

State of Oregon
GIS Program Leaders (GPL) and OGIC Technical Advisory Committee (TAC)
Date: Tuesday, December 10, 2024
Time: 1:30 – 3:30 pm
Scribe: Joe Severson (OSMB)

Announcements

Randy et al: Big thank you to Daniel for his time as GPL Chair!

Lacey Summers:

ESRI Training opportunity – Python 101 on 12/12.

<https://www.esri.com/training/catalog/67044e44e0cbc802c8dfe661/python-101-for-arcgis/>

New Biodiversity Tool from the nonprofit NatureServe

[Behind the Scenes on the Development of NatureServe Explorer Pro](#)

GEO/OGIC Update:

Rachel Smith: Draft OGIC workplan has been sent out and is now available for public review and comment. Comments due December 31st, 2024.

[Committees & Work Groups | Oregon Geographic Information Council](#)

The next OGIC meeting is scheduled for the end of January and will be virtual.

Access to Eagle View's ConnectExplorer application will be ending in March unless a new contract is arranged. Emails have been sent out to all the agencies who currently have access. This application offers oblique imagery. 37k would need to be collected, DOR has offered to contribute 10k. Agencies may be able to procure this on their own.

Sanborn is under contract to work on a long-term funding strategy as part of our imagery portfolio. There is no immediate plan to purchase, it will be coordinated with Brady through the Imagery FIT group.

The preliminary 2024 imagery is still under review. Still on track for late winter, early spring delivery.

The NAIP imagery collected during the 2024 season is available for some counties, check back at their site for more. NAIP resolution is lower than the OSIP collection.

More ESRI EA meetings will be scheduled, likely in early January. True up reports have been sent out.

Framework Update

Melissa Foltz:

The address point standards workgroup and the building footprints work group is meeting next week.

Oregon Lidar Consortium had a meeting earlier this morning. It was recorded, reach out to Reed Burgette at DOGAMI for more information.

Public comment opportunity will be available on the address data point standard. More information will be sent through the listserv.

The framework inventory might be ready in January.

The Spring Framework forum will likely be held in Salem at a state-owned venue.

Environmental Justice Mapping Tool

Eric Main (OHA)

In 2022, HB 12 and HB 4077 formed an environmental justice council and tasked with creating an environmental justice mapping tool. DEQ, OHA, DAS EIS, OSU Institute for natural resources, Portland State University Population Research Center including other Natural Resources Agencies.

Reviewed other examples of EJ mapping tools, and many used the Cal EnviroScreen

EJ Council provided definitions and guidance for the EJ mapping tool – *Communities of color, communities experiencing lower incomes, communities experiencing health inequities, tribal communities, rural communities, remote communities, coastal communities, communities with limited infrastructure and other communities traditionally underrepresented in public processes and adversely harmed by environmental and health hazards, including seniors, youth and persons with disabilities.*

Workgroups convened – EJ Liaisons to coordinate agency response to EJC requests, Methodology to identify EJ mapping best practices, and Inventory to identify available data and recommend standards.

Identified 10 key decision points, currently at decision point #7. Indicator selection – community listening session priorities and data gaps.

A key decision point was how to define communities, and what boundaries are used. Most reliable data is at the census tract level, which is not ideal.

Five community designations include – coastal, remote, rural, large city and small city. Many common issues around other EJ mapping tools includes community designations. Too urban centric, too rural centric etc. It would be more beneficial to compare remote communities with remote communities, rural to rural, urban to urban etc.

In addition to that a statewide environmental justice index will be created. Lots of work and thought put into indicators. Sea Level rise doesn't impact inland communities. Identifying inequities in the indicators. Ideally indicator weights would be driven by communities themselves, however that will be explored in the second version of the tool.

Overall index score is an aggregation. Environmental exposures are multiplicative in their effects on vulnerable populations. To standardize the scores, percentiles and z scores were considered, ultimately choosing z scores because they better highlight the differences in magnitude with the outliers. To prevent outliers from overwhelming the model, we used a process called winsorization. Which better allows a scaling of the data.

Indicator selection process – review of existing tools and indicators. Formed indicator selection criteria. Next step is community listening sessions with 2 coming up. Three phases of the listening sessions.

Phase 1 – Community concerns & indicator prioritization
Phase 2 – How communities will use the EJ Mapping Tool
Phase 3 – Tool design and usability feedback.

Then a sensitivity analysis – w/ 10-20 indicator candidates per sub domain.

Primary user priorities survey

<https://forms.office.com/g/29CZ8t8cBw>

Q/A paraphrased.

Daniel – Will indicator selection lead up to the development of more framework datasets?

Eric - It would be in our best interest for datasets to reach the standards for inclusion in the framework. It's the gold standard for data.

Melissa – Very possible to see additional framework data come out of this, once all the indicators are known. Indicators will likely be known at the end of next year which should align with the next framework inventory.

Daniel – I can see it helping with prioritization of data sets.

Eric – I agree it could boost a level of priority within individual agencies to develop datasets.

Daniel – Does the house bill provide funding to participating agencies or is this an unfunded mandate?

Eric – Funding is an issue, no funding for community listening sessions, which includes interpreters, facilities, attendees, refreshments etc.

Daniel – Is there funding for maintenance after it's been built?

Eric – The house bill provides a cycle for it to be updated. We've had great participation and support from all the agencies, couldn't do it without them.

Wildfire Risk Map Update

Andy McEvoy (OSU) Faculty research assistant at the College of Forestry at Oregon State University.

Two maps! - Statewide Wildfire Hazard and Wildland Urban Interface maps.

Origin in Senate Bill 762

University Team included expertise and experience in wildfire risk management, civil and construction engineering, forest policy, and GIS. Also collaborated with Pyro Logix – the nations leading fire modeling firm.

Work began in the wake of the 2020 wildfires, which led to the legislature passing senate bill 762. Tasked to work with ODF to create data that could be used to support a statewide prioritization.

Two maps, any property that is on a tax lot that is both high hazard and, in the wildland urban interface could be subject to new codes, defensible space and building codes.

The Wildland Urban Interface map prioritizes parts of the community where there is enough vegetation to support a wildfire and there is high structure density. High potential for disaster. Structure density and proximity to vegetation.

Previous maps/models looked at census population. New and more accurate methods for using structure locations have been implemented. Using structure building footprints developed by DOGAMI.

One structure per tax lot was used when calculating structure density. This eliminates the possibility of a tax lot with multiple outbuildings.

WUI small footprint at about 4.4% of the state of Oregon.

Wildfire Hazard Map. Distinction between Risk and Hazard is important. Hazard represents 2 components burn probability and fire intensity. Risk is represented by Hazard plus some measure of susceptibility. SB 762 was specific and directed OSU to map hazard based on climate, weather, topography, and vegetation. Nothing in the criteria includes structures, or conditions of structures – therefore hazard is calculated and not risk. SB 80 clarified this as a hazard map and not a risk map.

A hazard map like this helps to identify hazard zones, and areas of prioritization. A draft map was released with a 30 day public comment period. Received over 2000 comments which resulted in some final changes. Developing a final map to deliver in early January.

Many public outreach attempts resulted in a lot of feedback. They were consistently within 4 themes.

- 1) Hazard too high in hay and pasture, mixed use lands. – Worked with ranchers, planners, wildfire modeling specialists to identify the problem and make adjustments.
- 2) Hazard too high in and adjacent to irrigated land. – Identify and define irrigated land. Utilited IRRMapper with the criteria of being irrigated at least once in the last 5 years. This will reduce the burn probability and fire intensity for the purposes of this map.

- 3) Variation in hazard class designations among neighbors. Seen mostly in transition zones, and heard comments from all over the state. Decided to make adjustments. Included focal statistics to smooth the data in 300m windows. Reduced the variation.
- 4) Lastly, pre-existing defensible space, or structure hardening characteristics will not reduce the hazard value. Not the role of the map. This would be more of a risk characteristic, not hazard.

3 hazard classes. High, Medium, Low. About 108,000 taxlots. Final maps will be release around January 7th. A 60-day appeal process will be overseen by department of forestry.

QA paraphrased.

Daniel – What are some key lessons learned regarding supporting house bills and legislation moving forward?

Andy – Timelines – setting a more realistic timeline. More time for public engagement. Defining a clear purpose for the map. Explaining the clear purpose to the public.

Daniel – How was irrigated land defined?

Andy – First had to ask, is irrigated land a persistent characteristic of the vegetation or is it a man made action akin to defensible space. It was decided that it is a persistent characteristic of the vegetation. Any portion of an agricultural field defined by the Oregon Water Resources Department that is irrigated at least one out of five years.

Daniel – Why 1 in 5 years?

Andy – Variability in irrigation practices. Crop rotations etc. Ultimately rule committee decided on 1 out of 5. 2 or 3 was also considered.

Daniel – Any plans to do regular updates on the hazard map?

Andy – Legislation requires updates at least every five years.

Sarah – How often is wildland urban interface map updated?

Andy – Every five years along with the hazard map.

Roundtable

TAC – Joe Gordon – potential work coming down from OGIC, waiting to see. – Myrica accepted position of vice chair and will take over the following year.

DLCD – Sarah Marvin – Lots of projects underway, nothing to report on currently.

DSL – Randy Sounhein – annual change detection work on essential salmon habitat, collaboration with ODFW. State Wetlands Inventory project work underway.

INR – Myric McCune – Planning to migrate the Oregon Explorer website from the current platform to a hub site. Moving mapping tools from Geocortex to a new platform. More hosted feature services and planning out the infrastructure.

ODA – Diana Walker – working with Timmons group on GIS strategy.

ODF – Aurthur Rodriguez – upgraded Enterprise environment to 11.3. Includes portal. Steve Timbrook did a great job. Getting people upgraded to Pro 3, which includes 64 bit upgrades. Finishing up work related to an emerald ash borer map and hub site.

ODFW - David Quillin – Taking over for John in the role as coordinator. Temporary rotation for at least 6 months.

ODOT – Phil Smith – hiring GIS roadway data manager. Enterprise migration and setting up 11.3 dev environment. Migrating data into roads and highways. Standing up 11.3 test environment this winter and prod later this spring. Web app builder migration – decide on experience builder or java script. Looking for input from others. Lastly, ODOT is hosting GIS Transportation conference in April.

OEM – Daniel Stoelb – Expect an email soon with our draft GIS Strategy. For both emergency management and 911. Seeking feedback.

OHA – Eric Main

Primary user priorities survey EJ mapping

<https://forms.office.com/g/29CZ8t8cBw>

WRD – Bob Harmon – Enterprise upgrade failed. Rolled back from 11.3 to 11.0. ESRI premium support, very helpful and fast to respond. Thank you to GEO for helping to arrange support.

OSMB – Joe Severson - busy field season is done and started incorporating some feedback from people who has been using our survey 123 apps and making updates to improve some processes.