Title	Abstract
Agricultural Land Use Mapping in WA – Evolution of GIS Desktop and Mobile Technologies	This presentation will look at and demonstrate the evolution of Ag Land Use mapping in Washington using various GIS technologies, imageries, and mapping partners. WSDA crop mapping integrates ArcGIS Desktop, ArcGIS Pro, and mobile applications including Collector and Explorer. Each of these technologies provide an important role in obtaining efficient quality data to support the agricultural industry and analyze
ArcGIS Enterprise and Portal: Delivering the goods ...	The landscape of GIS has been changing over the last few years. State and Federal agencies are moving away from file based GIS datasets and desktop applications to robust enterprise (local and cloud) based platforms. The contemporary ArcGIS Enterprise environment can efficiently provide distributed GIS managed content via Web Services, as well as provide out of the box solutions to a broader audience, than that of the older file-based approach. In late 2018, the Dept. of State Lands (DSL) began the migration process away from siloed GIS datasets and older Desktop tools towards, ESRI's more contemporary ArcGIS Enterprise/Web GIS based platform. ArcGIS Enterprises' frontend application – Portal , provides DSL staff with a secure gateway to agency GIS content, along with Dashboards and Web applications (created via WAB). From this productive environment users can securely authenticate, view, query, create and share maps, as well as edit dataset that are all housed in a back-end Enterprise Database solution (ArcGIS Server, ArcGIS Data Store, and MS SQL server). Despite the productive possibilities of the Enterprises approach, the migration and
ArcGIS Online Tools for Communities	Communities are often responsible for sharing digital data throughout their organization and to their citizens. Leveraging GIS to share detailed information about community assets is a key component to sharing communities' goals and furthering their objectives. Whether it's sharing scanned form documentation, hazard mitigation planning, organizational planning, or capital improvement project summarization, ArcGIS Online provides the tools to help the community share their vision. This presentation's goal is to demonstrate various applications developed with ArcGIS Online tools and templates to deliver engaging results for mapping solutions. Leveraging the right combination of cartography and map functionality is the key to a successful ArcGIS Online application. Presentation will summarize general approaches to application development and provide live demos of active applications highlighting different uses of ArcGIS Online resources. We will specifically highlight
Cartographic Techniques for Mapping Mountains Using Terrain Tools	There are a number of techniques which cartographers use to give terrain, such as mountain ranges, a three-dimensional effect on a two-dimensional map. This presentation will highlight a number of these techniques that can be implemented with Terrain Tools, an Esri toolbox of geoprocessing tools. Some of these techniques, such as illuminated contours, recreate historical cartographic methods. Others, such as sky models, are advanced methods of hill-shading that precisely accounts for the
CEO, Senior Software Engineer	In a world where routing is built for cars, can a navigation app show us which roads are most well suited for cycling? In some cities, there is quality bike infrastructure of many types: dedicated, protected, and shared bike lanes, greenways, and more. Routing apps often treat all bike lanes as equal, when those of us that cycle know they're not. Cities and municipalities track the location of these lanes as they do other roads, but they don't track which ones are safer or cyclist preferred. While it's possible to extract some of this information from existing sources, these sources carry their own biases. We believe we can leverage these data sources to create a cycling map that reduces anxiety and makes cycling as a primary mode of transportation more accessible. Modern routing apps fall far short of helping make cycling more inclusive to users of different comfort levels, but the technology exists. Given a bike-dedicated routing application we could easily extract helpful information from more experienced cyclists, such as where they deviate from the suggested route. We could also help

Evolving a Municipal GIS	The City of Lacey had been using GIS in a sort of ad-hoc manner with little overarching organization or guidance. With the acquisition of an enterprise license we set out to modernize the City's GIS use by implementing Portal-driven web maps for the city, using ESRI apps on city phones for mobile mapping and data collection, and replacing ArcMap 10.X with ArcGIS Pro for desktop GIS users. It took a lot of change
GIS in Forestry @ Roseburg Forest	To follow in the next month
Governance for GIS	In recent years, the attention of GIS managers has increasingly focused on the topic of governance. The rapid advancements in GIS technology combined with the growing need to balance the value, risk and resources associated with GIS has put managers under considerable pressure to get a handle on governance. In this session, we discuss governance as a "system of control" that defines the processes and responsibilities needed to ensure you are providing the right level of oversight into
Improved 9-1-1 Indoor Location Accuracy For Mobile Devices	Today more and more people rely on mobile phones as their primary phone service and are disconnecting wireline service altogether. As a result, more 9-1-1 calls are being placed from mobile phones than ever before, including inside buildings where traditional 9-1-1 mobile phone location technology does not work well. New location technology solutions are emerging that make calculation of indoor positions for mobile phones during a 9-1-1 call possible, and include major technology announcements from both Apple and Google in 2018 in this area. The ability to track mobile phones indoors during 9-1-1 calls will create new demands for 2D and 3D indoor GIS maps
Improving Homelessness Response with GIS	Using GIS, the City has automated site identification and assessment to better understand and reduce impacts of the homeless population in Portland, Oregon. Combing online reporting with Workforce for ArcGIS, Survey123 for ArcGIS, ArcGIS API for Python, and Insights for ArcGIS, the City is able to respond to urban camping
Map It Mobile: Integrating Legacy GIS with Modern Data Collection	Modern day asset tracking is transitioning from a two dimensional "spreadsheet view" to four dimensional, spatiotemporal asset management. Real-time data collection and asset management is a vital tool to ensure regulatory compliance and customer safety. However, many utilities rely on disjointed legacy systems comprised of numerous spreadsheets, non-spatial databases, and GIS data. This disconnect makes implementing real-time asset management in a GIS environment complex and impractical. Want to throw caution to the wind and start collecting asset information with ArcGIS mobile solutions anyway? We did too! By leveraging ArcGIS mobile solutions and FME Desktop the HydromaxUSA team can integrate real-time mobile data collection into legacy systems without significant database restructuring. We designed a process that allows users to interact with large datasets on their mobile devices and collect directly against existing data, regardless of connectivity. During this presentation we'll demonstrate ways to leverage Esri's mobile solutions
Models, Scripts and Consultants: Guidance for Ensuring Successful Geoprocessing Outcomes	When using the ArcGIS desktop products to support geoprocessing requirements, an analyst will typically consider either, or a combination of, (1) building their own models, (2) writing their own Python code, or (3) hiring a consultant to help them. This collaborative professional development session will focus on a range of matters pertinent to these possibilities with a view to providing guidance for GIS analysts from both a technical perspective and a soft skills perspective. With respect to the former, topics will include the relative value and applicability of different approaches, how to transition from one approach to another, and the related challenges and opportunities. With respect to the latter, topics will include the benefits of seeking external support, the nature of the client-consultant relationship, and the range of reasonable expectations useful for ensuring successful outcomes. The presenters will establish a

Modernizing the National Spatial Reference System (NSRS2022)	ABSTRACT: Brief introduction and biography. Some history of NGS and its mandate. Discussion of new 2022 Datums and the modernized National Spatial Reference System (NSRS2022) Driving force to replace NAD83 and NAVD88. Difference between the Old NSRS vs. the New NSRS, and the 3 part blueprint document "Blueprint for 2022": Part I: Geometric Coordinates (May 2017) Part II: Geopotential Coordinates (Oct. 2017)
Next Level ADA Transition Plans using Interactive WebGIS	Want to track your ADA self-assessment data collection in real-time? Do you need to visually communicate data to those who don't use GIS regularly? Is there a need for more public involvement for your ADA Transition Plan? Use Interactive WebGIS technology. In this session, I will show you what you can create to show and track all ADA self-assessment and Transition Plan data using WebGIS. This includes
nTendril - A Geospatial visual programming language (GeoVPL)	Many years in the making, nTendril is a web-based visual programming language (VPL) for geographic information systems (GIS). Based principally on the TurfJS, MapboxJS, and Node-RED libraries, the software as a service (SaaS) allows for simple to very complex analyses through drag and drop interaction. The rapid iteration of geo-processing provides a fun means to teach and learn geospatial concepts and algorithms without a single line of code. The Gartrell Group uses nTendril for consulting as well as a standalone tool for clients to perform their own analyses. nTendril also aims to be the switchboard through which one may interconnect
Our Journey to ArcGIS Portal	In recent years, ESRI had made huge changes in the GIS workflow. With everything from ArcGIS Pro to ArcGIS Online, the landscape of how we do our jobs changed. In this session, we'll explore the pitfalls and successes of evolving our GIS from the
Using Augmented Reality to Interact with Your Spatial Data in the Real World	SiteVision is a high-accuracy augmented reality system, which allows users to interact with their spatial GIS data in the context of the real world. It enables users to easily understand information such as new designs, existing underground services, and how future landscapes will look over time, without the need to interpret drawings or maps. Overall SiteVision is a productive construction tool, allowing users to plan and visualize the progress on site, complete quality management, and identify issues early reducing costs and time. We will present a real customer example and how they have
What should I do now that there is an NG911 GIS Data Model?	Sooner rather than later" is a common expression and one that applies to learning about the NENA NG9-1-1 GIS data model standard. The standard was released a year ago, so there's never been a better time to learn how to use it to guide your 9-1-1 GIS data management efforts. The session will provide an understanding of the document components, why the standard is necessary, and will take a detailed look at common questions about the standard. During this session attendees and presenters
WWS's GIS Asset Management System	WWS is required to manage the asset management record systems (i.e. Asset Refurbishment and Replacement (ARR), Geographic Information System, Hydraulic Modeling System, etc…) in accordance with the above mentioned industry best practices and standards in order to maintain data consistency, integrity, and usability and thus achieve uniform data management business practices. Uniform GIS asset management solutions are being designed, developed and implemented within WWS that provides a means of enabling accurate life cycle information and reports to improve operational and strategic management capabilities at all phases of the asset life cycle. WWS's enterprise GIS asset management system is being developed and integrated to our spatial and non-spatial data repositories that will provide better strategies and performance metrics which focus on proactive risk mitigation for our customers. The