

T E X A S
GIO

Geographic Information Office

~~3rd~~
~~2nd~~ Quarter

Virtual GIS Community Meeting

~~April 30, 2020~~

July 21, 2020





Welcome	2:00 – 2:10
Project Updates	2:10 – 2:40
Roll Call	2:50 – 3:10
Tessellations, Inc.	3:10 – 3:40
Audience Q&A	3:40 – 4:00



Since we last met....



- ✓ 2020 Texas GIS Forum Update
- ✓ GIO Report Interviews
- ✓ Job Opportunities
- ✓ TWDB Flood Program
- ✓ StratMap GIS Data Coordinator

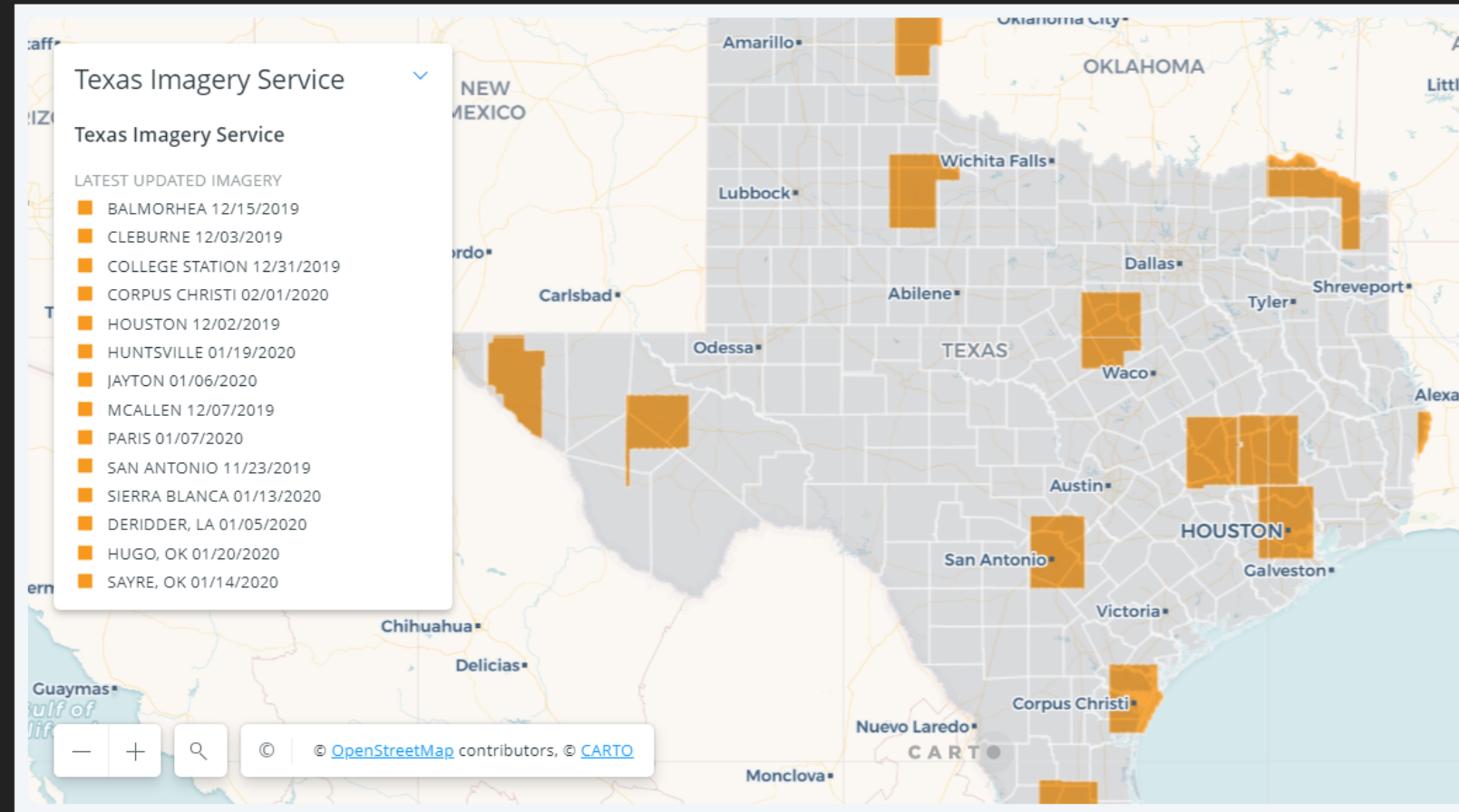


TEXAS IMAGERY SERVICE

- Aerial imagery from Google.
 - **New imagery provider coming Sept 1!**
- 6-inch pixel resolution
- Statewide coverage
 - 2011 - present
- Automatic Imagery Updates
 - Entire state refreshed every 3-4 years
- Streaming data service
 - WMTS/WMS links
- Annual subscription fee
 - Join any time at prorated fee



Latest Updated Imagery





TEXAS IMAGERY SERVICE

- Image updates from Google will end **August 31, 2020**
- Continued access to all past imagery



- **New imagery** coming **September 2020** from **AppGeo**® and



- Statewide 2018 imagery will refresh rural areas
- Statewide 2020 imagery coming early 2021

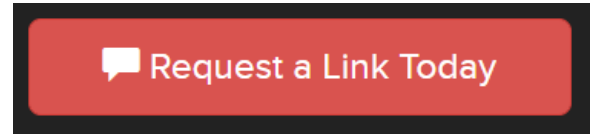




TEXAS IMAGERY SERVICE

Cost Model

- **No change**
- Plan budgets for FY2021 same as current



<https://www.tnris.org/google-request/>

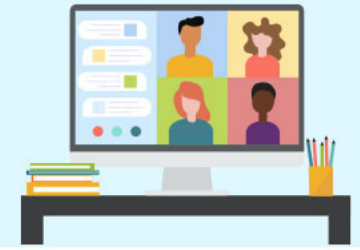
State Agency		
Level	Data Usage*	Costs**
Tier 1	Power	\$375,000
Tier 2	Advanced	\$125,000
Tier 3	High	\$62,500
Tier 4	Moderate	\$31,250
Tier 5	Minimum	\$15,625

Regional Agency
Flat fee \$15,000**

Local Agency
Flat fee \$6,000**

* Data usage is calculated based on an annual metric of service requests.
** Cost does not include DIR Fee



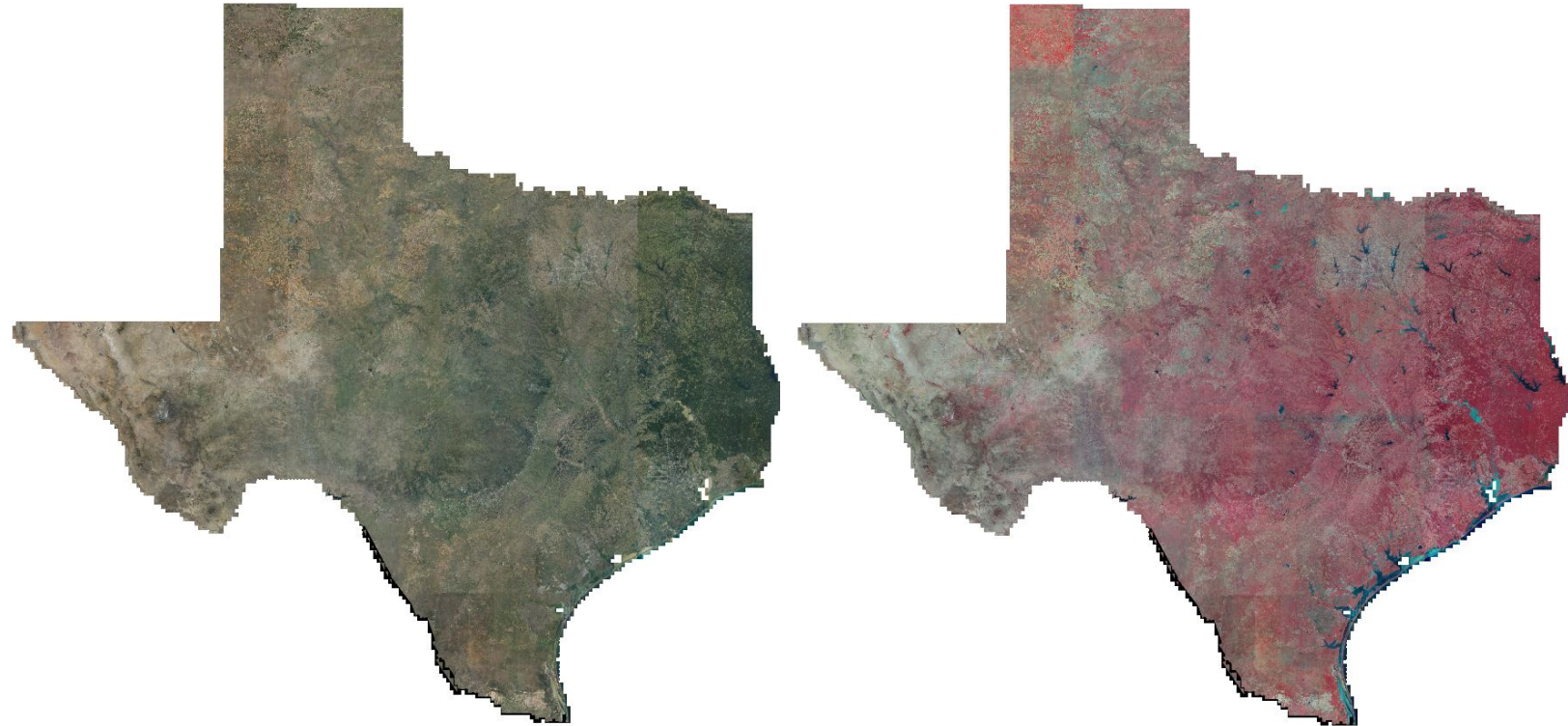


NATIONAL AGRICULTURE IMAGERY PROGRAM

- 2020 NAIP acquisition for TX: *In Progress*

Specs

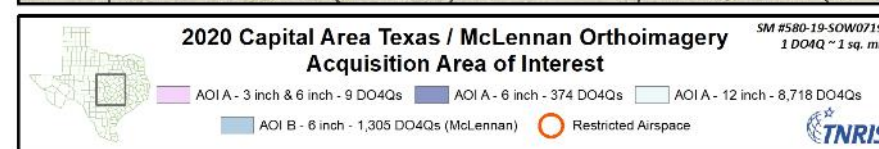
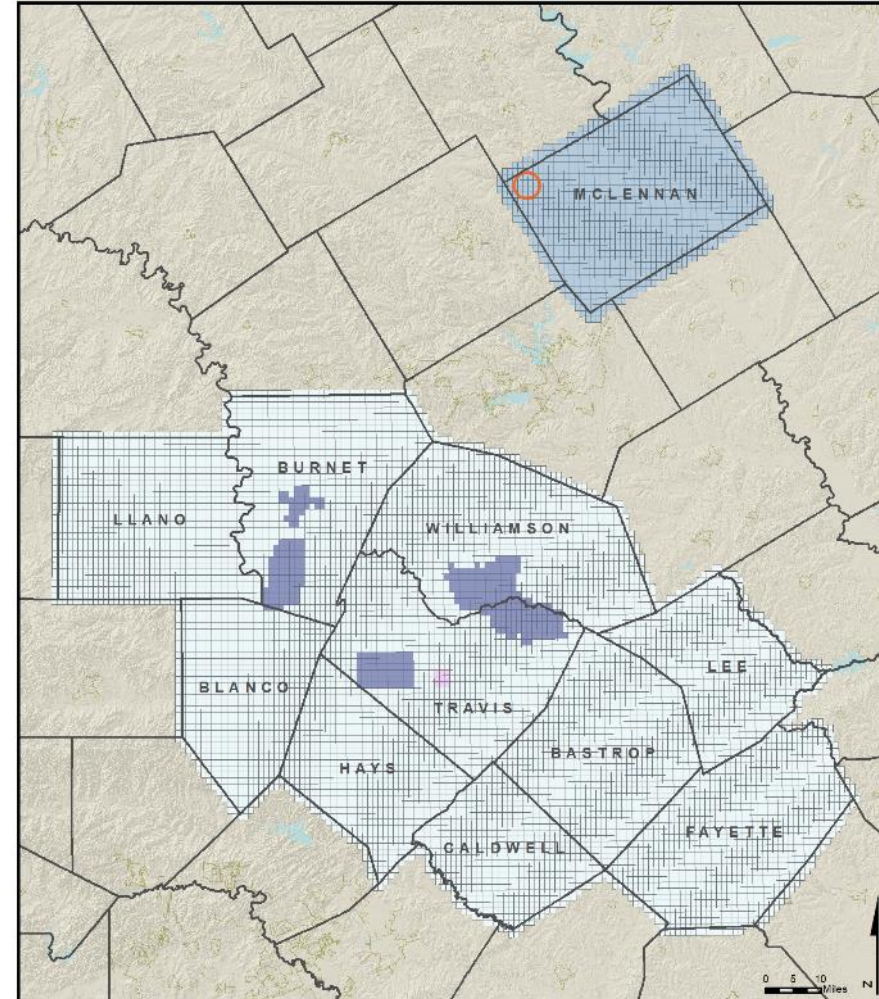
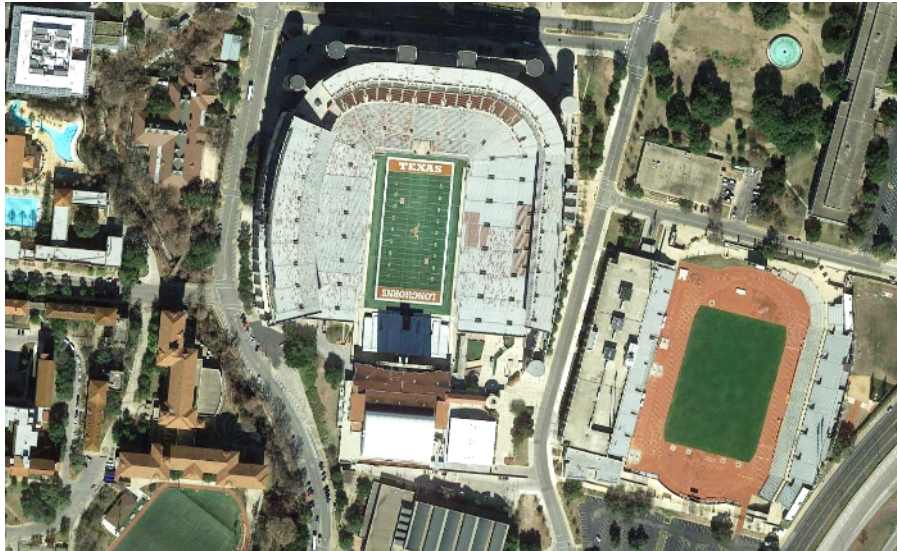
- 60-cm (2-foot)
- 4-band
- DOQQs
- Status: Acquisition in progress
- Public domain
- Available from TNRIS: 2021

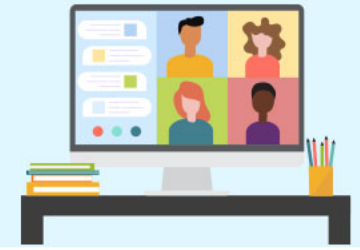




2020 CAPITAL AREA / McLENNAN CO

- 3-inch / 6-inch / 1-foot
- 4-band
- DO4Qs (.jp2)
- Status: Delivered
- Available: Aug 2020

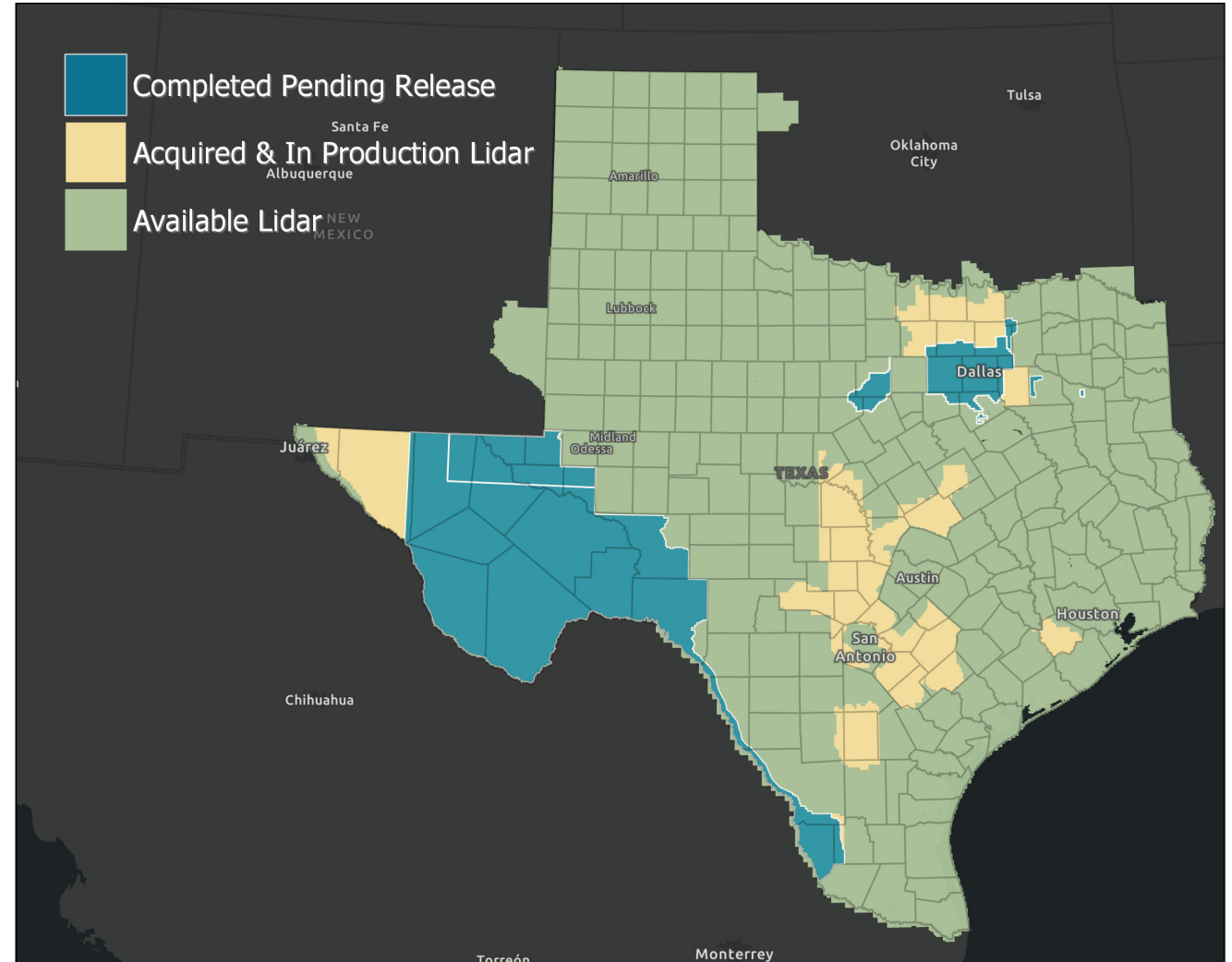




Texas Lidar Coverage 2020

Statewide Lidar Coverage Update for Texas

- Statewide availability of lidar is estimated for Fall 2020-Summer 2021 depending on release of the datasets by the USGS.
- Two StratMap lidar collections and two USGS lidar collection have completed and are pending release on [Data.TNRIS.org](https://data.tnris.org)

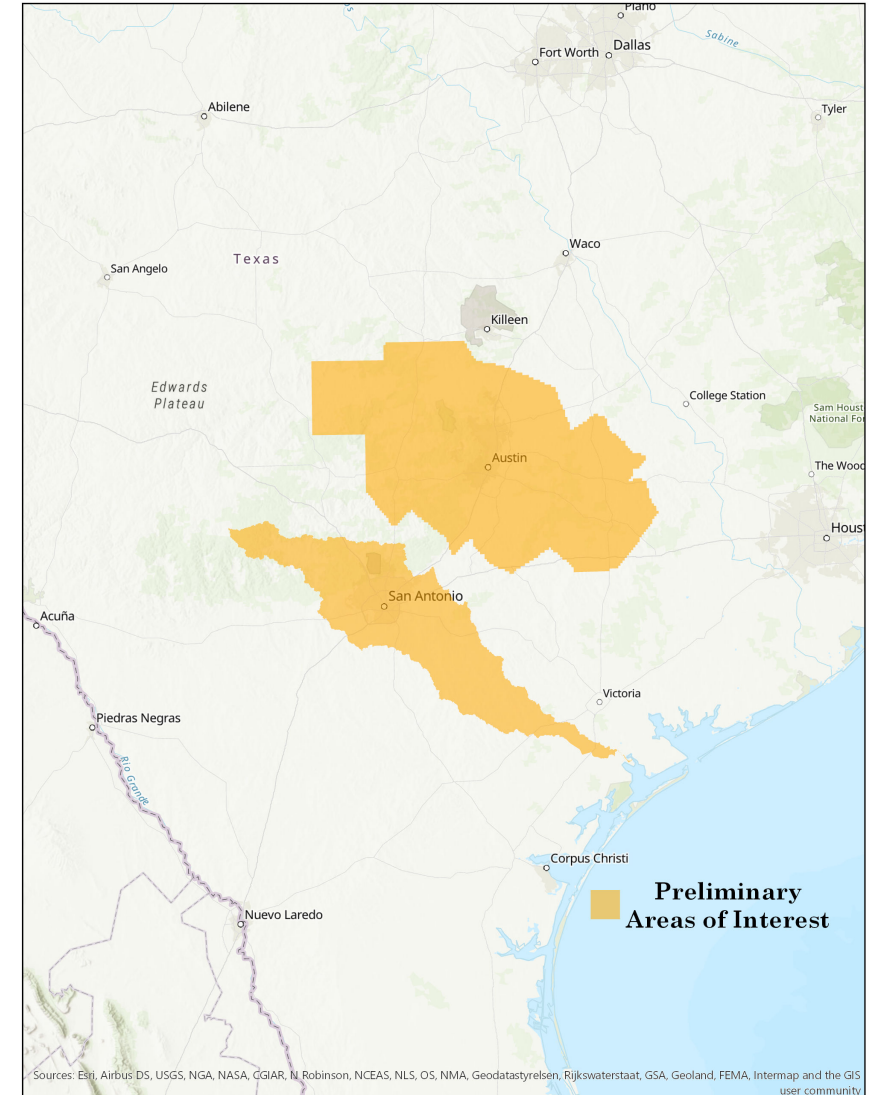




StratMap Winter 2020-2021 Season

Central Texas Region Data Acquisition for Lidar and Orthoimagery Update

- Local and regional partners are interested in pursuing ortho and lidar for large portions of the central Texas regions.
- Current plans are to acquire the lidar and orthoimagery as separate projects.
- If interested in participating, the deadline to submit areas of interest and be part of the statements of work is July 21.





A StratMap Funded Project

StratMap Data Initiatives on the Horizon

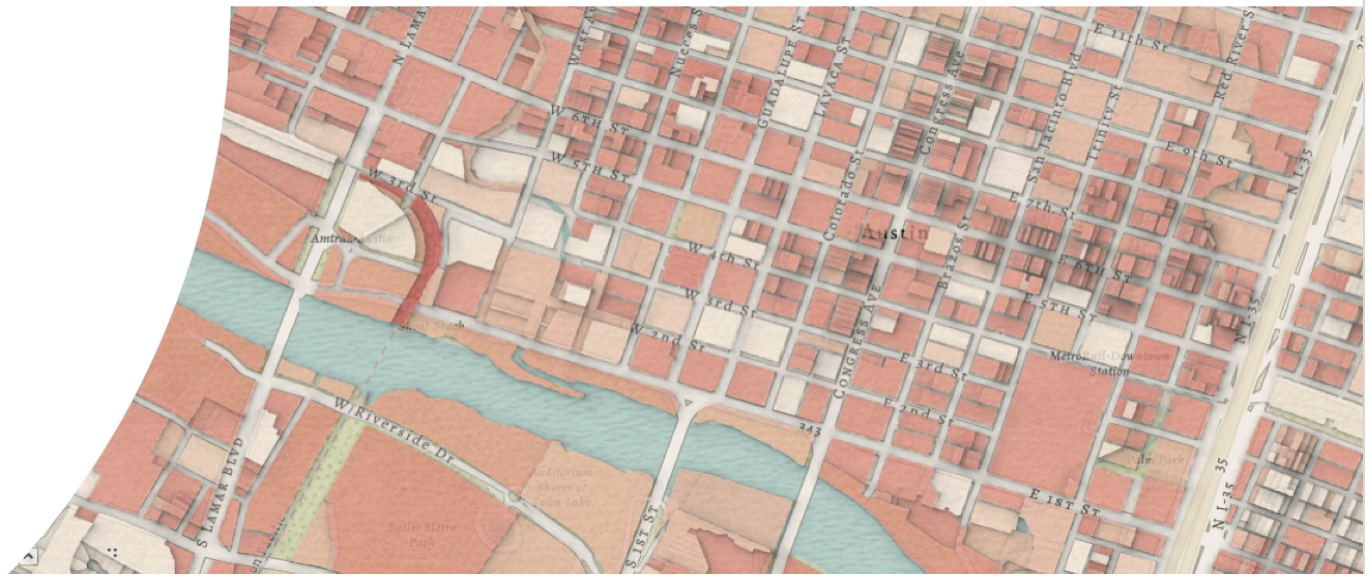
- Full Classification of Federal Lidar Projects.
 - Statement of work is in formal review and is anticipated for release in the coming months
- High Quality Bathymetric Data for Rivers Coastal Bays
 - Ongoing efforts to coordinate and define area of interest in coastal bay areas for pilot project. Currently evaluating an AOI over the Trinity and Galveston Bay areas.
 - Currently coordinating and planning data development in Texas with NOAA, TPWD, NRCS, TWDB, and USGS.
 - **Elevation Derived Hydrography (Ele-Hydro)**
 - Ideally will be coordinated to occur with or post inland bathymetry data collection or recent Lidar collections
 - USGS has released specifications for Ele-Hydro data collection (<https://www.usgs.gov/news/usgs-specifications-deriving-hydrography-elevation-data-are-now-available>)





Geographic Data Coordinator Introduction and Year 1 Goals

- Research and Familiarization with Land Parcels and Address Points in Texas.
- Standardization and Distribution of 2020 data.
- Refresh of TNRIS resources website resources.
- Work on solutions to fill gaps for missing Land Parcel and Address Point data.
- Formal outreach





A StratMap Funded Project

Historic Imagery Bulk Scanning Project

StratMap is currently reviewing proposals for the 2020 Bulk Scanning Project for the TNRIS Historical Imagery Archive.

The project will be funded by StratMap and scanning will take place over the next year, concluding in May 2021.

Advantages to TNRIS and the public:

- 100,000+ additional scanned images
- 750+ additional fully scanned collections
- Reduced turnaround time for Historical Imagery Orders
- Set foundation for Phase II

The screenshot shows the TNRIS (Texas Natural Resources Information System) website. The page title is "Tom Green USDA Historic Imagery 1938". The header includes "TNRIS TEXAS NATURAL RESOURCES INFORMATION SYSTEM" and "A Division of the Texas Water Development Board". Navigation tabs include "DETAILS", "IMAGES", "ORDER", and "CONTACT".

Metadata

- Source Name: United States Department of Agriculture (USDA)
- License: [Public Domain \(Creative Commons CC0\)](#)
- Mission Identifier: BRJ-1938
- Category: Historic Imagery
- Archive Media Type: Black and White, Color Infrared, Natural Color prints. Line Indexes also available for most counties.
- General Archive Scale: 1:20,000
- Scan Status of Frames: **Complete** (highlighted with a red box)

Download

Click a polygon in the map to download available index.

The map shows a grid of polygons over a geographic area including Reagan, Irion, Mertz, San Angelo, Tom Green, Concho, and Eden. A search bar at the top right says "Search for Places in Texas". A legend on the right indicates "Default" (off), "INDEX" (selected), and "PREVIEW" (off). The footer of the map area says "© CARTO, © OpenStreetMap contributors".



Roll Call

The word "Roll Call" is written in a large, bold, black serif font. The letter 'l' in "Roll" is replaced by a detailed, grayscale illustration of the Texas State Capitol building, showing its iconic dome and spire.

Explore Current GIS Projects

Geospatial Technology Services



Texas General Land Office
George P. Bush Commissioner

All Themes

Search



Enhancements to Mapping Applications

Energy Map of Texas, STORM Viewer, Oil Spill Mapper, CDBG Viewer, ...

www.glo.texas.gov/gis

Preview



George P. Bush's Energy Map of Texas 2020

Updated Texas energy resources, new look, enhanced functionality

CommissionerBushMaps.com

Preview

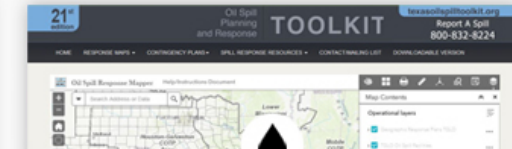


Colonial Waterbird Rookeries

Updated layer of Texas coastal nesting sites

[Details](#)

Preview

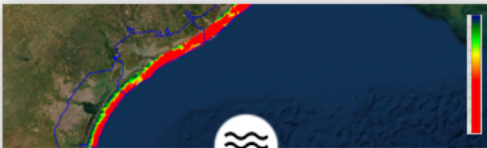


Oil Spill Toolkit, 2020 Update

Multi-purpose oil spill response tool and decision-support resource

www.glo.texas.gov/ost

Preview



TxSed 3D Mapping Pilot Project

Texas Sediment Resources Geodatabase & Mapping Viewer

cgis.glo.texas.gov/txsed

Preview



GLO Drone

Standards & Guidelines for the Use of Drones at the Agency

[Details](#)

Preview



Resource Management Codes

Update to Codes that Protect Cultural & Natural Resources on State-Owned Submerged Lands

cgis.glo.texas.gov/rmc

Preview



Upcoming: 2020 Coastal Ownership Parcel Update

Used by Field Operations for Coastal Permitting

[Details](#)

Preview

Texas Parks & Wildlife Department



- Establishment of internal TPWD GIS Workgroup
- Consolidating all TPWD ESRI customer numbers (9) into one Agency account
- Merging 4 AGO subscriptions into one Agency AGO account

TxDOT GIS HUB

Your resource for everything GIS at TxDOT

Welcome to the TxDOT GIS Hub, your source for GIS information and resources. Explore all the ways GIS can help you get your work done, such as accessing data and maps, or requesting software and training, plus so much more.



Home

open
DATA
portal

Open Data Portal



ArcGIS Online



TxDOT GIS Portal



TxDOT Apps Hub



SWIGGIS

**07/23 TH: SWIGGIS & URISA TX
VIRTUAL TRIVIA NIGHT (ESRI UC)**

DETAILS & RSVP:

[HTTPS://WWW.URISATEXAS.ORG/EVENT-3874268](https://www.urisatexas.org/event-3874268)

**UPCOMING: GISP WORKSHOP &
VIRTUAL INTERVIEWS PANEL**

OPEN OFFICER POSITIONS & WELCOMING MEMBERS

SWIGGIS.AUSTIN@GMAIL.COM

Connect with SWIGGIS

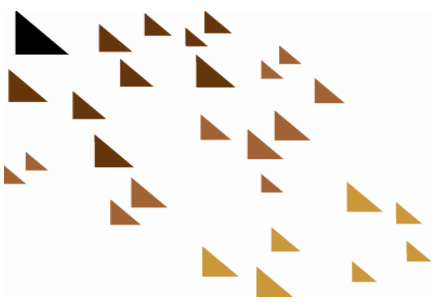
swiggis.org | [Meetup.com](https://www.meetup.com) | [LinkedIn.com](https://www.linkedin.com) | [Twitter](https://twitter.com)



Working with Real Time Traffic Data: Update, Visualize, Analyze and LinkIT with Reports

Presented by Trey Nunn trey.nunn@tessellations.us





Working with Real Time Traffic Data

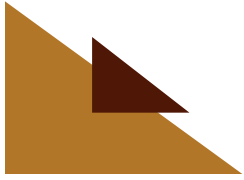
Update, Visualize, Analyze and LinkIT with Reports

Presenter: Trey Nunn

July 21, 2020



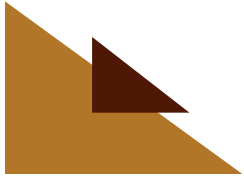
8505 Technology Forest Place, Suite 1104, The Woodlands, Texas 77381
www.tessellations.us



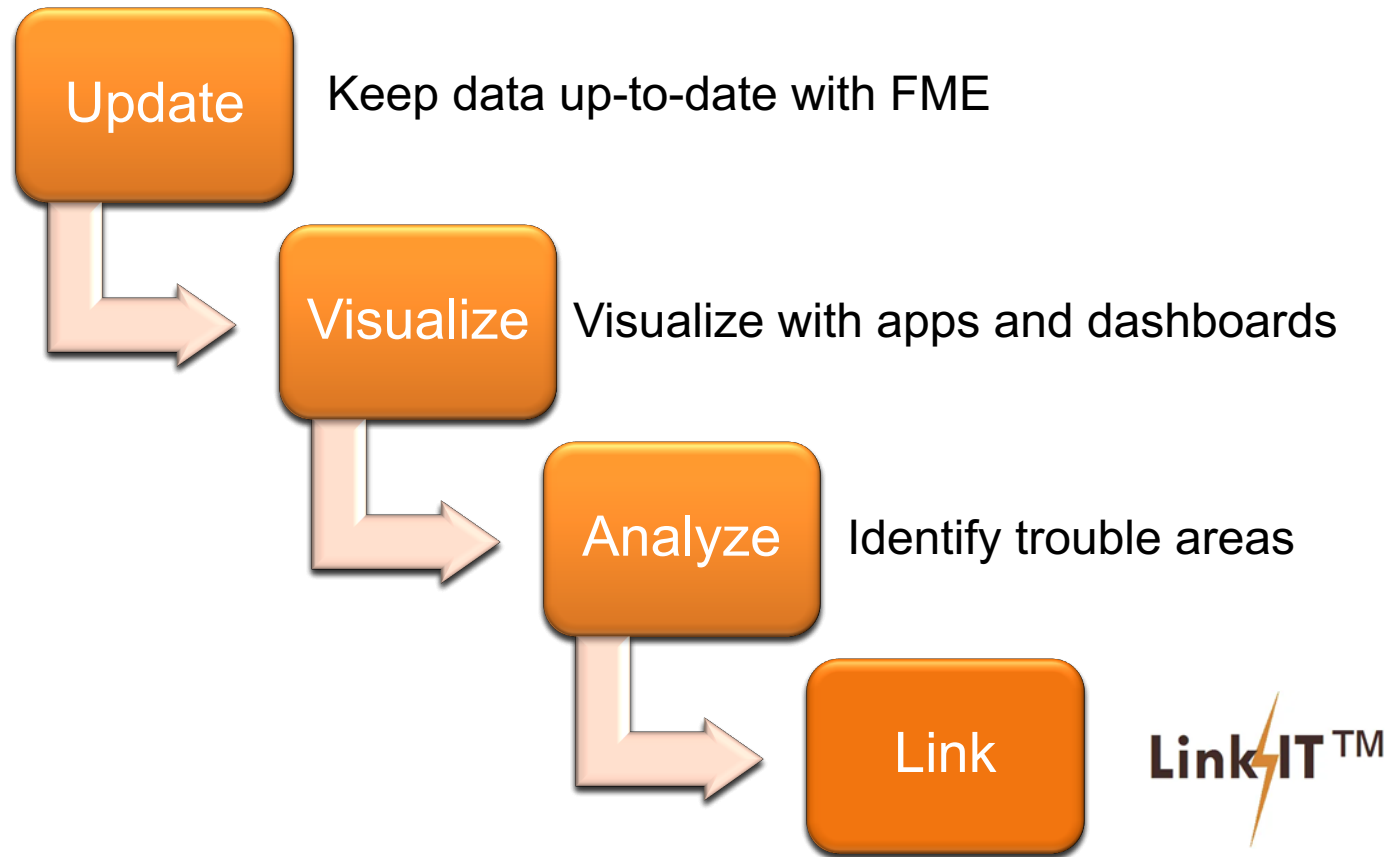
Tessellations Inc.

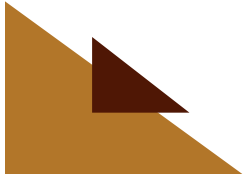
- ▶ GIS services for the past 22 years
- ▶ Support full stack of Esri products – Desktop, Enterprise, ArcGIS Online
- ▶ Software development, data management and manipulation, image processing, business intelligence and training
- ▶ Oil and Gas, Local and State government
- ▶ Partners – Esri, Safe software (FME), Planet and Microsoft





Austin Real Time Traffic Incidents - Process

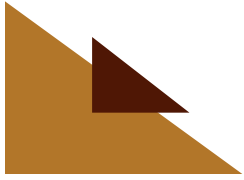




What is FME?

- ▶ FME – Feature Manipulation Engine
- ▶ ETL Capabilities
- ▶ Connect to over 450 formats and applications
- ▶ Transform and manipulate content
- ▶ Automate workflows to run on regular schedules





Austin Traffic Incidents FME Tasks

Austin Open Data Portal JSON to Tabular Rows Detect Changes .bat Task Scheduler



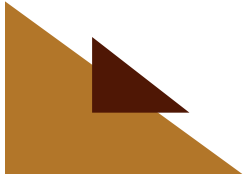
Traffic Data API

Lat/Long Attributes

Insert/Update

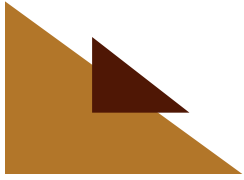
FME Server



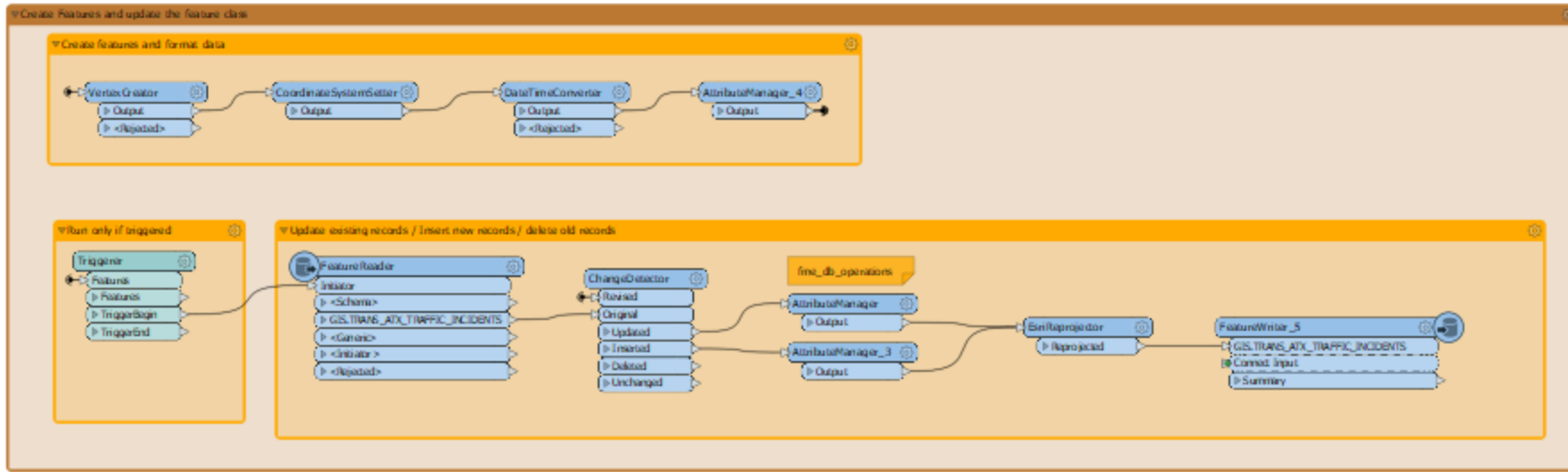
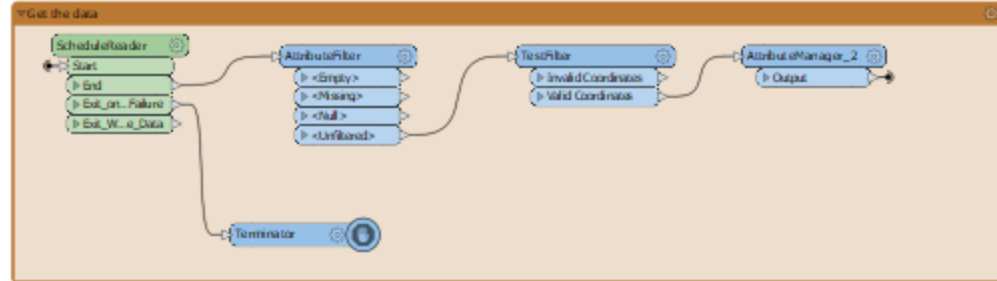
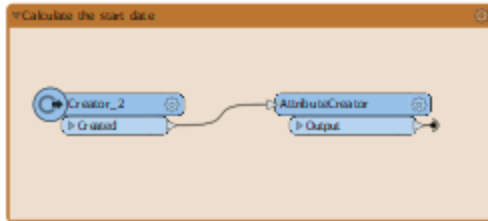


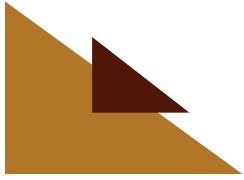
Let's take a look...



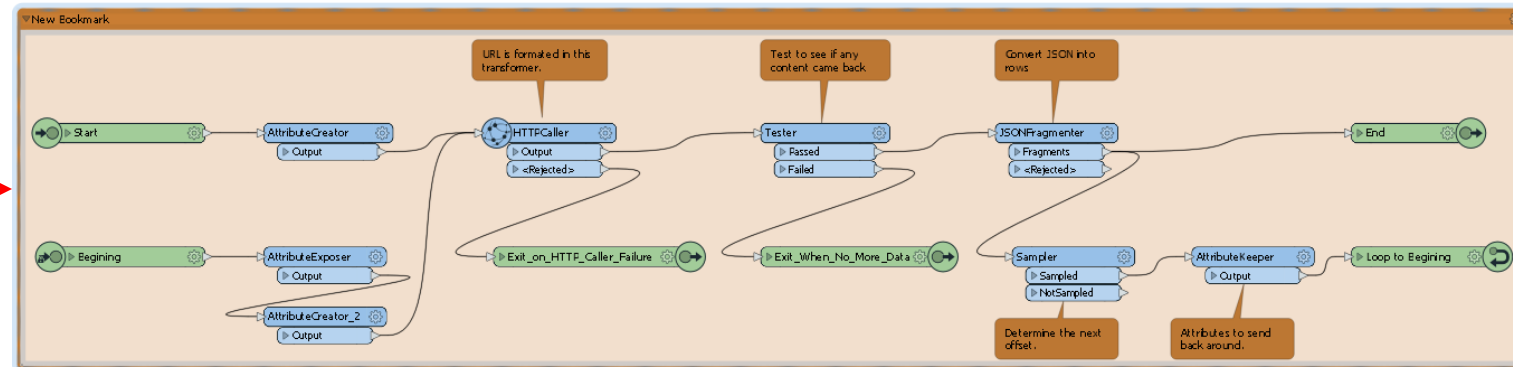
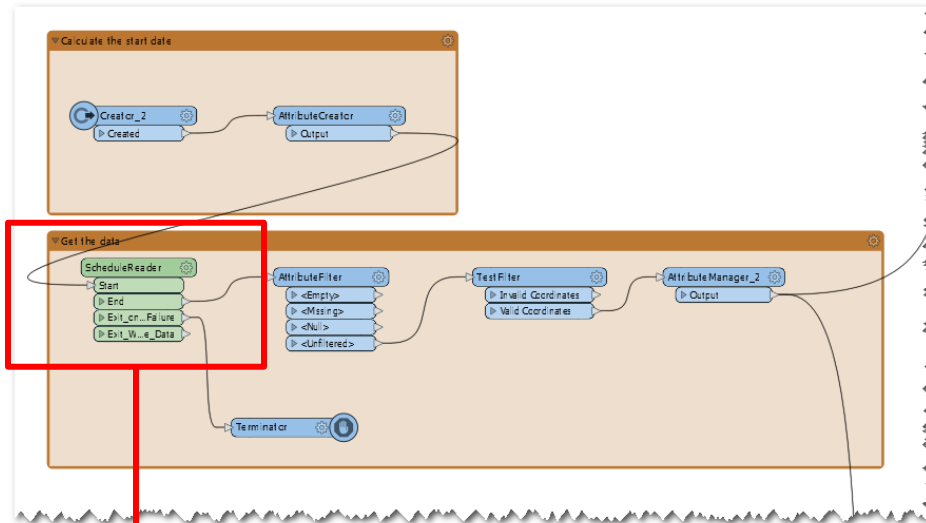


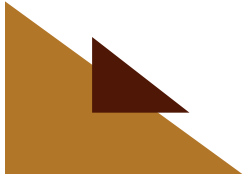
FME Work Bench



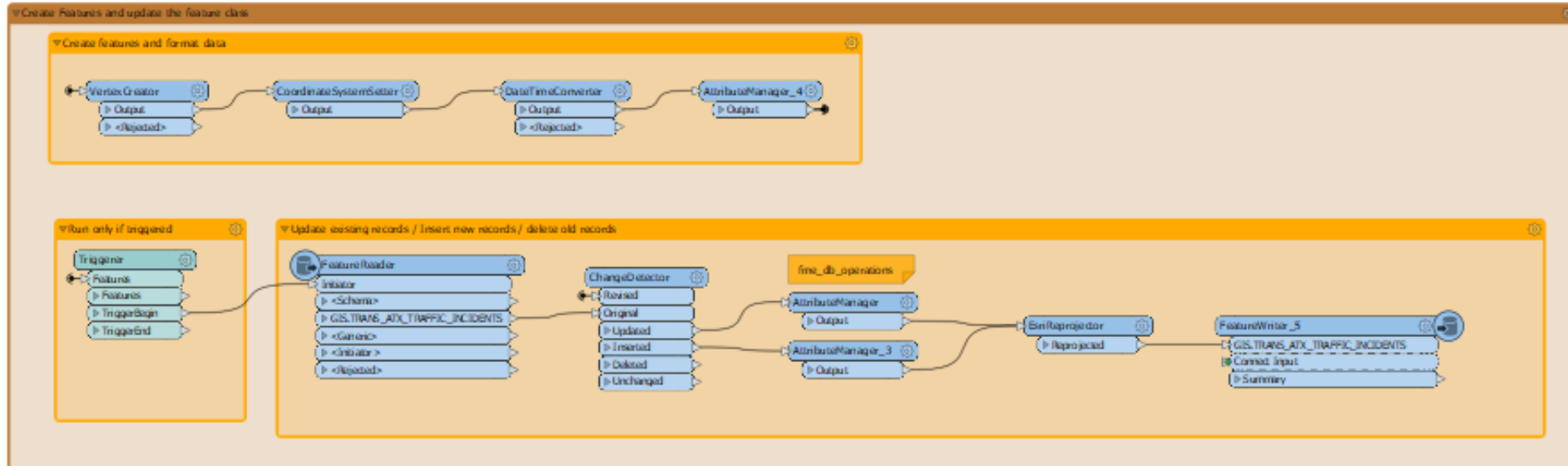


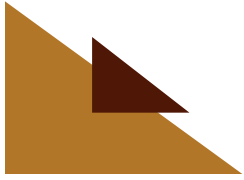
Download Data





Create Feature and Update Feature Class

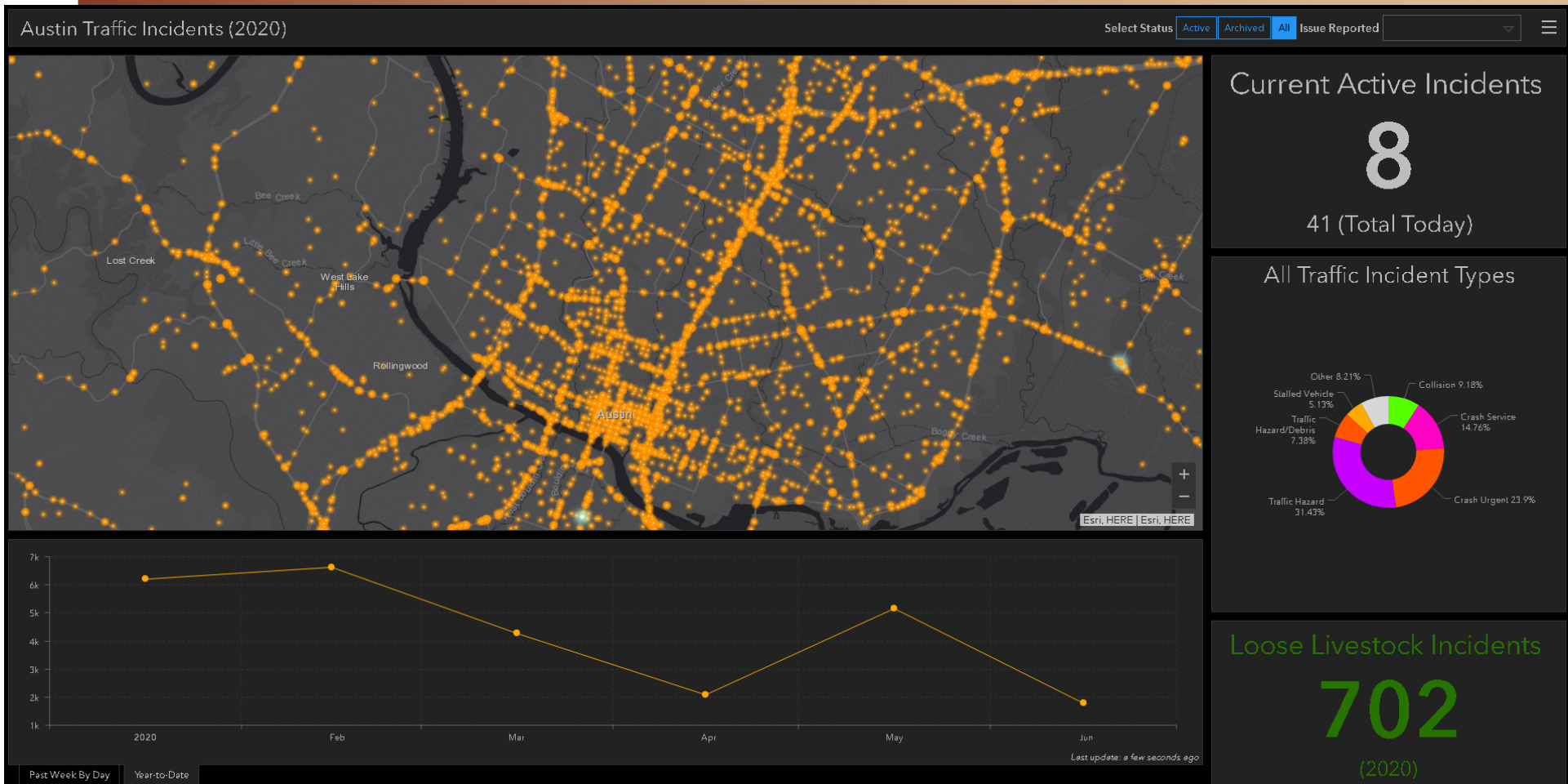


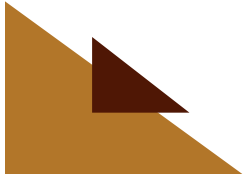


Traffic Incident Dashboard



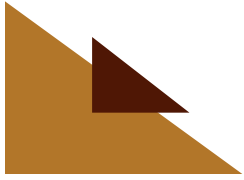
Traffic Incidents – By Month



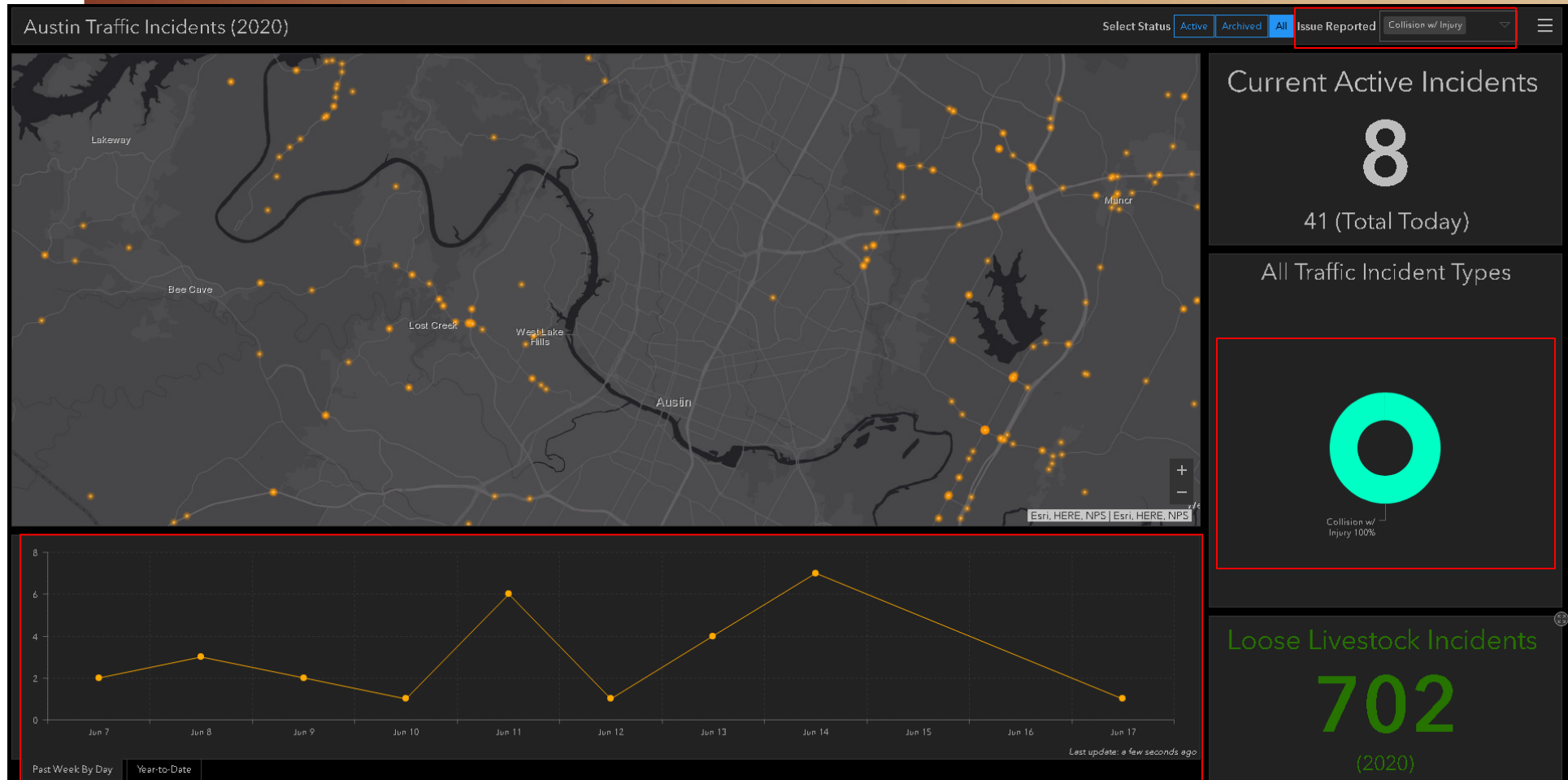


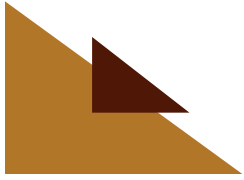
View Active Incidents Only



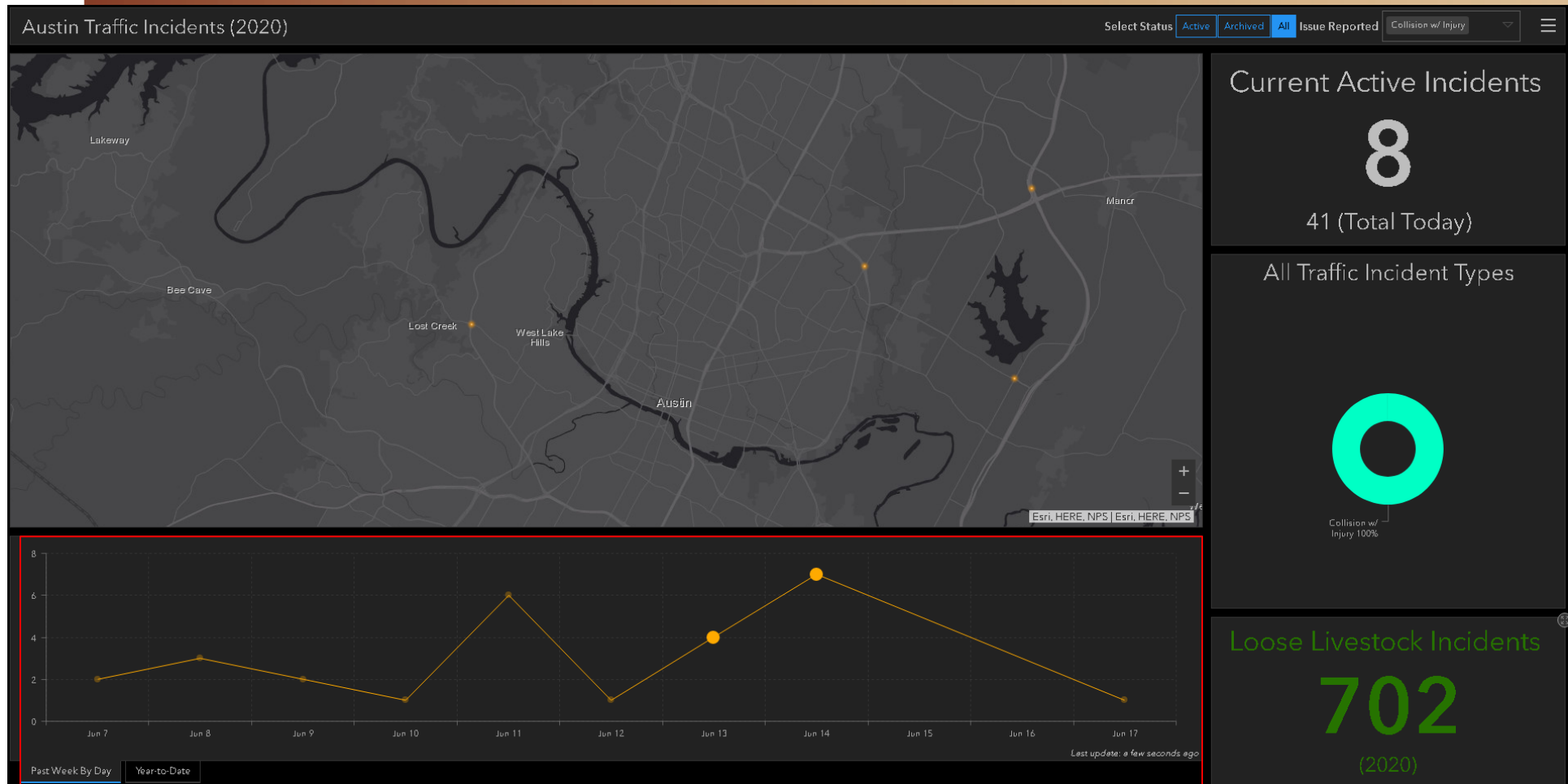


Filter by Issue Reported



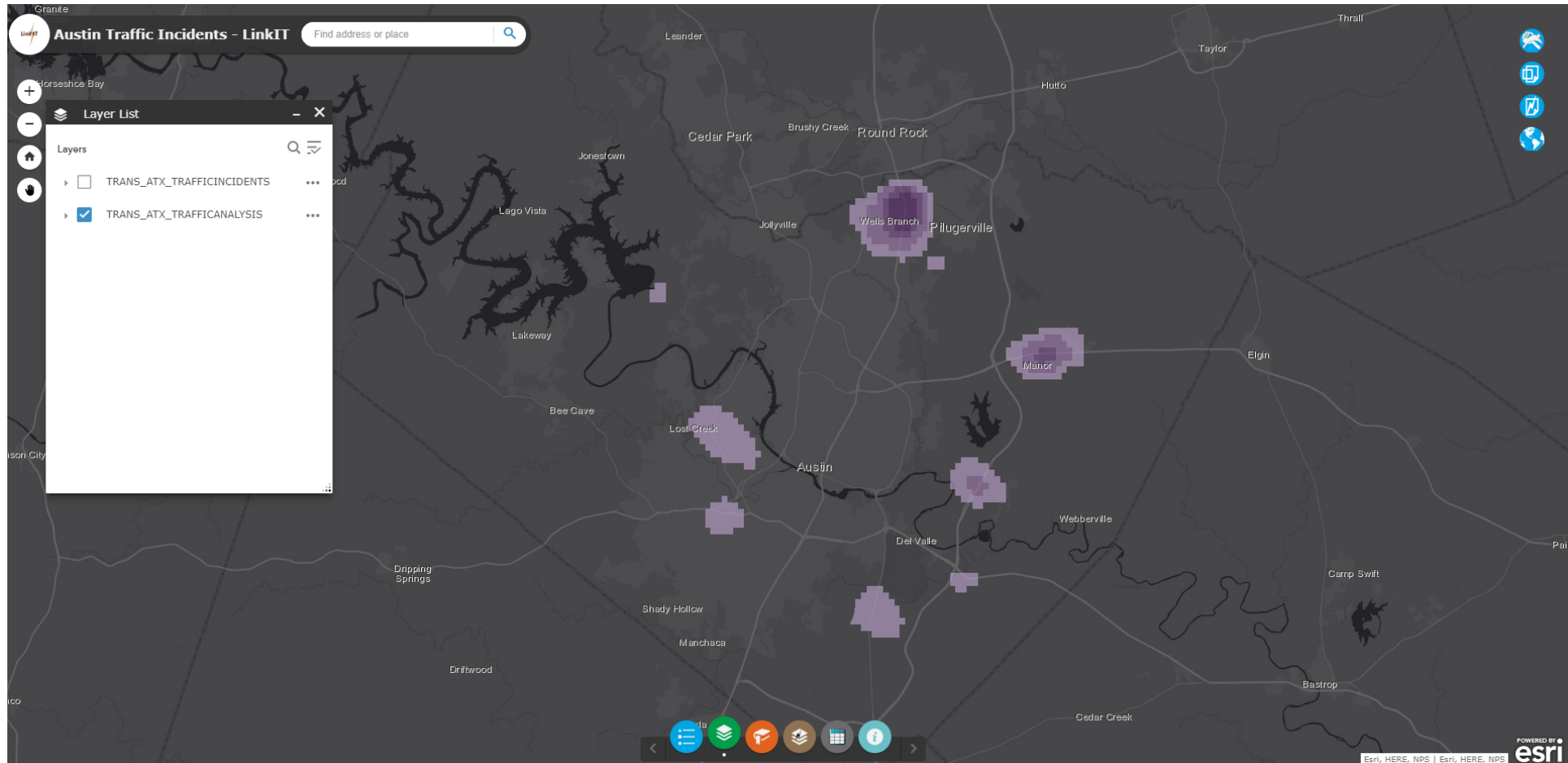


Further Filter by Selecting Dates

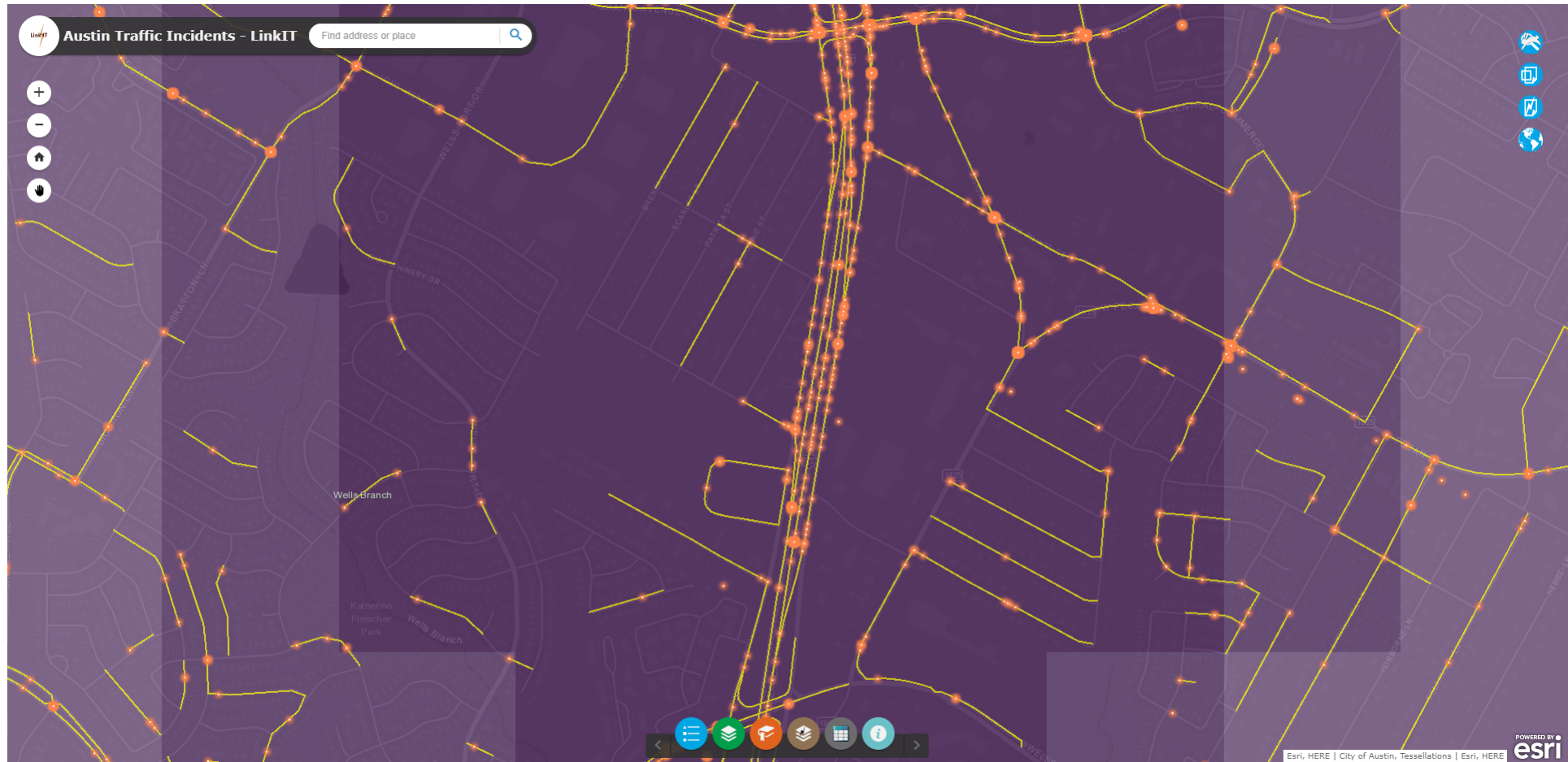


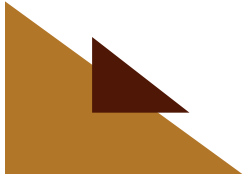
Kernel Density Analysis

Analyzing Collision Traffic Incidents



Street Hotspot Analysis





LinkIT

Austin Traffic Incidents - LinkIT Find address or place Press down to start and let go to finish

Map controls: +, -, Home, Stop, Full Screen, Print, Measure, Share, Refresh, Map Style, Layers, Info, Help

LinkITServerApp-SearchResults

UnGroup Group Clear Selection Export to CSV

No of records found: 2

Display Name	Path	Layer	Field	Date Modified
1570742337.jpg	N:\Tessel-PC8_DATA_F\Projects\Tessellations\AustinTrafficIncidents\documentation\docs\reports\LinkIT_Demo\Photos	Austin Traffic Incidents	report_id	7/7/2020
20191010_Incident_37.pdf	N:\Tessel-PC8_DATA_F\Projects\Tessellations\AustinTrafficIncidents\documentation\docs\reports\LinkIT_Demo\Reports	Austin Traffic Incidents	report_id	7/13/2020

City of Austin, Tessellations **esri** POWERED BY



No Documents Linked... Yet

Austin Traffic Incidents - LinkIT

Find address or place

LinkITServerApp-SearchResults

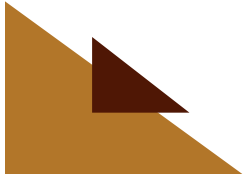
UnGroup Group Clear Selection Export to CSV

No of records found: 0

DisplayName	Path	Layer	Field	DateModified
NoRecords Found!!				

City of Austin, Tesselations

POWERED BY esri



Update Index

The screenshot shows the LinkIT software interface with a map in the background. A dialog box titled "Index Status" is open, displaying the following information:

- Index:**
 - Name: AustinTrafficIncidents
 - Location: \\TESSEL-SERVER1\Test_data\LinkIT\AustinTrafficIn
 - Words: 375
 - Documents: 12
- Status:**
 - Elapsed Time: 0:00:02
 - Space Available: [Green progress bar]
- To Index(local):** 12 files, 1,173 Bytes
- Indexed:** 12 files, 1,173 Bytes
- Current Document:**
 - Name: 20200701_Incident_26.pdf
 - Location: N:\Tessel-PC8_DATA_F\Projects\Tessellations\Austin T
 - Type: PDF
 - Size: 174786
 - Words: 50
- Website:**
 - Pages Visited:
 - Download Size:
 - Download URL:
- Log:**
 - \LinkIT_Demo\Reports\20200322_Incident_44.pdf
 - Reading file... N:\Tessel-PC8_DATA_F\Projects\Tessellations\AustinTrafficIncidents\documentation\docs\reports
 - \LinkIT_Demo\Reports\20200701_Incident_26.pdf
 - Processing file name(s) and/or path(s)...
- Summary:**
 - 12 file(s) were added to the index.
 - 0 file(s) were removed from the index.
 - Indexing Complete.

Buttons at the bottom of the dialog include: Stop, Close, View Log, Start Indexing, Import User Synonyms, View User Synonyms, Save, and Close.

At the bottom of the LinkIT window, there are buttons for: Add Folder, Add File, Add Website, Remove, Clear List, and a file type filter: *.wav *.wpg DRVSPACE...iso *.pub *.eps *.mpeg. The status bar shows "Monday, July 20, 2020 1:03:58 PM".

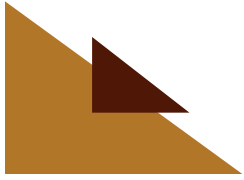


Documents Linked

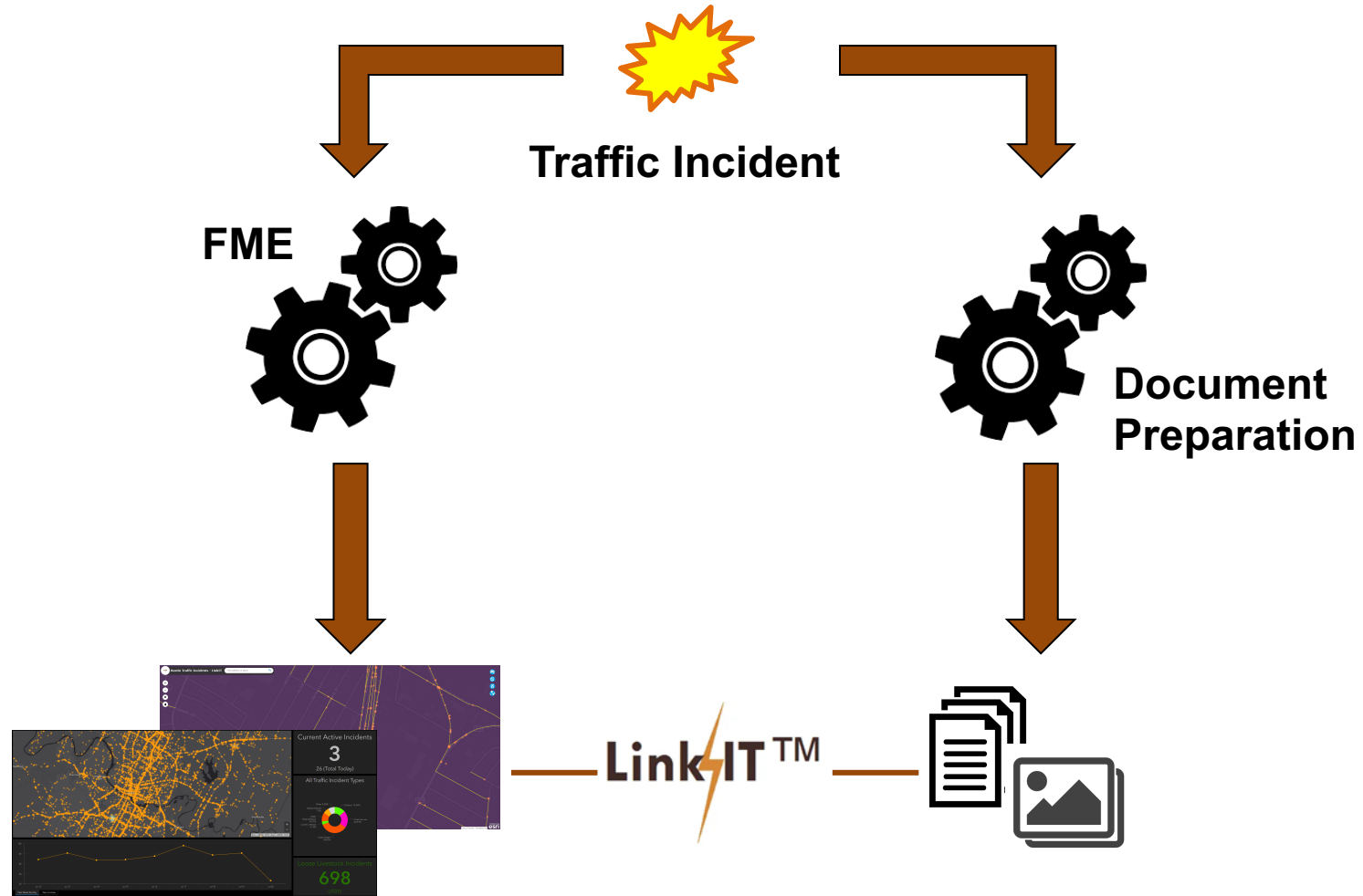
The screenshot displays a web application interface for 'Austin Traffic Incidents - LinkIT'. The main view is a map showing traffic incidents as orange dots along road segments. A red circle highlights a specific incident on a road. A search results window is open, showing two records:

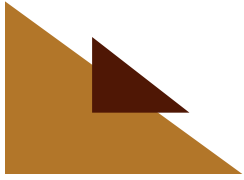
DisplayName	Path	Layer	Field	DateModified
1535760788.jpg	N:\Tessel-PC8_DATA_F\Projects\Tessellations\AustinTrafficIncidents\documentation\docs\reports\LinkIT_Demo\Photos	Austin Traffic Incidents	report_id	7/7/2020
20180901_Incident_88.pdf	N:\Tessel-PC8_DATA_F\Projects\Tessellations\AustinTrafficIncidents\documentation\docs\reports\LinkIT_Demo\Reports	Austin Traffic Incidents	report_id	7/14/2020

The interface includes a search bar at the top, navigation controls on the left, and a toolbar at the bottom. The bottom right corner features the text 'POWERED BY esri' and 'City of Austin, Tessellations'.



Recap





Q&A

Trey Nunn

936-321-1998

Trey.nunn@tessellations.us

Beni Patel

713-927-7062

beni@tessellations.us

Launching....

Tessel Bytes

You Tube

Esri tutorials – short 2-5 minutes

email Hugh if you want the link

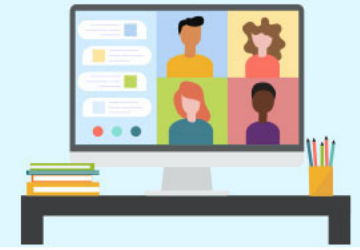
Hugh.bender@tessellations.us

Or visit our website

www.tessellations.us







Next Meeting

