

## GDW Meeting Summary for August 7, 2024<sup>3</sup>

**2024 H-GAC Aerial Imagery Cost Share and Lidar Update:** Thushara RanathungaRanatunga with H-GAC discussed the status of the 2024 H-GAC LidAR and Aerial Imagery and the next steps in cost share program. For 2024 Lidar, H-GAC is collecting letters of intent till August 4<sup>th</sup>. H-GAC will be applying for USGS 3DEP BAA Funding Application. Currently, H-GAC is at the beginning phase of the 2024 Aerial Imagery planning renewal cycle. Last imagery collection was in 2022, 6in RGB and color infrared for the 13 County area with 38 participants, in the 2022 ortho imagery. This year's vender has not been decided at this point as H-GAC is in the first phase and is surveying interest from the cost share partners. Should anyone have questions, please contact DARDS-GIS@h-gac.com or visit the project homepage.

**LightningGuest Presentation –2024 -ESRI User Conference Highlights with Abrin Brooks GIS State Legislative Updates and other news from- ESRI/TNRIS with Gayla Mullins from TNIRIS:** Abrin shared a StorymapGayla that gave an extensive review and summary of the 2024 ESRI User Conference, which took place at the San Diego Convention Center in San Diego, CA from Monday, July 15th to Friday, July 19th. During her presentation, Abrin delved into various statistics such as the total number of attendees both in person and virtually, as well as the number of sessions conducted. Although the Storymap was unavailable for sharing, a highlights video is available at [https://mediaspace.esri.com/media/t/1\\_50tzfrdd](https://mediaspace.esri.com/media/t/1_50tzfrdd). Additional links she shared: was joined by Lauren Kirk, Joey Thomas, and Ellen St. Romain to unveil the renaming of the Texas Natural Resources Information System (TNRIS). They announced that the group's new name is the Texas Geographic Information Office (TxGIO), following the successful passage of SB 712 and HB 2489. In addition to this announcement, Gayla and her team discussed recent GIS-related bills that have been approved at the state level. They also highlighted the availability of imagery content for Urban areas in 2022, Statewide imagery for 2020-2021, and the completion of Statewide Winter 2022/23 imagery acquisition. Notably, they shared that the Houston Galveston Pilot Area and the Bathymetric initiative project have commenced, with data delivery estimated for early 2024. Furthermore, it was revealed that registration for the 2023 Texas GIS Forum is now open. Updates about the forum can be found at https://tnris.org/texas-gis-forum/2023/. Lastly, the next Texas GIS Community Meeting is scheduled for October 27th, 2024. The plenary session video <https://www.esri.com/en-us/about/events/uc/plenary>, access digital sessions content <https://www.esri.com/en-us/about/events/uc/agenda/proceedings>, and the UC 2024 Recap video <https://www.youtube.com/watch?v=NGclZVsESgw>.

Renaming of the Texas Natural Resources Information System (TNRIS) to announce that the group's name has changed to the Texas Geographic Information Office (TGIO) after SB 712 and HB 2489 passed. Gayla and her team informed the group on some of the many GIS related bills that passed this session. Imagery content for Urban areas 2022, Statewide 2020-2021 imagery are now available with Statewide Winter 2022/23 imagery acquisition completed. Houston Galveston Pilot Area, and Bathymetric initiative project has started and estimates data delivery

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for early 2024. Announced that registration for 2023 Texas GIS Forum is now open. See <https://tnris.org/texas-gis-forum/2023/> for updates. The Next Texas GIS Community Meeting will be on October 27<sup>th</sup>, 2023.

**Guest Presentation – Geospatial Data Visualization and Analysis in the Cloud: An Open-Source Approach**  
**Lidar then vs. Lidar now: Advancements in data collection and expanded use cases** with Associate Professor **Qiusheng Wu** **Angie Pelkie** from the University of Tennessee **from Fugro**; Dr. **Qiusheng Wu** **Angie Pelkie** delivered a presentation on projects he's worked on highlighting features in Open Geospatial Solutions (github), Geemap, highlighting the convergence of improved lidar efficiencies and advancements in AI/machine learning. These developments have resulted in reduced processing durations and enhanced precision during the creation of conventional lidar products. Angie illustrated Fugro's utilization of automation and AI in various applications, such as ground surface models, classified point clouds, and hydro-enforced breaklines. Notably, Fugro is actively pursuing automation to streamline processes, allowing them to concentrate on producing more intricate products Leafmap, Segment-Geospatial (SAMGeo), and HyperCoast. Notably, Geemap, adopted by Google, can visualize Earth Engine datasets (100PB+) interactively. Leafmap also allows users to visualize open geospatial datasets interactively and, with the help of MapLibre, Leafmap, utilizing MapLibre, allows for 3D visualization of terrain and buildings. Segment-Geospatial (SAMGeo), simplifies applying the Segment Anything Model (SAM) to geospatial data with minimal coding. We recommend visiting **Qiusheng Wu** YouTube channel Open Geospatial Solutions (<https://www.youtube.com/@giswqs>) if you'd like to see demos and tutorials of these tools in action.

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**2024 H-GAC Aerial Imagery Cost-Share and Lidar Update:** Thushara Ranatunga with H-GAC discussed the status of the 2024 H-GAC LiDAR and Aerial Imagery and the next steps in cost-share program. For 2024 Lidar, H-GAC samples are being reviewed.

Should anyone have questions, please contact DAR [GIS@h-gac.com](mailto:GIS@h-gac.com) or visit the [project homepage](#).

Angie Pelkie came to talk about how the advancements in improved lidar efficiencies, coupled with the corresponding advances in AI/machine learning, has led to decreased processing times and increased accuracies when creating the more standard lidar products. Angie gave examples how Fugro has used automation and AI in ground surface models, classified point clouds, and hydro-enforced breaklines. Fugro is automating as much as possible to focus on generation of more complex products.

**Guest Presentation—2022 Esri User Conference Highlights and Recap:** Joseph Bowles from Esri provided an extensive review and summary of the 2023 Esri User Conference, which took place at the San Diego Convention Center in San Diego, CA from Monday, July 10th to Friday, July 14th. During his presentation, Joseph delved into various statistics such as the total number of attendees both in person and virtually, the quantity of sessions conducted, and the latest updates to multiple Esri products. Joseph Bowles with Esri gave a detailed overview and recap of the 2023 Esri User Conference held at the San Diego Convention Center in San Diego, CA from Monday, July 10th to Friday, July 14th. Joseph's presentation dove into the numbers of the total attendees both in person and virtually, the number of total sessions held, and new updates to many of Esri's products. For further insights and key points from the 2023 Esri User Conference, including details about the availability of recorded sessions online, Joseph's complete presentation can be accessed on the To see additional details and highlights from the 2023 Esri User Conference including when recorded sessions will be available online, you can view Joseph's entire presentation on the company's websiteGDW website or visit <https://www.esri.com/about/newsroom/announcements/2023-esri-user-conference-highlights/> for more information.

#### **Announcements/Other Items:**

- 2024<sup>3</sup> Houston Area GIS Day UpdatePlanning Kickoff: Molly Eskelson with H-GAC Nicole Ceranek with Montgomery County, TX spoke about the Houston Area GIS Day taking place this November 21<sup>st</sup> and 22<sup>nd</sup> 46<sup>th</sup> at the University of Houston-Clear Lake. HAGD's New sponsors, Planet and NV5 Geospatial, were announced. The planning committee is working to get the call out for sponsors and exhibitors, speakers, map gallery submissions, and general attendees for the professional content very soon. Nicole plans to hold the next general planning meetings for the event on Thursday, August 24th, at 11am CST. If you would like to be involved, there is a [volunteer registration form](#) that will add you onto a contact list for the planning meetings to get involved with the planning of the 2024<sup>3</sup> Houston Area GIS Day For more information, please visit <http://www.houstonareagisday.org/>.

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- URISA is hosting an online meeting August 27<sup>th</sup> from 12-1pm. The meeting is apart of their Speaker Series-Return of the Survey123 Jedi: Survey123 Online Basemaps to Pull Data from Hosted Service. For more information, please visit <https://urisatexas.org/event-5830625/Registration>
- Job Announcements:
  - Metro- The Enterprise GIS Administrator position will soon be vacant, with postings expected next month.
  - HGAC- four positions are open with internships to be posted soon:
    - GIS Analyst - Remote Sensing Analyst-  
<https://phg.tbe.taleo.net/phg02/ats/careers/v2/viewRequisition?org=HGAC&cws=38&rid=994>
    - GIS Analyst – Cartographer / GIS Visualization Specialist / Graphic Designer-  
<https://phg.tbe.taleo.net/phg02/ats/careers/v2/viewRequisition?org=HGAC&cws=38&rid=960>
    - Data Specialist – Air Quality Modeler-  
<https://phg.tbe.taleo.net/phg02/ats/careers/v2/viewRequisition?org=HGAC&cws=38&rid=973>
    - Data Analyst – Travel Demand Modeler-  
<https://phg.tbe.taleo.net/phg02/ats/careers/v2/viewRequisition?org=HGAC&cws=38&rid=956>
- The next GDW meeting will take place via Microsoft Teams on Wednesday, October ~~2nd~~<sup>4th</sup>, 202~~4~~<sup>3</sup> at 9:30am CST, ~~and will feature Claire DeVaughan with USGS and Lillian Yeargins with ISpatial as the guest presenters.~~