



Florida Department of
TRANSPORTATION

Space Coast TPO State Road (S.R.) 528 Update

Loreen Bobo, P.E.

District Five

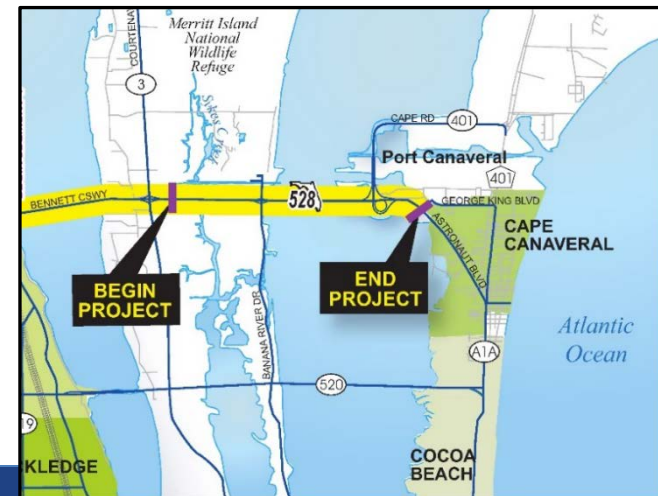
Director of Transportation Development

Status of S.R. 528 Corridor

- PD&E Study
 - From east of S.R. 524 (Industry Road) to Port Canaveral Interchange
 - Widen from 4 to 6 Lanes
 - Completed 2006
- 2 Design Segments
 - 407402-3: From east of S.R. 524 (Industry Road) to east of S.R. 3
 - 407402-4: From east of S.R. 3 to Port Canaveral Interchange
- Pond Siting Update
 - Environmental Look Around (ELA)
- Evaluating Florida Institute of Technology (FIT) Study

S.R. 528 Design Project – 407402-4

- From east of S.R. 3 to Port Canaveral Interchange
- Design started Summer 2016
- Replace bridges over Sykes Creek, Banana River Relief, Banana River and S.R. 401
- Meet Stormwater Management Requirements
- Meet Total Maximum Daily Load (TMDL) Requirements
- Minimize and Mitigate Environmental Impacts
- Conduct Environmental Look Around (ELA) Process
 - Regional Opportunities - Stakeholders and Agencies
 - Compensatory Treatment Opportunities – Water Quality
- Phase II Design Submittal
 - Fall 2019
- Construction in FY 2028
- S.R. 528 From E of S.R. 524 (Industry) to East of S.R. 3 is under design, not funded for construction (407402-3)



S.R. 528 Design Project – 407402-4

- Stormwater Management and TMDL Requirements

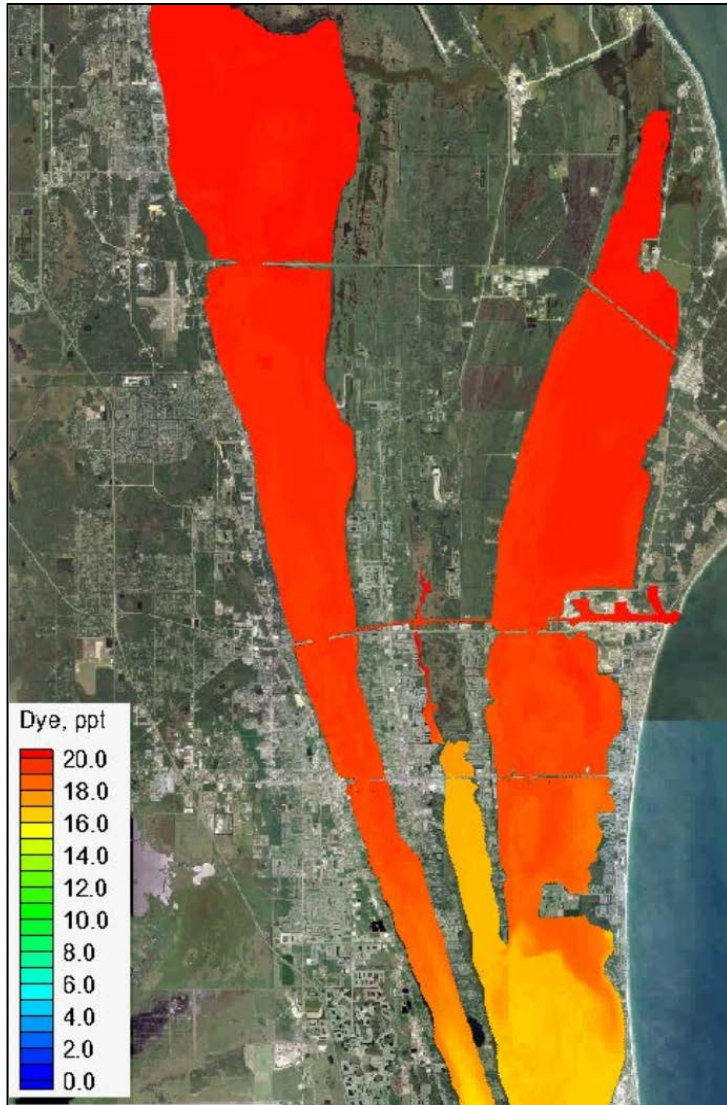
Traditional Approach	ELA Approach
3 Offsite Ponds – Water Quality	Compensatory Treatment - Water Quality
15.3 Acres Right of Way Estimated	Stakeholder and Agency Coordination
13.07 Acres of Wetland Impacts Estimated	Potential Significant Reduction in Wetland Impacts
Potential Total Nitrogen and Total Phosphorous Estimated Reductions – 0.23 kg/yr, 3.61 kg/yr	Potential Total Nitrogen and Total Phosphorous Estimated Reductions - 1056.8 kg/yr, 2.67 kg/yr
	Potential Significant Water Quality Improvements that include septic conversion
	Regional Approach for Indian River Lagoon (IRL)

Review of FIT Study

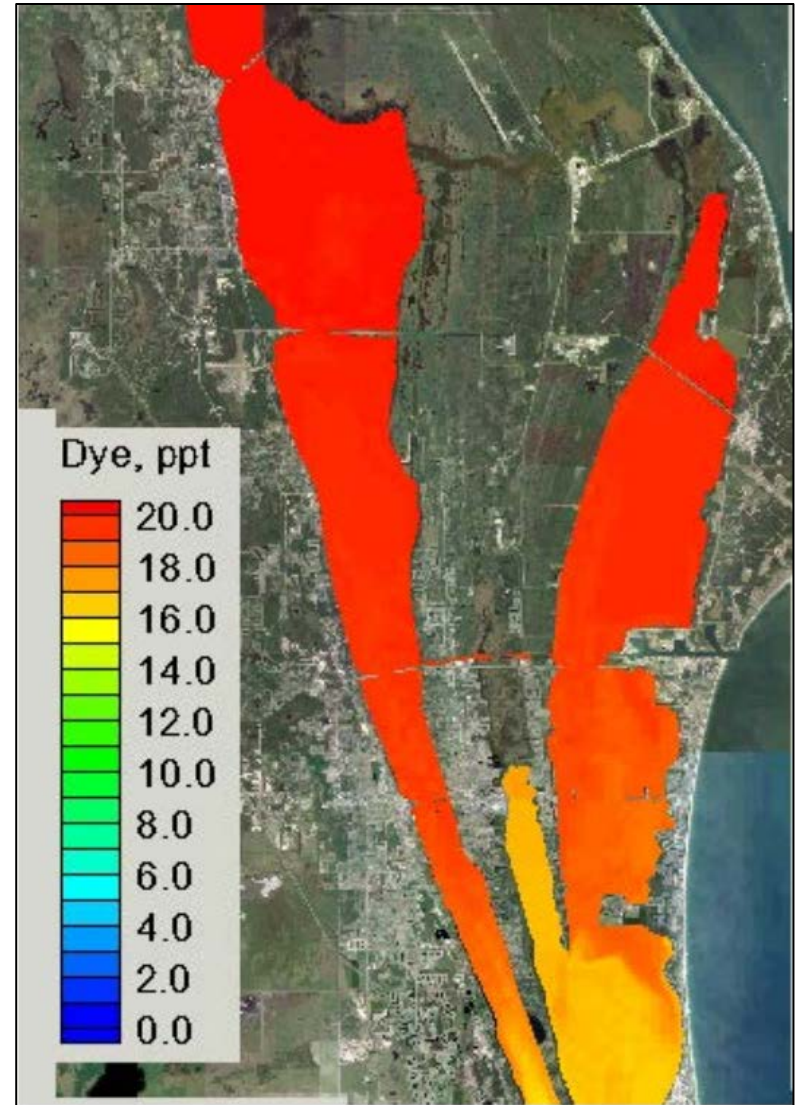
- Currently under review
- Total of nine runs were included in the Study
 - Report indicates Run 4 shows a *modest improvement* of flushing
 - 4.4% more than existing/planned condition
 - Run 4 requires SR 528 and SR 520 bridges over Banana and Indian Rivers to be extended.

FIT Study Results

FIT Study **Run 1** - Existing Condition
S.R. 528 & S.R. 520 Bridges



FIT Study **Run 4** - S.R. 528 & S.R. 520
Bridges & Causeway Removal



Removal of Causeways - Comparison of Construction Impacts to Projects

Description	Run (\$ in millions)			
	1 Existing Conditions	2* SR 528 Banana	3* SR 528 Banana SR 520 Banana	4* SR 528 Indian SR 528 Banana SR 520 Indian SR 520 Banana
From FIT Study: Percent reduction in tracer concentration compared to the existing configuration of Model Run 1. (Table 3)	0.0%	0.2%	3.3%	4.4%
Banana River SR 528 (-4 project) (Bridge and Road) (Increase to 4,500 ft) (Existing project funded for construction in FY 28)	\$216 (Br=\$52)	\$263 (Br=\$99)	\$263 (Br=\$99)	\$263 (Br=\$99)
Banana River SR 520 (Bridge only-increase to 6,500 ft)	\$0	\$0	Br=\$140	Br=\$140
Indian River SR 528 (-3 Project) (Bridge and Road) (Increase to 4,800 ft)	\$259 (Br=\$64)	\$259 (Br=\$64)	\$259 (Br=\$64)	\$304 (Br=\$109)
Indian River SR 520 (Bridge Only-increase to 3,800 ft)	\$0	\$0	\$0	Br=\$83
Total construction costs per Run (estimated)	\$475	\$522	\$662	\$790
Total Increase in construction compared to current planned projects (est)	\$0	\$47	\$187	\$315
<ul style="list-style-type: none"> Any changes to the current FDOT project scopes would be additional costs such as PD&E study and analysis, design, other mitigation efforts, etc. These estimated costs above do not include these costs. 				

Summary

- FIT Study
 - FDOT is still evaluating
 - Additional mitigation anticipated
 - Seagrasses, water quality & environmental
 - Water quality not addressed in report
- S.R. 528 Design Project (407402-4) (SR 3 to Port Canaveral)
 - Design underway - Complete 2020
 - Right of Way - Programmed 2024
 - Construction – Programmed in 2028
- S.R. 528 Design Project (407402-3) (SR 524 to SR 3)
 - Design underway - Complete 2020
 - Right of Way - Programmed 2024
 - Construction – Not programmed
- S.R. 520 Bridges
 - No projects identified in Long Range Transportation Plan
 - Not currently prioritized by TPO
 - Not programmed
- A reset of the S.R. 528 projects would cause a reset of the PD&E and environmental look around, and design to date may not be applicable. Including, increased construction costs due to lengthened bridges.