They'll Stone You When You're Trying to Build Your GIS:
The Multidimensional Role of the GIS Coordinator

Chris Owen, Jason Eklund, Matt Stull
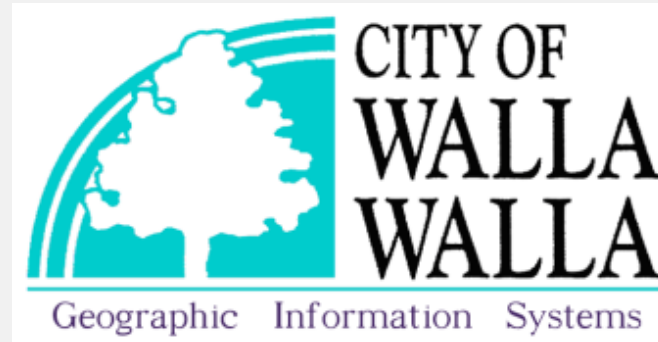Jennifer Radcliff, David Wallis

&

David Howes

May 13, 2014

The Plan

- Introduction
- Presenter Backgrounds
- GIS Department Structure & Location
- Why Good Documentation and Procedures are Important
- Marketing GIS to Your Agency
- Maturation Process of a GIS Program/Department
- Audience Engagement
- Closing Comments
- Final Thoughts

Presenter Backgrounds

Chris Owen
GIS Supervisor
City of Walla Walla, WA

Background – Chris Owen

Education

- BA Geography, University of Washington
- MS Information Technology Management, Colorado Technical University

Work

- 16 years professional experience
- 4 years as Technician and Analyst (private)
- 3 years as GIS Coordinator (public)
- 9 years GIS Supervisor (public)

Work Related

- GISP since 2006
- Founder and chairperson of SE WA NE OR GIS
  User Group (est. 2009)

Primary Strengths

- Project management
- Application integrations
- Database development
- Process and workflow development

City of Walla Walla, WA

- The City of Walla Walla is the county seat for Walla Walla County, WA

- Location: Southeast Washington, in the foothills of the Blue Mountains

- City Mission Statement: We provide municipal services and programs essential to a desirable community in which to live, work and play

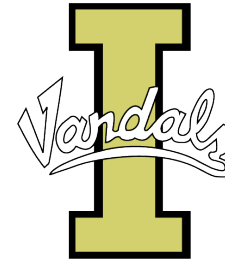- Population: 31,864

- City employees: approx 250

Matt Stull
GIS Coordinator

CITY OF
TUMWATER
Washington's First Community

Matt's GIS Background

- Education:
  - B.S. in Cartography (GIS Option) - University of Idaho
  - B.S. in Geography - University of Idaho
  - M.Sc. in GIS - Simon Fraser University (UNIGIS Program)

- Work Experience - 17 years of professional GIS experience
  - 11 years as GIS Technician and Analyst - *Private Sector, City and County Government*
  - 6 years as GIS Coordinator - *City and County Government*

- GISP Certification - 2008 to present
- Lots of conferences and classes...
- Primary Strengths:
  - Cartography
  - Process Documentation
  - Coordinating Group Efforts

About the City of Tumwater

- **Location:** West and South of Olympia in south Puget Sound area

- **Interesting Fact:** Oldest American settlement in the State of Washington (1845)

- **City Motto:** "Washington's First Community"

- **Area:** 14.5 square miles

- **Population:** 18,300

- **City Employees:** 160

CITY OF TUMWATER

Washington's First Community

David Wallis
IT/GIS Director

Background – David Wallis

Education

- Bachelors Degree in English: Technical Writing Concentration
  - Western Washington University, Magna Cum Laude with Honors
- GISP since 2009
- CMS since 2013

Work Experience

- 20+ years experience in mapping, GIS, and legal descriptions
  - 8 yrs. – Assessment cartography
  - 5 yrs. - GIS Analyst
  - 5 yrs. - Supervisor
  - 3 yrs. – IT/GIS Director
- IAAO National Instructor – Mapping/GIS

Cowlitz County

- Location: SW WA along the Columbia River
- Area: 1,166 Sq. Miles
- Major Ind. Paper and Wood Products
- Population: 102,000
- Cities: 5 cities along the I-5 corridor
- County Seat: Kelso
- County empl.: 600
- Named after the Cowlitz Indian Tribe
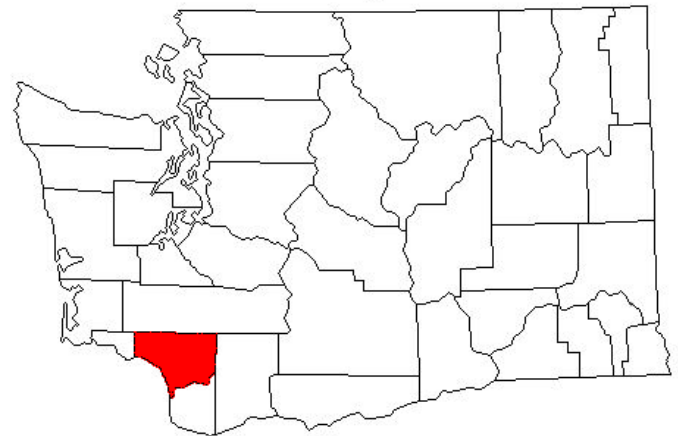
Jason Eklund
GIS Coordinator
Kittitas County

GIS Coordinators

Background - Jason Eklund

- Bachelors Degree in Natural Resource Management, minor in GIS
  - Colorado State University
- 16 years professional experience in GIS
  - 9 years as a Programmer/Analyst (State Government - Oregon)
  - 7 years as a Coordinator (all with Kittitas County)
- Primary strengths are in programming and databases
  - Progression: AML --> VB6 --> C#.NET
  - SQL Server

Kittitas County

- East of the Cascades in Central Washington
- County Seat: Ellensburg
- County Population: 41,765 (est.)
- 36,451 parcels
- Land Area: 2,333 sq. miles
- County employees: 380 (280 full-time permanent)
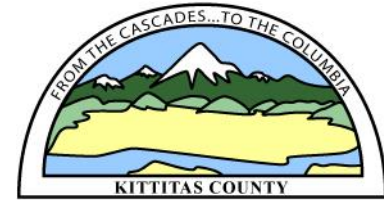
Jennifer Radcliff
GIS Coordinator
Port of Tacoma

Background – Jen Radcliff

- BS in Geography and Natural Resources and Environmental Sciences (NRES)
- MA in Geography
  - Kansas State University
- GISP since 2007
- 17 years experience
  - Technician/Analyst – 9 years
  - Coordinator – 5 years, quasi-coordinator additional 3 years
- Primary Strengths
  - Jack of all trades
  - Building relationships

Port of Tacoma

- Location: Tacoma Tideflats, with additional property in Frederickson and Maytown

- Area: 2700+ acres

- Among the largest container ports in North America

  - Major center for autos, bulk, breakbulk and heavy-lift cargoes

- Port Employees: 236
- More than 43,000 jobs in Pierce County and 113,000 in Washington state are connected to Port activities

GIS Department Structure & Location

Matt Stull
GIS Coordinator

CITY OF
TUMWATER
Washington's First Community

City of Tumwater – History / Structure

- Digital mapping (AutoCAD) started late 1980's in Public Works
- GIS started in the Planning Department in 2000
- GIS started in the Public Works Department in 2007
- Today -
  - GIS is in Planning and Public Works Departments
    - GIS Coordinator is in Public Works and coordinates GIS for entire City
  - GIS is funded by the City General Fund and Utility Funds equally
  - We are working to convert AutoCAD mapping to GIS
  - GIS Coordinator position created in 2013, replacing City Surveyor
    - GIS Coordinator manages one GIS Technician position
  - GIS Users - 10 to 12
  - GIS Editors - 4
  - The City has an Enterprise License Agreement (ELA) with ESRI
  - Lucity Maintenance Management System - large GIS component
  - We will be using ArcGIS for Server and SDE soon (for Lucity)
  - GPS Base Station - part of the Washington State Reference Network (WSRN)

Mason County GIS Dept. – History / Structure

- 1999 - GIS started at the County in Public Works
  - First GIS Manager hired
  - GIS funded by the Public Works Road Fund
- 2000 - 2004 - The "Beginning Era"
- 2004 - The GIS Department was reorganized -
  - new GIS Manager hired
  - still under Public Works Road Fund
- 2004 - MACECOM 911 hires GIS to provide them road and addressing data
- 2005 / 2006 - new GIS Technicians and Analysts hired
- 2007 - GIS was moved from Public Works Road Fund and made an "Enterprise Fund"
- 2008 / 2009 - GIS Manager quits. GIS Manager position is not rehired.
  - Public Works Director promotes me to "GIS Coordinator". Jen is also promoted. She and I "Co-Coordinated". There was no official "GIS Coordinator" position ever created.
- 2010 - GIS was moved back into the Public Works Road Fund
- 2012 - Assessors Office hires GIS to manage it's parcel mapping

Matt's Lessons and Tips

- Based on my two examples, here are some lessons and tips for GIS Department structure and location:
  - ❑ An "GIS Person" is usually the best choice to manage the day-to-day activities of the GIS team
  - ❑ Put GIS where there is relatively <u>stable</u> funding
    - ▪ Stability is very important to having successful GIS program
    - ▪ The more diverse the funding support, the better
  - ❑ Having specialized GIS staff in specific departments is a good idea if the need is there and the resources are available
    - ▪ Public Works and Assessor are two examples of this
    - ▪ These GIS staff members would still be considered part of the central GIS team and would report in part to the GIS Manager/Coordinator as well as their departmental manager.

Jennifer Radcliff
GIS Coordinator
Port of Tacoma

Port of Tacoma

- Managed in Planning as an Enterprise system

- Editors: 4 (SDE) ArcGIS Online: 5

- GIS Users: 20 (soon to increase)
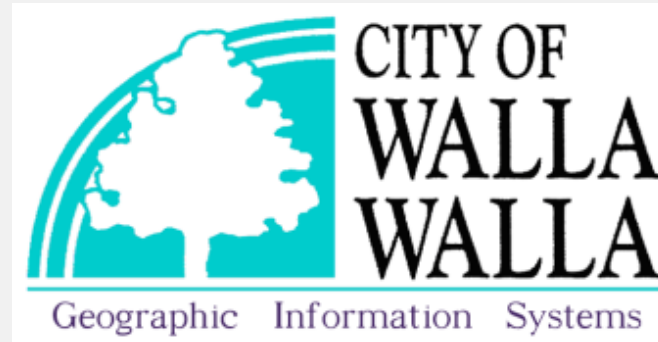- Organizational Culture important

Other History

- Ford County, KS –

  - 1 tech 1/4 time under 4 departments, quickly became own department

- Mason County –

  - GIS in Public Works, good and bad aspects (got funding, but very PW focused - hard to do work for the rest of the County)

Tips/Tricks

- It can work, no matter the structure, if you're creative

- Build relationships (especially with IT)

- Work "unofficially" with other departments

  - Spreadsheets

  - GPS data

  - Creative funding (grants, etc.)

  - GIS Day training

Chris Owen
GIS Supervisor
City of Walla Walla, WA

GIS at City of Walla Walla, WA

- 1995 - 2001: Data maintained in CAD format
- 1995 - 2001: Two GIS technicians in separate departments, Planning and Public Works (Water Division)
- 1996: City contracts for orthophoto, DEM and planimetrics
- 2002: City hires GIS Coordinator
- 2002: GIS is re-organized and placed under Public Works Administration
- 2002: ESRI software and format adopted
- 2002 - 2003: CAD to ESRI geodatabase conversion
- 2003: Invested in MS SQL and ArcSDE
- 2004: Mobile GIS efforts began using ArcPad for collection and updates
- 2005: GIS is re-organized and placed under Information Technology, GIS Supervisor position created
- 2005: City of Walla Walla receives Special Achievement in GIS (SAG) award for State of WA local government

Chris and Jack

IT Department Structure, City of Walla Walla, WA

- IT Manager
  - GIS Supervisor
    - GIS Analyst
    - GIS Technician
    - Temporary, volunteer and internships
- Microsoft SQL SDE database with versions and replications for disconnected editing
- Approximately 17 GIS editors. Desktop, Mobile, Web, and Asset Management editors
- Approximately 75 - 100 users of GIS
- GIS applications and integrations include: web viewing and editing, permit system, utility billing, document management, asset management system, wastewater Inspections, storm water maintenance, water system maintenance and inspections, cemetery management system, E911/Dispatch, and GASB reporting

David Wallis
IT/GIS Director

Cowlitz GIS – Department Structure

GIS Department Structure

- Dedicated GIS Department since 1991. GIS manages central ESRI geodatabases for all enterprise GIS data.

- 1991 – GIS had 11 employees; 2014 – GIS has 3 employees.
    - Currently: 2 – GIS Analysts, 1 - Director
    - Trained "power users" - own and maintain their own datasets/layers in the geodatabases.
    - ESRI Small Government ELA allows software deployment county-wide.

- GIS Director also IT Director.

- Assessor's Office programmer creates and maintains web services.

Cowlitz GIS - Funding

- 47% General Fund; 53% Road Fund Levy Shift.

- Expanding GIS services and inter-local agreements to bring in grant $.

  - Includes work for cities, schools, and CWCOG.
  - GIS web map/data hosting/services growing.
  - 911/Emergency Services

Jason Eklund
GIS Coordinator
Kittitas County

Kittitas County - How GIS Is Structured

- Maintains a distributed GIS environment
  - Specialized GIS staff within departments to manage and maintain their own data
  - No separate GIS Department
  - Key was having each department take ownership of all GIS layers maintained in the central database
- GIS Coordinator
  - Guides overall direction for GIS at the county level
  - Maintains security over the database
  - Creates/maintains backups
  - Develops software solutions
  - Manages web services
  - Makes purchases related to GIS

Kittitas County - Location of GIS in Agency

- 2006 and Prior: GIS stationed in Community Development Services Department
  - GIS was not centralized
  - No emphasis placed on core infrastructure
  - Emphasis placed on making maps; lacked overall direction
  - Multiple ESRI customer numbers spread among departments
    - Maintenance would often go unpaid
- 2007: GIS positioned as a "Central Service" in the IT Department
  - Now have an enterprise geodatabase in SQL Server
  - Core infrastructure rebuilt and better supported
  - GIS Coordinator guides direction
  - ESRI customer numbers consolidated into 1

Why Good Documentation and Procedures are Important

Jennifer Radcliff
GIS Coordinator
Port of Tacoma

Documentation Pitfalls

- Not documenting your work can lead to:

  - Wasted Effort

  - Recreation of work

  - Wasted Money

- Anything is better than nothing!

Procedures

- Consistency is key

- Document processes, procedures, tools, projects
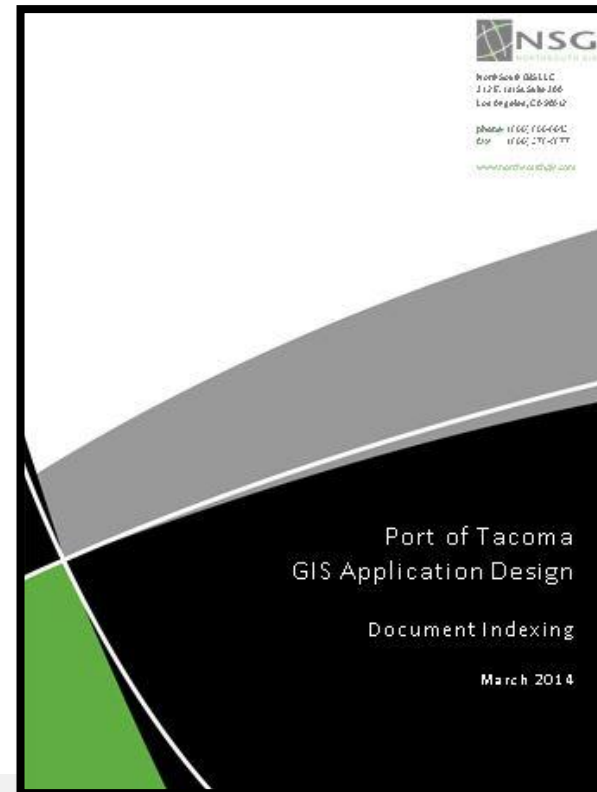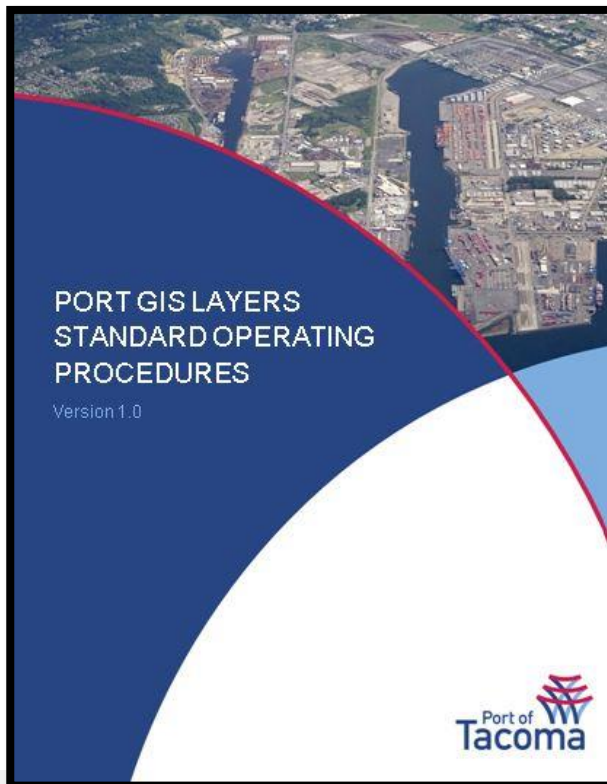
Tips

- ReadMe Doc in project folders

- Clean up once a year (or more often)

- Enter the minimum information

- Create a metadata template

Chris Owen
GIS Supervisor
City of Walla Walla, WA

Documentation

- I follow a modified project management book of knowledge framework to help manage GIS projects, small and large
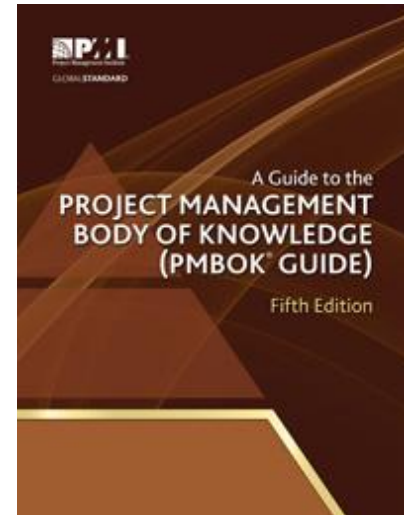
- I create protocols to assist data entry and editors when creating records

- Much effort has been given to developing metadata and yearly reviews for updates

Documentation

- Why document?
  - Using project management techniques provides consistency in project management, saves money, and backs up work being performed to share with stakeholders.
  - Because "we don't make this stuff up". We create data based on business needs.
  - Because data is typically for other departments… documenting helps answer data guideline questions and what the data is used for.
  - It supports your work, i.e., how the data was developed and maintained (data quality).

Jason Eklund
GIS Coordinator
Kittitas County

Kittitas County

- Basic metadata for core datasets maintained by the county
  - i.e. – data published to the website
- Metadata on datasets can be hard to gather if not done right away
  - When hired, shapefiles found buried 5 levels deep on the file server with no idea where they came from
- GIS layers not the only data needing documentation
  - Often with GIS systems there are many automated maintenance routines
  - Documentation critical to continue running smoothly during staffing changes

Matt Stull
GIS Coordinator

CITY OF TUMWATER
Washington's First Community

GIS Coordinators

City of Tumwater – Documentation Examples

- **"The 41 Page Document"**
  - Details my positions' responsibilities and processes
    - Mapping / Data
    - Software
    - File archives
    - GPS
- **Making new processes as we transition from CAD to GIS**

Mason County – Documentation Examples

- **MACECOM 911 – Update Process**
  - There was NO process for updating when I started

- **The "Don't ever do this list"**
  - We picked out a few key things that sometimes people ask us but we should <u>never</u> do!

- **Sales Tax Policy**
  - There was LOTS of confusion around this!

Documentation Tips

- Make sure that any data you distribute has metadata or some type of documentation.

- Don't keep your co-workers in the "dark"
    - Document your processes so they know what you do, especially after you have left the job. This is even more important if you are a one person shop!!!

- Don't give up or get discouraged
    - Documentation is not fun but's so necessary!
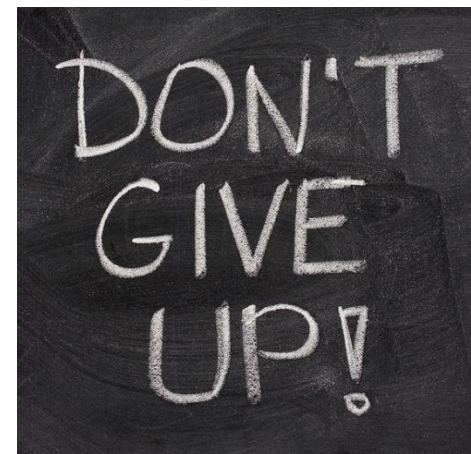
David Wallis
IT/GIS Director

Cowlitz - Document the basics

- **WHO** created the data?

- **WHAT** are the data's currency, accuracy, and distribution restrictions?

- **WHEN** was the data created and when is it updated?

- **WHERE** did the data come from?

- **WHY** was the data created? (project name, customer name, etc.)

- **HOW** was the data created? (Source = COGO, survey, heads-up digitized, GPS coords., etc.)

Cowlitz - Tips

- **Consistency**
  - Terminology, what gets documented.

- **Do it NOW**
  - When the data is received, created, or edited. Make it part of your routine.
  - If you don't, it will pile up and become an insurmountable task.
  - If you don't, the time you spend hunting down the validity of a dataset will be much longer than documenting it in the first place.

- **Don't distribute any digital GIS data without metadata/documentation.**

Marketing GIS to Your Agency

Jason Eklund
GIS Coordinator
Kittitas County
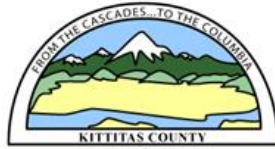
Marketing GIS - Kittitas County

- KC GIS Users Group fosters communication between departments

- Presentations at Management Team meetings
  - Showcase workflow improvements using GIS
  - Tangible examples that convey an importance for GIS

- Special training sessions for departments
  - In-House developed tools
  - How to use web mapping
    - ArcGIS Online

Kittitas County - On the Web

- GIS Page on our Public Website
  - Link to 5-year strategic plan
  - Landing pad for information to the public
- Maps and Apps Portal
  - Interactive maps (ArcGIS Online), static maps
  - "Hot Topics" - what's most requested
- Parcel/Landuse Mapping Application
  - http://gis.co.kittitas.wa.us

Matt Stull
GIS Coordinator

CITY OF
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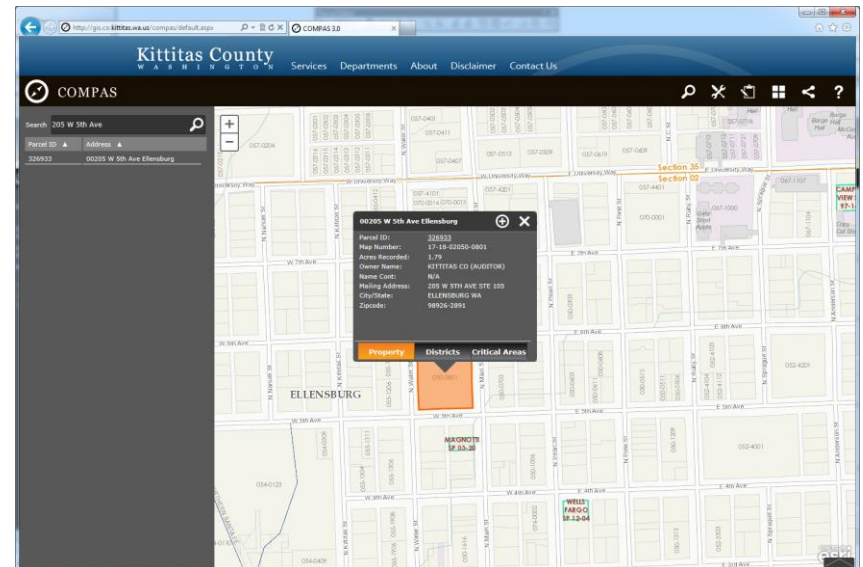
GIS Newsletter

Newsletter Parts:

- Welcome message
- Announcements
- Project News
- Data News
- "Help / How to" Section

Tips:

- Keep it short and to the point
- No more than 2 pages
- Send it via email to everyone in your organization and to others outside your organization who are significant users of your system/data
- Post it on your website

GIS Day

Ways to market GIS on GIS Day:

- Posters / Maps

- Games

- Interactive Displays

- GIS Training classes

- Live presentations

- Have a GIS Cake!!

- Invite your co-workers, managers and the general public

Online Mapping Applications

- Online mapping applications are VERY important tool for marketing GIS to your organization and the public because…

    1. It is very likely that they are the most used and well known GIS tool you have.

    2. Your staff and the general public use them everyday

    3. It is easy to track how much they are used.
        a) This information can be used to show how valuable GIS is to your organization.

    4. Examples:
        1. County Parcel Search websites --- very high usage by staff and the public!!
        2. Economic Development map viewer
        3. Permitting
        4. Crime Data
        5. Utilities
        6. Parks
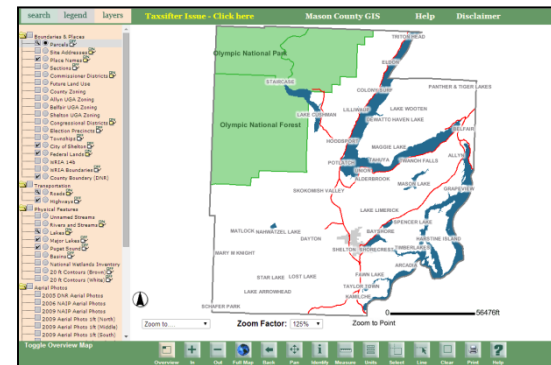
David Wallis
IT/GIS Director

Cowlitz GIS – Be Visible

- **Monthly GIS training classes** - presented by Cowlitz GIS staff.
  - Invite regional entities (GIS Users Group) – creates value.

- **Regular workshops** - every 2 weeks with BOCC.

- **Presentations** - at General Staff Meetings.
  - All Elected Officials and Department Heads attend.

- **ROI reports** - to BOCC.
  - 911, permits, inter-local agreements, grant funding, etc.

- **Get "to the table"** - on **ANY** discussion related to "location" – **ASK!**

Jennifer Radcliff
GIS Coordinator
Port of Tacoma

Get the word out

- Brown Bags, Info Sharing Meetings, Wild Wednesdays

- Port newsletters

- PNN (Port News Network)

- MyPort (organizational SharePoint site)

- Leave interesting articles lying about

PNN
Port News Network
Keeping you better informed

Be aware

- Find champions

- Build relationships

- I just insert myself into everything

- Be proactive
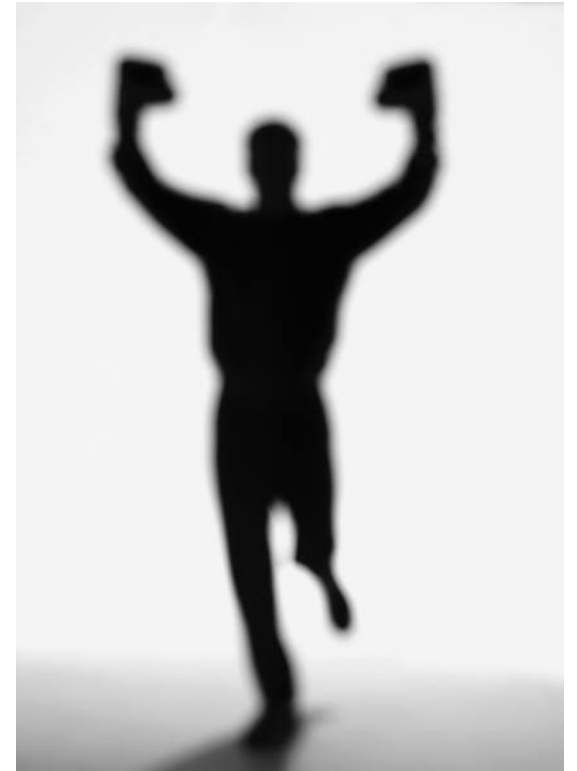
Chris Owen
GIS Supervisor
City of Walla Walla, WA

Marketing GIS at City of Walla Walla

- Forecast application and data needs
  - Be ahead of the curve and drive technology
- Know, create and maintain relationships with your customers
- Make customer service number one priority
  - Quick response to service requests and questions
  - Provide tangible and a range of solutions
  - Provide the hands on personal support when needed
- Prioritize projects to ensure high level, widely public projects have the resources to be successful
- Consistent high level of quality and results

All of this and more has made GIS at the City of Walla Walla an "**essential service**"

Marketing GIS at City of Walla Walla, part II

- Work with outside agencies to promote GIS in the community
    - Local GIS User Group
    - Develop data share agreements
    - Work with volunteer groups and interns

- Provide GIS training (i.e., make work easier for your customers)
    - New employee training
    - Yearly training sessions

Maturation Process of a GIS Program/Department

David Wallis
IT/GIS Director

Cowlitz – GIS Maturation

- Create a 3-5 yr. strategic plan that clearly identifies issues/major challenge areas, goals, and strategies/initiatives.

- Learn the GIS tools that you have and become the EXPERTS.

- Deliver consistent and valuable GIS services to garner TRUST in the technology, and in the department.

Cowlitz – GIS Maturation

- Communicate!

- Measure/evaluate/improve.

- Extend your role, and embrace new opportunities.

- I agree with Matt - as GIS matures, you become the de-facto trusted experts and ROI will increase.

Jason Eklund
GIS Coordinator
Kittitas County

Kittitas County- Maturation

- 5-year GIS Strategic Plan
  - Establishes a foundation to build from
  - Communicates GIS vision
  - As a Coordinator, keeps focus on the "big picture" and overall direction
    - Small projects can often distract
  - Revised annually to assess what was accomplished, new objectives added
- Sharing GIS Resources: Inter-Local Agreements
  - Sign of maturity
  - City of Ellensburg
    - Host SDE database
    - Maintain backups and Maintenance plans
    - Provide 20 hrs./month for development assistance
    - Redundant failover server housed at City Hall

Matt Stull
GIS Coordinator

CITY OF
TUMWATER
Washington's First Community

Mason County – GIS Maturity Stages

- **1994 – 1999 - Pre-GIS Stage**
  - Assessor hires a CAD mapping technician
- **1999 – 2002 – Enthusiast \ Departmental Stage –**
  - GIS started in 99' and grew in Public Works.
- **2003 – 2004 - Departmental Stage begins**
  - Assessor and Public Health start doing GIS (separate from Pub. Works)
- **2005 -2008 – Departmental \ Centralized Stage**
  - Public Works GIS staff begin the "Centralization" effort.
  - An internet mapping application is launched (parcel viewer)
  - Other departments start doing GIS – Planning , Auditor
- **2009 – Present- Centralized Stage (mostly)**
  - All GIS systems are managed by central group in Public Works
  - Some departments still doing their own GIS work (Planning, Pub. Health)

City of Tumwater

- Mapping started in late 1980's in AutoCAD – "Pre-GIS" Stage

- 2000 to 2006 – "Beginning \ Enthusiasts" Stage
  - A few planning department staff get training and do "desktop GIS"
  - No formal GIS staff

- 2007 to 2013 – "Department-Based" Stage
  - Public Works starts doing GIS but they don't really coordinate efforts with Planning
  - Still no central management of GIS or GIS staff
  - Still in "Desktop GIS" mode; limited mobile GIS in Public Works

- 2013 to Present – "Centralization \ Reorganization" Stage
  - Initial Assessment completed
  - Working on long range plan
  - GIS coordinator hired

Maturation Tips

- Most Organizations will be at more than one stage in the maturation process.

- GIS Maturity Models provide a way to answer the questions about how your GIS system is doing and it can help you plan for the future.

- Different stages can overlap.

- Know the resources you have:
  - Staff
  - Equipment
  - Funding

- Be careful not to overextend your resources.

- As GIS Matures, ROI should increase

GIS Maturity Model

Return on Investment

No GIS — Level 0
Enthusiasts — Level 1
By Dept — Level 2
Centralized — Level 3
Integrated — Level 4
Enterprise — Level 5

GIS Maturity Evolution
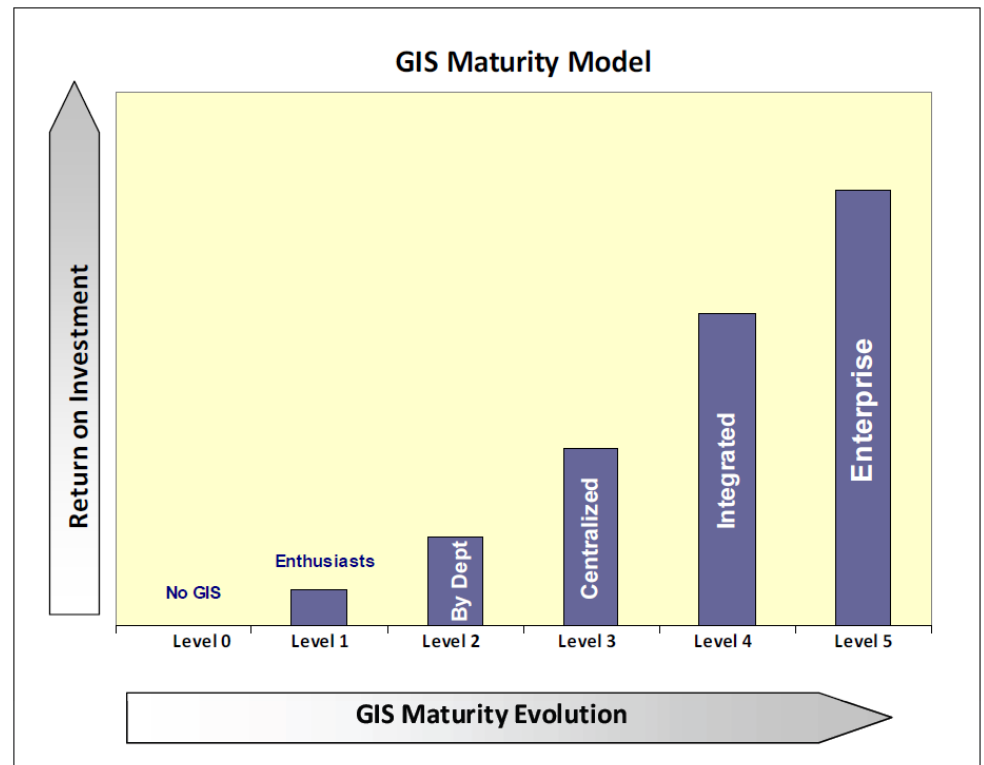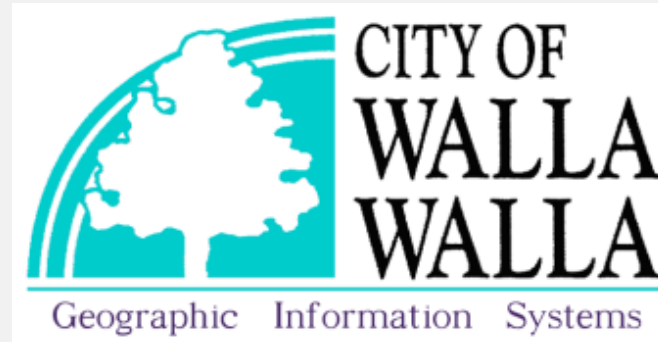
Chris Owen
GIS Supervisor
City of Walla Walla, WA

GIS Maturation at City of Walla Walla

- Circa 1996, The City of Walla Walla had a good control network, black and white orthophotography and planimetrics in CAD format

- In 2002, when I was hired at the City of Walla Walla, "GIS" was in CAD format (by quarter section) with several shapefiles for specific project purposes. Some sewer and water utility attributes were in spreadsheets

- Database design and data conversion was the first task to be complete

GIS Maturation at City of Walla Walla

- Streets, addresses, streams and other base layers also had to be developed
- In 2003, SDE was purchased and finally a centralized database could be used
- In 2004, mobile GIS was in full swing (using ArcPad) for sewer and storm maintenance collection
- 2005 was a turning point for GIS as we were placed in Information Technology Department and another FTE technician was hired. Access to other business systems were now more readily available (i.e., permissions).

GIS Maturation at City of Walla Walla

- Data was developed to integrate with our permit, utility billing system, and E911 system.

- 2008-2009 GIS began being more recognized as an analysis tool and was used to evaluate infrastructure conditions. GIS was used to drive infrastructure plans and projects. GIS analysis and visual aid helped pass a bond for road and utility infrastructure placement.

- In 2009, GIS made tremendous forward progress by being able to analyze utility accounts and permits. GIS was able to document and claim ROI:
    - One time ROI of $177, 000 based on GIS analysis
    - Yearly ROI thereafter of $92,000/year based on workflow, efficiencies, and results of GIS analysis

- Further GIS integrations occurred, including work order system, document management, sewer inspection, storm inspections, water maintenance and inspections, cemetery management, E911 analysis, and GASB reporting

GIS Maturation at City of Walla Walla

- As GIS matures, so does the need for better documentation and processes and procedures

- The GIS group always keeps their mantra in mind, excellent customer serve, support, data integrity and a solid performing system.

- For the future, GIS will be focusing on furthering the GIS presence. Focus will be to provide GIS solutions to the highest level of customers and stakeholders.
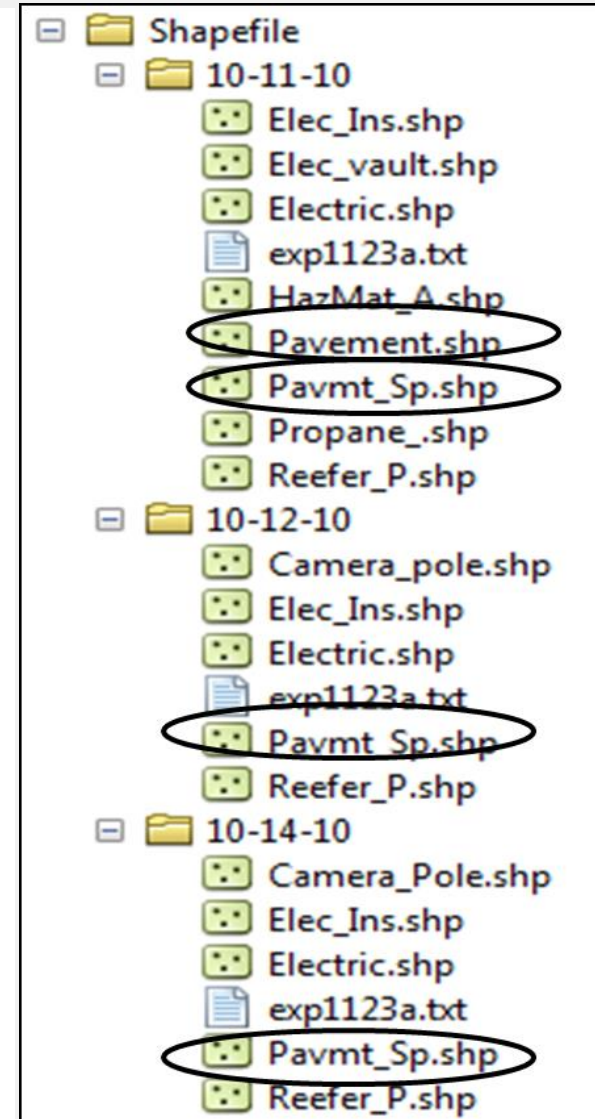
Jennifer Radcliff
GIS Coordinator
Port of Tacoma

Maturation Process

- Port - GIS began as project based tool

- Look beyond the project

- Several attempts at creating an Enterprise system

- 3rd time's a charm?

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□ 📁 Shapefile
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      Pavmt_Sp.shp
      Reefer_P.shp
```

Current Steps

- Creating complete layers

- Metadata and processes

- Marketing what GIS can do beyond being a viewer

- Needs Assessment

- Roadmap

Tools

- URISA's GIS Capability Maturity Model

- Internet (examples)

- Colleagues – Ask for advice

- Don't compare your organization's progress to others!
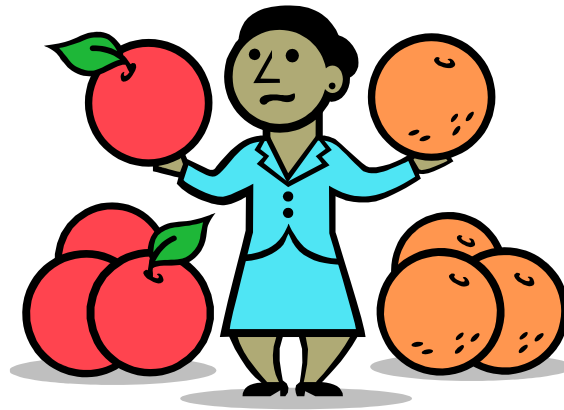
Closing Comments

Matt Stull
GIS Coordinator

CITY OF
TUMWATER
Washington's First Community

Key Comments

- **Department structure comment:**

  - GIS will work best if it's able to serve everyone.

- **Documentation comment:**

  - Similar to the motto "*Earn everything*"; in GIS the motto is "*Document Everything*".

- **Marketing comment:**

  - Build trust and relationships!!

- **Maturation comment:**

  - Don't try to do to much at once.

Recommended Resources

- URISA Workshop – "*GIS Program Management*"
  - Look at other URISA workshops to

- Book – "*Thinking About GIS*" by Roger Tomlinson

- GIS Maturity Model document
  - "Introducing a Maturity Model for Enterprise GIS"
    - By: Even Keel Strategies Inc., 2008

- 10 Ways to Support GIS without selling data – Bruce Joffe

- Strength Finders – will help you know what you are good at
  - http://strengths.gallup.com/default.aspx
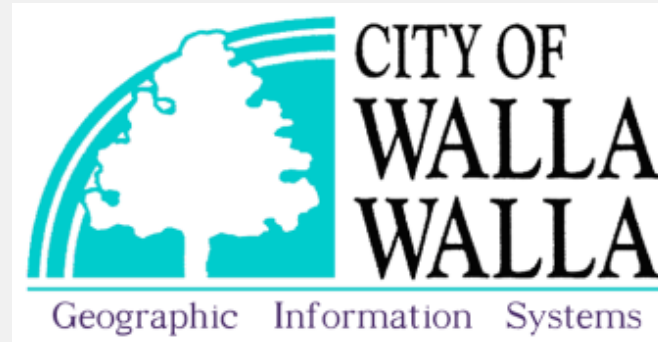
Chris Owen
GIS Supervisor
City of Walla Walla, WA

Key Comments

- Department structure comment
    - I had an opportunity to recommend the location of GIS in our organization. I chose centralized Information Technology which provided better access to information. This had positive effects on how GIS was perceived and its maturity.

- Documentation comment
    - Protect yourself and the mission of GIS. Planning and documentation are key.

- Marketing comment
    - I rely heavily on excellent customer service, solid relationships and high level delivery. I run my department like a business. Word of mouth is the best advertisement.

- Maturation comment
    - With good planning and an understanding of the organizations business needs, maturity will just happen, it is inevitable. GIS can answer questions better than any other system - take advantage of the opportunity and technology!

Recommended Resources

- A good starting place for learning the project management framework: Project Management institute (http://www.pmi.org/default.aspx), and the Project Management Book of Knowledge.

- The GIS Management Handbook, by Peter Coswell

- Coach team sport to learn how to motivate, encourage, and leverage your resources

Jennifer Radcliff
GIS Coordinator
Port of Tacoma

Key Comments

- Any department structure can work if you're creative

- Document your work – anything is better than nothing

- Be proactive – put yourself out there

- Have a plan and work toward it – don't compare yourself to others

Recommended Resources

- GIS Capability Maturity Model - URISA

- http://www.urisa.org/main/gis-management-institute/

David Wallis
IT/GIS Director

Closing Comments

- Take time to PLAN

- Metadata NOW

- Become GIS EXPERTS

- Build RELATIONSHIPS

- Get "to the table" – COMMUNICATE

- HAVE FUN!

Recommended Resources

- *Planning The Future: A Guide to Strategic Thinking and Planning for Elected Officials, Public Administrators, and Community Leaders*

    by Dr. John Luthy

- *GIS Management Handbook*

    by Peter Croswell

- *The Business Benefits of GIS: An ROI Approach*

    by David Maguire, Victoria Kouyoumjian,

   Ross Smith
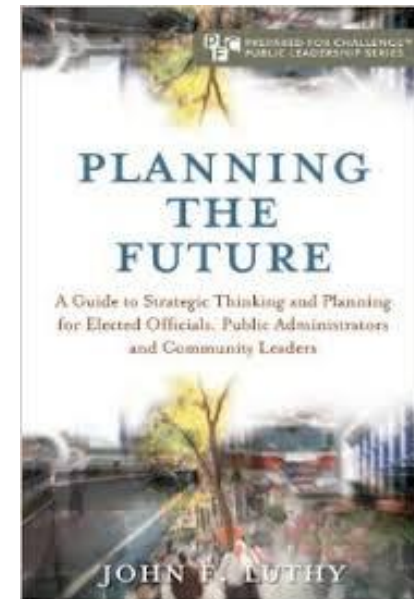
Jason Eklund
GIS Coordinator
Kittitas County

Closing Comments

- Department Structure
  - GIS successful operating as a "central service" from within IT
  - Experts of the data, manage the data
- Documentation
  - Metadata for publicly available GIS layers at a minimum
  - Document your maintenance processes!
- Marketing
  - Advertise your accomplishments
  - "Job shaddow" to learn key business processes
- Maturation
  - Write a long-term strategic plan
  - Share GIS resources through cooperative agreements

Recommended Resources

- *GIS Management Handbook* by Peter Croswell
  - Set the foundation for our strategic plan

GIS Coordinators
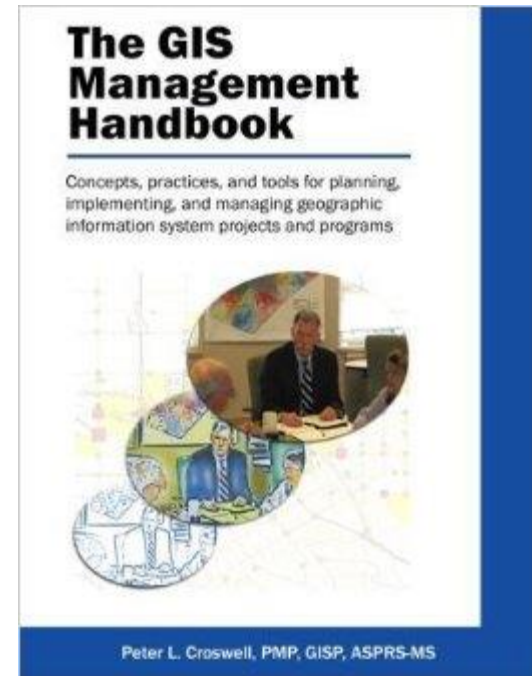
Final Thoughts

Thanks for Coming