

# THE SUMMIT

## News From and For The Washington GIS Community

### WAURISA

The Washington State Chapter of  
URISA – The Association for GIS Professionals



SPRING 2011

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ISSUE 23

## GIS IS A VALUABLE TOOL FOR REDISTRICTING

*By Eadie Kaltenbacher, Summit Editorial Staff*

Many Washington State GIS users have been following the progress of the 2010 Census; here are some highlights. In December of 2010, the population of the nation was announced: on Census Day there were 308,745,538 people living in the United States. The individual states' population data was released, and Washington State is the 27<sup>th</sup> most populous state at 6,724,540 residents. Washington State gained enough population that we have been allocated another seat in the US Congress, bringing our total to 10 seats. Census-block level population counts for our state were released about three weeks prior to the deadline of April 1<sup>st</sup> 2011.

One of the primary purposes of the Census is to ensure that everyone's vote is weighted equally. This goal is accomplished by re-drawing congressional and state legislative district boundaries using the new Census data as a baseline, a process known as redistricting. States use different approaches to redistricting. Washington has a bipartisan redistricting commission with five members: one from each Republican and Democratic legislative caucus, and a non-voting chair elected by these four members. This commission will create a plan according to the rules (see sidebar, p. 2) and submit it to the legislature by January 1, 2012.

GIS is a valuable tool in redistricting. Using GIS, population data can be overlaid with district boundaries. By moving the district boundaries, users can create scenarios to visualize and analyze the impact of these changes on the population. In addition, population attributes such as race and income are available for each area. These attributes can be combined with historical voting results from the electoral districts, and used to display and predict voting trends by area. By definition, redistricting is a highly politicized process, since changing the boundaries will impact the voting base of elected officials.

*See: GIS for Redistricting, Page 2*

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## PRESIDENT'S COLUMN

### Spring greetings to all my GIS friends and colleagues.

We're in the final countdown to the 2011 Washington GIS conference, to be held in Lynnwood on May 9 – 11. The event is set to be a great success thanks to the fantastic work and creativity of our many volunteers, under the direction of conference chair Heather Glock. With more workshops and papers than ever, everyone is sure to find something of interest.

A special thanks to all who are presenting a workshop or paper and sharing your knowledge and inspiration for your peers. We are fortunate to have Esri's Jack Dangermond as our keynote speaker and hear his vision of the future of the GIS industry. The conference is a great opportunity to connect and be inspired. I hope to see you there.

In March, our Vice President (and URISA President-Elect), Greg Babinski, presented two daylong URISA-certified workshops in Yakima: Cartography and GIS Program Management. These workshops supported the WAURISA's goal of reaching out to the east side of the state with professional development opportunities. The event was aided by the helpful coordination, venue, and logistics provided by Yakima County GIS Manager Michael Martian. Thank you to both Greg and Michael for making this another successful WAURISA event.

With this column I also mark the closing of my presidency and my time leading this remarkable organization. Our conference in Lynnwood will host elections for a number of key WAURISA board member positions, including the president position I hold now, along with vice president and secretary. Reflecting back on my time leading our Washington URISA chapter, I am honored by its incredible team of talented and motivated board members and volunteers. Over the past two years this team has had some truly noteworthy accomplishments supporting our members and the professional growth of the GIS community. I cannot say enough about the board members and volunteers that I have worked with over the past two years as president. They have coordinated outreach to students and new members, arranged workshops on both sides of the state, published our excellent *Summit* quarterly newsletter full of inspiring and informative articles and produced a couple of excellent Washington GIS conferences. This is a wonderful time for you to become involved with the organization. Many of our past and present board members have used their involvement in WAURISA as a springboard to a promotion or new rewarding career. They have made this organization the great professional resource it is today and I would encourage all of you to get involved and discover how fun and rewarding this group is to work with. To each and every one I say thank you for making our organization great and my presidency a memorable and inspiring time.

*-Cheers, Don Burdick – President*

## GIS FOR REDISTRICTING

*Continued from page 1*

In the past, only government entities and redistricting commissions had access to the tools required to analyze such huge volumes of data. In today's world, improvements in GIS technology, as well as the accessibility of web-based GIS tools, means that public participation in the redistricting process is realistic.

Two states have already publicized efforts to encourage citizens to participate in re-drawing their district boundaries. Florida has developed an online mapping tool called "MyDistrictBuilder" where the public can edit boundaries and submit them to the Florida State House. The Public Mapping Project has created an application called "District Builder" which was used by students in Virginia's universities. These students competed in teams to draw districts with the fairest boundaries for a cash prize.

In Washington, at least one effort is underway to open the redistricting process for public participation. Dave Bradlee, a software engineer living in Seattle, has created "Dave's Redistricting Application", a Silverlight application with Bing maps as the background overlaid with census data for the entire nation. I spoke with Dave in early April to discuss his application.

Dave created this application in early 2009 because of his interest in politics and to try his hand at drawing maps related to the redistricting process. Not finding any ready-made tools available, and having 20 years of experience as a software engineer at Microsoft, he decided to create his own. In making his tool public, his primary goal was to make the redistricting process more understandable and accessible, but he also wanted to give people the ability to influence the redistricting process. Although the application is supported by several liberal organizations, the tool itself is completely non-partisan, and has been used by conservatives as well.

Dave did not use Esri's Silverlight API, he simply built his application from scratch. He took shapefiles and tabular data from the Census Bureau and extracted only the data he needed. One of his biggest challenges was the sheer volume of data which caused the application to run slowly. For example, large states like New York and California used 500MB of RAM. He took several measures to improve the application's processing time. He used voting districts as the smallest geographical unit instead of blocks. He created his own tool to make his own version of shapefiles: instead of storing every point, it takes the first point and stores delta values for the remaining points, resulting in reduced file size. He also used the Douglas-Peucker algorithm to reduce the number of points. The resultant dataset has some topology issues such as small gaps and overlaps, but Dave believes the benefit of the improved performance outweighs these minor errors. Finally, all the data is cached locally on the user's machine, except for the Bing maps, which go through the server.

To operate the tool, the user simply assigns voting districts to districts of their choice, and the application aggregates the population data from each voting district into the larger district, and provides the totals to the user.

*See: GIS for Redistricting, Page 3*

### Rules for Redistricting

#### Districts should:

- Be equal in population (as much as practicable)
- Be contiguous and compact (avoid overly odd shapes)
- Align with local political boundaries (ie. cities and counties)
- Maintain "communities of interest"
- Not favor one political party over another
- Encourage electoral competition
- Include a "minority-majority" district if necessary, which is defined as a minority group that makes up a majority in a particular area
- Not result in an elected official being drawn out of their home district

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# GIS FOR REDISTRICTING

*Continued from page 2*

Dave's Redistricting Application is available for all states (except Alaska<sup>1</sup>) and is available online at <http://gardow.com/davebradlee/redistricting/launchapp.html>

So now that the public has the means to create their own redistricting plans, what can they do with them? If they want these plans to be considered for implementation, they must submit them to the Washington State Redistricting Commission.

I spoke with Nick Pharris and David Valiant, analysts for the Commission. Although the Commissioners create the plans, Nick and David provide the tools for the Commissioners to re-draw the boundaries. They told me that the Commission is using software called "autoBound". It is an extension that specializes in redistricting and sits on top of ArcGIS. This tool calculates population totals on the fly as boundaries are re-drawn, and it also has the ability to integrate custom datasets such as previous voting history.

Nick and David told me that one of their biggest challenges was making sure the data from the Census Bureau was correct, and going through the process of submitting errors to the Bureau when necessary. Since Census lines may be based on old data (such as old logging roads) or non-visible features (such as school district boundaries), there is plenty of room for error when using this data to delineate precincts. Nick mentioned one case where a school district line was drawn more than a mile away from its correct location, putting thousands of people as well as two schools in the wrong district. Nick and David worked with the Office of the Superintendent (which wasn't using GIS at the time) to collect legal descriptions, correct the lines, and submit the corrected data to the Census Bureau.

*See: GIS for Redistricting, Page 4*

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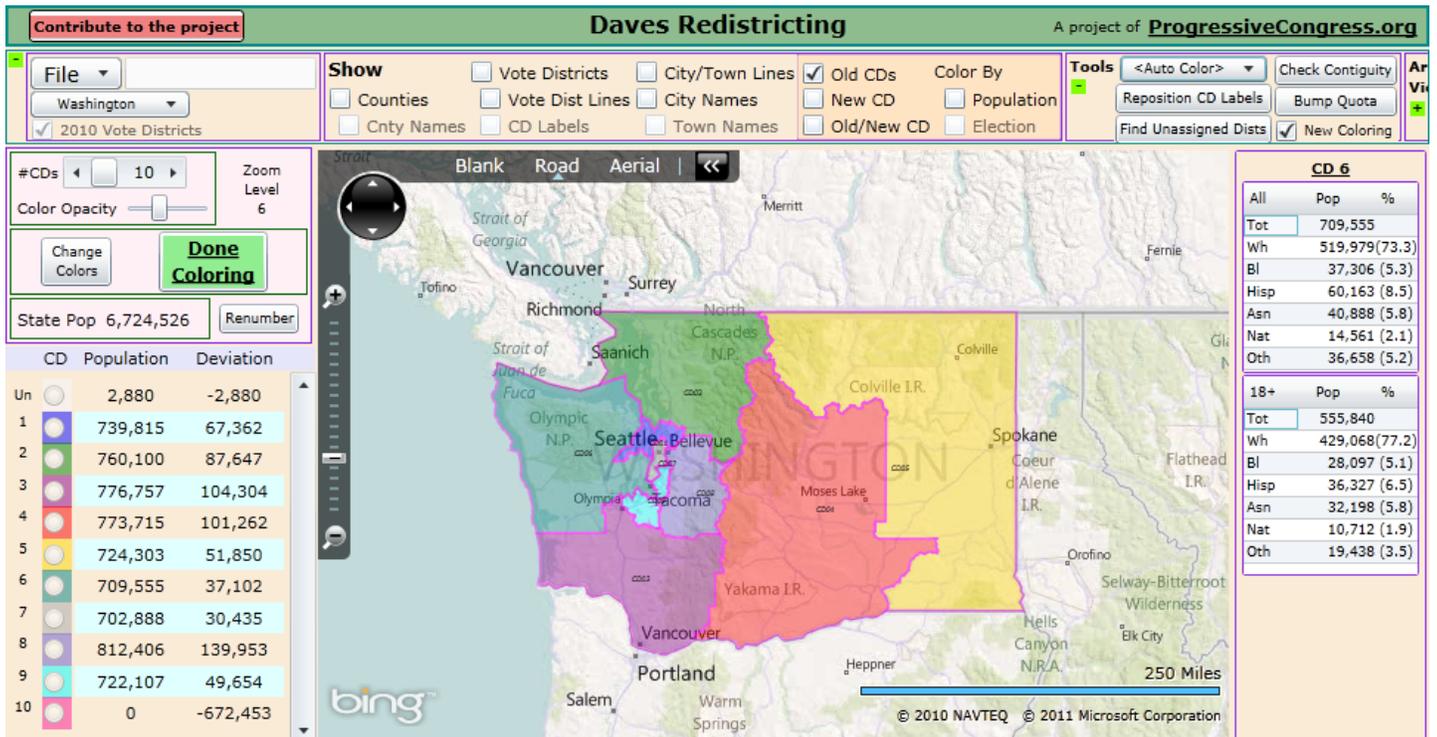


Figure 1. A screenshot of Dave's Redistricting Application.

# GIS FOR REDISTRICTING

*Continued from page 2*

The Commission is encouraging the public to submit redistricting plans for consideration. Although there is a core group of citizens who are already passionate about redistricting, there hasn't been broad public interest yet. This situation is expected to change as media coverage increases and the process gets underway. The Commission is currently in the process of hiring a Communications Director to manage public outreach.

Public submissions in the form of shapefiles and geodatabases are encouraged over paper maps, because they can be brought into the Commission's software and analyzed to ensure they meet the necessary criteria. Also, paper maps have difficulties illustrating detail in densely populated areas. Nick and David are currently researching options for providing applications to the public to draw their own boundaries: two contenders are autoBound and Esri's Redistricting software. They are also considering Dave's Redistricting Application, although the minor topological errors might preclude this option<sup>2</sup>. One concern is balancing voter privacy with public information. Some precincts have a very small population and may even consist of a single family. In that case, publishing the precinct's voting history could compromise voter privacy. On the other hand, the voting history is valuable to ensure the criterion of a competitive district is met.

The Commission has published two "malapportionment" maps which show current population compared to target population. These maps are available for Congressional Districts (Figure 2) and Legislative Districts at <http://www.redistricting.wa.gov/pages/existingplan.html>. More information about the Washington Redistricting Commission is available at <http://www.redistricting.wa.gov/> along with their schedule for public meetings.

<sup>1</sup>Since Alaska crosses the 180<sup>th</sup> meridian, it violates some of the assumptions used in the algorithms. Since Dave hasn't had many requests from Alaskans to include their state, he has decided to focus on other improvements instead.

<sup>2</sup>Note the small discrepancies between the two figures in this article. They have slightly different population counts for each district, and Dave's Redistricting App loads with 2,880 people currently unassigned to any district.

Contact Eadie Kaltenbacher: [ekaltenb@co.kitsap.wa.us](mailto:ekaltenb@co.kitsap.wa.us)

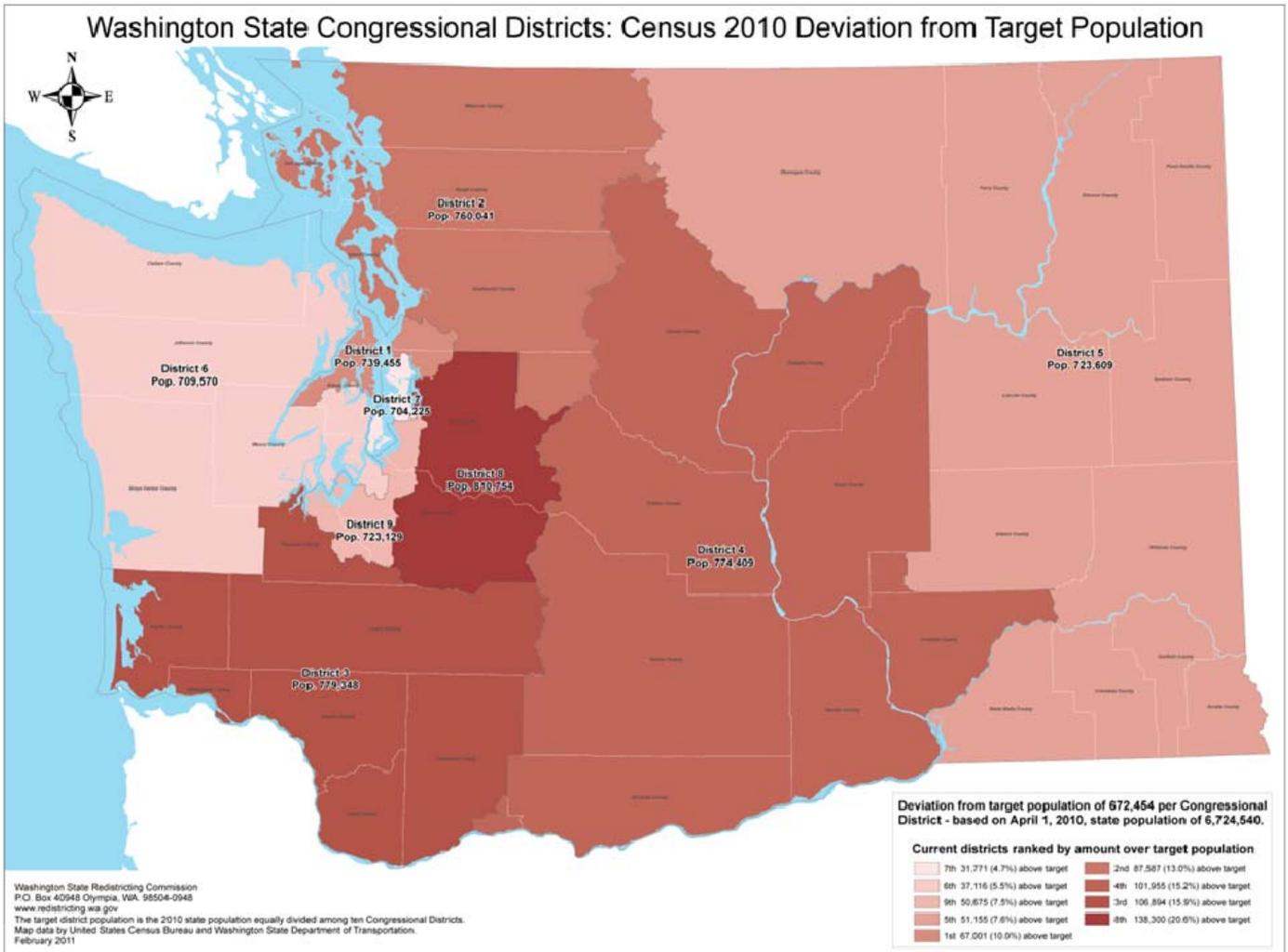


Figure 2. Congressional District Malapportionment map created by the Washington State Redistricting Commission.

## WHEN PRACTICE AND POLICIES COLLIDE - GOODBYE TO GPS AS WE KNOW IT

By Holly Glaser, GISP

When the Federal Communications Commission (FCC) permitted LightSquared LLC to broadcast ultra wide band (UWB) next to the GPS frequencies, The Federal Aviation Administration was outraged – also the military, and most people who rely GPS for business, landing at airports, military uses and public safety.

The Coalition to Save Our GPS formed to fight this decision, stating that *"LightSquared plans to transmit ground-based radio signals that would be one billion or more times more powerful as received on earth than GPS's low-powered satellite-based signals, potentially causing severe interference impacting millions of GPS receivers - including those used by the federal agencies, state and local governments, first responders, airlines, mariners, civil engineering, construction and surveying, agriculture, and everyday consumers in their cars and on handheld devices."* Despite tests showing that planes lost GPS signals needed for safety miles away from UWB broadcast points, the FCC stood by their decision. There's one condition that has to be met before LightSquared can start broadcasting. They must fix the interference issue by working with the GPS industry and the National Telecommunications and Information Administration to find a solution, deliverable by June 15<sup>th</sup>, 2011. NTIA's site at <http://www.ntia.doc.gov/> has more about this. The first report on this effort came out in March and the next will be out by the time you read this.

Why the rush? It all about policy. The department of Commerce runs the FCC and the President sets policies for agencies to follow. Current space and spectrum policies include eliminating the digital divide by building out wireless broadband to the door, increasing commercial use of the spectrum, raising the price of leasing bands and changing the GPS constellation so that U.S. GPS receivers can pick up signals from Russia's GLONASS system. FCC's goals include 'increased spectrum flexibility in a high quality block of spectrum known as the MSS band'. Although the GPS community presented tests showing that UWB and GPS could not share the same slice of spectrum, the FCC found that making broadband wireless happen using LightSquared's network of satellites and ground stations met their goals, and technical problems with signal interference were secondary. FCC is also looking ahead to 2020, when the constellation will broadcast in 3 bands: L1, L2C and L5, and support of the current L1 and L2 signals will end. At that point, the plan is that L5 GPS signals from Russian GLONASS and European GALILEO satellites will add to the number of GPS broadcasters.

*"..the FCC found that making broadband wireless happen using LightSquared's network of satellites and ground stations met their goals, and technical problems with signal interference were secondary."*

While that is a lovely vision of the future, the grim reality is that the new satellites have to be paid for, built and launched before they can be integrated, tested and finally used. This is one case where a good policy, poorly implemented, is creating a huge mess.

It takes time to change the GNSS, even if nothing changes the launch schedule and Europe figures out how to pay for GALILEO. Unfortunately the FCC decision is based on the future, not the present in which we live and use GPS. Warning! Your high accuracy receivers have 9 more years before they become decorative objects. You may want to consider providing information on this issue to your elected representatives. If you do, [www.saveourgps.org](http://www.saveourgps.org) has helpful resources on the specific problems caused by new UWB. For now, all we can do is watch the skies for changes and see if a solution to the UWB interference can be found.

### Policies for GPS

*"Maintain and Enhance Space-based Positioning, Navigation, and Timing Systems. The United States must maintain its leadership in the service, provision, and use of global navigation satellite systems (GNSS). To this end, the United States shall:*

*—Provide continuous worldwide access, for peaceful civil uses, to the **Global Positioning System (GPS)** and its government-provided augmentations, **free of direct user charges;** ..."* U.S. National Space Policy (June 28, 2010)

*"Expanded wireless broadband access will trigger the creation of innovative new businesses, **provide cost-effective connections in rural areas, increase productivity, improve public safety, and allow for the development of mobile telemedicine, telework, distance learning, and other new applications that will transform Americans' lives.**"* Presidential Memorandum: Unleashing the Wireless Broadband Revolution June 28, 2010

*"The mobile **broadband revolution** is upon us. **The opportunity is huge!** We at the FCC are committed to unleashing spectrum to help realize its full potential"* Julius Genachowski, Chair of the FCC

Contact Holly Glaser at: [h.glaser@comcast.net](mailto:h.glaser@comcast.net)





March 30, 2011

Governor Christine Gregoire  
Office of the Governor  
PO Box 40002  
Olympia, WA 98504-0002

Dear Governor Gregoire:

We wish to join our colleagues across Washington in expressing our support for the Washington State GIS Strategic Plan and the accompanying Business Plan. We would hope to call your attention to these plans as great examples of statewide efforts to streamline state and local business processes and move in significant ways toward more efficient and effective government. We are adding our voices to the letter of support you received recently from the Washington Chapter of the Urban Regional Information Systems Association (WAURISA).

The State of Oregon is pursuing similar plans that envision integration of government business processes using geospatial data and technology as an integration platform. These plans have been in place in Oregon for a decade and great progress has been made toward closing the gaps between government silos of information and processes. Governor Kitzhaber's Chief Advisor on Jobs and the Economy recently noted at our GIS in Action conference in Portland that the coordinated statewide GIS program in Oregon is helping lead our economic recovery. The State of Idaho also recently completed similar plans and implementation is underway there. If such plans are initiated and eventually implemented in Washington, our states can work together more closely to achieve even greater results across the region.

We are already collaborating in at least one important way, on a regional pilot project called Virtual USA, the development of a web-based common operating picture for emergency first responders at every government level, using GIS technology and shared geospatial data and maps. The Virtual USA pilot project also includes Montana and Idaho and has been very successful, with the tools already being used for several winter storm events and the recent tsunami caused by the Japan earthquake.

More such collaborative efforts will be enabled by the Washington GIS Strategic and Business Plans, in combination with the Idaho and Oregon plans. The implementation of these plans will enable government agencies at all levels within and between our states to operate together in more effective, efficient ways, more like a government enterprise rather than as separate agencies, departments, etc.

As separate agencies and departments, we may achieve limited success, but our goals and processes are often redundant and overlapping. That sort of inefficiency does not have to be the order of the day. Well planned and coordinated development of a geospatial platform, as envisioned by the GIS Strategic and Business Plans, enables government agencies to find and eliminate redundant government business activities and share the data and technology that support more efficient processes. There is a growing body of evidence that investment in geospatial technology and dissemination of data and applications by government agencies deliver significant return on investment (ROI).

The Oregon and Southwest Washington Chapter of the Urban & Regional Information Systems Association ([www.orurisa.org](http://www.orurisa.org)) urges you to give serious consideration to the implementation of these plans in the State of Washington. As a professional association of more than a thousand GIS professionals in Oregon and Southwest Washington, we stand ready to advocate for, and implement continued and increased geospatial collaboration between our two states and their local governments.

Respectfully,



Robert Haas, Co-President OR-URISA  
GIS Manager, Deschutes County, Oregon



Bob Pool, Co-President OR-URISA  
GIS Manager, Clark County, Washington

Cc: Jay Manning, Governor's Chief of Staff  
Senator Ed Murray, Senate Ways & Means Chair  
Rep. Ross Hunter, House Ways & Means Chair  
Rep. John McCoy, House Technology, Energy & Communications Chair  
WAURISA Board of Directors

**Editor's Note: The Oregon Chapter of URISA reinforced WAURISA's support of the State of Washington's new GIS Strategic Plan and Business Plan (see *The Summit*, Winter 2011 issue), by sending the letter shown on these pages to Gov. Gregoire and other key State officials. The Washington and Oregon chapters of URISA both urge you to contact the Governor and your state legislators and let them know your opinion about implementing these critical GIS plans.**

**2011 WASHINGTON GIS CONFERENCE:  
"MAPPING WASHINGTON'S FUTURE"  
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*By Whitney Bowerman, Summit Editorial Staff*

No GIS event in the Pacific Northwest matches the dollar for dollar value of the annual Washington GIS Conference – bring one great idea home and the conference will repay itself many times over. The premier GIS conference in the region, this event offers three days of high quality workshops and conference sessions delivered by instructors, speakers and vendors with knowledge and solutions you can use now. Join hundreds of analysts, managers, technicians, and coordinators working on similar issues and enjoy the education and insight gained by participating in a professional community. Attending the conference and workshops also provides GISCI credits to help you achieve or maintain your GIS Professional certification. Additional GISCI credits and conference price discounts are available to those presenting in a track or poster session. Registration includes continental breakfast, lunch and refreshments each day.

**Keynote Presenter: Jack Dangermond**

In keeping with the "Mapping Washington's Future" conference theme, Jack's keynote presentation will focus on the Future of GIS, and what it means for technology advancements in data collaboration, citizen engagement, and the future of the GIS professional.



*Jack Dangermond  
2011 Washington GIS Conference Keynote Speaker*

**Workshops and conference tracks:**

Please see the following pages in *The Summit* to select your Monday workshop and to plan your time after the keynote on Tuesday and Wednesday – there are so many good presentations to attend!

**See: 2011 Washington GIS Conference, Page 9**

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## 2011 WASHINGTON GIS CONFERENCE

*Continued from page 8*

### Social activities:

- Monday evening post-workshop beer and pizza at The Rock Wood Fired Pizza for a casual dinner with fellow workshop participants.
- Tuesday Vendor Social: enjoy tasty appetizers and a cash bar as you talk with colleagues and vendors. The popular Vendor Passport Contest is happening again this year: visit with vendors and have them stamp your passport. Drop your passport in the box at the back of the vendor room for a chance to win a \$100 gift card, and other prizes (must be present to win, announced at 6:15 p.m.). Remaining passports will be automatically entered into a drawing to win additional prizes at the closing session Wednesday afternoon.
- Up for more fun after the vendor social? Take a leisurely 4-block walk to the Celtic Bayou Irish Pub and Cajun Café for beer, dinner, conversation, and games (3 pool tables, a dart board, and video games).
- Wednesday morning fun run: Start the day off right with the Inaugural Washington GIS Fun Run! Road Warriors Greg Babinski, Heather Glock and their compatriots will tour the Interurban Trail - an easy out and back route that will allow participants to run as much or as little as they like. The group will meet at 6:45 am at the Lynnwood Convention Center and return by 7:30 a.m.

### GISCI points:

- Workshop Attendance - 0.2 (certification), 1.33 (renewal)
- Conference Attendance - 0.4 (certification), 2.67 (renewal)
- Workshop Presenter - 3 (certification), 9 (renewal)
- Conference Presenter - 1 (certification), 3 (renewal)
- Enter Map Contest - 1 (certification), 3 (renewal)
- Washington URISA Membership (included in conference registration) - 1 (certification), 3 (renewal)

### Registration:

- It's not too late to register for the 2011 Washington GIS Conference. Check out the preliminary program – you'll see there's something for everyone! Be a part of the premier GIS event in Washington State and register today: <http://www.regonline.com/builder/site/Default.aspx?EventID=872822>.

### View conference details:

[www.waurisa.org/conferences](http://www.waurisa.org/conferences)



*We sincerely look forward to seeing you in Lynnwood!*

Contact Whitney Bowerman: [whitneykate@gmail.com](mailto:whitneykate@gmail.com)



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## 2011 AAG CONFERENCE IN SEATTLE

The 2011 Association of American Geographers (AAG) Conference was held in Seattle earlier this month. Over 7300 people registered for the event, with attendees from around the world.



The event began on Monday, April 11, with a special workshop titled 'Law and the Geoweb' held on the Microsoft campus in Redmond. This workshop focused on intellectual property issues with geographic data, exploring situations when users and creators who range from individuals to local, state, and federal agencies, private companies and non-profits create, share, and reuse geographic information from different sources in their projects.

Participants included Cy Smith, State of Oregon GIO, Greg Babinski, King County GIS Center, Ed Parsons from Google Maps, Steve Coast, founder of Open Street Map, Tim Trainor, USCB Geography Division, Tim Vollmer, Creative Commons, and Paul Uhlir, National research Council.

For more information and to view a video of the workshop, see: <http://punkish.org/geoweb/index.html>.

To browse the conference program archives, see: <http://www.aag.org/cs/annualmeeting/pastprograms>. For videos of key AAG Conference addresses, see: <http://www.aag.org/cs/annualmeeting/videos/2011>

### Washington State vendors represented at AAG 2011



*Joseph Kerski, ESRI Education Manager*



*Tom Carlson from the USGS*

See: 2011 AAG, Page 11



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# 2011 AAG CONFERENCE

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Amy Lonn-O'Brien & Laurie Charles promote EWU GIS



Raleigh Seamster, Tina Ornduff & Jamie Adams from Google



Gavin Gray, Cheryl Wilder & Mike Leathers from the KCGIS Center



Michael Gerlek & Michael Patrick from OSGeo



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This conference evolved from URISA's Street Smart and Address Savvy Conference and the Geospatial Integration for Public Safety Conference). This event, co-sponsored by the National Emergency Number Association, brings together GIS professionals, addressing coordinators, 9-1-1 and emergency response specialists to one place for opportunities in networking and learning.

<http://www.urisa.org/addressing/2011call>



URISA is pleased to present this specialty conference, to explore the many uses of GIS for public health access, processes, and decision-making. The inaugural conference took place in May 2007 in New Orleans. In 2009, the conference was presented in Providence, Rhode Island and the event will be presented every two years.

[http://www.urisa.org/2011health\\_call](http://www.urisa.org/2011health_call)



URISA and the Center for Urban Transit Research partner to present the GIS in Transit Conference.

[http://www.urisa.org/gis\\_transit](http://www.urisa.org/gis_transit)

## GIS-Pro: URISA's Annual Conference for GIS Professionals



November 1-4, 2011  
Indianapolis, Indiana

**Start Planning Now for GIS-Pro 2011 in Indy!**

*New Name...New Opportunities...Amazing Value*

<http://www.urisa.org/conferences/aboutgis-pro>

## URISA Leadership Academy

**Don't miss your ONLY opportunity to attend the URISA Leadership Academy in 2011!**

*Just Announced! New dates for the ULA in St. Louis!*

Because of a scheduling conflict, the ULA dates have been revised and attendees can now take advantage of even lower room rates at the Moonrise Hotel.

*~New Dates~*  
**June 13-17, 2011**  
*Moonrise Hotel*  
*St Louis, Missouri*

[WWW.URISA.ORG/ULA](http://WWW.URISA.ORG/ULA)



2010 ULA Graduates, Baltimore, MD



The Association For **GIS** Professionals

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Have you seen the new URISA Website? See: [www.URISA.ORG](http://www.URISA.ORG)



### Topics:

State GIS Business Plan  
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### The Best Local GIS Conference

The Washington GIS Conference has the content of the national conferences without the travel and expense. WAURISA is a volunteer organization that operates on a non-profit basis. Comparable training runs 3 to 4 times the cost of this conference. Get to know and learn from the top GIS shops of the northwest.

The 2011 Washington GIS Conference, "Mapping Washington's Future" will be held May 9-11 at the Lynnwood Convention Center. Come learn from the northwest's leading GIS shops and vendors.

The pre-conference workshops are on Monday. The opening session, keynote, GIS Person of the Year Summit Award, presentations, vendors, map contest, and evening social start on Tuesday.

More Information at:

<http://www.waurisa.org/>

**Jack Dangermond announced as 2011 keynote speaker!**



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### WAURISA

The Washington State Chapter of The Urban & Regional Information Systems Association  
 Serving Washington's GIS Community



Pre-Conference Workshops, Monday, May 9th, 2011

Morning Workshops, 8am - Noon	Creating Web Maps with ArcGIS Server and ArcGIS.COM - Esri (Workshop Full; Sign up for waiting list.)
	An Introduction to Land Surveying for GIS Technicians and Professionals - Michael Kulis, GISP
	Working with GIS resources in AutoDesk AutoCAD Map 3D and Civil 3D - PacificAD
Afternoon Workshops, 1pm - 5pm (unless noted)	Census Data for Community Research - US Census Bureau (ends at 4:00 pm)
	Making Great Apps: User Experience and Agile Development for GIS - Forge Apps
	Getting Started with ArcGIS Mobile - Esri (Workshop Full; Sign up for waiting list.)
	Asset Management Planning, Strategy, and Implementation - Data Transfer Solutions
All Day Workshop, 8am - 5pm	URISA GIS Capability Maturity Model and Geospatial Management Competency Model - URISA President-Elect

**It is not too late to register for the 2011 Washington GIS Conference. Take a look at the preliminary program...there is something for everyone. Register at: <http://www.waurisa.org/>**

Tuesday					Wednesday					
9:00am - 4:00pm Conference Registration					9:00am - 4:00pm Conference Registration					
8:00am - 9:00am Continental Breakfast					8:00am - 9:00am Continental Breakfast					
9am - 10:30am Opening Session					Time Room 1D Room 1E Room 1F Room 1G/1C Vendors: Room 2B/2C					
Welcome & Keynote Address					Land Information System Redesign: Designing and Building the Ultimate Parcel and Address Repository by Ann Boyd and Magen Michael, City of Bellevue					
Keynote by Jack Dangermond, ESRI President					Modeling Future Growth: An Introduction to the Envision Skagit 2060 Project by Joshua Greenberg, Skagit County (45 minutes)					
10:30am - 11am Morning Break					Geocollaboration and Mobile GIS Solutions by Brad Tatham, GIS Services					
Time Room 1D Room 1E Room 1F Vendors: Room 2B/2C					The Oblique Image and its Benefit to E911 & NGS11 by Scott Faust, Pictometry (45 Minutes)					
11am - Noon	Implementing the State's GIS Business Plan: Enterprise GIS Program and Shared Access to Geospatial Data by Joy Paulus, WA State GIS Coordinator	Using LIDAR to Interpret Landslide Kinematics and Sediment Yield by Rodney Cope, Eagle Mapping Inc.			8:30am - 10am	Mobile GIS Interactive Mapping: Utilizing ESRI's Flex API for ArcGIS Server by Joe Wong, Critigen	Role of a Surveyor in GIS by Tim Griffin, PLS, Tyee Surveyors	Monitoring Seattle, Olympia and Tacoma Forest Canopies Using Object-Based Image Analysis by Dr. L. Monika Moskal and Diane M. Steys, University of Washington	openbase map.org -- A Project of your Local Open Source GIS Group -- CUGOS by Aaron Patrick, Z-Pulley Inc.	Forge Apps (15 Minutes)
	Panel Discussion - To Be Determined	Current Topics in Open Source LIDAR by Michael P. Gerlek, Flaxen Geo Consulting					Mapping Inside: Creating a Floor Plan by Jeffrey Linn and Eric Dast, UW Office of Planning and Budgeting		Development Considerations for ArcGIS Desktop Add-Ins by David A. Howes, Integral GIS, Inc.	Fully Leverage Your GIS to Manage Municipal Infrastructure by Josh Stroessner, Cityworks   Azteca Systems, Inc.,
Noon - 1pm Lunch					10am - 10:30am Morning Break					
1pm - 2:30pm	Mapping Washington's Future Involving K-12 Students by Karen Dvornich, College of the Environment, UW; Diane Petersen, 4th Grade Teacher, and 4 Students from Waville, WA	The NHD: What is it and What Can it Do for You? by Dan Saul and Le O'Dea, WA State Dept. of Ecology	Tips and Tricks for Automating GIS Maintenance with Python by Ann Stark, GISP, and Brian Small, City of Bellingham		The PPI Group (60 Minutes)					
	The New ESRI K-12 Washington State Site License by Heather Glock, ESRI	Moving from "Whatchamacallit" to a Standard Naming Convention for Surface Water Assets by Hollie Brandt, Scott Reese, and Elaine Eberly, Seattle Public Utilities	Municipal Reporter Incident Management by Jim Lahm, Electronic Data Solutions		Advancements in High-Accuracy Data Collection Using Handheld GIS Devices by Bryce Freed, GeoLine, Inc.					
	Interactive Presenting, Using ArcGIS to Present Information to an Audience by Kelly Alfaro Hauge, Thurston County GeoData Center				10:30am - Noon					
2:30pm - 3pm		Mapping Floods, Damage, Development, and Habitat for the National Wildlife Federation by Matt Stevenson, CO RE GIS	FME for Spatial Processing by Jim O'Leary, City of Vancouver, Canada		Data Design and Auditing Addreses for an Emergency Dispatch Travel Network by Donna Wendt, Wendt GIS					
					Getting Your 3D Data Into Your 2D Paper Printout by Craig Hanson, Windward Environmental LLC					
					CADweed mapper -- Mapping the Spread of Invasive Plant Species by Karsten Vermeann, TerraGIS Ltd.					
3pm - 4:30pm					Using Geographic Information System (GIS) Technology to Track Post-Dredge Monitoring Data in the Lower Duwamish Waterway by Michael T. Yarns, Windward Environmental LLC					
					Incident Level Symbolology by Chris Rogers, Kirkland Fire Department					
					Tourist Map Production Using GIS and Desktop Publishing Software by Julianne Fogde, WA State DOT					
					Near Real Time Data Collection for Emergency Management by Eric Dreickpohl, Port of Seattle					
					Cartographic Standards and Practice in Academic Journals by Robert Norheim, University of Washington					
					Defining the Wildland-Urban Interface for Wildfire Hazard at Different Spatial Scales by Shea McDonald, Dwight Barry, Peninsula College, and Chris Desisto, NFS					
2:30pm - 3pm Afternoon Break					Noon - 1:30pm Box Lunch / Leadership Meeting 12:15 pm to 1:15 pm in Room 1F					
3pm - 4:30pm	2010 Census Data Release and Current Geographic Programs by Michael Garcia, US Census Bureau (60 minutes)	Depicting Yakima Basin Stream Discharge and Spring Chinook Out-migration with Linear Referencing and Time Animation by Paul Huffman, Yakima National Fisheries	Python Productivity for FME by Jim O'Leary, City of Vancouver, Canada		A Time Aware GIS System for Managing Winter Transportation Operations by Julianne Fogde, Washington State DOT					
					Emerging Applications at Seattle Public Utilities by Stephen Beiborn and Harvey Arnone, Seattle Public Utilities (60 Minutes)					
					ROI: King County Measures the Benefits of GIS by Greg Barski, King County GIS Center					
					Zen and the Art of GIS Program Coordination -- The Community Transit Experience by Jeff Anderson, Community Transit					
					Collaboration for GIS Development by Don Burdick, City of Bellingham, and Kirk VanGorkum, Forge Apps (45 minutes)					
					Sustainable Asset Management by Gregg Selby, Weston Solutions, Inc.					
					Developing an Interactive Map to Show the Use of Transferable Development Rights in King County, WA, by Michael Murphy and Harkeratka, KC Dept. of Natural Resources and Parks					
					Putting Open Source Geospatial Software to Work for Your GIS Tasks by Karsten Vermeann, TerraGIS Ltd.					
					CRW Systems, Inc.					

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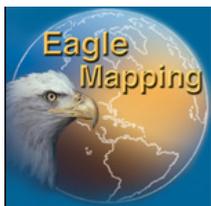
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- King County GIS Center

## THE SUMMIT - EDITORIAL

### LAW AND THE GEOWEB – PROBLEMS AND POTENTIAL

The 'Law and the Geoweb' Workshop held during the 2011 AAG Conference on the Microsoft Campus in Redmond (see page 10 in this issue of *The Summit*) brought together a diversity of viewpoints and opinions related to the use of GIS data. Organized by Puneet Kishor from the University of Wisconsin, the focus of the discussion was on the potential of GIS data developed and maintained by local and state agencies, commercial ventures like Google and Bing, and crowd sourced via Open Street Map and other organizations. The discussion also included the viewpoint of the federal government (represented by the U.S. Census Bureau) and the broad end-user community represented by the National Research Council.

Among Bing, Google, Open Street Map, and federal, state, and local government mapping agencies, a tremendous amount of effort is being expended on useful geographic data. Much of this effort is duplicative. The potential from coordinating and rationalizing data collection and maintenance among this community is tremendous.

So, what's the problem? It became apparent during the workshop that there are both institutional and legal problems related to achieving this potential.

U.S. and international copyright law protect original content for the benefit of the creator or rights holder. Even under the best of intentions by GIS data creators to share their data openly and freely, there remains a legal cloud for the reuse of data by others. And in many cases the intents of data creators is not the best. Many local jurisdictions, states, and the federal government place restrictions or impediments on the reuse of Geospatial data. Hopefully the ROI from reuse of GIS data from the broader economy will soon become apparent and motivate government agencies to liberalize their laws and actually promote data sharing.

Legal impediments created by copyright law can be addresses by publishing geospatial data with a Creative Commons License that enables free reuse. An issue that needs to be addressed though is liability from reuse of GIS data. Government agencies will typically want the user of their data to assume all liability from reuse.

Another problem for local and state agencies is obtaining and maintaining adequate funding for their geospatial data maintenance programs. The availability of geographic data from Bing, Google, and Open Street Maps is good, but does create a potential problem for local agencies that have to explain why these free or near-free data sources do not meet typical municipal GIS data requirements.

The Law and the Geoweb workshop did not answer all of these questions, but did provide a useful forum for identifying the issues and begin discussing a way forward.



*The Summit* is published by WAURISA. To encourage the discussion of issues and ideas of importance to the Washington GIS community we welcome letters to the editor or opinion essays. Letters to the editor should be a maximum of 100 words and essays should be limited to 500 words.

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For subscriptions, content, comments, or suggestions, email:  
[Summit@WAURISA.org](mailto:Summit@WAURISA.org)

## PUBLIC MAPS IN WASHINGTON

Community Transit's new Swift bus service along Highway 99 in Snohomish County features enhanced transit rider shelters. The shelter at 238<sup>th</sup> Street SW features this historical map of Edmonds set in the sidewalk, along with a Swift bus route map.



Greg Babinski photos

Do you know of a public map display in Washington? Send it to *The Summit* and we'll include it in a future issue.  
 -Editor

## THE SUMMIT – LITERARY CORNER

### The Book of Joshua

- 3) So Joshua said to the Israelites: "How long will you wait before you begin to take possession of the land that the LORD, the God of your fathers, has given you?"
- 4) Appoint three men from each tribe. I will send them out to make a survey of the land and to write a description of it, according to the inheritance of each. Then they will return to me.
- 5) You are to divide the land into seven parts. Judah is to remain in its territory on the south and the house of Joseph in its territory on the north.
- 6) After you have written descriptions of the seven parts of the land, bring them here to me and I will cast lots for you in the presence of the LORD our God.
- 7) The Levites, however, do not get a portion among you, because the priestly service of the LORD is their inheritance. And Gad, Reuben and the half-tribe of Manasseh have already received their inheritance on the east side of the Jordan. Moses the servant of the LORD gave it to them."
- 8) As the men started on their way to map out the land, Joshua instructed them, "Go and make a survey of the land and write a description of it. Then return to me, and I will cast lots for you here at Shiloh in the presence of the LORD."
- 9) So the men left and went through the land. They wrote its description on a scroll, town by town, in seven parts, and returned to Joshua in the camp at Shiloh.'

- - Joshua 18, 3-9

## GIS USER GROUPS IN WASHINGTON

### ACSM – Washington State Section

<http://www.wss-acsm.org/>

### ASPRS Puget Sound Region

<http://www.photogrammetry.com/ASPRS-PSR/>

### Cascadia Users of Geospatial Open Source

<http://groups.google.com/group/cugos/>

Contact Karsten Venneman at: [karsten@terragis.net](mailto:karsten@terragis.net)

### Central Puget Sound GIS User Group

<http://waurisa.org/phpBB2/viewforum.php?f=24>

Contact Nora Gierloff at: [ngierloff@ci.tukwila.wa.us](mailto:ngierloff@ci.tukwila.wa.us)

### Central Washington GIS User Group

Meets the 2nd Wednesday of each month.

For information contact Amanda Taub at:

[ataub\\_gis@yahoo.com](mailto:ataub_gis@yahoo.com)

### King County GIS User Group

<http://www.kingcounty.gov/operations/GIS/UserGroups.aspx>

Meets 1st Wednesday every other month at 11:00am at the KCGIS Center, 201 S. Jackson Street, Seattle WA, Conf Room 7044/7045.

### Northwest Washington GIS User Group

[http://www.acadweb.wvu.edu/gis/nwgis\\_mtgs.htm](http://www.acadweb.wvu.edu/gis/nwgis_mtgs.htm)

### Southeast Washington/Northwest Oregon GIS User Group

For more information, contact Chris Owen:

[cowen@ci.walla-walla.wa.us](mailto:cowen@ci.walla-walla.wa.us)

### Washington Geographic Information Council (WAGIC)

<http://wagic.wa.gov/>

Join Listserv at: <http://listserv.wa.gov/archives/wagic.html>

### Washington Hazus Users Group

<http://www.usehazus.com/wahug>

Contact Cathy Walker at: [c.walker@mil.wa.gov](mailto:c.walker@mil.wa.gov)

To have your GIS related group or event listed in future issues of *The Summit*, notify the editor at:

[SummitGISNews@URISA.org](mailto:SummitGISNews@URISA.org).

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