

INFRASTRUCTURE CROSS DEPARTMENTAL TEAM

Growing Our Infrastructure for Today and Tomorrow



January 25, 2022

Team Members



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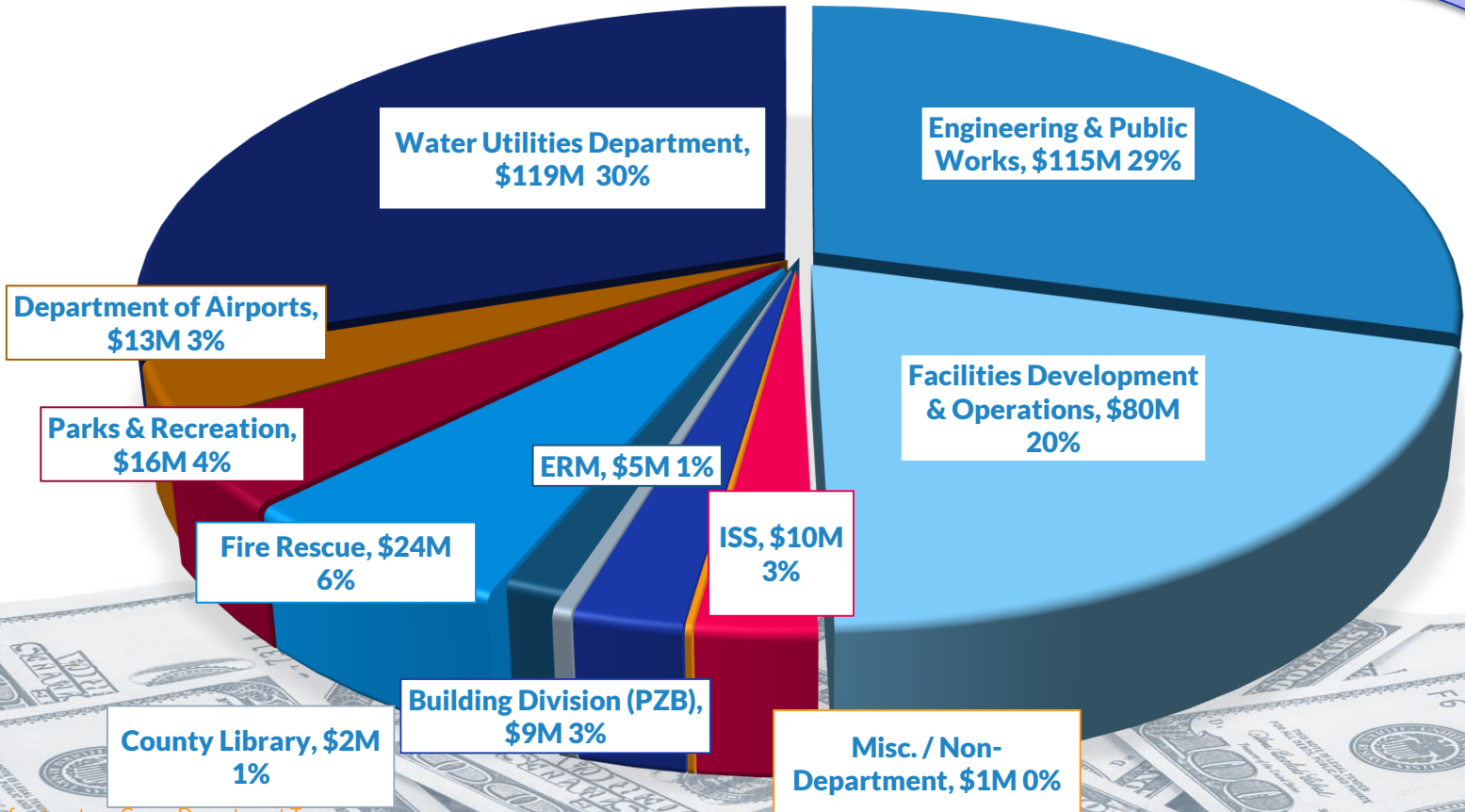
Daniel Duenas
Planner I
Parks & Recreation



Jean Matthews
Senior Planner
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FY 2022 DEPARTMENT CAPITAL FUNDING

Total
\$ 393,761,000



Funding Sources:
Ad Valorem Taxes,
Building Fees,
Enterprise Revenues, Gas
Tax, Grants,
Impact Fees,
Interest & Other,
Loan/Bond Proceeds,
Surtax, and
Tourist Development Tax

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.

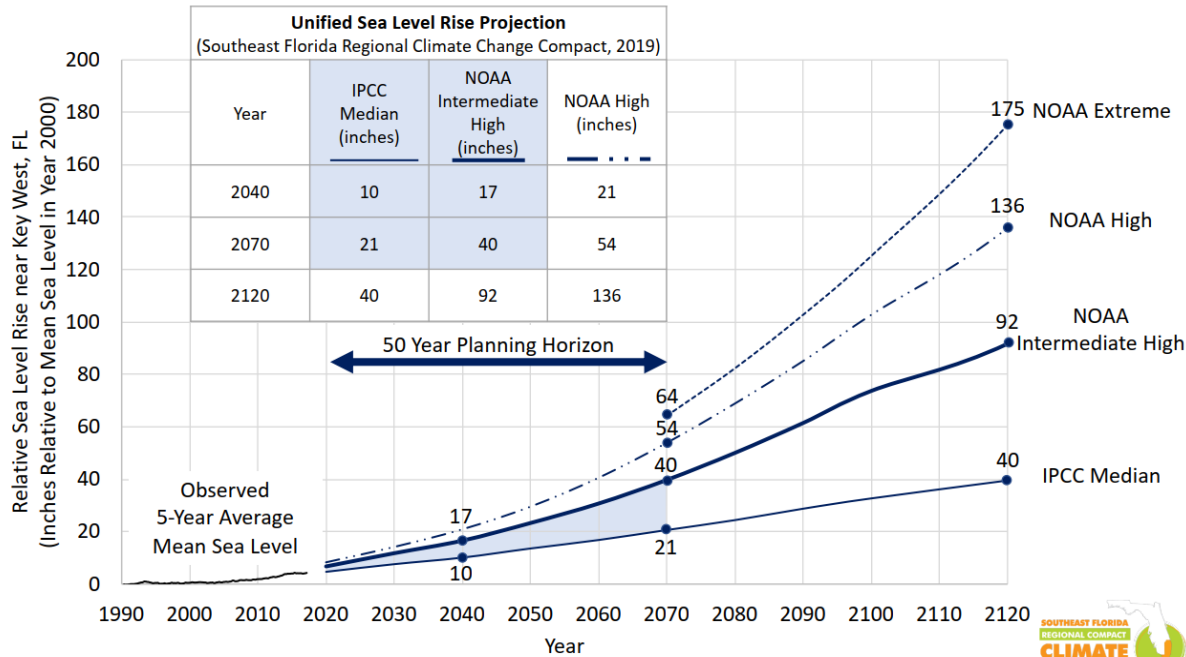
Metric: Seek Funding for Resilient Infrastructure Projects

- ▶ County was selected to receive CDBG-MIT funds:
 - \$2.8M for Pahokee Wastewater Treatment Facility Improvements
 - \$800k for a Vulnerability Assessment and Resilience Action Plan
 - \$14M applied for 2nd round, joint WUD/Belle Glade project
 - \$7.2M applied for 2nd round, Engineering, Prosperity Farms bridge
- ▶ Departments cooperating on applications for other funding, such as through FDEP Resilient Florida Grants
 - \$17.6M EPW
 - \$21M WUD
 - \$1.4M OOR & Water Resources Manager
- ▶ Coastal Resilience Partnership Climate Change Vulnerability Assessment phase 1 completed this year, assisted by \$147k in grant funding. Phase 2 will be completed in FY 22 with a \$74k DEP grant.



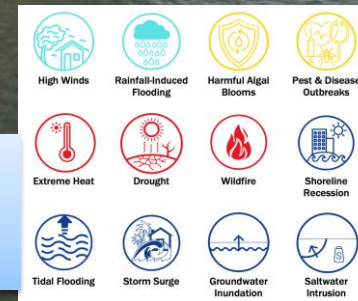
WUD Pahokee Plant

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.

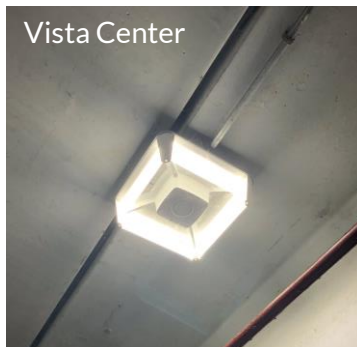
12 Climate Threats to the County



Metric: Reduce facility energy and water use intensity

Garage LED Lighting Integration

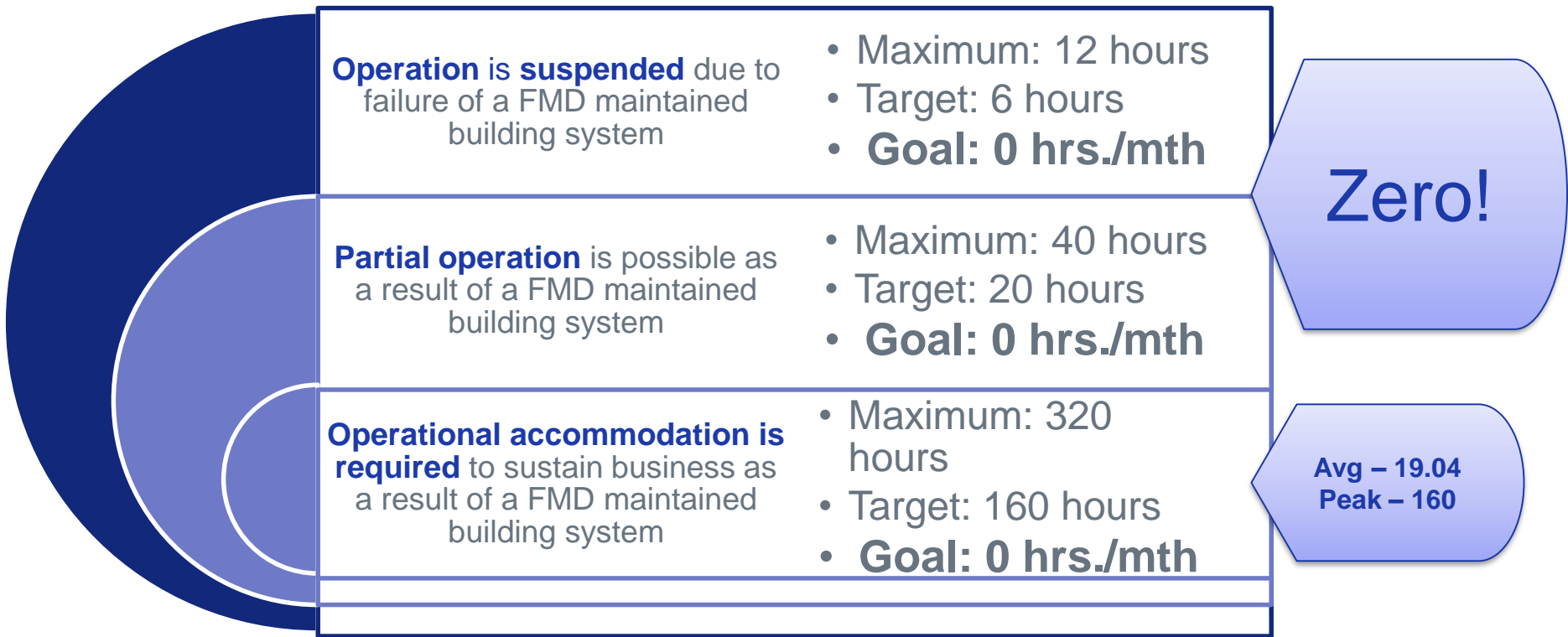
- ▶ Installed 208 LED lamps in the Vista Center Garage.
- ▶ Average monthly kWh demand was **reduced by 15%!**
- ▶ FDO is now researching daylight harvesting systems, which allow for automatic lighting control, resulting in reduced energy consumption and costs.



- ▶ Installed at the new PBSO Forensic Sciences and Technology Facility.
- ▶ Utilizes water-cooled condensing units in lieu of air-cooled equipment.
- ▶ Avoids using the building's HVAC system resulting in lower maintenance demand.

PBSO Bulk Vault Walk-In Cooler & Freezer

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



*Based on FY2021 business hours per month for FD&O managed building(s) or facility(s) countywide.

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
- ▷ Chargers for twelve public parking spaces at Convention Center FY22
- ▷ Anticipated charging equipment at Vista Center in FY23
- ▷ Two Tesla chargers and one universal Level 2 electric vehicle charger are available in PBI's short-term parking garage, along with two universal charging stations in the Travel Plaza/Cell Phone Lot. Exploring additional charging stations for the parking facilities and the 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

Code Amendments for an EV-ready community

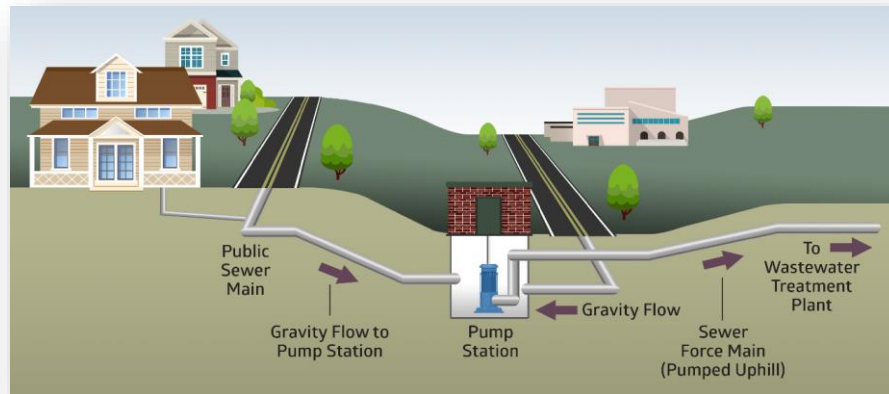
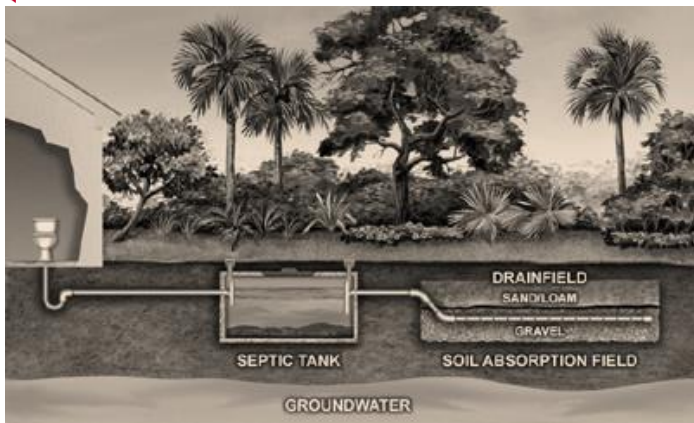
- ▷ Requires electrical capacity and conduit for equipment in new and redeveloped commercial office and multifamily residential developments
- ▷ Proposed code amendments were preempted in 2021. Staff are working to update amendments for 2022



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



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

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

▶ Planned **Septic to Sewer** Conversions 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

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

IST Playground renovations completed in FY 21:

- ▷ Juno Park
- ▷ Paul Rardin Park
- ▷ John Stretch Park
- ▷ Lake Ida West Park
- ▷ Sanders Drive Park
- ▷ Dyer Park



\$2.9
Million



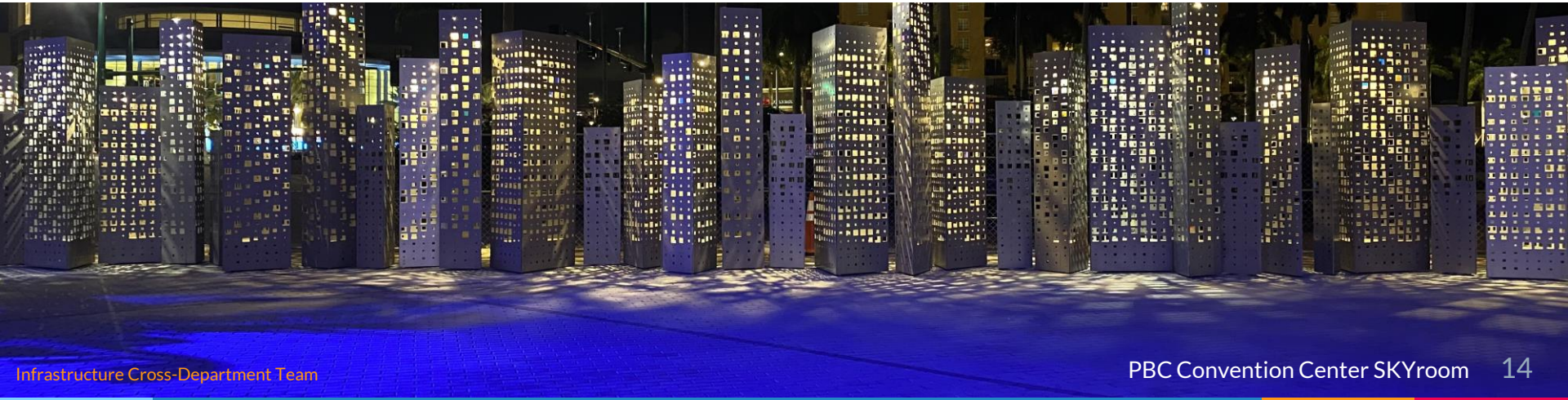
\$4.5
Million

IST Sports Lighting renovations completed in FY 21:

- ▷ Dyer Park
- ▷ Burt Aaronson South County Regional Park
- ▷ Okeeheelee Park Tennis Courts
- ▷ Jupiter Farms Baseball Fields 1 and 2
- ▷ Westgate Sports Fields and Basketball Court
- ▷ Juno Park Baseball Field 1
- ▷ Caloosa Park MP Fields 5 and 6

Metric: Completion of Projects on Schedule and Budget

- ▷ **FDO** completed:
 - 1 New Construction - PBSO Forensic Sciences and Technology Facility (\$31M)
 - 2 Building Expansions – Palm Tran South County Administration building (\$26M) & Convention Center Courtyard (SKYroom) (\$1.9M)
 - 5 Building Renovations
 - 926 New Fleet Vehicle/Equipment Acquisitions
- ▷ **ENG** resurfaced over 250 lane miles of roads (\$19M); 2 bridge replacements (\$2M)
- ▷ **WUD** completed 29 miles of pipe upgrades



Metric: Completion of Projects on Schedule and Budget

Library Updates

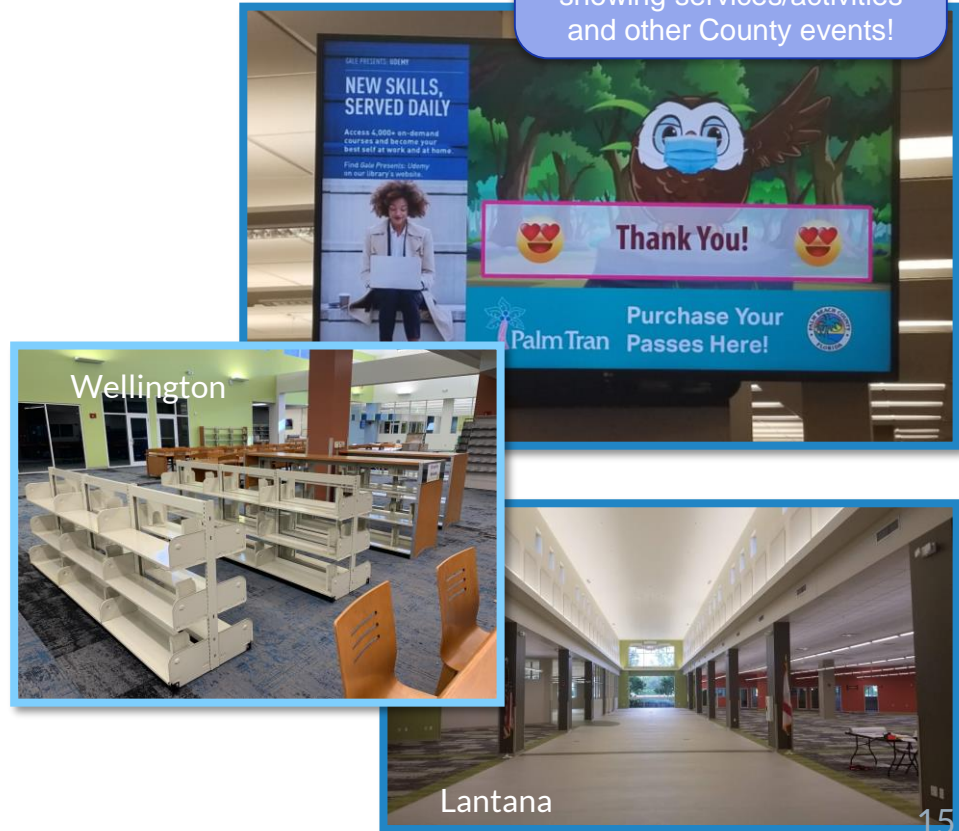
Lantana & Wellington

- ▷ Total interior renovation, consolidated service desks, all new paint and flooring, new LED lights, new digital media center w/green wall, additional study rooms, updated landscape and parking lot.
- ▷ Renovations complete at both and expected to re-open by year's end.

Canyon Branch

- ▷ 33K sq/ft with outdoor plaza, LEED design with all LED lighting, equipped to receive solar power and EV charging stations.
- ▷ Currently in permit phase, expected start date March 2022.

Grant funded digital message boards have been installed in every branch showing services/activities and other County events!



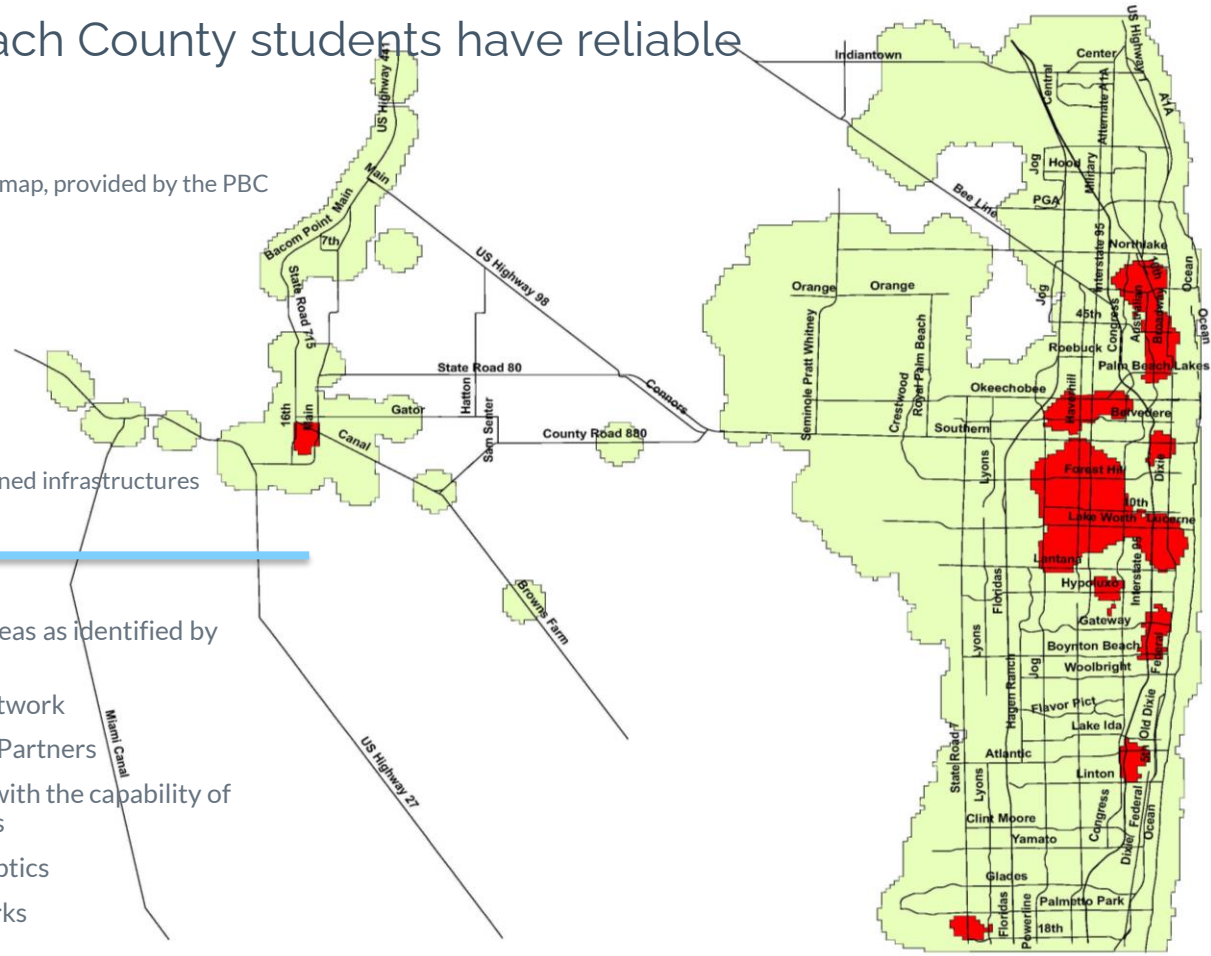
Metric: Ensure Palm Beach County students have reliable access to the Internet

Phase 1

- ▷ 25,000 students shown as **dark red** on heat map, provided by the PBC School District
- ▷ 3000 radios covering 50 square miles
- ▷ >400 Miles fiber installed
- ▷ 98 schools part of the County network
- ▷ 17 County Libraries
- ▷ 10 Boys and Girls Clubs
- ▷ 14 Community Partners
- ▷ Increased capacity/ coverage on County owned infrastructures
- ▷ Funding \$15.75 Million

Phase 2

- ▷ Extend network infrastructure to the areas as identified by **the green** in the heat maps
- ▷ Connect 47 additional schools to the network
- ▷ Continue working with the Community Partners
- ▷ Increase coverage to 450 square miles with the capability of supporting approximately 11,000 radios
- ▷ Install an additional 600 miles of fiber optics
- ▷ Extend coverage to County and City parks
- ▷ Estimate Cost of ~ \$40 Million



Metric: Accommodate increasing passenger demand while enhancing airport facilities to maintain safe and efficient operations

Palm Beach International Airport (PBI) Highlights

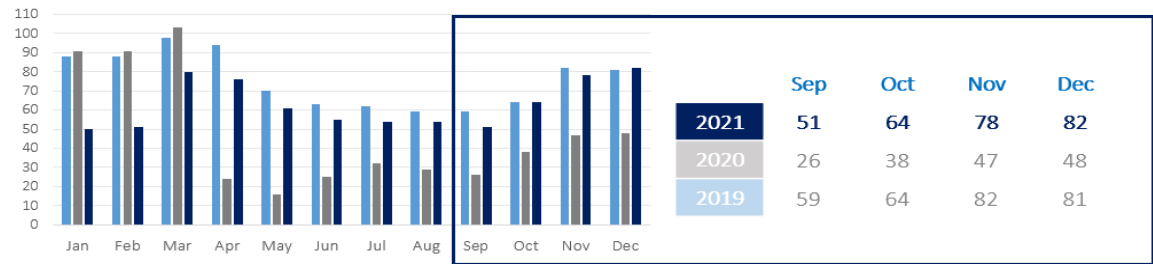
- ▶ Passenger levels continue to rebound
- ▶ New or expanded service and carrier options announced
- ▶ Infrastructure projects continue to move forward related to terminals, airside and landside facilities

Voted 7th Best Airport in the U.S. in *Conde Nast Traveler* 2021 Readers' Choice Awards

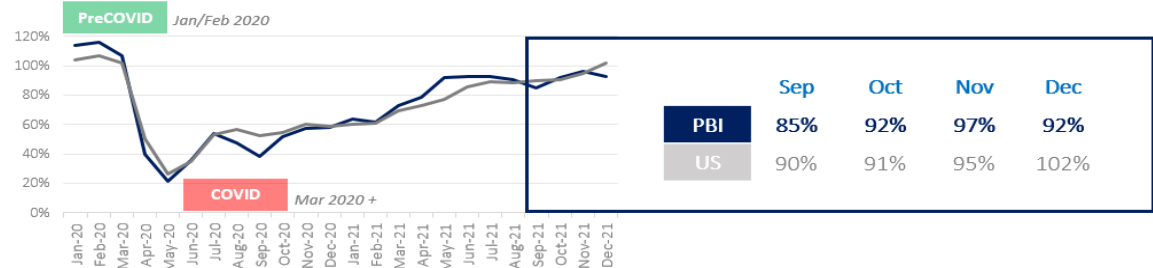
PBI | Schedule Trends

FALL 2021

DAILY DEPARTURES – Peak Thursday
2019 to 2021



CAPACITY – % of 2019 Recovered
PBI vs US Average



Source: Cirium Flight Schedules; revised 9/1/21

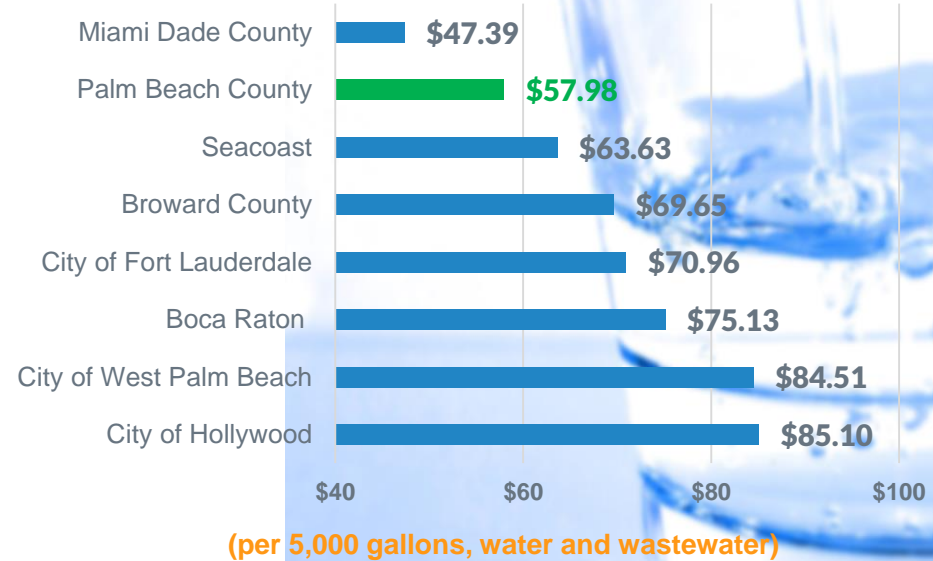
Metric: Provide safe and affordable water to Palm Beach County residents

Lead and Copper Monitoring Update

- ▶ The 2020 analysis of drinking water from inside residences showed that the levels of lead and copper are lower than the regulatory requirements.

	Samples Collected
Eastern Region	105
Western Region	60

- ▶ The Department of Health allowed Water Utilities to shift from an annual analysis to once every three years.
- ▶ In 2024 the EPA's Lead and Copper Rule Revisions becomes effective.

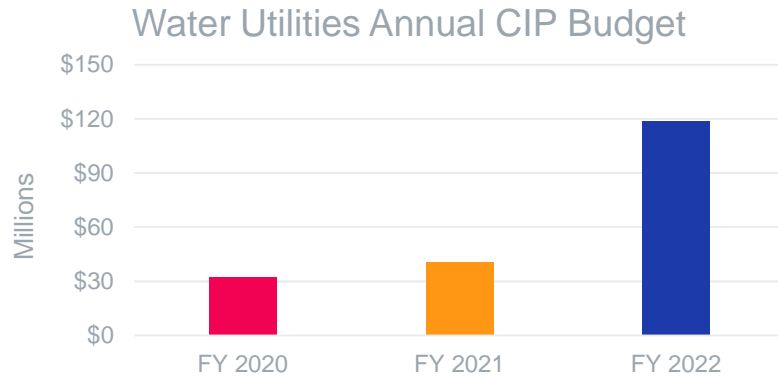


Residential Customer's Monthly Bill Comparison

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 \$400M

- ▷ “Green Cay phase II project started



Third largest water utilities in State



100% in compliance with all applicable rules and regulations



AAA rated by national bonding agencies



WUD: Asset Management System



- ▷ \$5 Billion worth of assets
- ▷ Build a asset management methodology that supports asset preservation and sustainment supporting our Capital Improvement Program
- ▷ Being leaders in our industry proving commitment to the County and customers

Year 4: 2021 ISO 55001 Certification

Ongoing Continuous Improvement Plan, Reclassed Position for Internal Auditor (pending)

Year 3: 2020 (Covid-19 protocols in place)

Maturity Assessment Moved to 1st Qtr. 2021, AM Role Statements Compliance & Effectiveness Assessment, Ongoing Continuous Improvement Plan

Year 2: 2019: (Champions Established, WUD Campaign Started, Maturity Assessment)

Embedded Monitoring Framework, Started Transformation Program, Asset Investment & Maintenance Planning

Year 1: 2016 (Gap Analysis, AM Policy, AM Team)
Year 1.5: 2018 Asset Management Improvement Program Developed, Core Team Formed)

Asset Management Strategy, Decision Support Framework, Established Resource & Organizational Arrangements, Established Monitoring Framework





1st Water Utility in North America



Congratulations!

UMS group

Certificate

ISO 55001 Certificate number: UMS-PBCWUDISO55-01
 Certification Date: 15th October 2021
 Expiration Date: 14th October 2024

UMS Group Inc. has determined that the Asset Management System (AMS) used and applied by:

**PALM BEACH COUNTY
WATER UTILITIES DEPARTMENT**
 8100 Forest Hill Boulevard, West Palm Beach, FL 33413

Meets with the requirements of ISO 55001. The AMS is applicable for the assets operated and maintained by PBCWUD.

The processes in scope are described in the Strategic Asset Management Plan (SAMP), the Integrated Utility Master Plan (IUMP), and the Capital Improvement Plan (CIP). The AMS processes and responsibilities are embedded and effectively integrated across the enterprise in all departments, as well as the management team.

Brett A. Shaw

Brett A. Shaw
Lead Auditor
Principal
UMS Group Inc.

Kate A. Tancke

Kate Tancke
Auditor
Senior Consultant
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**endorsed
ASSESSOR**

Goal 3

Create safe, healthy, and attractive neighborhoods and communities.

Metric: Completion of Projects on budget



Pickleball Courts

- John Prince Memorial Park (\$50k Impact Fees)
- Burt Aaronson South County Regional Park (\$200k Impact Fees)

Basketball Courts

- Limestone Creek Park (\$188k CDBG Funds & \$48.7k OCR)
- San Castle Community Park (\$188k CDBG Funds & \$48.3k OCR)

Okeehelée Nature Center Interpretive Signage received 2021 Graphic Design USA Health + Wellness Design Award!



Burt Aaronson South County Regional Park

Metric: Completion of Projects on budget

Canyon District Park

- District Park in West Boynton Beach
- Phase I currently under construction
- Phase II under design, expected late 2022
- Combination of IST Funding and Impact Fees



KL Canyon District Park, Boynton Beach, FL 8-10-2021 **BWD**



VILLAGES OF WINDSOR PARK CONCEPTUAL MASTER PLAN
PALM BEACH COUNTY PARKS & RECREATION DEPARTMENT - PLANNING, RESEARCH & DEVELOPMENT DIVISION



BERT WINTERS PARK, PHASE PLAN CONCEPTUAL SITE PLAN
PALM BEACH COUNTY PARKS & RECREATION DEPARTMENT - PLANNING, RESEARCH & DEVELOPMENT DIVISION

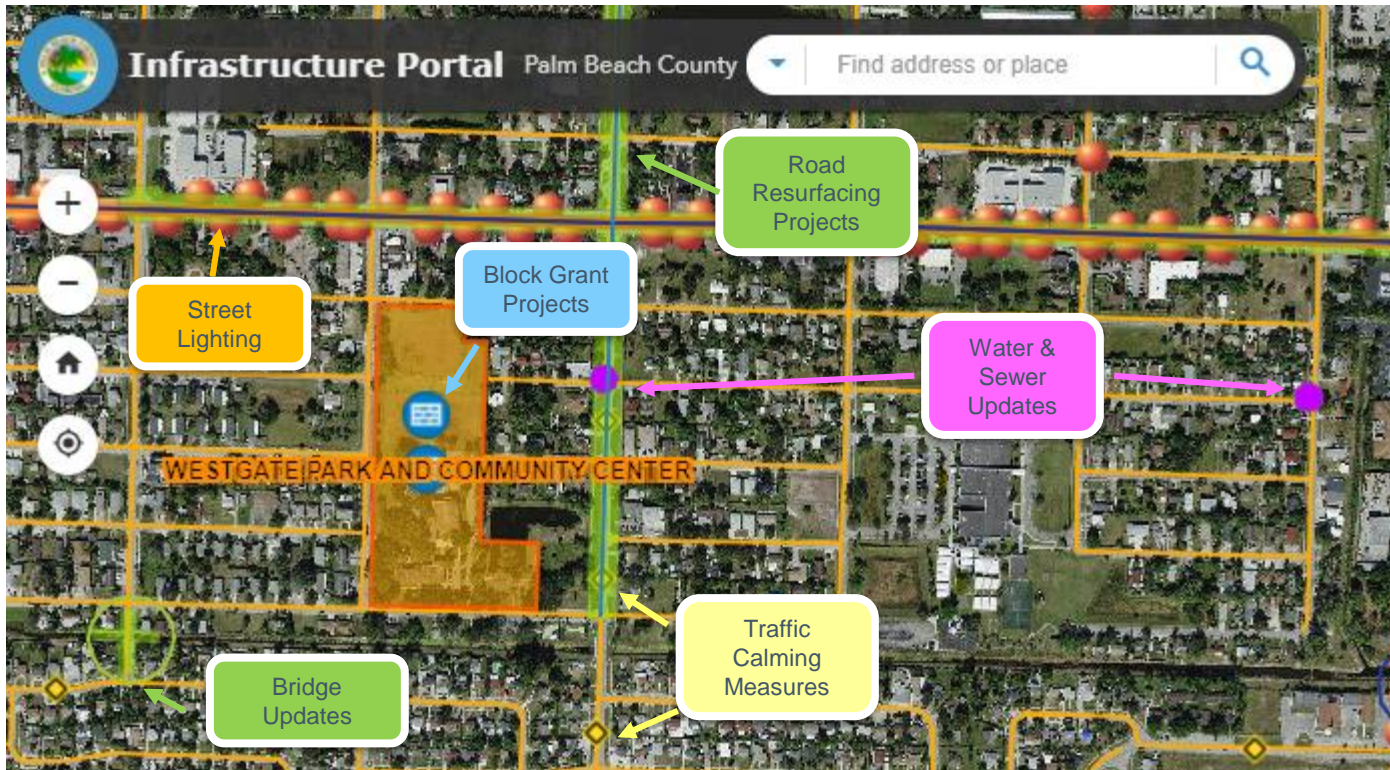
Upcoming Projects

- Bert Winters Park Phase II
- Aquacrest Aquatic Center replacement
- Lake Lytal Park Aquatic Center
- Villages of Windsor Park
- Carlin Park Pickleball & Sand Volleyball Courts

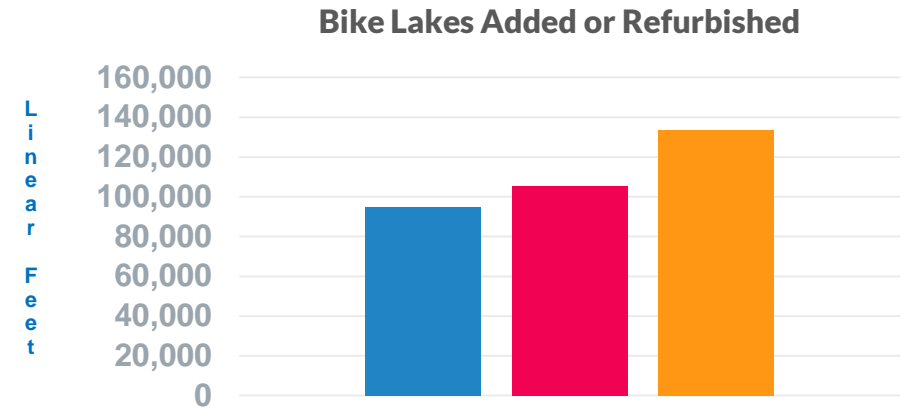
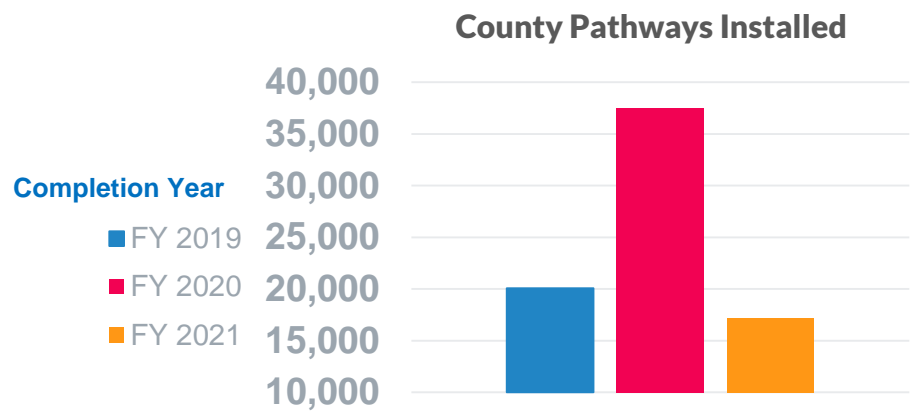
Metric: Assess existing infrastructure and service delivery needs in CCRT areas

Progress on the 2022 Community Needs Analysis Report:

- ▷ Obtained updated census data for unincorporated areas including income levels and property values
- ▷ Created CCRT critical deficiencies summary with weighted values depicting areas with greatest need
- ▷ Attained code and law enforcement statistics for crime levels in CCRT Areas from the last 5-years
- ▷ Used the new GIS Infrastructure Portal to analyze CCRT areas for deficiencies and track ENG, WUD, P&R, and others' upgrades and other relevant projects



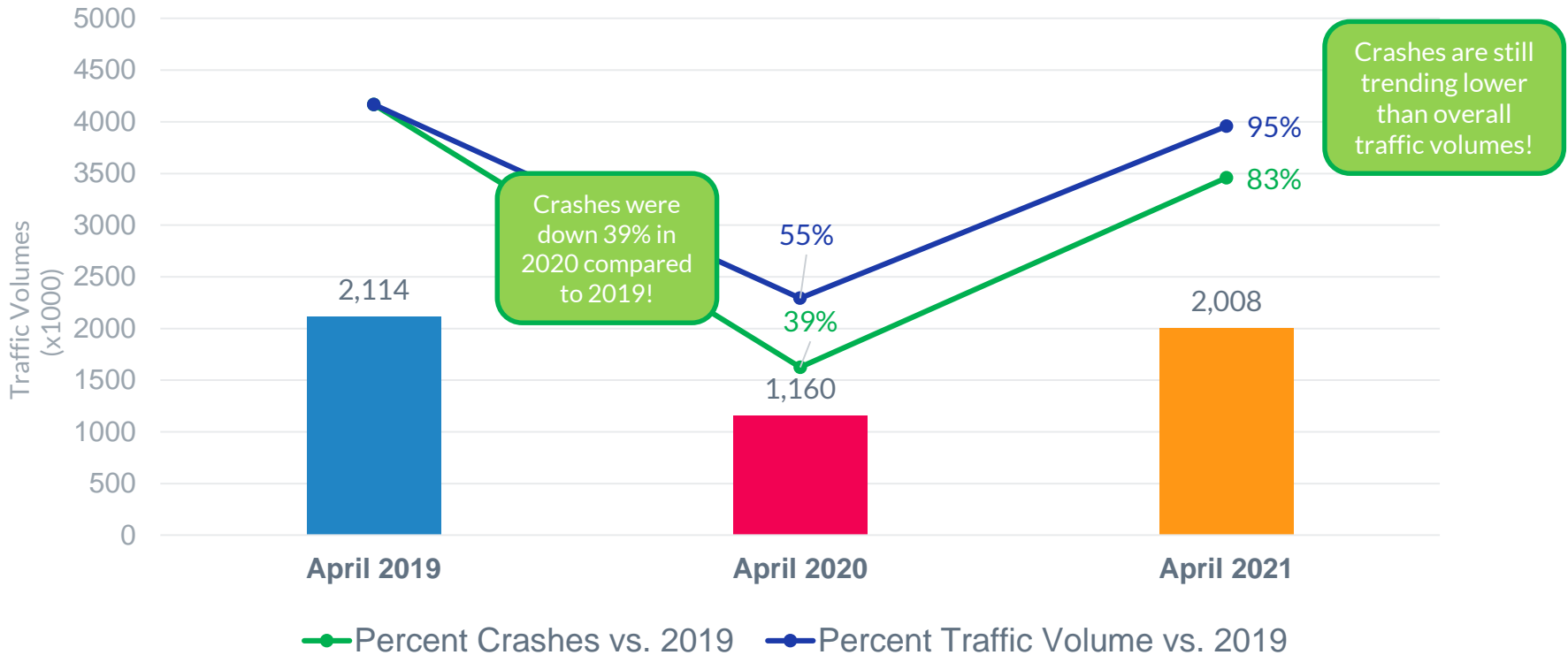
Metric: Continue to provide safe and accessible means of multimodal transportation



401 Street lights converted to LED

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

Crashes and Traffic Volume Reductions due to COVID19



Goal 4

Increase multimodal travel opportunities with safe and efficient transportation services.

Metric: Expand Multimodal Travel Options

Vertiport Lease

- ▷ On October 19, 2021, the Board of County Commissioners approved a lease with Ferrovial Vertiports Florida, LLC for the construction of a landing and take-off area at Palm Beach International Airport (PBI) for the operation of electric vertical take-off and landing (eVTOL) aircraft being developed by Lilium GmbH, a German limited liability company.

Sustainability Management Plan

- ▷ Airports is currently working with consultants to produce a Sustainability Management Plan, which may include EV or alternative fuel vehicles for Airports ground operations.
- ▷ Airports is also considering overall emissions reduction targets as part of the plan.

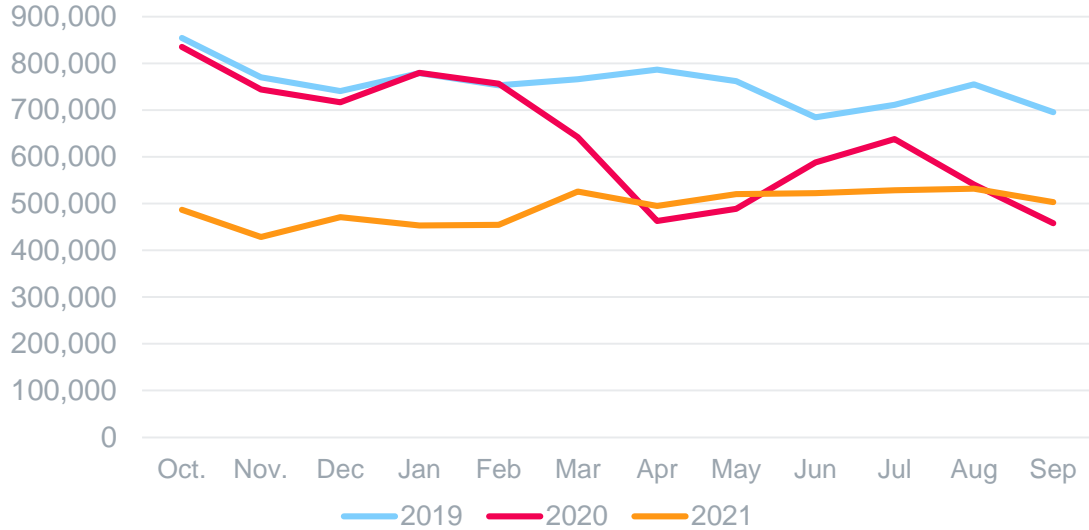
**Voted 8th Best Domestic
Airport in *Travel + Leisure*
Magazine's 2021 World's
Best Awards!**



Goal
4

Metric: Increase Palm Tran Ridership

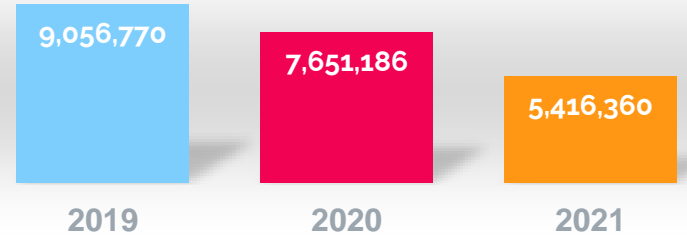
Monthly Ridership Trend



- o Palm Tran’s ridership is currently at **-29.1%** compared to the pre-COVID-19 ridership level (2019).
- o Palm Tran transported over **10.8 million** passengers since the beginning of this emergency (March 2020 – September 2021).



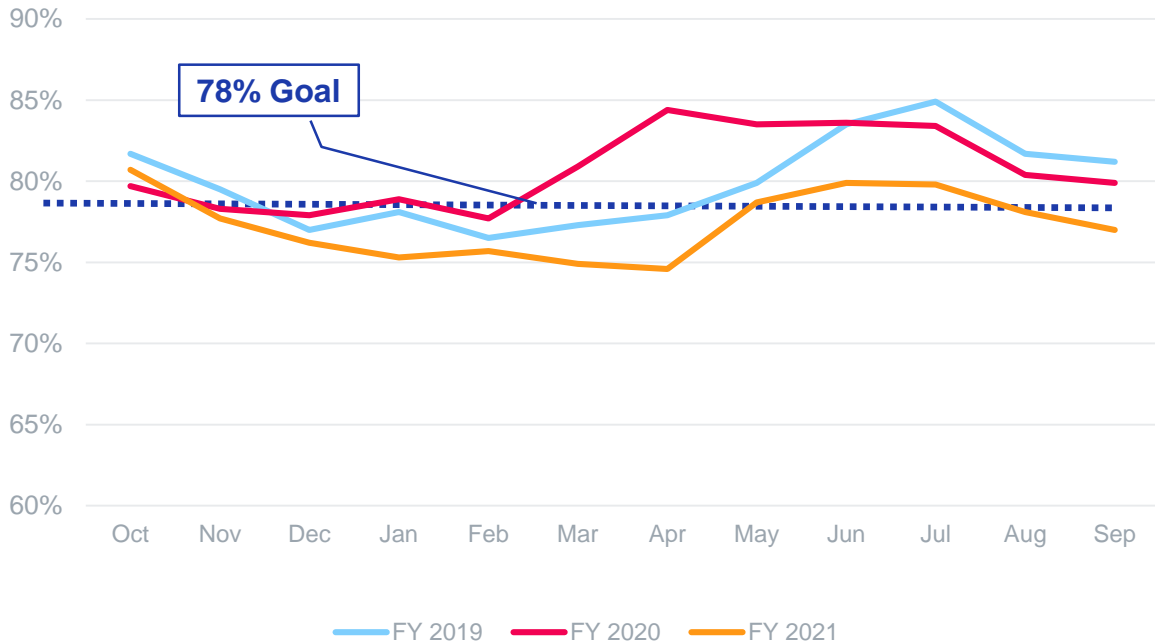
Fixed-Route Ridership FY 19-20-21



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)



2021 Public Agency
2021 Corporate Executive



AMERICAN
PUBLIC
TRANSPORTATION
ASSOCIATION

Certificate of Merit for
Safety for implementing
exceptional COVID-19
safety initiatives



Safety Award
COVID-19 Outstanding
Service Recognition



Mobility Enhancements Today and Into the Future



Transit Development Plan



New Palm Tran Headquarters - Delray Beach



Fare Technology Upgrade



Bus Stop & ADA Improvements



First mile/Last mile
Mobility On Demand
561 Plan



Master Plan for
Fleet & Infrastructure
Electrification



Next Steps

- 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.
- Continue the assessment of existing infrastructure and service delivery needs in residential neighborhoods located in unincorporated Palm Beach County, with a focus on underserved CCRT neighborhoods.
- On-going development of strategies and implementation plans to address existing deficiencies and funding strategies to complete capital improvements.
- Establish key performance indicators that support Team's goals.