

THE SUMMIT

News From and For The Washington GIS Community

WAURISA

The Washington State Chapter of
The Urban & Regional Information Systems Association



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Issue 2

CITY OF WALLA WALLA'S GEOGRAPHIC INFORMATION SERVICES

Chris Owen, City of Walla Walla GIS Supervisor

The City of Walla Walla, population 30,630, lies in a valley nestled between the foothills of the Blue Mountains and the rolling hills of the Palouse. The City of Walla Walla is located in one of the primary agriculture producing regions of the State on the eastern edge of the Columbia and Snake River basins in southeastern Washington. The City serves as the marketing, trading and educational hub for over 50,000 people in southeastern Washington and northeastern Oregon.

Two-thirds of the County's acreage is classified as suitable for growing grain, green peas and other specialty crops, such as grapes. There are over 60 wineries in the Valley and the setting makes it ideal for enjoying the wines. The City of Walla Walla has received a number of awards, including "The Best Main Street in the West" (Sunset Magazine 2002), "The West's Best Places to Live" (Sunset 12/20005), and "Best Wine Destination of the Year" (Sunset, 8/2005).

GIS in Walla Walla

The City of Walla Walla has been working towards a GIS since about 1996. GIS has been through different stages of development during that time. The City's investment in technology and network infrastructure in 2001 provided a springboard to reconsider GIS mapping and the capabilities it could offer. During that same year, a GIS strategic plan began taking form, which included the hiring of a GIS Coordinator and moving GIS under Public Works Administration. Previously, the GIS staff was in two different departments, Development Services and the Water Division of Public Works. This move was made to provide a more centralized GIS service.

The GIS strategy and plan included 3 key components:

1. Provide high accuracy and quality features and products
2. Provide access to all City users
3. Provide support, training, and stay current with technology

The plan was implemented successfully and GIS quickly become a core City business component. Because of its success, GIS was moved to Technology Services in 2005. This strategy placed GIS at the forefront of technology at the City. GIS technology is now a driving force for any City-wide technology application requisition and development. Other important advantages include direct access to servers, technology support, and increased team building. Another GIS accomplishment in 2005 included winning an award. ESRI awarded the City of Walla Walla with the Special Achievement in GIS Award for the State of Washington. This award was presented at the 2005 ESRI User Conference in San Diego, California.

See WALLA WALLA GIS, Page 2

PRESIDENT'S COLUMN: HAPPY HOLIDAYS TO ALL WASHINGTON GIS PROFESSIONALS:

The Washington Chapter of URISA is happy as a point in a polygon to announce our newest educational endeavor. Historically we've tried to present a Winter Workshop every year but we're especially excited about this one: The GIS Developers Winter Workshop.

We've been surfing (or snowboarding) GIS web sites, taking polls, and asking around and have determined that you are very interested in knowing more about the application development aspect of GIS, that special place where human and machine team up to get the work done. Not everybody can, or wants to be, a GIS developer but, as GIS users, we are all impacted by this aspect of our profession.

The GIS Developers Winter Workshop focus is to highlight practical knowledge of software development, custom code, debugging, .net vs. Java, ArcObjects vs. MapObjects, Server vs. IMS, what works on the desktop (office or field), and on the WWW. We intend to include presenters with a wide range of experience.

As a one man CAD/GIS shop for a major utility, I lack the technical skills of a programmer. I know our organization will have to entrust this task to internal IT staff or outside consultants. Therefore, I have a keen interest in learning the process, vernacular, and appropriateness of various software systems so I can discuss development intelligently with the folks who put it together. I don't have to know the workings of the internal combustion engine but I do need to determine whether a truck, scooter, or sedan better fills our needs, and I need to know how to drive it.

As a GIS professional, the thought of meeting with my peers to 'talk the talk' is always exciting and usually proves beneficial. If I were a GIS application programmer, the thought of meeting up with my peers for a concentrated 'show me how' session would be attractive and stimulating. Who knows, I might get a whole new perspective about how to address a problem. It's happened before. I plan to attend and hope to see you there.

Rick Lortz, President



(For a detailed agenda and Winter Workshop registration information, see page 8)

WALLA WALLA GIS

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Working Towards an eGIS

The City of Walla Walla's goal to execute each component of the GIS Strategy meant working towards an Enterprise GIS. The City invested in software, using a step by step approach. This was based on project need, project results and customer demand.

One of the first major projects and steps taken by the GIS Department included a massive conversion from CAD to GIS and building the database and components. Nearly all of the existing City layers were CAD based, and broken into quarter sections which including roughly 25,000 water, sewer, and storm utility features. Database development, relationships, and topology were planned, developed and created prior to the conversion process. ESRI's Utility Data Model was used to build the Utility Geodatabase palette - which now houses the City's unique Water, Sewer, and Storm Utility objects, feature classes, and attribute needs. Utility features are a major component of the City's GIS system.

ArcSDE/MSSQL was chosen as the database engine. ArcInfo was acquired for the GIS staff. ArcEditor floating licenses was chosen for the anticipated power user group at the City. This allowed SDE editing capabilities and more powerful analysis tools. In house introductory training sessions were conducted, and continue as the knowledge base increases. ArcIMS was implemented in early 2003. The ability to access GIS data is now available to all City employees connected to the network. The response has been outstanding and positive. Our user base includes Department Directors and even the City Manager.

More recently, the GIS staff introduced Mobile GIS solutions to the City staff. ArcPad applications were built for the Public Works Department and the Fire Department. GPS is used in the field by the Public Works, Fire, and GIS Departments. Mobile GIS applications include, but are not limited to:

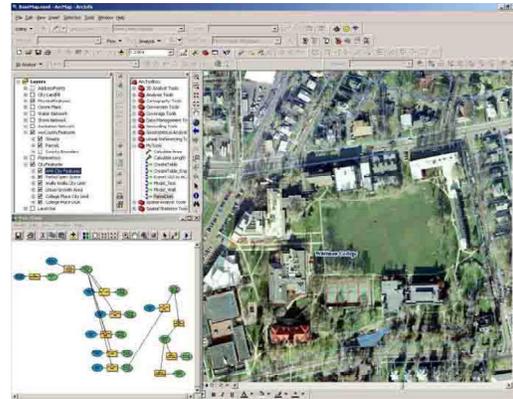
- Sewer and Storm Maintenance Recording
- Storm Outflow Identification Project
- Fire Hydrant Maintenance and Testing Recording
- Water Utility Attribute Verifications

SDE versioning and check in and out capabilities are being utilized for all ArcPad applications. The response has been very positive as new applications continue to improve with development. In addition, the ability to view up to date data in the field has been extremely powerful. Almost all mapping in the field is accessed electronically, by laptop or PDA.

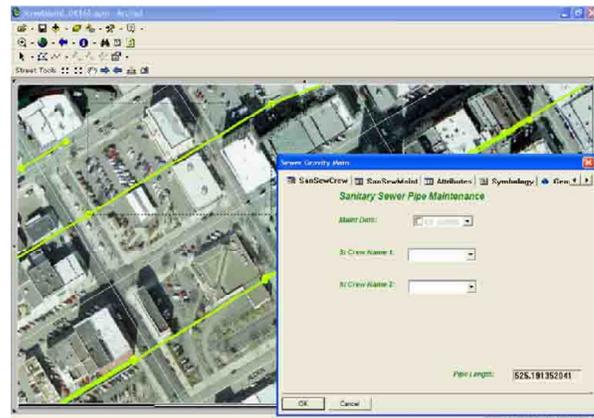
The City GIS Department has also made significant automation and workflow improvements and solutions to help maximize productivity and efficiency. This includes using geoprocessing data models, in house development of custom data refresh processes, and all electronic map submittals must follow GIS guidelines and requirements.

Working Together in Walla Walla

The City of Walla Walla and Walla Walla County share data on a regular basis. A GIS Data Share agreement was put in place to help facilitate the sharing of data between agencies. Currently, the City of Walla Walla and Walla Walla County are working together to provide an accurate MSAG Addressing layer, which



Walla Walla Power Users Utilize Floating ArcEditor Licenses



ArcPad Supports Walla Walla Sewer Maintenance Activities

will be the foundation for many applications. The City of Walla Walla also works with the US Army Corps of Engineers – Walla Walla District, located in the City of Walla Walla. Information and GIS knowledge sharing between agencies occurs on a regular basis. A GIS User Group is currently being developed.

Moving ahead – The Future of the City of Walla Walla's eGIS

Future City of Walla Walla GIS projects include a number of exciting GIS technologies and advancements. A list of these future projects will include:

- Orthophoto and planimetric update
- 3D Rendering of Downtown
- Enhanced ArcIMS internet site
- GIS Regional Portal
- GIS Server Technology
- Continued Mobile GIS Development

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PIERCE COUNTY GIS DAY ACTIVITIES REACH 1,100 STUDENTS

Linda Gerull, Pierce County GIS

Pierce County decided on a new approach for National GIS Day in 2005. During the previous seven years Pierce County has hosted GIS Day events at local malls, in County offices, and at the University of Washington. Pierce County's vision for GIS Day 2005 was to present GIS technology to the largest number of fifth and sixth grade students possible in one day. With only four weeks to plan the event, Pierce County and local GIS professionals from the City of Tacoma, Tacoma Fire, the City of Puyallup, the City of Gig Harbor, the Washington Department of Emergency Management, and ESRI Olympia partnered together to make the vision a reality.

The theme for GIS Day is "Geography Matters." GIS Day presentations described how geography and GIS technology is used in Pierce County for:

- Establishing the location of recreational facilities in the County
- Solving crimes and improving personal safety
- Evaluating and mitigating hazards such as floods and earthquakes
- Illustrating election results
- Planning land use and transportation improvements
- Analyzing community health issues

The presentation and handouts also identified web-based resources and tools that teachers and students can use at no cost to continue the study of geography and GIS.

On GIS Day (November 16, 2005), nine teams, each of two presenters drawn from the partner agencies went out armed with laptops, litepros, and the GIS Day presentation. The teams presented GIS technology in nine schools to 42 classrooms and over 1100 students spread out across the county.

There was an excellent response to the very limited invitations distributed to fifth and sixth grade teachers for a GIS Day presentation. The teachers were excited to hear about GIS by people who use GIS every day.

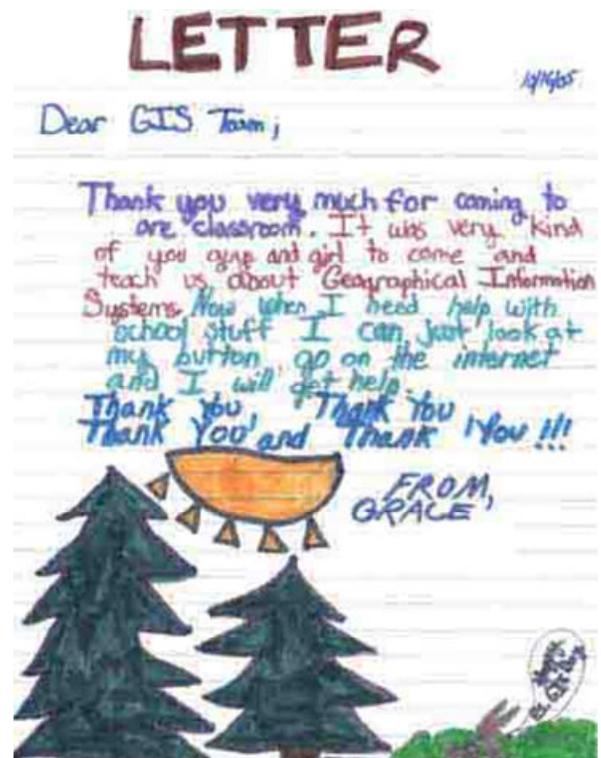
Enthusiastic reviews about the presentation from students and teachers alike have come in after GIS Day. All liked the real world examples of GIS use in local government for applications ranging from law enforcement to health concerns. Students had fun figuring out the location of "where in Pierce County" GIS orthophoto images. Students also learned how data layers can be viewed together to show the impact of flooding or lahar zones around Mt. Rainier.

Lessons Learned

Pierce County GIS Day 2005 partners identified a number of lessons learned that could benefit other agencies planning similar events in the future. Even with only 4 weeks a large event can be planned. Involve the students in the presentations, but presentations should not exceed 60 students. Including examples of places around the school being visited made the event more meaningful and handing out GIS Day stickers was considered the "bomb". Next year, GIS professionals in Pierce County plan to include more classrooms and expand the event to reach more young, future GIS users!

Northwest Regional ESRI Manager, Marty Balikov thanked Pierce County for their efforts, "This type of effort shows benefits in so many ways: better communications with schools, better use of County Web Resources by students (and their parents), recognition of the good work the County and GIS staff performs, better education of the students who come out of school knowing how we map their world and manage that information. There will be payback on these efforts over and over again."

GIS Day, which is held annually during Geography Awareness Week, is an opportunity for GIS professionals to showcase real-world applications of this important technology to schools, businesses, and the general public. The event is sponsored by the National Geographic Society, the Association of American Geographers, and University Consortium for Geographic Information Science, the United States Geological Survey, the Library of Congress, Sun Microsystems, Hewlett-Packard, and ESRI.



One of many thank you notes received by Pierce County GIS Day partners.

GREEN RIVER COMMUNITY COLLEGE OFFERS GIS OPTIONS

David Jeschke, Green River Community College

Green River Community College offers three training programs in GIS. There is a one-year certificate of proficiency and two Associates degrees. One of these degrees focuses entirely on GIS. The other is a natural resources degree with a substantial GIS component. Each of these options prepares a student to begin a career in GIS.

The certificate program takes in new students each fall quarter. It is an intensive nine month program in which students take forty four credits of GIS course work. This is far more credit hours than any other GIS certificate offered in Washington State. The GIS Associates degree includes all the classes required for the certificate plus classes in related areas. These include Math, English, Communications, and Interpersonal Relations. Students also take classes in fields related to GIS. These can include database, CAD, or computer programming. The Natural Resources with GIS Associates degree includes two GIS classes, with an optional third GIS class. Students are also expected to complete a rigorous curriculum in forest management practices and other related natural resources classes.

The fall curriculum starts students with a class that introduces ArcGIS software and GIS principles. There is also a class in map design principles and cartography. The final fall quarter offering is an in-depth look at the GIS job market and the skills students will need to compete in this market. During winter quarter the students complete more advanced work in ArcGIS. Spatial Analyst is introduced so they can perform analysis in both vector and raster data. They also take a class devoted to spatial database design. The final winter offering is the start of a two-quarter sequence in object oriented programming for ArcGIS. Spring quarter classes include the third in the ArcGIS sequence. In this class students work on advanced GIS projects both individually, and in small groups. They also take a class in ArcGIS extensions in which they are exposed to Network Analyst, Geostatistical Analyst, and 3D Analyst. The second class in object oriented programming is also completed in spring quarter.

The Green River campus is in a wooded setting in southeast King County just outside of the city of Auburn. We have a couple hundred acres of forest land adjacent to the campus. Some of this is campus owned and the rest is DNR trust land. A substantial network of trails in this forest provides an outstanding setting to teach the use of GPS. The GIS program is settling in to a new home in the campus' brand new Technology Center, a state of the art green facility designed to minimize energy usage by using natural ventilation when the outdoor temperature permits. We have a spacious computer lab with 27 brand new Pentium 4 3.2 GHz systems. We have both b/w and color laser printers, and an HP 800 printer/plotter. All this equipment allows our students to study GIS in a great learning environment.

Our learning facility and extensive GIS curriculum results in a unique environment to prepare students for careers as GIS professionals. To learn more about the Green River Community College GIS program contact:

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W: <http://www.greenriver.edu/>



UW GIS CERTIFICATION PROGRAM CASE STUDY

CITY OF SHORELINE CRITICAL AREAS ORDINANCE:

DATA COLLECTION, GEODATABASE CONSTRUCTION, AND AUTOMATION OF PROCESS

Larry Brotman, UW Extension Certificate Program in Geographic Information Systems

Two University of Washington Extension Certificate Program in GIS students, Christopher Scott and David Pyle, collaborated with the City of Shoreline to complete a case study related to the city's adoption of a new critical areas ordinance. Because the new ordinance required that the city adopt a new set of maps, and that the maps be revised frequently to reflect newly delineated resource areas within the city, Scott and Pyle identified a project that would allow them to address three goals: 1) Develop a case study that may be presented as a blueprint on how an automated process was created that allows for a change in data sources, definitions, and parameters; 2) Creation of a model in the ArcGIS Desktop ArcToolbox application that uses new and existing data to map critical area resources and supplement a parcel database indicating a presence/absence for each of the critical areas on a legal tax parcel; 3) Research and develop a process to automate the production of a map folio for the newly created resource maps. In addition to these three goals, Scott and Pyle also identified how the resulting parcel database could be linked to the city's permit tracking system and used as a tool to assist the city's permit counter technical staff and planning personnel in permitting and decision making.

To complete the study, Scott and Pyle collected the data needed to complete the project. The students constructed a geodatabase, imported all the necessary data, and addressed coordinate and projection discrepancies. With all data issues resolved, the students then outlined an automated process that allows for a change in data sources, definitions, and parameters. Using the ModelBuilder interface, the outline was constructed as a model with raster and vector inputs producing a populated parcel database.

The resulting database indicates critical area presence or absence for every legal tax parcel within the city's jurisdictional boundary. This process included the conversion of raster LIDAR data to slope data, the reclassification of raster data, the conversion of raster data to vector data; the selection of raster and vector data by attribute and location; buffering, clipping, joining, and dissolving vector data; and the manipulation of a parcel database. Once a working map document was created by running the model from beginning to end, a VB script was developed utilizing a tile system to cut the resulting critical areas map products to a useable scale. As part of the project, Scott and Pyle also documented the process and produced a project report that can be used by the City as documentation if the resulting product is utilized.

See SHORELINE CAO GIS STUDY, Page 5

SHORELINE CAO GIS STUDY

Continued From Page 4

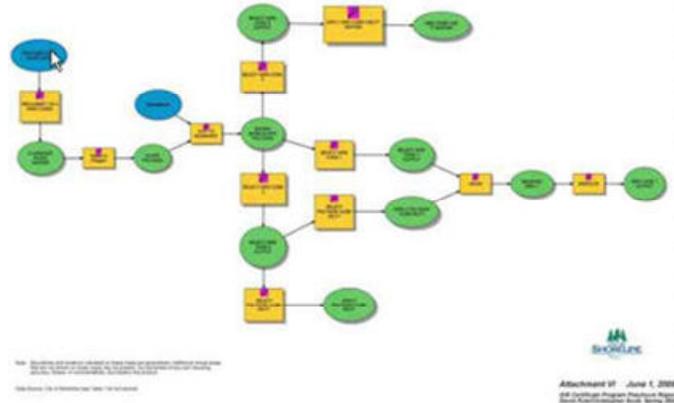
With the critical areas parcel database model incorporated into the working map document, when new resources are delineated, buffering and development restrictions change due to modified science, or new maps are adopted, the model created by Scott and Pyle can be adjusted to reflect changes and executed to produce new feature classes. These feature classes can be incorporated into each map product, and the folio re-created with the VB script. By using the critical areas parcel database model as a tool, the City's administration can save time and ensure final products meet standards identified during adoption of the original maps.

The processes and products described in this article were presented to the City and may be used to create official map folios following the adoption of the City's new critical areas ordinance this winter. Following completion of the certificate program, Christopher Scott accepted new employment with Evans-Hamilton, Inc. as a CAD Specialist/I.S. Administrator, and David Pyle accepted new employment with BERGER/ABAM Engineers, Inc. as an Environmental Planner/GIS Specialist. Both students acknowledge the completion of this case study as valuable in the expansion and practical application of skills and concepts delivered during the nine-month certificate program.



PERCENT SLOPE MAP
 Legend:
 Critical Areas Overlay
 0-10% Slope
 10-20% Slope
 20-30% Slope
 30-40% Slope
 40-50% Slope
 50-60% Slope
 60-70% Slope
 70-80% Slope
 80-90% Slope
 90-100% Slope
 MAP #: 38
 ATTACHMENT 31

A VB script was developed to tile the critical area data into 'percent slope map' sheets at usable scale.



Pyle and Scott developed a raster to vector model using ArcToolbox to populate a parcel database with critical area characteristics.

The UW Extension Certificate Program in GIS is designed to serve professionals interested in adding GIS knowledge and experience to their existing skill sets. The curriculum most benefits entry and intermediate-level users. As represented in the case study above, students are grouped in teams based on similar interests and academic backgrounds. They are expected to design, manage, and complete a project that integrates some or all of the following concepts: GIS database design, data discovery/collection/compilation, spatial analysis and modeling, decision support, and map design and presentation.

Recently, students have been encouraged to collaborate with members of the local GIS community offering them opportunities to work with "real world" data, applications, and challenges. To date, program students have collaborated on projects for organizations including cities, county agencies, local utilities, national forests, and non-profits. Program instructors include Tom Nolan, Holly Glaser, Jaime Crawford, Larry Brotman, Steve Hyde, and Matthew Wilson.

For more information about the UW Extension Certificate Program in Geographic Information Systems, see: http://www.extension.washington.edu/ext/certificates/gis/gis_gen.asp. The collaborators on the City of Shoreline Critical Areas Ordinance GIS project can be reached at:

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REINVENTING THE GIS TRAINING PROGRAM AT KING COUNTY

Lisa Castle, King County GIS Center

When King County GIS (KCGIS) embarked on its enterprise-wide software migration to ArcGIS 9.x, one of the Truly Huge Questions was "How are we going to learn all this new stuff?" This question was followed immediately by "How are we going to *pay* for learning all this new stuff?"

The obvious, simple, but expensive answer is to send everyone to ESRI training. But with 500 users spread among sixteen county agencies, this just isn't feasible. Instead, our Training Workgroup is developing our own curriculum to provide a framework for ongoing and relevant GIS education; one that offers training opportunities that are modular, customized, and geared toward defined categories of users.

The Users

We first asked our users to self-categorize into one of six defined user categories:

- Data User: end users who query, view and create hardcopy output of GIS maps and associated information;
- Data Analyst: users who create more complex and technically demanding maps than Data Users; likely create and maintain GIS data for project-level use, but generally do not create and maintain enterprise data;
- Data Steward: analysts who also create and maintain enterprise data;
- Developers: analysts/stewards responsible for the development of GIS scripts and applications;
- Decision-Makers: managers who have little or no experience with GIS, but must still deal with GIS issues;
- Database/Systems Admin: non-GIS personnel who have a need to deal with GIS issues, specifically those pertaining to the geodatabase.

The categories are not meant to be restrictive, and users were encouraged to place themselves into the most technically demanding category that applied. Not surprisingly, most of our users fell into the Data User category.

The Skills

Our next task was to define a set of skills for each user category. These skill sets describe what a person in a category needs to know to be able to perform the work required of that category. The Analyst, Steward, and Developer skill sets assume the skills of previous categories.

Some example skills for a Data Analyst:

- Understanding and using coordinate systems and projections;
- Understanding and using spatial analysis tools and techniques: theory, work flow, and tools;
- Understanding and using geoprocessing tools;
- Understanding and using table relationships.

The Curriculum

Each user category has a set of courses that directly map to its skills. The core curriculum consists of courses that are highly recommended, and cover the skills needed for that category. There are also additional course recommendations for those students who need a refresher on a topic or wish to expand their horizons a bit.



Custom GIS training class in the King County GIS Center's Seattle Training Facility.

Our goal is not to lock students into a rigorous training program. Students should feel free to bypass courses if they already have the skills taught in that course; they are also encouraged to explore courses in other categories, providing they have the proper prerequisite skills, the business need, and the approval of their supervisor.

There are three sources for coursework: KCGIS courses developed in-house, ESRI instructor-led courses, and ESRI Virtual Campus courses. While many of the ESRI courses are right on target, we've found that some ESRI core courses are too technical and/or long for our casual users, while others are not comprehensive enough for our "power" users. And none of them addresses specific KCGIS business needs. The KCGIS courses are intended to supplement, and in a few cases, replace ESRI instructor-led offerings. We've come up with thirty-three courses, a few of which (such as *Using iMAP*) have already been taught for some time.

Course length varies from one hour to two days, although most are a half-day or less. All will be offered at least annually, with many courses being offered twice or four times a year. We expect that some of the courses (such as those for analysts and stewards) will need to be offered initially more often, then we'll reduce their frequency as our users' skill levels increase and more users have taken the course.

We've grouped the courses into five course groups:

- GIS Basics: for Users; possibly some Managers or Sys/DBAs
- Editing and Analysis: Analysts; Stewards; some courses are appropriate for Developers; some courses are appropriate for "power" Users
- Customizing ArcGIS: Developers; some courses are appropriate for Stewards or Analysts
- Extending Your Knowledge: These courses are less specific to user categories and many are appropriate for all students
- GIS for non-GIS Professionals: Managers and Sys/DBAs

Current Progress

Three of the first set of four courses are in the can; two were inaugurated in November 2005, and the third will be inaugurated in December 2005. The fourth course is slated for early 2006.

See KCGIS TRAINING, Page 7

KCGIS TRAINING

Continued From Page 6

We've tweaked the development process a bit based on our experiences with the first set of courses, and have identified our next set of four courses and begun their development. We intend to repeat the "identify-develop-review" process using small groups of prioritized courses until all are finished.

More Information

- KCGIS Training Curriculum (2005 Plan): <http://www.metrokc.gov/gis/kb/Content/TrainingPlan.htm>
- KCGIS Training Program: <http://www.metrokc.gov/gis/Training/index.htm>
- Questions? email kc.giscenter@metrokc.gov



2006 URISA CONFERENCE IN VANCOUVER, BC CALL FOR PAPERS

URISA's Annual Conference and Exposition features management and policy discussions of IT/GIS issues affecting urban and regional governments. Pre-conference workshops, important plenary sessions, technical and policy presentations, and networking events are also held at the conference.

URISA is now accepting abstract submissions for its 2006 Annual Conference. Share your expertise, gain visibility, and enhance your professional growth. You are invited to share your knowledge with others who strive to improve our urban and regional environments through the use of information technology. URISA 2006 in Vancouver will challenge participants to better manage, analyze, plan and implement technology for more effective and efficient government operations.

For abstract submission guidelines and more conference information, see: www.urisa.org.

Date: September 26-29, 2006

Location: Vancouver, British Columbia

Ten Official Reasons for Visiting Vancouver:

1. Jog the Stanley Park Seawall
2. Ski, golf, or sail in the same day
3. Stroll the City's fashionable shops on Robson Street
4. See Shakespeare at Bard on the Beach
5. Wander a coastal virgin rainforest
6. Shop for bargains in Chinatown, the third largest in North America.
7. Walk the cobblestone streets of Gastown
8. Be a trendsetter in Yaletown
9. Taste BC Ice
10. Feast on alder-grilled salmon, smoked oolichans and bannock in Vancouver's First Nations restaurant

SPOTLIGHT ON WAURISA

VOLUNTEER: EMILIO MAYORGA

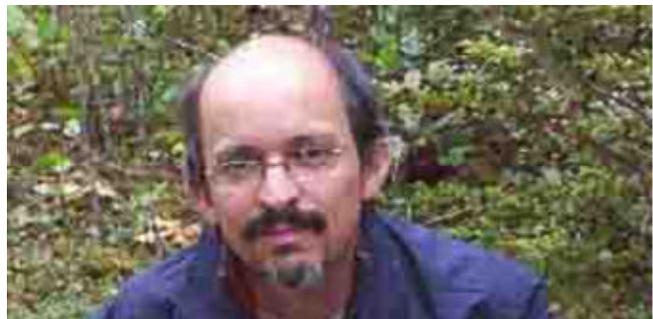
Dedicated volunteers are critical to any successful professional organization. Emilio Mayorga is the latest person to volunteer his time and talents to WAURISA. Emilio has teamed with Reily Love on WAURISA's Technology Committee to help improve the WAURISA website (www.waurisa.org). When *The Summit* asked him for his professional background and interests, Emilio replied:

"I am a Principal GIS Analyst at Surface Water Management (SWM), in Snohomish County Public Works. SWM has a terrific GIS group that is fun to work with. My responsibilities range from simple map making to geodatabase design, programming (automation), relational database design and management, GIS-RDBMS integration, and web applications. Through our GIS group I also get exposed to heavy-duty GPS use and some remote sensing. This wide spread of projects suits my temperament just fine. SWM GIS applications include water quality, river flooding, storm drainage, salmon habitat, and public outreach about watersheds.

"Outside work, I maintain an active interest in regional to continental-scale Earth Science and ecological issues (and GIS) in South and Central America. I'm a "biogeochemist" with a PhD in Oceanography from the UW in 2004, focusing on carbon cycling in Amazon basin rivers and its linkage to global climate change. I'm not impressed when people tell me the Snohomish is a "big" river! Finally, I'm very interested in open source software - I've used a number of GIS and non-GIS open source software packages both in and outside of work.

"My wife complains that I spend too much time on the computer. I wish I spent more time on our garden instead! But nooo, I couldn't say no to helping overhaul the WAURISA web site..."

Interested in learning how you too can help WAURISA and the community of GIS professionals in Washington? Contact any WAURISA Board member.



WAURISA Volunteer: Emilio Mayorga





Washington URISA GIS Developer's Workshop

Washington URISA is hosting a winter workshop to support the GIS Development Community. This is an opportunity for developers to meet each other and learn from their colleagues! The goal of the workshop is to highlight the practical knowledge of software development, custom code, debugging, .net vs. Java, ArcObjects vs. MapObjects, Server vs. IMS, etc... Think of it as a knowledge transfer for developers. Companies representing the best of breed in application development across the Pacific Northwest will be entrusting their developers to us to share some of the lessons learned, how they got over the humps, and to show what's possible. Whether you're stuck on a current project or you'd just like to see what's possible, you can use this as an opportunity to learn from the local experts.

The event will be held at the Department of Transportation Regional Headquarters building in Shoreline on **February 3rd, 2006**. This year's event is to focus on development for two different platforms, Web & Desktop. The AM Session from 8:30 – 12:00 will focus on Web Development. The PM Session from 1:00 – 4:00 focuses on Custom Desktop Development. Each session will have 3 developers speaking about how they've developed applications with GIS technology and will be followed by a Q&A session from the audience.

Date & Time: February 3rd, 2006
AM Session 8:30 – 12:00 Web Development
PM Session 1:00 – 4:00 Custom Desktop Development

Location: Washington DOT NW Regional Office, 15700 Dayton Ave N, Shoreline, 98133-5910

Cost: \$20 for members (whole or half day); \$35 for non-members
Lunch not included but there is a great cafeteria at the facility.

Tear along dotted line – Please complete one form per person.

Fee (Circle Amount Paid)

Member *: \$20 Non-member: \$35

*Current members are those who attended the 2005 Washington GIS Conference

Contact Information

Name: _____

Agency or Company: _____

Address: _____ City: _____

State: _____ Zip: _____

Phone: _____ E-mail: _____

Payment Method

- Invoice needed to process payment Purchase Order # _____
- Check enclosed

Send form and payment to:

**WA URISA, Attn: Steve Schunzel
1402 Auburn Way N.Box 158, Auburn, WA 98002**

registration form

WASHINGTON GIS PIONEER - GENE HOERAUF RETIRES

Stefan Freelan, Western Washington University

After nearly 35 years of cartography and spatial analysis Gene Hoerauf retired from *Huxley College of the Environment at Western Washington University (WWU)* this fall. With a Masters in Geography (and later a Masters of Library Science), Gene was hired as Staff Cartographer for the Geography Department in 1970 and served both faculty research needs and as an instructional resource. During his tenure on campus, he was witness to a number of significant changes:

- *Western Washington State College* became *Western Washington University*
- The Geography Department moved from the *College of Arts and Sciences* to *Huxley College of the Environment*
- Cartography transitioned from a pen and ink on Mylar operation, through overlay drafting using a variety of photo-mechanical techniques and materials, and on to the use of computers for map design and production
- GIS was introduced as a tool for spatial analysis
- Remote Sensing and GPS became available for data collection
- Computers grew from punch cards, Daisy Wheel and line printers and a 'Northstar Horizon' (with 4 MHz and 4 KB of RAM) to powerful desktop units and backroom servers

In the course of these changes, Gene's position gradually shifted from cartographer to computer programmer (writing all of the code for the initial computer mapping projects) to IT support and data steward. In 1971 he began teaching a computer mapping exercises and eventually took over as the instructor for computer mapping which became an IDRISI based GIS course in the late 1980's. Unchanged, however, was his continual willingness to help students and faculty from across the campus (Geography, Planning, Sociology, Geology, Anthropology, History, Biology, etc.). Probably more than any other single individual, Gene has helped to foster an awareness of the possibilities of GIS across campus and throughout the region, mentoring a sizable percentage of the GIS professionals currently employed north of Seattle.

Largely self-taught in GIS and computer administration, Gene was integral to the establishment of the first GIS in Whatcom County in 1991 (a joint WWU – Whatcom County Planning Department project). Whatcom County's GIS operations were housed at WWU for the first two years of its existence as Gene and a small staff of County Employees (former student's of Gene's) forged the initial data layers and explored the possibilities.

As GIS grew in its potential and popularity, WWU's cartography lab was transformed (literally, with much of the physical labor and carpentry talent being Gene's as well) into a GIS computer lab. GIS Course offerings increased, a minor was added, and GIS faculty and staff were hired. Throughout it all, Gene has continued to work untold hours (far more than 40 per week), helping students and faculty alike to further their spatial knowledge and ability. His work has been published in numerous books, journals, and atlases.

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Gene will be remembered as a near-constant presence in the basement of Arntzen Hall, somehow always finding time and interest to consider any spatial challenge

Gene has been involved with the Northwest WA GIS Users Group since it began its quarterly meetings in 1992 (assuming the role of meeting coordinator in the mid-90's). He was also instrumental in setting up the Bellingham Breakfast Users Group (monthly meetings since 1994) and has facilitated the use of WWU as a teleconference site for the state WAGIC meetings (held bi-monthly). Each of these groups continue to provide support for GIS professionals as well as students and demonstrate Gene's continued commitment to the larger GIS community beyond the campus.

In his off-time, Gene has designed and helped to build his own passive-solar home, has been interested in photography, sailing, and recorder music, and is a long time bicyclist.

For all of those of us who have had the pleasure of his help, however, Gene will be remembered as a near-constant presence in the basement of Arntzen Hall, somehow always finding time and interest to consider any spatial challenge. It is, indeed, a bit difficult to imagine the basement without him. Fortunately, he still stops by (though considerably less often). Perhaps now he will be able to finally work on some projects of his own.

For information about the Northwest WA GIS Users Group, see: http://www.acadweb.wvu.edu/gis/nwgis_mtgs.htm

To contact Stefan Freelan, email: Stefan@cc.wvu.edu



Editors Note

Gene Hoerauf participated in the panel discussion on Pacific Northwest GIS Professional Organizations and User Groups that I organized for the Washington GIS Conference earlier this year in Tukwila (*The Summit, Issue 1, p. 3*). Gene described the value of local GIS user groups as their focus on local issues and local networking. Gene also identified a key challenge for local groups: 'They need one or two 'sparkplugs' – dynamic group organizers who can keep things organized and maintain momentum from meeting to meeting. The 'sparkplug' needs to get commitments for both programs and venues from meeting to meeting and keep the group moving forward to meet the needs of the local GIS user community.' It is clear that Gene was a true 'Sparkplug' who made a significant contribution to those who make up the Northwest Washington GIS community.

Editor

THE SUMMIT - EDITORIALS

GIS DEMANDS LIFELONG LEARNING

Peter Drucker, arguably the most influential management thinker of the Twentieth Century died on November 11, 2005, just before his 96th birthday. Drucker authored more than 40 books on management. He is widely credited with changing the way businesses (as well as non-profits and governments) are organized and their relationship with employees. He is also credited with being the first person to identify the rise of a new type of economy, at a time in the 1950's and 60's when America was dominated by heavy industry, manufacturing, and resource extraction. The name that Drucker coined for those who would fill the ranks of this new economy was 'Knowledge Worker.'

It is safe to say that all GIS professionals and GIS end users are 'Knowledge Workers.' The implications are profound. In an industrial economy, resources are critical for success. In a knowledge based economy, knowledge and education are critical for success. In an industrial economy, businesses secured access to raw resources and employees were cogs in a great machine. In the new economy, access to knowledge means access to educated employees. This gives Knowledge Workers great power and has changed the management - employee relationship in many ways. But Drucker recognized that Knowledge Workers would have new responsibilities too. Primary among these is responsibility for their individual on-going education.

This theme of this issue of *The Summit* is the role of education and lifelong learning. It starts with awareness - getting the message about GIS and geography out into elementary schools, as Pierce County did during GIS Day. For those seeking a career in GIS, it progresses to GIS Certificate programs like Green River Community College, that provide the foundation of knowledge and skills required to enter the knowledge-based economy. The effort of King County GIS to reinvent its training program illustrates a high-level recognition of Knowledge Workers as a key asset and a systematic approach to support them with a solid foundation of constantly updated classes tailored to individual needs. WAURISA's Winter Education Workshop is another approach, offering Knowledge Workers access to leaders in implementing GIS technology in an innovative interactive learning environment.

A career as a GIS professional or GIS user will require lifelong learning. There is no standing still in the new knowledge-based economy. What is your educational training plan for 2006?

LET YOUR VOICE BE HEARD

The reaction to the first issue of *The Summit* has been gratifying. A few of the letters received shortly after the first issue have been included on this page. We hope that we can facilitate the exchange of ideas and opinions regarding matters of importance to GIS professionals and users in the State in future newsletters. Consider submitting a letter to the editor or an essay if there is a GIS-related issue that is on your mind. Let your voice be heard. Share your ideas with the Washington GIS Community.



LETTERS TO THE SUMMIT

REACTION TO FIRST ISSUE OF THE SUMMIT

"Judging by this inaugural edition, this is going to be a very nice and potentially very useful newsletter. Thanks for putting this together!"

Bob Burnett, Pacific Northwest National Laboratory

"Great job on the newsletter. I really like the tone of inclusion and collaboration."

Michael Murray, Portland Bureau of Environmental Services

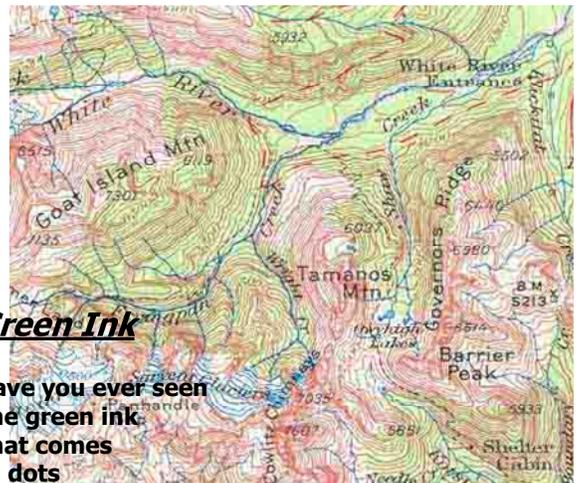
"Great job....awesome Publication!"

Shelly Snyder, Washington Department of Fish & Wildlife

"Great newsletter! Thanks for putting it together. Please let know if there is anything we can do to help."

Marty Balikov, ESRI Olympia

The Summit would like to hear from you. To encourage the discussion of issues and ideas of importance to the Washington GIS community we welcome letters to the editor and opinion essays. Letters to the editor should be a maximum of 100 words and essays should be limited to 250 words.



Green Ink

Have you ever seen
The green ink
That comes
In dots
And spots
And lots of odd-shaped woodlot plots
On topographic maps of places
Clogging up the soggy spaces
And the steep unpeopled traces
Where the air is sometimes clean?

- Dan

(I found this handwritten poem taped to a table in the map library at Wayne State University in Detroit in the mid-1970's. I never found out who Dan was, but I've always liked his little poem. - Editor)

THE SUMMIT NEWSLETTER EDITOR: Greg Babinski
For subscriptions, content, comments, or suggestions, email:
SummitGISNews@yahoo.com

OPINION:

SUPPORTING YOUR COUNTY GIS

Bob Pool, Clark County GIS

The land and assessment records maintained by assessors make counties uniquely suited to serve as the custodian of computerized mapping and land information services. Coordinated GIS development and maintenance at the county level provides the most efficient distribution model to meet user needs. A countywide GIS is a valuable resource for the entire community, including cities, schools, fire districts, ports, local utilities, and neighborhood associations.

The Clark County Department of Assessment & GIS serves as a regional hub for GIS services. Data is standardized for uniformity and accuracy, then provided, with mapping and analysis tools, to cities and other local jurisdictions. Many of these agencies provide their data to the county to use in the regional system.

This countywide approach has allowed the creation of a GIS "data backbone" for use by both government and the public. Emergency services (911), voter registration, growth management, endangered species programs, critical area ordinances, and crime analysis are a few examples Clark County has developed.

A countywide GIS transcends organizations and provides a consistent database structure to share information. Participating agencies gain efficiency and effectiveness. An example is a single situs address database used by elections, emergency services, schools, utilities, and others. Having a single agency provide this service eliminates duplicate effort for many agencies. A single GIS-based situs address database makes sense and is fiscally responsible. However, a central GIS has little incentive to take on such a task because it represents new costs and responsibilities with little corresponding revenue.

While a centralized GIS functions well as the hub of a countywide system, there is no commensurate funding source. Lack of funding is manifest in the range of strategies employed around the State. Many counties simply have no GIS. Others charge data access fees, partnership fees, or use other sources to recover a portion of their costs. Unfortunately, high user fees limit access to GIS and reduce the opportunities to use it as a regional resource.

A reliable countywide GIS funding mechanism would facilitate development of joint GIS projects, such as a situs address database. The incremental cost to add new users would be less, making it possible for small school districts, fire districts, libraries, and citizens to have full access to the GIS. Countywide GIS programs could focus on database development, data documentation, and data sharing, instead of billable projects.

Washington counties have been leaders in building GIS programs to serve the entire community. Many of these systems have been built using county general funds. Under current property tax limitations it is inevitable that these programs will stagnate or contract. Creating a stable independent funding mechanism will provide a framework for a GIS whose purpose should be to serve the entire community.

Clark County proposed a Real Estate Excise Tax (REET) to fund county GIS programs in 2005. While this effort was unsuccessful, it did start the ball rolling. It is up to the GIS community and organizations like URISA to work with the legislature to formalize the funding mechanism for GIS programs in Washington State.

Bob Pool, Clark County GIS Manager

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HOW TO SUPPORT GIS WITHOUT SELLING DATA

The Open Data Consortium (ODC) Project (<http://www.opendataconsortium.org/>) promotes the free public use of government developed geodata. The Project identified the high cost of developing geodata and operating and maintaining public agency GIS as one of the major reasons that many public agencies charge for their GIS data.

In Washington, we have very strong public records access laws that prohibit charging for data. As Bob Pool's column on this page points out though, high cost can be an impediment to develop data needed by multiple local jurisdictions.

ODC Project participants agreed that 'public information is a necessary component of open government and the democratic process. Public agencies need funding to develop, maintain, and distribute their geodata. The value of geospatial data is realized through its usage, and widespread distribution and use of public geodata benefits the government agency responsible for the geodata.'

ODC determined that the key to resolve the "free data vs fee data" controversy is by 'capturing the value of the geodata, both to the public and to the governmental custodian. Since GIS data creates more value the more it is used, capturing that value will motivate local government to distribute it widely and inexpensively.'

ODC asked 'how can local government – the creator, maintainer, and "steward" of local geodata – actually "capture" that value?' ODC Project participants uncovered 10 productive methods to support their GIS operations without selling public geodata. They are organized into four categories:

- Revenue produced from existing taxes
- Revenue produced from service fees
- Cost Savings
- Internal Budgeting

These methods do not include the cost savings accrued through multiagency, cost-sharing or data-sharing cooperation. While such actions result in hugely significant savings in the cost of creating and maintaining geodata, they do not derive from the actual usage of the geodata.

For full detail on the 10 ways to support GIS without selling data, see: <http://www.opendataconsortium.org/documents/10Ways2SupportGIS-3.pdf>

Or contact Bruce Joffe at

Bruce@opendataconsortium.org



UPCOMING GIS EVENTS IN WASHINGTON

ACSM – Washington State Section

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

Dinner meetings at 6:00pm, third Thursday of the month at Angelo's Restaurant, 1830 130th Ave NE, Bellevue WA.

ASPRS Puget Sound Region

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

Central Puget Sound GIS User Group

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

Meetings the third Tuesday of each month from 1:00 to 3:00pm at Mercer Island City Hall. Contact Dick Thomas at: dick@sammplat.wa.org

Central Washington GIS User Group

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

Meets the 1st Friday of each month at the Wok-About Grill, 110 N Wenatchee Ave, Wenatchee, WA at 12:00 noon.

King County GIS User Group

http://www.metrokc.gov/gis/KC_Users_Group.htm

Meets 1st Wednesday of each 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_mtg.htm

Spokane Regional GIS User Group

<http://waurisa.org/phpBB2/viewforum.php?f=19>

Meets last Wednesday every other month from 12:00 noon to 1:00pm. Contact: Dave Rideout, Spokane County 509-477-7251 drideout@spokanecounty.org.

2006 Washington GIS Conference – Date & Venue TBD

<http://www.waurisa.org>

2006 URISA Conference, Vancouver, BC

<http://www.urisa.org>

To have your GIS related event listed in future issues of *The Summit*, notify the editor at: SummitGISNews@yahoo.com.

JOIN THE WASHINGTON GIS COMMUNITY FORUM!

The Summit is not the only communications resource available to members of the Washington GIS Community. Sign up as a member of the Washington GIS Community Forum (<http://waurisa.org/phpBB2/index.php>) and access the latest news about GIS jobs, training, projects, and professional activity in Washington State.

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Interested in volunteering your time to help WAURISA? Contact Rick Lortz or any Board member.



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