



**GIS Colorado Fall Quarterly Meeting**  
**Durango Recreation Center 2700 Main Ave Durango, CO 81301**  
**October 11, 2019**

Register at <http://giscolorado.org/events/gis-colorado-fall-meeting/>

**Thursday October 10, 2019**

**QGIS for the Complete Beginner**

Instructor: Dave Murray, GIS Coordinator for the City of Westminster and Lecturer at the University of Colorado at Denver in the Geography Department

8:30 am - 4:00 pm [Durango Recreation Center](#)

**GIS Colorado Board Meeting 6:00 pm - 8:00 pm**

The GIS Colorado Board welcomes all members and non-members to our Quarterly Board Meeting. The meeting will be held at the Marriott Residence Inn lobby/seating area 21691 US Highway 160 West, Durango, CO 81301. We will go somewhere afterward for dinner and all are welcome to join.

**Friday October 11, 2019**

8:00 am - 8:30 am	<b>Registration, Networking</b> (coffee, tea, and light refreshments provided)
8:30 am - 9:30 am	<b>Opening by GIS Colorado Board and Introductions</b> <b>Organizational Highlights (3 min to talk about your organization's top initiatives for the next few months)</b>

**Thank you to our Host!**



<p>9:30 am - 10:15 am</p>	<p><b>What's New with ArcGIS Field Apps</b> <b>Shelby Hines, Esri, <a href="mailto:shines@esri.com">shines@esri.com</a></b></p> <p>The ArcGIS suite of field apps can improve coordination and operational efficiency for any type of organization. Easy-to-use apps support field activities in connected or disconnected environments and can be deployed as SAAS or behind your firewall. Learn what's new with field apps and check out the new Tracker for ArcGIS, a location tracking solution, and ArcGIS QuickCapture, an app for rapid data collection.</p>
<p>10:15 am - 10:45 am</p>	<p><b>Modeling Climate Change Effects on Cultural Resources - Preliminary Research and Round Table Discussion</b> <b>Rich Chamberlain, AECOM, <a href="mailto:rich.chamberlain@aecom.com">rich.chamberlain@aecom.com</a></b></p> <p>How will climate change potentially effect our treasured cultural resources in Colorado and surrounding 4-corner states? Rich will present some preliminary research, his own thoughts on this topic, and then will open it up for comments, thoughts, and suggestions/whatever goes from YOU, the audience. E-sized plots will be on display after the presentation to assist with any feedback from attendees on the presentation.</p>
<p>10:45 am - 11:00 am</p>	<p><b>BREAK</b></p>
<p>11:00 am - 11:45 am</p>	<p><b>Supervised Classification of Russian Olive in the Animas Valley: A Pilot Study Using Object-Based Image Analysis and NAIP Imagery</b> <b>Anna Riling, SME Environmental Consultants, <a href="mailto:annariling@gmail.com">annariling@gmail.com</a></b></p> <p>Object based image analysis (OBIA) incorporates not only spectral but textural and spatial elements of a class and avoids the "salt and pepper" effect of pixel-based classification with high resolution imagery. Russian olive (<i>Elaeagnus angustifolia</i>) is an invasive species prevalent in the Animas Valley in southwest Colorado and is easily distinguished in aerial imagery due to its silvery-green canopy. This study used 1-meter, 4-band National Agricultural Image Program (NAIP) imagery to classify Russian olive in a study area on the Animas River, achieving a user's accuracy of 91.3 percent with a K Nearest Neighbor classifier. Methodology and parameters from this pilot study are intended to be used in future efforts with feature extraction classifications for mapping Russian olive on a regional scale.</p>
<p>11:45 am - noon</p>	<p><b>Citizen Problem Reporter Re-imaged into Ask Durango</b> <b>Lance Frisby, City of Durango, <a href="mailto:lance.frisby@durangogov.org">lance.frisby@durangogov.org</a></b></p> <p>Replaced old on-line Cities zen Request/Issues reporter. App was from PublicStuff that was \$5500/yr. maintenance. Replaced with an app in AGOL that is a part of our ESRI ELA. This app is used by multiple City departments, which gives the Citizens of Durango the ability to report issues or ask questions.</p>

<p>Noon - 12:45 pm</p>	<p><b>LUNCH</b> Thank you to our sponsors for providing lunch for attendees!</p> 
<p>12:45 pm - 1:15 pm</p>	<p><b>Generating Reports with Survey123, Integromat, and Google Sheets</b> <b>Joe Rhodes, CivicLens, <a href="mailto:jrhodes@civiclens.com">jrhodes@civiclens.com</a></b></p> <p>This presentation will show how data from any ArcGIS feature service can be brought into the Integromat automation platform using Survey123 and webhooks, then passed to Google Sheets for reporting, query, and analysis. Formulas, queries, headers, and basic report formatting can be pre-configured within Integromat to create automated, ready-to-consume reports.</p>
<p>1:15 pm - 1:45 pm</p>	<p><b>Configuring Open Data in ArcGIS Hub</b> <b>Chris Dombkowski, City of Grand Junction, <a href="mailto:chrisd@gjcity.org">chrisd@gjcity.org</a></b></p> <p>The new ArcGIS Online Hub platform is a great way to not only share your GIS datasets publicly, but also share your data in the form of compelling web apps and maps. In this demo we will show how the City of Grand Junction set up its GIS open data site and overcame the challenge of registering layers to ArcGIS Online while hosting them in a Portal environment. We will also discuss the hurdles we went through in setting up layer metadata and making it visible through the Hub.</p>
<p>1:45 pm - 2:15 pm</p>	<p><b>Using Network Analysis to Evaluate Fire Dept. Response Times</b> <b>Rachel Medina, Montezuma County, <a href="mailto:rmedina@co.montezuma.co.us">rmedina@co.montezuma.co.us</a></b></p> <p>In Montezuma County, there is currently only one Fire Station that is manned 24 hours a day. This means that our 14 other stations are run by volunteers, which increases response time for those areas. I will be sharing how our GIS Department used the Network Analyst to create Response Time zone maps for each Fire station to better understand response time in areas for resource allocation.</p>
<p>2:15 pm - 2:30 pm</p>	<p><b>BREAK</b></p>

<p>2:30 pm - 2:45 pm</p>	<p><b><i>Deploying the Traverse Widget in ArcGIS Enterprise: Engaging and empowering your user group</i></b>  <b><i>Jerome Bernard, La Plata County GIS Department, <a href="mailto:Jerome.bernard@co.laplata.co.us">Jerome.bernard@co.laplata.co.us</a></i></b></p> <p>La Plata County has identified ArcGIS Enterprise as an increasingly important tool during a period of shrinking department budgets and staff sizes. Jerome will discuss the conditions that lead La Plata County GIS Dept. to deploy this solution, some aspects of Enterprise Portal management, how we configured the application, how it can be used by various departments and how we plan on expanding the user group.</p>
<p>2:45 pm - 3:15pm</p>	<p><b><i>Burn Severity Analysis of the 416 Fire</i></b>  <b><i>Josh Lingbloom, Fort Lewis College Student, <a href="mailto:joshlingbloom@gmail.com">joshlingbloom@gmail.com</a></i></b></p> <p>The 416 Fire burned over 54,000 acres north of Durango, Colorado in the summer of 2018. As with many large fires, it is important to be able to map burn severity, as areas experiencing high burn severity are often denuded of vegetation and have erodible, hydrophobic soil, thus heightening their risk of future mass wasting events. Satellite image data captured by Sentinel-2A was used to estimate relative burn severity by comparing reflectance data from June 2017 (pre-fire) and July 2019 (post-fire). Severity was calculated with the normalized burn ratio (NBR) spectral index, which takes advantage of the distinctly different reflectance characteristics of healthy vegetation and burnt vegetation in the near infrared (NIR) and shortwave infrared (SWIR) parts of the electromagnetic spectrum. By using a difference normalized burn ratio (dNBR) dataset to compare pre- and post-fire NBRs generated for the burn area, one can estimate the relative damage experienced by vegetation impacted by the fire. By accounting for burn severity and slope angle, the average and maximum landslide risk was evaluated for the watersheds affected by the 416 Fire. A detailed dataset of the 416 Fire perimeter was generated by specifying a burn severity threshold and classifying the dNBR.</p>
<p>3:15 pm - 3:30pm</p>	<p><b><i>USGS 3D Elevation Program</i></b>  <b><i>Carol Lydic, USGS, <a href="mailto:clydic@usgs.gov">clydic@usgs.gov</a></i></b></p> <p>The U.S. Geological Survey (USGS) National Geospatial Program manages the 3D Elevation Program (3DEP) to respond to growing needs for high-quality topographic data and for a wide range of other three-dimensional (3D) representations of the Nation's natural and constructed features. The goal of 3DEP is to complete acquisition of nationwide light detection and ranging (lidar) data in 8 years to provide the first-ever national baseline of consistent high-resolution elevation data, both bare earth and 3D point clouds, collected in a timeframe of less than a decade. Interferometric synthetic aperture radar (IfSAR) data will be acquired for Alaska, where cloud cover and remote locations preclude the use of lidar in much of the State. 3DEP is based on the results of the National Enhanced Elevation Assessment (NEEA) that documented more than 600 business uses across 34 Federal agencies, all 50 States, selected local government and Tribal offices, and private and nonprofit organizations. The presentation will include the latest updates on 3DEP and online services.</p>

