 0
PKYR 0 8,507,670
66,993 8,508,799 4,736 8,507,670 8,508,799 8,508,799 8,531,099 66,993 66,993 8,575,792 TOTAL <N/A> 0 0 TOTAL 415927 5 66,993 TOTAL Project: 5,838,401 0 0 8,575,792 14,369,500

Phase	Fund Source	2024	2025	2026	2027	2028	Total
	RASS (SR869) OAKLAND PAI ADD LANES & RECONSTRUC		C BLVD (MP 4.1-7.5) - FM# 43	371556	Length: 5.412 Lead Agency: FDOT MTP Pg.: 5-3	*SIS*	
ROW	PKYI	1,670,000	495,416	149,938	0	0	2,315,354
ENV	PKYI	50,000	0	0	0	0	50,000
CST	PKYI	0	10,580	0	0	0	10,580
PE	PKYI	0	99,000	550,000	0	0	649,000
CST	PKBD	0	0	136,041,861	0	0	136,041,861
RRU	PKBD	0	0	250,000	0	0	250,000
T	otal	1,720,000	604,996	136,991,799	0	0	139,316,795
	Prior Years Cost	25,914	Future Years Cost	2,220,000	Total	Project Cost	141,562,709
	RASS (SR869) SAMPLE TO U ADD LANES & RECONSTRUC		-14.8)(6TO10 LNS) - FM# 435	4614	Length: 5.128 Lead Agency: FDOT MTP Pg.: 5-3	*SIS*	
PE	PKYI	520,000	0	0	0	0	520,000
ENV	PKYI	75,000	0	0	225,000	0	300,000
CST	PKYI	0	0	1,090	0	0	1,090
CST	PKBD	0	0	103,012,040	0	0	103,012,040
RRU	PKYI	0	0	0	300,000	0	300,000
T	otal	595,000	0	103,013,130	525,000	0	104,133,130
	Prior Years Cost	17,820	Future Years Cost	2,420,000	Total	Project Cost	106,570,950
	RASS(SR869) FROM SR7 TO ADD LANES & RECONSTRUC		8.4-22)(6TO10 LNS) - FM# 43	72241	Length: 3 Lead Agency: FDOT MTP Pg.: 5-6	*SIS*	
PE	PKYI	3,900,000	12,000,000	0	0	0	15,900,000
ENV	PKYI	0	0	0	250,000	0	250,000
	otal	3,900,000	12,000,000	0	250,000	0	16,150,000
	Prior Years Cost	3,006,239	Future Years Cost	638,269,311	Total	Project Cost	657,425,550

2024-28 TIP (5-18-23) TURNPIKE

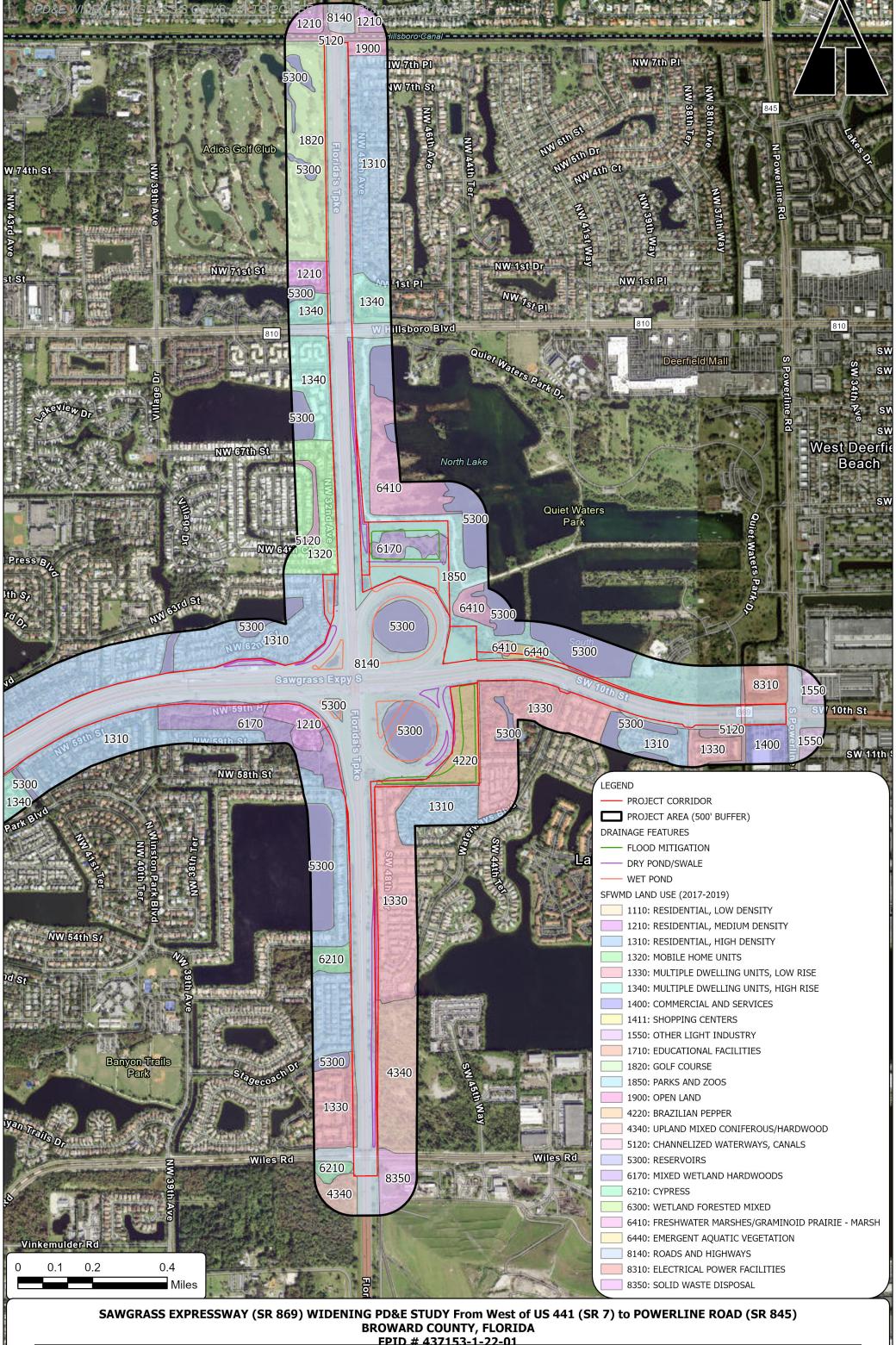
Phase	Fund Source	2024	2025	2026	2027	2028	Total
	R91) N OF SAMPLE RD TO WII ADD LANES & RECONSTRUC		M# 4520781		Length: 0.986 Lead Agency: FDC MTP Pg.: 5-3	*SIS* DT	
PE	PKYI	0	1,710,000	0	0	0	1,710,000
Т	otal	0	1,710,000	0	0	0	1,710,000
	Prior Years Cost	1,500	Future Years Cost		Tota	al Project Cost	1,711,500
	R91) S OF COMMERCIAL BLV ADD LANES & RECONSTRUC		MP 62-66) - FM# 4520761		Length: 3.998 Lead Agency: FDC MTP Pg.: 5-3	*SIS* DT	
PE	PKYI	0	0	0	13,860,000	0	13,860,000
ROW	PKYI	0	0	0	0	1,400,000	1,400,000
т	otal	0	0	0	13,860,000	1,400,000	15,260,000
	Prior Years Cost	1,500	Future Years Cost		Tota	al Project Cost	15,261,500
•	R91) WILES RD TO PALM BEA ADD LANES & RECONSTRUC		M# 4521141		Length: 3.094 Lead Agency: FDC MTP Pg.: 5-3	*SIS* DT	
PE	PKYI	0	0	0	7,300,000	0	7,300,000
Т	otal	0	0	0	7,300,000	0	7,300,000
	Prior Years Cost	1,500	Future Years Cost		Tota	al Project Cost	7,301,500

2024-28 TIP (5-18-23) TURNPIKE

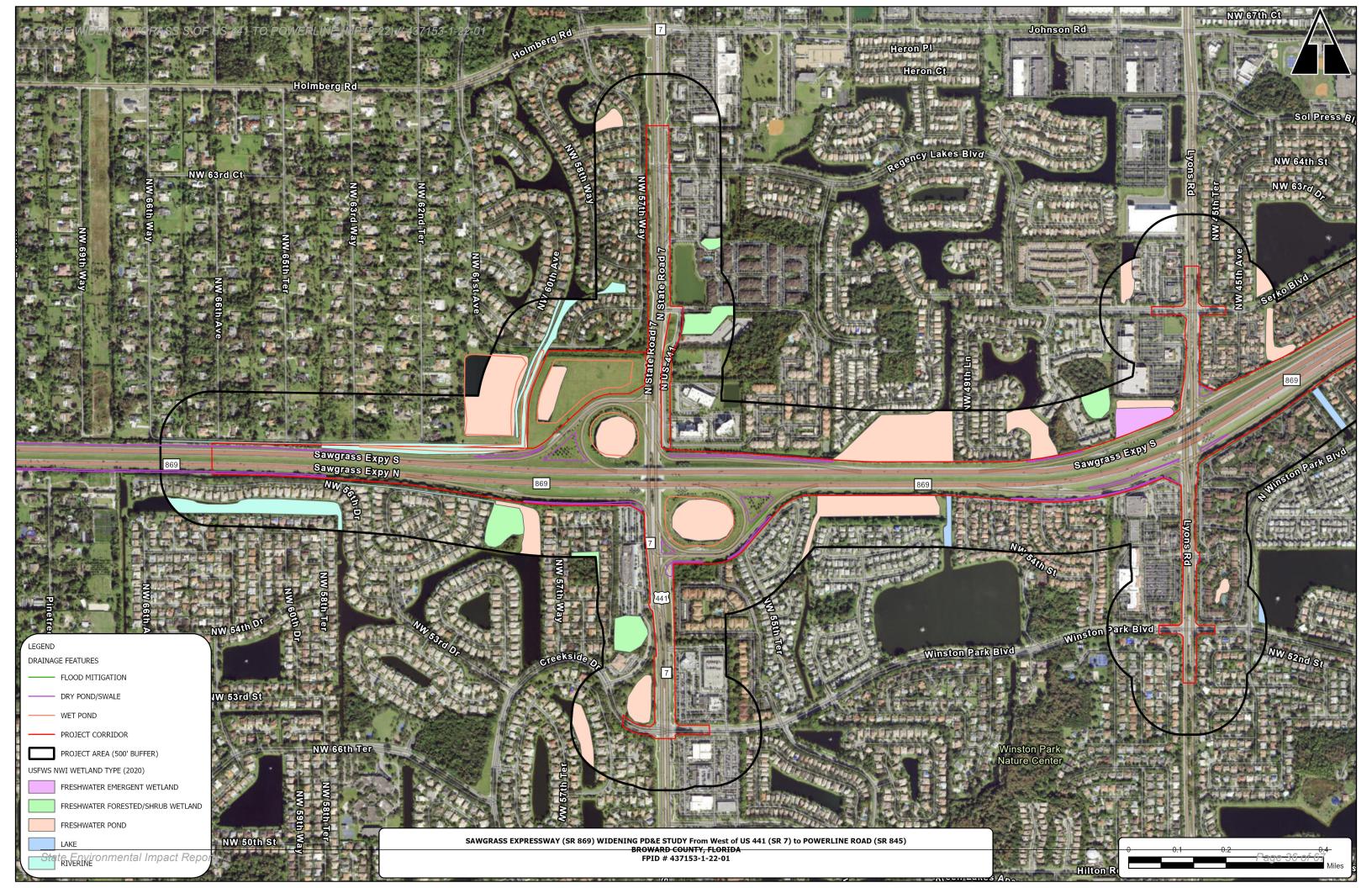
Social and Economic Appendix

Contents: Land_Use_Map_East Wetlands_Map_West Future_Land_Use

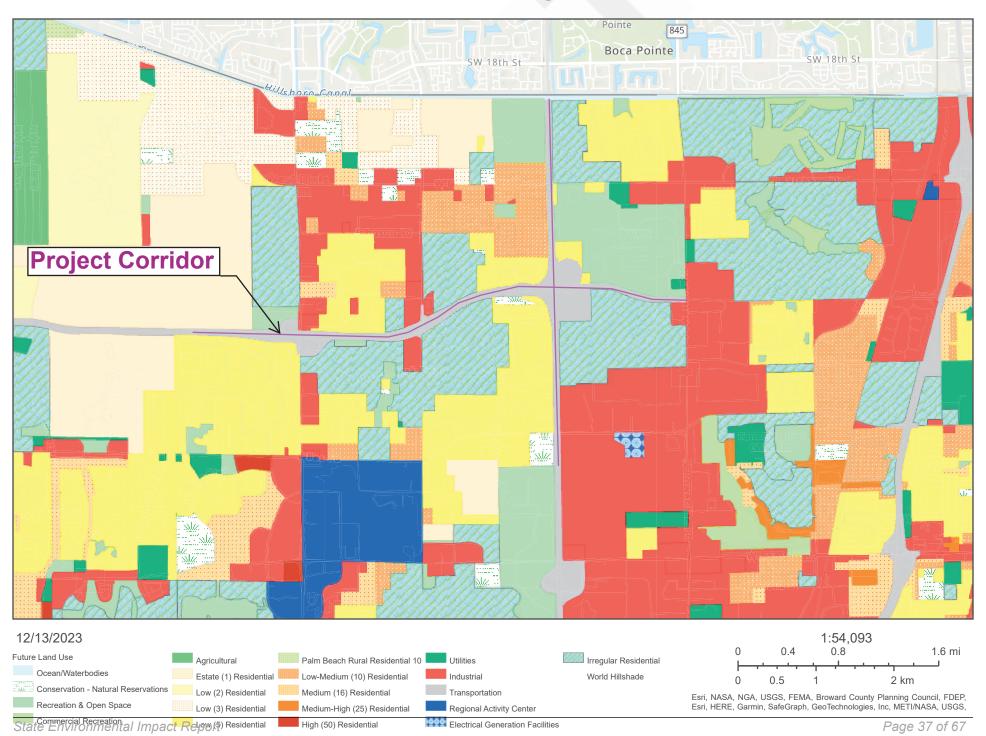




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PD&E WIDEN SAWGRASS S OF US 441 TO POWERLINE (MP18-22) // 437153-1-22-01 Use

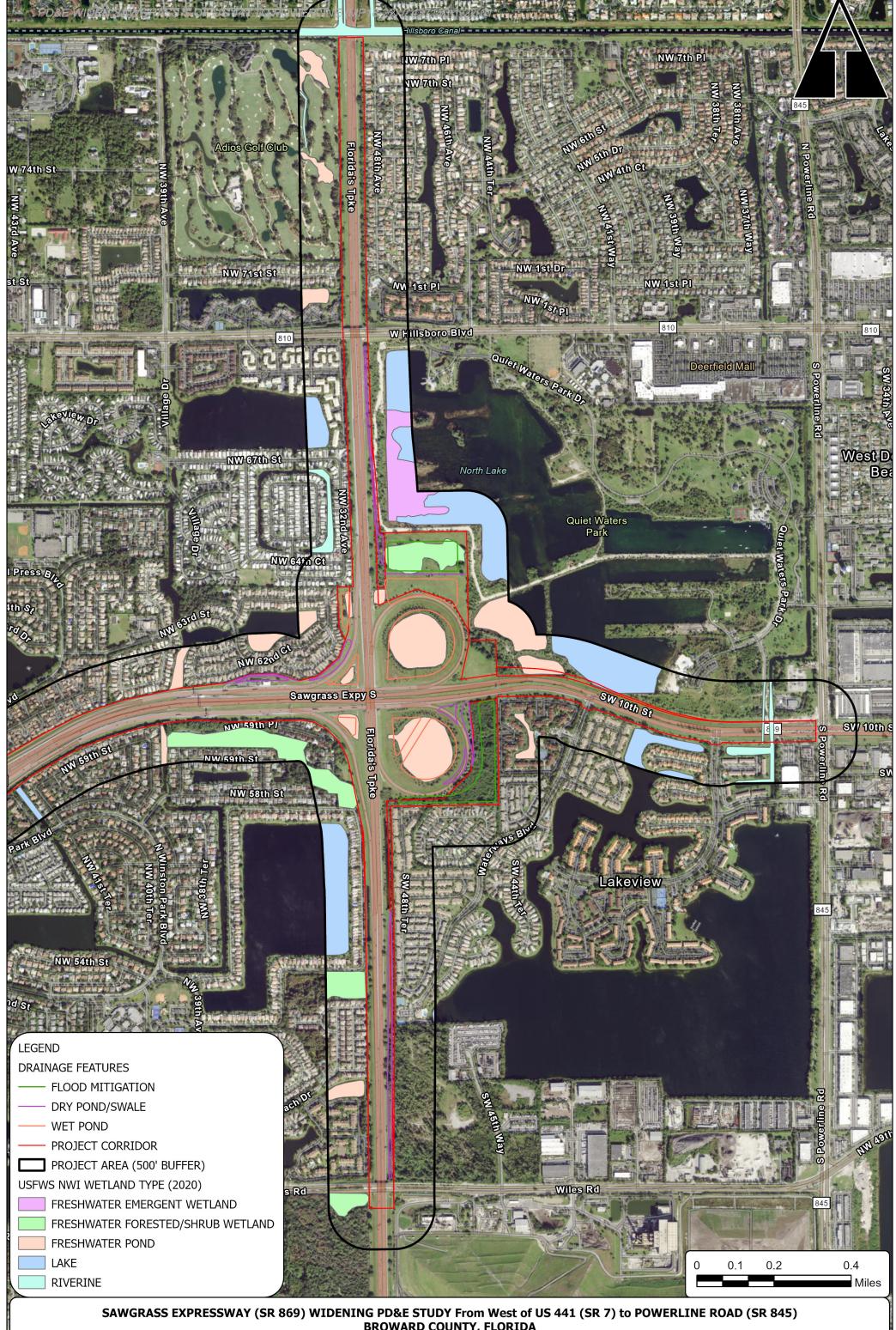


Natural Resources Appendix

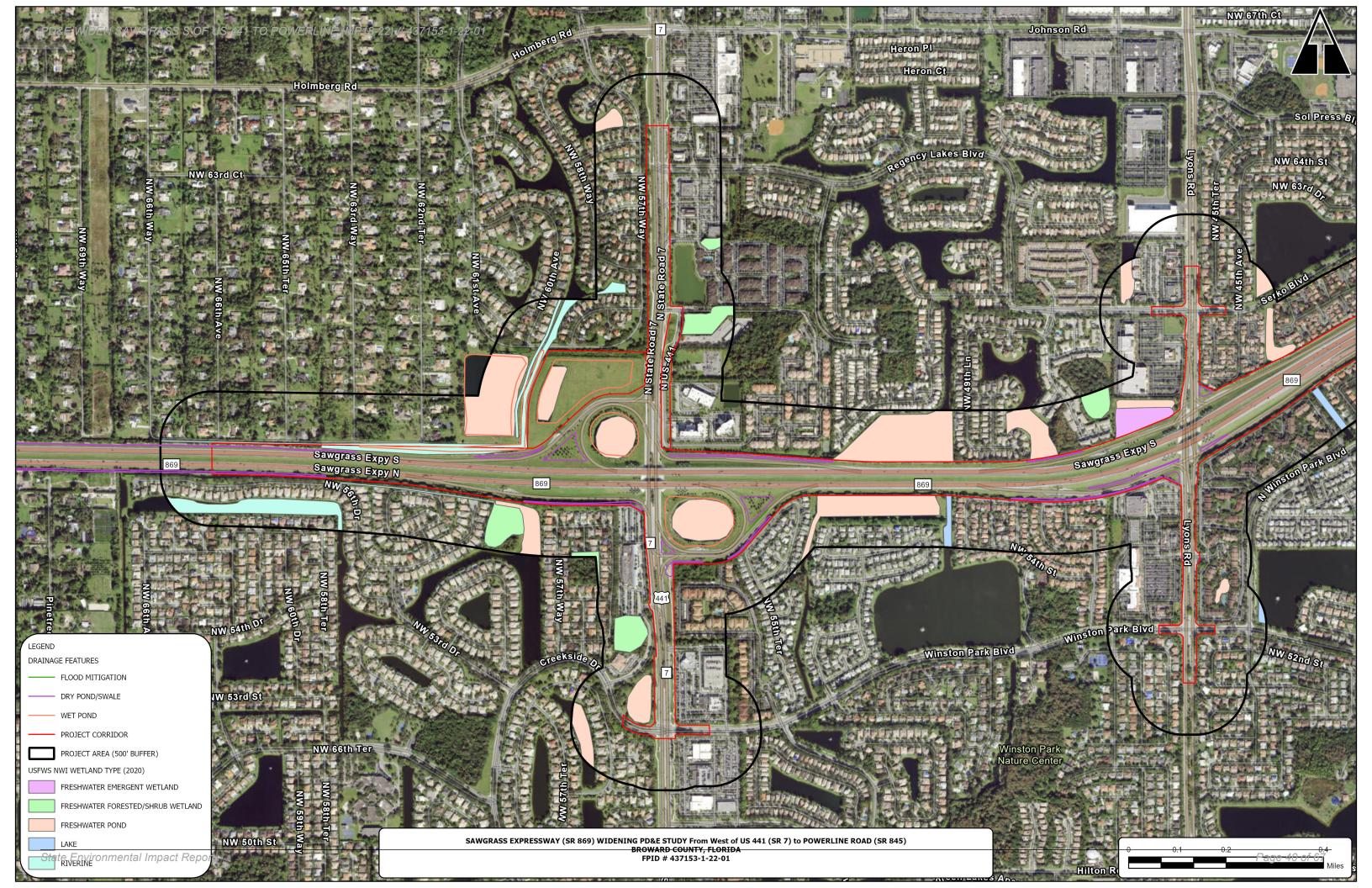
Contents:

Wetlands_Map_East
Wetlands_Map_West
Flooplains_Maps_and_Tables
Natural_Resources_Map





BROWARD COUNTY, FLORIDA
FPID # 437153-1-22-01

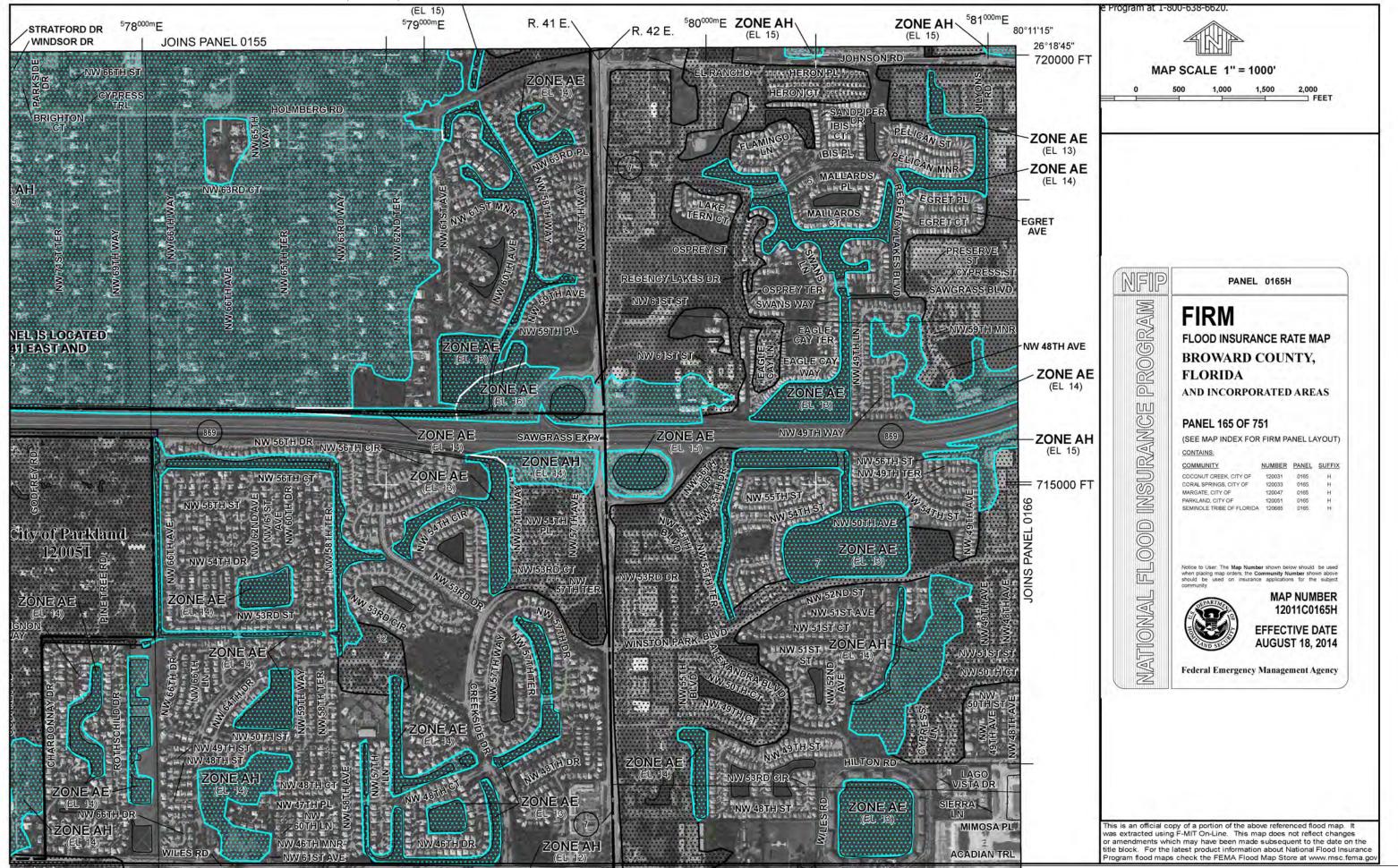






FEMA Maps & Floodplain Compensation Calculations





State Environmental Impact Report
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NOTES TO USERS PD&E W

To obtain more detailed information in areas where Base Flood Elevations (BFEs) and/or floodways have been determined, users are encuraged to consult the Flood Profeles and Floodway Data and/or Summany of Sittlewater Elevations tables contained within the Flood Insurance Study (FIS) report that accompanies this FIRM. Users should be wanter that BFEs shown on the FIMM represent condid tentished elevations. These BFEs are intended for flood insurance rating purposes only and flood elevation that gressreded in the FIS region shade the utilized for conjunction with the FIRM for purposes of construction and/or floodplain management.

Coastal Base Flood Elevations (BFEs) shown on this map apply only issueward of 0.0 North American Vertical Datum of 1988 (NAVD 88). Users of this FRM should be waver that costal flood elevations are also provided in the Summary of Solivater Elevations table in the Flood Insurance Study report for this jurisdiction. Elevations shown in the Currentary of Solivater Elevations table is shown in the Currentary of Solivater Elevations table should be used for construction to the shown in the Currentary of Solivater Elevations that Should be used for constructions are shown on the Final Current Solivate Study (Solivated Solivated Soliv

Boundaries of the floodways were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood insurance Program. Floodway widths and other pertanent floodway data are provided in the Flood insurance Study report.

Certain areas not in Special Flood Hazard Areas may be protected by flood control structures. Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study report for information on flood control structures for this jurisdiction.

The projection used in preparation of this map was Transverse Meccalor State Plane Florida East FIPS 0001. The horizontal datum was NADSS HARN, GRS1980 spheroid. Differences in datum, spheroid, projection or State Plane croses used in production of FIRMs for adjacent jurisdictions may result in slight, positional differences in map features across jurisdiction boundaries. These differences do not affect the occuracy of this FIRM.

Flood elevations on this map are referenced to the North American Vertical Datum of 1998. These flood elevations must be compared to structure and ground elevations referenced to the same vertical datum. For information regarding conversion between National Geodelic Vertical Datum of 1929 and the North American Vertical Datum of 1988, wist the National Geodelic Survey website at https://www.mas.nosa.gov/ or contact the National Geodelic Survey at the following address:

NOJW, NINGS12 National Geodelic Survey SSMC-3, #9202 1315 East-West Highway Silver Spring, Maryland 20910-3282 (301) 713-3242

To obtain current elevation, description, and/or location information for bench marks shown on this map, please contact the information Services Branch of the National Geodetic Survey at (301) 713-3242 or visit its website at https://www.ngs.neaa.gov/.

Base map information shown on this FIRM was provided in digital format by Broward

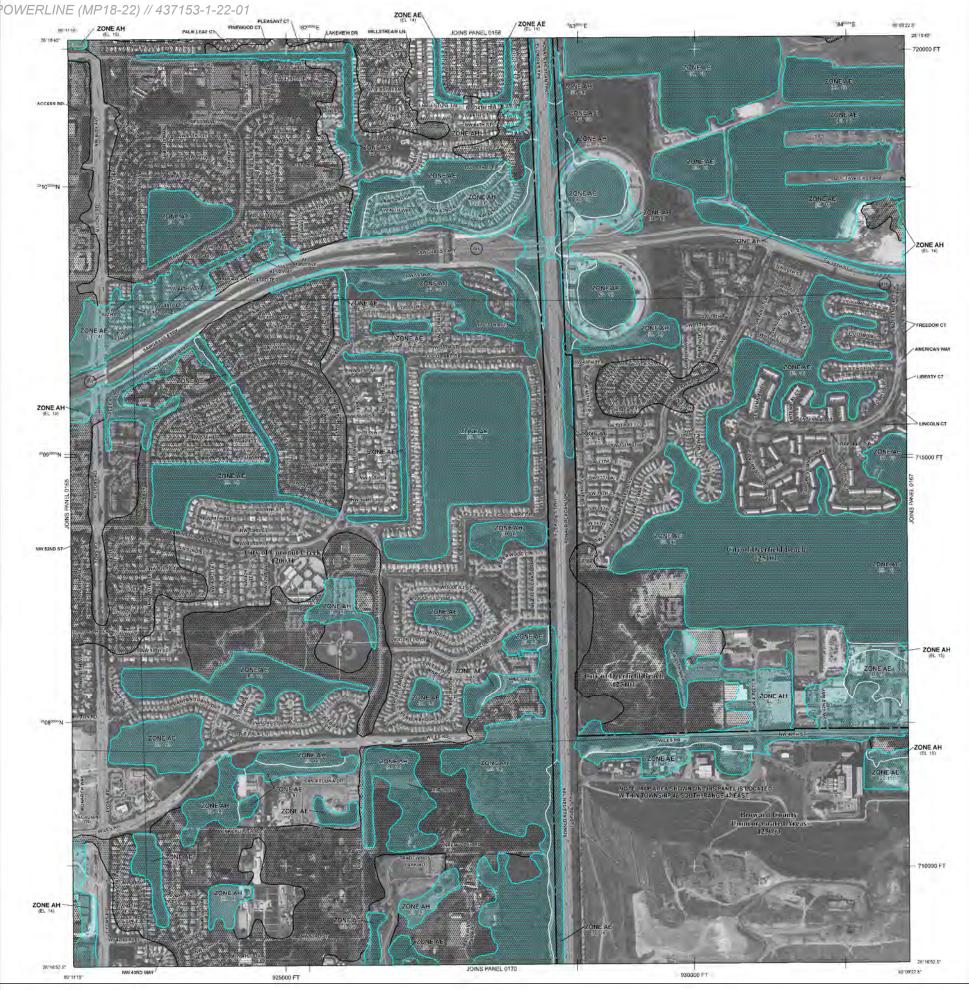
This map reflects more detailed and up-to-date stream channel configurations than those above nor the previous FIRM for this jurisdiction. The floodpains and floodways that were transferred from the previous FIRM may thew been adjusted to conform to these new stream channel corridgantions. As a result, the Flood Profiles and Floodway Data tables in the Flood Insurance Study report (which contains authoritative hydraulic data) may reflect stream channel distances that differ from what is shown on this map.

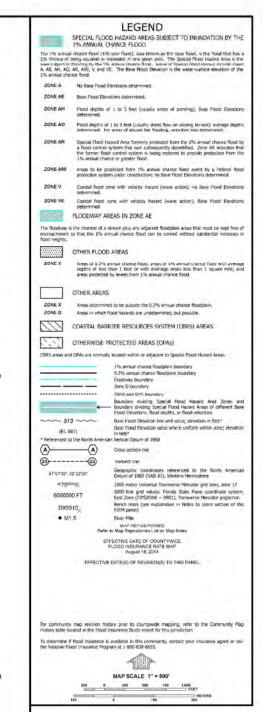
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Please rater to the separately printed that index for an overview map of the county showing the layout of map panels community may repeately addresses, and a Listing of Communilles table containing National Flood Insurance Program dates for each community as well as a setting of the panels on which each community is located.

For information and questions about this map, available products associated with this FIRM including historic versions of this FIRM how to order products, or the National FIRM including historic versions of this FIRM how to order products, or the National FIRM cold insurance Program in general, please call the FEMA Map Information eXchange at 1-87.FEMA MAP (1-877-326-2627) or vast the FEMA Map Service Conter versions at 1this Immsc Employs. Available products may include previously issues Lotters of Map Change, a Flood insurance Study report, and/or digital versions of this map. Many of these products can be octored or Obtained directly from the website. Users may determine the current map date for each FIRM panel by information eXchange.

The "profile base lines" depicted on this map represent the hydraulic modeling baselines that match the food profiles in the FIS report. As a result of improved topographic data, the profiles base line, in some cases, may devade significantly from the channel centerline or appear outside the SFHA.



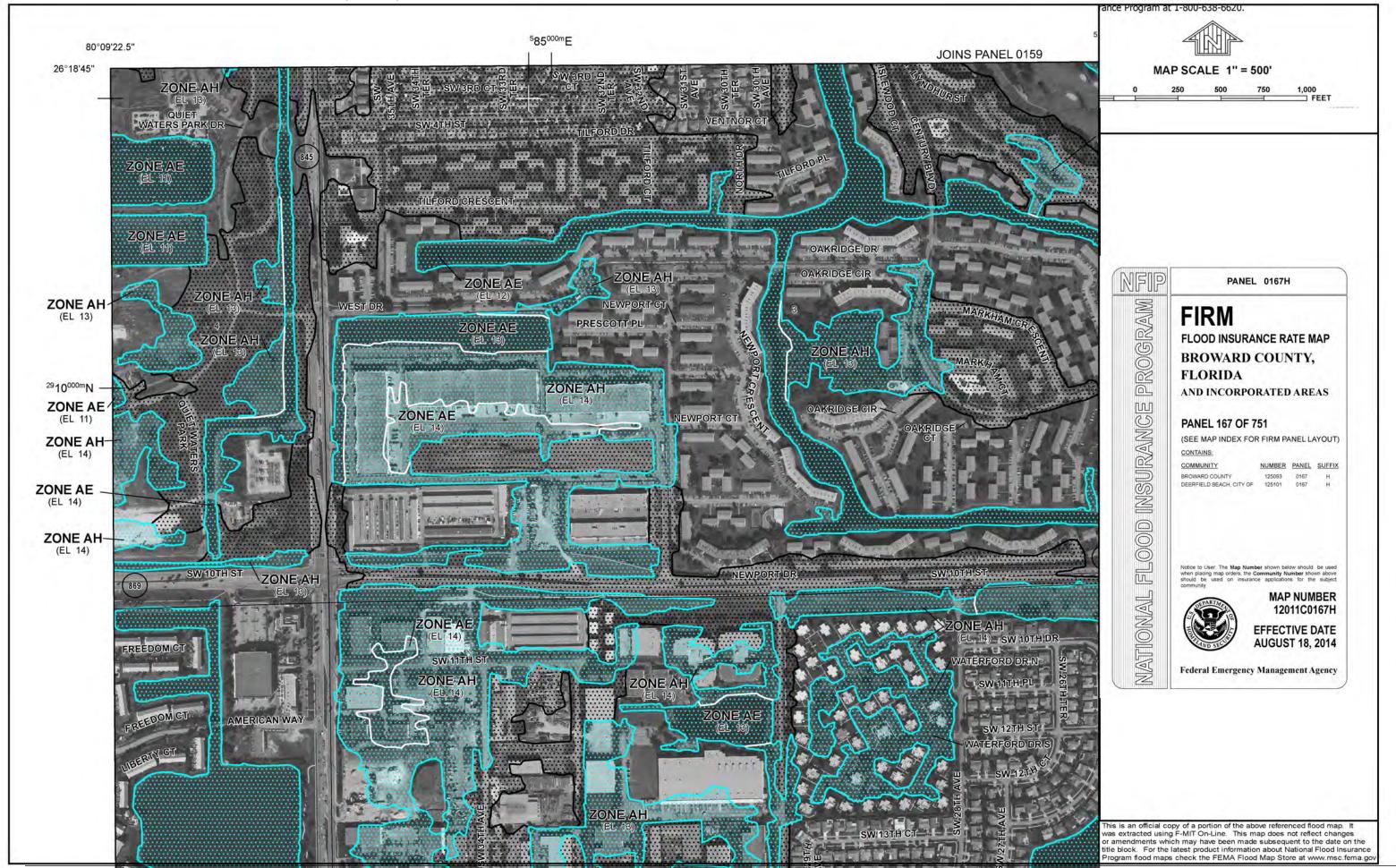


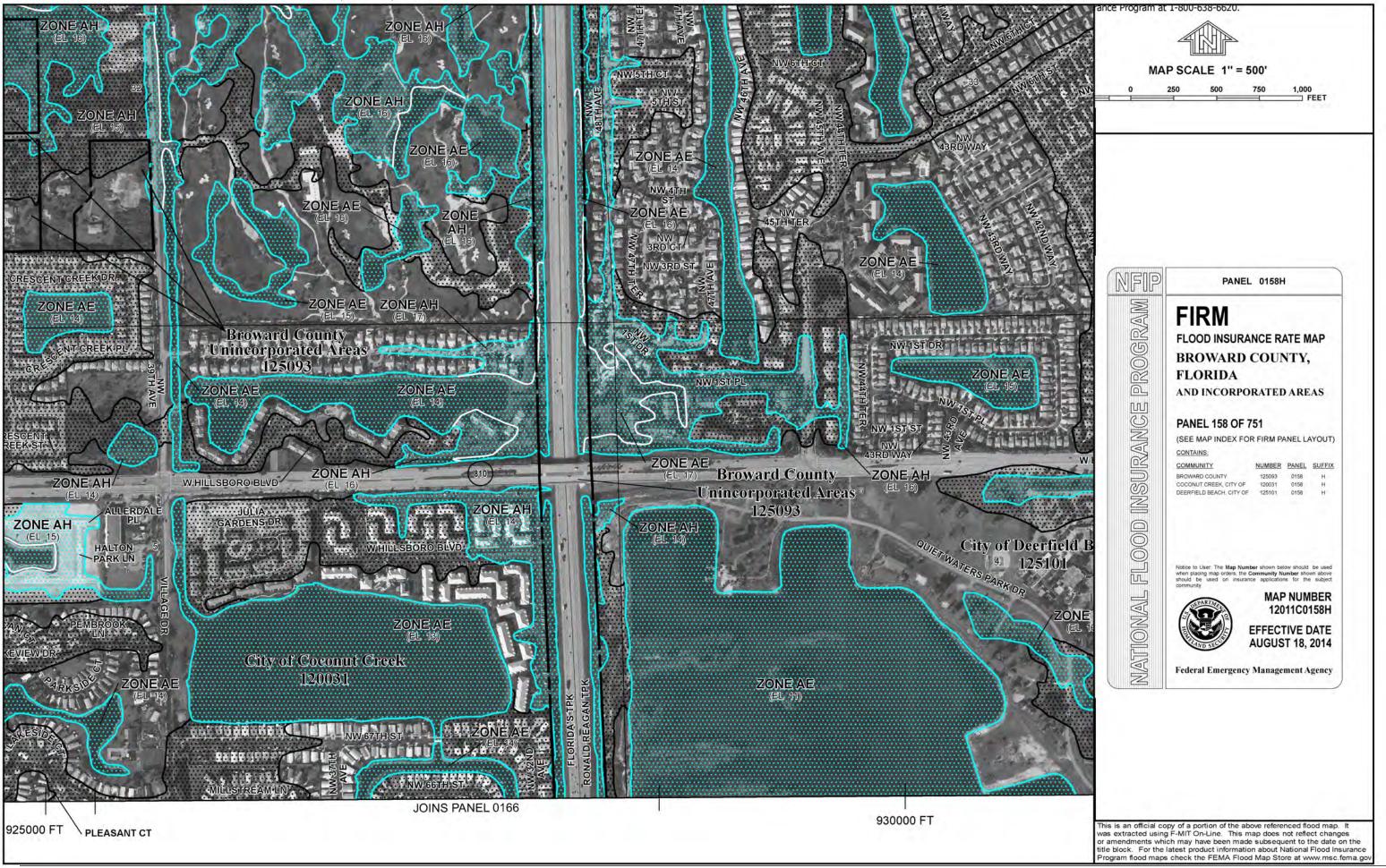


MAP NUMBER



12011C0166H EFFECTIVE DATE **AUGUST 18, 2014**





State Environmental Impact Report

NOTES TO USERS

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The community map repository should be consulted for possible updated or additional flood hazard information.

To obtain more detailed information in areas where Base Flood Elevations (BFEs) and/or floodways have been determined, users are encouraged to consult the Flood Profiles and Floodway Data and/or Summary of Stillwater Elevations tables contained within the Flood Insurance Study (FIS) report that accompanies this FIRM. Users should be aware that BFEs shown on the FIRM represent rounded tenth-foot elevations. These BFEs are intended for flood insurance rating purposes only and should not be used as the sole source of flood elevation information. Accordingly, flood elevation data presented in the FIS report should be utilized in conjunction with the FIRM for purposes of construction and/or floodplain management.

Coastal Base Flood Elevations (BFEs) shown on this map apply only landward of 0.0' North American Vertical Datum of 1988 (NAVD 88). Users of this FIRM should be aware that coastal flood elevations are also provided in the Summary of Stillwater Elevations table in the Flood Insurance Study report for this jurisdiction. Elevations shown in the Summary of Stillwater Elevations table should be used for construction and/or floodplain management purposes when they are higher than the elevations shown on this FIRM.

Boundaries of the floodways were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Flood Insurance Study report for this jurisdiction.

Certain areas not in Special Flood Hazard Areas may be protected by flood control structures. Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study report for information on flood control structures for this jurisdiction.

The projection used in preparation of this map was Transverse Mercator State Plane Florida East FIPS 0901. The horizontal datum was NAD83 HARN, GRS1980 spheroid. Differences in datum, spheroid, projection or State Plane zones used in production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of this FIRM.

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NGS Information Services NOAA, N/NGS12 National Geodetic Survey SSMC-3, #9202 1315 East-West Highway Silver Spring, Maryland 20910-3282 (301) 713-3242

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Base map information shown on this FIRM was provided in digital format by Broward County. The original orthophotographic base imagery was provided in color with a one-foot pixel resolution at a scale of 1" = 300' from photography flown in 2008.

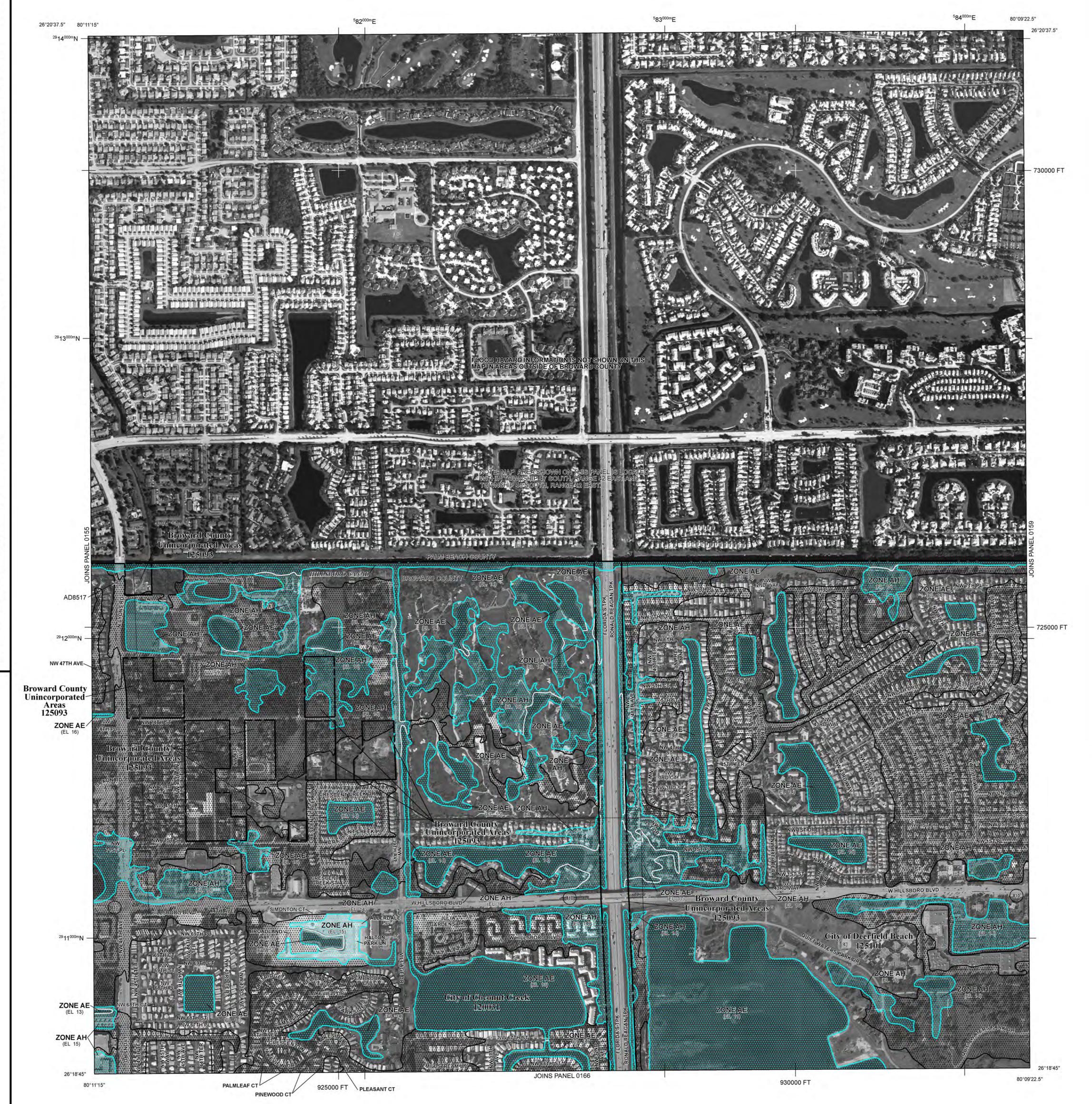
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For information and questions about this map, available products associated with this FIRM including historic versions of this FIRM, how to order products, or the National Flood Insurance Program in general, please call the **FEMA Map Information eXchange** at 1-877-FEMA MAP (1-877-336-2627) or visit the FEMA Map Service Center website at http://msc.fema/gov. Available products may include previously issues Letters of Map Change, a Flood Insurance Study report, and/or digital versions of this map. Many of these products can be ordered or obtained directly from the website. Users may determine the current map date for each FIRM panel by visiting the FEMA Map Service Center website or by calling the FEMA Map Information eXchange.

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LEGEND

SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the

No Base Flood Elevations determined. Base Flood Elevations determined.

Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.

Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.

Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations

Areas to be protected from 1% annual chance flood event by a Federal flood protection system under construction; no Base Flood Elevations determined.

Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations

depths of less than 1 foot or with drainage areas less than 1 square mile; and

Coastal flood zone with velocity hazard (wave action); Base Flood Elevations FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average

areas protected by levees from 1% annual chance flood.

OTHER AREAS Areas determined to be outside the 0.2% annual chance floodplain.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

Areas in which flood hazards are undetermined, but possible.

OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

1% annual chance floodplain boundary 0.2% annual chance floodplain boundary

Floodway boundary Zone D boundary

- boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths, or flood velocities ~~~ 513 ~~~ Base Flood Elevation line and value; elevation in feet* Base Flood Elevation value where uniform within zone; elevation

Boundary dividing Special Flood Hazard Area Zones and

Referenced to the North American Vertical Datum of 1988 Cross section line

(23)----(23) Transect line

Geographic coordinates referenced to the North American 97°07'30", 32°22'30" Datum of 1983 (NAD 83), Western Hemisphere 4275000mE 1000-meter Universal Transverse Mercator grid ticks, zone 17 5000-foot grid values: Florida State Plane coordinate system, 6000000 FT East Zone (FIPSZONE = 0901), Transverse Mercator projection Bench mark (see explanation in Notes to Users section of this

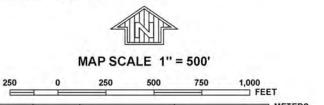
> MAP REPOSITORIES EFFECTIVE DATE OF COUNTYWIDE

FLOOD INSURANCE RATE MAP August 18, 2014

EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL

For community map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6620.



PROGRAM

URANG

THONAL

FIRM

FLOOD INSURANCE RATE MAP **BROWARD COUNTY, FLORIDA**

AND INCORPORATED AREAS

PANEL 0158H

PANEL 158 OF 751 (SEE MAP INDEX FOR FIRM PANEL LAYOUT)

COMMUNITY NUMBER PANEL SUFFIX

COCONUT CREEK, CITY OF 120031 0158 H DEERFIELD BEACH, CITY OF 125101 0158

Notice to User: The Map Number shown below should be used when placing map orders; the Community Number shown above MAP NUMBER



EFFECTIVE DATE AUGUST 18, 2014

12011C0158H

Federal Emergency Management Agency

Summary of Floodplain Compensation Calculations

LOCAL WATER MANAGEMENT DISTRICT	PROJECT BASIN	FLOODPLAIN ENCROACHMENT (AC-FT)	Provided Storage In	FLOODPLAIN COMPENSATION (AC-FT)
Pinetree Water Management District	BASIN 1	0.98	POND 1-1	1.26
Cocomar Water Management District	BASIN 2 & 3A	8.50	POND 2-1	5.17
			FLOOD MITIGATION	
Proward County Water Management District # 2	BASIN 3B, 3B-1, 3B-	20 76	3B-1	18.70
Broward County Water Management District # 2	2 & 4	38.76	FLOOD MITIGATION	
			3B-2	23.26

PROJECT TOTAL = <u>48.24</u> <u>48.39</u>

FLOODPLAIN COMPENSATION CALCULATIONS

BASIN 1

SHW EL = 10 (NAVD) BOTTOM EL = 11 (NAVD)

FEMA 100YR EI = 14

STORAGE IN DRY POND 1-1

Average Pond Area @bottom El (ac)	Average Pond Area @ El 12(ac)	Depth between Avg. Ground El 12 & Bottom El 11 (ft)	Storage provided in pond (ac-ft)
1.17	1.34	1.0	1.26

BASIN 2 & 3A

SHW EL = 9.5 (NAVD)

TREATMENT AND ATTENUATION EL = 11.0 (NAVD)

FEMA 100YR El = 15

STORAGE IN WET POND 2-1

Average c/s area between El 11 & 15 (sf)	Periphery of POND 2-1 (ft)	Storage provided in POND 2-1	Storage provided in pond (ac-ft)
116.0	1943.00	225388.0	5.17

Note: Treatment and attenuation will be provided between SHW El 9.5 and El 11.0. Therefore the storage is excluded as floodplain compensation

BASIN 3B & 4

SHW EL = 8.4 (NAVD)

AVG. EXIST. GR EL = 12.00

FEMA 100YR EI = 14

STORAGE IN FLOOD MITIGATION 3B-1 (DRY)

Average Pond Area @ Bottom El 9.4 (ac)	Average Pond Area @ El 12.0 (ac)	Depth between Avg. Ground El 12 & Bottom El 9.4 (ft)	Storage provided in pond (ac-ft)
7.06	7.33	2.6	18.70

SHW EL = 8.4 (NAVD) AVG. EXIST. GR EL = 12.50

FEMA 100YR El = 14

STORAGE IN FLOOD MITIGATION 3B-2 (DRY)

Average Pond Area @ Bottom El 9.4 (ac)	Average Pond Area @ El 12.5 (ac)	Donth hotwoon Ava (Fround El 17 X.	Storage provided in pond (ac-ft)
7.34	7.67	3.1	23.26

FLOODPLAIN ENCROACHMENT CALCULATIONS

BASIN 1

SHW EL = 10 (NAVD)

	OFFSE	T/RT (FEM	A 100YR El :	= 14)		OFF	SET/LT		REQUIRED	PROVIDED	
Station	Area of Fill within Flood Plain (sf)	Average (sf)	Length (ft)	Volume of Fill within FloodPlain (ac-ft)	Area of Fill within Flood Plain (sf)	Average	Length	Volume of Fill within FloodPlain (ac-ft)	FLOODPLAIN	FLOODPLAIN COMPENSATION (AC-FT)	
1033+00	91.1				0						
1037+00	5.9	42.5	1000	0.98	0	0	0	0.00	0.98		
1039+00	30.5				0						
									0.98 ac-ft	1.26	

BASIN 2 & 3A

SHW EL = 8.4 (NAVD)

	OFFSE	T/RT (FEM	A 100YR EI :	= 14)	OF	FSET/LT (FE	MA 100YR	REQUIRED	PROVIDED	
Station	Area of Fill within Flood Plain (sf)	Average (sf)	Length (ft)	Volume of Fill within FloodPlain (ac-ft)	Area of Fill within Flood Plain (sf)	Average	Length	Volume of Fill within FloodPlain (ac-ft)	FLOODPLAIN COMPENSATION (AC-FT)	FLOODPLAIN COMPENSATION (AC-FT)
1044+00	0	0	0	0	283.2	266.6	1000	6.12	6.12	
1046+00	0	O	U	O	250.0			0.12	0.12	
	OFFSE	T/RT (FEM.	A 100YR EI =	= 15)	OF	FSET/LT (FE	MA 100YR			
1152+00	20.40	20.4	200	0.09	78.9	78.9	200	0.36	0.46	
	OFFSE	T/RT (FEM.	A 100YR EI =	= 14)	OFFSET/LT (F	EMA 100YR	El = 15)			
1088+00	52.65				67.3					
1090+00	66.05	63.3	300	0.44	149.2	108.2	600	1.49	1.93	
1091+00	71.30				1652.5					
			-						8.50 ac-ft	5.17

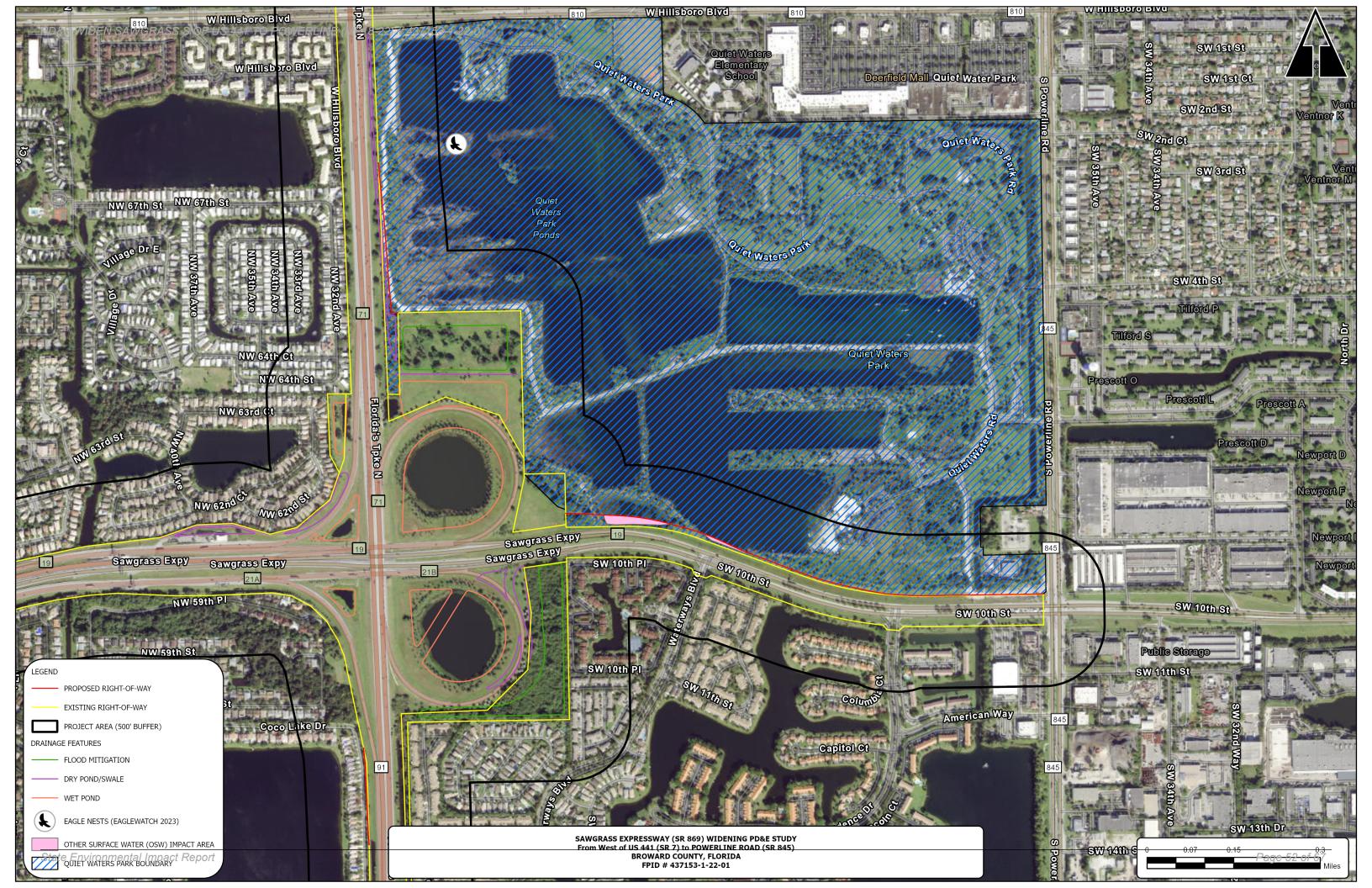
State Environmental Impact Report Page 50 of 67

BASIN 3B, 3B-1, 3B-2 & 4

SHW EL = 8.4 (NAVD)

	OFFSE	T/RT (FEM.	A 100YR EI :	= 14)	OF	FSET/LT (FE	MA 100YR	El = 14)	REQUIRED	PROVIDED
Station	Area of Fill within Flood Plain (sf)	Average (sf)	Length (ft)	Volume of Fill within FloodPlain (ac-ft)	Area of Fill within Flood Plain (sf)	Average	Length	Volume of Fill within FloodPlain (ac-ft)	FLOODPLAIN COMPENSATION (AC-FT)	FLOODPLAIN COMPENSATION (AC-FT)
5580+00	0	0	0	0	195.35	202.7	1200	5.58	5.58	
5590+00	0	0	U	O	210	202.7	1200	5.56	5.56	
5610+00	381.3	403.3	1200	11.11	0	0.0	0	0.00	11.11	
5620+00	425.3	700	1200	11.11	0	0.0	U	0.00	11.11	
5650+00	524.3				13.7					
5660+00	75.2	233.9	3200	17.18	79.0	46.3	3200	3.40	20.59	
5665+00	102.3				84.1					
5681+00	0.0	0.0	0	0.00	14.0	10.0	2400	1 40	1 40	
5715+00	0.0	0.0	0	0.00	24.0	19.0	3400	1.48	1.48	
									38.76 ac-ft	18.70

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Physical Resources Appendix

Contents:
Noise_Table

Utility_Impact_Estimate_Table

Contamination_Map_West

 $Contamination_Map_East$

Contamination_Table



Table 4-1 - Potentially Feasible and Reasonable Noise Barrier Evaluation Summary Widen Sawgrass Expressway (SR 869) from US 441 to Powerline Road - PD&E Study

Noise Barrier System (CNEs included in	Communities Potentially Benefited by Noise Barrier	Number of Impacted Residences ¹	Preliminary Noise Barrier Height (ft)	Preliminary Noise Barrier Length (ft) ²	Preliminary Noise Barrier Location	Total Noise Barrier System Cost (includes costs of existing	New Construction Noise Barrier Cost ⁴	Number of Residences Potentially Benefited by a Noise Barrier ⁵		Total Noise Barrier System Cost Per Benefited	
barrier system)	System		ricigiie (rej	Length (14)	Location	barriers) ³	COST	Impacted	Total	Residence ⁶	
		NOISE BARRIERS EASTBOUND (NORTHBOUND) SIDE OF SAWGRASS EXPRESSWAY (red italics indicate existing or planned barriers, black text indicates new proposed barriers)									
		(red italics	indicate existin	g or planned bo	irriers, black te	ext indicates new pro	posed barriers)				
#1 (CNE EB02	Coconut Palm Club Apts; Somerset; Lauren's Run;	89	22	4,209	ROW ⁸	\$3,162,720	\$3,162,720	79	180	\$17,571	
& EB03)	Cypress Lakes		22	583	ROW ⁸						
	,,		22 ⁷	3,417	ROW 8						
#2	St. Andrews at Winston Park:		8	248	ST ¹⁰						
(CNE EB06	Breckenridge	147	14	814	SH ⁹	\$2,894,220	\$639,000	85	110	\$26,311	
& EB07)	& EB07) North		8	535	ST ¹⁰						
			14	260	SH ⁹						
#3 (CNE EB09)	Enclave at	63	22 ⁷	1,292 11	ROW ⁸ SH ⁹	\$1,509,600	\$656,880	37	51	\$29,600	
(CNE EBU9)	Waterways			1,564							
				•	•	E OF SAWGRASS EXP ext indicates new pro					
#4	Club Caribe; Eagle	427	22 ⁷	2,392	ROW 8	44 005 220	4227.600	424	224	60.540	
(CNE WB03)	Cay at Regency Lakes	127	14	780	SH ⁹	\$1,906,320	\$327,600	121	224	\$8,510	
#5	Lakes		227	1,171	ROW 8						
(CNE	Village of Sorbet;		22	5,369	ROW ⁸						
WB05,	Coco Bay	204	14	597	SH ⁹	\$4,851,900	\$4,079,040	199	322	\$15,068	
WB06, WB07)	,		14	678	SH ⁹						
112077			NOISE BAR	RIFRS NORTHBO	OUND SIDE OF	FLORIDA'S TURNPIKI					
		(red italics				xt indicates new pro					
#6			22	2,757	ROW ⁸						
(CNE	The Waterways	117	14	129	SH ⁹	\$1,873,800	\$1,873,800	117	305	\$6,144	
NB01)			22	274	ROW ⁸						
#7			22 ⁷	3,322	ROW 8						
	#7 (CNE NB03) Quiet Waters Apts; Riverglen	195	14	759	SH ⁹	\$2,610,900	\$418,380	161	221	\$11,814	
· ·			8	275	ST ¹⁰	, -, 0 , 0 0			_ 	,, 	
,			14	80	SH ⁹						

Noise Barrier System (CNEs included in	Communities Potentially Benefited by Noise Barrier	Number of Impacted Residences ¹	Preliminary Noise Barrier Height (ft)	Preliminary Noise Barrier Length (ft) ²	Preliminary Noise Barrier Location	Total Noise Barrier System Cost (includes costs of existing	New Construction Noise Barrier Cost ⁴	Number of Residences Potentially Benefited by a Noise Barrier ⁵		Total Noise Barrier System Cost Per Benefited
barrier system)	System		Tieight (10)	208 (1.07		barriers) ³		Impacted	Total	Residence ⁶
		(red italics				FLORIDA'S TURNPIKE ext indicates new pro				
#8	Parkwood; SOS Children's Village;	317	22	1,680	ROW ⁸	\$3,171,840	\$3,171,840	291	361	
(CNE EB08, SB01)	Coco Lakes; Winston Park;		14	104	SH ⁹					\$8,786
3501)	Banyan Pointe Apts		14	4,808	SH ⁹					
#9 (CNE SB02,SB03)	Tallowwood Isle; Bell Coconut Creek Apts	260	22 ⁷	2,865	ROW ⁸	\$1,890,900	\$0	248	337	\$5,611
#10 (CNE SB04)	Waterways at Coconut Creek Apts; Wildwood at Adios	65	22 ⁷	1,605	ROW ⁸	\$1,059,300	\$0	43	65	\$16,297

¹ Impact counts are based on setting all existing barriers to a height of zero as part of the barrier methodology used for this project.

² Full height is for length indicated. The length for any required taper in height at a shoulder noise barrier termination would be in addition to the length indicated.

³ Unit cost of \$30/ft2 for all noise barriers includes existing and planned noise barriers as part of the existing noise barrier methodology.

⁴ Cost for only new construction portion of noise barrier systems.

⁵ Total includes impacted/benefited residences and residences with a predicted noise level that does not approach or exceed 67 dB(A) but are incidentally benefited. All benefits are calculated with the barrier system in consideration being compared to a "no-barrier" condition where any existing barriers set to a height of zero as a part of the existing barrier methodology being used for this project.

⁶ Cost of noise barrier systems that include existing barrier segments uses the full preliminary noise barrier cost that includes the cost of the existing noise barriers as a part of the existing noise barrier analysis methodology being used on this project.

⁷ Barriers in *RED* are existing barriers or planned barriers by others that will remain in the future condition. Their costs are included in the total costs for consistency in analyzing all noise barrier systems, but they will not incur any additional costs to construct.

⁸ ROW – Noise barrier constructed at the Right of Way.

⁹ SH – Noise barrier constructed at the shoulder of the roadway.

¹⁰ ST – Noise barrier constructed on the bridge shoulder of the roadway.

¹¹ Planned noise barrier shortened from existing barrier length to accommodate project roadway widening.

Utility Impact Cost Estimate

	5,pub. 553. Isimiuis												
Utility Agency Owner	Description	Area of Conflict	General Location	Station (to/from)	Conflict with	Cost Estimate							
	Advanced Cable Communications, DBA Blue Stream												
Advanced Cable Communications, DBA Blue Stream	CATV	US 441 Mainline	Crossing Sawgrass Expy at US 441	22+00 to 25+50	Roadway retaining walls	\$ 91,000.00							
					Subtotal	\$ 91,000.00							
AT&T Distribution													
AT&T Distribution	2-4" PVC	US 441 Mainline	Crossing Sawgrass Expy Northbound Frontage Rd east side of US 441	16+20 to 17+60	Drainage swale	\$ 72,800.00							
AT&T Distribution	ОТ	US 441 Mainline	East side of US 441 south of Sawgrass Expy	18+00 to 21+00	Drainage pond	\$ 7,800.00							
AT&T Distribution	2-4" PVC	US 441 Mainline	Crossing Sawgrass Expy along east side of US 441	22+00 to 25+50	Bridge retention and widening	\$ 182,000.00							
AT&T Distribution	Buried Copper	US 441 Mainline	Crossing Sawgrass Expy along east side of US 441	22+00 to 25+50	Bridge retention and widening	\$ 91,000.00							
AT&T Distribution	2-4" PVC	Sawgrass Expressway Mainline	North side	1136+00 to 1143+00	Drainage swale	\$ 364,000.00							
AT&T Distribution	2-4" PVC	Sawgrass Expressway Mainline	North side of Sawgrass Expy west of TPK intersection	1143+50 to 1146+00	Roadway retaining walls	\$ 130,000.00							
AT&T Distribution	2-4" PVC	Sawgrass Expressway Mainline	North side of Sawgrass Expy west of TPK SB lane	1151+30 to 1151+50	ITS Equipment	\$ 10,400.00							
AT&T Distribution	2-4" PVC	Sawgrass Expressway Mainline	Crossing TPK along north side of Sawgrass Expy	1151+50 to 1155+00	Bridge columns, retention and widening	\$ 182,000.00							
AT&T Distribution	2-4" PVC	Sawgrass Expressway Mainline	North side	1160+50	Roadway retaining walls	\$ 52,000.00							
AT&T Distribution	2-4" PVC	Sawgrass Expressway Mainline	North side	1165+00 to 1170+00	Bridge columns and retention	\$ 260,000.00							

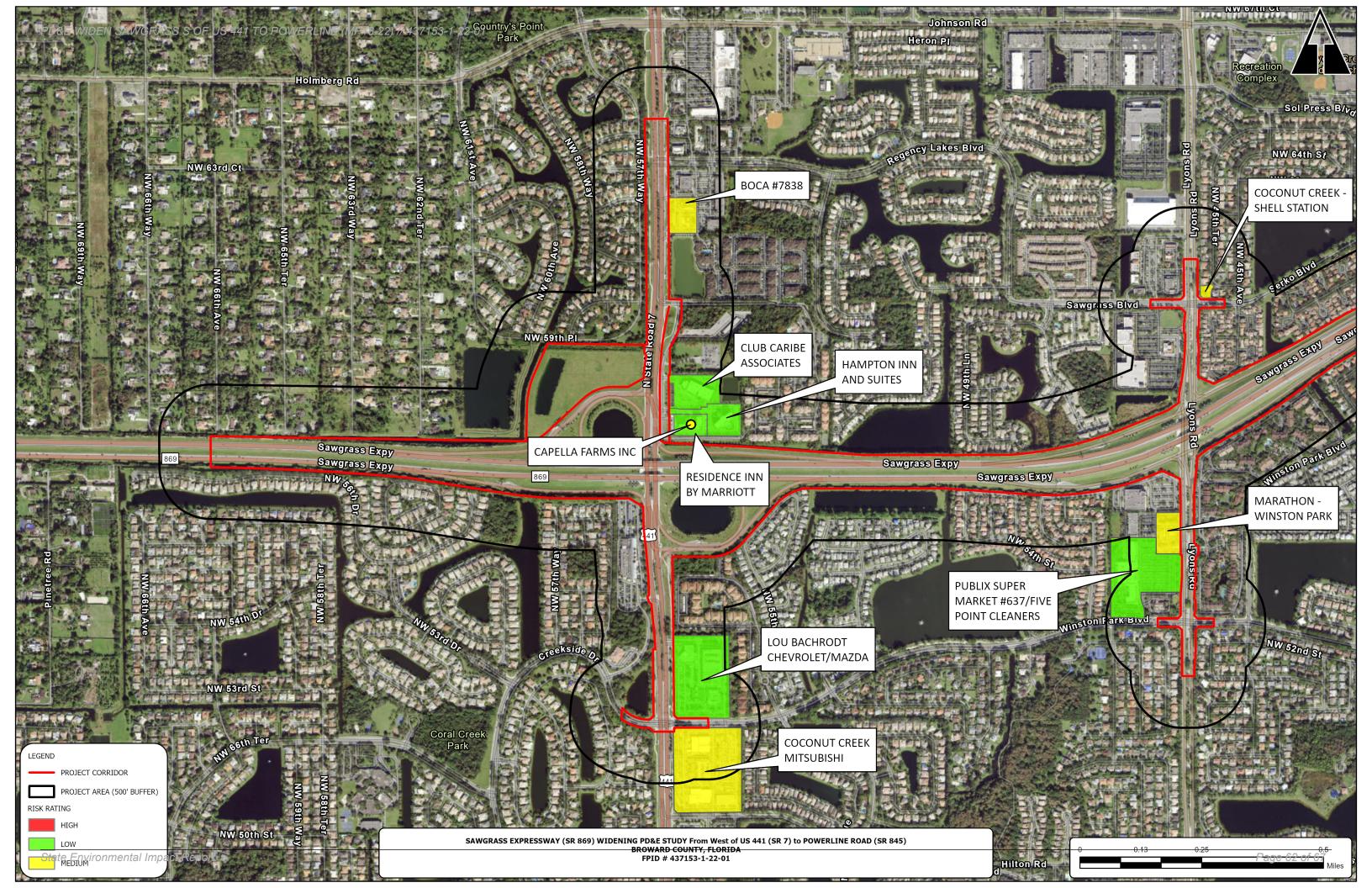
	_	/ 1			- 7	
Utility Agency Owner	Description	Area of Conflict	General Location	Station (to/from)	Conflict with	Cost Estimate
AT&T Distribution	Buried Copper	Sawgrass Expressway Mainline	South side	1167+50 to 1169+00	Roadway retaining wall	\$ 39,000.00
AT&T Distribution	6-4" PVC	TPK Mainline	Crossing TPK at Hillsboro Blvd. north side	5680+50	Roadway barrier walls	\$ 514,800.00
AT&T Distribution	Buried Copper	Lyons Rd Mianline	Crossing Sawgrass Expy along the west side of Lyons Rd mainline	28+00 to 32+00	Bridge retention and roadway widening	\$ 104,000.00
AT&T Distribution	3-4" PVC	Lyons Rd Mianline	Crossing Sawgrass Expy along the west side of Lyons Rd mainline	28+00 to 32+00	Bridge retention and roadway widening	\$ 312,000.00
					Subtotal	\$ 2,009,800.00
			AT&T Transmission			
AT&T Transmission	2-2" PVC	TPK Mainline	West side of TPK south of Sawgrass Expy	5622+00 to 5629+00	Roadway retaining walls, roadway widening, ITS equipment	\$ 182,000.00
AT&T Transmission	2-2" PVC	TPK Mainline	West side of TPK crossing Sawgrass Expy	5633+00 to 5637+00	Roadway retaining walls, bridge retention and bridge columns	\$ 104,000.00
	1				Subtotal	\$ 286,000.00
			City of Coconut Creek			
City of Coconut Creek	12" DIP Water	US 441 Mainline	East side of US 441 south of Sawgrass Expy	14+00 to 15+50	Drainage swale	\$ 37,050.00
City of Coconut Creek	16" DIP Sewer FM	US 441 Mainline	East side of US 441 south of Sawgrass Expy	14+00 to 15+50	Drainage swale	\$ 36,075.00
City of Coconut Creek	12" DIP Water	US 441 Mainline	East side of US 441 south of Sawgrass Expy	16+35 to 16+75	Drainage swale	\$ 9,880.00
City of Coconut Creek	16" DIP Sewer FM	US 441 Mainline	East side of US 441 south of Sawgrass Expy	16+35 to 16+75	Drainage swale	\$ 9,620.00

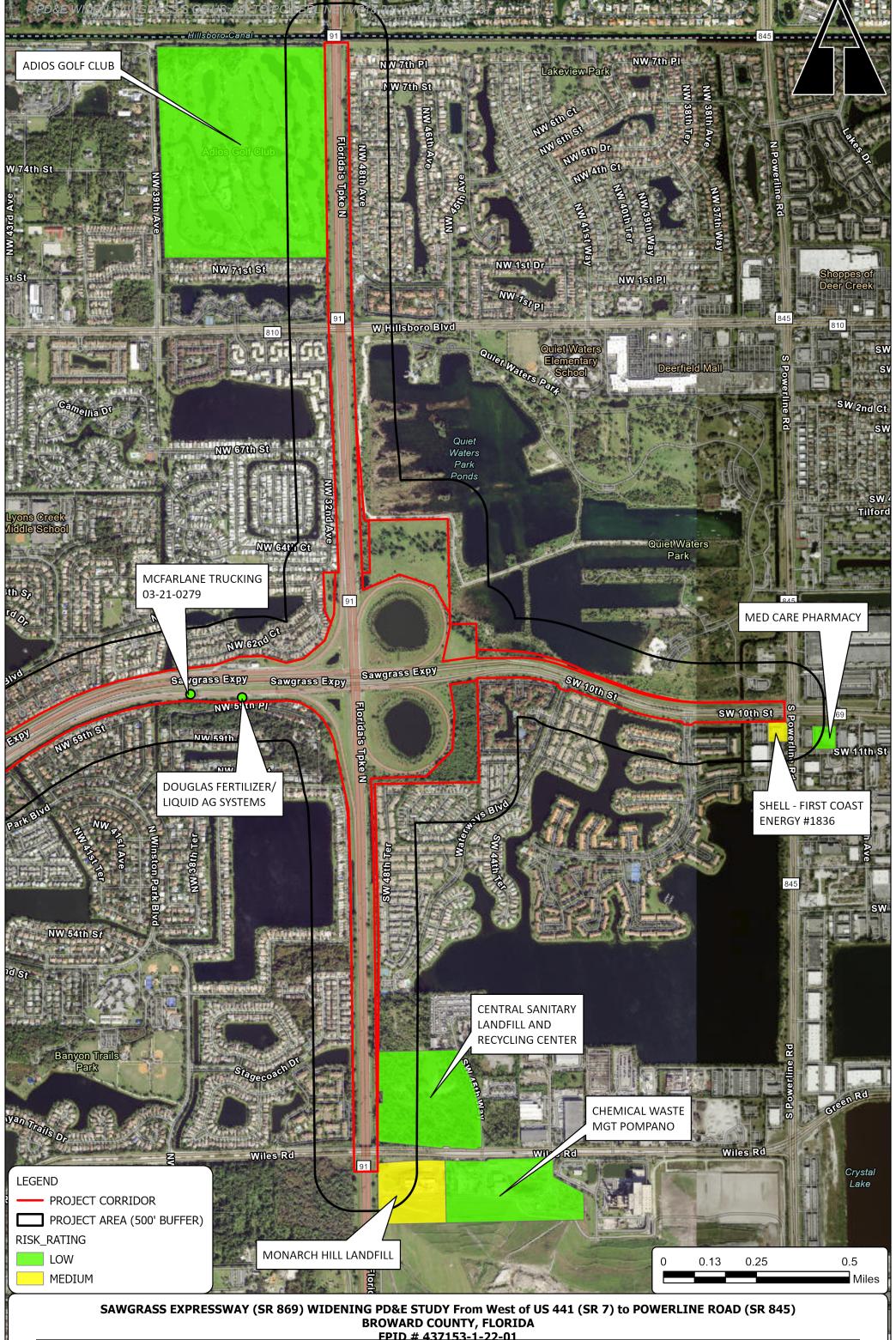
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Utility Agency Owner	Description	Area of Conflict	General Location	Station (to/from)	Conflict with	Cost Estimate
City of Coconut Creek	12" DIP Water	US 441 Mainline	Crossing Sawgrass Expy Northbound Frontage Rd east side of US 441	18+00 to 22+00	Drainage pond	\$ 98,800.00
City of Coconut Creek	16" DIP Sewer FM	US 441 Mainline	Crossing Sawgrass Expy Northbound Frontage Rd east side of US 441	18+00 to 22+00	Drainage pond	\$ 96,200.00
City of Coconut Creek	12" DIP Water	US 441 Mainline	Crossing Sawgrass Expy along east side of US 441	22+00 to 25+50	Bridge retention and widening	\$ 86,450.00
City of Coconut Creek	16" DIP Sewer FM	US 441 Mainline	Crossing Sawgrass Expy along east side of US 441	22+00 to 25+50	Bridge retention and widening	\$ 84,175.00
City of Coconut Creek	12" DIP Water	Sawgrass Expy Mainline	Crossing Sawgrass Expy	1071+00	Roadway retaining wall and widening	\$ 79,040.00
City of Coconut Creek	24" DIP Sewer FM	Lyons Rd Mainline	Crossing Sawgrass Expy along west side of Lyons Rd	28+00 to 32+00	Bridge retention and roadway widening	\$ 130,000.00
City of Coconut Creek	18" DIP Water	Lyons Rd Mainline	Crossing Sawgrass Expy along west side of Lyons Rd	28+00 to 32+00	Bridge retention and roadway widening	\$ 122,200.00
City of Coconut Creek	12" DIP Water	Sawgrass Expy Mainline	Crossing Sawgrass Expy	1111+00	Roadway retaining walls and widening	\$ 86,450.00
					Subtotal	\$ 875,940.00
			City of Deerfield Beach			
City of Deerfield Beach	Water, Sewer	All facilities a	re within future SW 10th	Street Conne coordination	-	are subject to future
					Subtotal	TBD
			Comcast			
Comcast	BCATV	US 441 Mainline	East side of US 441 south of Sawgrass Expy	16+30 to 17+50	Drainage swale	\$ 31,200.00

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Utility Agency Owner	Description		General Location	Station (to/from)	Conflict with	Cost Estimate		
Comcast	BCATV	US 441 Mainline	Crossing Sawgrass Expy along east side of US 441	22+00 to 25+50	Bridge retention and widening	\$ 91,000.00		
Comcast	BCATV	US 441 Mainline	Crossing Sawgrass Expy along west side of US 441	22+00 to 25+50	Bridge retention and widening	\$ 91,000.00		
Comcast	BCATV	Lyons Rd Mainline	Crossing Sawgrass Expy along west side of Lyons Rd	28+00 to 32+00	Bridge retention and roadway widening	\$ 104,000.00		
Comcast	BCATV	TPK Mainline	Crossing TPK	5681+00	Bridge retention	\$ 54,600.00		
Comcast	BCATV	Sawgrass Expy Mainline	South side of Sawgrass Expy Mainline west of Waterways Blvd. intersection	1179+00 to 1179+50	ITS Conduit crossing	\$ 13,000.00		
					Subtotal	\$ 371,800.00		
			Crown Castle					
Crown Castle	BFOC	US 441 Mainline	East side of US 441 south of Sawgrass Expy	16+30 to 17+50	Drainage swale	\$ 31,200.00		
Crown Castle	BFOC	US 441 Mainline	Crossing Sawgrass Expy along east side of US 441	22+00 to 25+50	Bridge retention and widening	\$ 91,000.00		
			-//		Subtotal	\$ 122,200.00		
			Florida Gas Transmissior	1				
Florida Gas Transmission	18" Gas	TPK Mainline	East side of TPK south of Sawgrass Expy crossing	5590+00 to 5706+00	Roadway walls and grade change	\$ 44,000,000.00		
Florida Gas Transmission	24" Gas	TPK Mainline	East side of TPK south of Sawgrass Expy crossing	5590+00 to 5706+00	Roadway barrier wall	\$ 44,000,000.00		
					Subtotal	\$ 88,000,000.00		
			FP&L Distribution					
FP&L Distribution	BE	Sawgrass Expy Mainline	North R/W	1024+50 to 1028+50	Drainage swale	\$ 104,000.00		
FP&L Distribution	OE	US 441 Mainline	East side of US 441 south of Sawgrass Expy	17+80 to 21+00	Drainage pond	\$ 45,000.00		

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Utility Agency Owner	Description	Area of Conflict	General Location	Station (to/from)	Conflict with	Cost Estimate
FP&L Distribution	BE	US 441 Mainline	East side of US 441 south of Sawgrass Expy	20+00 to 21+00	Drainage pond	\$ 26,000.00
FP&L Distribution	BE	US 441 Mainline	East side of US 441 south of Sawgrass Expy	21+00 to 22+00	Drainage pond	\$ 26,000.00
FP&L Distribution	BE	US 441 Mainline	Crossing Sawgrass Expy along east side of US 441	22+00 to 25+50	Bridge retention and widening	\$ 91,000.00
FP&L Distribution	BE	Sawgrass Expy Mainline	Crossing Sawgrass Expy	1068+00	Roadway retaining wall and widening	\$ 52,000.00
FP&L Distribution	BE	Lyons Rd Mainline	West side of Lyons Rd south of Sawgrass Expy	25+50 to 26+50	Drainage swale	\$ 26,000.00
FP&L Distribution	BE	Lyons Rd Mainline	Crossing Sawgrass Expy along west side of Lyons Rd	28+00 to 32+00	Bridge retention and roadway widening	\$ 104,000.00
FP&L Distribution	OE	Sawgrass Expy Mainline	North side of Sawgrass Expy west of TPK intersection	1136+00 to 1141+00	Drainage swale	\$ 45,000.00
FP&L Distribution	OE	TPK Mainline	Crossing TPK	5681+50	Roadway wall barriers and widening	\$ 30,000.00
					Subtotal	\$ 549,000.00
			Lumen			
Lumen	12-1.25" PVC Conduits (FOC)	US 441 Mainline	East side of US 441 south of Sawgrass Expy	16+30 to 17+50	Drainage swale	\$ 234,000.00
Lumen	12-1.25" PVC Conduits (FOC)	US 441 Mainline	Crossing Sawgrass Expy along east side of US 441	22+00 to 25+50	Bridge retention and widening	\$ 682,500.00
					Subtotal	\$ 916,500.00

Utility Agency Owner	Description	Area of Conflict	General Location	Station (to/from)	Conflict with	Cost Estimate		
			SICE, Inc.					
SICE, Inc.	3-1.25" BFOC	Sawgrass Expy Mainline	South side of Sawgrass Expy	1109+50 to 1116+00	Roadway retaining wall	\$ 338,000.00		
SICE, Inc.	1-2" BE	Sawgrass Expy Mainline	South side of Sawgrass Expy	1109+50 to 1116+00	Roadway retaining wall	\$ 169,000.00		
					Subtotal	\$ 507,000.00		
			TECO Peoples Gas					
TECO Peoples Gas	Gas	US 441 Mainline	Crossing Sawgrass Expy along west side of US 441	22+00 to 25+50	Bridge retention and widening	\$ 84,175.00		
					Subtotal	\$ 84,175.00		
					TOTAL	\$ 93,306,415.00		





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Table of Sites of Potential Contamination Risk

Site #	Facility Name	Address/Locatio n	Facility ID (FDEP/RCRA)	Databases	Concern; Land Use Type	Approximate Distance from Site to Preferred Alternative	Risk Rating
1	Lou Bachrodt Chevrolet/Mazda	5500 N Hwy 7	9700091, FLR000149112	STCM, CHAZ	Storage Tank; Commercial and Services	Adjacent	Low
2	Capella Farms Inc	5730 N SR 7	8625849	FDEP STCM	Historic record of Underground Storage Tank	Within FDOT ROW	Medium
3	Residence Inn by Marriott	5730 N State Road 7	9817162	STCM	Storage Tank; Multiple Dwelling Units- High Rise	Adjacent	Low
4	Club Caribe Associates	5510 NW 61 st Street #101	9400067	FDEP STCM, PCTS	Diesel spill and Storage Tanks; Multiple Dwelling Units- High Rise	Adjacent	Low
5	BOCA #7838	6330 N SR 7	9807767	STCM, PCTS	Retail Gas Station; Commercial and Services	Adjacent	Medium
6	Hampton Inn and Suites	5740 N SR 7, Coconut Creek	9814296	STCM	Diesel Storage Tank; Multiple Dwelling Units- High Rise	Adjacent	Low

Site #	Facility Name	Address/Locatio n	Facility ID (FDEP/RCRA)	Databases	Concern; Land Use Type	Approximate Distance from Site to Preferred Alternative	Risk Rating
7	Marathon – Winston Park	5425 Lyons Road	9801357	FDEP STCM	Retail Gas Station; Commercial and Services	Adjacent	Medium
8	Coconut Creek – Shell Station	6135 Lyons Road	9805503	FDEP STCM, PCTS	Retail Gas Station; Fixed Single Family Units (Medium Density Urban)	Adjacent	Medium
9	McFarlane Trucking 03-2I- 0279	Deerfield Toll Plaza EB on Sawgrass	9807332	FDEP STCM, PCTS	Diesel Fuel Spill	Within FDOT ROW	Low
10	Douglas Fertilizer/Liquid AG Systems	Sawgrass Expressway	ERIC 10265	ERIC	Liquid Fertilizer Spill	Within FDOT ROW	Low
11	Chemical Waste Mgt Pompano	2700 NW 48 th St	77155917, ERIC_8689	DEP Cleanup	Waste Transfer Station; Solid Waste Disposal	Adjacent	Low
12	Central Sanitary Landfill and Recycling Center	1801 SW 45 Way	77155916, ERIC 8682	DEP Cleanup	Mapped by FDEP Map Direct; Upland Mixed Coniferous/ Hardwood	Adjacent	Low

Site #	Facility Name	Address/Locatio n	Facility ID (FDEP/RCRA)	Databases	Concern; Land Use Type	Approximate Distance from Site to Preferred Alternative	Risk Rating
13	Monarch Hill	2700 Wiles Road	8622531 / 55093	FDEP STCM, Solid Waste, Institutional Controls Registry	Landfill, Leachate in groundwater; Solid Waste Disposal	Adjacent	Medium
14	Med-Care Pharmacy	1052 S. Powerline Road	9100756	FDEP STCM	Storage Tanks	200 ft	Low
15	Shell – First Coast Energy #1836	1011 S Powerline Road	9800891	FDEP STCM	Retail Gas Station; Commercial and Services	Adjacent	Medium
16	Coconut Creek Mitsubishi	4950 N State Road 7	FLR000050419	CHAZ Facilities	Storage Tanks, Hazardous Waste; Commercial and Services	Adjacent	Medium
17	Publix Super Market #637	5365 Lyons Road	9809424, FLR000245951	STCM, CHAZ Facilities	Storage Tanks; Commercial and Services	Adjacent	Low
18	Five Point Cleaners	5379 Lyons Road	9806977	STCM	Storage Tanks; Commercial and Services	Adjacent	Low

Site #	Facility Name	Address/Locatio n	Facility ID (FDEP/RCRA)	Databases	Concern; Land Use Type	Approximate Distance from Site to Preferred Alternative	Risk Rating
19	Adios Golf Club	7740 NW 39 th Avenue	8838227	STCM	Petroleum, SRCO; Golf Courses	1,000+ feet	Low







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