

INFRASTRUCTURE CROSS-DEPARTMENTAL TEAM

Growing Our Infrastructure for Today and Tomorrow




November 22, 2022

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Risk Management



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Strategic Priority: Infrastructure

“To provide the needed structures, systems and services that establish the foundation required to enhance the quality of life of every resident.”

Infrastructure Goals:

1. Increase resiliency and sustainability of infrastructure.
2. Continue to preserve existing infrastructure and deliver new infrastructure that conforms to the latest industry standards.
3. Create safe, healthy, and attractive neighborhoods and communities.
4. Increase multimodal travel opportunities with safe and efficient transportation services.



Goal 1

Increase resiliency and sustainability of infrastructure.

Goal
1

Metric: Seek Funding for Resilient Infrastructure Projects

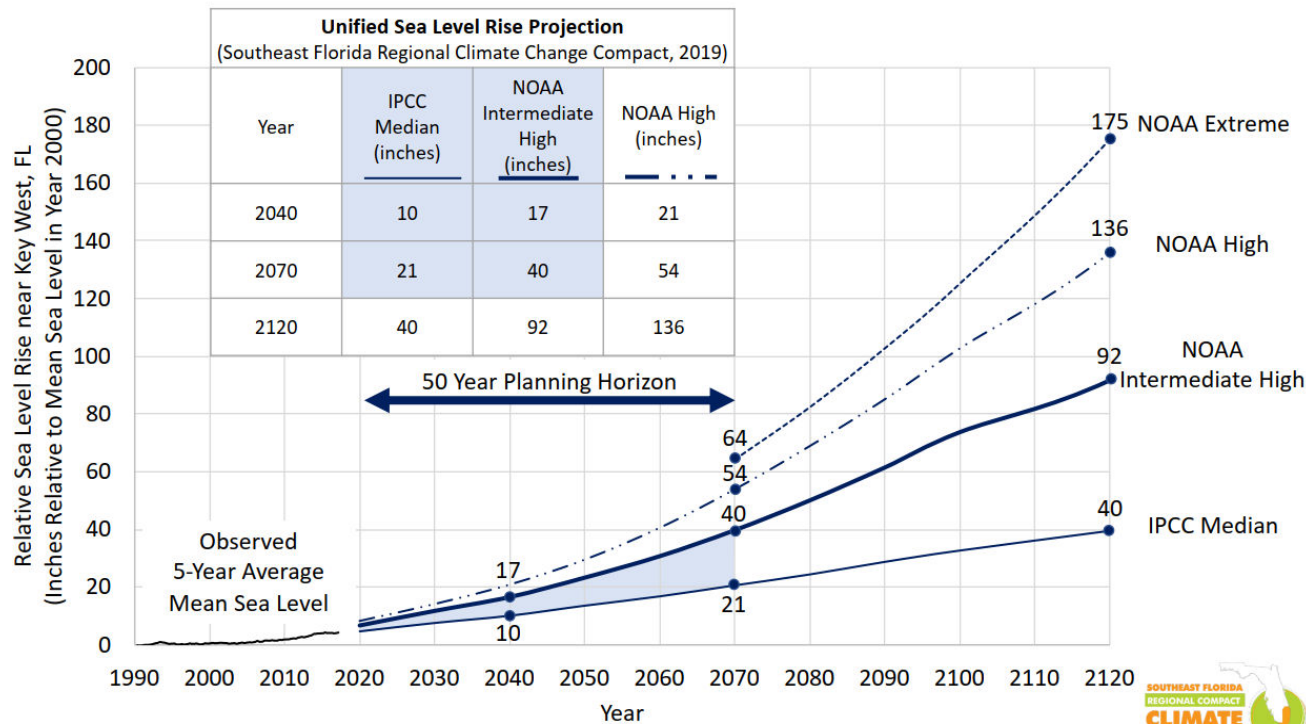
- ▶ County was selected to receive **\$3.6M in CDBG-MIT funds**:
 - \$2.8M for Pahokee Wastewater Treatment Facility Improvements
 - \$800k for a Vulnerability Assessment and Resilience Action Plan
- ▶ Departments cooperating on applications for **\$22.9M** in other funding, such as through **FDEP Resilient Florida Grants**
 - \$13.5M EPW
 - \$5.0 M WUD for Green Cay 2
 - \$3.5 M WUD for South County Reclaimed Water Project
 - \$900k OOR & Water Resources Manager
- ▶ Coastal Resilience Partnership Climate Change Vulnerability Assessment Phase 2 completed in FY 22 with a **\$74k DEP grant**.



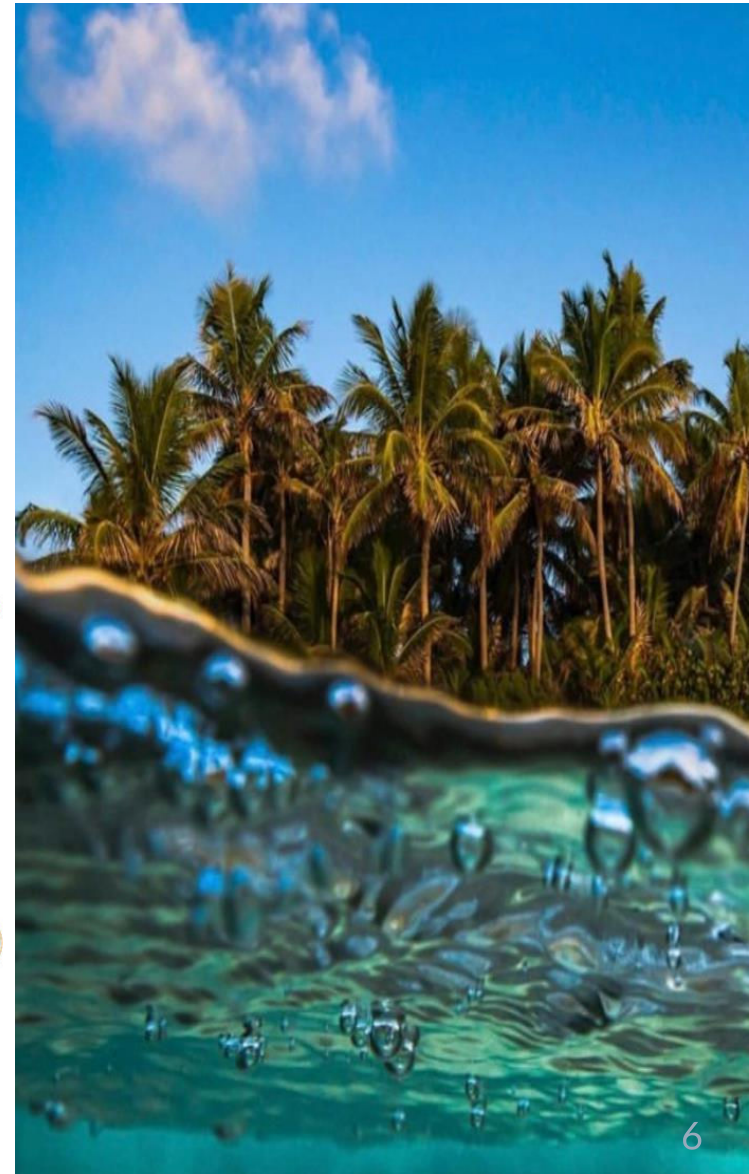
WUD Pahokee Plant

Goal 1

Metric: Ensure consistent planning and designing for sea level rise and extreme weather events



United Nations Intergovernmental Panel on Climate Change (IPCC) and National Oceanic and Atmospheric Administration (NOAA)-based curves.



Metric: Reduce facility energy and water use intensity

Building Improvements

- ▷ Converted over **1,370 interior** and nearly **200 exterior** lighting fixtures to LED technology.
- ▷ Installed **motion-activated faucets and light fixtures** in many buildings throughout the County.
- ▷ **Refurbished the cooling tower** serving several downtown facilities; included new mesh intake screen installations for better heat transfer and improved operational efficiency.

At approximately \$3 savings per LED bulb, PBC saved almost \$6k overall in 2022!

Tracking Usage

- ▷ **Coordination with the Payables Section of the Clerk & Comptroller's office** resulted in notifications of high billing amounts to initiate investigations and corrective action.
- ▷ FD&O's 2023 operating budget **added a dedicated Energy Manager** who will actively monitor consumption, expenditures, trends, industry offerings and needs of personnel Countywide.



Metric: Keep County facilities operational and maintain level of service during and after interruptions to routine operations*

Operational accommodation is required to sustain business as a result of a FMD maintained building system. Based on FY2022 business hours per month for FD&O managed building(s) or facility(s) countywide.

Maximum: 320 hours
Target: 160 hours
Goal: 0 hrs./mth

Zero during FY 2022!



Metric: Electrify Transportation

Electric Vehicle (EV) Chargers at County Facilities

- ▷ EV chargers have been installed for four employee-only spaces and two public spaces, including one ADA space at Governmental Center
- ▷ Chargers for twelve public parking spaces at Convention Center in progress
- ▷ Anticipated charging equipment at Vista Center in FY23
- ▷ Three chargers in PBI's short-term parking garage, two in Travel Plaza/Cell Phone Lot. Exploring more chargers for parking facilities and Cell Phone Lot

Chargers for Electric Buses

- ▷ Infrastructure for 20 EV charging stations at Palm Tran's South County facility installed in 2021
- ▷ Palm Tran has funds to buy seven electric buses with the respective charging stations by FY2024-25
- ▷ Zero Emission Transition Plan published May 2022

Code Amendments for an EV-ready community

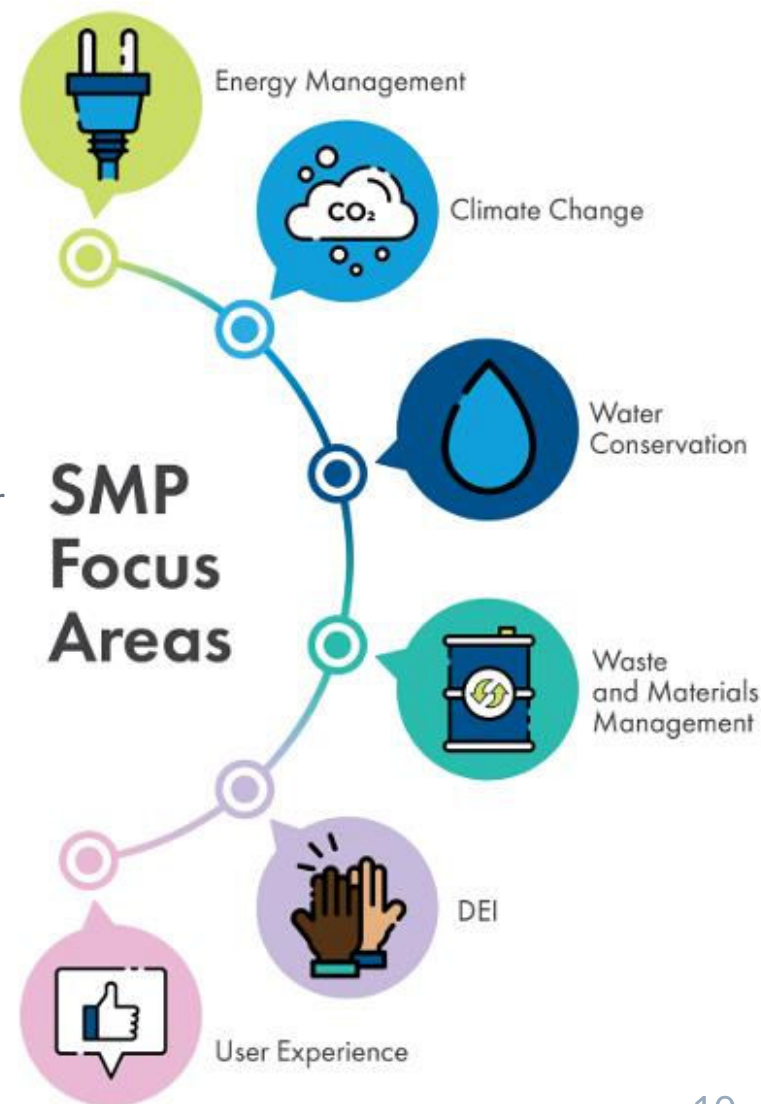
- ▷ Encourages electrical capacity and conduit for equipment in new and redeveloped commercial office and multifamily residential developments
- ▷ Proposed code amendments were preempted in 2021. Staff are working to update amendments for 2023



Metric: Integrate sustainability as a core objective in airport planning, development, and operations

Sustainability Management Plan

- ▶ With assistance from the Office of Resilience, the Department of Airports completed the first Sustainability Management Plan (SMP) for PBI, funded by the FAA. The document identifies 6 “Focus Areas:” Energy Management; Climate Change; Water Conservation; Waste and Materials Management; Diversity, Equality, and Inclusivity (DEI); and User Experience.
- ▶ Implementation of the Focus Area Actions and Goals will begin in late 2022 and continue throughout 2023 and 2024. As part of Climate Change and Energy Management, Airports is considering overall emissions reduction targets as part of the plan. **Airports will be holding discussions with the Office of Resilience on solar use, as part of its alternative analysis on renewable energy.**
- ▶ Work with the Office of Resilience to define and embed sustainability principles in new capital projects via sustainability design and construction guidelines.



Goal 2

Continue to preserve existing infrastructure and deliver new infrastructure that conforms to the latest industry standards.

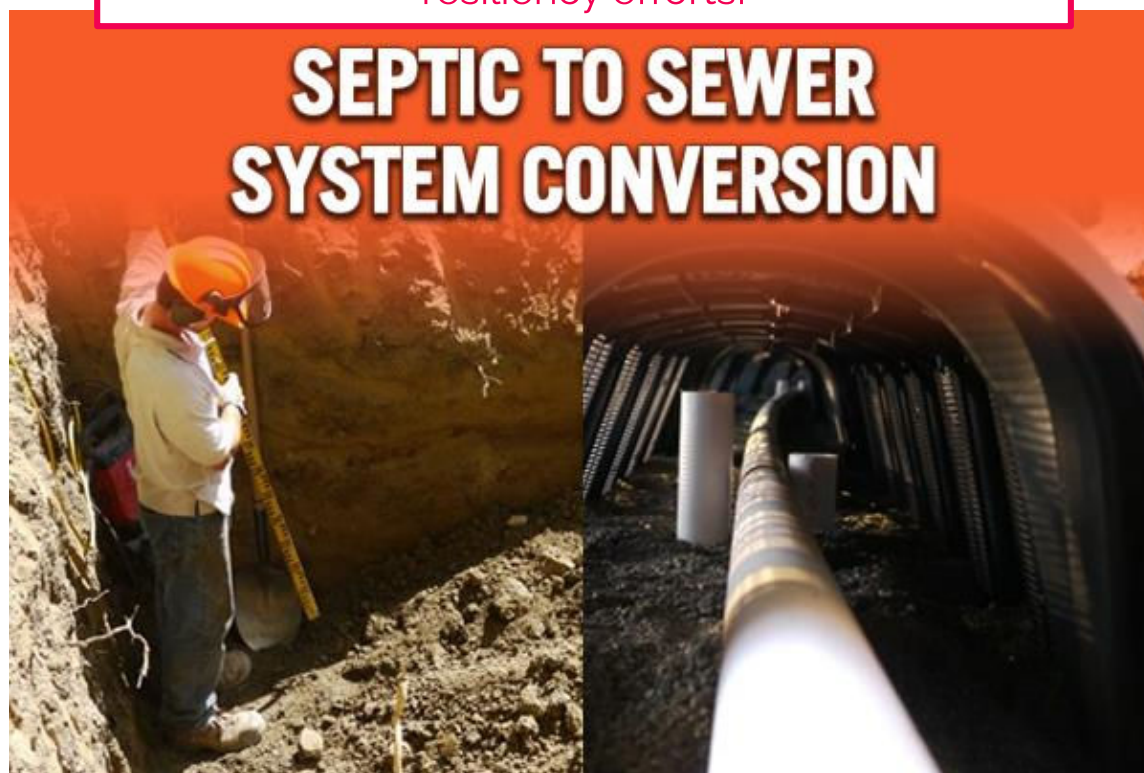
Metric: Continue to convert existing infrastructures to conform to latest industry standards

Septic to Sewer conversions improve overall water quality and contribute to Countywide resiliency efforts!

▷ **Septic to Sewer** Conversions Under Design at County Parks:

- Lake Ida West Park
- John Prince Memorial Park
- Loxahatchee Groves Park
- Juno Park
- Caloosa Park
- Okeeheelee Park
- Lake Lytal Park
- Morikami Park
- Gulfstream Park

Parks & Recreation teamed-up with Water Utilities to develop plans and timelines for conversions.



Metric: Identify, fund, and implement capital improvement needs in a timely manner



FY23 IST Playground Renovations

IST Sports LED Lighting Completed in FY22



Lot 1: (Under Construction)

- ▷ Jupiter Farms Park
- ▷ Ocean Cay Park
- ▷ Dubois Park
- ▷ Loggerhead Park

Lot 2: (In Procurement)

- ▷ Glades Pioneer Park
- ▷ Buttonwood Park
- ▷ Morikami Park
- ▷ John Prince Campground
- ▷ Lake Charleston Park
- ▷ Lake Belvedere Estates Park

All playgrounds are built to be ADA accessible!

- ▷ Burt Aaronson South County Regional Park
- ▷ Carlin Park Tennis Courts
- ▷ Caloosa Park Athletic Courts and Baseball Fields
- ▷ Dyer Basketball Courts
- ▷ Haverhill Tennis and Racquetball Courts
- ▷ Lake Lytal Park Athletic Courts and Softball Field 5
- ▷ Seminole Palms Park Baseball Fields 1-8 and Multipurpose Fields 9-11
- ▷ Veterans Park Tennis and Basketball Courts

Metric: Completion of Projects on Schedule and Budget

- ▷ FDO completed:
 - Courthouse Electronics System Renewal and Replacement/ Command Center (\$16.5M)
 - Main Detention Center Electronics Renewal and Replacement (\$11.2M)
 - Re-Estimated Infrastructure Surtax Project Plan (\$51.9M), collaboration of FDO, EPW and P&R
- ▷ ENG resurfaced over **200 lane miles** of roads (\$15M)
- ▷ WUD completed **14.5 miles** of pipe upgrades



Metric: Completion of Projects on Schedule and Budget

Library Updates

Canyon Branch

- ▶ **Ground Breaking** was held on September 24th.
- ▶ 33K sq/ft with outdoor plaza, LEED design with all LED lighting, equipped to receive solar power and EV charging stations.
- ▶ Estimated opening in early 2024.



The Palm Beach County Board of County Commissioners and the Palm Beach County Library System cordially invite you to the

Canyon Branch Groundbreaking

Saturday, September 24
9:00 am
8802 Boynton Beach Boulevard
Boynton Beach, FL 33472

CONNECT. INSPIRE. ENRICH
www.pbcclibrary.org #pbcclibrary



Goal 2

Metric: Ensure Palm Beach County students have reliable access to the Internet

Funding

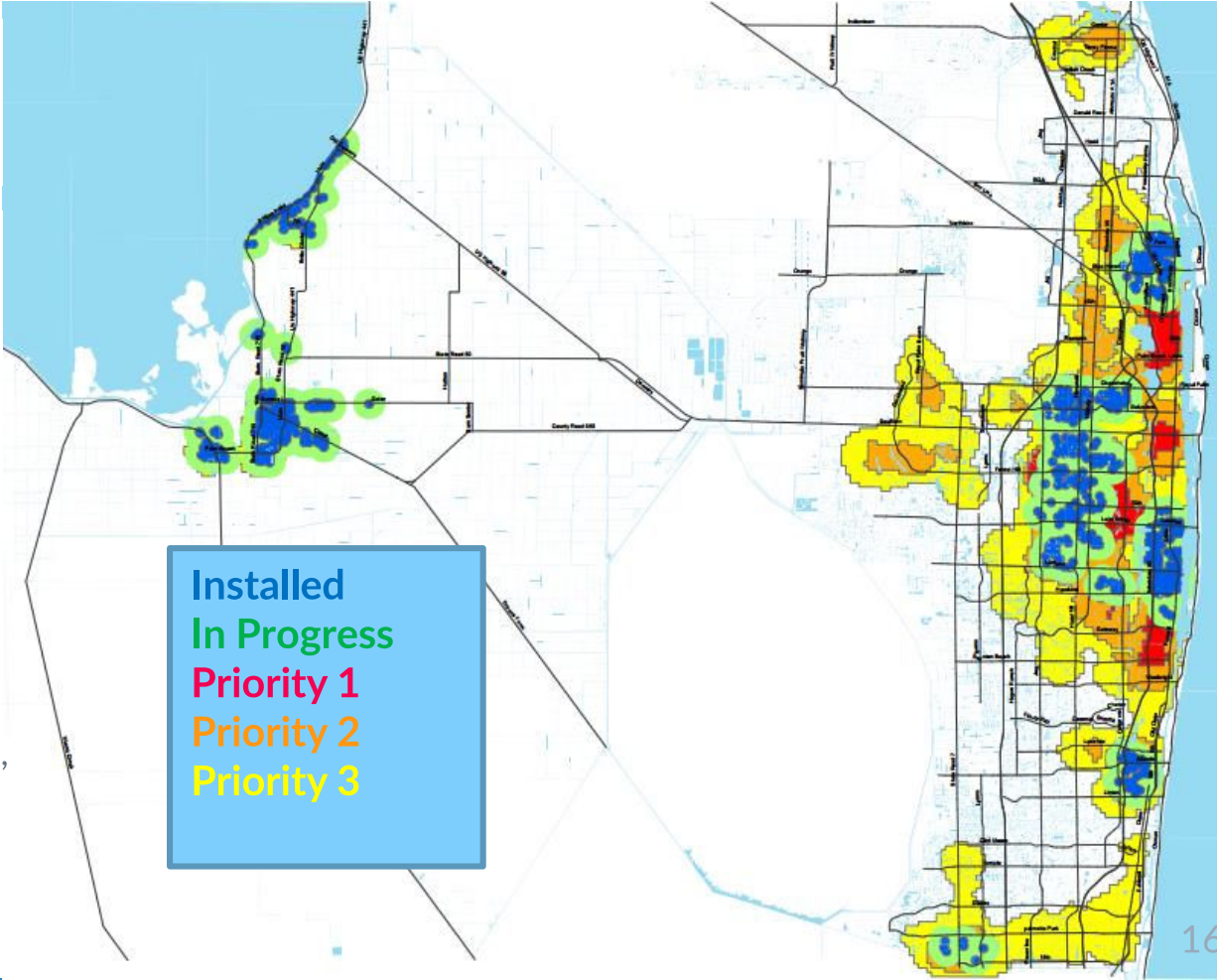
- Allocated (CARES & ARPA) - \$55.75M
- Expended/Encumbered - \$23.28M

Completed

- 672 Poles
- > 500 Miles of Fiber
- 72 Schools
- 10 Boys and Girls Club
- 17 Library Branches
- 31 County Parks with Connectivity

In-Progress

- 18 Schools
- 41 County Parks in Progress
- Municipal Parks - WPB, PBG, Wellington, Lake Park, Palm Springs, Boynton Beach
- Install an additional 600 miles of fiber
- Timeline - End of 2026

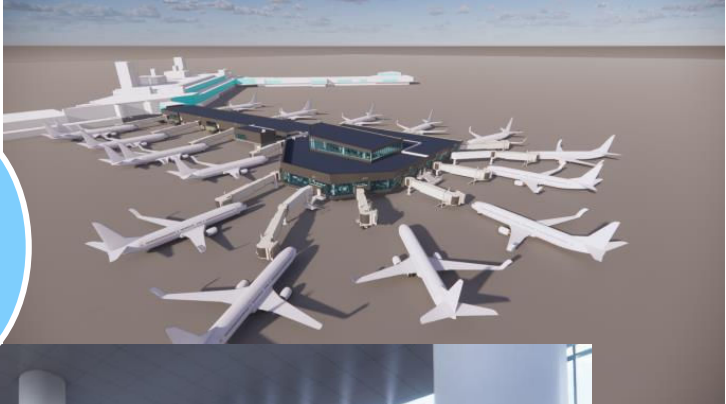


Metric: Accommodate increasing passenger demand while expanding airport facilities to enhance the traveler experience

Palm Beach International Airport (PBI) Highlights

- ▷ Passenger levels continue to rebound. 2022 levels have exceeded 2018
- ▷ (2) New Airlines launched service in 2021/2022 (Breeze and Avelo)
- ▷ Concourse B Expansion will add (2) new gates, expand hold rooms, and provide new concession space to enhance the traveler experience in Palm Beach County

Voted 5th Best Domestic Airport in *Travel + Leisure Magazine's 2022 World's Best Awards!*



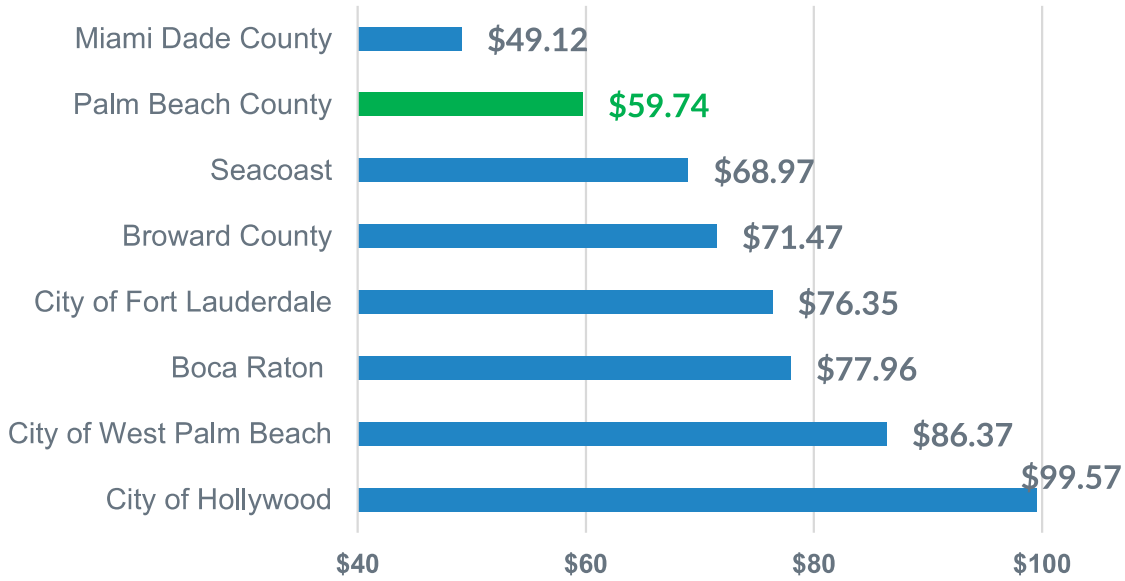
Voted 5th Best Airport in the U.S. in *Conde Nast Traveler 2022 Readers' Choice Awards*



Metric: Provide safe and affordable water to Palm Beach County residents

Residential Customer's Monthly Bill Comparison

(per 5,000 gallons, water and wastewater)

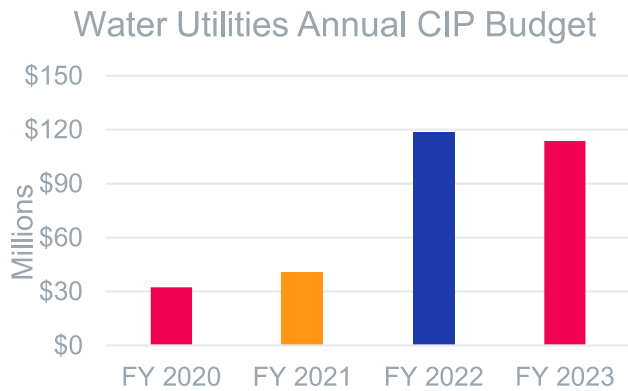


AAA rated by national bonding agencies

Third largest water utilities in State

100% in compliance with all applicable rules and regulations

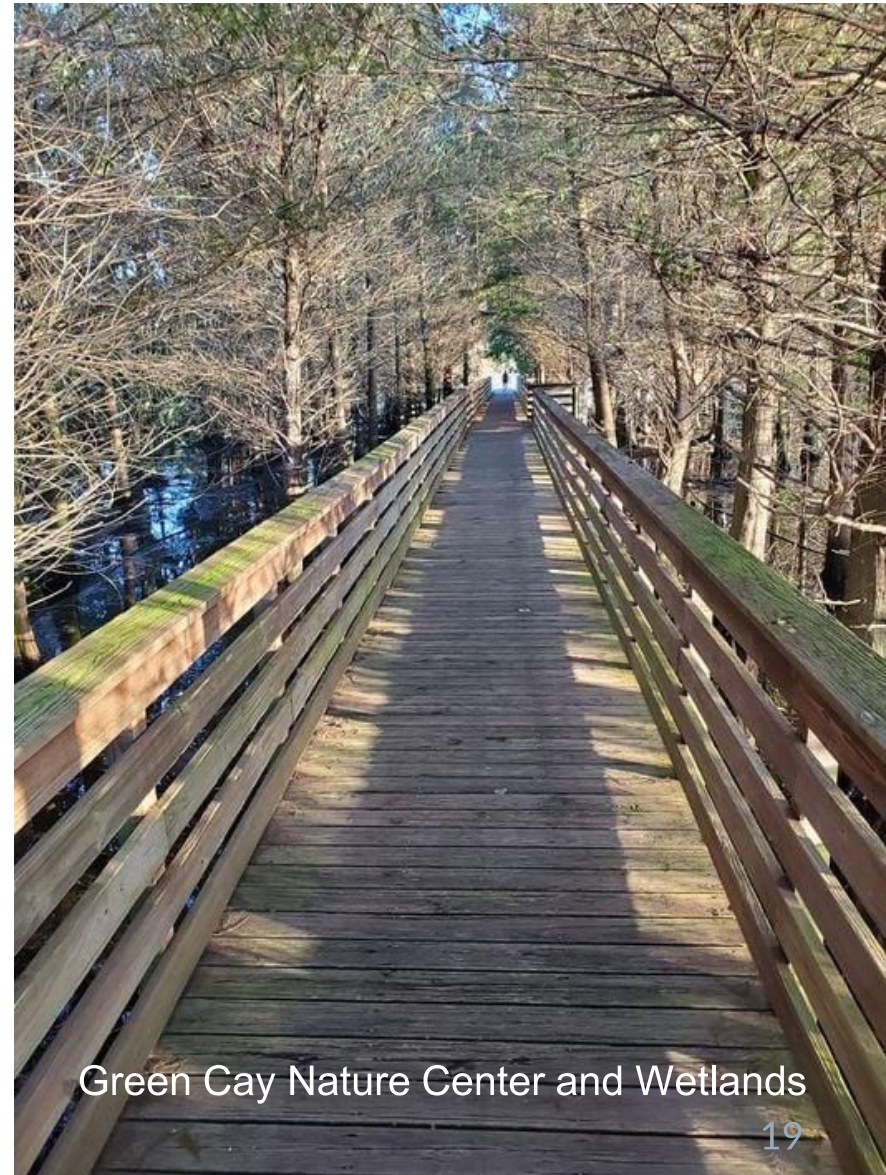
Metric: Continue to implement WUD Capital Improvement Program on Schedule



- ▷ “Integrated Master Plan” Project phase I completed
- ▷ CIP 5 years spending is **projected** to be above \$500M

Green Cay Expansion

- ▷ “Green Cay phase II project at 60% design
- ▷ Awarded **\$5M in grant funds** by the State



Green Cay Nature Center and Wetlands



1st Water Utility in North America



IAM North American Conference 2022
October 3 - 6

IAM 2022 North American Conference Speaker Spotlight – Anthony Armeli and Melody Tungol, Palm Beach County Water Utilities Department

Anthony Armeli is the Plants Maintenance Manager of Palm Beach County Water Utilities Department. During his tenure as the utilities Asset Manager, emphasis was focused on managing PBCWUD's Computerized Maintenance Management System, capturing asset information, building job plans and developing preventative schedules.

Melody Tungol, is the Technical Compliance Manager at Palm Beach County Water Utilities Department (PBCWUD) and previously led the Asset Management Team as Asset Manager. Melody co-led the ISO Core Team to implement the Asset Management Improvement Program and prepare the organization for compliance and certification.

Anthony and Melody will present their case study on how Palm Beach County Water Utilities Department became the first water and wastewater organization to achieve ISO 55001 certification in 2021.



Uptime Award Winner: Journey to ISO55001: Palm Beach County Water Utilities Department Case Study

Calusa 4

Melody Tungol
Technical Compliance Manager
Palm Beach County Water Utilities Department

John Acton
Assistant Department Director
Palm Beach County Water Utilities



WATER REUSE FOUNDATION
REUSE SUMMIT
Irrigation and Beyond
May 18, 2022 | 10:00 am - 4:00 pm
Wellington Community Center, 12150 Forest Hill Boulevard

Every Drop Counts

WaterReuse, a nonprofit dedicated to advancing recycled water, is bringing together industry professionals from across Florida to connect and share the technology being implemented in our state. As a leader in water reuse technology in Florida, Palm Beach County Water Utilities will be showcasing the benefits of Green Cay Phase 2.

INNOVATION IN FLORIDA WATER REUSE
Overview of Green Cay Phase 2 Reuse Project

Ali Bayat, P.E., PMP
Utility Director

Krystin Berntsen, P.E., PMP
Deputy Director

Goal 3

Create safe, healthy, and attractive neighborhoods and communities.

Metric: Completion of Projects on budget

Pickleball Courts

- ▶ Carlin Park (\$200,000 Impact fees)
- ▶ 18 new courts at John Prince Memorial Park, Carlin Park, and Burt Aaronson South County Regional Park

Basketball Courts

- ▶ Gramercy Park (\$60,000 residual bond and OCR Capital Fund)



Parks & Recreation is celebrating 50 years of service to the community!



Metric: Completion of Projects on budget

Canyon District Park Phase 1 Ribbon Cutting



Canyon District Park

- District Park in West Boynton Beach
- Phase I completed
- Phase II under design, expected late 2023
- Combination of IST Funding and Impact Fees

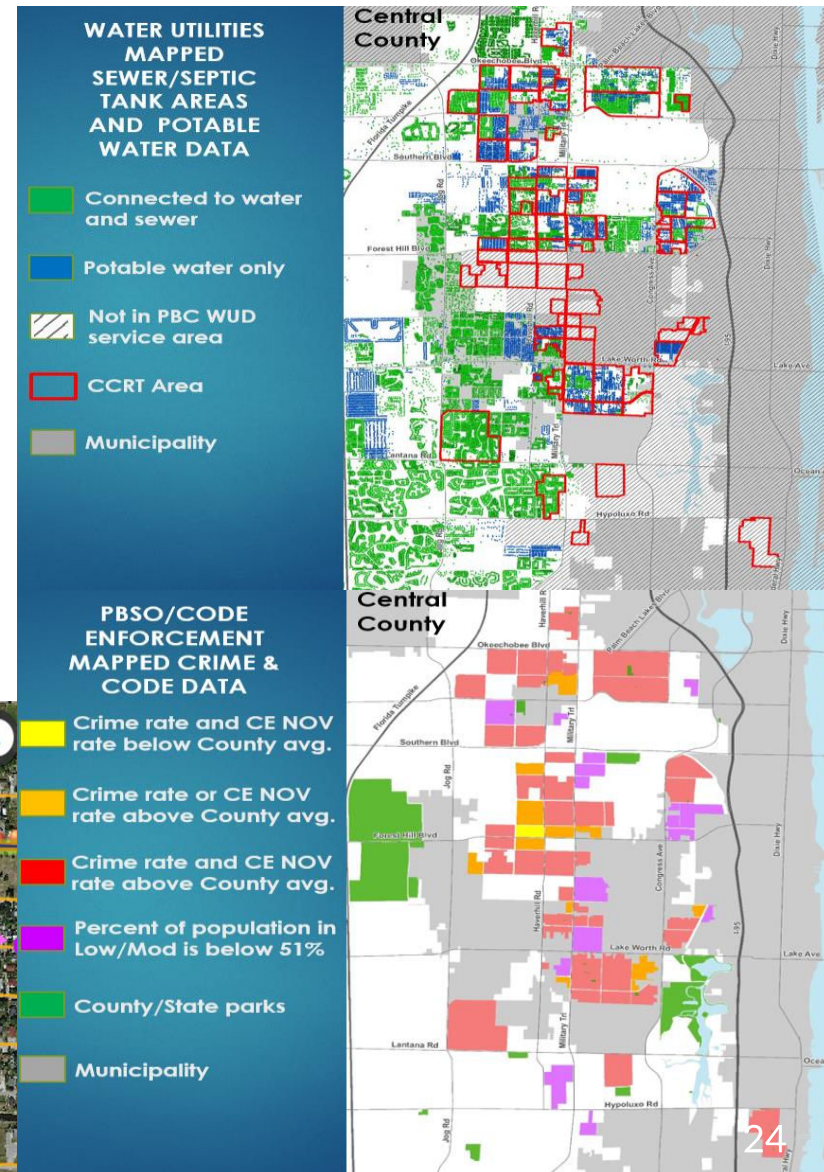
Upcoming Projects

- Bert Winters Park Phase II
- Aqua Crest Aquatic Center replacement
- Lake Lytal Park Aquatic Center
- Villages of Windsor Park
- Carlin Park Sand Volleyball Courts

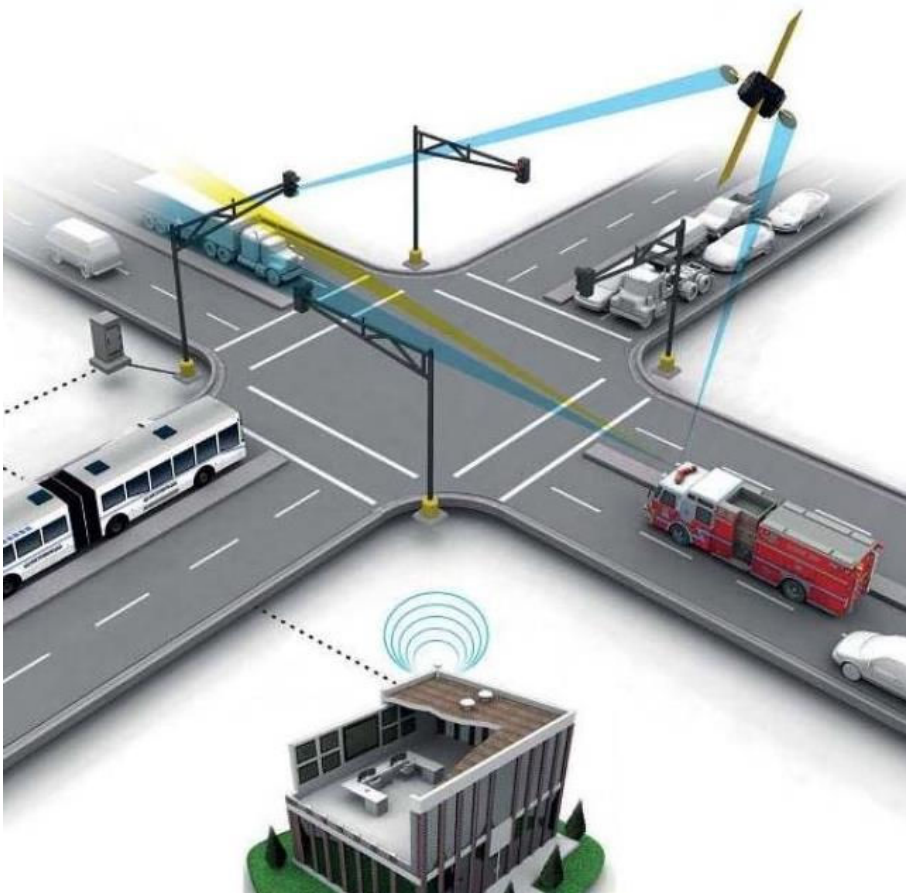
Metric: Assess existing infrastructure and service delivery needs in CCRT areas

- ▷ Staff has completed the CCRT areas reassessment study
 - Evaluated all existing CCRT areas to ensure they still meet the minimum eligibility criteria for designation;
 - Identified areas that need to be removed from the original list of designated areas and redefined boundaries as needed;
 - Identified infrastructure and service delivery needs based on the best existing data available and input provided by the Infrastructure CDT; and
 - Identified priority areas based on key indicators of need.

- ▷ A report summarizing the findings of the assessment and recommendations of the study is currently being prepared for presentation to the BCC.



Metric: Continue to provide safe and accessible means of multimodal transportation



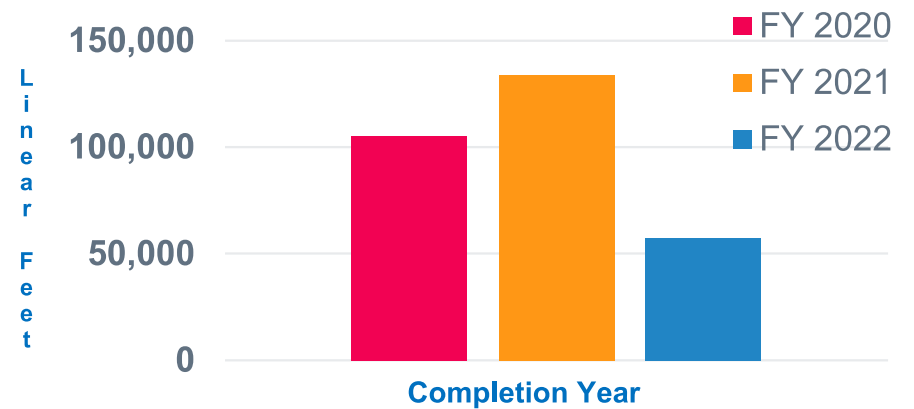
Transit Signal Priority (TSP) project underway on:

- ▷ U.S. 1 (Countywide)
- ▷ Okeechobee Blvd (Flagler Dr. – SR7)
- ▷ SR 7 (Okeechobee Blvd – Lake Worth Rd.)

Emergency Vehicle Preemption

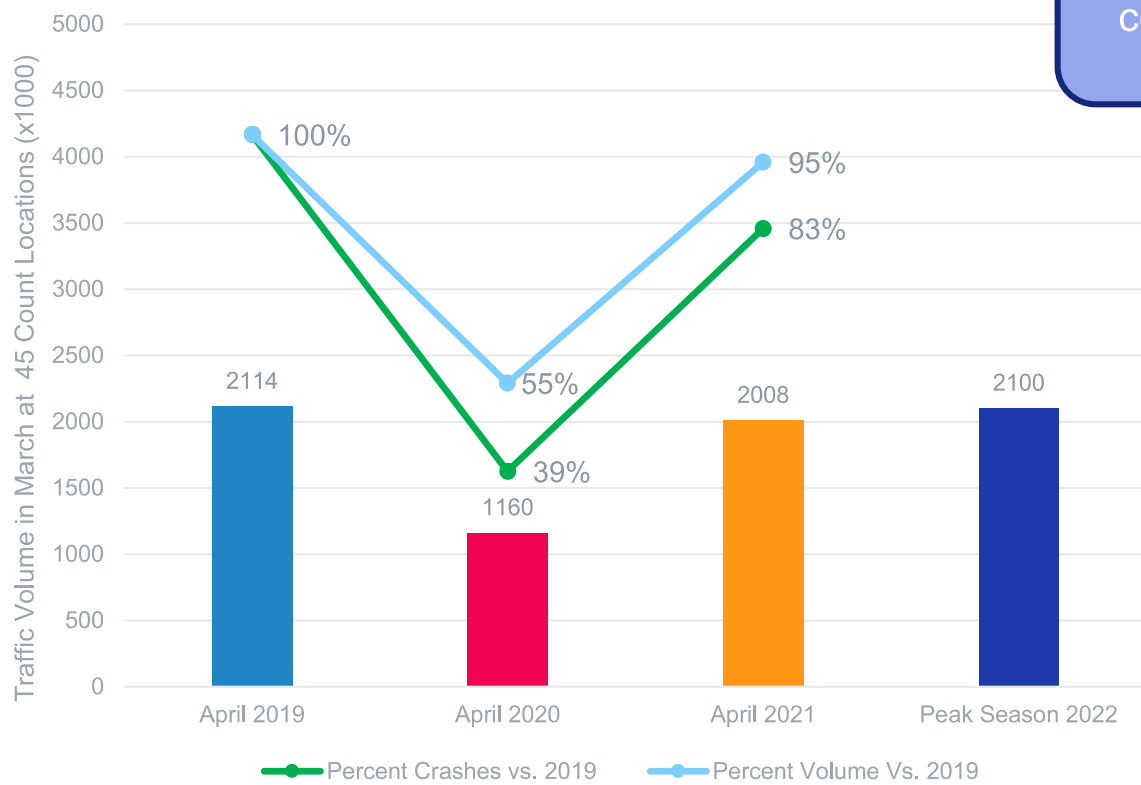
- ▷ Numerous corridors to follow TSP
- ▷ Funding provided by Fire Rescue

Bike Lanes Added or Refurbished



Metric: Continue to provide safe and accessible means of multimodal transportation

Crashes and Traffic Volume



557 Street lights converted to LED



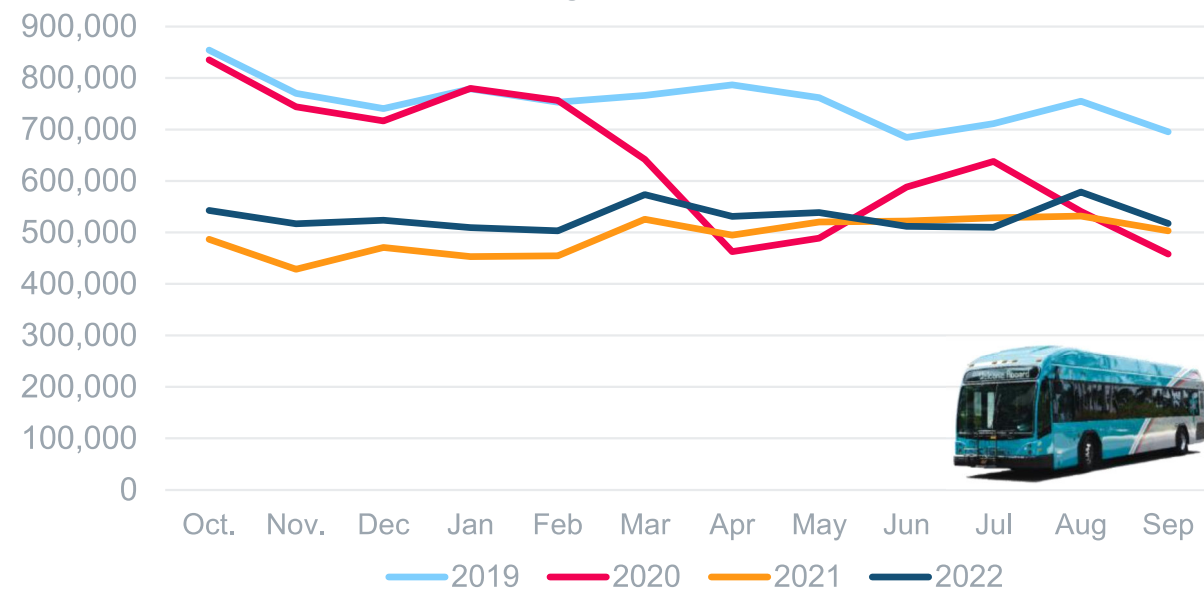
Goal 4

Increase multimodal travel opportunities with safe and efficient transportation services.

Goal
4

Metric: Increase Palm Tran Ridership

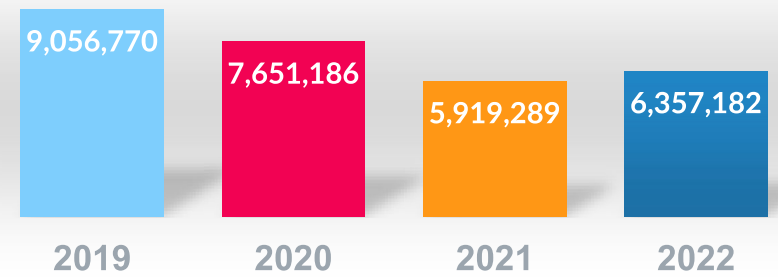
Monthly Ridership Trend



- Palm Tran’s ridership is increasing at a rate of **+7.2%** compared to the previous fiscal year (2021) ridership levels.
- Palm Tran transported over **18 million** passengers since the beginning of the pandemic (March 2020 – September 2022).



Fixed-Route Ridership FY 2019-2022

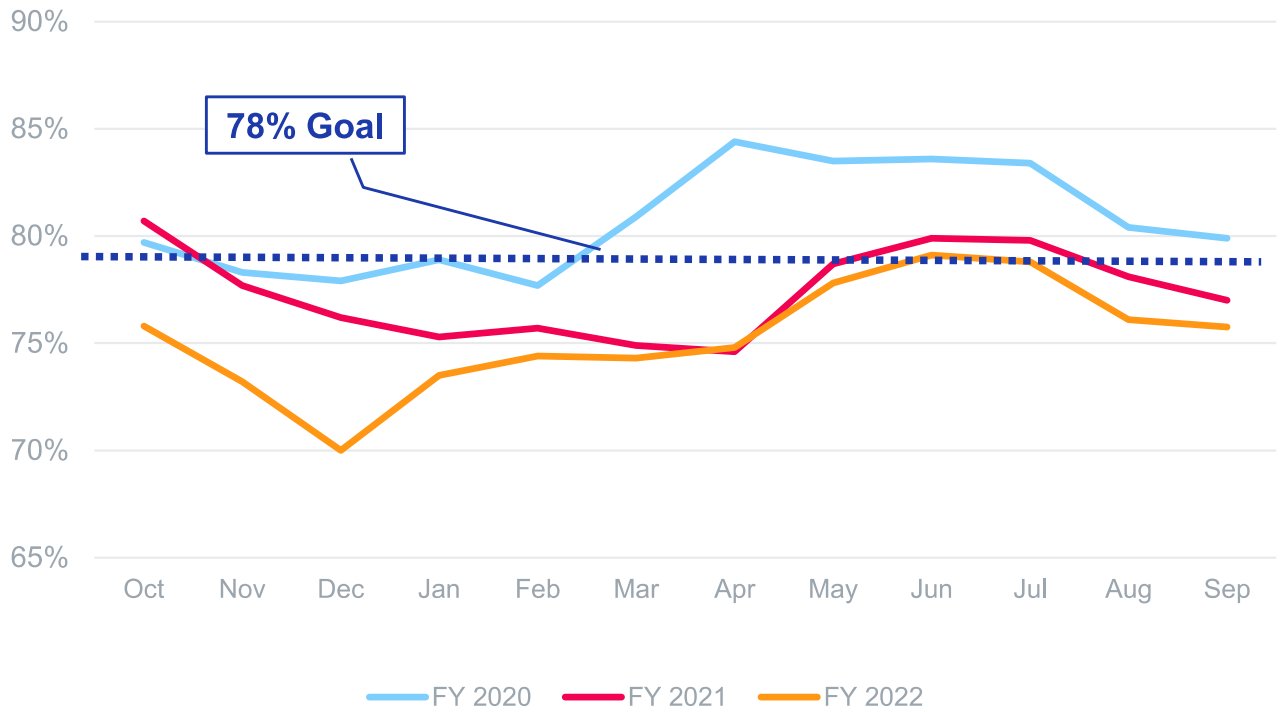


Goal
4

Metric: Improve Palm Tran On-Time Performance

On-Time Performance

(Depart no more than zero minutes early nor leave no more than five minutes late)



Awards & Recognition



**1st Place & 2nd Place
2022 Bus Operator of the Year**

Mobility Enhancements Today and Into the Future



Transit Development Plan



Fare Technology Upgrade



Go Glades Service – Mobility on Demand (MOD)



Bus Air Filtration System



Bus Stop & ADA Improvements



First mile/Last mile
Mobility On Demand
561 Plan



Master Plan for
Fleet & Infrastructure
Electrification



On the Horizon

- Continue to identify overarching goals to ensure high quality, sustainable, and resilient infrastructure services Countywide.
- Keep coordinating County department projects to reduce overall infrastructure related costs and interruptions to the community.
- Present the findings of the CCRT Reassessment Study and its recommendations to the BCC, obtain residents' input on infrastructure needs and gaps in service delivery in CCRT neighborhoods, and develop a community action plan.
- Ongoing development of strategies and implementation plans to address existing deficiencies and funding strategies to complete capital improvements, with a focus on underserved CCRT neighborhoods.
- Identify and implement solutions to overcome supply chain issues, staffing shortages, and price escalations.