In Attendance

Committee Members

Mike Twitty – Chair – Pinellas County Property Appraiser
Jason Malpass – Vice Chair - Pinellas County Sheriff's Office
Jeremy Waugh – Office of Asset Management
Marc Gillette – Supervisor of Elections - ABSENT
Tom Almonte – Assistant County Administrator – ABSENT

Attendees

Joe Borries – Emergency Management
Jeremy Capes – Utilities
Marcia Colby – Public Works
Renee Duffey – Emergency Management
Allison Goldberg – Business Technology Services/eGIS
Edin Grimaldo - Office of Asset Management
Michael Howsare – Development Review Services
Terry Jiang – Business Technology Services/eGIS
April Klimkoski – BTS/eGIS
James McDermott – Administrative Services
Jamie Munro - Business Technology Services/eGIS
Gregg Obarski – Business Technology Services/eGIS
Jeff Rohrs – Business Technology Services
Alan Shellhorn – Planning
Arenee Smith – Public Works
Bryan Zumwalt – Business Technology Services

Thuyen Buendia – Business Technology Services/eGIS
Jason Clemis – BTS/eGIS
Kelly Dickie – Business Technology Service/eGIS
Lisa Foster – Public Works
Joseph Goodell – Pinellas County Sheriff's Office
Meilin Haidl – Administrative Services
Belinda Huggins – Business Technology Services
Alvan Karlin – Dewberry PMS
Susan Leverette – Office of Asset Management
Dayne Morris – Development Review Services
Curt Nielsen – Property Appraiser Office
Morgan Pyle – Safety & Emergency Services
Dapo Satiregun – Business Technology Services/eGIS
Nicole Sokolowski – Supervisor of Elections
Toni Smith - Business Technology Services/eGIS

Agenda

1. Call to Order
2. Welcome and Introductions
3. Citizens to be Heard
4. Approval of Minutes from the June 2nd, 2022 meeting
5. Working Group Presentation
   a. Aerial Status
   b. LIDAR Decision Package – VOTING ITEM
   c. GIS Project Overview
   d. ESRI Engagement Overview
   e. Esri Conferences & Training
6. Open Discussion
7. Adjournment

Call to Order

The meeting was called to order at 10:31am by Mike Twitty. There is a quorum today.

Citizens to be Heard

The opportunity was offered for citizens to make comments. None were present.

Approval of Minutes

Mike Twitty asked for motion to approve the minutes for the June 2nd, 2022, meeting.
Motion to approve from Jason Malpass, seconded by Jeremy Waugh, all in favor. Minutes approved.

Working Group Presentation

Aerial Status

The 2023 aerials were captured mostly during the month of January, no delivery date as of yet. For the new 2024-2029 aerial contract, a subset of individuals from the EGIS Working Group is working on finalizing the RFP for release through Purchasing.

LiDAR Decision Package – VOTING ITEM

The goal is to acquire updated LiDAR for the county. LiDAR, which is Light Detection and Ranging, is a remote sensing method that uses light in the form of a pulsed laser to measure ranges (variable distances) to the Earth. There are many uses for this data around the county, from Floodplain, Stormwater, Coastal, Urban Forestry and Watershed Management to 3D Buildings. Jamie gave some background on the previous LiDAR flown for the County. The most recent projects being from 2016 and 2019. The 2016 data was County sponsored with very detailed LiDAR capture, using cutting edge technology at the time. Although SWFWMD has concerns with the positional accuracy, the County stakeholders prefer this older data over the newer 2019 Statewide data. The 2019 Statewide project collected fewer measurements per square meter and the County prefers to use the older 2016 information whenever possible because the older data provides a greater level of detail due to the much denser point capture.

Lisa Foster, Floodplain Manager from Pinellas County, spoke about the importance of update LiDAR is for many county projects especially the Watershed Management Plan and Floodplain Management, which helps the county with the Community Rating System and the discounts county residents can receive on insurance.

The County discussed a potential 2024 LiDAR for our area with SWFWMD and they indicated both Hillsborough and Pasco Counties may be interested in a similar project.   eGIS then reached out to Hillsborough County and found they were working with Dewberry to submit for a USGS grant opportunity for the LiDAR project. The County reached out to Pasco County but has not found interest (which may be due to not finding the right stakeholder). So, at this time, the County would like to pursue a Tampa Bay area LiDAR project that includes both Hillsborough and Pinellas Counties. BTS has had conversations with both Hillsborough and Dewberry (the contractor helping Hillsborough with the USGS grant application). Alvan Karlin from Dewberry was present during the meeting and answered some questions about the USGS grant program. Alvan explained in the meeting how they help with aligning with the USGS funding opportunity. Alvan also gave some information on the 2016 LiDAR flight compared to the 2019 Statewide and USGS LiDAR requirements. Dewberry provided a $400,000 estimate for a countywide LiDAR project that had the accuracy requirements of the Statewide project and the detail of the 2016 County project. If USGS participates with the grant it could reduce that amount by around $80,000. In addition to contributing funds, USGS would perform the QC on most of the LiDAR deliverable and would host the data making it publicly available. The question was raised as if this new LiDAR data would have all the information as the 2016 and the answer was yes, but that some of the data would be the county's responsibility for QC. The eGIS Working Group is seeking the recommendation of a budget request to support a LiDAR project today, that recommendation would then go to the BTS Board on April 17th for review, and possibly onto the County Commissioners in September for budgetary approval. USGS awards these grants in October and LiDAR collection could begin as early as December 2024.

Pinellas County GIS FY2024 LiDAR Procurement – Vote

> Motion: Jeremy Waugh motioned for recommendation to update the County LiDAR data with a total project cost not to exceed $400,000 to be included in the BTS FY2024 budget request.
> Motion seconded by: Jason Malpass
> All in Favor.

GIS Projects Overview

Emergency Management projects for Hurricane Preparedness and Damage Assessment were highlighted, as well as deprecating and updating some Pinellas County Sheriff applications. eGIS is working on a plan to upgrade the Server Software to hopefully be completed this summer.

ESRI Engagements

> Utility Network – Working closely with Utilities to replace the Geometric Network and leverage the Utility Network, therefore moving to ArcGIS PRO. Also engaging with Public Works Stormwater on data readiness for the Utility Network.

> ArcGIS Indoors – Working with Department of Administrative Services, creating a Pilot Space Planner Project for Criminal Justice Center.

ESRI Architecture Review – Workshops have already been held to review the enterprise GIS server/data architecture. Currently, workshops are being held with PAO to review their GIS architecture.

GIS Monitoring Server – Setting up Esri monitoring software to become more proactive of detecting issues with GIS servers and services. April/May time completion.

ArcGIS Urban – Working with Housing and Community Development and Forward Pinellas on the use of this GIS planning tool for the departments. Possible future initiatives may include crowdsourcing interactions with the public.

ESRI Conferences & Training

ESRI Developer Summit was held earlier this month and one team member from eGIS attended.

The ESRI Southeast User Conference is in Atlanta on April 18th & 19th. The County receives 10 complimentary passes from Esri for this conference. All passes have been allocated. Jason Clemis (eGIS) and Morgan Pyle (SES) may be presenting the County implementation of the Esri Address Management Solution.

The ESRI Annual User Conference is in San Diego from July 10th – 14th. So far, 16 of the 25 complimentary passes have been assigned so there are more available if somebody wanted to attend this conference.

A new conference which could be beneficial to some of the asset management departments is the ESRI Infrastructure Management conference in Palm Springs October 10th -12th.

An instructor led Migration to ArcGIS PRO class is being held virtually on April 4th & 5th with 15 county attendees. This is the fifth time (likely the last) hosting this class in preparation for migration to ArcGIS PRO.

Also, an instructor led Location Analytics using ArcGIS Insights class is scheduled for April 17th & 18th, which is ESRI's version of Microsoft PowerBI, with 15 county attendees. This is the second time county has hosted this class.

Open Discussion

Mike Twitty asked the committee members and attendees how they felt about having some of the upcoming meetings in person instead of virtual.   Jeremy Waugh said they have currently been utilizing a hybrid approach of every other meeting being held in person, which has been working great. Jeremy Capes also said that they are looking to do working group meetings in person every other month or so.

Remaining Meeting Schedule for 2023

Working Group Meetings: April 13th, May 11th, June 8th, July 13th (most likely cancel or reschedule due to ESRI conference), August 10th.

Steering Committee Meetings: June 1st – will be in person, September 7th (tbd), December 7th (tbd).

Adjournment

Meeting adjourned at 11:38am. Jeremy Waugh motioned to adjourn; Mike Twitty seconded. The next meeting is scheduled for June 1st and will be in person, location to be determined.

PowerPoint Presentation

Slide 1

Pinellas County
Enterprise GIS

GIS Steering Committee Meeting
March 23, 2023

Slide 2

Agenda

- Call to Order
- Welcome & Introductions
- Citizens to be Heard
- Approval of minutes from the June 2nd, 2022 Meeting

- Working Group Presentation
  - GIS Projects Overview (Munro)
  - Esri Engagement Overview (Munro)
  - Aerial Status (Munro)
  - LiDAR Decision Package – VOTING ITEM (Munro/Capes)
  - Esri Conferences & Training
- Open Discussion
- Adjournment

Slide 3

Agenda

Proposed reordering of remaining agenda…

- Call to Order
- Welcome & Introductions
- Citizens to be Heard
- Approval of minutes from the June 2nd, 2022 Meeting

2 - Working Group Presentation
  - GIS Projects Overview (Munro)
  - Esri Engagement Overview (Munro)
1 - Aerial Status (Munro)
  - LiDAR Decision Package – VOTING ITEM (Munro/Capes)
  - Esri Conferences & Training
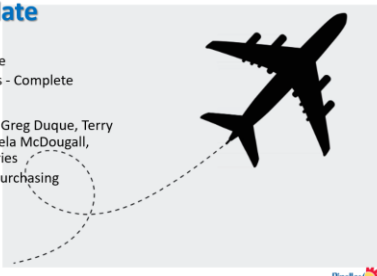3 - Open Discussion
  - Adjournment

Slide 4

Agenda

- Call to Order
- Welcome & Introductions
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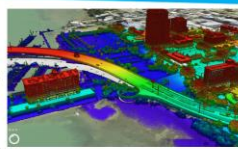- Open Discussion
- Adjournment

Slide 5

Aerial Status Update

- 2023 Aerials
  - January Capture - Complete
  - February/March Touch Ups - Complete
- 2024 Aerial RFP
  - Curt Nielsen, Jared Phillips Greg Duque, Terry Jiang, April Klimkoski, Daniela McDougall, Renee Duffey, and Joe Borries
  - Finalize RFP Release with Purchasing

Slide 6

LIDAR Overview

Lidar, which stands for Light Detection and Ranging, is a remote sensing method that uses light in the form of a pulsed laser to measure ranges (variable distances) to the Earth.

The County has many uses for this LiDAR Project:

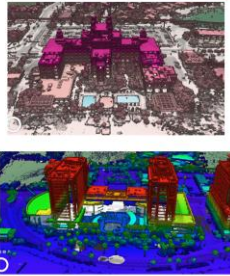|	
Floodplain Management	Compliance with USGS 7 Year Req.
Stormwater Management	Compliance with SWFWMD Req.
Coastal Management	Assist 3D Building Basemap Updates
Urban Forest Management	Assist 3D Condominimum Updates
Watershed Management	Future Fusion with Terrestrial LiDAR
Countywide DEM	Other…

Slide 7

LIDAR – Previous Projects

2007 – Previous Countywide LiDAR project.
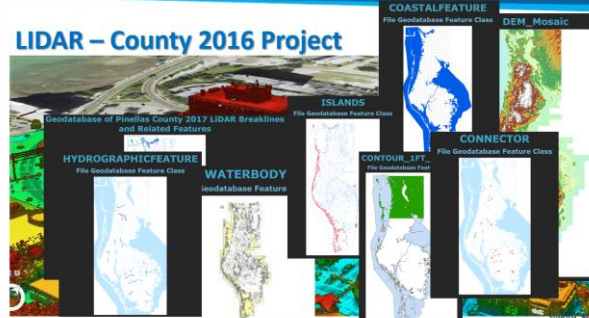
2016 – County sponsored project with detailed LiDAR capture. Have had troubles using with SWFWMD despite the data being better than other available data.

2019 – Statewide project with less detailed LiDAR (USGS requirements). While the data is newer, it does not depict as accurately as the 2016 project.

2020 – Additional derivatives were created by SWFWMD from the 2019 Statewide project.

Slide 8

LIDAR – County 2016 Project

LIDAR – Proposed Specifications

Specifications:

- QL1+ accuracy (10cm RMSe fundamental accuracy @ 95% confidence, 19.6 cm @ 95% vegetated accuracy): 20 – 24 points/m2,
- USGS provides all survey checkpoints, data QC and acceptance to and data (LAS and DEM) storage on the National Map,
- signed/sealed by Florida/Dewberry PSM,
- Classified point cloud LAS 1.4: PDRF6
  - Class 1 – unclassified
  - Class 2 – Ground
  - Class 6 – Rooftops
  - Class 7 – Low Noise
  - Class 9 - Water
  - Class 17 – Bridge Deck
  - Class 18 – High Noise
- NOTE: The SWFWMD spec includes:
 - Class 20 – Ignored Ground
  - Class 22 – Temporal Exclusion
  - But these two classes are NOT checked by the USGS, so you can specify them, but it would be up to the county to check them
- 3D breaklines following SWFWMD specification: 0.5 acre islands, ponds, lakes; Single line drains < 8' wide > 0.5miles long; Double-line drains > 8' wide,
- Hydro-flattened/hydro-enforced (with 3D breaklines) Bare-earth DEM, First return DEM (DSM).
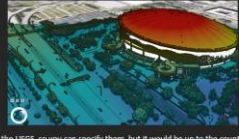
LIDAR Timeline

- **March 23** – GIS Steering Committee Approval
- **April 17** – BTS Board Approval
- **September** – County Commissioners Approve Budget
- **October** – USGS Award Grants
- **December** – LiDAR Data Collection Begins
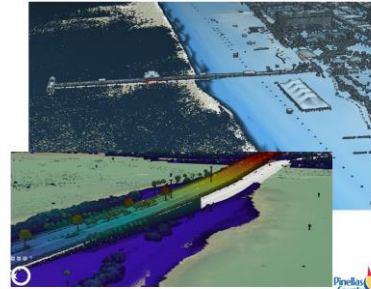
LIDAR Voting Item

The eGIS Steering Committee recommends an update to the County LiDAR data in FY2024 with a total project cost not to exceed $400,000 to be included in the BTS FY2024 budget request.

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Project Updates – Pillars

Project Name	ELT	Size	Scope	% Complete	P/R	Current Date	- 2	- 1	Schedule
Address Data Management Solution Implementation - Phase 3	Huggins	M	●	95%	P	03/31/2023	●	●	●
Emergency Management - 2023 Hurricane Prep and Support	Huggins	M	●	20%	P	06/01/2023	●	●	●
Emergency Management - 2023 Know Your Zone Updates	Huggins	L	●	30%	P	06/01/2023	●	●	●
Emergency Management - 2023 Pre-season Damage Assess...	Huggins	M	●	15%	P	06/01/2023	●	●	●
Emergency Management - 2023 Surge Protector Application ...	Huggins	M	●	60%	P	06/01/2023	●	●	●
Pinellas County EAM Analytics Platform	Frank	M	●	5%	P	08/30/2023	●	●	●
Sheriff - Deprecate WebEnforcer & Update Crimefighter Sec...	Huggins	M	●	15%	P	06/30/2023	●	●	●
Sheriff - Update QuickAPP to current Technology	Huggins	M	●	30%	P	05/31/2023	●	●	●
Utility Network Migration - Phase 1 Planning	Huggins	M	●	55%	P	05/31/2023	●	●	●
Emergency Management - Planning Phase for FY24 Know Yo...	Huggins	M					●	●	●
Emergency Management - Planning Phase for FY24 Storm In...	Huggins	M					●	●	●
Sheriff - Update Crimeviewer Application to current Technolo...	Huggins	L							
Utilities - Valve Application	Huggins	M							

Project Updates – Maintain Production

Project Name	ELT	Size	Scope	% Complete	P/R	Current Date	- 2	- 1	Schedule
Countywide 3D Basemap Enhancements	Huggins	L	●	90%	R3	09/30/2022	●	●	●
GIS Architecture Review	Huggins	M	●	80%	R1	04/30/2023	●	●	●
Upgrade GIS/ESRI Server Software to 10.9.1 (previously 11.0)	Huggins	L	●	30%	R1	07/31/2023	●	●	●
Enhancements to Sharepoint Attachment Process	Huggins	M							
Pilot Project for Vector Tile Package	Huggins	L							

Project Updates – Closed Projects

Project Name	ELT	Size
GIS Data Catalog in Portal - Phase 2	Huggins	L
Road Centerline/Site Address Point Data Cleanup	Huggins	XL

ESRI Engagement – Utility Network

- The Utility Networks replaces the Geometric Network and leverages the new ArcGIS Pro platform instead of ArcMap platform (being deprecated)
- Utilities Department
  - GIS Impact: Water, Sewer, Reclaimed Feature Datasets
  - Software Impact: Cityworks Asset Management, SAP Billing, GraniteNet CCTV
  - FY24/FY25 Completion
- Public Works Department
  - GIS Impact: Stormwater Feature Datasets
  - Software Impact: Cityworks Asset Management

Extend your utility enterprise

Esri Engagement - ArcGIS Indoors

- ArcGIS Indoors location technology provides visibility into asset locations, patterns of use, and analytics to understand spaces and find smarter ways to interact with our built environments.
  - Space Planner
    - Workspace reservation functionality
  - Maps
    - Indoors kiosk web map
    - Indoors viewer web app
    - Indoors mobile for IOS and Android
  - IPS
    - Adds "blue dot" location to the Indoors mobile app for IOS, Android, Field Maps, and Runtime apps

- DAS/Facilities Pilot Space Planner of Criminal Justice Center
- Emergency Management Pilot for Shelter Management

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ESRI Engagement – Architecture

- The Esri GIS System Architecture engagement reviews current system architecture and makes recommendations for future architecture based on the County roadmap.
- Enterprise Review Project
  - Scope: All Enterprise Architecture, Safety & Emergency Services, Sheriff
- PAO Review Project
  - Scope: Property Appraiser's Office Architecture, and Some Enterprise Architecture Overlaps

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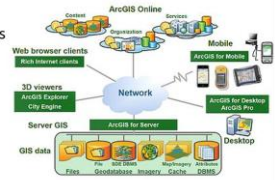
ESRI Engagement – GIS Monitoring Server

- Dedicated GIS Server
- Proactive detection of issues
- Monitoring of the GIS servers and services beyond typical server monitoring tools
- Analyze GIS performance over time and tune configuration
- Status: April/May Completion

ArcGIS Monitor

ESRI Engagement – ArcGIS Urban

- Issues like housing availability, sustainability goals, and economic changes are compelling cities to better plan for the future. ArcGIS Urban enables planners and design professionals to collaborate across teams with a web-based 3D application that supports scenario planning and impact assessment.
- Housing and Community Development
- Forward Pinellas
- Scope: ArcGIS Urban Initial Operating Capability and Additional Ad Hoc Consulting
- Status: Ongoing Ad Hoc Consulting

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GIS Conference Awareness

- Esri Developer Summit
  - This Month!
  - Palm Spring CA
- Esri Southeast User Conference
  - April 18 to 19
  - Atlanta GA
- Esri User Conference
  - July 10 to 14
  - San Diego CA
- Esri Infrastructure Management Conference
  - October 10 to 12
  - Palm Springs CA

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GIS Conference Awareness – By the Numbers

- Esri Developer Summit
  - BTS 1
- Esri Southeast User Conference
  - BTS (2/3)
  - Public Works (5/8)
  - Utilities (1/1)
  - Property Appraiser's (2/2)
  - Emergency Management (0/1)
  - Safety & Emergency Services (1/1)

  (Allotted Pass / Requested Pass)

SE UC Presentation: Implementing the Esri Address Management Solution at Pinellas County

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GIS Conference Awareness – By the Numbers

- Esri User Conference 16 of 25 Passes
  - BTS (5)
  - PAO (1)
  - Solid Waste (1)
  - DAS (1)
  - OAM (1)
  - Utilities (5)
  - SES (1)
  - PCSO (1)

- Esri Infrastructure Management Conference
  - OAM (1)

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Esri Instructor Led Training

- Migrating to ArcGIS Pro – April 4 & 5
  - ArcGIS Pro Desktop replaces ArcMap Desktop
  - Fifth Time County Hosted this Class

Learn ArcGIS Your Way

Online, in a classroom, in a group, on your own.

	User	Department
1	Lisa Baltus	Parks
2	Eric Boettcher	Parks
3	Steve Harper	Parks
4	Pam Leasure	Parks
5	Corey Gray	Planning
6	Kyle Simpson	Forward Pinellas
7	Emma Dontis	Public Works
8	Alexandra Rieman	Public Works
9	Stacey Day	Public Works
10	Kathleen Gavagan	Public Works
11	Eduardo Estremadoyro	Public Works
12	Rachel Blank	Utilities
13	Ashley Flaherty	PAO
14	Jackie Warr	PAO
15	Blake Patton	PAO
	Joe Borries	Emergency Mgmt

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Esri Instructor Led Training

- Location Analytics Using ArcGIS Insights – April 17 & 18
  - ArcGIS Insights is like Esri's version of Microsoft PowerBI
  - Second Time County Hosted this Class
  - 2 Spots Still Available!

Learn ArcGIS Your Way

Online, in a classroom, in a group, on your own.

	Name	Dept
1	James McDermott	Department of Administrative Services
2	Rob Burnes	Public Works
3	Ben Rothermel	Public Works
4	Shawnee McQuillen	Solid Waste
5	Edin Grimaldo	Office of Asset Management
6	Eric Pieniak	Utilities
7	Rachel Blank	Utilities
8	Alan Shellhorn	Planning
9	Jacob Stephen	Supervisor of Elections
10	Phil Conner	BTS
11	Terry Jiang	eGIS
12	Toni Smith	eGIS
13	Thuyen Buendia	eGIS
14	April Klimkoski	eGIS
15	Kelly Dickie	eGIS

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Open Discussion

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Next Meeting/Adjournment

Working Group Meetings:
- April 13, 2022
- May 11, 2023
- June 8, 2023
- July 13, 2023 (Reschedule?)
- August 10, 2023

Steering Committee Meetings:
- March 23, 2023 (New Date)
- June 1, 2023
- September 7, 2023
- December 7, 2023

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