



Thursday, December 12, 2013
 10:00 AM to 12:00 PM
 1500 Jefferson Street SE
 2nd Floor Conference Room 2208
 Olympia, Washington

Geographic Information Technology (GIT) Committee AGENDA

Item	Topics	Time	Lead	Action/Follow-up
	Welcome	10:00 AM 5 min.	Joy Paulus, Chair	
1	Report on GIT Members Meeting with Michael Cockrill	10:05 AM 15 min.	Committee	TBD
2	Final Adoption of GIT 2014 Book of Business: What do we do with identified projects that don't have a lead? There are critical items like <i>Parcels</i> , <i>Cities</i> and <i>UGA</i> not covered. Choice: 1) Defer projects to next year or 2) Assign lead for the project	10:20 AM 20 min.	Chair	Action Item for Committee
3	Update on Active GIS Projects and Initiatives 1. Update on GIS Policy & Standards and their Acceptance <i>Joanne Markert, Leon Environmental (20 min)</i> 2. State GIS Strategic Plan Findings Report <i>Natasha Fedo, Berk & Assoc. (15 min)</i> 3. Geospatial Portal Migration Update <i>John Wright, DES (15 min)</i> 4. WAMAS Update <i>Joy Paulus, OCIO (10 min)</i> 5. WA Statewide Trails Database Pilot <i>Jenny Konwinski, OCIO Volunteer (15 min)</i>	10:40 AM 75 min.	Staff	<ol style="list-style-type: none"> 1. Approval to move completed standards/policy to CIO & TSB 2. No action at this time 3. No action at this time 4. No action at this time 5. No action at this time
4	Closing Comments/Adjournment	11:55 AM 5 min.	All Participants	

WebEx Connection Information Listed Below

Topic: GIT Committee Meeting

Date: Thursday, June 5, 2014

Time: 10:00 pm, Pacific Standard Time (San Francisco, GMT-08:00)

Meeting Number: 920 970 854

Meeting Password: GIT060514

To start or join the online meeting

Go to <https://wadismetings.webex.com/wadismetings/j.php?MTID=m8ac428cd4ad039dd7b687235d5aea8f4>

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Agenda Item #1 Materials

Report on GIT Members Meeting with Michael Cockrill

Briefing Materials Included:

- Meeting Notes

Notes on Meeting with Michael Cockrill

Attendance: OCIO, DNR, DFW, ECY, DSHS

Round table discussion:

- Approximately 28 agencies have ESRI licenses.
- Agency CIOs expressed that GIS is a necessary component of our State's overall IT strategic objectives and want to know where GIS fits into State IT priorities.
- Multiple agencies volunteer their labor and commitment to statewide GIS initiatives. The state office relies on fractions of FTEs donated in-kind to these efforts. This is not sustainable.
- It's a struggle to manage GIS standards without proper backing.
- Location helps consumers. How do they see the state and geospatial information?
- There is an absence of resources for State Enterprise GIS.
 - Statewide there is a gap in funding GIS.
 - Centralized infrastructure is the gap.
- GIS is disjointed in WA State. Examples:
 - Big Bertha drill bumped into well that may have been mapped at the State or Federal level. Oso landslide example.
- Need for more coordinated data stewardship and ownership of standard state framework layers.
- How much of the internal GIS strategy is important to the business owners? Let business prioritize IT investments.
- Mobility as a strategic initiative - ability of these devices to do geospatial location.
- From an operational day to day support - who should support? DES? CTS? OCIO?
- Why not use a cloud vendor? Like ESRI to manage the GIS data?
- Succession planning behind keeping GIS alive in addition to keep the technology piece of this functioning.
- Earlier package for DES to have its own GIS unit fell thru the cracks.
- GIS should be added to the OFM DP questionnaire.

Michael Cockrill:

- The State GIS Program office is successful. Philosophy of "don't help something that is successful."
- Unequivocally, yes, GIS is a strategic entity based on its x/y/z (location) capabilities. Every data should have an x, y, and z.
- A project's success is typically dependent on CFO buy-off.
- Current state GIS is a perfect model of interagency collaboration.
 - Ideal would be to continue this collaborative model, but with a centrally funded "hands-on keyboard" person.

- Unspoken corollary - why would we fund one centralized model while we are funding individual models?
- Today's conversation should be continued [yearly?]
- Maintain collaboration.
- Centralize resources where it is reasonable to do so.

Next steps to help OCIO assess what central resources need to be dedicated:

1. GIT Roadmap
 - Gaps and overlaps – roadmaps to identify what's the “big bang for the buck”
2. Identify needs to make immediate incremental next steps.
3. Business case on why individual steps make sense
 - WAMAS has been successful because it had a good business case.
 - Do we have a good business case for EULAs with 3rd party vendors, for example: ESRI or TomTom? How many existing agency licenses? How many potential?
 - Do we have a good business case for parcels?

Agenda Item #2 Materials

Final Adoption of GIT 2014 Book of Business

Briefing Materials Included:

- 2014 Book of Business Spreadsheet

- Parcels Data Issue Paper
- UW Parcels Database 2014 Scope of Work
- UW Parcels Data Use Examples

- City and UGA Data Issue Paper
- DSHS - City Findings
- DOR - City Boundary Rules
- ECY – Usage City & UGA
- OFM – City Limit/UGA
- WSDOT – City Boundary Responsibilities
- WSDOT – Commute Trip Reduction

GIT Committee's GIS Book of Business for 2014

Data Related	Priority	Effort	Steward Agency	Project Lead	Progress
2014 City Boundary	1	3		?	
2014 Urban Growth Boundary	1	3		?	
Statewide Parcel	1	3		?	
2014 All Public Roads	1	3	WSDOT	Alan Smith	U
Statewide Trails	1	2	OCIO	Joy Paulus	U
Authoritative Data Listing for WA - Identify Existing Data Producers & Potential Stewards	1	1	All Agencies	?	
Contracting/Licensing	Priority	Effort	Lead Agency	Project Lead	Progress
WSCA EA's for Category 3 Data	1	2	OCIO	Joy Paulus	U
Esri State ELA	1	2	OCIO	Joy Paulus	
Applications & Services	Priority	Effort	Steward Agency	Project Lead	Progress
WAMAS - Addressing pilot	1	1	OCIO/DOR	Joy Paulus	U
Infrastructure	Priority	Effort	Steward Agency	Project Lead	Progress
Transition Portal Operations to DES	1	1	DES/DFW/OCIO	John Wright/ Don Saul/ Joy Paulus	U
Decomission & Re-Deployment of Portal Physical Hardware	2	3	OCIO/DFW	Joy Paulus/ Don Saul	U
Policy, Standards & Outreach	Priority	Effort	Steward Agency	Project Lead	Progress
Geospatial & WAGIC website improvement	2	3	OCIO	Joy Paulus	U
Policy on GIS Data & Resources Management	1	2	OCIO	Joy Paulus	U

Standards Update and Additional standards	1	2	OCIO	Joy Paulus/ Joanne Markert	U
State GIS Strategic Plan Update	1	2	OCIO	Joy Paulus/ Natasha Fedo	U
County/City Outreach	2	3	OCIO	Joy Paulus	
Open Data Initiative	2	1	All Agencies		
Rethink data & metadata publishing mechanisms used in WA (metadata/data/services/web)				?	
Pilot the new Open Data Platform to make it easier for the public to search and consume				?	
Best practices, governance and guidance for publish geospatial data and services				?	



Statewide Parcels Data Collection

Prepared by Joy Paulus, Office of the Chief Information Officer (OCIO), (360) 902-3447, joy.paulus@ofm.wa.gov

Issue Statement

Statewide Parcels data development is happening across state agencies with little or no coordination, the issues surrounding the sharing of the information across the state entities goes unresolved, and a large portion of funding for the Parcels Working Group’s data collection efforts have dried up.

Actions/Options for Consideration

The Committee should consider one or all of the following options to help resolve the issues outlined above:

- Assign a Project Lead to this effort from either a state agency or hire a consultant to lead the effort initially
- Agencies share in the funding of the UW Parcels Work Group in order to procure 1 yearly cycle of full statewide parcels data (see attached reports)
- OCIO will assist the project lead in resolving licensing issues with counties
- State agencies should consider additional quarterly data updates - how they would be done and shared across the state agencies (DSHS/ECY/DOR/OFM)

OCIO’s Recommended Project Leadership Roles

Addressing	DOR and DSHS
Hydrography	ECY (in production)
Cities	OFM/DOT
High Resolution PLS	DNR
Transportation	DOT (in production)
UGA’s	Cycled (DOT/ECY/OFM/DOR/DSHS)
Parcels - yearly	UW Parcels Working Group
Parcels - quarterly	Cycled (DOT/ECY/OFM/DOR/DSHS)

Summary

The Washington State Parcel Database is a standardized and integrated set of local, county, state and federal land ownership GIS data and related records. Parcel data is a resource critical to the needs of agencies across all levels of government in Washington State. The importance of the Washington State Parcel database has been demonstrated through its widespread adoption. While database development takes place at the University of Washington, it is a shared state resource.

Since 2007 [four versions](#) of the Washington State Parcel Database have been produced and shared with project partners in the [Parcels Working Group](#). To date we have [documented](#) 58 agencies (including 28 state agencies) using the Parcel Database for 238 projects. [Funding](#) for the project has come from multiple partners including The US Forest Service, the State Department of Health with EPA Water Quality grant funds, the Federal Geographic Data Committee, and the State Department of Revenue.

Key Objectives

Support University of Washington (UW) led efforts to assemble and distribute an integrated statewide parcel database.

Tasks

1. Collect parcel geometry and attributes from Washington's counties, state and federal agencies
2. Document collected data and publish source metadata the project's website
3. Develop new and/or refine existing data integration procedures and transform data into normalized statewide format
4. Document data transformation procedures and publish normalization metadata to the project's website
5. Create the Washington State Parcel Database product and distribute to project partners
6. Hold meetings as needed to inform partners about project status and solicit feedback

Timeline

July 1, 2014 – June 30, 2015

Deliverables

1. Provide Quarterly Progress Reports to the Project Manager. Reports shall include discussion of accomplishments, effectiveness of program efforts, existing and potential problems and proposed solutions, suggestions for improvements and outcomes achieved. Progress reports are due on or before the 10th of the subsequent month (January, April, July, and October).
2. Submit Final Report on program accomplishments to the Project Manager.

Budget

University of Washington - School of Forest Resources

Projected Budget

Project Title: Washington State Parcel Database

For the Period: July 1, 2014 - June 30, 2015

1	Salaries	1.33 FTE	\$	88,632
7	Benefits		\$	24,551
4	Travel		\$	1,300
5	Supplies and Materials		\$	1,000
6	Equipment		\$	-
	Other Direct Costs/ Contractual			
3	Services		\$	-
	Total Direct Costs		\$	115,483
25	Indirect Costs @	54.5%	\$	62,938
	TOTAL COSTS		\$	178,422

The Washington State Parcel Database is used by many local, state, and federal government agencies. Through several surveys of database users, we have compiled a representative sample of the many projects for which parcel data is needed in Washington State.

As of May 5, 2014, 58 different organizations are using the Washington State Parcel Database for 238 projects.

- 16 Federal Agencies
- 22 State Agencies
- 3 Tribal Agencies
- 5 Counties
- 2 Cities
- 6 Universities
- 4 Other Agencies

Example Projects

[Puget Sound Partnership - Shoreline Development](#)

Using parcel data to identify and model the level of development.

[U.S. Army Corps of Engineers - Columbia River Treaty 2014/2024](#)

The project involves a series of studies to collect critical information to support a pending decision by the United States pertaining to the future of the Columbia River Treaty with Canada. Under CRT 2014 Review, it is the responsibility of the Entity and the action agencies, Corps and BPA, to provide the responsible parties with the information needed to support a U. S. decision regarding the Treaty. Correspondingly, within the CRT 2014 Review, the Corps will be primarily responsible for addressing current and future flood risk management needs and issues. The current phase of the studies is to determine the flood control value of assets that are protected by the Canadian storage, including loss of life. Therefore, the Washington parcel database will be used to help determine the value of structures and property that could be impacted by various flood scenarios with and without Canadian storage.

[Washington State Patrol - Identification of landowners for Washington State Patrol Aviation Section](#)

We use the landowner information within our Aviation Section for navigation, general research, and law enforcement specific activities.

[Washington State Liquor Control Board - Marijuana Licensing](#)

We will identify disqualifying entities (entities that a Marijuana Producer, Processor, or Retailer must be outside of 1000 feet from, straight line parcel to parcel measurement). We will also record Approved Marijuana Producer, Processor, or Retailer Locations in the same GIS Map.

[Washington State Department of Agriculture - Urban Pesticide Use Survey](#)

We are identifying single family residences on properties 0.49 acres or less in size to complete a survey of residential outdoor pesticide use. We will be using parcel information to identify property owners, land use codes, property size, and county (this project is specific to those counties bordering Puget Sound).

[Central Washington University - Forest Harvest Practices and Housing Prices](#)

We want to analyze the impact of various forest harvest practices on nearby housing values. For this purposes we have collected necessary housing sales in 13 western Washington counties and maps of forest practices from the state DNR.

[Quinault Indian Nation - Quinault Usual & Accustomed Hunting and Fishing Area](#)

Our Timber/Fish/Wildlife program works off reservation on forest management related activities to protect fish habitat within WRIAs 21, 22, and 23 which includes all or portions of Jefferson, Grays Harbor, Thurston, Mason, Lewis, Pacific, and Clark Counties. This area constitutes the Usual and Accustomed Hunting and Fishing area (U&A) where the Quinault Indian Nation has reserved Treaty fishing rights recognized under US v. Washington. In order to protect fish production within these watersheds we work with landowners, state agencies, and federal agencies on forest management to protect fish habitat within the U&A. This task includes field reviews of proposed timber harvest sites prior to harvest, review of ongoing forest management activities, and review of harvest sites following harvest.

[United States Department of Energy - The EV Project](#)

The EV Project is deploying approximately 14,000 chargers in 18 major cities and metropolitan areas located in six states and the District of Columbia: California, Oregon, Washington, Arizona, Texas, Tennessee, and Washington, D.C. Chevrolet and Nissan North America are partners. The EV Project collects and analyzes data to characterize vehicle use in diverse topographic and climatic conditions, evaluates the effectiveness of charge infrastructure, and conducts trials of various revenue systems for commercial and public charge infrastructures. The ultimate goal of The EV Project is to take the lessons learned from the deployment of these first 8,300 EVs, and the charging infrastructure supporting them, to enable the streamlined deployment of the next 5,000,000 EVs.



City and UGA Data Collection

Prepared by Joy Paulus, Office of the Chief Information Officer (OCIO), (360) 902-3447, joy.paulus@ofm.wa.gov

Assessment Statement

The city and urban growth area data are important to many agencies as is demonstrated in the attached use cases and legal requirement document. Over the years, much of this data collection and development work has been handled by multiple state agencies resulting in a un-necessary duplication of effort. Many agencies have indicated that they have reach capacity and are unable to take on new cross agency data work but I would argue that what really needed is an ability to work smarter by coordinating these efforts.

Actions/Options for Consideration

The Committee should consider one or all of the following options to help resolve the issues outlined above:

- City and UGA work needs to be handled separately but closely coordinated.
- Assign a Project Lead to each of these individual effort from either a state agency or hire a consultant to lead the effort initially.
- Agencies identify the core geometry and attributes needed knowing that not all attributes will be included since the needs for the data vary.
- The OCIO will assist project lead(s) as an executive sponsor on all cross agency data collection effort but ultimately it is the agencies that need and use this data.
- Cities should be coordinated and maintained by OFM and DOT
- UGA should be updated on a yearly basis by a consortium of agencies (DSHS /DOR/OFM/DOT/ECY) with each agency taking the lead on a rotating basis

OCIO's Recommended Project Leadership Roles

Addressing	DOR and DSHS
Hydrography	ECY (in production)
Cities	OFM/DOT
High Resolution PLS	DNR
Transportation	DOT (in production)
UGA's	Cycled (DOT/ECY/OFM/DOR/DSHS)
Parcels - yearly	UW Parcels Working Group
Parcels - quarterly	Cycled (DOT/ECY/OFM/DOR/DSHS)

Theme: City

City boundary data describes the geographic areas in which a legally incorporated municipal entity has certain jurisdictional authorities (e.g. taxation, law enforcement, and land use zoning) and responsibilities (e.g. street maintenance, public water supply distribution, and refuse removal). Washington statutes, [Title 35 RCW Cities and Towns](#) describes the legal aspects of City entities in Washington State.

DSHS Requirements

DSHS staff perform analyses and generate tabular and cartographic reports that require Washington State City jurisdictional areas and point markers as input. Analysts frequently need to perform overlay analysis of City boundaries with other themes such as Counties, DSHS Regions, Census areas, etc. to determine overlapping conditions and apply values such as population totals in the overlap areas. City boundaries are also used by existing information systems such as the [Client Services Database](#) to provide for geographic capabilities.

As DSHS GIS Pass holders begin using this data, further requirements will arise, be validated, and be captured here.

- As a <DSHS role> _____, I need City data so that I can <perform a DSHS business function> _____

DSHS Specifications

Data Structure	Esri Geodatabase. One feature class for each City version release. The current version is always named City . When a new release is deployed, these are renamed to the naming convention below and the new feature classes are loaded to the GDL. This is a very simple "best available" method until state coordination efforts yield an improved data model.
Boundary feature class	Current Release Name: City Historical Release Name: City_<yyyy>_Q<qtr#> (e.g. WSDOT_City_2014_Q1)
User Defined Fields	<ul style="list-style-type: none"> City name: Informal, shortened version of chartered name as recorded by WA OFM. e.g. "Seattle" instead of "The City of Seattle" GNIS code: Current US standard identifier FIPS code: Discontinued US standard identifier to support legacy systems. FIPS 55-DC3 was withdrawn 2/8/2005 (scroll to bottom). County seat: Boolean No(0)/Yes(1) value indicates whether or not the primary County offices are located within the City. Major city: Boolean No(0)/Yes(1) value indicates whether or not the City meets the definition of being "Major". From Kandie, "The MajorCity attribute is to indicate if the city is a county seat or one of the most populated cities in a county and is limited to include not more than 5 cities." <ul style="list-style-type: none"> My current understanding is that MajorCity is derived from the test: If the city is a county seat and is one of the top five incorporated areas by population, then it is a MajorCity for WSDOT mapping purposes. If DSHS has City ranking requirements, then DSHS should consider persisting the best-known population value for a given City boundary release. This will facilitate dynamically generated rankings based on varying criteria such as the MajorCity criteria above or the legal rankings described as First-class cities; Metropolitan municipal corporations; Second-class cities; and Towns in Title 35 RCW Cities and Towns.
Geometry	2D, Multi-part polygons: one tabular record for all polygons that form the City boundary geometry

Known Issues

- Slight horizontal shift in some of the older features. Inconsistently applied rights of way offsets of up to 75 feet may have been introduced into the boundary line locations. The boundary lines are not necessarily of survey accuracy. The boundary lines do not agree positionally with data that is available from WA DOR. See notes below.
- Timestamps for feature updates is quarterly and implicit in the feature class name. City boundaries are changed as part of the Annexation procedure. The annexed areas and effective dates are not readily available as GIS data that can support finer-grained time slices than the quarterly releases. See notes below
- The FIPS standard city identifier code was retracted 2/8/2005 and replaced with the GNIS standard city identifier code. DSHS systems have not been updated to the GNIS standard.
- From the WSDOT metadata: City limit boundaries were digitized from a variety of map sources including USGS quadrangles and WSDOT city maps. Generally, the data approach National Map Accuracy Standards for 1:24,000 scale: most well-defined points may be expected to fall within 40 feet of their true locations. Where a city limit follows the edge of a public right of way, the city limit line has been offset approximately 75 feet from the line representing the street on WSDOT-digitized 1:24,000-scale base data. Where a city limit adjoins a street not represented in WSDOT data, the city limit's position including the 75 foot offset has been estimated by measurement from the nearest available reference features in the base data (other roads, railroads, boundaries, section lines, pipelines, streams, etc.) Where a city limit follows a section line, this data set depicts it following that line as located on WSDOT's 1:24,000-scale base data, whether or not a right of way is coincident with the section line. In some cases, city limits follow a right of way centerline, and are shown coincident with the line representing that road in WSDOT's 1:24,000-scale base data. This occurs only on some old city limits established prior to the outlaw of such practice. Where a city limit follows the edge of a railroad right of way, the city limit has been offset a standard 100 feet from the line representing the railroad on WSDOT-digitized 1:24,000-scale base data.

Data Source Organizations & Data Management Context

3/26/2014 Discussion with Mike Mohrman at OFM

- Washington State law requires specific departments to manage City boundary information. Joy Paulus is working to coordinate a group of department representatives toward improving the City boundary geospatial information to meet state-wide needs. WA DSHS needs to use the data, but does not have a requirement to create it.
- Washington legislation ([WAC 365-196-310](#)) establishes Urban Growth Areas within which Cities may be authorized to annex and grow. This legislation should be input to a coordinated Washington Cities geographic data model and management workflow.
- Washington State has three plausible sources for city boundaries data that DSHS can reasonably use: WA OFM/US Census Bureau, WSDOT, and WA DOR.
 - WA OFM adds value to the US Census Bureau boundary data and [redistributes](#) as “Cities” and “Cities (county parts)”. WA OFM also manages annexation information and distributes results from this workflow as “[Annexations and municipal boundary changes](#).” There is coordination and possibly shared data development between WA OFM and WSDOT... if I understood this right.
 - WSDOT manages City boundary and point location data via internal workflows and [distributes](#) the most recently published data as “City Limits at 24K” and “City Points at 24K”. Mike indicates that WSDOT offsets boundaries in the data. Info available above in the Known Issues section.

- WA DOR manages City data via internal workflows and distributes as “[Sales Tax Jurisdiction Boundaries](#)” and “[Property Tax City Jurisdiction Boundaries](#)”.
- Mike made a side note that WA ECY rubbersheets the WSDOT City data to WA parcels data to meet their geometry positional needs.

Source Data Conditions

We chose to use the WSDOT data as our source. Kandie Rackleff (360.570.2366, RackleK@wsdot.wa.gov) at WSDOT has been the contact person for this data collection. She delivered available data from 2005 Q1 through 2014 Q1 in an Esri file geodatabase structure. Findings and notes from working with the source data are:

- Numerous feature classes contain self-intersecting polygons. I ran “Repair Geometry” GP tool as an unsupervised batch correction. This happens automatically when loading to an enterprise geodatabase, so generally no harm, no foul. Jane noted that she had observed these errors before and mentioned to WSDOT. I notified Kandie, who said that WSDOT is aware of the condition and is working to correct it.
- The feature classes from 2005 Q1 through 2009 Q3 show “exploded” polygons (range of record counts around the 440s), while the feature classes from 2009 Q4 through 2014 Q1 show multi-part polygons (~281 records).
- The feature classes were delivered in three separate spatial reference systems.
 - Cities_1Q_2005 – Cities_1Q_2007 use a custom coordinate system– CGIS_quads_FT
 - Cities_2Q_2007 – Cities_1Q_2010 use NAD_1983_StatePlane_Washington_South_FIPS_4602_Feet
 - Cities_2Q_1010 – Cities_1Q_2014 use NAD_1983_HARN_StatePlane_Washington_South_FIPS_4602_Feet
- When projected to the Washington state standard spatial reference system for statewide data layers (NAD_1983_HARN_StatePlane_Washington_South_FIPS_4602_Feet), the CGIS_quads_FT features have a sampled, observed offset of 0 to 2 feet from the later features. We have determined that for DSHS use purposes this is not a significant positional difference given the 1:24,000 scale positional accuracy claims for the dataset (up to 40 feet horizontal error).
- Attribute Fields:
 - The schema across the feature classes varies, with later releases generally containing additional fields.
 - Numerous source feature classes contain legacy software fields and non-standard Esri geodatabase ObjectID fields. These were abandoned during extract-transform-load (ETL) activities when deploying to DSHS GDL.
 - Non-city (e.g. CountyFIPS) and unclearly defined (e.g. LastUpdate) fields were abandoned.
 - CountyFIPS
 - LastUpdate should be revised and recast into a data model that supports time analysis and visualization. In its current form and with the available information about the dataset, it is not useful to DSHS’ purposes.
 - The City FIPS code fields (CI_FIPS and CityFIPS, variously) contained values that were composed of <State FIPS><CityFIPS>WA elements, e.g. for Olympia, WA: “5351300WA”. These were corrected to the City FIPS value during ETL, e.g. for Olympia, WA: “51300”. Python code `!CI_FIPS![2:].rstrip('WA')` provides the standard FIPS value.
 - MajorCity contains values of “yes” or NULL. Kandie provided background information for MajorCity. See DSHS Specifications section.
- Two unnamed polygons without FIPS codes near Wenatchee in the 2005 Q1 feature class existed. They did not exist in any of the other feature classes. I deleted them.

Table Of Contents

Layers

- WA Cities 2005 Quarter 1
- WA Cities 2005 Quarter 2
- WA Cities 2005 Quarter 3
- WA Cities 2005 Quarter 4
- WA Cities 2006 Quarter 1
- WA Cities 2006 Quarter 2
- WA Cities 2006 Quarter 3
- WA Cities 2006 Quarter 4
- WA Cities 2007 Quarter 1
- WA Cities 2007 Quarter 2
- WA Cities 2007 Quarter 3
- WA Cities 2007 Quarter 4
- WA Cities 2008 Quarter 1
- WA Cities 2008 Quarter 2
- WA Cities 2008 Quarter 3
- WA Cities 2008 Quarter 4
- WA Cities 2009 Quarter 1
- WA Cities 2009 Quarter 2
- WA Cities 2009 Quarter 3
- WA Cities 2009 Quarter 4
- WA Cities 2010 Quarter 1
- WA Cities 2010 Quarter 2
- WA Cities 2010 Quarter 3
- WA Cities 2010 Quarter 4
- WA Cities 2011 Quarter 1
- WA Cities 2011 Quarter 2
- WA Cities 2011 Quarter 3
- WA Cities 2011 Quarter 4
- WA Cities 2012 Quarter 1
- WA Cities 2012 Quarter 2
- WA Cities 2012 Quarter 3
- WA Cities 2012 Quarter 4
- WA Cities 2013 Quarter 1
- WA Cities 2013 Quarter 2
- WA Cities 2013 Quarter 3
- WA Cities 2013 Quarter 4

Table

WA Cities 2005 Quarter 1

OBJECTID*	Shape*	Name	City FIPS	Shape_Length	Shape_Area
451	Polygon			398.425127	405.585
452	Polygon			2647.037016	260109.999
306	Polygon	Aberdeen	00100	12144.205858	6067246.362
315	Polygon	Aberdeen	00100	89430.209281	302448991.161
317	Polygon	Aberdeen	00100	25932.528131	28131872.321
378	Polygon	Aberdeen	00100	2700.364274	5424757.476

1 (2 out of 452 Selected)

WA Cities 2005 Quarter 1

CITY BOUNDARY REQUIREMENTS

TO: JOY PAULUS (OCIO)
FROM: DAVID WRIGHT (DOR)
SUBJECT: CITY BOUNDARY JUSTIFICATIONS
DATE: MARCH 4, 2014
CC: SCOTT SAMPSON (DOR), LOCKE CRAIG-MICKEL (DOR), GEORGE ALVARADO (DOR)

Joy, there are several key pieces of legislation that have created a dependency on DOR to maintain current City Boundaries on a continuing basis for the appropriate collection of taxes.

In the area of Sales & Use Tax there are two primary RCWs that cover the schedule we have to adhere to for the reflection of updates to boundaries and the other defines DOR's responsibility to administer and collect the taxes.

- <http://apps.leg.wa.gov/rcw/default.aspx?cite=82.14.055>
 - (this talks about tax changes and the 75 day rule. Section 4 includes annexations)
- <http://apps.leg.wa.gov/rcw/default.aspx?cite=82.14.050>
 - (this talks about the DORs responsibility of administering and collecting local taxes)

In the area of Property Tax there are a couple of key WACs related to Taxing District boundaries and the changes that occur there that drive the need for DOR to also meet a different set of scheduled deadlines related to centrally assessed property. One of these WACs drives primarily the specific deadlines for Taxing District submissions and updates, the second for the industries that must be centrally assessed based on those Taxing Districts, one of which is a City.

- 458-50-130 Taxing district boundary changes—Estoppel.
 - (1) In accordance with RCW [84.09.030](#) and WAC [458-12-140](#), the county assessor is required on or before March August 1 to transmit certain documents and maps setting forth taxing district boundary changes to the department of revenue, property tax division.
 - (2) The department shall prepare taxing district maps based upon information submitted to it on or before March August 1. Such maps shall be used to fix taxing district boundaries for purposes of apportioning the operating property of each company among the various counties and taxing districts. Any county or taxing district not having submitted the documents and maps as required by WAC [458-12-140](#) shall be estopped from questioning the validity of any apportionment of value to it as determined by the department to the extent that such challenge is based upon taxing district boundaries different than as shown on the department's maps.
[Order PT 75-2, § 458-50-130, filed 3/19/75.]
- 458-50-100 Apportionment of operating property to the various counties and taxing districts.

In general. The department shall apportion the value of all public utility companies to the various counties in such a manner as will reasonably reflect the true cash value of the operating property located within each county and taxing district. Since it is impossible to

determine with mathematical precision the precise value of each item of property located within each county and taxing district, the department shall apportion the value of operating property on the following basis:

- (1) **Railroad companies** - The ratio that mileage of track, as classified by the department, situated within each county and taxing district bears to the total mileage of track within the state as of January 1 of the assessment year. In the event there exists operating property of railroad companies in counties or taxing districts not having track mileage, the department shall situs such property and apportion value directly on the basis of cost as determined in accordance with the cost approach set forth in WAC [458-50-080\(A\)](#).
- (2) **Pipeline companies** - The ratio that inch-equivalent of miles of pipeline situated within each county or taxing district bears to the total inch-equivalent of miles of pipeline within the state as of January 1 of the assessment year. In the event there exists operating property of pipeline companies in counties or taxing districts not having pipeline mileage, the department shall situs such property and apportion value to such county or taxing district directly on the basis of cost as determined in accordance with the cost approach set forth in WAC [458-50-080\(A\)](#).
- (3) **Telegraph companies** - The ratio that the cost (historical or original) of operating property situated within each county and taxing district bears to the cost (historical or original) of all operating property within the state as of January 1 of the assessment year.
- (4) **Telephone companies** - The ratio that the cost (historical or original) of operating property situated within each county or taxing district bears to the total cost (historical or original) of all operating property within the state as of January 1 of the assessment year.
- (5) **Electric light and power companies** - The ratio that cost (historical or original) of operating property situated within each county and taxing district bears to the total cost (historical or original) of all operating property within the state as of January 1 of the assessment year.
- (6) **Gas companies** - The ratio that cost (historical or original) of operating property situated within each county and taxing district bears to the total cost (historical or original) of all operating property within the state as of January 1 of the assessment year: Provided, The value of pipeline shall be allocated on the basis of the ratio that inch-equivalent of miles of pipeline situated within each county or taxing district bears to the total inch-equivalent of miles of pipeline within the state as of January 1 of the assessment year.
- (7) **Airplane companies** - The ratio that cost (historical or original) of operating property situated within each county and taxing district bears to the total cost (historical or original) of operating property within the state as of January 1 of the assessment year: Provided, That the value of aircraft shall be apportioned on the basis of the ratio that landings and take-offs of such aircraft within each county and taxing district bears to the total landings and take-offs within the state during the previous calendar year.

[Statutory Authority: RCW [84.12.390](#). WSR 06-05-034, § 458-50-100, filed 2/8/06, effective 3/11/06; WSR 88-02-009 (Order PT 87-9), § 458-50-100, filed 12/28/87; Order PT 75-2, § 458-50-100, filed 3/19/75.]

As you can see from the noted RCWs/WACs we have a couple of different standard the DOR works to meet, each has its own nuances to meet the core constituency.

Mandate for the use of City and Urban Growth Area Boundaries

Department of Ecology

March 12, 2014

Stormwater Permits:

- [Chapter 173-226 WAC](#) - WASTE DISCHARGE GENERAL PERMIT PROGRAM
- [Chapter 90.48 RCW](#) - WATER POLLUTION CONTROL

Shoreline Master Programs:

[WAC 173-26-150](#) - Local government annexation—Shoreline environment predesignation in planning jurisdictions.

When cities and towns are developing their Shoreline Master Programs, they may “predesignate” shoreline environments within UGAs so that the environment designations are set and ready to go once the area in the UGA annexes to the city or town. This is allowed per WAC 173-26-150. There is no requirement to predesignate shoreline environments.

Agricultural Burning:

[RCW 70.94](#) - Washington Clean Air Act

[WAC 173-425](#) - Outdoor Burning

[WAC 173-430](#) - Agricultural Burning

Some types of burning are specifically banned by law within UGA’s. Knowing/seeing the UGA boundaries is critical for working with the public, working with other government entities, making accurate decisions.

1. Agricultural burning is allowed within UGA’s
2. Residential and Land Clearing burning are banned within UGA’s
3. UGA layer is extensively used for the Outdoor and Ag Burn permitting programs
4. UGA layer is used for identifying locations for burning that do not require a permit, which might be banned or allowed within UGA boundaries, depends on the type of burning.

In Eastern and Central Regions of Ecology we have some 62 UGA's. We use the GIS mapping extensively in our burn permitting program.

Can we permit or allow certain types of burns, at specific locations? With the UGA layer we can look and see if the proposed burning is within the UGA. Make timely decisions in accordance with the rules and regulations that govern burning in WA.

One Example;

We use the GIS UGA layer when answering questions about "can I burn at this location" This is a tremendous public service. During certain times of the year our offices will easily receive 5 calls or more a day asking if I can burn at a certain location. We can pull up the GIS, search by address, turn on the UGA layer and answer their questions. It used to be, call the county planning office and ask them if my property is in the UGA. Then call us back, if you have any more questions. Not good service and was very frustrating for both the public and the regulator.

The UGA layer has been extremely helpful for our program, reduces staff time for decision making, making us more efficient in reviewing both Ag and Outdoor burn applications.

Our service to the public has become more accurate and efficient. A huge plus!

Joy,

My unit's main responsibility with respect to city limits is for population estimate purposes. [RCW 43.62.030](#) directs OFM to prepare annual county and city population estimates for fund distribution and planning purposes.

Between 2000 and 2010 about 33% of the growth in city population was due to geography changes, i.e. due to annexation and incorporation. Needless to say, boundary changes are a very important part of our population estimate and forecast programs. RCW 43.62.030 also directs OFM to adjust the official population estimates quarterly, based on annexations and selected military populations for fund distribution purposes.

Washington's laws with respect to population in annexed areas are quite strong. For example [RCW 35A.14.700](#) requires cities and towns to conduct a census of population for each annexation or deannexation. Our office certifies annexation censuses as well as the annexation boundaries for population estimate purposes.

[RCW 35.13.260](#) and [RCW 35A.14.700](#) require cities to provide the annexation certificate in triplicate to OFM within 30 days of the effective date on the ordinance. Cities are required to provide the complete annexation ordinance including the legal description and a map of the boundaries. OFM retains the original copy of the certificate, provides one copy to DOT, and returns a copy to city upon approval.

[RCW 35.10.240](#) and [RCW 35.10.265](#) also require cities to transmit a copy of the annexation ordinance to OFM although no period is specified.

On an annual basis OFM develops population estimates for three administrative areas that are affected by city limits; Public Transportation Areas ([RCW 36.57.010](#)), Highway Urban Areas ([WAC 479.01.040](#)), and Thermal Electric Generating Facility areas ([RCW 54.28.055](#)).

[RCW 43.41.110](#) spells out OFM's relationship with the US Bureau of the Census. OFM is the official state agency certifying annexations, incorporations, or disincorporations as well as the lead Census State Data Center and member of the Federal-State Cooperative Program for local population estimates for the state.

There are numerous laws directing the use OFM's population estimates for a variety of administrative tasks. Because city level data is an integral part of our April 1 estimates program, city limits and annexations affect most of our estimates and forecasts directly or indirectly.

Population used as part of a funding formula:

[10.101.070](#), [43.62.020](#), [46.68.110](#), [46.68.090](#), [46.68.124](#), [66.08.200](#), [66.08.210](#), [82.14.400](#), [82.80.080](#)

Population Density used to define rural/urban counties:

[36.70A.367](#), [43.157.010](#), [43.160.020](#), [43.168.020](#), [43.330.086](#), [52.12.135](#), [53.08.005](#), [70.94.6526](#), [79A.25.250](#), [82.04.4483](#), [82.14.370](#), [82.16.0491](#), [82.60.020](#), [84.34.240](#), [84.52.052](#).

UGA's / GMA:

OFM has several directives regarding the development of county level population forecasts for GMA. None of the directives refer to Urban Growth Area boundaries per se.

OFM is the current designated point of contact for UGA boundaries with the Census Bureau.

See [WAC 365-196-310](#), RCW's: [36.70A.110](#), [36.70A.115](#), [36.70A.130](#), [36.70A.215](#), [36.70A.215](#), [36.70A.280](#), [36.70A.362](#), [43.62.035](#)

Long term Goals:

OFM would like to be the single point of contact for the collection of annexation and city boundary line adjustments information for the state. Cities would report to OFM, we would catalog the information and make it available for other state agencies. OFM would report annexations and submit boundaries to the census bureau on behalf of cities. OFM is currently working on an MOU with the census bureau working towards this type of partnership.

We see some advantages to this arrangement:

- Cities would only have to report annexations to one state agency.
- All agencies would have access to the same information.
- One agency could review legal description and check the boundaries for accuracy and legality.
- Cities would not have to report annexations to the census bureau, OFM would report on behalf of the cities.

We would like to:

- Help get an agreed upon set of boundaries to a state where they are more consistent with local parcel geometry and local representations of non-visible features.
- Map boundaries to street centerlines, only including the right of way when it is necessary.
- Develop a shared database to allow cities to see the status of their annexation and it's approval status with respect to the state agencies requirements.
- Collect digital (GIS) annexation boundaries from cities along with the paper documentation we currently receive.
- Post a city reported GIS annexation boundary on the share site.
- Post a census (BAS) submittal version of the annexation boundary on the shared site.
- Link annexation boundaries to our internal data system by County, City, Ordinance, and annexation parcel number.
- Be able to easily identify which county city and UGA every address point or parcel centroid falls into.
- Be able to generate a city limit file for any date of the year.

WSDOT City Boundaries Responsibilities

WSDOT is responsible for city limits; our recent investigation into this general subject has not turned up any WAC or RCW. There may be such a document, I have not seen it.

We believe that OFM is the Agency responsible for certifying annexations. Several years ago OFM asked WSDOT to review the Legal Description and Map, which are required as part of the annexation process, to make sure that the description and map are in agreement. When we find a discrepancy, we notify OFM and they work with the city/county to try and get corrected information.

When a legal description includes or references parcel boundaries, that's what we use. Historically WSDOT has offset city boundaries along roads by 75ft. and railroads 100ft. for cartographic purposes. We have not gone back through old annexations trying to adjust them to parcel boundaries.

OFM believes that city limits and UGA boundaries should not be forced to conform to parcel boundaries.

OFM quotes RCW 35.13.260. They are responsible for population related data. I think that UGAs are based on census boundaries. I am not sure that city limits fall into this population related data category, but population numbers must be reported as part of an annexation.

Starting in 1975, cities were no longer allowed to annex to the centerline of a road, road designated boundaries must be to the right of way on one side or the other. This has important implication for road maintenance, which is never split down the middle of a road. It's also important for collision location, HPMS, ARNALD and Functional classification. WSDOT has business needs to place roads within the proper jurisdiction.

We understand that DOR has an RCW that requires them to maintain a version, not sure what the number is. They may have one for property tax and another for sales tax.

We would be very supportive of single authoritative version of city limits, and another authoritative version of UGAs. We are not insisting that we be the authority, but we do have business requirements.

WSDOT Commute Trip Reduction Public Transportation

Email:

I have a long history on this issue ☺. As you probably remember, I have tried to get the state agencies to do just this at least twice and on one occasion got stomped on by OFM's Demography department for even thinking about it. Ahhh, good times.

From the Commute Trip Reduction perspective the RCW's and WAC's state that an affected jurisdiction is a city or uga that has a road segment that exceeds 100 person hours of delay per mile. While the delay threshold is useless, the reference to the city and uga reference has caused a few pains. The law and rules don't put us in charge and don't technically tell us who is the authority. And the authoritative data has issues with overlap and holes between boundaries that cause me great pain (topology)

Here is what I have learned. CTED (or whatever it is now called) is the steward for the UGA boundaries. They used to have someone who would collect from the cities and counties UGA boundaries and would try and get them into one GIS dataset. This was understandably problematic for several technical reasons (this being in the early/mid 2000's) and policy reasons (there are no requirements that the boundaries use any existing boundary, be topologically sound, or even have a minimum/maximum scale regarding the legal descriptions). Because the UGA is part of the purview of the planning world, these boundaries were often drawn by hand on maps, maybe digitized and most definitely very rough. This became problematic when the leg or ecology started using UGA boundaries for defining things like burn ban areas ect.

It would be really nice (and probably helpful for CTED or whatever it is called), if we used this dataset as a pilot for the concept of letting the cities manage their own data and use arcgis online to have them update and maintain their information. A second more complex pilot would be the city boundaries themselves because we would have to put controls and approvals and processes together for legal purposes (like having WSDOT review the boundary against the legal description which is what happens now, but manually). This would give the state the ability to (by defacto) determine the precision of the data by allowing us to have the data snap to whatever boundary we think is best for all the state agencies requirements (or legal requirements). A little sneaky, but not really. More removes arguments of control without the arguments (we pay for it, you can use it, here are the rules for playing in the sand box...)

Lise (Elizabeth) Hensdill

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Agenda Item #3 Materials

Update on Active GIS Projects and Initiatives

Briefing Materials Included:

- **GIS Policy & Standards – look to 5/29/14 email**
- **State Strategic Plan Briefing Paper**
- **WAMAS Project Development Budget for 2014**
- **WA State Trails Project Flyer**

State GIS Strategic Plan Findings

Prepared by Joy Paulus, Office of the Chief Information Officer (OCIO), (360) 902-3447, joy.paulus@ofm.wa.gov

Presenter

Natash Fedo, Berk and Associated

Purpose of Appearance

Provide the Committee with a progress report on the update to the 2010-2014 State GIS Strategic Plan.

Status

The GIS Strategic Plan updating project has been under way since January 2014. We have received valuable input and support for this effort from WAGIC and the user community. That support is reflected in the initial listening session notes that has been included in this packet. The following is a brief outline of the input received to date:

- Summary of Stakeholder Findings and Synthesis – Completed in May 2014.
 - Distributed for review and comment the finding notes to the Listening Session lead participants, the Washington Geographic Information Council (WAGIC) Executives, and the Geographic Information Technology (ISB-GIT) Committee.

Background

This project focuses on updating the existing Washington's GIS Strategic Plan of 2010-2014 and to gauge our progress in implementing that plan. I will also allow us to make any needed change in course in order to achieve the goals set out in the plan.

Tasks completed to date include:

- Conducting listening sessions with GIS Executives within WAGIC and the GIT
- Conduct listening sessions with GIS practitioner across the state and within the state, local, tribal and private sectors

Issues/Actions

None.

Next Steps:

- Update the Strategic Vision, Mission, Goals and Objective – to be completed by mid-June 2014.
 - Distributed for review and comment to the Listening Session participants, WAGIC Executive Committee members, and the GIT.
 - Distributed for review and comment to the Listening Session participants, and the WAGIC User Community.
- Draft Strategic Plan – Completed on June 30, 2014.

Washington Master Addressing Services (WAMAS) Initiative - Final Project Development Budget Allotment

	Geospatial Program Office's Budget Request to OCIO Executives	OCIO Budget Request Submitted to OFM	OFM's Budget Request Submitted to Governor	Final Budget Approved by Legislature	Expected Expenditures with Reduced Budget (7/1/14 to 6/31/15)	Teams Proposed Allotments
Personal Services						
Addressing Project Management Support	\$59,000					
Addressing Technology Management Support	\$115,000	\$115,000				
Aggregation of Address & Boundary Data	\$59,000	\$59,000	\$59,000	\$59,000	Contract	\$59,000
Goods & Services						
Software Acquisition/Maintenance (SQL Server, ArcGIS Server)	\$78,000	\$78,000	\$78,000	\$78,000	Sql Server (4cpu) @ DES/AWS	\$18,000
Hardware maintenance	6,000	\$6,000	\$6,000	\$6,000	Server for Addressing @ DES/AWS	\$6,000
3rd Party Data Acquisition (Melissa and Navteq)	\$77,000	\$40,000	\$40,000	\$40,000	Melissa unlimited license	\$40,000
Local address/boundary data acquisition	\$78,000					
Database Server Hosting (portal)	6,000	\$6,000	\$6,000	\$6,000	Server Hosting at DES/AWS	\$6,000
Education & Training	1200	\$1,200				
Travel/Training	\$1,000	\$1,000				
					Contract Data & Database Support	\$60,000
Total	\$467,000	\$306,200	\$189,000	\$189,000		\$189,000



Washington State Trails Database Pilot Project

Project Overview

Washington still is missing a statewide trails database. To date, some of the state and federal hiking, biking, horse and rail trails data have been compiled into a simple GIS dataset but it's still missing valuable county, city and state spatial and tabular attribute data. This project is the first iteration on building a suitable geospatial data design and database structure that staff can populate. With use of on-line collaboration tools and the help of student interns from across the state, digital information is being compiled and attributed into the final data design.

Initial Project Participants

This geospatial dataset will be built over time, as staffing resources allow. There is no funding for this pilot effort at this time so project participants are volunteering their time until grant funding can be procured.

Presently we have the following organization participating on this initial pilot project.

Staff	Affiliation	Tasks
Reid Ammann	University of Washington	Data design review, data source compilation and data editing
Michael Hammond	ECY/OCIO Student Intern	Data design review, data source compilation and data editing
Nick Johnson	University of Washington	Data design review, data source compilation and data editing
Jenny Konwinski	OCIO Student Intern	Data source compilation and data/attribute editing
Joy Paulus	State GIS Coordinator	Project management oversight and project documentation
Dan Saul	Ecology GIS Manager	Database design, physical data implementation and high-level technical guidance

General Project Details

What is the long term objective? Provide a single view into the recreational trail system in Washington State.

Data standards? The project developed a data dictionary and metadata and will follow the states existing GIS standards and the FGDC standard as much as possible.

What will be the list of attributes collected for this data set? A simple set of trails attributes is being compiled and reviewed but it will initially represent a minimum viable set of information.

How will the project be managed, tracked and allow participants in different parts of the state to stay current with the project and its development? Technology will make this easy. An online tool called Kerika will be used to outline tasks and track our progress. Short weekly phone meeting will help keep us linked and up to date and WebEx will be leveraged when needed.

Has crowd sourcing be considered as a way to help compile needed attributes? Yes, once an initial set of information is compiled from known sources then a web based application will be built and hosted at the Office of the CIO that will allow public input.

Final Data Design

Function	Attribute Name	Attribute Definition	List of Values	Field Type	GIS Field Name
Name	Trail Name/Number	The official name and/or number of the trail	text of trail name and/or number	Text	trailName
	Trail System	the trail network to which the segment belongs (if applicable)			trailSystem
Length	Trail Length	The length of the trail segment in miles	enter length of trail in miles (calculated from geometry)	number with one decimal place	trailLength
Use	Hiking Allowed		Yes/No	Text	hike
	Backpacking Allowed		Yes/No		backpack
	Bicycles Allowed		Yes/No		bike
	Horses Allowed		Yes/No		horse
	XC Ski Allowed		Yes/No		xcski
	Interpretive Trail		Yes/No		interp
	Fitness Trail		Yes/No		fitness
	Water Trail		Yes/No		water
	ATVs Allowed		Yes/No		atv
	OHVs Allowed		Yes/No		ohv
	Motorcycles Allowed		Yes/No		moto
	Snowmobiles Allowed		Yes/No		snowmo
Motorized Travel Allowed		Yes/No	motorized		
Surface	Trail Surface		Asphalt	Text	trailSurface
			Cinder		
			Concrete		
			Gravel		
			Ground		
			Snow		
			Water		
			Woodchips		

			Unknown		
			Other		
Location	County	The name of the county the trail passes through.	Use standard list of Washington counties	Text	county
	Municipality	The name of the city/town the trail passes through.	Use standard list of Washington cities/towns	Text	municip
	Special Management Area	The name of the management area the trail passes through.		Text	mgmtArea
Manager	Managing Organization	The name of the agency which manages the trail.	U.S. Forest Service	Text	mgmtOrg
			U.S. National Park Service		
			U.S. Bureau of Land Management		
			U.S. Fish and Wildlife Service		
			WA Dept of Natural Resources		
			WA Dept of Fish and Wildlife		
			WA State Parks Commission		
			Local government agency		
Status	Maintenance Status	The level at which the trail is maintained.	Open, actively maintained	Text	trailStatus
			Open, not maintained		
			Proposed		
			Temporarily closed		
			Abandoned		
Designation	American Disability Act Compliant	Accessibility guideline compliance status for trail segments that are designed for hiker/pedestrian use.	Yes/No	Text	ADA
	National Trail	Trail designated as a National Scenic, Historic, or Recreation Trail.	Yes/No	Text	natTrail
	Rail-Trail	Trail constructed along an abandoned railroad route.	Yes/No	Text	railTrail

Source	Data Source Agency	Agency or entity that created the dataset where the original geometry was sourced from.	enter name of agency/entity	Text	sourceEntity
	Source data publication date	Publication date of the source data	enter year, month, and day	Date	sourceDate
	Source data update date	The date the geometry was last updated in the geodatabase	enter year, month, and day	Date	editorDate
	Editor name for last update	The name of the editor who applied the last update.	enter editor ID (links to editor database)	Text	editorID